

Appendix 24

Laboratory Analytical Results

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/14

CERTIFICATE OF ANALYSIS

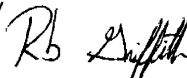
MAXXAM JOB #: A9A0902
Received: 2009/08/07, 10:46

Sample Matrix: Soil
Samples Received: 55

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	25	2009/08/11	2009/08/11	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	7	2009/08/11	2009/08/12	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	8	2009/08/12	2009/08/12	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	1	2009/08/12	2009/08/13	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	29	N/A	2009/08/12	ATL SOP 00024 R4	Based on EPA6020A
Moisture	22	N/A	2009/08/10	ATL SOP 00001 R3	MOE Handbook 1983
Moisture	24	N/A	2009/08/11	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	10	2009/08/10	2009/08/13	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	5	2009/08/11	2009/08/12	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	6	2009/08/11	2009/08/13	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	4	2009/08/13	2009/08/14	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	11	2009/08/10	2009/08/11	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	9	2009/08/10	2009/08/12	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	7	2009/08/11	2009/08/11	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	14	2009/08/11	2009/08/12	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	9	2009/08/07	2009/08/12		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	32	2009/08/07	2009/08/13		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
14 Aug 2009 15:35:51 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/14

CERTIFICATE OF ANALYSIS

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 2

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH7112	DH7113	DH7114	DH7115	DH7116		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP177-BS2	TP178-BS2	TP180-BS2	TP182-BS2	TP185-BS2	RDL	QC Batch

Inorganics								
Moisture	%	11	15	11	15	8	1	1902100
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH7117	DH7118	DH7119	DH7120	DH7122		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP186-BS2	TP187-BS2	TP188-BS2	TP190-BS2	TP192-BS2	RDL	QC Batch

Inorganics								
Moisture	%	16	14	10	16	7	1	1902100
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH7124	DH7125	DH7127	DH7129	DH7130		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP197-BS1	TP198-BS1	TP204-BS1	TP208-BS2	TP209-BS1	RDL	QC Batch

Inorganics								
Moisture	%	8	10	26	13	18	1	1902100
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9A0902
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Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
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RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH7132	DH7133	DH7134	DH7135	DH7136		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP212-BS1	TP216-BS1	BS146	BS147	SED-1	RDL	QC Batch

Inorganics								
Moisture	%	29	19	28	35	31	1	1902598
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH7137	DH7138		DH7139	DH7140		
Sampling Date		2009/08/06	2009/08/06		2009/08/06	2009/08/06		
COC Number		N/A	N/A		N/A	N/A		
Registration #								
	Units	SED-4	SED-7	QC Batch	BS149	BS151	RDL	QC Batch

Inorganics								
Moisture	%	17	16	1902598	41	37	1	1902992
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH7141	DH7142	DH7144	DH7146	DH7148		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS157	BS159	BS161	BS163	BS165	RDL	QC Batch

Inorganics								
Moisture	%	23	21	32	20	15	1	1902992
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

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RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH7149	DH7150	DH7151	DH7152	DH7153		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS168	BS169	BS170	BS171	BS172	RDL	QC Batch

Inorganics								
Moisture	%	16	10	16	12	30	1	1902992
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH7155	DH7156	DH7157	DH7158	DH7159		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS175	BS176	BS177	BS178	BS179	RDL	QC Batch

Inorganics								
Moisture	%	35	32	14	63	73	1	1902992
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH7160	DH7161	DH7162	DH7163	DH7164		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS180	BS181	BS182	SED-8	SED-9	RDL	QC Batch

Inorganics								
Moisture	%	15	17	11	14	14	1	1902992
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9A0902
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Jacques Whitford Limited
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RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH7165	DH7166		
Sampling Date		2009/08/06	2009/08/06		
COC Number		N/A	N/A		
Registration #					
	Units	SED-10	SED-11	RDL	QC Batch

Inorganics					
Moisture	%	13	16	1	1902992

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH7114	DH7116	DH7117	DH7118		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP180-BS2	TP185-BS2	TP186-BS2	TP187-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	3700	8100	6700	4600	10	1904754
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1904754
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904754
Available Barium (Ba)	mg/kg	6	20	22	11	5	1904754
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904754
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904754
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1904754
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1904754
Available Chromium (Cr)	mg/kg	9	14	12	11	2	1904754
Available Cobalt (Co)	mg/kg	4	5	5	4	1	1904754
Available Copper (Cu)	mg/kg	10	18	21	10	2	1904754
Available Iron (Fe)	mg/kg	5500	7800	8900	6400	50	1904754
Available Lead (Pb)	mg/kg	1.6	3.0	3.4	2.1	0.5	1904754
Available Lithium (Li)	mg/kg	3	5	11	6	2	1904754
Available Manganese (Mn)	mg/kg	61	100	110	73	2	1904754
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1904754
Available Nickel (Ni)	mg/kg	9	14	15	12	2	1904754
Available Rubidium (Rb)	mg/kg	<2	4	6	4	2	1904754
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904754
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904754
Available Strontium (Sr)	mg/kg	10	15	8	8	5	1904754
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1904754
Available Uranium (U)	mg/kg	0.3	0.5	1.4	0.7	0.1	1904754
Available Vanadium (V)	mg/kg	14	17	17	12	2	1904754
Available Zinc (Zn)	mg/kg	10	21	35	20	5	1904754

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH7120	DH7121	DH7122	DH7123		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP190-BS2	TP191-BS2	TP192-BS2	TP194-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7700	7400	3800	5200	10	1904754
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1904754
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904754
Available Barium (Ba)	mg/kg	26	19	7	13	5	1904754
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904754
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904754
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1904754
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1904754
Available Chromium (Cr)	mg/kg	15	14	9	16	2	1904754
Available Cobalt (Co)	mg/kg	5	4	4	5	1	1904754
Available Copper (Cu)	mg/kg	12	10	18	6	2	1904754
Available Iron (Fe)	mg/kg	9700	8500	5700	11000	50	1904754
Available Lead (Pb)	mg/kg	2.3	1.7	1.3	3.8	0.5	1904754
Available Lithium (Li)	mg/kg	6	5	3	7	2	1904754
Available Manganese (Mn)	mg/kg	130	91	72	120	2	1904754
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1904754
Available Nickel (Ni)	mg/kg	13	11	8	11	2	1904754
Available Rubidium (Rb)	mg/kg	6	5	<2	4	2	1904754
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904754
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904754
Available Strontium (Sr)	mg/kg	18	20	12	6	5	1904754
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1904754
Available Uranium (U)	mg/kg	1.0	0.7	0.6	0.1	0.1	1904754
Available Vanadium (V)	mg/kg	19	20	14	20	2	1904754
Available Zinc (Zn)	mg/kg	22	17	11	21	5	1904754

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH7124	DH7125	DH7126	DH7127		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP197-BS1	TP198-BS1	TP202-BS1	TP204-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	4200	11000	4700	6000	10	1904754
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1904754
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904754
Available Barium (Ba)	mg/kg	6	41	6	9	5	1904754
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904754
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904754
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1904754
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1904754
Available Chromium (Cr)	mg/kg	9	21	9	11	2	1904754
Available Cobalt (Co)	mg/kg	3	7	2	3	1	1904754
Available Copper (Cu)	mg/kg	11	23	9	8	2	1904754
Available Iron (Fe)	mg/kg	5800	11000	3200	4400	50	1904754
Available Lead (Pb)	mg/kg	1.3	2.2	1.3	1.5	0.5	1904754
Available Lithium (Li)	mg/kg	3	9	3	4	2	1904754
Available Manganese (Mn)	mg/kg	71	150	39	44	2	1904754
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1904754
Available Nickel (Ni)	mg/kg	9	22	6	7	2	1904754
Available Rubidium (Rb)	mg/kg	<2	8	<2	<2	2	1904754
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904754
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904754
Available Strontium (Sr)	mg/kg	8	16	10	10	5	1904754
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1904754
Available Uranium (U)	mg/kg	0.1	0.5	0.3	0.3	0.1	1904754
Available Vanadium (V)	mg/kg	13	20	10	14	2	1904754
Available Zinc (Zn)	mg/kg	13	25	10	11	5	1904754

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH7128	DH7131	DH7134	DH7135		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP205-BS2	TP210-BS1	BS146	BS147	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5800	7200	4500	4700	10	1904754
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1904754
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904754
Available Barium (Ba)	mg/kg	16	18	17	22	5	1904754
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904754
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904754
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1904754
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1904754
Available Chromium (Cr)	mg/kg	15	18	12	14	2	1904754
Available Cobalt (Co)	mg/kg	4	5	4	5	1	1904754
Available Copper (Cu)	mg/kg	14	15	18	24	2	1904754
Available Iron (Fe)	mg/kg	7300	7900	8500	8600	50	1904754
Available Lead (Pb)	mg/kg	1.4	2.8	23	25	0.5	1904754
Available Lithium (Li)	mg/kg	5	6	8	7	2	1904754
Available Manganese (Mn)	mg/kg	84	75	110	150	2	1904754
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1904754
Available Nickel (Ni)	mg/kg	13	13	9	10	2	1904754
Available Rubidium (Rb)	mg/kg	3	5	8	9	2	1904754
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904754
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904754
Available Strontium (Sr)	mg/kg	19	11	7	6	5	1904754
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1904754
Available Uranium (U)	mg/kg	0.2	1.0	0.3	0.5	0.1	1904754
Available Vanadium (V)	mg/kg	20	22	19	18	2	1904754
Available Zinc (Zn)	mg/kg	14	20	73	93	5	1904754

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH7136	DH7137	DH7138		
Sampling Date		2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	SED-1	SED-4	SED-7	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	10000	3100	2300	10	1904743
Available Antimony (Sb)	mg/kg	<2	<2	<2	2	1904743
Available Arsenic (As)	mg/kg	3	<2	<2	2	1904743
Available Barium (Ba)	mg/kg	650	22	7	5	1904743
Available Beryllium (Be)	mg/kg	<2	<2	<2	2	1904743
Available Bismuth (Bi)	mg/kg	<2	<2	<2	2	1904743
Available Boron (B)	mg/kg	10	<5	<5	5	1904743
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	0.3	1904743
Available Chromium (Cr)	mg/kg	19	7	6	2	1904743
Available Cobalt (Co)	mg/kg	6	2	2	1	1904743
Available Copper (Cu)	mg/kg	15	4	4	2	1904743
Available Iron (Fe)	mg/kg	12000	3800	3200	50	1904743
Available Lead (Pb)	mg/kg	40	2.9	1.3	0.5	1904743
Available Lithium (Li)	mg/kg	10	4	4	2	1904743
Available Manganese (Mn)	mg/kg	150	45	46	2	1904743
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	0.1	1904743
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	2	1904743
Available Nickel (Ni)	mg/kg	15	5	5	2	1904743
Available Rubidium (Rb)	mg/kg	9	3	3	2	1904743
Available Selenium (Se)	mg/kg	<2	<2	<2	2	1904743
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	0.5	1904743
Available Strontium (Sr)	mg/kg	41	13	7	5	1904743
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	0.1	1904743
Available Tin (Sn)	mg/kg	<2	<2	<2	2	1904743
Available Uranium (U)	mg/kg	0.6	0.2	<0.1	0.1	1904743
Available Vanadium (V)	mg/kg	25	10	6	2	1904743
Available Zinc (Zn)	mg/kg	68	12	10	5	1904743

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH7139		DH7140	DH7141		
Sampling Date		2009/08/06		2009/08/06	2009/08/06		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS149	QC Batch	BS151	BS157	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	4000	1904744	4400	2600	10	1904757
Available Antimony (Sb)	mg/kg	<2	1904744	<2	<2	2	1904757
Available Arsenic (As)	mg/kg	<2	1904744	<2	<2	2	1904757
Available Barium (Ba)	mg/kg	20	1904744	15	13	5	1904757
Available Beryllium (Be)	mg/kg	<2	1904744	<2	<2	2	1904757
Available Bismuth (Bi)	mg/kg	<2	1904744	<2	<2	2	1904757
Available Boron (B)	mg/kg	<5	1904744	<5	<5	5	1904757
Available Cadmium (Cd)	mg/kg	<0.3	1904744	<0.3	<0.3	0.3	1904757
Available Chromium (Cr)	mg/kg	10	1904744	9	8	2	1904757
Available Cobalt (Co)	mg/kg	3	1904744	2	2	1	1904757
Available Copper (Cu)	mg/kg	33	1904744	40	13	2	1904757
Available Iron (Fe)	mg/kg	7000	1904744	7100	7100	50	1904757
Available Lead (Pb)	mg/kg	24	1904744	11	11	0.5	1904757
Available Lithium (Li)	mg/kg	5	1904744	4	3	2	1904757
Available Manganese (Mn)	mg/kg	120	1904744	50	43	2	1904757
Available Mercury (Hg)	mg/kg	<0.1	1904744	<0.1	<0.1	0.1	1904757
Available Molybdenum (Mo)	mg/kg	<2	1904744	<2	<2	2	1904757
Available Nickel (Ni)	mg/kg	8	1904744	6	4	2	1904757
Available Rubidium (Rb)	mg/kg	5	1904744	4	6	2	1904757
Available Selenium (Se)	mg/kg	<2	1904744	<2	<2	2	1904757
Available Silver (Ag)	mg/kg	<0.5	1904744	<0.5	<0.5	0.5	1904757
Available Strontium (Sr)	mg/kg	8	1904744	5	<5	5	1904757
Available Thallium (Tl)	mg/kg	<0.1	1904744	0.1	<0.1	0.1	1904757
Available Tin (Sn)	mg/kg	<2	1904744	<2	<2	2	1904757
Available Uranium (U)	mg/kg	0.6	1904744	0.9	0.4	0.1	1904757
Available Vanadium (V)	mg/kg	18	1904744	19	20	2	1904757
Available Zinc (Zn)	mg/kg	74	1904744	26	23	5	1904757

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH7143	DH7145	DH7147	DH7154		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS160	BS162	BS164	BS174	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	9600	13000	4500	6400	10	1904757
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1904757
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904757
Available Barium (Ba)	mg/kg	24	43	26	10	5	1904757
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904757
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904757
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1904757
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1904757
Available Chromium (Cr)	mg/kg	23	24	5	13	2	1904757
Available Cobalt (Co)	mg/kg	6	8	3	4	1	1904757
Available Copper (Cu)	mg/kg	15	18	36	7	2	1904757
Available Iron (Fe)	mg/kg	11000	15000	7900	8300	50	1904757
Available Lead (Pb)	mg/kg	4.5	10	8.1	2.4	0.5	1904757
Available Lithium (Li)	mg/kg	9	12	13	6	2	1904757
Available Manganese (Mn)	mg/kg	150	210	110	88	2	1904757
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904757
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1904757
Available Nickel (Ni)	mg/kg	20	17	5	9	2	1904757
Available Rubidium (Rb)	mg/kg	7	11	17	3	2	1904757
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904757
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904757
Available Strontium (Sr)	mg/kg	19	32	<5	8	5	1904757
Available Thallium (Tl)	mg/kg	<0.1	<0.1	0.1	<0.1	0.1	1904757
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1904757
Available Uranium (U)	mg/kg	0.6	1.1	1.2	0.4	0.1	1904757
Available Vanadium (V)	mg/kg	22	30	14	17	2	1904757
Available Zinc (Zn)	mg/kg	32	42	30	17	5	1904757

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH7163	DH7164	DH7165		
Sampling Date		2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	SED-8	SED-9	SED-10	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	2800	3200	3500	10	1904757
Available Antimony (Sb)	mg/kg	<2	<2	<2	2	1904757
Available Arsenic (As)	mg/kg	<2	<2	<2	2	1904757
Available Barium (Ba)	mg/kg	5	8	9	5	1904757
Available Beryllium (Be)	mg/kg	<2	<2	<2	2	1904757
Available Bismuth (Bi)	mg/kg	<2	<2	<2	2	1904757
Available Boron (B)	mg/kg	<5	<5	<5	5	1904757
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	0.3	1904757
Available Chromium (Cr)	mg/kg	6	8	12	2	1904757
Available Cobalt (Co)	mg/kg	2	3	2	1	1904757
Available Copper (Cu)	mg/kg	5	4	5	2	1904757
Available Iron (Fe)	mg/kg	4200	5100	5100	50	1904757
Available Lead (Pb)	mg/kg	2.5	3.1	3.2	0.5	1904757
Available Lithium (Li)	mg/kg	4	5	5	2	1904757
Available Manganese (Mn)	mg/kg	53	62	61	2	1904757
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	0.1	1904757
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	2	1904757
Available Nickel (Ni)	mg/kg	5	7	9	2	1904757
Available Rubidium (Rb)	mg/kg	<2	3	4	2	1904757
Available Selenium (Se)	mg/kg	<2	<2	<2	2	1904757
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	0.5	1904757
Available Strontium (Sr)	mg/kg	11	9	10	5	1904757
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	0.1	1904757
Available Tin (Sn)	mg/kg	<2	<2	<2	2	1904757
Available Uranium (U)	mg/kg	0.1	0.4	0.2	0.1	1904757
Available Vanadium (V)	mg/kg	7	10	10	2	1904757
Available Zinc (Zn)	mg/kg	13	18	17	5	1904757

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7112	DH7112	DH7113	DH7114		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP177-BS2	TP177-BS2 Lab-Dup	TP178-BS2	TP180-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902353
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902353
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902353
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1902353
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1902353
>C10-C21 Hydrocarbons	mg/kg	<15	<15	<15	<15	15	1902908
>C21-<C32 Hydrocarbons	mg/kg	<15	<15	<15	<15	15	1902908
Modified TPH (Tier1)	mg/kg	<20		<20	<20	20	1900919
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	94	89	91	91		1902908
n-Dotriacontane - Extractable	%	98	96	87	86		1902908
Isobutylbenzene - Volatile	%	102	113	110	89		1902353

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7115	DH7116	DH7117	DH7118		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP182-BS2	TP185-BS2	TP186-BS2	TP187-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902353
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902353
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902353
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1902353
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1902353
>C10-C21 Hydrocarbons	mg/kg	<15	<15	<15	<15	15	1902908
>C21-<C32 Hydrocarbons	mg/kg	<15	<15	19	<15	15	1902908
Modified TPH (Tier1)	mg/kg	<20	<20	<20	<20	20	1900919
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	94	90	91	93		1902908
n-Dotriacontane - Extractable	%	93	89	95 (1)	99		1902908
Isobutylbenzene - Volatile	%	112	98	101	118		1902353

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7119	DH7120		DH7124		
Sampling Date		2009/08/06	2009/08/06		2009/08/06		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP188-BS2	TP190-BS2	QC Batch	TP197-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1902353	<0.03	0.03	1903089
Toluene	mg/kg	<0.03	<0.03	1902353	<0.03	0.03	1903089
Ethylbenzene	mg/kg	<0.03	<0.03	1902353	<0.03	0.03	1903089
Xylene (Total)	mg/kg	<0.05	<0.05	1902353	<0.05	0.05	1903089
C6 - C10 (less BTEX)	mg/kg	<3	<3	1902353	<3	3	1903089
>C10-C21 Hydrocarbons	mg/kg	<15	<15	1902908	<15	15	1902908
>C21-<C32 Hydrocarbons	mg/kg	<15	<15	1902908	<15	15	1902908
Modified TPH (Tier1)	mg/kg	<20	<20	1900919	<20	20	1900919
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	92	87	1902908	92		1902908
n-Dotriacontane - Extractable	%	88	97	1902908	98		1902908
Isobutylbenzene - Volatile	%	91	118	1902353	74		1903089

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7125		DH7129	DH7130		
Sampling Date		2009/08/06		2009/08/06	2009/08/06		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	TP198-BS1	QC Batch	TP208-BS2	TP209-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1903089	<0.03	<0.03	0.03	1903089
Toluene	mg/kg	<0.03	1903089	<0.03	<0.03	0.03	1903089
Ethylbenzene	mg/kg	<0.03	1903089	<0.03	<0.03	0.03	1903089
Xylene (Total)	mg/kg	<0.05	1903089	<0.05	<0.05	0.05	1903089
C6 - C10 (less BTEX)	mg/kg	<3	1903089	<3	<3	3	1903089
>C10-C21 Hydrocarbons	mg/kg	<15	1902908	<15	<15	15	1903162
>C21-<C32 Hydrocarbons	mg/kg	<15	1902908	<15	22	15	1903162
Modified TPH (Tier1)	mg/kg	<20	1900919	<20	22	20	1900919
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	96	1902908	87	96		1903162
n-Dotriacontane - Extractable	%	108	1902908	92	99 (1)		1903162
Isobutylbenzene - Volatile	%	118	1903089	63	120		1903089

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) No resemblance to petroleum products.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7132		DH7133		
Sampling Date		2009/08/06		2009/08/06		
COC Number		N/A		N/A		
Registration #						
	Units	TP212-BS1	RDL	TP216-BS1	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	0.03	<0.03	0.03	1903089
Toluene	mg/kg	<0.03	0.03	<0.03	0.03	1903089
Ethylbenzene	mg/kg	<0.03	0.03	<0.03	0.03	1903089
Xylene (Total)	mg/kg	<0.05	0.05	<0.05	0.05	1903089
C6 - C10 (less BTEX)	mg/kg	<3	3	570	30	1903089
>C10-C21 Hydrocarbons	mg/kg	32	15	15000	15	1903162
>C21-<C32 Hydrocarbons	mg/kg	72	15	350	15	1903162
Modified TPH (Tier1)	mg/kg	100	20	16000	30	1900919
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	88		52 (1)		1903162
n-Dotriacontane - Extractable	%	104 (2)		86 (3)		1903162
Isobutylbenzene - Volatile	%	75		67		1903089

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(2) One product in fuel / lube range.

(3) Weathered fuel oil fraction.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7134	DH7135	DH7136	DH7137		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS146	BS147	SED-1	SED-4	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903089
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903089
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903089
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1903089
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1903089
>C10-C21 Hydrocarbons	mg/kg	35	89	27	<15	15	1903162
>C21-<C32 Hydrocarbons	mg/kg	220	600	37	22	15	1903162
Modified TPH (Tier1)	mg/kg	260	690	65	22	20	1900919
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	90	100	90	98		1903162
n-Dotriacontane - Extractable	%	89 (1)	95 (1)	104 (2)	101 (3)		1903162
Isobutylbenzene - Volatile	%	102	117	106	121		1903089

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range. Lube oil fraction.
(2) One product in fuel / lube range.
(3) Possible lube oil fraction.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7138		DH7139		
Sampling Date		2009/08/06		2009/08/06		
COC Number		N/A		N/A		
Registration #						
	Units	SED-7	QC Batch	BS149	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1903089	<0.03	0.03	1903239
Toluene	mg/kg	<0.03	1903089	<0.03	0.03	1903239
Ethylbenzene	mg/kg	<0.03	1903089	<0.03	0.03	1903239
Xylene (Total)	mg/kg	<0.05	1903089	<0.05	0.05	1903239
C6 - C10 (less BTEX)	mg/kg	<3	1903089	<3	3	1903239
>C10-C21 Hydrocarbons	mg/kg	31	1903162	91	15	1903168
>C21-<C32 Hydrocarbons	mg/kg	18	1903162	370	15	1903168
Modified TPH (Tier1)	mg/kg	50	1900919	460	20	1900919
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	92	1903162	99		1903168
n-Dotriacontane - Extractable	%	102 (1)	1903162	86 (2)		1903168
Isobutylbenzene - Volatile	%	77	1903089	115		1903239

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range. Weathered fuel oil fraction.
(2) Lube oil fraction. Unidentified compound(s) in fuel oil range.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7140		DH7141	DH7142		
Sampling Date		2009/08/06		2009/08/06	2009/08/06		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS151	RDL	BS157	BS159	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1903239
Toluene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1903239
Ethylbenzene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1903239
Xylene (Total)	mg/kg	<0.3	0.3	<0.05	<0.05	0.05	1903239
C6 - C10 (less BTEX)	mg/kg	<10	10	<3	<3	3	1903239
>C10-C21 Hydrocarbons	mg/kg	120	15	83	<15	15	1903168
>C21-<C32 Hydrocarbons	mg/kg	430	15	210	120	15	1903168
Modified TPH (Tier1)	mg/kg	540	20	290	120	20	1900919
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	92		96	95		1903168
n-Dotriacontane - Extractable	%	108 (1)		115 (2)	110 (3)		1903168
Isobutylbenzene - Volatile	%	86 (4)		118	119		1903239

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Possible lube oil fraction. Unidentified compound(s) in fuel / lube range.

(2) Lube oil fraction. Unidentified compound(s) in fuel oil range.

(3) Lube oil fraction.

(4) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7149		DH7150	DH7151		
Sampling Date		2009/08/06		2009/08/06	2009/08/06		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS168	QC Batch	BS169	BS170	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1903239	<0.03	<0.03	0.03	1903239
Toluene	mg/kg	<0.03	1903239	<0.03	<0.03	0.03	1903239
Ethylbenzene	mg/kg	<0.03	1903239	<0.03	<0.03	0.03	1903239
Xylene (Total)	mg/kg	<0.05	1903239	<0.05	<0.05	0.05	1903239
C6 - C10 (less BTEX)	mg/kg	<3	1903239	<3	<3	3	1903239
>C10-C21 Hydrocarbons	mg/kg	<15	1903168	400	50	15	1903162
>C21-<C32 Hydrocarbons	mg/kg	68	1903168	1300	180	15	1903162
Modified TPH (Tier1)	mg/kg	68	1900919	1700	230	20	1900919
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	91	1903168	96	95		1903162
n-Dotriacontane - Extractable	%	117 (1)	1903168	98 (2)	90 (2)		1903162
Isobutylbenzene - Volatile	%	84	1903239	106	103		1903239

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.
(2) Weathered fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7152		DH7153	DH7155		
Sampling Date		2009/08/06		2009/08/06	2009/08/06		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS171	QC Batch	BS172	BS175	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1903239	<0.03	<0.03	0.03	1903239
Toluene	mg/kg	<0.03	1903239	<0.03	<0.03	0.03	1903239
Ethylbenzene	mg/kg	<0.03	1903239	<0.03	<0.03	0.03	1903239
Xylene (Total)	mg/kg	<0.05	1903239	<0.05	<0.05	0.05	1903239
C6 - C10 (less BTEX)	mg/kg	<3	1903239	<3	<3	3	1903239
>C10-C21 Hydrocarbons	mg/kg	<15	1903518	84	110	15	1903518
>C21-<C32 Hydrocarbons	mg/kg	<15	1903518	250	410	15	1903518
Modified TPH (Tier1)	mg/kg	<20	1900919	330	510	20	1901015
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	117	1903518	112	102		1903518
n-Dotriacontane - Extractable	%	121	1903518	107 (1)	100 (1)		1903518
Isobutylbenzene - Volatile	%	103	1903239	101	64		1903239

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7156		DH7157		
Sampling Date		2009/08/06		2009/08/06		
COC Number		N/A		N/A		
Registration #						
	Units	BS176	QC Batch	BS177	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1904319	<0.03	0.03	1904319
Toluene	mg/kg	<0.03	1904319	<0.03	0.03	1904319
Ethylbenzene	mg/kg	<0.03	1904319	<0.03	0.03	1904319
Xylene (Total)	mg/kg	<0.05	1904319	<0.05	0.05	1904319
C6 - C10 (less BTEX)	mg/kg	<3	1904319	<3	3	1904319
>C10-C21 Hydrocarbons	mg/kg	1000	1903518	100	15	1904275
>C21-<C32 Hydrocarbons	mg/kg	260	1903518	25	15	1904275
Modified TPH (Tier1)	mg/kg	1300	1901015	130	20	1901015
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	101	1903518	97		1904275
n-Dotriacontane - Extractable	%	98 (1)	1903518	105 (1)		1904275
Isobutylbenzene - Volatile	%	110	1904319	113		1904319

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. Possible lube oil fraction.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7158			DH7159		
Sampling Date		2009/08/06			2009/08/06		
COC Number		N/A			N/A		
Registration #							
	Units	BS178	RDL	QC Batch	BS179	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	0.03	1904319	<0.1	0.1	1904319
Toluene	mg/kg	<0.03	0.03	1904319	<0.1	0.1	1904319
Ethylbenzene	mg/kg	<0.03	0.03	1904319	<0.1	0.1	1904319
Xylene (Total)	mg/kg	<0.05	0.05	1904319	<0.3	0.3	1904319
C6 - C10 (less BTEX)	mg/kg	<3	3	1904319	<10	10	1904319
>C10-C21 Hydrocarbons	mg/kg	180	15	1903518	410	15	1904275
>C21-<C32 Hydrocarbons	mg/kg	450	15	1903518	1200	15	1904275
Modified TPH (Tier1)	mg/kg	630	20	1901015	1600	20	1901015
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	102		1903518	96		1904275
n-Dotriacontane - Extractable	%	97 (1)		1903518	93 (1)		1904275
Isobutylbenzene - Volatile	%	101		1904319	114 (2)		1904319

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range.

(2) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7160	DH7161	DH7162	DH7163		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS180	BS181	BS182	SED-8	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903521
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903521
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903521
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1903521
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1903521
>C10-C21 Hydrocarbons	mg/kg	<15	<15	<15	72	15	1904275
>C21-<C32 Hydrocarbons	mg/kg	<15	<15	<15	28	15	1904275
Modified TPH (Tier1)	mg/kg	<20	<20	<20	100	20	1901015
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	92	95	96	88		1904275
n-Dotriacontane - Extractable	%	98	104	101	102 (1)		1904275
Isobutylbenzene - Volatile	%	76	68	92	84		1903521

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. Possible lube oil fraction.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH7164	DH7165	DH7166	DH7166		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	SED-9	SED-10	SED-11	SED-11 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903521
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903521
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1903521
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1903521
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1903521
>C10-C21 Hydrocarbons	mg/kg	73	120	59		15	1904275
>C21-<C32 Hydrocarbons	mg/kg	28	37	46		15	1904275
Modified TPH (Tier1)	mg/kg	100	160	100		20	1901015
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	99	97	100			1904275
n-Dotriacontane - Extractable	%	107 (1)	102 (1)	105 (2)			1904275
Isobutylbenzene - Volatile	%	100	117	97	118		1903521

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Lube oil fraction.

(2) Weathered fuel oil fraction. Possible lube oil fraction.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH7112	DH7112	DH7113	DH7114		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP177-BS2	TP177-BS2 Lab-Dup	TP178-BS2	TP180-BS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1902669
Surrogate Recovery (%)							
Decachlorobiphenyl	%	79	80	83	84		1902669
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DH7115	DH7116	DH7117	DH7118		
Sampling Date		2009/08/06	2009/08/06	2009/08/06	2009/08/06		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP182-BS2	TP185-BS2	TP186-BS2	TP187-BS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1902669
Surrogate Recovery (%)							
Decachlorobiphenyl	%	82	87	85	84		1902669
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DH7119	DH7122	DH7125		DH7127		
Sampling Date		2009/08/06	2009/08/06	2009/08/06		2009/08/06		
COC Number		N/A	N/A	N/A		N/A		
Registration #								
	Units	TP188-BS2	TP192-BS2	TP198-BS1	QC Batch	TP204-BS1	RDL	QC Batch

PCBs								
Total PCB	ug/g	<0.05	<0.05	<0.05	1902669	<0.05	0.05	1902975
Surrogate Recovery (%)								
Decachlorobiphenyl	%	84	85	84	1902669	111		1902975
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH7127	DH7130	DH7132		DH7133		
Sampling Date		2009/08/06	2009/08/06	2009/08/06		2009/08/06		
COC Number		N/A	N/A	N/A		N/A		
Registration #								
	Units	TP204-BS1 Lab-Dup	TP209-BS1	TP212-BS1	RDL	TP216-BS1	RDL	QC Batch

PCBs								
Total PCB	ug/g	<0.05	<0.05	<0.05	0.05	<0.2	0.2	1902975
Surrogate Recovery (%)								
Decachlorobiphenyl	%	115	115	115		115 (1)		1902975

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PCB RDL due to matrix / co-extractive interference.

Maxxam ID		DH7134	DH7136		DH7139	DH7141		
Sampling Date		2009/08/06	2009/08/06		2009/08/06	2009/08/06		
COC Number		N/A	N/A		N/A	N/A		
Registration #								
	Units	BS146	SED-1	QC Batch	BS149	BS157	RDL	QC Batch

PCBs								
Total PCB	ug/g	2.1	0.44	1902975	0.46	<0.05	0.05	1903234
Surrogate Recovery (%)								
Decachlorobiphenyl	%	122 (1)	117 (1)	1902975	91 (1)	77		1903234

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH7144	DH7146	DH7148		DH7156		
Sampling Date		2009/08/06	2009/08/06	2009/08/06		2009/08/06		
COC Number		N/A	N/A	N/A		N/A		
Registration #								
	Units	BS161	BS163	BS165	QC Batch	BS176	RDL	QC Batch

PCBs								
Total PCB	ug/g	0.18	0.08	<0.05	1903234	<0.05	0.05	1905603
Surrogate Recovery (%)								
Decachlorobiphenyl	%	79 (1)	88 (1)	78	1903234	77		1905603

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DH7159	DH7163		DH7165		
Sampling Date		2009/08/06	2009/08/06		2009/08/06		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	BS179	SED-8	RDL	SED-10	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	0.05	<0.1	0.1	1905603
Surrogate Recovery (%)							
Decachlorobiphenyl	%	80	79		77 (1)		1905603

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PCB RDL due to matrix / co-extractive interference.

Maxxam Job #: A9A0902
Report Date: 2009/08/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9A0902

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902353 ASL	Matrix Spike [DH7112-01]	Isobutylbenzene - Volatile	2009/08/11		67	%	60 - 140
		Benzene	2009/08/11		83	%	60 - 140
		Toluene	2009/08/11		109	%	60 - 140
		Ethylbenzene	2009/08/11		101	%	60 - 140
		Xylene (Total)	2009/08/11		86	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/11		98	%	60 - 140
		Benzene	2009/08/11		83	%	60 - 140
		Toluene	2009/08/11		83	%	60 - 140
		Ethylbenzene	2009/08/11		86	%	60 - 140
		Xylene (Total)	2009/08/11		83	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/11		121	%	60 - 140
		Benzene	2009/08/11	<0.03		mg/kg	
		Toluene	2009/08/11	<0.03		mg/kg	
		Ethylbenzene	2009/08/11	<0.03		mg/kg	
		Xylene (Total)	2009/08/11	<0.05		mg/kg	
	RPD [DH7112-01]	C6 - C10 (less BTEX)	2009/08/11	<3		mg/kg	
		Benzene	2009/08/11	NC		%	50
		Toluene	2009/08/11	NC		%	50
		Ethylbenzene	2009/08/11	NC		%	50
		Xylene (Total)	2009/08/11	NC		%	50
1902669 CMI	Matrix Spike [DH7112-01]	Decachlorobiphenyl	2009/08/13		82	%	30 - 130
		Total PCB	2009/08/13		88	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/13		85	%	30 - 130
		Total PCB	2009/08/13		96	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/13		86	%	30 - 130
		Total PCB	2009/08/13	<0.05		ug/g	
	RPD [DH7112-01]	Total PCB	2009/08/13	NC		%	50
1902908 SHR	Matrix Spike [DH7112-01]	Isobutylbenzene - Extractable	2009/08/11		92	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		77	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		80	%	30 - 130
		Isobutylbenzene - Extractable	2009/08/11		97	%	30 - 130
	Spiked Blank	n-Dotriacontane - Extractable	2009/08/11		95	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		85	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		87	%	30 - 130
		Isobutylbenzene - Extractable	2009/08/11		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		98	%	30 - 130
	Method Blank	>C10-C21 Hydrocarbons	2009/08/11	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/11	<15		mg/kg	
		>C10-C21 Hydrocarbons	2009/08/11	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/11	NC		%	50
1902975 CMI	Matrix Spike [DH7127-01]	Decachlorobiphenyl	2009/08/13		119	%	30 - 130
		Total PCB	2009/08/13		111	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/12		81	%	30 - 130
		Total PCB	2009/08/12		116	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/12		89	%	30 - 130
		Total PCB	2009/08/12	<0.05		ug/g	
	RPD [DH7127-01]	Total PCB	2009/08/13	NC		%	50
1903089 ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/08/11		87	%	60 - 140
		Benzene	2009/08/11		92	%	60 - 140

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0902

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903089 ASL	Matrix Spike	Toluene	2009/08/11		132	%	60 - 140
		Ethylbenzene	2009/08/11		118	%	60 - 140
		Xylene (Total)	2009/08/11		127	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/11		93	%	60 - 140
		Benzene	2009/08/11		78	%	60 - 140
		Toluene	2009/08/11		82	%	60 - 140
	Method Blank	Ethylbenzene	2009/08/11		79	%	60 - 140
		Xylene (Total)	2009/08/11		83	%	60 - 140
		Isobutylbenzene - Volatile	2009/08/11		93	%	60 - 140
	RPD	Benzene	2009/08/11	<0.03		mg/kg	
		Toluene	2009/08/11	<0.03		mg/kg	
		Ethylbenzene	2009/08/11	<0.03		mg/kg	
		Xylene (Total)	2009/08/11	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/11	<3		mg/kg	
		Benzene	2009/08/12	NC		%	50
		Toluene	2009/08/12	NC		%	50
		Ethylbenzene	2009/08/12	NC		%	50
		Xylene (Total)	2009/08/12	NC		%	50
		C6 - C10 (less BTEX)	2009/08/12	NC		%	50
1903162 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/11		99	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		92	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		89	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		95	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/11		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		88	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		99	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		107	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/11		93	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/11	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/11	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/11	NC		%	50
1903168 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/08/11		87	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		116	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		84	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		93	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/11		94	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		108	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		93	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		102	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/11		86	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		103	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/11	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/11	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/11	NC		%	50
1903234 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/12		85	%	30 - 130
		Total PCB	2009/08/12		92	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/12		101	%	30 - 130
		Total PCB	2009/08/12		104	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/12		80	%	30 - 130
		Total PCB	2009/08/12	<0.05		ug/g	
	RPD	Total PCB	2009/08/12	NC		%	50
		Isobutylbenzene - Volatile	2009/08/12		97	%	60 - 140

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Project name: HOPEDALE

Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903239 ASL	Matrix Spike	Benzene	2009/08/12		92	%	60 - 140
		Toluene	2009/08/12		119	%	60 - 140
		Ethylbenzene	2009/08/12		107	%	60 - 140
		Xylene (Total)	2009/08/12		114	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/12		76	%	60 - 140
		Benzene	2009/08/12		86	%	60 - 140
		Toluene	2009/08/12		80	%	60 - 140
		Ethylbenzene	2009/08/12		77	%	60 - 140
		Xylene (Total)	2009/08/12		77	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/12		116	%	60 - 140
		Benzene	2009/08/12	<0.03		mg/kg	
		Toluene	2009/08/12	<0.03		mg/kg	
		Ethylbenzene	2009/08/12	<0.03		mg/kg	
		Xylene (Total)	2009/08/12	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/12	<3		mg/kg	
	RPD	Benzene	2009/08/12	NC		%	50
		Toluene	2009/08/12	NC		%	50
		Ethylbenzene	2009/08/12	NC		%	50
		Xylene (Total)	2009/08/12	NC		%	50
		C6 - C10 (less BTEX)	2009/08/12	NC		%	50
1903518 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/12		104	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/12		97	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/12		87	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/12		88	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/11		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		102	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		83	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		89	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/11		96	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		98	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/11	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/12	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/12	NC		%	50
1903521 GTH	Matrix Spike [DH7166-01]	Isobutylbenzene - Volatile	2009/08/11		63	%	60 - 140
		Benzene	2009/08/11		92	%	60 - 140
		Toluene	2009/08/11		100	%	60 - 140
		Ethylbenzene	2009/08/11		83	%	60 - 140
		Xylene (Total)	2009/08/11		95	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/11		80	%	60 - 140
		Benzene	2009/08/11		91	%	60 - 140
		Toluene	2009/08/11		95	%	60 - 140
		Ethylbenzene	2009/08/11		92	%	60 - 140
		Xylene (Total)	2009/08/11		93	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/11		97	%	60 - 140
		Benzene	2009/08/11	<0.03		mg/kg	
		Toluene	2009/08/11	<0.03		mg/kg	
		Ethylbenzene	2009/08/11	<0.03		mg/kg	
		Xylene (Total)	2009/08/11	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/11	<3		mg/kg	
	RPD [DH7166-01]	Benzene	2009/08/11	NC		%	50
		Toluene	2009/08/11	NC		%	50
		Ethylbenzene	2009/08/11	NC		%	50
		Xylene (Total)	2009/08/11	NC		%	50

Jacques Whitford Limited
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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903521 GTH	RPD [DH7166-01]	C6 - C10 (less BTEX)	2009/08/11	NC		%	50
1904275 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/12		96	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/12		96	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/12		82	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/12		84	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/12		108	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/12		99	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/12		84	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/12		88	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/12		110	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/12		101	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/12	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/12	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/12	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/12	NC		%	50
1904319 GTH	Matrix Spike	Isobutylbenzene - Volatile	2009/08/12		95	%	60 - 140
		Benzene	2009/08/12		92	%	60 - 140
		Toluene	2009/08/12		110	%	60 - 140
		Ethylbenzene	2009/08/12		107	%	60 - 140
		Xylene (Total)	2009/08/12		111	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/12		96	%	60 - 140
		Benzene	2009/08/12		111	%	60 - 140
		Toluene	2009/08/12		117	%	60 - 140
		Ethylbenzene	2009/08/12		114	%	60 - 140
		Xylene (Total)	2009/08/12		120	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/12		76	%	60 - 140
		Benzene	2009/08/12	<0.03		mg/kg	
		Toluene	2009/08/12	<0.03		mg/kg	
		Ethylbenzene	2009/08/12	<0.03		mg/kg	
		Xylene (Total)	2009/08/12	<0.05		mg/kg	
	RPD	C6 - C10 (less BTEX)	2009/08/12	<3		mg/kg	
		Benzene	2009/08/12	NC		%	50
		Toluene	2009/08/12	NC		%	50
		Ethylbenzene	2009/08/12	NC		%	50
		Xylene (Total)	2009/08/12	NC		%	50
		C6 - C10 (less BTEX)	2009/08/12	NC		%	50
1904743 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/12		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/12		71 (1)	%	75 - 125
		Available Arsenic (As)	2009/08/12		96	%	75 - 125
		Available Barium (Ba)	2009/08/12		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/12		92	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		90	%	75 - 125
		Available Boron (B)	2009/08/12		NC	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		91	%	75 - 125
		Available Chromium (Cr)	2009/08/12		NC	%	75 - 125
		Available Cobalt (Co)	2009/08/12		92	%	75 - 125
		Available Copper (Cu)	2009/08/12		NC	%	75 - 125
		Available Iron (Fe)	2009/08/12		NC	%	75 - 125
		Available Lead (Pb)	2009/08/12		NC	%	75 - 125
		Available Lithium (Li)	2009/08/12		NC	%	75 - 125
		Available Manganese (Mn)	2009/08/12		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/12		107	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		94	%	75 - 125
		Available Nickel (Ni)	2009/08/12		NC	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		NC	%	75 - 125

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904743 KGU	Matrix Spike	Available Selenium (Se)	2009/08/12		100	%	75 - 125
		Available Silver (Ag)	2009/08/12		97	%	75 - 125
		Available Strontium (Sr)	2009/08/12		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/12		91	%	75 - 125
		Available Tin (Sn)	2009/08/12		91	%	75 - 125
		Available Uranium (U)	2009/08/12		92	%	75 - 125
		Available Vanadium (V)	2009/08/12		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/12		87	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/12		83	%	75 - 125
		Available Arsenic (As)	2009/08/12		112	%	75 - 125
		Available Barium (Ba)	2009/08/12		99	%	75 - 125
		Available Chromium (Cr)	2009/08/12		86	%	75 - 125
		Available Cobalt (Co)	2009/08/12		96	%	75 - 125
		Available Copper (Cu)	2009/08/12		93	%	75 - 125
		Available Iron (Fe)	2009/08/12		90	%	75 - 125
		Available Lead (Pb)	2009/08/12		95	%	75 - 125
		Available Manganese (Mn)	2009/08/12		99	%	75 - 125
		Available Nickel (Ni)	2009/08/12		99	%	75 - 125
		Available Strontium (Sr)	2009/08/12		87	%	75 - 125
		Available Vanadium (V)	2009/08/12		104	%	75 - 125
		Available Zinc (Zn)	2009/08/12		108	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/12		98	%	75 - 125
		Available Antimony (Sb)	2009/08/12		96	%	75 - 125
		Available Arsenic (As)	2009/08/12		95	%	75 - 125
		Available Barium (Ba)	2009/08/12		92	%	75 - 125
		Available Beryllium (Be)	2009/08/12		95	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		94	%	75 - 125
		Available Boron (B)	2009/08/12		95	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		96	%	75 - 125
		Available Chromium (Cr)	2009/08/12		97	%	75 - 125
		Available Cobalt (Co)	2009/08/12		97	%	75 - 125
		Available Copper (Cu)	2009/08/12		96	%	75 - 125
		Available Iron (Fe)	2009/08/12		94	%	75 - 125
		Available Lead (Pb)	2009/08/12		92	%	75 - 125
		Available Lithium (Li)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		96	%	75 - 125
		Available Mercury (Hg)	2009/08/12		112	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		97	%	75 - 125
		Available Nickel (Ni)	2009/08/12		98	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		102	%	75 - 125
		Available Selenium (Se)	2009/08/12		95	%	75 - 125
		Available Silver (Ag)	2009/08/12		101	%	75 - 125
		Available Strontium (Sr)	2009/08/12		99	%	75 - 125
		Available Thallium (Tl)	2009/08/12		92	%	75 - 125
		Available Tin (Sn)	2009/08/12		95	%	75 - 125
		Available Uranium (U)	2009/08/12		91	%	75 - 125
		Available Vanadium (V)	2009/08/12		103	%	75 - 125
		Available Zinc (Zn)	2009/08/12		96	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/12	<10		mg/kg	
		Available Antimony (Sb)	2009/08/12	<2		mg/kg	
		Available Arsenic (As)	2009/08/12	<2		mg/kg	
		Available Barium (Ba)	2009/08/12	<5		mg/kg	
		Available Beryllium (Be)	2009/08/12	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/12	<2		mg/kg	
		Available Boron (B)	2009/08/12	<5		mg/kg	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904743 KGU	Method Blank	Available Cadmium (Cd)	2009/08/12	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/12	<2		mg/kg	
		Available Cobalt (Co)	2009/08/12	<1		mg/kg	
		Available Copper (Cu)	2009/08/12	<2		mg/kg	
		Available Iron (Fe)	2009/08/12	<50		mg/kg	
		Available Lead (Pb)	2009/08/12	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/12	<2		mg/kg	
		Available Manganese (Mn)	2009/08/12	<2		mg/kg	
		Available Mercury (Hg)	2009/08/12	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/12	<2		mg/kg	
		Available Nickel (Ni)	2009/08/12	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/12	<2		mg/kg	
		Available Selenium (Se)	2009/08/12	<2		mg/kg	
		Available Silver (Ag)	2009/08/12	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/12	<5		mg/kg	
		Available Thallium (Tl)	2009/08/12	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/12	<2		mg/kg	
		Available Uranium (U)	2009/08/12	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/12	<2		mg/kg	
		Available Zinc (Zn)	2009/08/12	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/12	3.1		%	35
		Available Antimony (Sb)	2009/08/12	NC		%	35
		Available Arsenic (As)	2009/08/12	NC		%	35
		Available Barium (Ba)	2009/08/12	8.6		%	35
		Available Beryllium (Be)	2009/08/12	NC		%	35
		Available Bismuth (Bi)	2009/08/12	NC		%	35
		Available Boron (B)	2009/08/12	20.8		%	35
		Available Cadmium (Cd)	2009/08/12	NC		%	35
		Available Chromium (Cr)	2009/08/12	1.4		%	35
		Available Cobalt (Co)	2009/08/12	0.1		%	35
		Available Copper (Cu)	2009/08/12	23.8		%	35
		Available Iron (Fe)	2009/08/12	22.2		%	35
		Available Lead (Pb)	2009/08/12	84.6 (2)		%	35
		Available Lithium (Li)	2009/08/12	2.0		%	35
		Available Manganese (Mn)	2009/08/12	13.6		%	35
		Available Mercury (Hg)	2009/08/12	NC		%	35
		Available Molybdenum (Mo)	2009/08/12	NC		%	35
		Available Nickel (Ni)	2009/08/12	6.5		%	35
		Available Rubidium (Rb)	2009/08/12	1.0		%	35
		Available Selenium (Se)	2009/08/12	NC		%	35
		Available Silver (Ag)	2009/08/12	NC		%	35
		Available Strontium (Sr)	2009/08/12	0.4		%	35
		Available Thallium (Tl)	2009/08/12	NC		%	35
		Available Tin (Sn)	2009/08/12	NC		%	35
		Available Uranium (U)	2009/08/12	4.3		%	35
		Available Vanadium (V)	2009/08/12	2.7		%	35
		Available Zinc (Zn)	2009/08/12	8.4		%	35
1904744 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/12		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/12		69 (1)	%	75 - 125
		Available Arsenic (As)	2009/08/12		101	%	75 - 125
		Available Barium (Ba)	2009/08/12		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/12		99	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		94	%	75 - 125
		Available Boron (B)	2009/08/12		96	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		NC	%	75 - 125

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904744	KGU	Matrix Spike					
		Available Chromium (Cr)	2009/08/12		NC	%	75 - 125
		Available Cobalt (Co)	2009/08/12		NC	%	75 - 125
		Available Copper (Cu)	2009/08/12		NC	%	75 - 125
		Available Iron (Fe)	2009/08/12		NC	%	75 - 125
		Available Lead (Pb)	2009/08/12		NC	%	75 - 125
		Available Lithium (Li)	2009/08/12		NC	%	75 - 125
		Available Manganese (Mn)	2009/08/12		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/12		96	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		93	%	75 - 125
		Available Nickel (Ni)	2009/08/12		NC	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		NC	%	75 - 125
		Available Selenium (Se)	2009/08/12		84	%	75 - 125
		Available Silver (Ag)	2009/08/12		99	%	75 - 125
		Available Strontium (Sr)	2009/08/12		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/12		87	%	75 - 125
		Available Tin (Sn)	2009/08/12		96	%	75 - 125
		Available Uranium (U)	2009/08/12		92	%	75 - 125
		Available Vanadium (V)	2009/08/12		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/12		94	%	75 - 125
		QC Standard					
		Available Aluminum (Al)	2009/08/12		82	%	75 - 125
		Available Arsenic (As)	2009/08/12		111	%	75 - 125
		Available Barium (Ba)	2009/08/12		98	%	75 - 125
		Available Chromium (Cr)	2009/08/12		83	%	75 - 125
		Available Cobalt (Co)	2009/08/12		95	%	75 - 125
		Available Copper (Cu)	2009/08/12		90	%	75 - 125
		Available Iron (Fe)	2009/08/12		91	%	75 - 125
		Available Lead (Pb)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		101	%	75 - 125
		Available Nickel (Ni)	2009/08/12		96	%	75 - 125
		Available Strontium (Sr)	2009/08/12		86	%	75 - 125
		Available Vanadium (V)	2009/08/12		101	%	75 - 125
		Available Zinc (Zn)	2009/08/12		109	%	75 - 125
		Spiked Blank					
		Available Aluminum (Al)	2009/08/12		101	%	75 - 125
		Available Antimony (Sb)	2009/08/12		97	%	75 - 125
		Available Arsenic (As)	2009/08/12		94	%	75 - 125
		Available Barium (Ba)	2009/08/12		97	%	75 - 125
		Available Beryllium (Be)	2009/08/12		97	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		96	%	75 - 125
		Available Boron (B)	2009/08/12		98	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		96	%	75 - 125
		Available Chromium (Cr)	2009/08/12		98	%	75 - 125
		Available Cobalt (Co)	2009/08/12		97	%	75 - 125
		Available Copper (Cu)	2009/08/12		95	%	75 - 125
		Available Iron (Fe)	2009/08/12		92	%	75 - 125
		Available Lead (Pb)	2009/08/12		97	%	75 - 125
		Available Lithium (Li)	2009/08/12		101	%	75 - 125
		Available Manganese (Mn)	2009/08/12		100	%	75 - 125
		Available Mercury (Hg)	2009/08/12		103	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		98	%	75 - 125
		Available Nickel (Ni)	2009/08/12		96	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		101	%	75 - 125
		Available Selenium (Se)	2009/08/12		81	%	75 - 125
		Available Silver (Ag)	2009/08/12		98	%	75 - 125
		Available Strontium (Sr)	2009/08/12		97	%	75 - 125
		Available Thallium (Tl)	2009/08/12		93	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0902

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904744 KGU	Spiked Blank	Available Tin (Sn)	2009/08/12		98	%	75 - 125
		Available Uranium (U)	2009/08/12		94	%	75 - 125
		Available Vanadium (V)	2009/08/12		106	%	75 - 125
		Available Zinc (Zn)	2009/08/12		98	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/12	<10		mg/kg	
		Available Antimony (Sb)	2009/08/12	<2		mg/kg	
		Available Arsenic (As)	2009/08/12	<2		mg/kg	
		Available Barium (Ba)	2009/08/12	<5		mg/kg	
		Available Beryllium (Be)	2009/08/12	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/12	<2		mg/kg	
		Available Boron (B)	2009/08/12	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/12	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/12	<2		mg/kg	
		Available Cobalt (Co)	2009/08/12	<1		mg/kg	
		Available Copper (Cu)	2009/08/12	<2		mg/kg	
		Available Iron (Fe)	2009/08/12	<50		mg/kg	
		Available Lead (Pb)	2009/08/12	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/12	<2		mg/kg	
		Available Manganese (Mn)	2009/08/12	<2		mg/kg	
		Available Mercury (Hg)	2009/08/12	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/12	<2		mg/kg	
		Available Nickel (Ni)	2009/08/12	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/12	<2		mg/kg	
		Available Selenium (Se)	2009/08/12	<2		mg/kg	
		Available Silver (Ag)	2009/08/12	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/12	<5		mg/kg	
		Available Thallium (Tl)	2009/08/12	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/12	<2		mg/kg	
		Available Uranium (U)	2009/08/12	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/12	<2		mg/kg	
		Available Zinc (Zn)	2009/08/12	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/12	1.3		%	35
		Available Antimony (Sb)	2009/08/12	NC		%	35
		Available Arsenic (As)	2009/08/12	NC		%	35
		Available Barium (Ba)	2009/08/12	4.7		%	35
		Available Beryllium (Be)	2009/08/12	NC		%	35
		Available Bismuth (Bi)	2009/08/12	NC		%	35
		Available Boron (B)	2009/08/12	NC		%	35
		Available Cadmium (Cd)	2009/08/12	0.5		%	35
		Available Chromium (Cr)	2009/08/12	7.6		%	35
		Available Cobalt (Co)	2009/08/12	1.6		%	35
		Available Copper (Cu)	2009/08/12	21.6		%	35
		Available Iron (Fe)	2009/08/12	4.4		%	35
		Available Lead (Pb)	2009/08/12	60.8 (2)		%	35
		Available Lithium (Li)	2009/08/12	2.6		%	35
		Available Manganese (Mn)	2009/08/12	4.5		%	35
		Available Mercury (Hg)	2009/08/12	NC (3)		%	35
		Available Molybdenum (Mo)	2009/08/12	NC		%	35
		Available Nickel (Ni)	2009/08/12	1.4		%	35
		Available Rubidium (Rb)	2009/08/12	1.9		%	35
		Available Selenium (Se)	2009/08/12	NC		%	35
		Available Silver (Ag)	2009/08/12	NC		%	35
		Available Strontium (Sr)	2009/08/12	NC		%	35
		Available Thallium (Tl)	2009/08/12	NC		%	35
		Available Tin (Sn)	2009/08/12	NC		%	35

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0902

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904744 KGU	RPD	Available Uranium (U)	2009/08/12	NC		%	35
		Available Vanadium (V)	2009/08/12	6.4		%	35
		Available Zinc (Zn)	2009/08/12	2.1		%	35
1904754 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/12		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/12		92	%	75 - 125
		Available Arsenic (As)	2009/08/12		103	%	75 - 125
		Available Barium (Ba)	2009/08/12		99	%	75 - 125
		Available Beryllium (Be)	2009/08/12		95	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		101	%	75 - 125
		Available Boron (B)	2009/08/12		96	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		99	%	75 - 125
		Available Chromium (Cr)	2009/08/12		NC	%	75 - 125
		Available Cobalt (Co)	2009/08/12		96	%	75 - 125
		Available Copper (Cu)	2009/08/12		NC	%	75 - 125
		Available Iron (Fe)	2009/08/12		NC	%	75 - 125
		Available Lead (Pb)	2009/08/12		100	%	75 - 125
		Available Lithium (Li)	2009/08/12		101	%	75 - 125
		Available Manganese (Mn)	2009/08/12		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/12		98	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		99	%	75 - 125
		Available Nickel (Ni)	2009/08/12		95	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		102	%	75 - 125
		Available Selenium (Se)	2009/08/12		93	%	75 - 125
		Available Silver (Ag)	2009/08/12		99	%	75 - 125
		Available Strontium (Sr)	2009/08/12		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/12		94	%	75 - 125
		Available Tin (Sn)	2009/08/12		101	%	75 - 125
		Available Uranium (U)	2009/08/12		98	%	75 - 125
		Available Vanadium (V)	2009/08/12		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/12		99	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/12		80	%	75 - 125
		Available Arsenic (As)	2009/08/12		116	%	75 - 125
		Available Barium (Ba)	2009/08/12		104	%	75 - 125
		Available Chromium (Cr)	2009/08/12		87	%	75 - 125
		Available Cobalt (Co)	2009/08/12		98	%	75 - 125
		Available Copper (Cu)	2009/08/12		96	%	75 - 125
		Available Iron (Fe)	2009/08/12		89	%	75 - 125
		Available Lead (Pb)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		99	%	75 - 125
		Available Nickel (Ni)	2009/08/12		104	%	75 - 125
		Available Strontium (Sr)	2009/08/12		88	%	75 - 125
		Available Vanadium (V)	2009/08/12		102	%	75 - 125
		Available Zinc (Zn)	2009/08/12		105	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/12		99	%	75 - 125
		Available Antimony (Sb)	2009/08/12		98	%	75 - 125
		Available Arsenic (As)	2009/08/12		93	%	75 - 125
		Available Barium (Ba)	2009/08/12		100	%	75 - 125
		Available Beryllium (Be)	2009/08/12		98	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		104	%	75 - 125
		Available Boron (B)	2009/08/12		92	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		95	%	75 - 125
		Available Chromium (Cr)	2009/08/12		101	%	75 - 125
		Available Cobalt (Co)	2009/08/12		98	%	75 - 125
		Available Copper (Cu)	2009/08/12		97	%	75 - 125
		Available Iron (Fe)	2009/08/12		104	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0902

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904754 KGU	Spiked Blank	Available Lead (Pb)	2009/08/12		104	%	75 - 125
		Available Lithium (Li)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		100	%	75 - 125
		Available Mercury (Hg)	2009/08/12		104	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		96	%	75 - 125
		Available Nickel (Ni)	2009/08/12		96	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		98	%	75 - 125
		Available Selenium (Se)	2009/08/12		91	%	75 - 125
		Available Silver (Ag)	2009/08/12		99	%	75 - 125
		Available Strontium (Sr)	2009/08/12		100	%	75 - 125
		Available Thallium (Tl)	2009/08/12		99	%	75 - 125
		Available Tin (Sn)	2009/08/12		97	%	75 - 125
		Available Uranium (U)	2009/08/12		100	%	75 - 125
		Available Vanadium (V)	2009/08/12		104	%	75 - 125
		Available Zinc (Zn)	2009/08/12		93	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/12	<10		mg/kg	
		Available Antimony (Sb)	2009/08/12	<2		mg/kg	
		Available Arsenic (As)	2009/08/12	<2		mg/kg	
		Available Barium (Ba)	2009/08/12	<5		mg/kg	
		Available Beryllium (Be)	2009/08/12	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/12	<2		mg/kg	
		Available Boron (B)	2009/08/12	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/12	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/12	<2		mg/kg	
		Available Cobalt (Co)	2009/08/12	<1		mg/kg	
		Available Copper (Cu)	2009/08/12	<2		mg/kg	
		Available Iron (Fe)	2009/08/12	<50		mg/kg	
		Available Lead (Pb)	2009/08/12	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/12	<2		mg/kg	
		Available Manganese (Mn)	2009/08/12	<2		mg/kg	
		Available Mercury (Hg)	2009/08/12	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/12	<2		mg/kg	
		Available Nickel (Ni)	2009/08/12	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/12	<2		mg/kg	
		Available Selenium (Se)	2009/08/12	<2		mg/kg	
		Available Silver (Ag)	2009/08/12	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/12	<5		mg/kg	
		Available Thallium (Tl)	2009/08/12	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/12	<2		mg/kg	
		Available Uranium (U)	2009/08/12	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/12	<2		mg/kg	
		Available Zinc (Zn)	2009/08/12	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/12	1.5		%	35
		Available Antimony (Sb)	2009/08/12	NC		%	35
		Available Arsenic (As)	2009/08/12	NC		%	35
		Available Barium (Ba)	2009/08/12	NC		%	35
		Available Beryllium (Be)	2009/08/12	NC		%	35
		Available Bismuth (Bi)	2009/08/12	NC		%	35
		Available Boron (B)	2009/08/12	NC		%	35
		Available Cadmium (Cd)	2009/08/12	NC		%	35
		Available Chromium (Cr)	2009/08/12	7.8		%	35
		Available Cobalt (Co)	2009/08/12	NC		%	35
		Available Copper (Cu)	2009/08/12	1.3		%	35
		Available Iron (Fe)	2009/08/12	0.7		%	35
		Available Lead (Pb)	2009/08/12	NC		%	35

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0902

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904754 KGU	RPD	Available Lithium (Li)	2009/08/12	NC		%	35
		Available Manganese (Mn)	2009/08/12	1		%	35
		Available Mercury (Hg)	2009/08/12	NC		%	35
		Available Molybdenum (Mo)	2009/08/12	NC		%	35
		Available Nickel (Ni)	2009/08/12	NC		%	35
		Available Rubidium (Rb)	2009/08/12	NC		%	35
		Available Selenium (Se)	2009/08/12	NC		%	35
		Available Silver (Ag)	2009/08/12	NC		%	35
		Available Strontium (Sr)	2009/08/12	NC		%	35
		Available Thallium (Tl)	2009/08/12	NC		%	35
		Available Tin (Sn)	2009/08/12	NC		%	35
		Available Uranium (U)	2009/08/12	0.9		%	35
		Available Vanadium (V)	2009/08/12	8.4		%	35
		Available Zinc (Zn)	2009/08/12	NC		%	35
1904757 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/12		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/12		78	%	75 - 125
		Available Arsenic (As)	2009/08/12		98	%	75 - 125
		Available Barium (Ba)	2009/08/12		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/12		93	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		95	%	75 - 125
		Available Boron (B)	2009/08/12		88	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		97	%	75 - 125
		Available Chromium (Cr)	2009/08/12		NC	%	75 - 125
		Available Cobalt (Co)	2009/08/12		NC	%	75 - 125
		Available Copper (Cu)	2009/08/12		NC	%	75 - 125
		Available Iron (Fe)	2009/08/12		NC	%	75 - 125
		Available Lead (Pb)	2009/08/12		NC	%	75 - 125
		Available Lithium (Li)	2009/08/12		NC	%	75 - 125
		Available Manganese (Mn)	2009/08/12		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/12		90	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		96	%	75 - 125
		Available Nickel (Ni)	2009/08/12		NC	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		93	%	75 - 125
		Available Selenium (Se)	2009/08/12		91	%	75 - 125
		Available Silver (Ag)	2009/08/12		101	%	75 - 125
		Available Strontium (Sr)	2009/08/12		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/12		87	%	75 - 125
		Available Tin (Sn)	2009/08/12		100	%	75 - 125
		Available Uranium (U)	2009/08/12		96	%	75 - 125
		Available Vanadium (V)	2009/08/12		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/12		NC	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/12		84	%	75 - 125
		Available Arsenic (As)	2009/08/12		110	%	75 - 125
		Available Barium (Ba)	2009/08/12		105	%	75 - 125
		Available Chromium (Cr)	2009/08/12		86	%	75 - 125
		Available Cobalt (Co)	2009/08/12		98	%	75 - 125
		Available Copper (Cu)	2009/08/12		94	%	75 - 125
		Available Iron (Fe)	2009/08/12		93	%	75 - 125
		Available Lead (Pb)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		105	%	75 - 125
		Available Nickel (Ni)	2009/08/12		102	%	75 - 125
		Available Strontium (Sr)	2009/08/12		90	%	75 - 125
		Available Vanadium (V)	2009/08/12		102	%	75 - 125
		Available Zinc (Zn)	2009/08/12		105	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/12		103	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0902

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904757 KGU	RPD	Available Arsenic (As)	2009/08/12	NC		%	35
		Available Barium (Ba)	2009/08/12	9.1		%	35
		Available Beryllium (Be)	2009/08/12	NC		%	35
		Available Bismuth (Bi)	2009/08/12	NC		%	35
		Available Boron (B)	2009/08/12	NC		%	35
		Available Cadmium (Cd)	2009/08/12	NC		%	35
		Available Chromium (Cr)	2009/08/12	5.8		%	35
		Available Cobalt (Co)	2009/08/12	8.8		%	35
		Available Copper (Cu)	2009/08/12	27.0 (2)		%	35
		Available Iron (Fe)	2009/08/12	2.6		%	35
		Available Lead (Pb)	2009/08/12	2.6		%	35
		Available Lithium (Li)	2009/08/12	7.6		%	35
		Available Manganese (Mn)	2009/08/12	17.1		%	35
		Available Mercury (Hg)	2009/08/12	NC		%	35
		Available Molybdenum (Mo)	2009/08/12	NC		%	35
		Available Nickel (Ni)	2009/08/12	8.2		%	35
		Available Rubidium (Rb)	2009/08/12	NC		%	35
		Available Selenium (Se)	2009/08/12	NC		%	35
		Available Silver (Ag)	2009/08/12	NC		%	35
		Available Strontium (Sr)	2009/08/12	NC		%	35
		Available Thallium (Tl)	2009/08/12	NC		%	35
		Available Tin (Sn)	2009/08/12	NC		%	35
		Available Uranium (U)	2009/08/12	4.6		%	35
		Available Vanadium (V)	2009/08/12	5.9		%	35
		Available Zinc (Zn)	2009/08/12	0.1		%	35
1905603 CMI	Matrix Spike	Decachlorobiphenyl			TBA	%	30 - 130
		Total PCB			TBA	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/14		76	%	30 - 130
		Total PCB	2009/08/14		97	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/14		77	%	30 - 130
		Total PCB	2009/08/14	<0.05		ug/g	
	RPD	Total PCB		TBA		%	50

TBA = Result to follow

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Low recovery due to sample matrix.

(2) Poor duplicate agreement due to sample inhomogeneity.

(3) Elevated reporting limit due to sample matrix.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0902

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904757 KGU	Spiked Blank	Available Antimony (Sb)	2009/08/12		98	%	75 - 125
		Available Arsenic (As)	2009/08/12		90	%	75 - 125
		Available Barium (Ba)	2009/08/12		99	%	75 - 125
		Available Beryllium (Be)	2009/08/12		89	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		102	%	75 - 125
		Available Boron (B)	2009/08/12		84	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		95	%	75 - 125
		Available Chromium (Cr)	2009/08/12		101	%	75 - 125
		Available Cobalt (Co)	2009/08/12		98	%	75 - 125
		Available Copper (Cu)	2009/08/12		98	%	75 - 125
		Available Iron (Fe)	2009/08/12		102	%	75 - 125
		Available Lead (Pb)	2009/08/12		99	%	75 - 125
		Available Lithium (Li)	2009/08/12		85	%	75 - 125
		Available Manganese (Mn)	2009/08/12		102	%	75 - 125
		Available Mercury (Hg)	2009/08/12		100	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		98	%	75 - 125
		Available Nickel (Ni)	2009/08/12		97	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		97	%	75 - 125
		Available Selenium (Se)	2009/08/12		105	%	75 - 125
		Available Silver (Ag)	2009/08/12		103	%	75 - 125
		Available Strontium (Sr)	2009/08/12		99	%	75 - 125
		Available Thallium (Tl)	2009/08/12		95	%	75 - 125
		Available Tin (Sn)	2009/08/12		98	%	75 - 125
		Available Uranium (U)	2009/08/12		100	%	75 - 125
		Available Vanadium (V)	2009/08/12		108	%	75 - 125
		Available Zinc (Zn)	2009/08/12		92	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/12	<10		mg/kg	
		Available Antimony (Sb)	2009/08/12	<2		mg/kg	
		Available Arsenic (As)	2009/08/12	<2		mg/kg	
		Available Barium (Ba)	2009/08/12	<5		mg/kg	
		Available Beryllium (Be)	2009/08/12	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/12	<2		mg/kg	
		Available Boron (B)	2009/08/12	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/12	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/12	<2		mg/kg	
		Available Cobalt (Co)	2009/08/12	<1		mg/kg	
		Available Copper (Cu)	2009/08/12	<2		mg/kg	
		Available Iron (Fe)	2009/08/12	<50		mg/kg	
		Available Lead (Pb)	2009/08/12	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/12	<2		mg/kg	
		Available Manganese (Mn)	2009/08/12	<2		mg/kg	
		Available Mercury (Hg)	2009/08/12	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/12	<2		mg/kg	
		Available Nickel (Ni)	2009/08/12	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/12	<2		mg/kg	
		Available Selenium (Se)	2009/08/12	<2		mg/kg	
		Available Silver (Ag)	2009/08/12	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/12	<5		mg/kg	
		Available Thallium (Tl)	2009/08/12	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/12	<2		mg/kg	
		Available Uranium (U)	2009/08/12	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/12	<2		mg/kg	
		Available Zinc (Zn)	2009/08/12	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/12	2.6		%	35
		Available Antimony (Sb)	2009/08/12	NC		%	35

1044856-L

Your P.O. #: NSD016300
 Your Project #: 1044856-Z9100
 Site: HOPEDALE II ESA HOPEDALE, NL
 Your C.O.C. #: 22207

Attention: Jim Slade
 Jacques Whitford Limited
 St. John's - Standing Offer
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/09/29

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9C4677
Received: 2009/09/22, 8:35

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (PIRI)	1	2009/09/24	2009/09/25	ATL SOP 00198 R2	Based on Atl. PIRI
VPH in Water (PIRI)	1	2009/09/24	2009/09/25	ATL SOP 00200 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	1	N/A	2009/09/26		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key


Paula Chaplin
 29 Sep 2009 09:07:29 -02:30

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

ROB WHELAN, Project Manager
 Email: Rob.WheLAN@maxxamanalytics.com
 Phone#: (709) 754-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 4

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9C4677
Report Date: 2009/09/29

Jacques Whitford Limited
Client Project #: 1044856-Z9100
Project name: HOPEDALE II ESA HOPEDALE, NL
Your P.O. #: NSD016300

ATLANTIC MUST IN WATER - PIRI TIER I (WATER)

MaxxamID		DT9410		
SamplingDate		2009/09/22		
COC Number		22207		
	Units	MW-53	RDL	QC Batch

PetroleumHydrocarbons				
Benzene	mg/L	0.002	0.001	1949879
Toluene	mg/L	0.006	0.001	1949879
Ethylbenzene	mg/L	0.064	0.001	1949879
Xylene(Total)	mg/L	0.27	0.002	1949879
C6 - C10 (less BTEX)	mg/L	3.8	0.01	1949879
>C10-C21Hydrocarbons	mg/L	310	0.05	1949649
>C21-<C32Hydrocarbons	mg/L	51	0.1	1949649
Modified TPH (Tier1)	mg/L	370	0.1	1946082
Surrogate Recovery (%)				
Isobutylbenzene -Extractable	%	373 (1)		1949649
n-Dotriacontane-Extractable	%	46 (2)		1949649
Isobutylbenzene-Volatile	%	194 (3)		1949879

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) Weathered fuel oil fraction. Isobutylbenzene/n-Dotriacontane recovery(ies) not within acceptance limits due to matrix/co-extractive interference. TEH sample contained sediment.
(3) Isobutylbenzene recovery not within acceptance limits due to matrix/co-extractive interference.

Maxxam Job #: A9C4677
Report Date: 2009/09/29

Jacques Whitford Limited
Client Project #: 1044856-Z9100
Project name: HOPEDALE II ESA HOPEDALE, NL
Your P.O. #: NSD016300

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: Jim Slade
Client Project #: 1044856-Z9100
P.O. #: NSD016300
Project name: HOPEDALE II ESA HOPEDALE, NL

Quality Assurance Report

Maxxam Job Number: ZA9C4677

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1949649 SPI	MatrixSpike	Isobutylbenzene-Extractable	2009/09/25		67	%	30 - 130
		n-Dotriacontane-Extractable	2009/09/25		38	%	30 - 130
		>C10-C21Hydrocarbons	2009/09/25		23 (1)	%	30 - 130
		>C21-<C32Hydrocarbons	2009/09/25		19 (1)	%	30 - 130
	SpikedBlank	Isobutylbenzene-Extractable	2009/09/25		107	%	30 - 130
		n-Dotriacontane-Extractable	2009/09/25		115	%	30 - 130
		>C10-C21Hydrocarbons	2009/09/25		101	%	30 - 130
		>C21-<C32Hydrocarbons	2009/09/25		83	%	30 - 130
	MethodBlank	Isobutylbenzene-Extractable	2009/09/25		107	%	30 - 130
		n-Dotriacontane-Extractable	2009/09/25		106	%	30 - 130
		>C10-C21Hydrocarbons	2009/09/25	ND, RDL=0.05		mg/L	
		>C21-<C32Hydrocarbons	2009/09/25	ND, RDL=0.1		mg/L	
	RPD	>C10-C21Hydrocarbons	2009/09/25	NC		%	40
		>C21-<C32Hydrocarbons	2009/09/25	NC		%	40
1949879 DDE	MatrixSpike	Isobutylbenzene-Volatile	2009/09/25		89	%	70 - 130
		Benzene	2009/09/25		95	%	70 - 130
		Toluene	2009/09/25		95	%	70 - 130
		Ethylbenzene	2009/09/25		90	%	70 - 130
		Xylene(Total)	2009/09/25		93	%	70 - 130
		C6 - C10 (less BTEX)	2009/09/25		76	%	N/A
	SpikedBlank	Isobutylbenzene-Volatile	2009/09/25		99	%	70 - 130
		Benzene	2009/09/25		95	%	70 - 130
		Toluene	2009/09/25		95	%	70 - 130
		Ethylbenzene	2009/09/25		90	%	70 - 130
		Xylene(Total)	2009/09/25		94	%	70 - 130
		C6 - C10 (less BTEX)	2009/09/25		79	%	N/A
	MethodBlank	Isobutylbenzene-Volatile	2009/09/25		100	%	70 - 130
		Benzene	2009/09/25	ND, RDL=0.001		mg/L	
		Toluene	2009/09/25	ND, RDL=0.001		mg/L	
		Ethylbenzene	2009/09/25	ND, RDL=0.001		mg/L	
		Xylene(Total)	2009/09/25	ND, RDL=0.002		mg/L	
		C6 - C10 (less BTEX)	2009/09/25	ND, RDL=0.01		mg/L	
	RPD	Benzene	2009/09/25	NC		%	40
		Toluene	2009/09/25	NC		%	40
		Ethylbenzene	2009/09/25	NC		%	40
		Xylene(Total)	2009/09/25	NC		%	40
		C6 - C10 (less BTEX)	2009/09/25	NC		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: 25988

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/13

CERTIFICATE OF ANALYSIS**MAXXAM JOB #: A9D2101****Received: 2009/10/05, 9:43**

Sample Matrix: Soil
 # Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	2	2009/10/10	2009/10/11	ATL SOP 00111 R3	Based on Atl. PIRI
Moisture	2	N/A	2009/10/05	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	2	2009/10/05	2009/10/09	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	2	2009/10/05	2009/10/08	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	2	2009/10/05	2009/10/13		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Heather Macumber
 Heather Macumber
 13 Oct 2009 17:41:37 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

=====

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Total cover pages: 1

Page 1 of 6

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Maxxam Job #: A9D2101
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DX6858	DX6859		
Sampling Date		2009/09/28	2009/09/28		
COC Number		25988	25988		
	Units	BS229	BS231	RDL	QC Batch

Inorganics					
Moisture	%	9	54	1	1961099
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: A9D2101
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX6858		DX6859		
Sampling Date		2009/09/28		2009/09/28		
COC Number		25988		25988		
	Units	BS229	RDL	BS231	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	0.03	<0.1	0.1	1964283
Toluene	mg/kg	<0.03	0.03	<0.1	0.1	1964283
Ethylbenzene	mg/kg	<0.03	0.03	<0.1	0.1	1964283
Xylene (Total)	mg/kg	<0.05	0.05	<0.3	0.3	1964283
C6 - C10 (less BTEX)	mg/kg	7	3	<10	10	1964283
>C10-C21 Hydrocarbons	mg/kg	19	15	<15	15	1968178
>C21-<C32 Hydrocarbons	mg/kg	80	15	89	15	1968178
Modified TPH (Tier1)	mg/kg	110	20	89	20	1961291
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	97		103		1968178
n-Dotriacontane - Extractable	%	112 (1)		113 (2)		1968178
Isobutylbenzene - Volatile	%	94		87 (3)		1964283

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9D2101
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DX6858	DX6859		
Sampling Date		2009/09/28	2009/09/28		
COC Number		25988	25988		
	Units	BS229	BS231	RDL	QC Batch

PCBs					
Total PCB	ug/g	13	7.9	0.05	1961710
Surrogate Recovery (%)					
Decachlorobiphenyl	%	128 (1)	119 (1)		1961710

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9D2101
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9D2101

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1961710 CMI	Matrix Spike	Decachlorobiphenyl	2009/10/08		124	%	30 - 130
		Total PCB	2009/10/08		104	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/08		120	%	30 - 130
		Total PCB	2009/10/08		104	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/08		121	%	30 - 130
		Total PCB	2009/10/08	<0.05		ug/g	
1964283 ASL	RPD	Total PCB	2009/10/08	NC		%	50
	Matrix Spike	Isobutylbenzene - Volatile	2009/10/07		84	%	60 - 140
		Benzene	2009/10/07		71	%	60 - 140
		Toluene	2009/10/07		94	%	60 - 140
		Ethylbenzene	2009/10/07		89	%	60 - 140
		Xylene (Total)	2009/10/07		96	%	60 - 140
		Isobutylbenzene - Volatile	2009/10/07		92	%	60 - 140
	Spiked Blank	Benzene	2009/10/07		83	%	60 - 140
		Toluene	2009/10/07		87	%	60 - 140
		Ethylbenzene	2009/10/07		82	%	60 - 140
		Xylene (Total)	2009/10/07		83	%	60 - 140
		Isobutylbenzene - Volatile	2009/10/07		100	%	60 - 140
		Benzene	2009/10/07	<0.03		mg/kg	
	Method Blank	Toluene	2009/10/07	<0.03		mg/kg	
		Ethylbenzene	2009/10/07	<0.03		mg/kg	
		Xylene (Total)	2009/10/07	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/10/07	<3		mg/kg	
		Benzene	2009/10/07	NC		%	50
		Toluene	2009/10/07	NC		%	50
	RPD	Ethylbenzene	2009/10/07	NC		%	50
		Xylene (Total)	2009/10/07	NC		%	50
		C6 - C10 (less BTEX)	2009/10/07	NC		%	50
		Isobutylbenzene - Extractable	2009/10/13		88	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/13		103	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/13		78	%	30 - 130
1968178 RDE	Matrix Spike	>C21-<C32 Hydrocarbons	2009/10/13		89	%	30 - 130
		Isobutylbenzene - Extractable	2009/10/10		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/10		94	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/10		99	%	30 - 130
	Spiked Blank	>C21-<C32 Hydrocarbons	2009/10/10		119	%	30 - 130
		Isobutylbenzene - Extractable	2009/10/10		90	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/10		91	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/10	<15		mg/kg	
	Method Blank	>C21-<C32 Hydrocarbons	2009/10/10	<15		mg/kg	
		>C10-C21 Hydrocarbons	2009/10/11	NC		%	50
		>C21-<C32 Hydrocarbons	2009/10/11	NC		%	50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9D6654

Received: 2009/10/10, 9:48

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (AA PIRI)	1	2009/10/20	2009/10/28	ATL SOP 00116 R3	Based on Atl. PIRI
VPH in Water (PIRI2)	1	2009/10/20	2009/10/21	ATL SOP 00120 R4	Based on Atl. PIRI
ModTPH (T2) Calc. for Water	1	N/A	2009/10/28		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Nolan Gallant

28 Oct 2009 16:49:51 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

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Total cover pages: 1

Maxxam Job #: A9D6654
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EA0609		
Sampling Date		2009/10/07		
COC Number		N/A		
	Units	MW 68	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/L	<0.001	0.001	1977076
Toluene	mg/L	0.007	0.001	1977076
Ethylbenzene	mg/L	0.001	0.001	1977076
Xylene (Total)	mg/L	0.005	0.002	1977076
Aliphatic >C6-C8	mg/L	<0.01	0.01	1977076
Aliphatic >C8-C10	mg/L	<0.01	0.01	1977076
>C8-C10 Aromatics (-EX)	mg/L	<0.01	0.01	1977076
Aliphatic >C10-C12	mg/L	0.17	0.01	1977997
Aliphatic >C12-C16	mg/L	0.66	0.06	1977997
Aliphatic >C16-C21	mg/L	0.33	0.06	1977997
Aliphatic >C21-<C32	mg/L	0.3	0.1	1977997
Aromatic >C10-C12	mg/L	0.05 (1)	0.02	1977997
Aromatic >C12-C16	mg/L	0.19	0.06	1977997
Aromatic >C16-C21	mg/L	0.14	0.06	1977997
Aromatic >C21-<C32	mg/L	0.2	0.1	1977997
Modified TPH (Tier 2)	mg/L	2.0	0.1	1970428
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	77		1977997
n-Dotriacontane - Extractable	%	97 (2)		1977997
Isobutylbenzene - Volatile	%	101		1977076

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated TEH RDL(s) due to lab artifact.
(2) Fuel oil fraction. Elevated TEH RDL(s) due to matrix interference.

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Maxxam Job #: A9D6654
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9D6654

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1977076 SHL	Spiked Blank	Isobutylbenzene - Volatile	2009/10/21		101	%	70 - 130
		Benzene	2009/10/21		113	%	70 - 130
		Toluene	2009/10/21		109	%	70 - 130
		Ethylbenzene	2009/10/21		100	%	70 - 130
		Xylene (Total)	2009/10/21		97	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/21		107	%	70 - 130
		Benzene	2009/10/21	<0.001		mg/L	
		Toluene	2009/10/21	<0.001		mg/L	
		Ethylbenzene	2009/10/21	<0.001		mg/L	
		Xylene (Total)	2009/10/21	<0.002		mg/L	
	RPD	Aliphatic >C6-C8	2009/10/21	<0.01		mg/L	
		Aliphatic >C8-C10	2009/10/21	<0.01		mg/L	
		>C8-C10 Aromatics (-EX)	2009/10/21	<0.01		mg/L	
		Benzene	2009/10/20	NC		%	40
		Toluene	2009/10/20	NC		%	40
		Ethylbenzene	2009/10/20	NC		%	40
		Xylene (Total)	2009/10/20	NC		%	40
		Aliphatic >C6-C8	2009/10/20	NC		%	40
		Aliphatic >C8-C10	2009/10/20	NC		%	40
		>C8-C10 Aromatics (-EX)	2009/10/20	NC		%	40
1977997 KKE	Spiked Blank	Aliphatic >C10-C12	2009/10/27		77	%	30 - 130
		Aliphatic >C12-C16	2009/10/27		79	%	30 - 130
		Aliphatic >C16-C21	2009/10/27		84	%	30 - 130
		Aliphatic >C21-<C32	2009/10/27		84	%	30 - 130
		Aromatic >C10-C12	2009/10/27		102	%	30 - 130
		Aromatic >C12-C16	2009/10/27		91	%	30 - 130
		Aromatic >C16-C21	2009/10/27		91	%	30 - 130
		Aromatic >C21-<C32	2009/10/27		89	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/27		67	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/27		74	%	30 - 130
		Aliphatic >C10-C12	2009/10/27	<0.01		mg/L	
		Aliphatic >C12-C16	2009/10/27	<0.05		mg/L	
		Aliphatic >C16-C21	2009/10/27	<0.05		mg/L	
		Aliphatic >C21-<C32	2009/10/27	<0.1		mg/L	
		Aromatic >C10-C12	2009/10/27	0.01, RDL=0.01		mg/L	
		Aromatic >C12-C16	2009/10/27	<0.05		mg/L	
	RPD	Aromatic >C16-C21	2009/10/27	<0.05		mg/L	
		Aromatic >C21-<C32	2009/10/27	<0.1		mg/L	
		Aliphatic >C10-C12	2009/10/27	22.1		%	40
		Aliphatic >C12-C16	2009/10/27	NC		%	40
		Aliphatic >C16-C21	2009/10/27	NC		%	40
		Aliphatic >C21-<C32	2009/10/27	NC		%	40
		Aromatic >C10-C12	2009/10/27	24.5 (1)		%	40
		Aromatic >C12-C16	2009/10/27	31.1		%	40
		Aromatic >C16-C21	2009/10/27	NC		%	40
		Aromatic >C21-<C32	2009/10/27	NC		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Elevated TEH RDL(s) due to lab artifact.

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: N/A

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9D1879
Received: 2009/10/03, 10:13

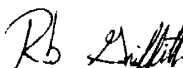
Sample Matrix: Soil
 # Samples Received: 24

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	5	2009/10/09	2009/10/11	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	4	2009/10/09	2009/10/13	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	2	2009/10/10	2009/10/10	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	6	2009/10/10	2009/10/11	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	6	N/A	2009/10/09	ATL SOP 00024 R4	Based on EPA6020A
Moisture	19	N/A	2009/10/06	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	5	2009/10/07	2009/10/14	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	1	2009/10/06	2009/10/07	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	16	2009/10/06	2009/10/08	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	13	2009/10/03	2009/10/13		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	4	2009/10/03	2009/10/14		Based on Atl. PIRI
Volatile Organic Compounds in Soil	6	2009/10/06	2009/10/09	ATL SOP 00123 R3	Based on USEPA SW-84

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

* Results relate only to the items tested.

Encryption Key

 / Rob Griffith

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID	DX5039	DX5040	DX5041	DX5042	DX5043	DX5044	DX5045	DX5046	DX5047	DX5053	
Sampling Date	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	
Inorganics	Units	BS267	BS268	BS269	BS270	BS271	MW59-SS1	MW60-SS1	MW61-SS1	MW62-SS3	BS262
Moisture	%	62	76	57	69	32	13	5	20	17	41
											1
											1962383

Maxxam ID	DX5054	DX5055	DX5056	DX5057	DX5058	DX5059	DX5060	DX5061	DX5062	
Sampling Date	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	
Inorganics	Units	BS263	BS264	BS265	BS266	AG-1-FS2	AG-2-FS2	AG-3-FS2	AG-4-FS1	AG-5-FS2
Moisture	%	22	23	43	71	20	17	18	17	34
										1
										1962383

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID	DX5048	DX5049	DX5050	DX5051	DX5052	DX5056	
Sampling Date	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	
Units	BS257	BS258	BS259	BS260	BS261	BS265	RDL
Metals							QC Batch
Available Aluminum (Al)	10000	2800	10000	7000	6200	6400	10
Available Antimony (Sb)	<2	<2	<2	<2	2	<2	2
Available Arsenic (As)	<2	<2	<2	<2	<2	<2	2
Available Barium (Ba)	9	18	21	36	33	90	5
Available Beryllium (Be)	<2	<2	<2	<2	<2	<2	2
Available Bismuth (Bi)	<2	<2	<2	<2	<2	<2	2
Available Boron (B)	<5	<5	<5	<5	<5	6	5
Available Cadmium (Cd)	<0.3	<0.3	<0.3	0.5	1.9	<0.3	0.3
Available Chromium (Cr)	64	6	27	10	23	22	2
Available Cobalt (Co)	2	1	4	1	2	5	1
Available Copper (Cu)	3	8	9	9	130	41	2
Available Iron (Fe)	33000	3200	12000	4200	9300	8600	50
Available Lead (Pb)	4.1	6.0	7.8	8.9	82	50	0.5
Available Lithium (Li)	3	<2	13	2	5	5	2
Available Manganese (Mn)	25	8	83	22	67	120	2
Available Mercury (Hg)	0.2	<0.1	<0.1	0.1	0.1	0.3	0.1
Available Molybdenum (Mo)	<2	<2	<2	<2	<2	<2	2
Available Nickel (Ni)	10	4	14	4	14	13	2
Available Rubidium (Rb)	4	2	9	2	8	8	2
Available Selenium (Se)	<2	<2	<2	<2	2	<2	2
Available Silver (Ag)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Available Strontium (Sr)	<5	9	5	<5	8	40	5
Available Thallium (Tl)	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1
Available Tin (Sn)	<2	<2	<2	<2	<2	<2	2
Available Uranium (U)	1.4	0.5	0.6	2.5	1.3	0.4	0.1
Available Vanadium (V)	39	5	27	13	17	15	2
Available Zinc (Zn)	10	28	34	26	57	42	5

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID	DX5044	DX5046	DX5047	DX5058	DX5060	DX5062	
Sampling Date	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	
Units	MW59-SS1	MW61-SS1	MW62-SS3	AG-1-FS2	AG-3-FS2	AG-5-FS2	QC Batch
Volatile Organics							
1,1,1-Trichloroethane	ug/kg	<30	<30	<30	<30	<30	1965437
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	<30	<30	<30	1965437
1,1,2-Trichloroethane	ug/kg	<30	<30	<30	<30	<30	1965437
1,1-Dichloroethane	ug/kg	<30	<30	<30	<30	<30	1965437
1,1-Dichloroethylene	ug/kg	<30	<30	<30	<30	<30	1965437
1,2-Dichlorobenzene	ug/kg	<30	160	<30	<30	<30	1965437
1,2-Dichloroethane	ug/kg	<30	44	<30	<30	<30	1965437
1,2-Dichloropropane	ug/kg	<30	<30	<30	<30	<30	1965437
1,3-Dichlorobenzene	ug/kg	<30	65	<30	<30	<30	1965437
1,4-Dichlorobenzene	ug/kg	<30	270	<30	<30	<30	1965437
Benzene	ug/kg	<30	<30	<30	<30	<30	1965437
Bromodichloromethane	ug/kg	<30	<30	<30	<30	<30	1965437
Bromoform	ug/kg	<30	<30	<30	<30	<30	1965437
Bromomethane	ug/kg	<200	<200	<200	<200	<200	1965437
Carbon Tetrachloride	ug/kg	<30	<30	<30	<30	<30	1965437
Chlorobenzene	ug/kg	<30	<30	<30	<30	<30	1965437
Chloroform	ug/kg	<30	<30	<30	<30	<30	1965437
Chloromethane	ug/kg	<30	<30	<30	<30	<30	1965437
cis-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	<30	1965437
cis-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	<30	1965437
Dibromochloromethane	ug/kg	<30	<30	<30	<30	<30	1965437
Ethylbenzene	ug/kg	<30	<30	<30	<30	<30	1965437
Ethylene Dibromide	ug/kg	<30	<30	<30	<30	<30	1965437
Methylene Chloride(Dichloromethane)	ug/kg	<30	<30	<30	<30	<30	1965437
o-Xylene	ug/kg	<30	<30	<30	<30	<30	1965437
p-m-Xylene	ug/kg	<30	96	<30	<30	<30	1965437
Styrene	ug/kg	<30	<30	<30	<30	53	1965437
Tetrachloroethylene	ug/kg	<30	<30	<30	<30	<30	1965437
Toluene	ug/kg	<30	190	<30	<30	<30	1965437
trans-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	110	1965437
trans-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	<30	1965437
Trichloroethylene	ug/kg	<30	41	<30	<30	<30	1965437
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	<30	<30	<30	1965437
Vinyl Chloride	ug/kg	<30	<30	<30	<30	<30	1965437

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID	DX5044	DX5046	DX5047	DX5058	DX5060	DX5062	
Sampling Date	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	
Units	MW59-SS1	MW61-SS1	MW62-SS3	AG-1-FS2	AG-3-FS2	AG-5-FS2	QC Batch
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	103	100	102	106	101	1965437
D4-1,2-Dichloroethane	%	104	106	107	110	107	1965437
D8-Toluene	%	105	100	103	109	103	1965437

ATLANTIC RBGA HYDROCARBONS (SOIL)

Maxxam ID	DX5039	DX5040	DX5041	DX5042	DX5043	DX5044	DX5045
Sampling Date	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30
Units	BS267	BS268	BS269	BS270	BS271	MW59-SS1	MW60-SS1
Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Toluene	mg/kg	<0.03	<0.03	0.03	<0.03	<0.03	<0.03
Ethylbenzene	mg/kg	<0.03	<0.03	<0.07(1)	<0.03	<0.03	<0.03
Xylene (Total)	mg/kg	<0.05	<0.05	<0.09(1)	<0.05	<0.05	<0.05
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	<3	<3
>C10-C21 Hydrocarbons	mg/kg	370	720	190	5000	<15	<15
>C21-<C32 Hydrocarbons	mg/kg	140	190	15	230	20	27
Modified TPH (Tier1)	mg/kg	510	920	170	20	1960410	27
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	61	98	94	98	100	93
Isobutylbenzene - Volatile	%	65	68	77	83	105	104
n-Dodecacontane - Extractable	%	59(2)	95(3)	97(4)	113(5)	112(4)	131(6)

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) - Elevated VPH RDL(s) due to matrix interference.

(2) - Weathered fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(3) - One product in fuel oil range. No resemblance to petroleum products in lube oil range. Silica gel clean-up performed prior to analysis as per client request.

(4) - No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

(5) - One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Silica gel clean-up performed prior to analysis as per client request.

(6) - Possible lube oil fraction. TEH Surrogate(s); results are within acceptance limits.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBGA HYDROCARBONS (SOIL)

Maxxam ID	DX5046	DX5047	DX5053	DX5053	DX5054	DX5055	
Sampling Date	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30	
Units	MW61-SS1	MW62-SS3	QC Batch	BS262	BS263	BS264	QC Batch
				Lab-Dup			RDL
Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1963691	<0.03	<0.03	1963691	<0.03
Toluene	mg/kg	0.09	1963691	<0.03	<0.03	1963691	<0.03
Ethylbenzene	mg/kg	<0.03	1963691	<0.03	<0.03	1963691	<0.03
Xylene (Total)	mg/kg	<0.05	1963691	<0.05	<0.05	1963691	<0.05
C6 - C10 (less BTEX)	mg/kg	<3	1963691	<3	<3	1963691	<3
>C10-C21 Hydrocarbons	mg/kg	340	1967023	<15	<15	1968178	15
>C21-<C32 Hydrocarbons	mg/kg	3100	1967023	120	23	1968178	15
Modified TPH (Tier1)	mg/kg	3400	1960410	120	23	1960410	20
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	102	1967023	104	103	1968178	107
Isobutylbenzene - Volatile	%	99	1963691	100	108	1963691	108
n-Dotriacontane - Extractable	%	37(1)	136(2)	114(3)	111(3)	1968178	120(3)

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) - Weathered fuel oil fraction. Lube oil fraction. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(2) - Weathered fuel oil fraction. Possible lube oil fraction. TEH Surrogate(s): results are within acceptance limits.

(3) - No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

Jacques Whitford Limited
Client Project #: 104856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

[illegible]

QC Batch = Quality Control Batch

(2) - One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Silica gel clean-up performed prior to analysis as per client request.

(4) - Possible lube oil fraction. TEH Surrogate(s): results are within acceptance limits.

(5) - Weathered fuel oil fraction. Lube oil fraction. Unidentified compound(s) in fuel / lube range.

(6) - Aroclor 1254, 1260.

(7) - Aroclor 1260.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: WS#1965437 - Chloroethane unavailable due to calibration non-conformance.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
1963691	Isobutylbenzene - Volatile	2009/10/08	108	60 - 140	99	60 - 140	100	%				
1963691	Benzene	2009/10/08	92	60 - 140	81	60 - 140	<0.03	mg/kg	NC	50		
1963691	Toluene	2009/10/08	124	60 - 140	84	60 - 140	<0.03	mg/kg	NC	50		
1963691	Ethylbenzene	2009/10/08	112	60 - 140	80	60 - 140	<0.03	mg/kg	NC	50		
1963691	Xylene (Total)	2009/10/08	124	60 - 140	83	60 - 140	<0.05	mg/kg	NC	50		
1963691	C6 - C10 (less BTEX)	2009/10/08					<3	mg/kg	NC	50		
1964210	Decachlorobiphenyl	2009/10/14	80	30 - 130	78	30 - 130	77	%				
1964210	Total PCB	2009/10/14	124	70 - 130	104	70 - 130	<0.05	ug/g	NC	50		
1964283	Isobutylbenzene - Volatile	2009/10/07	84	60 - 140	92	60 - 140	100	%				
1964283	Benzene	2009/10/07	71	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
1964283	Toluene	2009/10/07	94	60 - 140	87	60 - 140	<0.03	mg/kg	NC	50		
1964283	Ethylbenzene	2009/10/07	89	60 - 140	82	60 - 140	<0.03	mg/kg	NC	50		
1964283	Xylene (Total)	2009/10/07	96	60 - 140	83	60 - 140	<0.05	mg/kg	NC	50		
1964283	C6 - C10 (less BTEX)	2009/10/07					<3	mg/kg	NC	50		
1965437	4-Bromofluorobenzene	2009/10/09	65	60 - 140	105	60 - 140	99	%				
1965437	D4-1,2-Dichloroethane	2009/10/09	83	60 - 140	108	60 - 140	104	%				
1965437	D8-Toluene	2009/10/09	64	60 - 140	105	60 - 140	102	%				
1965437	1,1,1-Trichloroethane	2009/10/09	79	60 - 140	97	60 - 140	<30	ug/kg	NC	50		
1965437	1,1,2,2-Tetrachloroethane	2009/10/09	85	60 - 140	96	60 - 140	<30	ug/kg	NC	50		
1965437	1,1,2-Trichloroethane	2009/10/09	85	60 - 140	95	60 - 140	<30	ug/kg	NC	50		
1965437	1,1-Dichloroethane	2009/10/09	91	60 - 140	99	60 - 140	<30	ug/kg	NC	50		
1965437	1,2-Dichlorobenzene	2009/10/09	75	60 - 140	94	60 - 140	<30	ug/kg	NC	50		
1965437	1,2-Dichloroethane	2009/10/09	67	60 - 140	101	60 - 140	<30	ug/kg	NC	50		
1965437	1,2-Dichloropropane	2009/10/09	89	60 - 140	98	60 - 140	<30	ug/kg	NC	50		
1965437	1,3-Dichlorobenzene	2009/10/09	61	60 - 140	102	60 - 140	<30	ug/kg	NC	50		
1965437	1,4-Dichlorobenzene	2009/10/09	63	60 - 140	100	60 - 140	<30	ug/kg	NC	50		
1965437	Benzene	2009/10/09	77	60 - 140	93	60 - 140	<30	ug/kg	NC	50		
1965437	Bromodichloromethane	2009/10/09	73	60 - 140	83	60 - 140	<30	ug/kg	NC	50		
1965437	Bromoform	2009/10/09	59(1,2)	60 - 140	70	60 - 140	<30	ug/kg	NC	50		
1965437	Bromomethane	2009/10/09	87	60 - 140	81	60 - 140	<200	ug/kg	NC	50		
1965437	Carbon Tetrachloride	2009/10/09	63	60 - 140	88	60 - 140	<30	ug/kg	NC	50		
1965437	Chlorobenzene	2009/10/09	75	60 - 140	100	60 - 140	<30	ug/kg	NC	50		
1965437	Chloroform	2009/10/09	97	60 - 140	102	60 - 140	<30	ug/kg	NC	50		
1965437	Chloromethane	2009/10/09	63	60 - 140	66	60 - 140	<30	ug/kg	NC	50		
1965437	cis-1,2-Dichloroethylene	2009/10/09	92	60 - 140	102	60 - 140	<30	ug/kg	NC	50		
1965437	cis-1,3-Dichloropropene	2009/10/09	67	60 - 140	77	60 - 140	<30	ug/kg	NC	50		
1965437	Dibromochloromethane	2009/10/09	61	60 - 140	73	60 - 140	<30	ug/kg	NC	50		
1965437	Ethylbenzene	2009/10/09	63	60 - 140	96	60 - 140	<30	ug/kg	NC	50		

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
1965437	Ethylene Dibromide	2009/10/09	74	60 - 140	94	60 - 140	<30	ug/kg	NC	50		
1965437	Methylene Chloride (Dichloromethane)	2009/10/09	99	60 - 140	106	60 - 140	<30	ug/kg	NC	50		
1965437	o-Xylene	2009/10/09	64	60 - 140	99	60 - 140	<30	ug/kg	NC	50		
1965437	p+m-Xylene	2009/10/09	66	60 - 140	104	60 - 140	<30	ug/kg	NC	50		
1965437	Styrene	2009/10/09	70	60 - 140	100	60 - 140	<30	ug/kg	NC	50		
1965437	Tetrachloroethylene	2009/10/09	55(1,2)	60 - 140	101	60 - 140	<30	ug/kg	NC	50		
1965437	Toluene	2009/10/09	71	60 - 140	95	60 - 140	<30	ug/kg	NC	50		
1965437	trans-1,2-Dichloroethylene	2009/10/09	77	60 - 140	98	60 - 140	<30	ug/kg	NC	50		
1965437	trans-1,3-Dichloropropene	2009/10/09	57(1,2)	60 - 140	69	60 - 140	<30	ug/kg	NC	50		
1965437	Trichloroethylene	2009/10/09	72	60 - 140	97	60 - 140	<30	ug/kg	NC	50		
1965437	Trichlorofluoromethane (FREON 11)	2009/10/09	NC	60 - 140	92	60 - 140	<30	ug/kg	116(1,3)	50		
1965437	Vinyl Chloride	2009/10/09	57(1,2)	60 - 140	65	60 - 140	<30	ug/kg	NC	50		
1967023	Isobutylbenzene - Extractable	2009/10/11	101	30 - 130	102	30 - 130	105	%				
1967023	n-Dodecacone - Extractable	2009/10/11	102	30 - 130	103	30 - 130	101	%				
1967023	>C10-C21 Hydrocarbons	2009/10/11	91	30 - 130	94	30 - 130	<15	mg/kg	NC	50		
1967143	>C21-C32 Hydrocarbons	2009/10/11	103	30 - 130	107	30 - 130	<15	mg/kg	NC	50		
1967143	Available Aluminum (Al)	2009/10/09	NC	75 - 125	97	75 - 125	<10	mg/kg	0.6	35	79	75 - 125
1967143	Available Antimony (Sb)	2009/10/09	79	75 - 125	114	75 - 125	<2	mg/kg	NC	35		
1967143	Available Arsenic (As)	2009/10/09	NC	75 - 125	98	75 - 125	<2	mg/kg	4.1	35	109	75 - 125
1967143	Available Barium (Ba)	2009/10/09	NC	75 - 125	97	75 - 125	<5	mg/kg	1.2	35	104	75 - 125
1967143	Available Beryllium (Be)	2009/10/09	96	75 - 125	98	75 - 125	<2	mg/kg	NC	35		
1967143	Available Bismuth (Bi)	2009/10/09	100	75 - 125	102	75 - 125	<2	mg/kg	NC	35		
1967143	Available Boron (B)	2009/10/09	77	75 - 125	90	75 - 125	<5	mg/kg	NC	35		
1967143	Available Cadmium (Cd)	2009/10/09	95	75 - 125	101	75 - 125	<0.3	mg/kg	NC	35		
1967143	Available Chromium (Cr)	2009/10/09	NC	75 - 125	89	75 - 125	<2	mg/kg	3.1	35	82	75 - 125
1967143	Available Cobalt (Co)	2009/10/09	105	75 - 125	100	75 - 125	<1	mg/kg	12.7	35	100	75 - 125
1967143	Available Copper (Cu)	2009/10/09	NC	75 - 125	93	75 - 125	<2	mg/kg	0.9	35	89	75 - 125
1967143	Available Iron (Fe)	2009/10/09	NC	75 - 125	91	75 - 125	<50	mg/kg	3.9	35	93	75 - 125
1967143	Available Lead (Pb)	2009/10/09	NC	75 - 125	97	75 - 125	<0.5	mg/kg	5.5	35	104	75 - 125
1967143	Available Lithium (Li)	2009/10/09	NC	75 - 125	87	75 - 125	<2	mg/kg	2.6	35		
1967143	Available Manganese (Mn)	2009/10/09	NC	75 - 125	114	75 - 125	<2	mg/kg	10.4	35	96	75 - 125
1967143	Available Mercury (Hg)	2009/10/09	107	75 - 125	103	75 - 125	<0.1	mg/kg	NC	35		
1967143	Available Molybdenum (Mo)	2009/10/09	98	75 - 125	109	75 - 125	<2	mg/kg	NC	35		
1967143	Available Nickel (Ni)	2009/10/09	109	75 - 125	93	75 - 125	<2	mg/kg	NC	35	99	75 - 125
1967143	Available Rubidium (Rb)	2009/10/09	80	75 - 125	105	75 - 125	<2	mg/kg	NC	35		
1967143	Available Selenium (Se)	2009/10/09	100	75 - 125	103	75 - 125	<2	mg/kg	NC	35		
1967143	Available Silver (Ag)	2009/10/09	96	75 - 125	101	75 - 125	<0.5	mg/kg	NC	35		
1967143	Available Strontium (Sr)	2009/10/09	93	75 - 125	100	75 - 125	<5	mg/kg	NC	35	100	75 - 125
1967143	Available Thallium (Tl)	2009/10/09	99	75 - 125	94	75 - 125	<0.1	mg/kg	NC	35		

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
1967143	Available Tin (Sn)	2009/10/09	102	75 - 125	108	75 - 125	<2	mg/kg	NC	35		
1967143	Available Uranium (U)	2009/10/09	99	75 - 125	94	75 - 125	<0.1	mg/kg	2.8	35		
1967143	Available Vanadium (V)	2009/10/09	NC	75 - 125	97	75 - 125	<2	mg/kg	7.2	35	107	75 - 125
1967143	Available Zinc (Zn)	2009/10/09	89	75 - 125	93	75 - 125	<5	mg/kg	1.5	35	94	75 - 125
1968178	Isobutylbenzene - Extractable	2009/10/10	88	30 - 130	98	30 - 130	90	%				
1968178	n-Dodecane - Extractable	2009/10/10	103	30 - 130	94	30 - 130	91	%				
1968178	>C10-C21 Hydrocarbons	2009/10/11	78	30 - 130	99	30 - 130	<15	mg/kg	NC	50		
1968178	>C21-<C32 Hydrocarbons	2009/10/11	89	30 - 130	119	30 - 130	<15	mg/kg	NC	50		

N/A = Not Applicable

RPD = Relative Percent Difference

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) - Matrix Spike: results are outside acceptance limit. Analysis was repeated with similar results.

(3) - Duplicate: results are outside acceptance limit due to possible sample in-homogeneity. Analysis was repeated with similar results.

Validation Signature Page

Maxxam Job #: A9D1879

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).


ALAN STEWART, Scientific Specialist (Organics)


JERRY ARENOVICH, Inorganics Manager


KEVIN MACDONALD

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

INVOICE INFORMATION: Company Name: Slanted (Jacques Whitford) Contact Name: Accounts Payable Address: 3 Spectacle Lake Drive Dartmouth, NS B5B 1W8 Email: Accounts Payable Ph: 902-468-7777 Fax: 902-468-9009		REPORT INFORMATION (if differs from Invoice): Company Name: Slanted (Jacques Whitford) Contact Name: Jim Slade/Keith Keating Address: 607 Torbay Road St. John's, NL A1A 4Y8 Email: keith.keating@jacqueswhitford.com cc: michelle.slade@jacqueswhitford.com Ph: 709-576-1468 Fax: 709-576-2126	
Project # / Place: 1044859/29100 Project/Remediation Location: Hopetale Date: 08-29-2009		Project # / Place: 1044859/29100 Project/Remediation Location: Hopetale Date: 08-29-2009	
Turnaround Time: Standard ☒ 10 Day ☐ If RUSH Specify Date:		Turnaround Time: Standard ☒ 10 Day ☐ If RUSH Specify Date:	
P/s scheduled next work:		P/s scheduled next work:	
Change for # Job used but not submitted:		Change for # Job used but not submitted:	

All water and sediment sample results will be compared to CCME FWAL, ISQG, or PEL guidelines.			
LABRADOR SAMPLES			
* Specify Matrix: Surface/Sediment/Tapwater/Sewage Effluent/ Problem/Non-Problem/Tissue/Soil/Sediment/Surface Water			
Field Sample Identification	Matrix	Collection Date & Time	Type of Sample
1 BS267	Soil	8/24/09	100g
2 BS268	Soil	8/24/09	100g
3 BS269	Soil	8/24/09	100g
4 BS270	Soil	8/24/09	100g
5 BS271	Soil	8/24/09	100g
6 BS272	Soil	8/24/09	100g
7 ML59-SS1	Soil	8/24/09	100g
8 ML60-SS1	Soil	8/24/09	100g
9 ML61-SS1	Soil	8/24/09	100g
10 ML62-SS3	Soil	8/24/09	100g

Field Sample Identification	Matrix	Collection Date & Time	Type of Sample
1 BS267	Soil	8/24/09	100g
2 BS268	Soil	8/24/09	100g
3 BS269	Soil	8/24/09	100g
4 BS270	Soil	8/24/09	100g
5 BS271	Soil	8/24/09	100g
6 BS272	Soil	8/24/09	100g
7 ML59-SS1	Soil	8/24/09	100g
8 ML60-SS1	Soil	8/24/09	100g
9 ML61-SS1	Soil	8/24/09	100g
10 ML62-SS3	Soil	8/24/09	100g

Field Sample Identification	Matrix	Collection Date & Time	Type of Sample
1 BS267	Soil	8/24/09	100g
2 BS268	Soil	8/24/09	100g
3 BS269	Soil	8/24/09	100g
4 BS270	Soil	8/24/09	100g
5 BS271	Soil	8/24/09	100g
6 BS272	Soil	8/24/09	100g
7 ML59-SS1	Soil	8/24/09	100g
8 ML60-SS1	Soil	8/24/09	100g
9 ML61-SS1	Soil	8/24/09	100g
10 ML62-SS3	Soil	8/24/09	100g

Field Sample Identification	Matrix	Collection Date & Time	Type of Sample
1 BS267	Soil	8/24/09	100g
2 BS268	Soil	8/24/09	100g
3 BS269	Soil	8/24/09	100g
4 BS270	Soil	8/24/09	100g
5 BS271	Soil	8/24/09	100g
6 BS272	Soil	8/24/09	100g
7 ML59-SS1	Soil	8/24/09	100g
8 ML60-SS1	Soil	8/24/09	100g
9 ML61-SS1	Soil	8/24/09	100g
10 ML62-SS3	Soil	8/24/09	100g

Field Sample Identification	Matrix	Collection Date & Time	Type of Sample
1 BS267	Soil	8/24/09	100g
2 BS268	Soil	8/24/09	100g
3 BS269	Soil	8/24/09	100g
4 BS270	Soil	8/24/09	100g
5 BS271	Soil	8/24/09	100g
6 BS272	Soil	8/24/09	100g
7 ML59-SS1	Soil	8/24/09	100g
8 ML60-SS1	Soil	8/24/09	100g
9 ML61-SS1	Soil	8/24/09	100g
10 ML62-SS3	Soil	8/24/09	100g

Field Sample Identification	Matrix	Collection Date & Time	Type of Sample
1 BS267	Soil	8/24/09	100g
2 BS268	Soil	8/24/09	100g
3 BS269	Soil	8/24/09	100g
4 BS270	Soil	8/24/09	100g
5 BS271	Soil	8/24/09	100g
6 BS			



200 Bluewater Road, Suite 105, Bedford, Nova Scotia B4B 1C9 Tel: 902-420-0203 Fax: 902-420-2212 Toll Free: 1-800-565-7227
www.maxxamanalytics.com Email: clientservices@maxxamanalytics.com

Maxxam Chain of Custody Record
DOC#

Page 2 of 3

INVOICE INFORMATION:				REPORT INFORMATION (if differs from invoice):				TURNAROUND TIME			
Company Name: <u>Slantec (Jacques Whitford)</u>				Company Name: <u>Slantec (Jacques Whitford)</u>				Project # / Phase: <u>1044866/29100</u>			
Contact Name: <u>Accounts Payable</u>				Contact Name: <u>Jim Slader/Keith Keating</u>				Project: <u>While Location</u> <u>Hopedale</u>			
Address: <u>3 Spectacle Lake Drive</u>				Address: <u>607 Torbay Road</u>				Quota: <u>0-295KG</u>			
Dartmouth, NS B3B 1W8				St. John's, NL A1A 4Y6				Site #			
Email: <u>maxxam@slantec.ca</u>				Email: <u>maxxam@slantec.ca</u>				Task Order #			
Ph: <u>902-468-7777</u> Fax: <u>902-468-9009</u>				Ph: <u>709-576-1450</u> Fax: <u>709-576-2126</u>				Sampled by			
Guideline Requirements/ Detection Limit/ Special Instructions				All water and sediment sample results will be compared to CCME PVAL, ISWG, or PEL guidelines.				Pre-schedule rush work			
LABRADOR SAMPLES								Change for e			
								Jars used but			
								not submitted			
Field Sample Identification				Matrix *				Date			
1 BS257				Soil				10-08-2009			
2 BS258				Soil				10-08-2009			
3 BS259				Soil				10-08-2009			
4 BS260				Soil				10-08-2009			
5 BS261				Soil				10-08-2009			
6 BS262				Soil				10-08-2009			
7 BS263				Soil				10-08-2009			
8 BS264				Soil				10-08-2009			
9 BS265				Soil				10-08-2009			
10 BS266				Soil				10-08-2009			
RELINQUISHED BY: (Signature/Print)				Date				Time			
[Signature]				10-08-2009				10:30			
RECEIVED BY: (Signature/Print)				Date				Time			
[Signature]				10-08-2009				10:30			
SHIPPED BY: (Signature/Print)				Date				Time			
[Signature]				10-08-2009				10:30			
SHIPPED BY: (Signature/Print)				Date				Time			
[Signature]				10-08-2009				10:30			



200 Bluewater Road, Suite 105, Bedford, Nova Scotia B4B 1G9 Tel: 902-420-0203 Fax: 902-420-5612 E-mail: 1-800-596-7227
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MAXXAM Chain of Custody Record
CCCR

Plays 3 of 3

INVOICE INFORMATION:				REPORT INFORMATION (if differs from invoice):				TURNAROUND TIME			
Company Name: Stantec (Jacques Whitford)				Company Name: Stantec (Jacques Whitford)				Project # / Phase# 1044856/29100			
Contact Name: Accounts Payable				Contact Name: Jim Slade/Keith Keating				Project/Site Location: Hopedale			
Address: 3 Spectacle Lake Drive				Address: 607 Torbay Road				Client: 08-296KG			
Dartmouth, NS B3B 1W8				St. John's, NL A1A 4Y6				Site #			
Email:				Email: keith.keating@stantec.ca				Task Order#			
Tel: 902-468-7777 Fax: 902-468-8009				Tel: 709-575-1408 Fax: 709-575-2126				Sampled by			
Guideline Requirements/ Detection Limits/ Special Instructions											
All water and sediment sample results will be compared to CCME FWAL, ISQG, or PEL guidelines.											
LABORATOR SAMPLES											
* Specify Matrix: Surface Soil/Groundwater/Sediment/Sewage Effluent											
Field Sample Identification Matrix •											
1 AG-1-FS2 ✓ 1/4 1/4 1/4 1/4											
2 AG-2-FS2 ✓ 1/4 1/4 1/4 1/4											
3 AG-3-FS2 ✓ 1/4 1/4 1/4 1/4											
4 AG-4-FS1 ✓ 1/4 1/4 1/4 1/4											
5 AG-5-FS2 ✓ 1/4 1/4 1/4 1/4											
6											
7											
8											
9											
10											
RECEIVED BY: (Signature/Print)				RECEIVED BY: (Signature/Print)				Time			
10:30				10:30				10:30			
Page 15 of 15											

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: N/A

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/13

CERTIFICATE OF ANALYSIS**MAXXAM JOB #: A9D1803****Received: 2009/10/02, 9:45**

Sample Matrix: Water
 # Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (PIRI)	5	2009/10/07	2009/10/08	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	1	2009/10/07	2009/10/09	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	1	2009/10/08	2009/10/09	ATL SOP 00113 R3	Based on Atl. PIRI
Metals Water Diss. MS - Low Level	7	N/A	2009/10/09	ATL SOP 00024 R4	Based on EPA6020A
PCBs in water by GC/ECD	7	2009/10/06	2009/10/09	ATL SOP 00107 R3	Based on EPA8082
VPH in Water (PIRI)	6	2009/10/07	2009/10/08	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	1	2009/10/07	2009/10/09	ATL SOP 00118 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	7	N/A	2009/10/09		Based on Atl. PIRI
Volatile Organic Compounds in Water	7	2009/10/08	2009/10/08	ATL SOP 00122 R3	Based on EPA624

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Michelle Hill
 13 Oct 2009 11:18:05 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 19

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DX6385	DX6386	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-14	SW-14 Lab-Dup	SW-15	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	131	107	113	126	5.0	1967138
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Barium (Ba)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	1967138
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Boron (B)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	1967138
Dissolved Cadmium (Cd)	ug/L	0.027	<0.017	<0.017	0.039	0.017	1967138
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1967138
Dissolved Cobalt (Co)	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	1967138
Dissolved Copper (Cu)	ug/L	<2.0	<2.0	<2.0	2.9	2.0	1967138
Dissolved Iron (Fe)	ug/L	109	80	97	273	50	1967138
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	1967138
Dissolved Manganese (Mn)	ug/L	3.8	<2.0	<2.0	7.8	2.0	1967138
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Nickel (Ni)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1967138
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1967138
Dissolved Strontium (Sr)	ug/L	19.3	18.0	18.3	20.8	5.0	1967138
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1967138
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Titanium (Ti)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Uranium (U)	ug/L	0.10	0.12	0.12	0.14	0.10	1967138
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Zinc (Zn)	ug/L	16.0	10.3	9.9	35.8	5.0	1967138
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DX6388	DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	SW-118	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	114	128	124	130	5.0	1967138
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Barium (Ba)	ug/L	5.8	<5.0	5.2	5.2	5.0	1967138
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Boron (B)	ug/L	<5.0	5.1	5.1	5.1	5.0	1967138
Dissolved Cadmium (Cd)	ug/L	0.028	0.033	0.029	0.017	0.017	1967138
Dissolved Chromium (Cr)	ug/L	1.0	<1.0	<1.0	<1.0	1.0	1967138
Dissolved Cobalt (Co)	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	1967138
Dissolved Copper (Cu)	ug/L	6.2	2.1	2.7	2.3	2.0	1967138
Dissolved Iron (Fe)	ug/L	290	469	415	431	50	1967138
Dissolved Lead (Pb)	ug/L	<0.50	0.80	0.84	0.79	0.50	1967138
Dissolved Manganese (Mn)	ug/L	6.8	3.9	3.1	3.0	2.0	1967138
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Nickel (Ni)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1967138
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1967138
Dissolved Strontium (Sr)	ug/L	20.5	17.5	18.0	17.9	5.0	1967138
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1967138
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Titanium (Ti)	ug/L	<2.0	2.2	2.7	3.1	2.0	1967138
Dissolved Uranium (U)	ug/L	0.23	0.16	0.17	0.17	0.10	1967138
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Zinc (Zn)	ug/L	14.3	9.3	11.1	13.3	5.0	1967138

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DX6385	DX6385	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-13 Lab-Dup	SW-14	SW-15	RDL	QC Batch

Chlorobenzenes							
1,2-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
Chlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
Volatile Organics							
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1-Dichloroethane	ug/L	<2	<2	<2	<2	2	1965301
1,1-Dichloroethylene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	1	1965301
Benzene	ug/L	<1	<1	<1	<1	1	1965301
Bromodichloromethane	ug/L	<1	<1	<1	<1	1	1965301
Bromoform	ug/L	<1	<1	<1	<1	1	1965301
Bromomethane	ug/L	<3	<3	<3	<3	3	1965301
Carbon Tetrachloride	ug/L	<1	<1	<1	<1	1	1965301
Chloroethane	ug/L	<8	<8	<8	<8	8	1965301
Chloroform	ug/L	<1	<1	<1	<1	1	1965301
Chloromethane	ug/L	<8	<8	<8	<8	8	1965301
cis-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1965301
cis-1,3-Dichloropropene	ug/L	<2	<2	<2	<2	2	1965301
Dibromochloromethane	ug/L	<1	<1	<1	<1	1	1965301
Ethylbenzene	ug/L	<1	<1	<1	<1	1	1965301
Ethylene Dibromide	ug/L	<1	<1	<1	<1	1	1965301
Methylene Chloride(Dichloromethane)	ug/L	<3	<3	<3	<3	3	1965301
o-Xylene	ug/L	<1	<1	<1	<1	1	1965301
p+m-Xylene	ug/L	2	<2	<2	2	2	1965301
Styrene	ug/L	<1	<1	<1	<1	1	1965301
Tetrachloroethylene	ug/L	<1	<1	<1	<1	1	1965301

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DX6385	DX6385	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-13 Lab-Dup	SW-14	SW-15	RDL	QC Batch

Toluene	ug/L	3	2	2	3	1	1965301
trans-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1965301
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	1	1965301
Trichloroethylene	ug/L	<1	<1	<1	<1	1	1965301
Trichlorofluoromethane (FREON 11)	ug/L	<8	<8	<8	<8	8	1965301
Vinyl Chloride	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	98	97	96	98		1965301
D4-1,2-Dichloroethane	%	102	100	103	102		1965301
D8-Toluene	%	97	97	97	95		1965301

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DX6388	DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	SW-118	RDL	QC Batch

Chlorobenzenes							
1,2-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
Chlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
Volatile Organics							
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1-Dichloroethane	ug/L	<2	<2	<2	<2	2	1965301
1,1-Dichloroethylene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	1	1965301
Benzene	ug/L	<1	<1	<1	<1	1	1965301
Bromodichloromethane	ug/L	<1	<1	<1	<1	1	1965301
Bromoform	ug/L	<1	<1	<1	<1	1	1965301
Bromomethane	ug/L	<3	<3	<3	<3	3	1965301
Carbon Tetrachloride	ug/L	<1	<1	<1	<1	1	1965301
Chloroethane	ug/L	<8	<8	<8	<8	8	1965301
Chloroform	ug/L	4	<1	<1	<1	1	1965301
Chloromethane	ug/L	<8	<8	<8	<8	8	1965301
cis-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1965301
cis-1,3-Dichloropropene	ug/L	<2	<2	<2	<2	2	1965301
Dibromochloromethane	ug/L	<1	<1	<1	<1	1	1965301
Ethylbenzene	ug/L	<1	<1	<1	<1	1	1965301
Ethylene Dibromide	ug/L	<1	<1	<1	<1	1	1965301
Methylene Chloride(Dichloromethane)	ug/L	<3	<3	<3	<3	3	1965301
o-Xylene	ug/L	<1	<1	<1	<1	1	1965301
p+m-Xylene	ug/L	3	3	3	3	2	1965301
Styrene	ug/L	<1	<1	<1	<1	1	1965301
Tetrachloroethylene	ug/L	<1	<1	<1	<1	1	1965301

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DX6388	DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	SW-118	RDL	QC Batch
Toluene	ug/L	4	4	4	4	1	1965301
trans-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1965301
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	1	1965301
Trichloroethylene	ug/L	<1	<1	<1	<1	1	1965301
Trichlorofluoromethane (FREON 11)	ug/L	<8	<8	<8	<8	8	1965301
Vinyl Chloride	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	98	99	98	98		1965301
D4-1,2-Dichloroethane	%	99	104	100	102		1965301
D8-Toluene	%	96	97	97	97		1965301
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DX6385	DX6385	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-13 Lab-Dup	SW-14	SW-15	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001		<0.001	<0.001	0.001	1964043
Toluene	mg/L	0.004		0.004	0.002	0.001	1964043
Ethylbenzene	mg/L	<0.001		<0.001	<0.001	0.001	1964043
Xylene (Total)	mg/L	0.003		0.005	0.002	0.002	1964043
C6 - C10 (less BTEX)	mg/L	<0.01		<0.01	<0.01	0.01	1964043
>C10-C21 Hydrocarbons	mg/L	<0.05	<0.05	<0.05	<0.05	0.05	1964017
>C21-<C32 Hydrocarbons	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	1964017
Modified TPH (Tier1)	mg/L	<0.1		<0.1	<0.1	0.1	1961151
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	101	97	98	109		1964017
n-Dotriacontane - Extractable	%	107	102	98	112		1964017
Isobutylbenzene - Volatile	%	102		112	87		1964043

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBGA HYDROCARBONS (WATER)

Maxxam ID		DX6388	DX6389	DX6390		
Sampling Date		2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	RDL	QC Batch
Petroleum Hydrocarbons						
Benzene	mg/L	<0.001	<0.001	<0.001	0.001	1964043
Toluene	mg/L	0.004	0.003	0.001	0.001	1964043
Ethylbenzene	mg/L	<0.001	<0.001	<0.001	0.001	1964043
Xylene (Total)	mg/L	0.002	0.002	<0.002	0.002	1964043
C6 - C10 (less BTEX)	mg/L	<0.01	<0.01	<0.01	0.01	1964043
>C10-C21 Hydrocarbons	mg/L	<0.05	<0.05	<0.05	0.05	1964017
>C21-<C32 Hydrocarbons	mg/L	<0.1	<0.1	<0.1	0.1	1964017
Modified TPH (Tier1)	mg/L	<0.1	<0.1	<0.1	0.1	1961151
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	118	111	124		1964017
n-Dotriacontane - Extractable	%	129	115	127		1964017
Isobutylbenzene - Volatile	%	91	79	85		1964043
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DX6391		
Sampling Date		2009/09/27		
COC Number		N/A		
	Units	SW-118	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/L	<0.001	0.001	1964043
Toluene	mg/L	0.005	0.001	1964043
Ethylbenzene	mg/L	<0.001	0.001	1964043
Xylene (Total)	mg/L	0.003	0.002	1964043
C6 - C10 (less BTEX)	mg/L	<0.01	0.01	1964043
>C10-C21 Hydrocarbons	mg/L	<0.05	0.05	1965248
>C21-<C32 Hydrocarbons	mg/L	<0.1	0.1	1965248
Modified TPH (Tier1)	mg/L	<0.1	0.1	1961151
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	103		1965248
n-Dotriacontane - Extractable	%	94		1965248
Isobutylbenzene - Volatile	%	110		1964043

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DX6385	DX6385	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-13 Lab-Dup	SW-14	SW-15	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1962812
Surrogate Recovery (%)							
Decachlorobiphenyl	%	105	95	118	102		1962812
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DX6388	DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	SW-118	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1962812
Surrogate Recovery (%)							
Decachlorobiphenyl	%	102	103	92	100		1962812
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D1803
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9D1803

QA/QC Batch			Date Analyzed						
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits		
1962812 CMI	Matrix Spike [DX6387-01]	Decachlorobiphenyl	2009/10/09		107	%	30 - 130		
		Total PCB	2009/10/09		100	%	70 - 130		
	Spiked Blank	Decachlorobiphenyl	2009/10/09		61	%	30 - 130		
		Total PCB	2009/10/09		93	%	70 - 130		
	Method Blank	Decachlorobiphenyl	2009/10/09		52	%	30 - 130		
		Total PCB	2009/10/09	<0.05		ug/L			
	RPD [DX6385-01]	Total PCB	2009/10/09	NC		%	40		
1964017 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/08		113	%	30 - 130		
		n-Dotriacontane - Extractable	2009/10/08		117	%	30 - 130		
		>C10-C21 Hydrocarbons	2009/10/08		100	%	30 - 130		
		>C21-<C32 Hydrocarbons	2009/10/08		97	%	30 - 130		
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/08		102	%	30 - 130		
		n-Dotriacontane - Extractable	2009/10/08		118	%	30 - 130		
		>C10-C21 Hydrocarbons	2009/10/08		99	%	30 - 130		
		>C21-<C32 Hydrocarbons	2009/10/08		99	%	30 - 130		
	Method Blank	Isobutylbenzene - Extractable	2009/10/08		107	%	30 - 130		
		n-Dotriacontane - Extractable	2009/10/08		108	%	30 - 130		
		>C10-C21 Hydrocarbons	2009/10/08	<0.05		mg/L			
		>C21-<C32 Hydrocarbons	2009/10/08	<0.1		mg/L			
	RPD [DX6385-01]	>C10-C21 Hydrocarbons	2009/10/09	NC		%	40		
		>C21-<C32 Hydrocarbons	2009/10/09	NC		%	40		
	1964043 SHL	Matrix Spike	Isobutylbenzene - Volatile	2009/10/09		91	%	70 - 130	
			Benzene	2009/10/09		96	%	70 - 130	
Toluene			2009/10/09		96	%	70 - 130		
Ethylbenzene			2009/10/09		100	%	70 - 130		
Spiked Blank		Xylene (Total)	2009/10/09		103	%	70 - 130		
		Isobutylbenzene - Volatile	2009/10/09		110	%	70 - 130		
		Benzene	2009/10/09		88	%	70 - 130		
		Toluene	2009/10/09		96	%	70 - 130		
Method Blank		Ethylbenzene	2009/10/09		100	%	70 - 130		
		Xylene (Total)	2009/10/09		103	%	70 - 130		
		Isobutylbenzene - Volatile	2009/10/08		97	%	70 - 130		
		Benzene	2009/10/08	<0.001		mg/L			
RPD		Toluene	2009/10/08	<0.001		mg/L			
		Ethylbenzene	2009/10/08	<0.001		mg/L			
		Xylene (Total)	2009/10/08	<0.002		mg/L			
		C6 - C10 (less BTEX)	2009/10/08	<0.01		mg/L			
		Benzene	2009/10/08	NC		%	40		
		Toluene	2009/10/08	NC		%	40		
		Ethylbenzene	2009/10/08	NC		%	40		
		Xylene (Total)	2009/10/08	NC		%	40		
1965248 LMU		Matrix Spike	C6 - C10 (less BTEX)	2009/10/08	NC		%	40	
			Isobutylbenzene - Extractable	2009/10/09		97	%	30 - 130	
			n-Dotriacontane - Extractable	2009/10/09		96	%	30 - 130	
			>C10-C21 Hydrocarbons	2009/10/09		109	%	30 - 130	
	Spiked Blank	>C21-<C32 Hydrocarbons	2009/10/09		109	%	30 - 130		
		Isobutylbenzene - Extractable	2009/10/09		101	%	30 - 130		
		n-Dotriacontane - Extractable	2009/10/09		109	%	30 - 130		
		>C10-C21 Hydrocarbons	2009/10/09		103	%	30 - 130		
	Method Blank	>C21-<C32 Hydrocarbons	2009/10/09		97	%	30 - 130		
		Isobutylbenzene - Extractable	2009/10/09		98	%	30 - 130		
		n-Dotriacontane - Extractable	2009/10/09		100	%	30 - 130		
		>C10-C21 Hydrocarbons	2009/10/09	<0.05		mg/L			
		>C21-<C32 Hydrocarbons	2009/10/09	<0.1		mg/L			

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1803

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965248 LMU	RPD	>C10-C21 Hydrocarbons	2009/10/09	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/09	NC		%	40
1965301 MSK	Matrix Spike [DX6386-01]	1,2-Dichlorobenzene	2009/10/08		100	%	70 - 130
		1,3-Dichlorobenzene	2009/10/08		95	%	70 - 130
		1,4-Dichlorobenzene	2009/10/08		95	%	70 - 130
		Chlorobenzene	2009/10/08		105	%	70 - 130
		1,1,1-Trichloroethane	2009/10/08		105	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/10/08		111	%	70 - 130
		1,1,2-Trichloroethane	2009/10/08		116	%	70 - 130
		1,1-Dichloroethane	2009/10/08		105	%	70 - 130
		1,1-Dichloroethylene	2009/10/08		95	%	70 - 130
		1,2-Dichloroethane	2009/10/08		105	%	70 - 130
		1,2-Dichloropropane	2009/10/08		105	%	70 - 130
		4-Bromofluorobenzene	2009/10/08		102	%	70 - 130
		Benzene	2009/10/08		100	%	70 - 130
		Bromodichloromethane	2009/10/08		105	%	70 - 130
		Bromoform	2009/10/08		105	%	70 - 130
		Bromomethane	2009/10/08		89	%	70 - 130
		Carbon Tetrachloride	2009/10/08		100	%	70 - 130
		Chloroethane	2009/10/08		95	%	70 - 130
		Chloroform	2009/10/08		105	%	70 - 130
		Chloromethane	2009/10/08		84	%	70 - 130
		cis-1,2-Dichloroethylene	2009/10/08		100	%	70 - 130
		cis-1,3-Dichloropropene	2009/10/08		100	%	70 - 130
		D4-1,2-Dichloroethane	2009/10/08		104	%	70 - 130
		D8-Toluene	2009/10/08		100	%	70 - 130
		Dibromochloromethane	2009/10/08		105	%	70 - 130
		Ethylbenzene	2009/10/08		100	%	70 - 130
		Ethylene Dibromide	2009/10/08		105	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/10/08		105	%	70 - 130
		o-Xylene	2009/10/08		100	%	70 - 130
		p+m-Xylene	2009/10/08		101	%	70 - 130
		Styrene	2009/10/08		100	%	70 - 130
		Tetrachloroethylene	2009/10/08		100	%	70 - 130
		Toluene	2009/10/08		104	%	70 - 130
		trans-1,2-Dichloroethylene	2009/10/08		100	%	70 - 130
		trans-1,3-Dichloropropene	2009/10/08		100	%	70 - 130
		Trichloroethylene	2009/10/08		100	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/10/08		89	%	70 - 130
		Vinyl Chloride	2009/10/08		79	%	70 - 130
	Spiked Blank	1,2-Dichlorobenzene	2009/10/08		98	%	70 - 130
		1,3-Dichlorobenzene	2009/10/08		95	%	70 - 130
		1,4-Dichlorobenzene	2009/10/08		93	%	70 - 130
		Chlorobenzene	2009/10/08		103	%	70 - 130
		1,1,1-Trichloroethane	2009/10/08		107	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/10/08		104	%	70 - 130
		1,1,2-Trichloroethane	2009/10/08		107	%	70 - 130
		1,1-Dichloroethane	2009/10/08		105	%	70 - 130
		1,1-Dichloroethylene	2009/10/08		101	%	70 - 130
		1,2-Dichloroethane	2009/10/08		104	%	70 - 130
		1,2-Dichloropropane	2009/10/08		101	%	70 - 130
		4-Bromofluorobenzene	2009/10/08		100	%	70 - 130
		Benzene	2009/10/08		99	%	70 - 130
		Bromodichloromethane	2009/10/08		102	%	70 - 130

Jacques Whitford Limited
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Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1803

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965301 MSK	Spiked Blank	Bromoform	2009/10/08		99	%	70 - 130
		Bromomethane	2009/10/08		89	%	70 - 130
		Carbon Tetrachloride	2009/10/08		108	%	70 - 130
		Chloroethane	2009/10/08		99	%	70 - 130
		Chloroform	2009/10/08		107	%	70 - 130
		Chloromethane	2009/10/08		82	%	70 - 130
		cis-1,2-Dichloroethylene	2009/10/08		100	%	70 - 130
		cis-1,3-Dichloropropene	2009/10/08		98	%	70 - 130
		D4-1,2-Dichloroethane	2009/10/08		103	%	70 - 130
		D8-Toluene	2009/10/08		102	%	70 - 130
		Dibromochloromethane	2009/10/08		101	%	70 - 130
		Ethylbenzene	2009/10/08		99	%	70 - 130
		Ethylene Dibromide	2009/10/08		101	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/10/08		105	%	70 - 130
		o-Xylene	2009/10/08		97	%	70 - 130
		p+m-Xylene	2009/10/08		102	%	70 - 130
		Styrene	2009/10/08		99	%	70 - 130
		Tetrachloroethylene	2009/10/08		103	%	70 - 130
		Toluene	2009/10/08		100	%	70 - 130
		trans-1,2-Dichloroethylene	2009/10/08		103	%	70 - 130
		trans-1,3-Dichloropropene	2009/10/08		95	%	70 - 130
		Trichloroethylene	2009/10/08		104	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/10/08		97	%	70 - 130
		Vinyl Chloride	2009/10/08		79	%	70 - 130
	Method Blank	1,2-Dichlorobenzene	2009/10/08	<0.5		ug/L	
		1,3-Dichlorobenzene	2009/10/08	<1		ug/L	
		1,4-Dichlorobenzene	2009/10/08	<1		ug/L	
		Chlorobenzene	2009/10/08	<1		ug/L	
		1,1,1-Trichloroethane	2009/10/08	<1		ug/L	
		1,1,2,2-Tetrachloroethane	2009/10/08	<1		ug/L	
		1,1,2-Trichloroethane	2009/10/08	<1		ug/L	
		1,1-Dichloroethane	2009/10/08	<2		ug/L	
		1,1-Dichloroethylene	2009/10/08	<0.5		ug/L	
		1,2-Dichloroethane	2009/10/08	<1		ug/L	
		1,2-Dichloropropane	2009/10/08	<1		ug/L	
		4-Bromofluorobenzene	2009/10/08		98	%	70 - 130
		Benzene	2009/10/08	<1		ug/L	
		Bromodichloromethane	2009/10/08	<1		ug/L	
		Bromoform	2009/10/08	<1		ug/L	
		Bromomethane	2009/10/08	<3		ug/L	
		Carbon Tetrachloride	2009/10/08	<1		ug/L	
		Chloroethane	2009/10/08	<8		ug/L	
		Chloroform	2009/10/08	<1		ug/L	
		Chloromethane	2009/10/08	<8		ug/L	
		cis-1,2-Dichloroethylene	2009/10/08	<2		ug/L	
		cis-1,3-Dichloropropene	2009/10/08	<2		ug/L	
		D4-1,2-Dichloroethane	2009/10/08		102	%	70 - 130
		D8-Toluene	2009/10/08		96	%	70 - 130
		Dibromochloromethane	2009/10/08	<1		ug/L	
		Ethylbenzene	2009/10/08	<1		ug/L	
		Ethylene Dibromide	2009/10/08	<1		ug/L	
		Methylene Chloride(Dichloromethane)	2009/10/08	<3		ug/L	
		o-Xylene	2009/10/08	<1		ug/L	
		p+m-Xylene	2009/10/08	<2		ug/L	
		Styrene	2009/10/08	<1		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1803

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965301 MSK	Method Blank	Tetrachloroethylene	2009/10/08	<1		ug/L	
		Toluene	2009/10/08	<1		ug/L	
		trans-1,2-Dichloroethylene	2009/10/08	<2		ug/L	
		trans-1,3-Dichloropropene	2009/10/08	<1		ug/L	
		Trichloroethylene	2009/10/08	<1		ug/L	
		Trichlorofluoromethane (FREON 11)	2009/10/08	<8		ug/L	
	RPD [DX6385-01]	Vinyl Chloride	2009/10/08	<0.5		ug/L	
		1,2-Dichlorobenzene	2009/10/08	NC		%	40
		1,3-Dichlorobenzene	2009/10/08	NC		%	40
		1,4-Dichlorobenzene	2009/10/08	NC		%	40
		Chlorobenzene	2009/10/08	NC		%	40
		1,1,1-Trichloroethane	2009/10/08	NC		%	40
		1,1,2,2-Tetrachloroethane	2009/10/08	NC		%	40
		1,1,2-Trichloroethane	2009/10/08	NC		%	40
		1,1-Dichloroethane	2009/10/08	NC		%	40
		1,1-Dichloroethylene	2009/10/08	NC		%	40
		1,2-Dichloroethane	2009/10/08	NC		%	40
		1,2-Dichloropropane	2009/10/08	NC		%	40
		Benzene	2009/10/08	NC		%	40
		Bromodichloromethane	2009/10/08	NC		%	40
		Bromoform	2009/10/08	NC		%	40
		Bromomethane	2009/10/08	NC		%	40
		Carbon Tetrachloride	2009/10/08	NC		%	40
		Chloroethane	2009/10/08	NC		%	40
		Chloroform	2009/10/08	NC		%	40
		Chloromethane	2009/10/08	NC		%	40
		cis-1,2-Dichloroethylene	2009/10/08	NC		%	40
		cis-1,3-Dichloropropene	2009/10/08	NC		%	40
		Dibromochloromethane	2009/10/08	NC		%	40
		Ethylbenzene	2009/10/08	NC		%	40
		Ethylene Dibromide	2009/10/08	NC		%	40
		Methylene Chloride(Dichloromethane)	2009/10/08	NC		%	40
		o-Xylene	2009/10/08	NC		%	40
		p+m-Xylene	2009/10/08	NC		%	40
		Styrene	2009/10/08	NC		%	40
		Tetrachloroethylene	2009/10/08	NC		%	40
		Toluene	2009/10/08	NC		%	40
		trans-1,2-Dichloroethylene	2009/10/08	NC		%	40
		trans-1,3-Dichloropropene	2009/10/08	NC		%	40
		Trichloroethylene	2009/10/08	NC		%	40
		Trichlorofluoromethane (FREON 11)	2009/10/08	NC		%	40
		Vinyl Chloride	2009/10/08	NC		%	40
1967138 DLB	Matrix Spike	Dissolved Aluminum (Al)	2009/10/09		86	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/09		100	%	80 - 120
		Dissolved Arsenic (As)	2009/10/09		104	%	80 - 120
		Dissolved Barium (Ba)	2009/10/09		NC	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/09		100	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/09		91	%	80 - 120
		Dissolved Boron (B)	2009/10/09		95	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/09		102	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/09		100	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/09		98	%	80 - 120
		Dissolved Copper (Cu)	2009/10/09		96	%	80 - 120
		Dissolved Lead (Pb)	2009/10/09		99	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/09		NC	%	80 - 120

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1803

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1967138 DLB	Matrix Spike	Dissolved Molybdenum (Mo)	2009/10/09		99	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/09		NC	%	80 - 120
		Dissolved Selenium (Se)	2009/10/09		111	%	80 - 120
		Dissolved Silver (Ag)	2009/10/09		77 (1)	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/09		NC	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/09		96	%	80 - 120
		Dissolved Tin (Sn)	2009/10/09		93	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/09		98	%	80 - 120
		Dissolved Uranium (U)	2009/10/09		100	%	80 - 120
		Dissolved Vanadium (V)	2009/10/09		101	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/09		NC	%	80 - 120
	QC Standard	Dissolved Aluminum (Al)	2009/10/09		100	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/09		111	%	80 - 120
		Dissolved Arsenic (As)	2009/10/09		82	%	80 - 120
		Dissolved Barium (Ba)	2009/10/09		97	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/09		78 (2)	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/09		90	%	80 - 120
		Dissolved Boron (B)	2009/10/09		87	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/09		97	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/09		102	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/09		100	%	80 - 120
		Dissolved Copper (Cu)	2009/10/09		92	%	80 - 120
		Dissolved Iron (Fe)	2009/10/09		98	%	80 - 120
		Dissolved Lead (Pb)	2009/10/09		94	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/09		95	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/09		103	%	80 - 120
	Spiked Blank	Dissolved Nickel (Ni)	2009/10/09		94	%	80 - 120
		Dissolved Selenium (Se)	2009/10/09		78 (2)	%	80 - 120
		Dissolved Silver (Ag)	2009/10/09		89	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/09		106	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/09		94	%	80 - 120
		Dissolved Vanadium (V)	2009/10/09		101	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/09		96	%	80 - 120
		Dissolved Aluminum (Al)	2009/10/09		97	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/09		97	%	80 - 120
		Dissolved Arsenic (As)	2009/10/09		97	%	80 - 120
		Dissolved Barium (Ba)	2009/10/09		95	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/09		96	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/09		99	%	80 - 120
		Dissolved Boron (B)	2009/10/09		89	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/09		100	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/09		96	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/09		100	%	80 - 120
		Dissolved Copper (Cu)	2009/10/09		98	%	80 - 120
		Dissolved Lead (Pb)	2009/10/09		97	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/09		89	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/09		99	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/09		98	%	80 - 120
		Dissolved Selenium (Se)	2009/10/09		93	%	80 - 120
		Dissolved Silver (Ag)	2009/10/09		92	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/09		97	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/09		91	%	80 - 120
		Dissolved Tin (Sn)	2009/10/09		105	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/09		97	%	80 - 120
		Dissolved Uranium (U)	2009/10/09		99	%	80 - 120

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1803

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1967138 DLB	Spiked Blank	Dissolved Vanadium (V)	2009/10/09		96	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/09		105	%	80 - 120
	Method Blank	Dissolved Aluminum (Al)	2009/10/09	<5.0		ug/L	
		Dissolved Antimony (Sb)	2009/10/09	<2.0		ug/L	
		Dissolved Arsenic (As)	2009/10/09	<2.0		ug/L	
		Dissolved Barium (Ba)	2009/10/09	<5.0		ug/L	
		Dissolved Beryllium (Be)	2009/10/09	<2.0		ug/L	
		Dissolved Bismuth (Bi)	2009/10/09	<2.0		ug/L	
		Dissolved Boron (B)	2009/10/09	<5.0		ug/L	
		Dissolved Cadmium (Cd)	2009/10/09	<0.017		ug/L	
		Dissolved Chromium (Cr)	2009/10/09	<1.0		ug/L	
		Dissolved Cobalt (Co)	2009/10/09	<0.40		ug/L	
		Dissolved Copper (Cu)	2009/10/09	<2.0		ug/L	
		Dissolved Iron (Fe)	2009/10/09	<50		ug/L	
		Dissolved Lead (Pb)	2009/10/09	<0.50		ug/L	
		Dissolved Manganese (Mn)	2009/10/09	<2.0		ug/L	
		Dissolved Molybdenum (Mo)	2009/10/09	<2.0		ug/L	
		Dissolved Nickel (Ni)	2009/10/09	<2.0		ug/L	
		Dissolved Selenium (Se)	2009/10/09	<1.0		ug/L	
		Dissolved Silver (Ag)	2009/10/09	<0.10		ug/L	
		Dissolved Strontium (Sr)	2009/10/09	<5.0		ug/L	
		Dissolved Thallium (Tl)	2009/10/09	<0.10		ug/L	
		Dissolved Tin (Sn)	2009/10/09	<2.0		ug/L	
		Dissolved Titanium (Ti)	2009/10/09	<2.0		ug/L	
		Dissolved Uranium (U)	2009/10/09	<0.10		ug/L	
		Dissolved Vanadium (V)	2009/10/09	<2.0		ug/L	
		Dissolved Zinc (Zn)	2009/10/09	<5.0		ug/L	
	RPD [DX6386-01]	Dissolved Aluminum (Al)	2009/10/09	5.5		%	35
		Dissolved Antimony (Sb)	2009/10/09	NC		%	25
		Dissolved Arsenic (As)	2009/10/09	NC		%	25
		Dissolved Barium (Ba)	2009/10/09	NC		%	25
		Dissolved Beryllium (Be)	2009/10/09	NC		%	25
		Dissolved Bismuth (Bi)	2009/10/09	NC		%	25
		Dissolved Boron (B)	2009/10/09	NC		%	25
		Dissolved Cadmium (Cd)	2009/10/09	NC		%	25
		Dissolved Chromium (Cr)	2009/10/09	NC		%	25
		Dissolved Cobalt (Co)	2009/10/09	NC		%	25
		Dissolved Copper (Cu)	2009/10/09	NC		%	25
		Dissolved Iron (Fe)	2009/10/09	NC		%	25
		Dissolved Lead (Pb)	2009/10/09	NC		%	25
		Dissolved Manganese (Mn)	2009/10/09	NC		%	25
		Dissolved Molybdenum (Mo)	2009/10/09	NC		%	25
		Dissolved Nickel (Ni)	2009/10/09	NC		%	25
		Dissolved Selenium (Se)	2009/10/09	NC		%	25
		Dissolved Silver (Ag)	2009/10/09	NC		%	25
		Dissolved Strontium (Sr)	2009/10/09	NC		%	25
		Dissolved Thallium (Tl)	2009/10/09	NC		%	25
		Dissolved Tin (Sn)	2009/10/09	NC		%	25
		Dissolved Titanium (Ti)	2009/10/09	NC		%	25
		Dissolved Uranium (U)	2009/10/09	NC		%	25
		Dissolved Vanadium (V)	2009/10/09	NC		%	25
		Dissolved Zinc (Zn)	2009/10/09	NC		%	25

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

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Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Recovery within acceptance limits.

(2) Violation not applicable. Recovery within 3 SD limits.

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE

Attention: Jim Slade
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/22

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9D6830
Received: 2009/10/13, 11:00

Sample Matrix: Water
 # Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (PIRI)	10	2009/10/16	2009/10/21	ATL SOP 00198 R2	Based on Atl. PIRI
VPH in Water (PIRI) Ø	9	2009/10/19	2009/10/19	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI) Ø	1	2009/10/19	2009/10/20	ATL SOP 00118 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	8	N/A	2009/10/21		Based on Atl. PIRI
ModTPH (T1) Calc. for Water	2	N/A	2009/10/22		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bedford

Encryption Key


Paula Chaplin
 22 Oct 2009 13:52:14 -02:30

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

ROB WHELAN, Project Manager
 Email: Rob.WheLAN@maxxamanalytics.com
 Phone: (709) 754-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 6

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D6830
Report Date: 2009/10/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC MUST IN WATER - PIRI TIER I (WATER)

MaxxamID		EA1512	EA1528	EA1529	EA1530		
SamplingDate		2009/10/08	2009/10/08	2009/10/08	2009/10/08		
	Units	MW-57	MW-58	MW-59	MW-60	RDL	QC Batch

PetroleumHydrocarbons							
Benzene	mg/L	<0.001	<0.001	0.001	0.002	0.001	1975581
Toluene	mg/L	0.005	0.005	0.004	0.005	0.001	1975581
Ethylbenzene	mg/L	0.001	0.001	0.002	0.001	0.001	1975581
Xylene(Total)	mg/L	0.005	0.006	0.008	0.005	0.002	1975581
C6 - C10 (less BTEX)	mg/L	<0.01	<0.01	0.08	0.05	0.01	1975581
>C10-C21Hydrocarbons	mg/L	<0.17	<0.18	<0.05	<0.05	0.05	1973580
>C21-<C32Hydrocarbons	mg/L	<0.34	<0.35	<0.1	<0.1	0.1	1973580
Modified TPH (Tier1)	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	1970686
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	82	75	94	93		1973580
n-Dotriacontane-Extractable	%	83 (1)	51 (2)	91 (3)	89 (3)		1973580
Isobutylbenzene-Volatile	%	105	106	105	104		1975581

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated fuel/lube oil range RDL due to insufficient amount of sample.

(2) Isobutylbenzene/n-Dotriacontane recovery(ies) not within acceptance limits due to matrix/co-extractive interference. Elevated fuel/lube oil range RDL due to insufficient amount of sample.

(3) TEH sample contained sediment.

Maxxam Job #: A9D6830
Report Date: 2009/10/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC MUST IN WATER - PIRI TIER I (WATER)

MaxxamID		EA1531		EA1532		
SamplingDate		2009/10/08		2009/10/08		
	Units	MW-41	RDL	MW-49	RDL	QC Batch

PetroleumHydrocarbons						
Benzene	mg/L	0.001	0.001	<0.01	0.01	1975581
Toluene	mg/L	0.015	0.001	0.26	0.01	1975581
Ethylbenzene	mg/L	0.004	0.001	0.03	0.01	1975581
Xylene(Total)	mg/L	0.021	0.002	0.09	0.02	1975581
C6 - C10 (less BTEX)	mg/L	<0.01	0.01	<0.1	0.1	1975581
>C10-C21Hydrocarbons	mg/L	<0.05	0.05	0.98	0.05	1973580
>C21-<C32Hydrocarbons	mg/L	<0.1	0.1	0.2	0.1	1973580
Modified TPH (Tier1)	mg/L	<0.1	0.1	1.2	0.1	1970686
Surrogate Recovery (%)						
Isobutylbenzene -Extractable	%	94		97		1973580
n-Dotriacontane-Extractable	%	85 (1)		93 (2)		1973580
Isobutylbenzene-Volatile	%	109		102 (3)		1975581

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) TEH sample contained sediment.
(2) Weathered fuel oil fraction. TEH sample contained sediment.
(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9D6830
Report Date: 2009/10/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC MUST IN WATER - PIRITIER I (WATER)

MaxxamID		EA1533	EA1534	EA1535	EA1536		
SamplingDate		2009/10/08	2009/10/08	2009/10/08	2009/10/08		
	Units	MW-51	MW-52	MW-42	MW-50	RDL	QC Batch

PetroleumHydrocarbons							
Benzene	mg/L	0.004	<0.001	<0.001	0.002	0.001	1975581
Toluene	mg/L	0.004	0.004	0.009	0.007	0.001	1975581
Ethylbenzene	mg/L	<0.001	<0.001	0.001	0.002	0.001	1975581
Xylene(Total)	mg/L	0.003	0.004	0.006	0.008	0.002	1975581
C6 - C10 (less BTEX)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	1975581
>C10-C21Hydrocarbons	mg/L	0.14	0.07	0.06	0.08	0.05	1973580
>C21-<C32Hydrocarbons	mg/L	<0.1	<0.1	0.1	0.2	0.1	1973580
Modified TPH (Tier1)	mg/L	0.1	<0.1	0.2	0.2	0.1	1970686
Surrogate Recovery (%)							
Isobutylbenzene -Extractable	%	95	94	98	102		1973580
n-Dotriacontane-Extractable	%	90 (1)	89 (2)	94 (3)	101 (4)		1973580
Isobutylbenzene-Volatile	%	97	105	106	99		1975581

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. TEH sample contained sediment.

(2) No resemblance to petroleum products in fuel oil range. TEH sample contained sediment.

(3) No resemblance to petroleum products in fuel oil /lube oil range. TEH sample contained sediment.

(4) Unidentified compound(s) in fuel oil range. No resemblance to petroleum products in lube oil range. TEH sample contained sediment.

Maxxam Job #: A9D6830
Report Date: 2009/10/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: Jim Slade
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: ZA9D6830

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1973580 SPI	SpikedBlank	Isobutylbenzene - Extractable	2009/10/21		95	%	30 - 130
		n-Dotriacontane-Extractable	2009/10/21		111	%	30 - 130
		>C10-C21Hydrocarbons	2009/10/21		90	%	30 - 130
		>C21-<C32Hydrocarbons	2009/10/21		96	%	30 - 130
	MethodBlank	Isobutylbenzene - Extractable	2009/10/21		99	%	30 - 130
		n-Dotriacontane-Extractable	2009/10/21		98	%	30 - 130
		>C10-C21Hydrocarbons	2009/10/21	<0.05		mg/L	
		>C21-<C32Hydrocarbons	2009/10/21	<0.1		mg/L	
1975581 GTH	MatrixSpike	Isobutylbenzene-Volatile	2009/10/19		106	%	70 - 130
		Benzene	2009/10/19		135 (1)	%	70 - 130
		Toluene	2009/10/19		126	%	70 - 130
		Ethylbenzene	2009/10/19		126	%	70 - 130
	SpikedBlank	Xylene(Total)	2009/10/19		123	%	70 - 130
		Isobutylbenzene-Volatile	2009/10/19		104	%	70 - 130
		Benzene	2009/10/19		99	%	70 - 130
		Toluene	2009/10/19		108	%	70 - 130
	MethodBlank	Ethylbenzene	2009/10/19		108	%	70 - 130
		Xylene(Total)	2009/10/19		107	%	70 - 130
		Isobutylbenzene-Volatile	2009/10/19		109	%	70 - 130
		Benzene	2009/10/19	<0.001		mg/L	
	RPD	Toluene	2009/10/19	<0.001		mg/L	
		Ethylbenzene	2009/10/19	<0.001		mg/L	
		Xylene(Total)	2009/10/19	<0.002		mg/L	
		C6 - C10 (less BTEX)	2009/10/19	<0.01		mg/L	
		Benzene	2009/10/19	NC		%	40
		Toluene	2009/10/19	16.6		%	40
		Ethylbenzene	2009/10/19	NC		%	40
		Xylene(Total)	2009/10/19	NC		%	40
		C6 - C10 (less BTEX)	2009/10/19	NC		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: results are outside acceptance limit. Analysis was repeated with similar results.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE II ESA
Your C.O.C. #: 22207

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/09/29

CERTIFICATE OF ANALYSIS

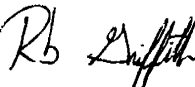
MAXXAM JOB #: A9C7070
Received: 2009/09/23, 9:37

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PCBs in water by GC/ECD	1	2009/09/28	2009/09/29	ATL SOP 00107 R3	Based on EPA8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
29 Sep 2009 14:41:27 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

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Maxxam Job #: A9C7070
Report Date: 2009/09/29

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE II ESA
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DV0773		
Sampling Date		2009/09/21		
COC Number		22207		
	Units	MW-53	RDL	QC Batch

PCBs				
Total PCB	ug/L	<0.2	0.2	1953239
Surrogate Recovery (%)				
Decachlorobiphenyl	%	26 (1)		1953239

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PCB surrogate not within acceptance limits. Insufficient sample to repeat. PCB sample contained sediment.
PCB:Unidentified (possibly halogenated) compounds detected.Elevated PCB RDL due to matrix / co-extractive interference.

Maxxam Job #: A9C7070
Report Date: 2009/09/29

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE II ESA
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE II ESA

Quality Assurance Report
 Maxxam Job Number: DA9C7070

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1953239 CMI	Matrix Spike [DV0773-01]	Decachlorobiphenyl	2009/09/29		19 (1)	%	30 - 130
		Total PCB	2009/09/29		63 (2)	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/29		91	%	30 - 130
		Total PCB	2009/09/29		110	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/29		70	%	30 - 130
		Total PCB	2009/09/29	<0.05		ug/L	
	RPD	Total PCB	2009/09/29	0.3		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
 (1) PCB surrogate not within acceptance limits. Insufficient sample to repeat.
 (2) Matrix Spike: results are outside acceptance limit. Insufficient sample for repeat analysis.

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: N/A

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/21

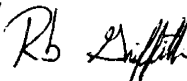
CERTIFICATE OF ANALYSIS**MAXXAM JOB #: A9D4054****Received: 2009/10/07, 9:55**

Sample Matrix: Soil
 # Samples Received: 18

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	15	2009/10/13	2009/10/14	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	3	2009/10/13	2009/10/15	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	7	N/A	2009/10/13	ATL SOP 00024 R4	Based on EPA6020A
Moisture	18	N/A	2009/10/08	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	15	2009/10/13	2009/10/20	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	7	2009/10/08	2009/10/13	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	11	2009/10/08	2009/10/14	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	14	2009/10/07	2009/10/14		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	4	2009/10/07	2009/10/15		Based on Atl. PIRI
Volatile Organic Compounds in Soil	4	2009/10/08	2009/10/14	ATL SOP 00123 R3	Based on USEPA SW-84
Volatile Organic Compounds in Soil	1	2009/10/08	2009/10/15	ATL SOP 00123 R3	Based on USEPA SW-84

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key


 Rob Griffith
 21 Oct 2009 15:00:15 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

=====

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Total cover pages: 1

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Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DY5809	DY5811	DY5812	DY5815		
Sampling Date		2009/10/06 9:10	2009/10/06 9:10	2009/10/06 9:10	2009/10/06 9:10		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW63-SS1	MW64-SS1	MW65-SS2	MW68-SS3	RDL	QC Batch

Inorganics							
Moisture	%	33	22	12	9	1	1965278
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DY5816	DY5817	DY5818	DY5828	DY5829		
Sampling Date		2009/10/06 9:10	2009/10/06 9:10	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW69-SS4	MW69-SS5	SED-72	SED-73	SED-74	RDL	QC Batch

Inorganics								
Moisture	%	12	15	23	14	12	1	1965278
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DY5830	DY5831	DY5832	DY5833	DY5834		
Sampling Date		2009/10/06	2009/10/06	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SED-75	SED-76	SED-77	SED-83	SED-84	RDL	QC Batch

Inorganics								
Moisture	%	35	25	48	5	10	1	1965278
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DY5835	DY5836	DY5837	DY5838		
Sampling Date		2009/10/06	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-85	SED-183	SED-184	SED-185	RDL	QC Batch

Inorganics							
Moisture	%	14	6	9	15	1	1965278

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DY5818	DY5829	DY5831	DY5833		
Sampling Date		2009/10/06	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-72	SED-74	SED-76	SED-83	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	4300	5300	13000	4200	10	1969492
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1969492
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1969492
Available Barium (Ba)	mg/kg	12	13	38	17	5	1969492
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1969492
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1969492
Available Boron (B)	mg/kg	<5	<5	6	<5	5	1969492
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1969492
Available Chromium (Cr)	mg/kg	12	12	25	7	2	1969492
Available Cobalt (Co)	mg/kg	2	4	6	3	1	1969492
Available Copper (Cu)	mg/kg	5	9	52	7	2	1969492
Available Iron (Fe)	mg/kg	5600	7400	12000	7300	50	1969492
Available Lead (Pb)	mg/kg	2.3	11	7.9	2.5	0.5	1969492
Available Lithium (Li)	mg/kg	7	7	11	9	2	1969492
Available Manganese (Mn)	mg/kg	61	70	140	120	2	1969492
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1969492
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1969492
Available Nickel (Ni)	mg/kg	7	9	17	6	2	1969492
Available Rubidium (Rb)	mg/kg	5	6	12	8	2	1969492
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1969492
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1969492
Available Strontium (Sr)	mg/kg	13	16	32	5	5	1969492
Available Thallium (Tl)	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	1969492
Available Tin (Sn)	mg/kg	<2	4	4	<2	2	1969492
Available Uranium (U)	mg/kg	0.5	0.5	0.6	0.3	0.1	1969492
Available Vanadium (V)	mg/kg	10	14	28	11	2	1969492
Available Zinc (Zn)	mg/kg	19	36	75	30	5	1969492

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DY5835		DY5836		
Sampling Date		2009/10/06		2009/10/06		
COC Number		N/A		N/A		
	Units	SED-85	RDL	SED-183	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	8900	10	4900	10	1969492
Available Antimony (Sb)	mg/kg	<2	2	<2	2	1969492
Available Arsenic (As)	mg/kg	3	2	<2	2	1969492
Available Barium (Ba)	mg/kg	34	5	23	5	1969492
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1969492
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1969492
Available Boron (B)	mg/kg	<5	5	<5	5	1969492
Available Cadmium (Cd)	mg/kg	0.7	0.3	<0.3	0.3	1969492
Available Chromium (Cr)	mg/kg	18	2	8	2	1969492
Available Cobalt (Co)	mg/kg	5	1	5	1	1969492
Available Copper (Cu)	mg/kg	62	2	34	2	1969492
Available Iron (Fe)	mg/kg	11000	50	9300	50	1969492
Available Lead (Pb)	mg/kg	22	0.5	3.1	0.5	1969492
Available Lithium (Li)	mg/kg	9	2	10	2	1969492
Available Manganese (Mn)	mg/kg	130	2	150	2	1969492
Available Mercury (Hg)	mg/kg	<0.2 (1)	0.2	<0.1	0.1	1969492
Available Molybdenum (Mo)	mg/kg	<2	2	<2	2	1969492
Available Nickel (Ni)	mg/kg	13	2	8	2	1969492
Available Rubidium (Rb)	mg/kg	11	2	12	2	1969492
Available Selenium (Se)	mg/kg	<2	2	<2	2	1969492
Available Silver (Ag)	mg/kg	6.4	0.5	<0.5	0.5	1969492
Available Strontium (Sr)	mg/kg	15	5	6	5	1969492
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	0.1	1969492
Available Tin (Sn)	mg/kg	<2	2	<2	2	1969492
Available Uranium (U)	mg/kg	0.9	0.1	0.4	0.1	1969492
Available Vanadium (V)	mg/kg	21	2	14	2	1969492
Available Zinc (Zn)	mg/kg	95	5	36	5	1969492

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DY5838		
Sampling Date		2009/10/06		
COC Number		N/A		
	Units	SED-185	RDL	QC Batch

Metals				
Available Aluminum (Al)	mg/kg	6900	10	1969492
Available Antimony (Sb)	mg/kg	<2	2	1969492
Available Arsenic (As)	mg/kg	<2	2	1969492
Available Barium (Ba)	mg/kg	26	5	1969492
Available Beryllium (Be)	mg/kg	<2	2	1969492
Available Bismuth (Bi)	mg/kg	<2	2	1969492
Available Boron (B)	mg/kg	<5	5	1969492
Available Cadmium (Cd)	mg/kg	0.4	0.3	1969492
Available Chromium (Cr)	mg/kg	14	2	1969492
Available Cobalt (Co)	mg/kg	4	1	1969492
Available Copper (Cu)	mg/kg	54	2	1969492
Available Iron (Fe)	mg/kg	9300	50	1969492
Available Lead (Pb)	mg/kg	19	0.5	1969492
Available Lithium (Li)	mg/kg	7	2	1969492
Available Manganese (Mn)	mg/kg	110	2	1969492
Available Mercury (Hg)	mg/kg	0.2	0.2	1969492
Available Molybdenum (Mo)	mg/kg	<2	2	1969492
Available Nickel (Ni)	mg/kg	12	2	1969492
Available Rubidium (Rb)	mg/kg	9	2	1969492
Available Selenium (Se)	mg/kg	<2	2	1969492
Available Silver (Ag)	mg/kg	8.1	0.5	1969492
Available Strontium (Sr)	mg/kg	11	5	1969492
Available Thallium (Tl)	mg/kg	<0.1	0.1	1969492
Available Tin (Sn)	mg/kg	<2	2	1969492
Available Uranium (U)	mg/kg	0.7	0.1	1969492
Available Vanadium (V)	mg/kg	16	2	1969492
Available Zinc (Zn)	mg/kg	71	5	1969492

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DY5816		DY5828	DY5833		
Sampling Date		2009/10/06 9:10		2009/10/06	2009/10/06		
COC Number		N/A		N/A	N/A		
	Units	MW69-SS4	RDL	SED-73	SED-83	RDL	QC Batch

Volatile Organics							
1,1,1-Trichloroethane	ug/kg	<30	30	<30	<30	30	1968851
1,1,2,2-Tetrachloroethane	ug/kg	<500 (1)	500	<30	<30	30	1968851
1,1,2-Trichloroethane	ug/kg	<30	30	<30	<30	30	1968851
1,1-Dichloroethane	ug/kg	<30	30	<30	<30	30	1968851
1,1-Dichloroethylene	ug/kg	<30	30	<30	<30	30	1968851
1,2-Dichlorobenzene	ug/kg	<30	30	<30	<30	30	1968851
1,2-Dichloroethane	ug/kg	<30	30	<30	<30	30	1968851
1,2-Dichloropropane	ug/kg	<30	30	<30	<30	30	1968851
1,3-Dichlorobenzene	ug/kg	<30	30	<30	<30	30	1968851
1,4-Dichlorobenzene	ug/kg	<30	30	<30	<30	30	1968851
Benzene	ug/kg	<30	30	<30	<30	30	1968851
Bromodichloromethane	ug/kg	<30	30	<30	<30	30	1968851
Bromoform	ug/kg	<30	30	<30	<30	30	1968851
Bromomethane	ug/kg	<200	200	<200	<200	200	1968851
Carbon Tetrachloride	ug/kg	<30	30	<30	<30	30	1968851
Chlorobenzene	ug/kg	<30	30	<30	<30	30	1968851
Chloroform	ug/kg	<30	30	<30	<30	30	1968851
Chloromethane	ug/kg	<30	30	<30	<30	30	1968851
cis-1,2-Dichloroethylene	ug/kg	<30	30	<30	<30	30	1968851
cis-1,3-Dichloropropene	ug/kg	<30	30	<30	<30	30	1968851
Dibromochloromethane	ug/kg	<30	30	<30	<30	30	1968851
Ethylbenzene	ug/kg	<30	30	<30	<30	30	1968851
Ethylene Dibromide	ug/kg	<30	30	<30	<30	30	1968851
Methylene Chloride(Dichloromethane)	ug/kg	<30	30	<30	<30	30	1968851
o-Xylene	ug/kg	<30	30	<30	<30	30	1968851
p+m-Xylene	ug/kg	<30	30	<30	<30	30	1968851
Styrene	ug/kg	<30	30	<30	<30	30	1968851
Tetrachloroethylene	ug/kg	<30	30	<30	<30	30	1968851
Toluene	ug/kg	<30	30	<30	<30	30	1968851

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated VOC RDL(s) due to matrix interference.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DY5816		DY5828	DY5833		
Sampling Date		2009/10/06 9:10		2009/10/06	2009/10/06		
COC Number		N/A		N/A	N/A		
	Units	MW69-SS4	RDL	SED-73	SED-83	RDL	QC Batch
trans-1,2-Dichloroethylene	ug/kg	<30	30	<30	<30	30	1968851
trans-1,3-Dichloropropene	ug/kg	<30	30	<30	<30	30	1968851
Trichloroethylene	ug/kg	<30	30	<30	<30	30	1968851
Trichlorofluoromethane (FREON 11)	ug/kg	<30	30	<30	<30	30	1968851
Vinyl Chloride	ug/kg	<30	30	<30	<30	30	1968851
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	100		126	125		1968851
D4-1,2-Dichloroethane	%	119		120	122		1968851
D8-Toluene	%	122		124	124		1968851
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DY5836	DY5838		
Sampling Date		2009/10/06	2009/10/06		
COC Number		N/A	N/A		
	Units	SED-183	SED-185	RDL	QC Batch

Volatile Organics					
1,1,1-Trichloroethane	ug/kg	<30	<30	30	1968851
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	30	1968851
1,1,2-Trichloroethane	ug/kg	<30	<30	30	1968851
1,1-Dichloroethane	ug/kg	<30	<30	30	1968851
1,1-Dichloroethylene	ug/kg	<30	<30	30	1968851
1,2-Dichlorobenzene	ug/kg	<30	<30	30	1968851
1,2-Dichloroethane	ug/kg	<30	<30	30	1968851
1,2-Dichloropropane	ug/kg	<30	<30	30	1968851
1,3-Dichlorobenzene	ug/kg	<30	<30	30	1968851
1,4-Dichlorobenzene	ug/kg	<30	<30	30	1968851
Benzene	ug/kg	<30	<30	30	1968851
Bromodichloromethane	ug/kg	<30	<30	30	1968851
Bromoform	ug/kg	<30	<30	30	1968851
Bromomethane	ug/kg	<200	<200	200	1968851
Carbon Tetrachloride	ug/kg	<30	<30	30	1968851
Chlorobenzene	ug/kg	<30	<30	30	1968851
Chloroform	ug/kg	<30	<30	30	1968851
Chloromethane	ug/kg	<30	<30	30	1968851
cis-1,2-Dichloroethylene	ug/kg	<30	<30	30	1968851
cis-1,3-Dichloropropene	ug/kg	<30	<30	30	1968851
Dibromochloromethane	ug/kg	<30	<30	30	1968851
Ethylbenzene	ug/kg	<30	<30	30	1968851
Ethylene Dibromide	ug/kg	<30	<30	30	1968851
Methylene Chloride(Dichloromethane)	ug/kg	<30	<30	30	1968851
o-Xylene	ug/kg	<30	<30	30	1968851
p+m-Xylene	ug/kg	<30	<30	30	1968851
Styrene	ug/kg	<30	<30	30	1968851
Tetrachloroethylene	ug/kg	<30	<30	30	1968851
Toluene	ug/kg	<30	<30	30	1968851
trans-1,2-Dichloroethylene	ug/kg	<30	<30	30	1968851

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DY5836	DY5838		
Sampling Date		2009/10/06	2009/10/06		
COC Number		N/A	N/A		
	Units	SED-183	SED-185	RDL	QC Batch
trans-1,3-Dichloropropene	ug/kg	<30	<30	30	1968851
Trichloroethylene	ug/kg	<30	<30	30	1968851
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	30	1968851
Vinyl Chloride	ug/kg	<30	<30	30	1968851
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	121	122		1968851
D4-1,2-Dichloroethane	%	117	118		1968851
D8-Toluene	%	121	120		1968851
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DY5809		DY5811		
Sampling Date		2009/10/06 9:10		2009/10/06 9:10		
COC Number		N/A		N/A		
	Units	MW63-SS1	RDL	MW64-SS1	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	0.03	<0.03	0.03	1966792
Toluene	mg/kg	<0.03	0.03	<0.03	0.03	1966792
Ethylbenzene	mg/kg	<0.03	0.03	<0.03	0.03	1966792
Xylene (Total)	mg/kg	<0.05	0.05	0.09	0.05	1966792
C6 - C10 (less BTEX)	mg/kg	<3	3	120	3	1966792
>C10-C21 Hydrocarbons	mg/kg	64	15	27000	150	1969070
>C21-<C32 Hydrocarbons	mg/kg	190	15	390	15	1969070
Modified TPH (Tier1)	mg/kg	250	20	28000	200	1964621
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	102		101		1969070
n-Dotriacontane - Extractable	%	123 (1)		129 (2)		1969070
Isobutylbenzene - Volatile	%	98		58 (3)		1966792

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range.

(2) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution.

(3) VPH surrogate not within acceptance limits. Analysis was repeated with similar results.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DY5812	DY5815		DY5816		
Sampling Date		2009/10/06 9:10	2009/10/06 9:10		2009/10/06 9:10		
COC Number		N/A	N/A		N/A		
	Units	MW65-SS2	MW68-SS3	QC Batch	MW69-SS4	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1966792	<0.03	0.03	1966792
Toluene	mg/kg	<0.03	0.10	1966792	<0.03	0.03	1966792
Ethylbenzene	mg/kg	<0.03	0.08	1966792	<0.03	0.03	1966792
Xylene (Total)	mg/kg	0.13	0.35	1966792	<0.05	0.05	1966792
C6 - C10 (less BTEX)	mg/kg	65	150	1966792	96	3	1966792
>C10-C21 Hydrocarbons	mg/kg	1800	7600	1969070	5600	15	1968939
>C21-<C32 Hydrocarbons	mg/kg	220	1900	1969070	24	15	1968939
Modified TPH (Tier1)	mg/kg	2100	9700	1964621	5700	20	1964621
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	94	76	1969070	107		1968939
n-Dotriacontane - Extractable	%	118 (1)	111 (2)	1969070	92 (3)		1968939
Isobutylbenzene - Volatile	%	75	60	1966792	79		1966792

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction. Possible lube oil fraction.
(2) Fuel oil fraction. Lube oil fraction.
(3) Fuel oil fraction.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DY5817	DY5818	DY5818	DY5828		
Sampling Date		2009/10/06 9:10	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW69-SS5	SED-72	SED-72 Lab-Dup	SED-73	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1966792
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1966792
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1966792
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1966792
C6 - C10 (less BTEX)	mg/kg	5	<3	<3	<3	3	1966792
>C10-C21 Hydrocarbons	mg/kg	380	130	130	95	15	1968939
>C21-<C32 Hydrocarbons	mg/kg	<15	87	96	52	15	1968939
Modified TPH (Tier1)	mg/kg	380	210		150	20	1964621
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	103	82	81	92		1968939
n-Dotriacontane - Extractable	%	101 (1)	103 (2)	103	95 (2)		1968939
Isobutylbenzene - Volatile	%	96	103	100	96		1966792

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction.
(2) Weathered fuel oil fraction. One product in fuel / lube range.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DY5829	DY5830	DY5831	DY5832		
Sampling Date		2009/10/06	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-74	SED-75	SED-76	SED-77	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1966792
Toluene	mg/kg	<0.03	<0.03	0.05	<0.03	0.03	1966792
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1966792
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1966792
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1966792
>C10-C21 Hydrocarbons	mg/kg	450	210	120	640	15	1968939
>C21-<C32 Hydrocarbons	mg/kg	120	140	300	530	15	1968939
Modified TPH (Tier1)	mg/kg	570	350	420	1200	20	1964621
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	97	103	100	91		1968939
n-Dotriacontane - Extractable	%	84 (1)	74 (2)	91 (3)	91 (4)		1968939
Isobutylbenzene - Volatile	%	91	91	101	94		1966792

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. One product in fuel / lube range.

(2) Weathered fuel oil fraction. One product in fuel / lube range. Unidentified compound(s) in fuel / lube range.

(3) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range.

(4) Fuel oil fraction. One product in fuel / lube range. Unidentified compound(s) in lube oil range.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DY5833	DY5834	DY5835	DY5836		
Sampling Date		2009/10/06	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-83	SED-84	SED-85	SED-183	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1966792
Toluene	mg/kg	<0.03	0.04	<0.03	<0.03	0.03	1966792
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1966792
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1966792
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1966792
>C10-C21 Hydrocarbons	mg/kg	<15	<15	26	<15	15	1968939
>C21-<C32 Hydrocarbons	mg/kg	20	51	150	37	15	1968939
Modified TPH (Tier1)	mg/kg	20	51	170	37	20	1964621
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	90	93	94	92		1968939
n-Dotriacontane - Extractable	%	92 (1)	94 (2)	90 (2)	95 (2)		1968939
Isobutylbenzene - Volatile	%	96	98	97	94		1966792

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Possible lube oil fraction.
(2) Lube oil fraction.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DY5837	DY5838		
Sampling Date		2009/10/06	2009/10/06		
COC Number		N/A	N/A		
	Units	SED-184	SED-185	RDL	QC Batch

Petroleum Hydrocarbons					
Benzene	mg/kg	<0.03	<0.03	0.03	1966792
Toluene	mg/kg	<0.03	<0.03	0.03	1966792
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	1966792
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	1966792
C6 - C10 (less BTEX)	mg/kg	<3	<3	3	1966792
>C10-C21 Hydrocarbons	mg/kg	<15	24	15	1968939
>C21-<C32 Hydrocarbons	mg/kg	62	130	15	1968939
Modified TPH (Tier1)	mg/kg	62	150	20	1964621
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	95	93		1968939
n-Dotriacontane - Extractable	%	97 (1)	84 (1)		1968939
Isobutylbenzene - Volatile	%	93	98		1966792

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DY5809	DY5812	DY5816	DY5818		
Sampling Date		2009/10/06 9:10	2009/10/06 9:10	2009/10/06 9:10	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW63-SS1	MW65-SS2	MW69-SS4	SED-72	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.49	0.20	0.20	0.34	0.05	1969378
Surrogate Recovery (%)							
Decachlorobiphenyl	%	128 (1)	120 (1)	114 (1)	116 (1)		1969378

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DY5828	DY5829	DY5830	DY5831		
Sampling Date		2009/10/06	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-73	SED-74	SED-75	SED-76	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.14	0.30	0.38	0.20	0.05	1969378
Surrogate Recovery (%)							
Decachlorobiphenyl	%	121 (1)	122 (1)	119 (1)	124 (1)		1969378

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DY5832	DY5833	DY5833	DY5834		
Sampling Date		2009/10/06	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-77	SED-83	SED-83 Lab-Dup	SED-84	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.46	0.19	0.24	0.56	0.05	1969378
Surrogate Recovery (%)							
Decachlorobiphenyl	%	121 (1)	89 (1)	91	118 (1)		1969378

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DY5835	DY5836	DY5837	DY5838		
Sampling Date		2009/10/06	2009/10/06	2009/10/06	2009/10/06		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-85	SED-183	SED-184	SED-185	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.84	0.25	0.30	1.4	0.05	1969378
Surrogate Recovery (%)							
Decachlorobiphenyl	%	86 (1)	120 (1)	121 (1)	92 (1)		1969378

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9D4054
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: WS#1968851 - Chloroethane unavailable due to calibration non-conformance.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9D4054

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1966792 ASL	Matrix Spike [DY5818-01]	Isobutylbenzene - Volatile	2009/10/14		81	%	60 - 140
		Benzene	2009/10/14		56 (1)	%	60 - 140
		Toluene	2009/10/14		94	%	60 - 140
		Ethylbenzene	2009/10/14		95	%	60 - 140
		Xylene (Total)	2009/10/14		103	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/13		99	%	60 - 140
		Benzene	2009/10/13		89	%	60 - 140
		Toluene	2009/10/13		94	%	60 - 140
		Ethylbenzene	2009/10/13		90	%	60 - 140
		Xylene (Total)	2009/10/13		97	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/10/13		97	%	60 - 140
		Benzene	2009/10/13	<0.03		mg/kg	
		Toluene	2009/10/13	<0.03		mg/kg	
		Ethylbenzene	2009/10/13	<0.03		mg/kg	
		Xylene (Total)	2009/10/13	<0.05		mg/kg	
	RPD [DY5818-01]	C6 - C10 (less BTEX)	2009/10/13	<3		mg/kg	
		Benzene	2009/10/14	NC		%	50
		Toluene	2009/10/14	NC		%	50
		Ethylbenzene	2009/10/14	NC		%	50
		Xylene (Total)	2009/10/14	NC		%	50
1968851 MSK	Matrix Spike	C6 - C10 (less BTEX)	2009/10/14	NC		%	50
		4-Bromofluorobenzene	2009/10/14		78	%	60 - 140
		D4-1,2-Dichloroethane	2009/10/14		79	%	60 - 140
		D8-Toluene	2009/10/14		81	%	60 - 140
		1,1,1-Trichloroethane	2009/10/14		91	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/10/14		103	%	60 - 140
		1,1,2-Trichloroethane	2009/10/14		95	%	60 - 140
		1,1-Dichloroethane	2009/10/14		97	%	60 - 140
		1,1-Dichloroethylene	2009/10/14		81	%	60 - 140
		1,2-Dichlorobenzene	2009/10/14		91	%	60 - 140
		1,2-Dichloroethane	2009/10/14		99	%	60 - 140
		1,2-Dichloropropane	2009/10/14		93	%	60 - 140
		1,3-Dichlorobenzene	2009/10/14		85	%	60 - 140
		1,4-Dichlorobenzene	2009/10/14		83	%	60 - 140
		Benzene	2009/10/14		87	%	60 - 140
		Bromodichloromethane	2009/10/14		83	%	60 - 140
		Bromoform	2009/10/14		65	%	60 - 140
		Bromomethane	2009/10/14		107	%	60 - 140
		Carbon Tetrachloride	2009/10/14		83	%	60 - 140
		Chlorobenzene	2009/10/14		93	%	60 - 140
		Chloroform	2009/10/14		101	%	60 - 140
		Chloromethane	2009/10/14		91	%	60 - 140
		cis-1,2-Dichloroethylene	2009/10/14		94	%	60 - 140
		cis-1,3-Dichloropropene	2009/10/14		67	%	60 - 140
		Dibromochloromethane	2009/10/14		69	%	60 - 140
		Ethylbenzene	2009/10/14		89	%	60 - 140
		Ethylene Dibromide	2009/10/14		86	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/10/14		109	%	60 - 140
		o-Xylene	2009/10/14		90	%	60 - 140
		p+m-Xylene	2009/10/14		NC	%	60 - 140
		Styrene	2009/10/14		86	%	60 - 140
		Tetrachloroethylene	2009/10/14		89	%	60 - 140
		Toluene	2009/10/14		NC	%	60 - 140
		trans-1,2-Dichloroethylene	2009/10/14		89	%	60 - 140

Jacques Whitford Limited
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Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D4054

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1968851 MSK	Matrix Spike	trans-1,3-Dichloropropene	2009/10/14		61	%	60 - 140
		Trichloroethylene	2009/10/14		86	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/10/14		71	%	60 - 140
	Spiked Blank	Vinyl Chloride	2009/10/14		67	%	60 - 140
		4-Bromofluorobenzene	2009/10/14		126	%	60 - 140
		D4-1,2-Dichloroethane	2009/10/14		119	%	60 - 140
		D8-Toluene	2009/10/14		122	%	60 - 140
		1,1,1-Trichloroethane	2009/10/14		93	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/10/14		95	%	60 - 140
		1,1,2-Trichloroethane	2009/10/14		96	%	60 - 140
		1,1-Dichloroethane	2009/10/14		96	%	60 - 140
		1,1-Dichloroethylene	2009/10/14		92	%	60 - 140
		1,2-Dichlorobenzene	2009/10/14		95	%	60 - 140
		1,2-Dichloroethane	2009/10/14		98	%	60 - 140
		1,2-Dichloropropane	2009/10/14		91	%	60 - 140
		1,3-Dichlorobenzene	2009/10/14		94	%	60 - 140
		1,4-Dichlorobenzene	2009/10/14		92	%	60 - 140
		Benzene	2009/10/14		93	%	60 - 140
		Bromodichloromethane	2009/10/14		86	%	60 - 140
		Bromoform	2009/10/14		72	%	60 - 140
		Bromomethane	2009/10/14		117	%	60 - 140
		Carbon Tetrachloride	2009/10/14		86	%	60 - 140
		Chlorobenzene	2009/10/14		94	%	60 - 140
		Chloroform	2009/10/14		101	%	60 - 140
		Chloromethane	2009/10/14		92	%	60 - 140
		cis-1,2-Dichloroethylene	2009/10/14		98	%	60 - 140
		cis-1,3-Dichloropropene	2009/10/14		73	%	60 - 140
		Dibromochloromethane	2009/10/14		74	%	60 - 140
		Ethylbenzene	2009/10/14		89	%	60 - 140
		Ethylene Dibromide	2009/10/14		93	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/10/14		106	%	60 - 140
		o-Xylene	2009/10/14		93	%	60 - 140
		p+m-Xylene	2009/10/14		96	%	60 - 140
		Styrene	2009/10/14		93	%	60 - 140
		Tetrachloroethylene	2009/10/14		93	%	60 - 140
		Toluene	2009/10/14		91	%	60 - 140
		trans-1,2-Dichloroethylene	2009/10/14		91	%	60 - 140
		trans-1,3-Dichloropropene	2009/10/14		65	%	60 - 140
		Trichloroethylene	2009/10/14		95	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/10/14		82	%	60 - 140
		Vinyl Chloride	2009/10/14		78	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/10/14		116	%	60 - 140
		D4-1,2-Dichloroethane	2009/10/14		115	%	60 - 140
		D8-Toluene	2009/10/14		120	%	60 - 140
		1,1,1-Trichloroethane	2009/10/14	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/10/14	<30		ug/kg	
		1,1,2-Trichloroethane	2009/10/14	<30		ug/kg	
		1,1-Dichloroethane	2009/10/14	<30		ug/kg	
		1,1-Dichloroethylene	2009/10/14	<30		ug/kg	
		1,2-Dichlorobenzene	2009/10/14	<30		ug/kg	
		1,2-Dichloroethane	2009/10/14	<30		ug/kg	
		1,2-Dichloropropane	2009/10/14	<30		ug/kg	
		1,3-Dichlorobenzene	2009/10/14	<30		ug/kg	
		1,4-Dichlorobenzene	2009/10/14	<30		ug/kg	
		Benzene	2009/10/14	<30		ug/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D4054

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1968851 MSK	Method Blank	Bromodichloromethane	2009/10/14	<30		ug/kg	
		Bromoform	2009/10/14	<30		ug/kg	
		Bromomethane	2009/10/14	<200		ug/kg	
		Carbon Tetrachloride	2009/10/14	<30		ug/kg	
		Chlorobenzene	2009/10/14	<30		ug/kg	
		Chloroform	2009/10/14	<30		ug/kg	
		Chloromethane	2009/10/14	<30		ug/kg	
		cis-1,2-Dichloroethylene	2009/10/14	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/10/14	<30		ug/kg	
		Dibromochloromethane	2009/10/14	<30		ug/kg	
		Ethylbenzene	2009/10/14	<30		ug/kg	
		Ethylene Dibromide	2009/10/14	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/10/14	<30		ug/kg	
		o-Xylene	2009/10/14	<30		ug/kg	
		p+m-Xylene	2009/10/14	<30		ug/kg	
		Styrene	2009/10/14	<30		ug/kg	
		Tetrachloroethylene	2009/10/14	<30		ug/kg	
		Toluene	2009/10/14	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/10/14	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/10/14	<30		ug/kg	
		Trichloroethylene	2009/10/14	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/10/14	<30		ug/kg	
		Vinyl Chloride	2009/10/14	<30		ug/kg	
	RPD	1,1,1-Trichloroethane	2009/10/14	NC		%	50
		1,1,2,2-Tetrachloroethane	2009/10/14	NC		%	50
		1,1,2-Trichloroethane	2009/10/14	NC		%	50
		1,1-Dichloroethane	2009/10/14	NC		%	50
		1,1-Dichloroethylene	2009/10/14	NC		%	50
		1,2-Dichlorobenzene	2009/10/14	NC		%	50
		1,2-Dichloroethane	2009/10/14	NC		%	50
		1,2-Dichloropropane	2009/10/14	NC		%	50
		1,3-Dichlorobenzene	2009/10/14	NC		%	50
		1,4-Dichlorobenzene	2009/10/14	NC		%	50
		Benzene	2009/10/14	57.3 (2)		%	50
		Bromodichloromethane	2009/10/14	NC		%	50
		Bromoform	2009/10/14	NC		%	50
		Bromomethane	2009/10/14	NC		%	50
		Carbon Tetrachloride	2009/10/14	NC		%	50
		Chlorobenzene	2009/10/14	NC		%	50
		Chloroform	2009/10/14	NC		%	50
		Chloromethane	2009/10/14	NC		%	50
		cis-1,2-Dichloroethylene	2009/10/14	NC		%	50
		cis-1,3-Dichloropropene	2009/10/14	NC		%	50
		Dibromochloromethane	2009/10/14	NC		%	50
		Ethylbenzene	2009/10/14	NC		%	50
		Ethylene Dibromide	2009/10/14	NC		%	50
		Methylene Chloride(Dichloromethane)	2009/10/14	NC		%	50
		o-Xylene	2009/10/14	NC		%	50
		p+m-Xylene	2009/10/14	57.6 (2)		%	50
		Styrene	2009/10/14	NC		%	50
		Tetrachloroethylene	2009/10/14	NC		%	50
		Toluene	2009/10/14	52.8 (2)		%	50
		trans-1,2-Dichloroethylene	2009/10/14	NC		%	50
		trans-1,3-Dichloropropene	2009/10/14	NC		%	50
		Trichloroethylene	2009/10/14	NC		%	50

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D4054

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1968851 MSK	RPD	Trichlorofluoromethane (FREON 11)	2009/10/14	NC		%	50
		Vinyl Chloride	2009/10/14	NC		%	50
1968939 RDE	Matrix Spike [DY5818-01]	Isobutylbenzene - Extractable	2009/10/14		88	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/14		110	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/14		92	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/14		118	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/14		95	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/14		107	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/14		88	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/14		110	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/14		95	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/14		105	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/14	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/10/14	<15		mg/kg	
	RPD [DY5818-01]	>C10-C21 Hydrocarbons	2009/10/14	2.1		%	50
		>C21-<C32 Hydrocarbons	2009/10/14	9.7		%	50
1969070 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/10/14		89	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/14		76	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/14		76	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/14		80	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/14		89	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/14		82	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/14		84	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/14		97	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/14		89	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/14		84	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/14	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/10/14	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/10/14	NC		%	50
		>C21-<C32 Hydrocarbons	2009/10/14	NC		%	50
1969378 RST	Matrix Spike [DY5833-01]	Decachlorobiphenyl	2009/10/20		92	%	30 - 130
		Total PCB	2009/10/20		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/20		89	%	30 - 130
		Total PCB	2009/10/20		112	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/20		88	%	30 - 130
		Total PCB	2009/10/20	<0.05		ug/g	
	RPD [DY5833-01]	Total PCB	2009/10/20	NC		%	50
1969492 KGU	Matrix Spike	Available Aluminum (Al)	2009/10/13		102	%	75 - 125
		Available Antimony (Sb)	2009/10/13		95	%	75 - 125
		Available Arsenic (As)	2009/10/13		94	%	75 - 125
		Available Barium (Ba)	2009/10/13		97	%	75 - 125
		Available Beryllium (Be)	2009/10/13		95	%	75 - 125
		Available Bismuth (Bi)	2009/10/13		99	%	75 - 125
		Available Boron (B)	2009/10/13		98	%	75 - 125
		Available Cadmium (Cd)	2009/10/13		96	%	75 - 125
		Available Chromium (Cr)	2009/10/13		95	%	75 - 125
		Available Cobalt (Co)	2009/10/13		96	%	75 - 125
		Available Copper (Cu)	2009/10/13		93	%	75 - 125
		Available Iron (Fe)	2009/10/13		NC	%	75 - 125
		Available Lead (Pb)	2009/10/13		98	%	75 - 125
		Available Lithium (Li)	2009/10/13		98	%	75 - 125
		Available Manganese (Mn)	2009/10/13		95	%	75 - 125
		Available Mercury (Hg)	2009/10/13		90	%	75 - 125

Jacques Whitford Limited
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Client Project #: 1044856/Z9100
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Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D4054

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1969492 KGU	Matrix Spike	Available Molybdenum (Mo)	2009/10/13		94	%	75 - 125
		Available Nickel (Ni)	2009/10/13		95	%	75 - 125
		Available Rubidium (Rb)	2009/10/13		98	%	75 - 125
		Available Selenium (Se)	2009/10/13		85	%	75 - 125
		Available Silver (Ag)	2009/10/13		100	%	75 - 125
		Available Strontium (Sr)	2009/10/13		98	%	75 - 125
		Available Thallium (Tl)	2009/10/13		94	%	75 - 125
		Available Tin (Sn)	2009/10/13		98	%	75 - 125
		Available Uranium (U)	2009/10/13		96	%	75 - 125
		Available Vanadium (V)	2009/10/13		90	%	75 - 125
		Available Zinc (Zn)	2009/10/13		93	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/10/13		77	%	75 - 125
		Available Arsenic (As)	2009/10/13		111	%	75 - 125
		Available Barium (Ba)	2009/10/13		107	%	75 - 125
		Available Chromium (Cr)	2009/10/13		80	%	75 - 125
		Available Cobalt (Co)	2009/10/13		89	%	75 - 125
		Available Copper (Cu)	2009/10/13		80	%	75 - 125
		Available Iron (Fe)	2009/10/13		84	%	75 - 125
		Available Lead (Pb)	2009/10/13		92	%	75 - 125
		Available Manganese (Mn)	2009/10/13		96	%	75 - 125
		Available Nickel (Ni)	2009/10/13		84	%	75 - 125
		Available Strontium (Sr)	2009/10/13		87	%	75 - 125
		Available Vanadium (V)	2009/10/13		99	%	75 - 125
		Available Zinc (Zn)	2009/10/13		103	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/10/13		90	%	75 - 125
		Available Antimony (Sb)	2009/10/13		90	%	75 - 125
		Available Arsenic (As)	2009/10/13		89	%	75 - 125
		Available Barium (Ba)	2009/10/13		91	%	75 - 125
		Available Beryllium (Be)	2009/10/13		86	%	75 - 125
		Available Bismuth (Bi)	2009/10/13		88	%	75 - 125
		Available Boron (B)	2009/10/13		84	%	75 - 125
		Available Cadmium (Cd)	2009/10/13		92	%	75 - 125
		Available Chromium (Cr)	2009/10/13		90	%	75 - 125
		Available Cobalt (Co)	2009/10/13		89	%	75 - 125
		Available Copper (Cu)	2009/10/13		88	%	75 - 125
		Available Iron (Fe)	2009/10/13		88	%	75 - 125
		Available Lead (Pb)	2009/10/13		88	%	75 - 125
		Available Lithium (Li)	2009/10/13		94	%	75 - 125
	Method Blank	Available Manganese (Mn)	2009/10/13		90	%	75 - 125
		Available Mercury (Hg)	2009/10/13		85	%	75 - 125
		Available Molybdenum (Mo)	2009/10/13		89	%	75 - 125
		Available Nickel (Ni)	2009/10/13		86	%	75 - 125
		Available Rubidium (Rb)	2009/10/13		93	%	75 - 125
		Available Selenium (Se)	2009/10/13		99	%	75 - 125
		Available Silver (Ag)	2009/10/13		91	%	75 - 125
		Available Strontium (Sr)	2009/10/13		91	%	75 - 125
		Available Thallium (Tl)	2009/10/13		89	%	75 - 125
		Available Tin (Sn)	2009/10/13		92	%	75 - 125
		Available Uranium (U)	2009/10/13		89	%	75 - 125
		Available Vanadium (V)	2009/10/13		95	%	75 - 125
		Available Zinc (Zn)	2009/10/13		90	%	75 - 125
		Available Aluminum (Al)	2009/10/13	<10		mg/kg	
		Available Antimony (Sb)	2009/10/13	<2		mg/kg	
		Available Arsenic (As)	2009/10/13	<2		mg/kg	
		Available Barium (Ba)	2009/10/13	<5		mg/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D4054

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1969492 KGU	Method Blank	Available Beryllium (Be)	2009/10/13	<2		mg/kg	
		Available Bismuth (Bi)	2009/10/13	<2		mg/kg	
		Available Boron (B)	2009/10/13	<5		mg/kg	
		Available Cadmium (Cd)	2009/10/13	<0.3		mg/kg	
		Available Chromium (Cr)	2009/10/13	<2		mg/kg	
		Available Cobalt (Co)	2009/10/13	<1		mg/kg	
		Available Copper (Cu)	2009/10/13	<2		mg/kg	
		Available Iron (Fe)	2009/10/13	<50		mg/kg	
		Available Lead (Pb)	2009/10/13	<0.5		mg/kg	
		Available Lithium (Li)	2009/10/13	<2		mg/kg	
		Available Manganese (Mn)	2009/10/13	<2		mg/kg	
		Available Mercury (Hg)	2009/10/13	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/10/13	<2		mg/kg	
		Available Nickel (Ni)	2009/10/13	<2		mg/kg	
		Available Rubidium (Rb)	2009/10/13	<2		mg/kg	
		Available Selenium (Se)	2009/10/13	<2		mg/kg	
		Available Silver (Ag)	2009/10/13	<0.5		mg/kg	
		Available Strontium (Sr)	2009/10/13	<5		mg/kg	
		Available Thallium (Tl)	2009/10/13	<0.1		mg/kg	
		Available Tin (Sn)	2009/10/13	<2		mg/kg	
		Available Uranium (U)	2009/10/13	<0.1		mg/kg	
		Available Vanadium (V)	2009/10/13	<2		mg/kg	
		Available Zinc (Zn)	2009/10/13	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/10/13	5.5		%	35
		Available Antimony (Sb)	2009/10/13	NC		%	35
		Available Arsenic (As)	2009/10/13	NC		%	35
		Available Barium (Ba)	2009/10/13	NC		%	35
		Available Beryllium (Be)	2009/10/13	NC		%	35
		Available Bismuth (Bi)	2009/10/13	NC		%	35
		Available Boron (B)	2009/10/13	NC		%	35
		Available Cadmium (Cd)	2009/10/13	NC		%	35
		Available Chromium (Cr)	2009/10/13	NC		%	35
		Available Cobalt (Co)	2009/10/13	NC		%	35
		Available Copper (Cu)	2009/10/13	NC		%	35
		Available Iron (Fe)	2009/10/13	12.2		%	35
		Available Lead (Pb)	2009/10/13	NC		%	35
		Available Lithium (Li)	2009/10/13	NC		%	35
		Available Manganese (Mn)	2009/10/13	NC		%	35
		Available Mercury (Hg)	2009/10/13	NC		%	35
		Available Molybdenum (Mo)	2009/10/13	NC		%	35
		Available Nickel (Ni)	2009/10/13	NC		%	35
		Available Rubidium (Rb)	2009/10/13	NC		%	35
		Available Selenium (Se)	2009/10/13	NC		%	35
		Available Silver (Ag)	2009/10/13	NC		%	35
		Available Strontium (Sr)	2009/10/13	NC		%	35
		Available Thallium (Tl)	2009/10/13	NC		%	35
		Available Tin (Sn)	2009/10/13	NC		%	35
		Available Uranium (U)	2009/10/13	NC		%	35
		Available Vanadium (V)	2009/10/13	NC		%	35
		Available Zinc (Zn)	2009/10/13	NC		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D4054

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: results are outside acceptance limit. Analysis was repeated with similar results.

(2) Duplicate: results are outside acceptance limit due to possible sample in-homogeneity. Analysis was repeated with similar results.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/14

CERTIFICATE OF ANALYSIS

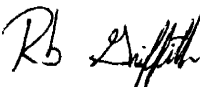
MAXXAM JOB #: A9D1879
Received: 2009/10/03, 10:13

Sample Matrix: Soil
Samples Received: 24

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	5	2009/10/09	2009/10/11	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	4	2009/10/09	2009/10/13	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	2	2009/10/10	2009/10/10	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	6	2009/10/10	2009/10/11	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	6	N/A	2009/10/09	ATL SOP 00024 R4	Based on EPA6020A
Moisture	19	N/A	2009/10/06	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	5	2009/10/07	2009/10/14	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	1	2009/10/06	2009/10/07	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	16	2009/10/06	2009/10/08	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	13	2009/10/03	2009/10/13		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	4	2009/10/03	2009/10/14		Based on Atl. PIRI
Volatile Organic Compounds in Soil	6	2009/10/06	2009/10/09	ATL SOP 00123 R3	Based on USEPA SW-84

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
14 Oct 2009 15:20:48 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DX5039	DX5040	DX5041	DX5042	DX5043		
Sampling Date		2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	BS267	BS268	BS269	BS270	BS271	RDL	QC Batch

Inorganics								
Moisture	%	62	76	57	69	32	1	1962383
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DX5044	DX5045	DX5046	DX5047	DX5053		
Sampling Date		2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW59-SS1	MW60-SS1	MW61-SS1	MW62-SS3	BS262	RDL	QC Batch

Inorganics								
Moisture	%	13	5	20	17	41	1	1962383
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DX5054	DX5055	DX5056	DX5057	DX5058		
Sampling Date		2009/09/30	2009/09/30	2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	BS263	BS264	BS265	BS266	AG-1-FS2	RDL	QC Batch

Inorganics								
Moisture	%	22	23	43	71	20	1	1962383
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DX5059	DX5060	DX5061	DX5062		
Sampling Date		2009/09/30	2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A	N/A		
	Units	AG-2-FS2	AG-3-FS2	AG-4-FS1	AG-5-FS2	RDL	QC Batch

Inorganics							
Moisture	%	17	18	17	34	1	1962383

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DX5048	DX5049	DX5050	DX5051		
Sampling Date		2009/09/30	2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A	N/A		
	Units	BS257	BS258	BS259	BS260	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	10000	2800	10000	7000	10	1967143
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1967143
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1967143
Available Barium (Ba)	mg/kg	9	18	21	36	5	1967143
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1967143
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1967143
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1967143
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	0.5	0.3	1967143
Available Chromium (Cr)	mg/kg	64	6	27	10	2	1967143
Available Cobalt (Co)	mg/kg	2	1	4	1	1	1967143
Available Copper (Cu)	mg/kg	3	8	9	9	2	1967143
Available Iron (Fe)	mg/kg	33000	3200	12000	4200	50	1967143
Available Lead (Pb)	mg/kg	4.1	6.0	7.8	8.9	0.5	1967143
Available Lithium (Li)	mg/kg	3	<2	13	2	2	1967143
Available Manganese (Mn)	mg/kg	25	8	83	22	2	1967143
Available Mercury (Hg)	mg/kg	0.2	<0.1	<0.1	0.1	0.1	1967143
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1967143
Available Nickel (Ni)	mg/kg	10	4	14	4	2	1967143
Available Rubidium (Rb)	mg/kg	4	2	9	2	2	1967143
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1967143
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1967143
Available Strontium (Sr)	mg/kg	<5	9	5	<5	5	1967143
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1967143
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1967143
Available Uranium (U)	mg/kg	1.4	0.5	0.6	2.5	0.1	1967143
Available Vanadium (V)	mg/kg	39	5	27	13	2	1967143
Available Zinc (Zn)	mg/kg	10	28	34	26	5	1967143

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DX5052	DX5056		
Sampling Date		2009/09/30	2009/09/30		
COC Number		N/A	N/A		
	Units	BS261	BS265	RDL	QC Batch

Metals					
Available Aluminum (Al)	mg/kg	6200	6400	10	1967143
Available Antimony (Sb)	mg/kg	2	<2	2	1967143
Available Arsenic (As)	mg/kg	<2	<2	2	1967143
Available Barium (Ba)	mg/kg	33	90	5	1967143
Available Beryllium (Be)	mg/kg	<2	<2	2	1967143
Available Bismuth (Bi)	mg/kg	<2	<2	2	1967143
Available Boron (B)	mg/kg	<5	6	5	1967143
Available Cadmium (Cd)	mg/kg	1.9	<0.3	0.3	1967143
Available Chromium (Cr)	mg/kg	23	22	2	1967143
Available Cobalt (Co)	mg/kg	2	5	1	1967143
Available Copper (Cu)	mg/kg	130	41	2	1967143
Available Iron (Fe)	mg/kg	9300	8600	50	1967143
Available Lead (Pb)	mg/kg	82	50	0.5	1967143
Available Lithium (Li)	mg/kg	5	5	2	1967143
Available Manganese (Mn)	mg/kg	67	120	2	1967143
Available Mercury (Hg)	mg/kg	0.1	0.3	0.1	1967143
Available Molybdenum (Mo)	mg/kg	<2	<2	2	1967143
Available Nickel (Ni)	mg/kg	14	13	2	1967143
Available Rubidium (Rb)	mg/kg	8	8	2	1967143
Available Selenium (Se)	mg/kg	2	<2	2	1967143
Available Silver (Ag)	mg/kg	<0.5	<0.5	0.5	1967143
Available Strontium (Sr)	mg/kg	8	40	5	1967143
Available Thallium (Tl)	mg/kg	<0.1	0.1	0.1	1967143
Available Tin (Sn)	mg/kg	<2	<2	2	1967143
Available Uranium (U)	mg/kg	1.3	0.4	0.1	1967143
Available Vanadium (V)	mg/kg	17	15	2	1967143
Available Zinc (Zn)	mg/kg	57	42	5	1967143

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DX5044	DX5046	DX5047	DX5058		
Sampling Date		2009/09/30	2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW59-SS1	MW61-SS1	MW62-SS3	AG-1-FS2	RDL	QC Batch

Volatiles Organics							
1,1,1-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1965437
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	<30	<30	30	1965437
1,1,2-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1965437
1,1-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1965437
1,1-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1965437
1,2-Dichlorobenzene	ug/kg	<30	160	<30	<30	30	1965437
1,2-Dichloroethane	ug/kg	<30	44	<30	<30	30	1965437
1,2-Dichloropropane	ug/kg	<30	<30	<30	<30	30	1965437
1,3-Dichlorobenzene	ug/kg	<30	65	<30	<30	30	1965437
1,4-Dichlorobenzene	ug/kg	<30	270	<30	<30	30	1965437
Benzene	ug/kg	<30	<30	<30	<30	30	1965437
Bromodichloromethane	ug/kg	<30	<30	<30	<30	30	1965437
Bromoform	ug/kg	<30	<30	<30	<30	30	1965437
Bromomethane	ug/kg	<200	<200	<200	<200	200	1965437
Carbon Tetrachloride	ug/kg	<30	<30	<30	<30	30	1965437
Chlorobenzene	ug/kg	<30	<30	<30	<30	30	1965437
Chloroform	ug/kg	<30	<30	<30	<30	30	1965437
Chloromethane	ug/kg	<30	<30	<30	<30	30	1965437
cis-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1965437
cis-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1965437
Dibromochloromethane	ug/kg	<30	<30	<30	<30	30	1965437
Ethylbenzene	ug/kg	<30	<30	<30	<30	30	1965437
Ethylene Dibromide	ug/kg	<30	<30	<30	<30	30	1965437
Methylene Chloride(Dichloromethane)	ug/kg	<30	<30	<30	<30	30	1965437
o-Xylene	ug/kg	<30	<30	<30	<30	30	1965437
p+m-Xylene	ug/kg	<30	96	<30	<30	30	1965437
Styrene	ug/kg	<30	<30	<30	<30	30	1965437
Tetrachloroethylene	ug/kg	<30	<30	<30	<30	30	1965437
Toluene	ug/kg	<30	190	<30	<30	30	1965437
trans-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1965437

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DX5044	DX5046	DX5047	DX5058		
Sampling Date		2009/09/30	2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW59-SS1	MW61-SS1	MW62-SS3	AG-1-FS2	RDL	QC Batch
trans-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1965437
Trichloroethylene	ug/kg	<30	41	<30	<30	30	1965437
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	<30	<30	30	1965437
Vinyl Chloride	ug/kg	<30	<30	<30	<30	30	1965437
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	103	100	102	106		1965437
D4-1,2-Dichloroethane	%	104	106	107	110		1965437
D8-Toluene	%	105	100	103	109		1965437
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DX5060	DX5062		
Sampling Date		2009/09/30	2009/09/30		
COC Number		N/A	N/A		
	Units	AG-3-FS2	AG-5-FS2	RDL	QC Batch

Volatile Organics					
1,1,1-Trichloroethane	ug/kg	<30	<30	30	1965437
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	30	1965437
1,1,2-Trichloroethane	ug/kg	<30	<30	30	1965437
1,1-Dichloroethane	ug/kg	<30	<30	30	1965437
1,1-Dichloroethylene	ug/kg	<30	<30	30	1965437
1,2-Dichlorobenzene	ug/kg	<30	<30	30	1965437
1,2-Dichloroethane	ug/kg	<30	<30	30	1965437
1,2-Dichloropropane	ug/kg	<30	<30	30	1965437
1,3-Dichlorobenzene	ug/kg	<30	<30	30	1965437
1,4-Dichlorobenzene	ug/kg	<30	<30	30	1965437
Benzene	ug/kg	<30	<30	30	1965437
Bromodichloromethane	ug/kg	<30	<30	30	1965437
Bromoform	ug/kg	<30	<30	30	1965437
Bromomethane	ug/kg	<200	<200	200	1965437
Carbon Tetrachloride	ug/kg	<30	<30	30	1965437
Chlorobenzene	ug/kg	<30	<30	30	1965437
Chloroform	ug/kg	<30	<30	30	1965437
Chloromethane	ug/kg	<30	<30	30	1965437
cis-1,2-Dichloroethylene	ug/kg	<30	<30	30	1965437
cis-1,3-Dichloropropene	ug/kg	<30	<30	30	1965437
Dibromochloromethane	ug/kg	<30	<30	30	1965437
Ethylbenzene	ug/kg	<30	<30	30	1965437
Ethylene Dibromide	ug/kg	<30	<30	30	1965437
Methylene Chloride(Dichloromethane)	ug/kg	<30	<30	30	1965437
o-Xylene	ug/kg	<30	<30	30	1965437
p+m-Xylene	ug/kg	<30	53	30	1965437
Styrene	ug/kg	<30	<30	30	1965437
Tetrachloroethylene	ug/kg	<30	<30	30	1965437
Toluene	ug/kg	<30	110	30	1965437
trans-1,2-Dichloroethylene	ug/kg	<30	<30	30	1965437

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DX5060	DX5062		
Sampling Date		2009/09/30	2009/09/30		
COC Number		N/A	N/A		
	Units	AG-3-FS2	AG-5-FS2	RDL	QC Batch

trans-1,3-Dichloropropene	ug/kg	<30	<30	30	1965437
Trichloroethylene	ug/kg	<30	<30	30	1965437
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	30	1965437
Vinyl Chloride	ug/kg	<30	<30	30	1965437
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	96	101		1965437
D4-1,2-Dichloroethane	%	103	107		1965437
D8-Toluene	%	97	103		1965437

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX5039	DX5040	DX5041		
Sampling Date		2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A		
	Units	BS267	BS268	BS269	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1963691
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1963691
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1963691
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1963691
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1963691
>C10-C21 Hydrocarbons	mg/kg	370	720	35	15	1967023
>C21-<C32 Hydrocarbons	mg/kg	140	190	130	15	1967023
Modified TPH (Tier1)	mg/kg	510	920	170	20	1960410
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	61	98	94		1967023
n-Dotriacontane - Extractable	%	59 (1)	95 (2)	97 (3)		1967023
Isobutylbenzene - Volatile	%	65	68	77		1963691

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) One product in fuel oil range. No resemblance to petroleum products in lube oil range. Silica gel clean-up performed prior to analysis as per client request.

(3) No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX5042		DX5043	DX5044		
Sampling Date		2009/09/30		2009/09/30	2009/09/30		
COC Number		N/A		N/A	N/A		
	Units	BS270	RDL	BS271	MW59-SS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	0.03	<0.03	<0.03	0.03	1963691
Toluene	mg/kg	<0.03	0.03	<0.03	<0.03	0.03	1963691
Ethylbenzene	mg/kg	<0.07 (1)	0.07	<0.03	<0.03	0.03	1963691
Xylene (Total)	mg/kg	<0.09 (1)	0.09	<0.05	<0.05	0.05	1963691
C6 - C10 (less BTEX)	mg/kg	<3	3	<3	<3	3	1963691
>C10-C21 Hydrocarbons	mg/kg	190	15	5000	<15	15	1968178
>C21-<C32 Hydrocarbons	mg/kg	200	15	230	20	15	1968178
Modified TPH (Tier1)	mg/kg	400	20	5200	<20	20	1960410
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	98		106	100		1968178
n-Dotriacontane - Extractable	%	113 (2)		110 (3)	112 (4)		1968178
Isobutylbenzene - Volatile	%	83		106	105		1963691

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VPH RDL(s) due to matrix interference.

(2) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Silica gel clean-up performed prior to analysis as per client request.

(3) Weathered fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(4) No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX5045	DX5046	DX5047		
Sampling Date		2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A		
	Units	MW60-SS1	MW61-SS1	MW62-SS3	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1963691
Toluene	mg/kg	<0.03	0.09	<0.03	0.03	1963691
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1963691
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1963691
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1963691
>C10-C21 Hydrocarbons	mg/kg	<15	340	25	15	1967023
>C21-<C32 Hydrocarbons	mg/kg	27	3100	58	15	1967023
Modified TPH (Tier1)	mg/kg	27	3400	84	20	1960410
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	93	102	94		1967023
n-Dotriacontane - Extractable	%	131 (1)	37 (2)	136 (3)		1967023
Isobutylbenzene - Volatile	%	104	99	106		1963691

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Possible lube oil fraction. TEH Surrogate(s): results are within acceptance limits.

(2) Weathered fuel oil fraction. Lube oil fraction. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(3) Weathered fuel oil fraction. Possible lube oil fraction. TEH Surrogate(s): results are within acceptance limits.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX5053	DX5053	DX5054		
Sampling Date		2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A		
	Units	BS262	BS262 Lab-Dup	BS263	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1963691
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1963691
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1963691
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1963691
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1963691
>C10-C21 Hydrocarbons	mg/kg	<15		<15	15	1968178
>C21-<C32 Hydrocarbons	mg/kg	120		23	15	1968178
Modified TPH (Tier1)	mg/kg	120		23	20	1960410
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	104		103		1968178
n-Dotriacontane - Extractable	%	114 (1)		111 (1)		1968178
Isobutylbenzene - Volatile	%	100	91	108		1963691
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.						

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX5055	DX5056	DX5057		
Sampling Date		2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A		
	Units	BS264	BS265	BS266	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1964283
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1964283
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1964283
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1964283
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1964283
>C10-C21 Hydrocarbons	mg/kg	<15	76	90	15	1968178
>C21-<C32 Hydrocarbons	mg/kg	38	670	330	15	1968178
Modified TPH (Tier1)	mg/kg	38	750	420	20	1960410
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	107	99	94		1968178
n-Dotriacontane - Extractable	%	120 (1)	106 (2)	115 (3)		1968178
Isobutylbenzene - Volatile	%	108	83	61		1964283

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

(2) Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(3) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX5058	DX5060	DX5062		
Sampling Date		2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A		
	Units	AG-1-FS2	AG-3-FS2	AG-5-FS2	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1964283
Toluene	mg/kg	<0.03	<0.03	0.06	0.03	1964283
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1964283
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1964283
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1964283
>C10-C21 Hydrocarbons	mg/kg	<15	<15	300	15	1967023
>C21-<C32 Hydrocarbons	mg/kg	46	30	1500	15	1967023
Modified TPH (Tier1)	mg/kg	46	30	1800	20	1960410
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	96	91	97		1967023
n-Dotriacontane - Extractable	%	127 (1)	131 (2)	90 (3)		1967023
Isobutylbenzene - Volatile	%	98	100	86		1964283

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Possible lube oil fraction.

(2) Possible lube oil fraction. TEH Surrogate(s): results are within acceptance limits.

(3) Weathered fuel oil fraction. Lube oil fraction. Unidentified compound(s) in fuel / lube range.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DX5046	DX5047	DX5056	DX5059		
Sampling Date		2009/09/30	2009/09/30	2009/09/30	2009/09/30		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW61-SS1	MW62-SS3	BS265	AG-2-FS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	29	0.20	1.1	0.54	0.05	1964210
Surrogate Recovery (%)							
Decachlorobiphenyl	%	73 (1)	81 (2)	75 (2)	75 (2)		1964210

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1254, 1260.
(2) Aroclor 1260.

Maxxam ID		DX5061		
Sampling Date		2009/09/30		
COC Number		N/A		
	Units	AG-4-FS1	RDL	QC Batch

PCBs				
Total PCB	ug/g	1.1	0.05	1964210
Surrogate Recovery (%)				
Decachlorobiphenyl	%	77 (1)		1964210

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9D1879
Report Date: 2009/10/14

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: WS#1965437 - Chloroethane unavailable due to calibration non-conformance.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9D1879

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1963691 ASL	Matrix Spike [DX5053-01]	Isobutylbenzene - Volatile	2009/10/08		108	%	60 - 140
		Benzene	2009/10/08		92	%	60 - 140
		Toluene	2009/10/08		124	%	60 - 140
		Ethylbenzene	2009/10/08		112	%	60 - 140
		Xylene (Total)	2009/10/08		124	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/08		99	%	60 - 140
		Benzene	2009/10/08		81	%	60 - 140
		Toluene	2009/10/08		84	%	60 - 140
		Ethylbenzene	2009/10/08		80	%	60 - 140
		Xylene (Total)	2009/10/08		83	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/10/08		100	%	60 - 140
		Benzene	2009/10/08	<0.03		mg/kg	
		Toluene	2009/10/08	<0.03		mg/kg	
		Ethylbenzene	2009/10/08	<0.03		mg/kg	
		Xylene (Total)	2009/10/08	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/10/08	<3		mg/kg	
		RPD [DX5053-01]					
		Benzene	2009/10/08	NC		%	50
		Toluene	2009/10/08	NC		%	50
		Ethylbenzene	2009/10/08	NC		%	50
		Xylene (Total)	2009/10/08	NC		%	50
		C6 - C10 (less BTEX)	2009/10/08	NC		%	50
1964210 CMI	Matrix Spike	Decachlorobiphenyl	2009/10/14		80	%	30 - 130
		Total PCB	2009/10/14		124	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/14		78	%	30 - 130
		Total PCB	2009/10/14		104	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/14		77	%	30 - 130
		Total PCB	2009/10/14	<0.05		ug/g	
	RPD	Total PCB	2009/10/14	NC		%	50
	Matrix Spike	Isobutylbenzene - Volatile	2009/10/07		84	%	60 - 140
		Benzene	2009/10/07		71	%	60 - 140
		Toluene	2009/10/07		94	%	60 - 140
		Ethylbenzene	2009/10/07		89	%	60 - 140
		Xylene (Total)	2009/10/07		96	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/07		92	%	60 - 140
		Benzene	2009/10/07		83	%	60 - 140
		Toluene	2009/10/07		87	%	60 - 140
		Ethylbenzene	2009/10/07		82	%	60 - 140
		Xylene (Total)	2009/10/07		83	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/10/07		100	%	60 - 140
		Benzene	2009/10/07	<0.03		mg/kg	
		Toluene	2009/10/07	<0.03		mg/kg	
		Ethylbenzene	2009/10/07	<0.03		mg/kg	
		Xylene (Total)	2009/10/07	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/10/07	<3		mg/kg	
	RPD	Benzene	2009/10/07	NC		%	50
		Toluene	2009/10/07	NC		%	50
		Ethylbenzene	2009/10/07	NC		%	50
		Xylene (Total)	2009/10/07	NC		%	50
		C6 - C10 (less BTEX)	2009/10/07	NC		%	50
1965437 MSK	Matrix Spike	4-Bromofluorobenzene	2009/10/09		65	%	60 - 140
		D4-1,2-Dichloroethane	2009/10/09		83	%	60 - 140
		D8-Toluene	2009/10/09		64	%	60 - 140
		1,1,1-Trichloroethane	2009/10/09		79	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/10/09		85	%	60 - 140

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1879

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1965437 MSK	Matrix Spike	1,1,2-Trichloroethane	2009/10/09		85	%	60 - 140	
		1,1-Dichloroethane	2009/10/09		91	%	60 - 140	
		1,1-Dichloroethylene	2009/10/09		75	%	60 - 140	
		1,2-Dichlorobenzene	2009/10/09		67	%	60 - 140	
		1,2-Dichloroethane	2009/10/09		89	%	60 - 140	
		1,2-Dichloropropane	2009/10/09		79	%	60 - 140	
		1,3-Dichlorobenzene	2009/10/09		61	%	60 - 140	
		1,4-Dichlorobenzene	2009/10/09		63	%	60 - 140	
		Benzene	2009/10/09		77	%	60 - 140	
		Bromodichloromethane	2009/10/09		73	%	60 - 140	
		Bromoform	2009/10/09		59 (1)	%	60 - 140	
		Bromomethane	2009/10/09		87	%	60 - 140	
		Carbon Tetrachloride	2009/10/09		63	%	60 - 140	
		Chlorobenzene	2009/10/09		75	%	60 - 140	
		Chloroform	2009/10/09		97	%	60 - 140	
		Chloromethane	2009/10/09		63	%	60 - 140	
		cis-1,2-Dichloroethylene	2009/10/09		92	%	60 - 140	
		cis-1,3-Dichloropropene	2009/10/09		67	%	60 - 140	
		Dibromochloromethane	2009/10/09		61	%	60 - 140	
		Ethylbenzene	2009/10/09		63	%	60 - 140	
		Ethylene Dibromide	2009/10/09		74	%	60 - 140	
		Methylene Chloride(Dichloromethane)	2009/10/09		99	%	60 - 140	
		o-Xylene	2009/10/09		64	%	60 - 140	
		p+m-Xylene	2009/10/09		66	%	60 - 140	
		Styrene	2009/10/09		70	%	60 - 140	
		Tetrachloroethylene	2009/10/09		55 (1)	%	60 - 140	
		Toluene	2009/10/09		71	%	60 - 140	
		trans-1,2-Dichloroethylene	2009/10/09		77	%	60 - 140	
		trans-1,3-Dichloropropene	2009/10/09		57 (1)	%	60 - 140	
		Trichloroethylene	2009/10/09		72	%	60 - 140	
		Trichlorofluoromethane (FREON 11)	2009/10/09		NC	%	60 - 140	
		Vinyl Chloride	2009/10/09		57 (1)	%	60 - 140	
	Spiked Blank	4-Bromofluorobenzene	2009/10/09		105	%	60 - 140	
		D4-1,2-Dichloroethane	2009/10/09		108	%	60 - 140	
		D8-Toluene	2009/10/09		105	%	60 - 140	
		1,1,1-Trichloroethane	2009/10/09		97	%	60 - 140	
		1,1,2,2-Tetrachloroethane	2009/10/09		96	%	60 - 140	
		1,1,2-Trichloroethane	2009/10/09		95	%	60 - 140	
		1,1-Dichloroethane	2009/10/09		99	%	60 - 140	
		1,1-Dichloroethylene	2009/10/09		94	%	60 - 140	
		1,2-Dichlorobenzene	2009/10/09		101	%	60 - 140	
		1,2-Dichloroethane	2009/10/09		98	%	60 - 140	
		1,2-Dichloropropane	2009/10/09		92	%	60 - 140	
		1,3-Dichlorobenzene	2009/10/09		102	%	60 - 140	
		1,4-Dichlorobenzene	2009/10/09		100	%	60 - 140	
		Benzene	2009/10/09		93	%	60 - 140	
		Bromodichloromethane	2009/10/09		83	%	60 - 140	
		Bromoform	2009/10/09		70	%	60 - 140	
		Bromomethane	2009/10/09		81	%	60 - 140	
		Carbon Tetrachloride	2009/10/09		88	%	60 - 140	
		Chlorobenzene	2009/10/09		100	%	60 - 140	
		Chloroform	2009/10/09		102	%	60 - 140	
		Chloromethane	2009/10/09		66	%	60 - 140	
		cis-1,2-Dichloroethylene	2009/10/09		102	%	60 - 140	
		cis-1,3-Dichloropropene	2009/10/09		77	%	60 - 140	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1879

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1965437	MSK	Spiked Blank	Dibromochloromethane	2009/10/09	73	%	60 - 140	
			Ethylbenzene	2009/10/09	96	%	60 - 140	
			Ethylene Dibromide	2009/10/09	94	%	60 - 140	
			Methylene Chloride(Dichloromethane)	2009/10/09	106	%	60 - 140	
			o-Xylene	2009/10/09	99	%	60 - 140	
			p+m-Xylene	2009/10/09	104	%	60 - 140	
			Styrene	2009/10/09	100	%	60 - 140	
			Tetrachloroethylene	2009/10/09	101	%	60 - 140	
			Toluene	2009/10/09	95	%	60 - 140	
			trans-1,2-Dichloroethylene	2009/10/09	98	%	60 - 140	
			trans-1,3-Dichloropropene	2009/10/09	69	%	60 - 140	
			Trichloroethylene	2009/10/09	97	%	60 - 140	
			Trichlorofluoromethane (FREON 11)	2009/10/09	92	%	60 - 140	
			Vinyl Chloride	2009/10/09	65	%	60 - 140	
	Method Blank	4-Bromofluorobenzene	2009/10/09	99	%	60 - 140		
		D4-1,2-Dichloroethane	2009/10/09	104	%	60 - 140		
		D8-Toluene	2009/10/09	102	%	60 - 140		
		1,1,1-Trichloroethane	2009/10/09	<30		ug/kg		
		1,1,2,2-Tetrachloroethane	2009/10/09	<30		ug/kg		
		1,1,2-Trichloroethane	2009/10/09	<30		ug/kg		
		1,1-Dichloroethane	2009/10/09	<30		ug/kg		
		1,1-Dichloroethylene	2009/10/09	<30		ug/kg		
		1,2-Dichlorobenzene	2009/10/09	<30		ug/kg		
		1,2-Dichloroethane	2009/10/09	<30		ug/kg		
		1,2-Dichloropropane	2009/10/09	<30		ug/kg		
		1,3-Dichlorobenzene	2009/10/09	<30		ug/kg		
		1,4-Dichlorobenzene	2009/10/09	<30		ug/kg		
		Benzene	2009/10/09	<30		ug/kg		
		Bromodichloromethane	2009/10/09	<30		ug/kg		
		Bromoform	2009/10/09	<30		ug/kg		
		Bromomethane	2009/10/09	<200		ug/kg		
		Carbon Tetrachloride	2009/10/09	<30		ug/kg		
		Chlorobenzene	2009/10/09	<30		ug/kg		
		Chloroform	2009/10/09	<30		ug/kg		
		Chloromethane	2009/10/09	<30		ug/kg		
		cis-1,2-Dichloroethylene	2009/10/09	<30		ug/kg		
		cis-1,3-Dichloropropene	2009/10/09	<30		ug/kg		
		Dibromochloromethane	2009/10/09	<30		ug/kg		
		Ethylbenzene	2009/10/09	<30		ug/kg		
		Ethylene Dibromide	2009/10/09	<30		ug/kg		
		Methylene Chloride(Dichloromethane)	2009/10/09	<30		ug/kg		
		o-Xylene	2009/10/09	<30		ug/kg		
		p+m-Xylene	2009/10/09	<30		ug/kg		
		Styrene	2009/10/09	<30		ug/kg		
		Tetrachloroethylene	2009/10/09	<30		ug/kg		
		Toluene	2009/10/09	<30		ug/kg		
		trans-1,2-Dichloroethylene	2009/10/09	<30		ug/kg		
		trans-1,3-Dichloropropene	2009/10/09	<30		ug/kg		
		Trichloroethylene	2009/10/09	<30		ug/kg		
		Trichlorofluoromethane (FREON 11)	2009/10/09	<30		ug/kg		
		Vinyl Chloride	2009/10/09	<30		ug/kg		
	RPD	1,1,1-Trichloroethane	2009/10/09	NC		%	50	
		1,1,2,2-Tetrachloroethane	2009/10/09	NC		%	50	
		1,1,2-Trichloroethane	2009/10/09	NC		%	50	
		1,1-Dichloroethane	2009/10/09	NC		%	50	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1879

QA/QC Batch			Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965437	MSK	RPD	1,1-Dichloroethylene	2009/10/09	NC		%	50
			1,2-Dichlorobenzene	2009/10/09	NC		%	50
			1,2-Dichloroethane	2009/10/09	NC		%	50
			1,2-Dichloropropane	2009/10/09	NC		%	50
			1,3-Dichlorobenzene	2009/10/09	NC		%	50
			1,4-Dichlorobenzene	2009/10/09	NC		%	50
			Benzene	2009/10/09	NC		%	50
			Bromodichloromethane	2009/10/09	NC		%	50
			Bromoform	2009/10/09	NC		%	50
			Bromomethane	2009/10/09	NC		%	50
			Carbon Tetrachloride	2009/10/09	NC		%	50
			Chlorobenzene	2009/10/09	NC		%	50
			Chloroform	2009/10/09	NC		%	50
			Chloromethane	2009/10/09	NC		%	50
			cis-1,2-Dichloroethylene	2009/10/09	NC		%	50
			cis-1,3-Dichloropropene	2009/10/09	NC		%	50
			Dibromochloromethane	2009/10/09	NC		%	50
			Ethylbenzene	2009/10/09	NC		%	50
			Ethylene Dibromide	2009/10/09	NC		%	50
			Methylene Chloride(Dichloromethane)	2009/10/09	NC		%	50
			o-Xylene	2009/10/09	NC		%	50
			p+m-Xylene	2009/10/09	NC		%	50
			Styrene	2009/10/09	NC		%	50
			Tetrachloroethylene	2009/10/09	NC		%	50
			Toluene	2009/10/09	NC		%	50
			trans-1,2-Dichloroethylene	2009/10/09	NC		%	50
			trans-1,3-Dichloropropene	2009/10/09	NC		%	50
			Trichloroethylene	2009/10/09	NC		%	50
			Trichlorofluoromethane (FREON 11)	2009/10/09	116 (2)		%	50
			Vinyl Chloride	2009/10/09	NC		%	50
1967023	LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/11		101	%	30 - 130
			n-Dotriacontane - Extractable	2009/10/11		102	%	30 - 130
			>C10-C21 Hydrocarbons	2009/10/11		91	%	30 - 130
			>C21-<C32 Hydrocarbons	2009/10/11		103	%	30 - 130
		Spiked Blank	Isobutylbenzene - Extractable	2009/10/11		102	%	30 - 130
			n-Dotriacontane - Extractable	2009/10/11		103	%	30 - 130
			>C10-C21 Hydrocarbons	2009/10/11		94	%	30 - 130
			>C21-<C32 Hydrocarbons	2009/10/11		107	%	30 - 130
		Method Blank	Isobutylbenzene - Extractable	2009/10/11		105	%	30 - 130
			n-Dotriacontane - Extractable	2009/10/11		101	%	30 - 130
			>C10-C21 Hydrocarbons	2009/10/11	<15		mg/kg	
			>C21-<C32 Hydrocarbons	2009/10/11	<15		mg/kg	
		RPD	>C10-C21 Hydrocarbons	2009/10/11	NC		%	50
			>C21-<C32 Hydrocarbons	2009/10/11	NC		%	50
1967143	KGU	Matrix Spike	Available Aluminum (Al)	2009/10/09		NC	%	75 - 125
			Available Antimony (Sb)	2009/10/09		79	%	75 - 125
			Available Arsenic (As)	2009/10/09		NC	%	75 - 125
			Available Barium (Ba)	2009/10/09		NC	%	75 - 125
			Available Beryllium (Be)	2009/10/09		96	%	75 - 125
			Available Bismuth (Bi)	2009/10/09		100	%	75 - 125
			Available Boron (B)	2009/10/09		77	%	75 - 125
			Available Cadmium (Cd)	2009/10/09		95	%	75 - 125
			Available Chromium (Cr)	2009/10/09		NC	%	75 - 125
			Available Cobalt (Co)	2009/10/09		105	%	75 - 125
			Available Copper (Cu)	2009/10/09		NC	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1879

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1967143 KGU	Matrix Spike	Available Iron (Fe)	2009/10/09		NC	%	75 - 125
		Available Lead (Pb)	2009/10/09		NC	%	75 - 125
		Available Lithium (Li)	2009/10/09		NC	%	75 - 125
		Available Manganese (Mn)	2009/10/09		NC	%	75 - 125
		Available Mercury (Hg)	2009/10/09		107	%	75 - 125
		Available Molybdenum (Mo)	2009/10/09		98	%	75 - 125
		Available Nickel (Ni)	2009/10/09		109	%	75 - 125
		Available Rubidium (Rb)	2009/10/09		80	%	75 - 125
		Available Selenium (Se)	2009/10/09		100	%	75 - 125
		Available Silver (Ag)	2009/10/09		96	%	75 - 125
		Available Strontium (Sr)	2009/10/09		93	%	75 - 125
		Available Thallium (Tl)	2009/10/09		99	%	75 - 125
		Available Tin (Sn)	2009/10/09		102	%	75 - 125
		Available Uranium (U)	2009/10/09		99	%	75 - 125
		Available Vanadium (V)	2009/10/09		NC	%	75 - 125
		Available Zinc (Zn)	2009/10/09		89	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/10/09		79	%	75 - 125
		Available Arsenic (As)	2009/10/09		109	%	75 - 125
		Available Barium (Ba)	2009/10/09		104	%	75 - 125
		Available Chromium (Cr)	2009/10/09		82	%	75 - 125
		Available Cobalt (Co)	2009/10/09		100	%	75 - 125
		Available Copper (Cu)	2009/10/09		89	%	75 - 125
		Available Iron (Fe)	2009/10/09		93	%	75 - 125
		Available Lead (Pb)	2009/10/09		104	%	75 - 125
		Available Manganese (Mn)	2009/10/09		96	%	75 - 125
		Available Nickel (Ni)	2009/10/09		99	%	75 - 125
		Available Strontium (Sr)	2009/10/09		100	%	75 - 125
		Available Vanadium (V)	2009/10/09		107	%	75 - 125
		Available Zinc (Zn)	2009/10/09		94	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/10/09		97	%	75 - 125
		Available Antimony (Sb)	2009/10/09		114	%	75 - 125
		Available Arsenic (As)	2009/10/09		98	%	75 - 125
		Available Barium (Ba)	2009/10/09		97	%	75 - 125
		Available Beryllium (Be)	2009/10/09		98	%	75 - 125
		Available Bismuth (Bi)	2009/10/09		102	%	75 - 125
		Available Boron (B)	2009/10/09		90	%	75 - 125
		Available Cadmium (Cd)	2009/10/09		101	%	75 - 125
		Available Chromium (Cr)	2009/10/09		89	%	75 - 125
		Available Cobalt (Co)	2009/10/09		100	%	75 - 125
		Available Copper (Cu)	2009/10/09		93	%	75 - 125
		Available Iron (Fe)	2009/10/09		91	%	75 - 125
		Available Lead (Pb)	2009/10/09		97	%	75 - 125
		Available Lithium (Li)	2009/10/09		97	%	75 - 125
		Available Manganese (Mn)	2009/10/09		87	%	75 - 125
		Available Mercury (Hg)	2009/10/09		114	%	75 - 125
		Available Molybdenum (Mo)	2009/10/09		103	%	75 - 125
		Available Nickel (Ni)	2009/10/09		99	%	75 - 125
		Available Rubidium (Rb)	2009/10/09		105	%	75 - 125
		Available Selenium (Se)	2009/10/09		103	%	75 - 125
		Available Silver (Ag)	2009/10/09		101	%	75 - 125
		Available Strontium (Sr)	2009/10/09		100	%	75 - 125
		Available Thallium (Tl)	2009/10/09		94	%	75 - 125
		Available Tin (Sn)	2009/10/09		108	%	75 - 125
		Available Uranium (U)	2009/10/09		94	%	75 - 125
		Available Vanadium (V)	2009/10/09		97	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1879

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1967143 KGU	Spiked Blank	Available Zinc (Zn)	2009/10/09		93	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/10/09	<10		mg/kg	
		Available Antimony (Sb)	2009/10/09	<2		mg/kg	
		Available Arsenic (As)	2009/10/09	<2		mg/kg	
		Available Barium (Ba)	2009/10/09	<5		mg/kg	
		Available Beryllium (Be)	2009/10/09	<2		mg/kg	
		Available Bismuth (Bi)	2009/10/09	<2		mg/kg	
		Available Boron (B)	2009/10/09	<5		mg/kg	
		Available Cadmium (Cd)	2009/10/09	<0.3		mg/kg	
		Available Chromium (Cr)	2009/10/09	<2		mg/kg	
		Available Cobalt (Co)	2009/10/09	<1		mg/kg	
		Available Copper (Cu)	2009/10/09	<2		mg/kg	
		Available Iron (Fe)	2009/10/09	<50		mg/kg	
		Available Lead (Pb)	2009/10/09	<0.5		mg/kg	
		Available Lithium (Li)	2009/10/09	<2		mg/kg	
		Available Manganese (Mn)	2009/10/09	<2		mg/kg	
		Available Mercury (Hg)	2009/10/09	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/10/09	<2		mg/kg	
		Available Nickel (Ni)	2009/10/09	<2		mg/kg	
		Available Rubidium (Rb)	2009/10/09	<2		mg/kg	
		Available Selenium (Se)	2009/10/09	<2		mg/kg	
		Available Silver (Ag)	2009/10/09	<0.5		mg/kg	
		Available Strontium (Sr)	2009/10/09	<5		mg/kg	
		Available Thallium (Tl)	2009/10/09	<0.1		mg/kg	
		Available Tin (Sn)	2009/10/09	<2		mg/kg	
		Available Uranium (U)	2009/10/09	<0.1		mg/kg	
		Available Vanadium (V)	2009/10/09	<2		mg/kg	
		Available Zinc (Zn)	2009/10/09	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/10/09	0.6		%	35
		Available Antimony (Sb)	2009/10/09	NC		%	35
		Available Arsenic (As)	2009/10/09	4.1		%	35
		Available Barium (Ba)	2009/10/09	1.2		%	35
		Available Beryllium (Be)	2009/10/09	NC		%	35
		Available Bismuth (Bi)	2009/10/09	NC		%	35
		Available Boron (B)	2009/10/09	NC		%	35
		Available Cadmium (Cd)	2009/10/09	NC		%	35
		Available Chromium (Cr)	2009/10/09	3.1		%	35
		Available Cobalt (Co)	2009/10/09	12.7		%	35
		Available Copper (Cu)	2009/10/09	0.9		%	35
		Available Iron (Fe)	2009/10/09	3.9		%	35
		Available Lead (Pb)	2009/10/09	5.5		%	35
		Available Lithium (Li)	2009/10/09	2.6		%	35
		Available Manganese (Mn)	2009/10/09	10.4		%	35
		Available Mercury (Hg)	2009/10/09	NC		%	35
		Available Molybdenum (Mo)	2009/10/09	NC		%	35
		Available Nickel (Ni)	2009/10/09	NC		%	35
		Available Rubidium (Rb)	2009/10/09	NC		%	35
		Available Selenium (Se)	2009/10/09	NC		%	35
		Available Silver (Ag)	2009/10/09	NC		%	35
		Available Strontium (Sr)	2009/10/09	NC		%	35
		Available Thallium (Tl)	2009/10/09	NC		%	35
		Available Tin (Sn)	2009/10/09	NC		%	35
		Available Uranium (U)	2009/10/09	2.8		%	35
		Available Vanadium (V)	2009/10/09	7.2		%	35
		Available Zinc (Zn)	2009/10/09	1.5		%	35

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1879

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1968178 RDE	Matrix Spike	Isobutylbenzene - Extractable	2009/10/13		88	%	30 - 130	
		n-Dotriacontane - Extractable	2009/10/13		103	%	30 - 130	
		>C10-C21 Hydrocarbons	2009/10/13		78	%	30 - 130	
		>C21-<C32 Hydrocarbons	2009/10/13		89	%	30 - 130	
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/10		98	%	30 - 130	
		n-Dotriacontane - Extractable	2009/10/10		94	%	30 - 130	
		>C10-C21 Hydrocarbons	2009/10/10		99	%	30 - 130	
		>C21-<C32 Hydrocarbons	2009/10/10		119	%	30 - 130	
	Method Blank	Isobutylbenzene - Extractable	2009/10/10		90	%	30 - 130	
		n-Dotriacontane - Extractable	2009/10/10		91	%	30 - 130	
		>C10-C21 Hydrocarbons	2009/10/10	<15		mg/kg		
		>C21-<C32 Hydrocarbons	2009/10/10	<15		mg/kg		
	RPD	>C10-C21 Hydrocarbons	2009/10/11	NC		%		50
		>C21-<C32 Hydrocarbons	2009/10/11	NC		%		50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: results are outside acceptance limit. Analysis was repeated with similar results.

(2) Duplicate: results are outside acceptance limit due to possible sample in-homogeneity. Analysis was repeated with similar results.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9D7279

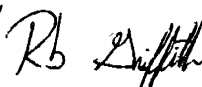
Received: 2009/10/14, 9:54

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Metals Water Diss. MS - Low Level	1	N/A	2009/10/20	ATL SOP 00024 R4	Based on EPA6020A
PCBs in water by GC/ECD	1	2009/10/15	2009/10/21	ATL SOP 00107 R3	Based on EPA8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
21 Oct 2009 17:52:17 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 6

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D7279
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		EA3619		
Sampling Date		2009/10/13		
COC Number		N/A		
	Units	MW-59	RDL	QC Batch

Metals				
Dissolved Aluminum (Al)	ug/L	63.5	5.0	1978456
Dissolved Antimony (Sb)	ug/L	<2.0	2.0	1978456
Dissolved Arsenic (As)	ug/L	<2.0	2.0	1978456
Dissolved Barium (Ba)	ug/L	10.4	5.0	1978456
Dissolved Beryllium (Be)	ug/L	<2.0	2.0	1978456
Dissolved Bismuth (Bi)	ug/L	<2.0	2.0	1978456
Dissolved Boron (B)	ug/L	28.0	5.0	1978456
Dissolved Cadmium (Cd)	ug/L	0.037	0.017	1978456
Dissolved Chromium (Cr)	ug/L	<1.0	1.0	1978456
Dissolved Cobalt (Co)	ug/L	0.91	0.40	1978456
Dissolved Copper (Cu)	ug/L	6.2	2.0	1978456
Dissolved Iron (Fe)	ug/L	1160	50	1978456
Dissolved Lead (Pb)	ug/L	0.68	0.50	1978456
Dissolved Manganese (Mn)	ug/L	242	2.0	1978456
Dissolved Molybdenum (Mo)	ug/L	2.8	2.0	1978456
Dissolved Nickel (Ni)	ug/L	<2.0	2.0	1978456
Dissolved Selenium (Se)	ug/L	<1.0	1.0	1978456
Dissolved Silver (Ag)	ug/L	<0.10	0.10	1978456
Dissolved Strontium (Sr)	ug/L	73.3	5.0	1978456
Dissolved Thallium (Tl)	ug/L	<0.10	0.10	1978456
Dissolved Tin (Sn)	ug/L	<2.0	2.0	1978456
Dissolved Titanium (Ti)	ug/L	2.7	2.0	1978456
Dissolved Uranium (U)	ug/L	2.94	0.10	1978456
Dissolved Vanadium (V)	ug/L	<2.0	2.0	1978456
Dissolved Zinc (Zn)	ug/L	51.3	5.0	1978456

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D7279
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		EA3619		
Sampling Date		2009/10/13		
COC Number		N/A		
	Units	MW-59	RDL	QC Batch

PCBs				
Total PCB	ug/L	<0.05	0.05	1972637
Surrogate Recovery (%)				
Decachlorobiphenyl	%	59 (1)		1972637

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PCB sample contained sediment.

Maxxam Job #: A9D7279
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Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
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GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9D7279

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1972637 RST	Matrix Spike	Decachlorobiphenyl	2009/10/21		61	%	30 - 130	
		Total PCB	2009/10/21		97	%	70 - 130	
	Spiked Blank	Decachlorobiphenyl	2009/10/21		32	%	30 - 130	
		Total PCB	2009/10/21		119	%	70 - 130	
	Method Blank	Decachlorobiphenyl	2009/10/21		32	%	30 - 130	
		Total PCB	2009/10/21	<0.05		ug/L		
	RPD	Total PCB	2009/10/21	NC		%	40	
	QC Standard	Dissolved Aluminum (Al)	2009/10/20		108	%	80 - 120	
		Dissolved Antimony (Sb)	2009/10/20		115	%	80 - 120	
1978456 KGU		Dissolved Arsenic (As)	2009/10/20		90	%	80 - 120	
		Dissolved Barium (Ba)	2009/10/20		95	%	80 - 120	
		Dissolved Beryllium (Be)	2009/10/20		85	%	80 - 120	
		Dissolved Bismuth (Bi)	2009/10/20		92	%	80 - 120	
		Dissolved Boron (B)	2009/10/20		93	%	80 - 120	
		Dissolved Cadmium (Cd)	2009/10/20		100	%	80 - 120	
		Dissolved Chromium (Cr)	2009/10/20		96	%	80 - 120	
		Dissolved Cobalt (Co)	2009/10/20		98	%	80 - 120	
		Dissolved Copper (Cu)	2009/10/20		85	%	80 - 120	
		Dissolved Iron (Fe)	2009/10/20		94	%	80 - 120	
		Dissolved Lead (Pb)	2009/10/20		89	%	80 - 120	
		Dissolved Manganese (Mn)	2009/10/20		95	%	80 - 120	
		Dissolved Molybdenum (Mo)	2009/10/20		104	%	80 - 120	
		Dissolved Nickel (Ni)	2009/10/20		93	%	80 - 120	
		Dissolved Selenium (Se)	2009/10/20		80	%	80 - 120	
		Dissolved Silver (Ag)	2009/10/20		95	%	80 - 120	
		Dissolved Strontium (Sr)	2009/10/20		108	%	80 - 120	
		Dissolved Thallium (Tl)	2009/10/20		90	%	80 - 120	
		Dissolved Vanadium (V)	2009/10/20		98	%	80 - 120	
		Dissolved Zinc (Zn)	2009/10/20		98	%	80 - 120	
	Spiked Blank	Dissolved Aluminum (Al)	2009/10/20		108	%	80 - 120	
		Dissolved Antimony (Sb)	2009/10/20		89	%	80 - 120	
		Dissolved Arsenic (As)	2009/10/20		95	%	80 - 120	
		Dissolved Barium (Ba)	2009/10/20		100	%	80 - 120	
		Dissolved Beryllium (Be)	2009/10/20		102	%	80 - 120	
		Dissolved Bismuth (Bi)	2009/10/20		92	%	80 - 120	
		Dissolved Boron (B)	2009/10/20		108	%	80 - 120	
		Dissolved Cadmium (Cd)	2009/10/20		99	%	80 - 120	
		Dissolved Chromium (Cr)	2009/10/20		91	%	80 - 120	
		Dissolved Cobalt (Co)	2009/10/20		92	%	80 - 120	
		Dissolved Copper (Cu)	2009/10/20		93	%	80 - 120	
		Dissolved Lead (Pb)	2009/10/20		93	%	80 - 120	
		Dissolved Manganese (Mn)	2009/10/20		98	%	80 - 120	
		Dissolved Molybdenum (Mo)	2009/10/20		93	%	80 - 120	
		Dissolved Nickel (Ni)	2009/10/20		91	%	80 - 120	
		Dissolved Selenium (Se)	2009/10/20		90	%	80 - 120	
		Dissolved Silver (Ag)	2009/10/20		101	%	80 - 120	
		Dissolved Strontium (Sr)	2009/10/20		102	%	80 - 120	
		Dissolved Thallium (Tl)	2009/10/20		85	%	80 - 120	
		Dissolved Tin (Sn)	2009/10/20		93	%	80 - 120	
		Dissolved Titanium (Ti)	2009/10/20		90	%	80 - 120	
		Dissolved Uranium (U)	2009/10/20		88	%	80 - 120	
		Dissolved Vanadium (V)	2009/10/20		91	%	80 - 120	
		Dissolved Zinc (Zn)	2009/10/20		107	%	80 - 120	
	Method Blank	Dissolved Aluminum (Al)	2009/10/20	<5.0		ug/L		
		Dissolved Antimony (Sb)	2009/10/20	<2.0		ug/L		

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D7279

QA/QC Batch				Date Analyzed				
Num Init	QC Type	Parameter		yyyy/mm/dd	Value	Recovery	Units	QC Limits
1978456	KGU	Method Blank	Dissolved Arsenic (As)	2009/10/20	<2.0		ug/L	
			Dissolved Barium (Ba)	2009/10/20	<5.0		ug/L	
			Dissolved Beryllium (Be)	2009/10/20	<2.0		ug/L	
			Dissolved Bismuth (Bi)	2009/10/20	<2.0		ug/L	
			Dissolved Boron (B)	2009/10/20	<5.0		ug/L	
			Dissolved Cadmium (Cd)	2009/10/20	<0.017		ug/L	
			Dissolved Chromium (Cr)	2009/10/20	<1.0		ug/L	
			Dissolved Cobalt (Co)	2009/10/20	<0.40		ug/L	
			Dissolved Copper (Cu)	2009/10/20	<2.0		ug/L	
			Dissolved Iron (Fe)	2009/10/20	<50		ug/L	
			Dissolved Lead (Pb)	2009/10/20	<0.50		ug/L	
			Dissolved Manganese (Mn)	2009/10/20	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2009/10/20	<2.0		ug/L	
			Dissolved Nickel (Ni)	2009/10/20	<2.0		ug/L	
			Dissolved Selenium (Se)	2009/10/20	<1.0		ug/L	
			Dissolved Silver (Ag)	2009/10/20	<0.10		ug/L	
			Dissolved Strontium (Sr)	2009/10/20	<5.0		ug/L	
			Dissolved Thallium (Tl)	2009/10/20	<0.10		ug/L	
			Dissolved Tin (Sn)	2009/10/20	<2.0		ug/L	
			Dissolved Titanium (Ti)	2009/10/20	<2.0		ug/L	
			Dissolved Uranium (U)	2009/10/20	<0.10		ug/L	
			Dissolved Vanadium (V)	2009/10/20	<2.0		ug/L	
			Dissolved Zinc (Zn)	2009/10/20	<5.0		ug/L	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/09/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9C4196

Received: 2009/09/18, 9:47

Sample Matrix: Soil
Samples Received: 3

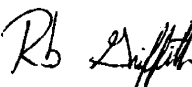
Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Metals Solid Avail. Unified MS - Nper	3	N/A	2009/09/26	ATL SOP 00024 R4	Based on EPA6020A

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (PIRI)	3	2009/09/23	2009/09/24	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	3	2009/09/23	2009/09/25	ATL SOP 00113 R3	Based on Atl. PIRI
Metals Water Diss. MS - Low Level	6	N/A	2009/09/25	ATL SOP 00024 R4	Based on EPA6020A
PCBs in water by GC/ECD	4	2009/09/23	2009/09/24	ATL SOP 00107 R3	Based on EPA8082
VPH in Water (PIRI)	1	2009/09/23	2009/09/24	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	5	2009/09/24	2009/09/24	ATL SOP 00118 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	6	N/A	2009/09/25		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
28 Sep 2009 17:26:48 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Maxxam Job #: A9C4196
Report Date: 2009/09/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DT7132	DT7133	DT7134		
Sampling Date						
COC Number		N/A	N/A	N/A		
	Units	SED-46	SED-47	SED-48	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	6200	8100	11000	10	1952650
Available Antimony (Sb)	mg/kg	<2	<2	<2	2	1952650
Available Arsenic (As)	mg/kg	<2	<2	<2	2	1952650
Available Barium (Ba)	mg/kg	19	24	36	5	1952650
Available Beryllium (Be)	mg/kg	<2	<2	<2	2	1952650
Available Bismuth (Bi)	mg/kg	<2	<2	<2	2	1952650
Available Boron (B)	mg/kg	<5	<5	<5	5	1952650
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	0.3	1952650
Available Chromium (Cr)	mg/kg	16	16	22	2	1952650
Available Cobalt (Co)	mg/kg	4	4	5	1	1952650
Available Copper (Cu)	mg/kg	8	8	11	2	1952650
Available Iron (Fe)	mg/kg	5000	6300	11000	50	1952650
Available Lead (Pb)	mg/kg	9.1	10	11	0.5	1952650
Available Lithium (Li)	mg/kg	5	7	8	2	1952650
Available Manganese (Mn)	mg/kg	52	66	100	2	1952650
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	0.1	1952650
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	2	1952650
Available Nickel (Ni)	mg/kg	12	11	15	2	1952650
Available Rubidium (Rb)	mg/kg	2	4	7	2	1952650
Available Selenium (Se)	mg/kg	<2	<2	<2	2	1952650
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	0.5	1952650
Available Strontium (Sr)	mg/kg	24	32	32	5	1952650
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	0.1	1952650
Available Tin (Sn)	mg/kg	<2	<2	<2	2	1952650
Available Uranium (U)	mg/kg	2.5	2.2	2.3	0.1	1952650
Available Vanadium (V)	mg/kg	11	14	23	2	1952650
Available Zinc (Zn)	mg/kg	52	28	37	5	1952650

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C4196
Report Date: 2009/09/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DT7085	DT7085	DT7086	DT7088		
Sampling Date							
COC Number		N/A	N/A	N/A	N/A		
	Units	MW1	MW1 Lab-Dup	MW2	MW4	RDL	QC Batch

Metals		↓		↓	↓		
Dissolved Aluminum (Al)	ug/L	53.5	53.6	45.8	84.7	5.0	1951122
Dissolved Antimony (Sb)	ug/L	6.9	6.9	10.5	8.9	2.0	1951122
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1951122
Dissolved Barium (Ba)	ug/L	31.6	32.0	49.0	83.3	5.0	1951122
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1951122
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1951122
Dissolved Boron (B)	ug/L	50.7	48.3	45.8	116	5.0	1951122
Dissolved Cadmium (Cd)	ug/L	0.032	0.046	0.068	0.031	0.017	1951122
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	1.2	1.0	1951122
Dissolved Cobalt (Co)	ug/L	0.86	0.81	2.13	3.75	0.40	1951122
Dissolved Copper (Cu)	ug/L	22.1	21.1	76.8	8.6	2.0	1951122
Dissolved Iron (Fe)	ug/L	57	<50	<50	838	50	1951122
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.60	<0.50	0.50	1951122
Dissolved Manganese (Mn)	ug/L	129	130	187	848	2.0	1951122
Dissolved Molybdenum (Mo)	ug/L	7.8	7.9	3.3	2.8	2.0	1951122
Dissolved Nickel (Ni)	ug/L	5.3	4.7	77.0	16.3	2.0	1951122
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1951122
Dissolved Silver (Ag)	ug/L	<0.10	0.11	<0.10	<0.10	0.10	1951122
Dissolved Strontium (Sr)	ug/L	180	181	151	184	5.0	1951122
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1951122
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1951122
Dissolved Titanium (Ti)	ug/L	3.0	3.2	2.3	2.3	2.0	1951122
Dissolved Uranium (U)	ug/L	1.85	1.86	1.30	1.78	0.10	1951122
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1951122
Dissolved Zinc (Zn)	ug/L	5.8	5.6	150	18.2	5.0	1951122

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C4196
Report Date: 2009/09/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DT7090	DT7091		DT7093		
Sampling Date							
COC Number		N/A	N/A		N/A		
	Units	MW6	MW7	RDL	MW14	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	338	487	5.0	397	50	1951122
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	2.0	<20	20	1951122
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	2.0	<20	20	1951122
Dissolved Barium (Ba)	ug/L	22.0	7.3	5.0	<50	50	1951122
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	2.0	<20	20	1951122
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	2.0	<20	20	1951122
Dissolved Boron (B)	ug/L	42.5	<5.0	5.0	<50	50	1951122
Dissolved Cadmium (Cd)	ug/L	0.023	<0.017	0.017	1.23	0.17	1951122
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	1.0	<10	10	1951122
Dissolved Cobalt (Co)	ug/L	1.20	0.70	0.40	<4.0	4.0	1951122
Dissolved Copper (Cu)	ug/L	11.8	90.7	2.0	34	20	1951122
Dissolved Iron (Fe)	ug/L	759	342	50	1350	500	1951122
Dissolved Lead (Pb)	ug/L	0.55	<0.50	0.50	<5.0	5.0	1951122
Dissolved Manganese (Mn)	ug/L	129	34.2	2.0	231	20	1951122
Dissolved Molybdenum (Mo)	ug/L	8.5	2.1	2.0	575	20	1951122
Dissolved Nickel (Ni)	ug/L	5.9	15.7	2.0	<20	20	1951122
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	1.0	<10	10	1951122
Dissolved Silver (Ag)	ug/L	0.28	1.18	0.10	<1.0	1.0	1951122
Dissolved Strontium (Sr)	ug/L	79.3	20.6	5.0	151	50	1951122
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	0.10	<1.0	1.0	1951122
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	2.0	<20	20	1951122
Dissolved Titanium (Ti)	ug/L	10.6	20.2	2.0	<20	20	1951122
Dissolved Uranium (U)	ug/L	2.09	0.28	0.10	1.1	1.0	1951122
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	2.0	<20	20	1951122
Dissolved Zinc (Zn)	ug/L	14.5	8.7	5.0	<50	50	1951122

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C4196
Report Date: 2009/09/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DT7086	DT7087	DT7088	DT7089		
Sampling Date							
COC Number		N/A	N/A	N/A	N/A		
	Units	MW2	MW3	MW4	MW5	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	0.001	<0.001	<0.001	0.001	1949125
Toluene	mg/L	0.006	0.017	<0.001	0.003	0.001	1949125
Ethylbenzene	mg/L	0.001	0.013	<0.001	<0.001	0.001	1949125
Xylene (Total)	mg/L	0.005	0.091	<0.002	0.002	0.002	1949125
C6 - C10 (less BTEX)	mg/L	<0.01	0.26	0.02	<0.01	0.01	1949125
>C10-C21 Hydrocarbons	mg/L	0.20	1.8	5.1	1.1	0.05	1947917
>C21-<C32 Hydrocarbons	mg/L	0.2	0.3	0.4	0.3	0.1	1947917
Modified TPH (Tier1)	mg/L	0.4	2.4	5.6	1.5	0.1	1945129
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	104	107	108	105		1947917
n-Dotriacontane - Extractable	%	98 (1)	110 (2)	105 (3)	101 (1)		1947917
Isobutylbenzene - Volatile	%	100	101	82	102		1949125

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction.

(2) Weathered fuel oil fraction. Lube oil fraction. TEH sample contained sediment.

(3) Weathered fuel oil fraction. TEH sample contained sediment.

Maxxam Job #: A9C4196
Report Date: 2009/09/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DT7090	DT7093		
Sampling Date					
COC Number		N/A	N/A		
	Units	MW6	MW14	RDL	QC Batch

Petroleum Hydrocarbons					
Benzene	mg/L	0.002	0.003	0.001	1949125
Toluene	mg/L	0.007	0.009	0.001	1949125
Ethylbenzene	mg/L	0.003	0.034	0.001	1949125
Xylene (Total)	mg/L	0.017	0.039	0.002	1949125
C6 - C10 (less BTEX)	mg/L	0.07	0.48	0.01	1949125
>C10-C21 Hydrocarbons	mg/L	2.2	4.3	0.05	1947917
>C21-<C32 Hydrocarbons	mg/L	0.2	0.2	0.1	1947917
Modified TPH (Tier1)	mg/L	2.5	5.0	0.1	1945129
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	105	115		1947917
n-Dotriacontane - Extractable	%	92 (1)	84 (2)		1947917
Isobutylbenzene - Volatile	%	80	74		1949125

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction.

(2) One product in the gas/fuel oil range. No resemblance to petroleum products in lube oil range.

Maxxam Job #: A9C4196
Report Date: 2009/09/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DT7085	DT7086	DT7092	DT7093		
Sampling Date							
COC Number		N/A	N/A	N/A	N/A		
	Units	MW1	MW2	MW13	MW14	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1946808
Surrogate Recovery (%)							
Decachlorobiphenyl	%	46	53	33	7.8 (1)		1946808

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) PCB surrogate not within acceptance limits. Insufficient sample to repeat.

Maxxam Job #: A9C4196
Report Date: 2009/09/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Sample DT7093-01: Elevated reporting limits for trace metals due to sample matrix.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9C4196

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1946808 RST	Matrix Spike	Decachlorobiphenyl	2009/09/24		63	%	30 - 130
		Total PCB	2009/09/24		80	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/24		69	%	30 - 130
		Total PCB	2009/09/24		87	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/24		44	%	30 - 130
		Total PCB	2009/09/24	<0.05		ug/L	
	RPD	Total PCB	2009/09/24	NC		%	40
	Matrix Spike [DT7086-01]	Isobutylbenzene - Extractable	2009/09/24		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/24		105	%	30 - 130
1947917 DMV		>C10-C21 Hydrocarbons	2009/09/24		99	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/24		113	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/24		99	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/24		89	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/24		88	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/24		98	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/24		88	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/24		96	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/24	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/09/24	<0.1		mg/L	
	RPD	>C10-C21 Hydrocarbons	2009/09/24	11.6		%	40
		>C21-<C32 Hydrocarbons	2009/09/24	NC		%	40
1949125 SHL	Matrix Spike [DT7086-01]	Isobutylbenzene - Volatile	2009/09/24		108	%	70 - 130
		Benzene	2009/09/24		100	%	70 - 130
		Toluene	2009/09/24		96	%	70 - 130
		Ethylbenzene	2009/09/24		100	%	70 - 130
		Xylene (Total)	2009/09/24		101	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/09/24		107	%	70 - 130
		Benzene	2009/09/24		108	%	70 - 130
		Toluene	2009/09/24		109	%	70 - 130
		Ethylbenzene	2009/09/24		110	%	70 - 130
		Xylene (Total)	2009/09/24		113	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/09/24		100	%	70 - 130
		Benzene	2009/09/24	<0.001		mg/L	
		Toluene	2009/09/24	<0.001		mg/L	
		Ethylbenzene	2009/09/24	<0.001		mg/L	
		Xylene (Total)	2009/09/24	<0.002		mg/L	
	RPD	C6 - C10 (less BTEX)	2009/09/24	<0.01		mg/L	
		Benzene	2009/09/24	NC		%	40
		Toluene	2009/09/24	NC		%	40
		Ethylbenzene	2009/09/24	NC		%	40
		Xylene (Total)	2009/09/24	NC		%	40
1951122 KGU	Matrix Spike [DT7086-01]	C6 - C10 (less BTEX)	2009/09/24	NC		%	40
		Dissolved Aluminum (Al)	2009/09/25		NC	%	80 - 120
		Dissolved Antimony (Sb)	2009/09/25		76 (1)	%	80 - 120
		Dissolved Arsenic (As)	2009/09/25		104	%	80 - 120
		Dissolved Barium (Ba)	2009/09/25		NC	%	80 - 120
		Dissolved Beryllium (Be)	2009/09/25		103	%	80 - 120
		Dissolved Bismuth (Bi)	2009/09/25		70 (2)	%	80 - 120
		Dissolved Boron (B)	2009/09/25		NC	%	80 - 120
		Dissolved Cadmium (Cd)	2009/09/25		97	%	80 - 120
		Dissolved Chromium (Cr)	2009/09/25		95	%	80 - 120
		Dissolved Cobalt (Co)	2009/09/25		98	%	80 - 120

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C4196

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951122 KGU	Matrix Spike [DT7086-01]	Dissolved Copper (Cu)	2009/09/25		NC	%	80 - 120
		Dissolved Lead (Pb)	2009/09/25		97	%	80 - 120
		Dissolved Manganese (Mn)	2009/09/25		NC	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/09/25		96	%	80 - 120
		Dissolved Nickel (Ni)	2009/09/25		NC	%	80 - 120
		Dissolved Selenium (Se)	2009/09/25		108	%	80 - 120
		Dissolved Silver (Ag)	2009/09/25		104	%	80 - 120
		Dissolved Strontium (Sr)	2009/09/25		NC	%	80 - 120
		Dissolved Thallium (Tl)	2009/09/25		98	%	80 - 120
		Dissolved Tin (Sn)	2009/09/25		84	%	80 - 120
		Dissolved Titanium (Ti)	2009/09/25		90	%	80 - 120
		Dissolved Uranium (U)	2009/09/25		98	%	80 - 120
		Dissolved Vanadium (V)	2009/09/25		98	%	80 - 120
		Dissolved Zinc (Zn)	2009/09/25		NC	%	80 - 120
	QC Standard	Dissolved Aluminum (Al)	2009/09/25		155 (3)	%	80 - 120
		Dissolved Antimony (Sb)	2009/09/25		107	%	80 - 120
		Dissolved Arsenic (As)	2009/09/25		89	%	80 - 120
		Dissolved Barium (Ba)	2009/09/25		101	%	80 - 120
		Dissolved Beryllium (Be)	2009/09/25		85	%	80 - 120
		Dissolved Bismuth (Bi)	2009/09/25		92	%	80 - 120
		Dissolved Boron (B)	2009/09/25		86	%	80 - 120
		Dissolved Cadmium (Cd)	2009/09/25		99	%	80 - 120
		Dissolved Chromium (Cr)	2009/09/25		99	%	80 - 120
		Dissolved Cobalt (Co)	2009/09/25		98	%	80 - 120
		Dissolved Copper (Cu)	2009/09/25		90	%	80 - 120
		Dissolved Iron (Fe)	2009/09/25		117	%	80 - 120
		Dissolved Lead (Pb)	2009/09/25		97	%	80 - 120
		Dissolved Manganese (Mn)	2009/09/25		93	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/09/25		105	%	80 - 120
		Dissolved Nickel (Ni)	2009/09/25		94	%	80 - 120
		Dissolved Selenium (Se)	2009/09/25		87	%	80 - 120
		Dissolved Silver (Ag)	2009/09/25		85	%	80 - 120
		Dissolved Strontium (Sr)	2009/09/25		98	%	80 - 120
		Dissolved Thallium (Tl)	2009/09/25		103	%	80 - 120
		Dissolved Vanadium (V)	2009/09/25		102	%	80 - 120
		Dissolved Zinc (Zn)	2009/09/25		83	%	80 - 120
	Spiked Blank	Dissolved Aluminum (Al)	2009/09/25		106	%	80 - 120
		Dissolved Antimony (Sb)	2009/09/25		85	%	80 - 120
		Dissolved Arsenic (As)	2009/09/25		94	%	80 - 120
		Dissolved Barium (Ba)	2009/09/25		91	%	80 - 120
		Dissolved Beryllium (Be)	2009/09/25		94	%	80 - 120
		Dissolved Bismuth (Bi)	2009/09/25		96	%	80 - 120
		Dissolved Boron (B)	2009/09/25		89	%	80 - 120
		Dissolved Cadmium (Cd)	2009/09/25		83	%	80 - 120
		Dissolved Chromium (Cr)	2009/09/25		100	%	80 - 120
		Dissolved Cobalt (Co)	2009/09/25		97	%	80 - 120
		Dissolved Copper (Cu)	2009/09/25		99	%	80 - 120
		Dissolved Lead (Pb)	2009/09/25		100	%	80 - 120
		Dissolved Manganese (Mn)	2009/09/25		99	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/09/25		94	%	80 - 120
		Dissolved Nickel (Ni)	2009/09/25		99	%	80 - 120
		Dissolved Selenium (Se)	2009/09/25		88	%	80 - 120
		Dissolved Silver (Ag)	2009/09/25		95	%	80 - 120
		Dissolved Strontium (Sr)	2009/09/25		92	%	80 - 120

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C4196

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951122 KGU	Spiked Blank	Dissolved Thallium (Tl)	2009/09/25		110	%	80 - 120
		Dissolved Tin (Sn)	2009/09/25		85	%	80 - 120
		Dissolved Titanium (Ti)	2009/09/25		97	%	80 - 120
		Dissolved Uranium (U)	2009/09/25		96	%	80 - 120
		Dissolved Vanadium (V)	2009/09/25		99	%	80 - 120
		Dissolved Zinc (Zn)	2009/09/25		94	%	80 - 120
	Method Blank	Dissolved Aluminum (Al)	2009/09/25	5.6, RDL=5.0 (4)		ug/L	
		Dissolved Antimony (Sb)	2009/09/25	<2.0		ug/L	
		Dissolved Arsenic (As)	2009/09/25	<2.0		ug/L	
		Dissolved Barium (Ba)	2009/09/25	<5.0		ug/L	
		Dissolved Beryllium (Be)	2009/09/25	<2.0		ug/L	
		Dissolved Bismuth (Bi)	2009/09/25	<2.0		ug/L	
		Dissolved Boron (B)	2009/09/25	<5.0		ug/L	
		Dissolved Cadmium (Cd)	2009/09/25	<0.017		ug/L	
		Dissolved Chromium (Cr)	2009/09/25	<1.0		ug/L	
		Dissolved Cobalt (Co)	2009/09/25	<0.40		ug/L	
		Dissolved Copper (Cu)	2009/09/25	<2.0		ug/L	
		Dissolved Iron (Fe)	2009/09/25	<50		ug/L	
		Dissolved Lead (Pb)	2009/09/25	<0.50		ug/L	
		Dissolved Manganese (Mn)	2009/09/25	<2.0		ug/L	
		Dissolved Molybdenum (Mo)	2009/09/25	<2.0		ug/L	
		Dissolved Nickel (Ni)	2009/09/25	<2.0		ug/L	
		Dissolved Selenium (Se)	2009/09/25	<1.0		ug/L	
		Dissolved Silver (Ag)	2009/09/25	<0.10		ug/L	
		Dissolved Strontium (Sr)	2009/09/25	<5.0		ug/L	
		Dissolved Thallium (Tl)	2009/09/25	<0.10		ug/L	
		Dissolved Tin (Sn)	2009/09/25	<2.0		ug/L	
		Dissolved Titanium (Ti)	2009/09/25	<2.0		ug/L	
		Dissolved Uranium (U)	2009/09/25	<0.10		ug/L	
		Dissolved Vanadium (V)	2009/09/25	<2.0		ug/L	
		Dissolved Zinc (Zn)	2009/09/25	<5.0		ug/L	
	RPD [DT7085-01]	Dissolved Aluminum (Al)	2009/09/25	0.2		%	35
		Dissolved Antimony (Sb)	2009/09/25	NC		%	25
		Dissolved Arsenic (As)	2009/09/25	NC		%	25
		Dissolved Barium (Ba)	2009/09/25	1.2		%	25
		Dissolved Beryllium (Be)	2009/09/25	NC		%	25
		Dissolved Bismuth (Bi)	2009/09/25	NC		%	25
		Dissolved Boron (B)	2009/09/25	4.9		%	25
		Dissolved Cadmium (Cd)	2009/09/25	NC		%	25
		Dissolved Chromium (Cr)	2009/09/25	NC		%	25
		Dissolved Cobalt (Co)	2009/09/25	NC		%	25
		Dissolved Copper (Cu)	2009/09/25	4.9		%	25
		Dissolved Iron (Fe)	2009/09/25	NC		%	25
		Dissolved Lead (Pb)	2009/09/25	NC		%	25
		Dissolved Manganese (Mn)	2009/09/25	0.08		%	25
		Dissolved Molybdenum (Mo)	2009/09/25	NC		%	25
		Dissolved Nickel (Ni)	2009/09/25	NC		%	25
		Dissolved Selenium (Se)	2009/09/25	NC		%	25
		Dissolved Silver (Ag)	2009/09/25	NC		%	25
		Dissolved Strontium (Sr)	2009/09/25	0.8		%	25
		Dissolved Thallium (Tl)	2009/09/25	NC		%	25
		Dissolved Tin (Sn)	2009/09/25	NC		%	25
		Dissolved Titanium (Ti)	2009/09/25	NC		%	25
		Dissolved Uranium (U)	2009/09/25	0.8		%	25
		Dissolved Vanadium (V)	2009/09/25	NC		%	25

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C4196

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951122 KGU	RPD [DT7085-01]	Dissolved Zinc (Zn)	2009/09/25	NC		%	25
1952650 DLB	Matrix Spike	Available Aluminum (Al)	2009/09/26		NC	%	75 - 125
		Available Antimony (Sb)	2009/09/26		85	%	75 - 125
		Available Arsenic (As)	2009/09/26		109	%	75 - 125
		Available Barium (Ba)	2009/09/26		NC	%	75 - 125
		Available Beryllium (Be)	2009/09/26		95	%	75 - 125
		Available Bismuth (Bi)	2009/09/26		101	%	75 - 125
		Available Boron (B)	2009/09/26		86	%	75 - 125
		Available Cadmium (Cd)	2009/09/26		105	%	75 - 125
		Available Chromium (Cr)	2009/09/26		NC	%	75 - 125
		Available Cobalt (Co)	2009/09/26		NC	%	75 - 125
		Available Copper (Cu)	2009/09/26		NC	%	75 - 125
		Available Iron (Fe)	2009/09/26		NC	%	75 - 125
		Available Lead (Pb)	2009/09/26		NC	%	75 - 125
		Available Lithium (Li)	2009/09/26		NC	%	75 - 125
		Available Manganese (Mn)	2009/09/26		NC	%	75 - 125
		Available Mercury (Hg)	2009/09/26		94	%	75 - 125
		Available Molybdenum (Mo)	2009/09/26		104	%	75 - 125
		Available Nickel (Ni)	2009/09/26		NC	%	75 - 125
		Available Rubidium (Rb)	2009/09/26		108	%	75 - 125
		Available Selenium (Se)	2009/09/26		108	%	75 - 125
		Available Silver (Ag)	2009/09/26		102	%	75 - 125
		Available Strontium (Sr)	2009/09/26		NC	%	75 - 125
		Available Thallium (Tl)	2009/09/26		99	%	75 - 125
		Available Tin (Sn)	2009/09/26		106	%	75 - 125
		Available Uranium (U)	2009/09/26		102	%	75 - 125
		Available Vanadium (V)	2009/09/26		NC	%	75 - 125
		Available Zinc (Zn)	2009/09/26		97	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/09/26		78	%	75 - 125
		Available Arsenic (As)	2009/09/26		108	%	75 - 125
		Available Barium (Ba)	2009/09/26		107	%	75 - 125
		Available Chromium (Cr)	2009/09/26		89	%	75 - 125
		Available Cobalt (Co)	2009/09/26		99	%	75 - 125
		Available Copper (Cu)	2009/09/26		87	%	75 - 125
		Available Iron (Fe)	2009/09/26		87	%	75 - 125
		Available Lead (Pb)	2009/09/26		94	%	75 - 125
		Available Manganese (Mn)	2009/09/26		95	%	75 - 125
		Available Nickel (Ni)	2009/09/26		101	%	75 - 125
		Available Strontium (Sr)	2009/09/26		92	%	75 - 125
		Available Vanadium (V)	2009/09/26		106	%	75 - 125
		Available Zinc (Zn)	2009/09/26		100	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/09/26		95	%	75 - 125
		Available Antimony (Sb)	2009/09/26		92	%	75 - 125
		Available Arsenic (As)	2009/09/26		88	%	75 - 125
		Available Barium (Ba)	2009/09/26		96	%	75 - 125
		Available Beryllium (Be)	2009/09/26		92	%	75 - 125
		Available Bismuth (Bi)	2009/09/26		93	%	75 - 125
		Available Boron (B)	2009/09/26		94	%	75 - 125
		Available Cadmium (Cd)	2009/09/26		91	%	75 - 125
		Available Chromium (Cr)	2009/09/26		98	%	75 - 125
		Available Cobalt (Co)	2009/09/26		98	%	75 - 125
		Available Copper (Cu)	2009/09/26		100	%	75 - 125
		Available Iron (Fe)	2009/09/26		94	%	75 - 125
		Available Lead (Pb)	2009/09/26		96	%	75 - 125
		Available Lithium (Li)	2009/09/26		93	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C4196

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1952650 DLB	Spiked Blank	Available Manganese (Mn)	2009/09/26		96	%	75 - 125
		Available Mercury (Hg)	2009/09/26		95	%	75 - 125
		Available Molybdenum (Mo)	2009/09/26		93	%	75 - 125
		Available Nickel (Ni)	2009/09/26		96	%	75 - 125
		Available Rubidium (Rb)	2009/09/26		96	%	75 - 125
		Available Selenium (Se)	2009/09/26		93	%	75 - 125
		Available Silver (Ag)	2009/09/26		96	%	75 - 125
		Available Strontium (Sr)	2009/09/26		96	%	75 - 125
		Available Thallium (Tl)	2009/09/26		89	%	75 - 125
		Available Tin (Sn)	2009/09/26		89	%	75 - 125
		Available Uranium (U)	2009/09/26		89	%	75 - 125
		Available Vanadium (V)	2009/09/26		100	%	75 - 125
		Available Zinc (Zn)	2009/09/26		91	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/09/26	<10		mg/kg	
		Available Antimony (Sb)	2009/09/26	<2		mg/kg	
		Available Arsenic (As)	2009/09/26	<2		mg/kg	
		Available Barium (Ba)	2009/09/26	<5		mg/kg	
		Available Beryllium (Be)	2009/09/26	<2		mg/kg	
		Available Bismuth (Bi)	2009/09/26	<2		mg/kg	
		Available Boron (B)	2009/09/26	<5		mg/kg	
		Available Cadmium (Cd)	2009/09/26	<0.3		mg/kg	
		Available Chromium (Cr)	2009/09/26	<2		mg/kg	
		Available Cobalt (Co)	2009/09/26	<1		mg/kg	
		Available Copper (Cu)	2009/09/26	<2		mg/kg	
		Available Iron (Fe)	2009/09/26	<50		mg/kg	
		Available Lead (Pb)	2009/09/26	<0.5		mg/kg	
		Available Lithium (Li)	2009/09/26	<2		mg/kg	
		Available Manganese (Mn)	2009/09/26	<2		mg/kg	
		Available Mercury (Hg)	2009/09/26	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/09/26	<2		mg/kg	
		Available Nickel (Ni)	2009/09/26	<2		mg/kg	
		Available Rubidium (Rb)	2009/09/26	<2		mg/kg	
		Available Selenium (Se)	2009/09/26	<2		mg/kg	
		Available Silver (Ag)	2009/09/26	<0.5		mg/kg	
		Available Strontium (Sr)	2009/09/26	<5		mg/kg	
		Available Thallium (Tl)	2009/09/26	<0.1		mg/kg	
		Available Tin (Sn)	2009/09/26	<2		mg/kg	
		Available Uranium (U)	2009/09/26	<0.1		mg/kg	
		Available Vanadium (V)	2009/09/26	<2		mg/kg	
		Available Zinc (Zn)	2009/09/26	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/09/26	5.3		%	35
		Available Antimony (Sb)	2009/09/26	NC		%	35
		Available Arsenic (As)	2009/09/26	NC		%	35
		Available Barium (Ba)	2009/09/26	0.2		%	35
		Available Beryllium (Be)	2009/09/26	NC		%	35
		Available Boron (B)	2009/09/26	NC		%	35
		Available Cadmium (Cd)	2009/09/26	NC		%	35
		Available Chromium (Cr)	2009/09/26	3.0		%	35
		Available Cobalt (Co)	2009/09/26	3.4		%	35
		Available Copper (Cu)	2009/09/26	1.5		%	35
		Available Iron (Fe)	2009/09/26	2.3		%	35
		Available Lead (Pb)	2009/09/26	0.5		%	35
		Available Lithium (Li)	2009/09/26	2.8		%	35
		Available Manganese (Mn)	2009/09/26	6.8		%	35
		Available Mercury (Hg)	2009/09/26	NC		%	35

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C4196

QA/QC Batch				Date Analyzed				
Num Init	QC Type	Parameter		yyyy/mm/dd	Value	Recovery	Units	QC Limits
1952650	DLB	RPD	Available Molybdenum (Mo)	2009/09/26	NC		%	35
			Available Nickel (Ni)	2009/09/26	4.2		%	35
			Available Selenium (Se)	2009/09/26	NC		%	35
			Available Silver (Ag)	2009/09/26	NC		%	35
			Available Strontium (Sr)	2009/09/26	NC		%	35
			Available Thallium (Tl)	2009/09/26	NC		%	35
			Available Tin (Sn)	2009/09/26	NC		%	35
			Available Uranium (U)	2009/09/26	3.2		%	35
			Available Vanadium (V)	2009/09/26	0.9		%	35
			Available Zinc (Zn)	2009/09/26	7.4		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
 QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
 NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
 NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Recovery within acceptance limits.
 (2) Low recovery due to sample matrix.
 (3) Secondary RM is acceptable.
 (4) Detectable blank due to memory effects. No impact on sample data quality.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/09/22

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9C0235

Received: 2009/09/12, 9:56

Sample Matrix: Soil
Samples Received: 36

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	4	2009/09/16	2009/09/16	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	5	2009/09/16	2009/09/17	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	2	2009/09/17	2009/09/17	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	33	N/A	2009/09/18	ATL SOP 00024 R4	Based on EPA6020A
Moisture	29	N/A	2009/09/15	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	8	2009/09/16	2009/09/17	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	18	2009/09/16	2009/09/21	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	3	2009/09/17	2009/09/19	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	11	2009/09/15	2009/09/16	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
Particle size in solids (pipette&sieve)	6	N/A	2009/09/18	ATL SOP 00012 R3	based on MSAMS-1978
Total Organic Carbon in Soil	6	N/A	2009/09/17	ATL SOP 00044 R3/00045 R4	LECO 203-601-224
ModTPH (T1) Calc. for Soil	9	2009/09/14	2009/09/17		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	2	2009/09/14	2009/09/18		Based on Atl. PIRI
Volatile Organic Compounds in Soil	13	2009/09/15	2009/09/18	ATL SOP 00123 R3	Based on USEPA SW-84

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Michelle Hill
22 Sep 2009 09:12:39 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5922	DR5923	DR5924	DR5925	DR5926		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	TP220-BS2	TP221-BS2	TP222-BS2	SED-25	SED-26	RDL	QC Batch

Inorganics								
Moisture	%	10	11	8	54	49	1	1939213
Organic Carbon (TOC)	g/kg				180		5	1942135
< -4 Phi (16 mm)	%				100		0.1	1943171
< -3 Phi (8 mm)	%				100		0.1	1943171
< -2 Phi (4 mm)	%				100		0.1	1943171
< -1 Phi (2 mm)	%				72		0.1	1943171
< 0 Phi (1 mm)	%				63		0.1	1943171
< +1 Phi (0.5 mm)	%				54		0.1	1943171
< +2 Phi (0.25 mm)	%				42		0.1	1943171
< +3 Phi (0.12 mm)	%				33		0.1	1943171
< +4 Phi (0.062 mm)	%				26		0.1	1943171
< +5 Phi (0.031 mm)	%				22		0.1	1943171
< +6 Phi (0.016 mm)	%				14		0.1	1943171
< +7 Phi (0.0078 mm)	%				9.5		0.1	1943171
< +8 Phi (0.0039 mm)	%				7.7		0.1	1943171
< +9 Phi (0.0020 mm)	%				5.5		0.1	1943171
Gravel	%				28		0.1	1943171
Sand	%				47		0.1	1943171
Silt	%				18		0.1	1943171
Clay	%				7.7		0.1	1943171

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5927	DR5928	DR5929		DR5930		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		2009/09/09		
COC Number		N/A	N/A	N/A		N/A		
	Units	SED-27	SED-28	SED-29	RDL	SED-30	RDL	QC Batch

Inorganics								
Moisture	%	74	23	54	1	80	1	1939213
Organic Carbon (TOC)	g/kg				5	180	4	1942135
< -4 Phi (16 mm)	%				0.1	100	0.1	1943171
< -3 Phi (8 mm)	%				0.1	100	0.1	1943171
< -2 Phi (4 mm)	%				0.1	100	0.1	1943171
< -1 Phi (2 mm)	%				0.1	99	0.1	1943171
< 0 Phi (1 mm)	%				0.1	84	0.1	1943171
< +1 Phi (0.5 mm)	%				0.1	73	0.1	1943171
< +2 Phi (0.25 mm)	%				0.1	65	0.1	1943171
< +3 Phi (0.12 mm)	%				0.1	54	0.1	1943171
< +4 Phi (0.062 mm)	%				0.1	42	0.1	1943171
< +5 Phi (0.031 mm)	%				0.1	38	0.1	1943171
< +6 Phi (0.016 mm)	%				0.1	28	0.1	1943171
< +7 Phi (0.0078 mm)	%				0.1	17	0.1	1943171
< +8 Phi (0.0039 mm)	%				0.1	15	0.1	1943171
< +9 Phi (0.0020 mm)	%				0.1	13	0.1	1943171
Gravel	%				0.1	1.2	0.1	1943171
Sand	%				0.1	57	0.1	1943171
Silt	%				0.1	27	0.1	1943171
Clay	%				0.1	15	0.1	1943171

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5931	DR5932	DR5933	DR5934	DR5935		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SED-31	SED-32	SED-33	SED-34	SED-35	RDL	QC Batch

Inorganics								
Moisture	%	81	81	78	54	38	1	1939213
Organic Carbon (TOC)	g/kg			110			4	1942135
< -4 Phi (16 mm)	%			100			0.1	1943171
< -3 Phi (8 mm)	%			100			0.1	1943171
< -2 Phi (4 mm)	%			100			0.1	1943171
< -1 Phi (2 mm)	%			99			0.1	1943171
< 0 Phi (1 mm)	%			92			0.1	1943171
< +1 Phi (0.5 mm)	%			86			0.1	1943171
< +2 Phi (0.25 mm)	%			80			0.1	1943171
< +3 Phi (0.12 mm)	%			74			0.1	1943171
< +4 Phi (0.062 mm)	%			61			0.1	1943171
< +5 Phi (0.031 mm)	%			54			0.1	1943171
< +6 Phi (0.016 mm)	%			41			0.1	1943171
< +7 Phi (0.0078 mm)	%			25			0.1	1943171
< +8 Phi (0.0039 mm)	%			21			0.1	1943171
< +9 Phi (0.0020 mm)	%			14			0.1	1943171
Gravel	%			0.6			0.1	1943171
Sand	%			38			0.1	1943171
Silt	%			40			0.1	1943171
Clay	%			21			0.1	1943171

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5936	DR5937	DR5938		DR5939		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		2009/09/09		
COC Number		N/A	N/A	N/A		N/A		
	Units	SED-36	SED-37	SED-38	RDL	SED-39	RDL	QC Batch

Inorganics								
Moisture	%	23	17	49	1	91	1	1939213
Organic Carbon (TOC)	g/kg				4	130	2	1942135
< -4 Phi (16 mm)	%				0.1	100	0.1	1943171
< -3 Phi (8 mm)	%				0.1	100	0.1	1943171
< -2 Phi (4 mm)	%				0.1	100	0.1	1943171
< -1 Phi (2 mm)	%				0.1	100	0.1	1943171
< 0 Phi (1 mm)	%				0.1	95	0.1	1943171
< +1 Phi (0.5 mm)	%				0.1	76	0.1	1943171
< +2 Phi (0.25 mm)	%				0.1	58	0.1	1943171
< +3 Phi (0.12 mm)	%				0.1	48	0.1	1943171
< +4 Phi (0.062 mm)	%				0.1	44	0.1	1943171
< +5 Phi (0.031 mm)	%				0.1	42	0.1	1943171
< +6 Phi (0.016 mm)	%				0.1	40	0.1	1943171
< +7 Phi (0.0078 mm)	%				0.1	29	0.1	1943171
< +8 Phi (0.0039 mm)	%				0.1	21	0.1	1943171
< +9 Phi (0.0020 mm)	%				0.1	14	0.1	1943171
Gravel	%				0.1	0.2	0.1	1943171
Sand	%				0.1	56	0.1	1943171
Silt	%				0.1	23	0.1	1943171
Clay	%				0.1	21	0.1	1943171

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5940	DR5941		DR5942	DR5943		
Sampling Date		2009/09/09	2009/09/09		2009/09/09	2009/09/09		
COC Number		N/A	N/A		N/A	N/A		
	Units	SED-40	SED-41	RDL	SED-42	SED-43	RDL	QC Batch

Inorganics								
Moisture	%	70	84	1	44	87	1	1939213
Organic Carbon (TOC)	g/kg			2	36		1	1942135
< -4 Phi (16 mm)	%			0.1	100		0.1	1943171
< -3 Phi (8 mm)	%			0.1	100		0.1	1943171
< -2 Phi (4 mm)	%			0.1	100		0.1	1943171
< -1 Phi (2 mm)	%			0.1	96		0.1	1943171
< 0 Phi (1 mm)	%			0.1	83		0.1	1943171
< +1 Phi (0.5 mm)	%			0.1	56		0.1	1943171
< +2 Phi (0.25 mm)	%			0.1	33		0.1	1943171
< +3 Phi (0.12 mm)	%			0.1	21		0.1	1943171
< +4 Phi (0.062 mm)	%			0.1	16		0.1	1943171
< +5 Phi (0.031 mm)	%			0.1	15		0.1	1943171
< +6 Phi (0.016 mm)	%			0.1	13		0.1	1943171
< +7 Phi (0.0078 mm)	%			0.1	7.5		0.1	1943171
< +8 Phi (0.0039 mm)	%			0.1	5.9		0.1	1943171
< +9 Phi (0.0020 mm)	%			0.1	5.0		0.1	1943171
Gravel	%			0.1	3.7		0.1	1943171
Sand	%			0.1	80		0.1	1943171
Silt	%			0.1	10		0.1	1943171
Clay	%			0.1	5.9		0.1	1943171

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5944	DR5945	DR5946	DR5947	DR5948		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SED-44	SED-49	SED-50	SED-51	SED-52	RDL	QC Batch

Inorganics								
Moisture	%	19	37	26	18	47	1	1939213
Organic Carbon (TOC)	g/kg	1.8					0.2	1942135
< -4 Phi (16 mm)	%	100					0.1	1943171
< -3 Phi (8 mm)	%	100					0.1	1943171
< -2 Phi (4 mm)	%	100					0.1	1943171
< -1 Phi (2 mm)	%	77					0.1	1943171
< 0 Phi (1 mm)	%	56					0.1	1943171
< +1 Phi (0.5 mm)	%	30					0.1	1943171
< +2 Phi (0.25 mm)	%	9.7					0.1	1943171
< +3 Phi (0.12 mm)	%	1.8					0.1	1943171
< +4 Phi (0.062 mm)	%	1.1					0.1	1943171
< +5 Phi (0.031 mm)	%	0.6					0.1	1943171
< +6 Phi (0.016 mm)	%	0.5					0.1	1943171
< +7 Phi (0.0078 mm)	%	0.5					0.1	1943171
< +8 Phi (0.0039 mm)	%	0.5					0.1	1943171
< +9 Phi (0.0020 mm)	%	0.4					0.1	1943171
Gravel	%	23					0.1	1943171
Sand	%	76					0.1	1943171
Silt	%	0.6					0.1	1943171
Clay	%	0.5					0.1	1943171

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5949	DR5950		
Sampling Date		2009/09/09	2009/09/09		
COC Number		N/A	N/A		
	Units	SED-53	SED-45	RDL	QC Batch

Inorganics					
Moisture	%	86	37	1	1939213
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5915	DR5916	DR5917	DR5918		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	BS249	BS250	BS251	BS252	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5700	3800	1400	7300	10	1943432
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1943432
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1943432
Available Barium (Ba)	mg/kg	17	21	67	10	5	1943432
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1943432
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1943432
Available Boron (B)	mg/kg	8	15	6	<5	5	1943432
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	0.4	<0.3	0.3	1943432
Available Chromium (Cr)	mg/kg	13	4	3	22	2	1943432
Available Cobalt (Co)	mg/kg	3	<1	<1	2	1	1943432
Available Copper (Cu)	mg/kg	33	21	6	7	2	1943432
Available Iron (Fe)	mg/kg	7000	4200	1300	4700	50	1943432
Available Lead (Pb)	mg/kg	13	11	20	4.4	0.5	1943432
Available Lithium (Li)	mg/kg	<2	<2	<2	4	2	1943432
Available Manganese (Mn)	mg/kg	68	12	52	38	2	1943432
Available Mercury (Hg)	mg/kg	0.2	0.3	0.5	<0.1	0.1	1943432
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1943432
Available Nickel (Ni)	mg/kg	10	3	<2	9	2	1943432
Available Rubidium (Rb)	mg/kg	<2	<2	<2	<2	2	1943432
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1943432
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1943432
Available Strontium (Sr)	mg/kg	22	24	32	10	5	1943432
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1943432
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1943432
Available Uranium (U)	mg/kg	5.8	6.5	0.5	4.1	0.1	1943432
Available Vanadium (V)	mg/kg	9	3	2	12	2	1943432
Available Zinc (Zn)	mg/kg	18	13	24	11	5	1943432

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5919		DR5920	DR5921		
Sampling Date		2009/09/09		2009/09/09	2009/09/09		
COC Number		N/A		N/A	N/A		
	Units	BS253	RDL	BS254	BS255	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5100	10	3700	5200	10	1943432
Available Antimony (Sb)	mg/kg	<2	2	<2	<2	2	1943432
Available Arsenic (As)	mg/kg	<2	2	<2	<2	2	1943432
Available Barium (Ba)	mg/kg	15	5	17	19	5	1943432
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1943432
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1943432
Available Boron (B)	mg/kg	7	5	<5	<5	5	1943432
Available Cadmium (Cd)	mg/kg	0.4	0.3	0.6	<0.3	0.3	1943432
Available Chromium (Cr)	mg/kg	7	2	5	18	2	1943432
Available Cobalt (Co)	mg/kg	1	1	1	2	1	1943432
Available Copper (Cu)	mg/kg	11	2	12	85	2	1943432
Available Iron (Fe)	mg/kg	5100	50	2700	2900	50	1943432
Available Lead (Pb)	mg/kg	15	0.5	25	43	0.5	1943432
Available Lithium (Li)	mg/kg	<2	2	<2	<2	2	1943432
Available Manganese (Mn)	mg/kg	79	2	5	7	2	1943432
Available Mercury (Hg)	mg/kg	0.1	0.1	0.2	0.2	0.1	1943432
Available Molybdenum (Mo)	mg/kg	4	2	<2	2	2	1943432
Available Nickel (Ni)	mg/kg	4	2	5	28	2	1943432
Available Rubidium (Rb)	mg/kg	<2	2	<2	<2	2	1943432
Available Selenium (Se)	mg/kg	<5 (1)	5	<2	<2	2	1943432
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	<0.5	0.5	1943432
Available Strontium (Sr)	mg/kg	35	5	15	19	5	1943432
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1943432
Available Tin (Sn)	mg/kg	3	2	<2	<2	2	1943432
Available Uranium (U)	mg/kg	26	0.1	1.3	12	0.1	1943432
Available Vanadium (V)	mg/kg	10	2	3	4	2	1943432
Available Zinc (Zn)	mg/kg	21	5	12	19	5	1943432

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5925	DR5926		DR5927		
Sampling Date		2009/09/09	2009/09/09		2009/09/09		
COC Number		N/A	N/A		N/A		
	Units	SED-25	SED-26	RDL	SED-27	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	6400	5100	10	7800	10	1943432
Available Antimony (Sb)	mg/kg	<2	<2	2	3	2	1943432
Available Arsenic (As)	mg/kg	<2	<2	2	<2	2	1943432
Available Barium (Ba)	mg/kg	39	21	5	54	5	1943432
Available Beryllium (Be)	mg/kg	<2	<2	2	<2	2	1943432
Available Bismuth (Bi)	mg/kg	<2	<2	2	<2	2	1943432
Available Boron (B)	mg/kg	<5	<5	5	<5	5	1943432
Available Cadmium (Cd)	mg/kg	0.8	0.9	0.3	2.0	0.3	1943432
Available Chromium (Cr)	mg/kg	18	18	2	30	2	1943432
Available Cobalt (Co)	mg/kg	3	3	1	6	1	1943432
Available Copper (Cu)	mg/kg	17	17	2	42	2	1943432
Available Iron (Fe)	mg/kg	9400	16000	50	49000	500	1943432
Available Lead (Pb)	mg/kg	23	42	0.5	130	0.5	1943432
Available Lithium (Li)	mg/kg	5	5	2	5	2	1943432
Available Manganese (Mn)	mg/kg	70	70	2	300	2	1943432
Available Mercury (Hg)	mg/kg	<0.1	<0.1	0.1	0.3	0.1	1943432
Available Molybdenum (Mo)	mg/kg	<2	<2	2	4	2	1943432
Available Nickel (Ni)	mg/kg	11	11	2	18	2	1943432
Available Rubidium (Rb)	mg/kg	4	3	2	3	2	1943432
Available Selenium (Se)	mg/kg	<2	<2	2	<2	2	1943432
Available Silver (Ag)	mg/kg	<0.5	<0.5	0.5	<0.5	0.5	1943432
Available Strontium (Sr)	mg/kg	20	10	5	21	5	1943432
Available Thallium (Tl)	mg/kg	<0.1	<0.1	0.1	<0.1	0.1	1943432
Available Tin (Sn)	mg/kg	4	24	2	63	2	1943432
Available Uranium (U)	mg/kg	1.0	0.8	0.1	2.3	0.1	1943432
Available Vanadium (V)	mg/kg	13	11	2	18	2	1943432
Available Zinc (Zn)	mg/kg	190	170	5	350	5	1943432

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5928	DR5929	DR5930	DR5931		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-28	SED-29	SED-30	SED-31	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5400	8500	12000	11000	10	1943445
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1943445
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1943445
Available Barium (Ba)	mg/kg	19	40	39	39	5	1943445
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1943445
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1943445
Available Boron (B)	mg/kg	<5	<5	<5	12	5	1943445
Available Cadmium (Cd)	mg/kg	<0.3	2.2	2.9	3.8	0.3	1943445
Available Chromium (Cr)	mg/kg	14	21	35	26	2	1943445
Available Cobalt (Co)	mg/kg	4	7	6	5	1	1943445
Available Copper (Cu)	mg/kg	6	25	36	42	2	1943445
Available Iron (Fe)	mg/kg	7200	14000	16000	22000	50	1943445
Available Lead (Pb)	mg/kg	9.3	41	46	73	0.5	1943445
Available Lithium (Li)	mg/kg	6	7	7	5	2	1943445
Available Manganese (Mn)	mg/kg	77	89	99	82	2	1943445
Available Mercury (Hg)	mg/kg	<0.1	0.1	0.2	0.2	0.1	1943445
Available Molybdenum (Mo)	mg/kg	<2	<2	3	3	2	1943445
Available Nickel (Ni)	mg/kg	9	17	20	19	2	1943445
Available Rubidium (Rb)	mg/kg	3	5	5	4	2	1943445
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1943445
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1943445
Available Strontium (Sr)	mg/kg	10	18	23	24	5	1943445
Available Thallium (Tl)	mg/kg	0.1	0.1	0.1	0.1	0.1	1943445
Available Tin (Sn)	mg/kg	4	13	12	20	2	1943445
Available Uranium (U)	mg/kg	0.5	2.4	4.5	4.0	0.1	1943445
Available Vanadium (V)	mg/kg	9	15	25	20	2	1943445
Available Zinc (Zn)	mg/kg	59	360	460	520	5	1943445

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5932	DR5933	DR5934	DR5935		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-32	SED-33	SED-34	SED-35	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	11000	11000	5100	4300	10	1943445
Available Antimony (Sb)	mg/kg	<2	<2	6	<2	2	1943445
Available Arsenic (As)	mg/kg	<2	<2	3	<2	2	1943445
Available Barium (Ba)	mg/kg	66	48	36	11	5	1943445
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1943445
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1943445
Available Boron (B)	mg/kg	9	5	<5	<5	5	1943445
Available Cadmium (Cd)	mg/kg	0.9	2.2	10	<0.3	0.3	1943445
Available Chromium (Cr)	mg/kg	24	26	25	15	2	1943445
Available Cobalt (Co)	mg/kg	6	7	4	2	1	1943445
Available Copper (Cu)	mg/kg	17	23	79	7	2	1943445
Available Iron (Fe)	mg/kg	12000	11000	31000	9600	50	1943445
Available Lead (Pb)	mg/kg	13	24	160	27	0.5	1943445
Available Lithium (Li)	mg/kg	7	7	4	6	2	1943445
Available Manganese (Mn)	mg/kg	90	80	96	70	2	1943445
Available Mercury (Hg)	mg/kg	0.1	0.1	0.8	<0.1	0.1	1943445
Available Molybdenum (Mo)	mg/kg	<2	<2	2	<2	2	1943445
Available Nickel (Ni)	mg/kg	19	19	16	8	2	1943445
Available Rubidium (Rb)	mg/kg	5	5	2	2	2	1943445
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1943445
Available Silver (Ag)	mg/kg	<0.5	<0.5	1.4	<0.5	0.5	1943445
Available Strontium (Sr)	mg/kg	26	22	13	6	5	1943445
Available Thallium (Tl)	mg/kg	0.1	0.1	<0.1	<0.1	0.1	1943445
Available Tin (Sn)	mg/kg	4	7	91	7	2	1943445
Available Uranium (U)	mg/kg	3.8	3.4	1.0	0.7	0.1	1943445
Available Vanadium (V)	mg/kg	18	17	12	16	2	1943445
Available Zinc (Zn)	mg/kg	170	410	790	37	5	1943445

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5936	DR5937	DR5938		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A		
	Units	SED-36	SED-37	SED-38	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	6600	7100	2900	10	1943445
Available Antimony (Sb)	mg/kg	<2	<2	<2	2	1943445
Available Arsenic (As)	mg/kg	<2	<2	<2	2	1943445
Available Barium (Ba)	mg/kg	26	18	14	5	1943445
Available Beryllium (Be)	mg/kg	<2	<2	<2	2	1943445
Available Bismuth (Bi)	mg/kg	<2	<2	<2	2	1943445
Available Boron (B)	mg/kg	<5	<5	<5	5	1943445
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	0.3	1943445
Available Chromium (Cr)	mg/kg	18	15	40	2	1943445
Available Cobalt (Co)	mg/kg	4	5	2	1	1943445
Available Copper (Cu)	mg/kg	11	7	<2	2	1943445
Available Iron (Fe)	mg/kg	14000	9400	3700	50	1943445
Available Lead (Pb)	mg/kg	14	2.6	0.8	0.5	1943445
Available Lithium (Li)	mg/kg	11	8	4	2	1943445
Available Manganese (Mn)	mg/kg	160	120	60	2	1943445
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	0.1	1943445
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	2	1943445
Available Nickel (Ni)	mg/kg	13	12	15	2	1943445
Available Rubidium (Rb)	mg/kg	12	5	8	2	1943445
Available Selenium (Se)	mg/kg	<2	<2	<2	2	1943445
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	0.5	1943445
Available Strontium (Sr)	mg/kg	8	16	<5	5	1943445
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	0.1	1943445
Available Tin (Sn)	mg/kg	9	<2	<2	2	1943445
Available Uranium (U)	mg/kg	1.1	0.3	<0.1	0.1	1943445
Available Vanadium (V)	mg/kg	18	16	6	2	1943445
Available Zinc (Zn)	mg/kg	42	26	14	5	1943445

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5939		DR5939		
Sampling Date		2009/09/09		2009/09/09		
COC Number		N/A		N/A		
	Units	SED-39	RDL	SED-39 Lab-Dup	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	19000	10	21000	10	1943445
Available Antimony (Sb)	mg/kg	<2	2	<2	2	1943445
Available Arsenic (As)	mg/kg	<2	2	<2	2	1943445
Available Barium (Ba)	mg/kg	33	5	37	5	1943445
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1943445
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1943445
Available Boron (B)	mg/kg	<5	5	<5	5	1943445
Available Cadmium (Cd)	mg/kg	0.6	0.3	0.6	0.3	1943445
Available Chromium (Cr)	mg/kg	44	2	43	2	1943445
Available Cobalt (Co)	mg/kg	15	1	16	1	1943445
Available Copper (Cu)	mg/kg	35	2	37	2	1943445
Available Iron (Fe)	mg/kg	43000	50	44000	500	1943445
Available Lead (Pb)	mg/kg	12	0.5	13	0.5	1943445
Available Lithium (Li)	mg/kg	4	2	4	2	1943445
Available Manganese (Mn)	mg/kg	500	2	490	2	1943445
Available Mercury (Hg)	mg/kg	0.2	0.1	0.2	0.1	1943445
Available Molybdenum (Mo)	mg/kg	5	2	5	2	1943445
Available Nickel (Ni)	mg/kg	17	2	18	2	1943445
Available Rubidium (Rb)	mg/kg	3	2	3	2	1943445
Available Selenium (Se)	mg/kg	<5 (1)	5	<5 (1)	5	1943445
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	0.5	1943445
Available Strontium (Sr)	mg/kg	16	5	17	5	1943445
Available Thallium (Tl)	mg/kg	0.2	0.1	0.2	0.1	1943445
Available Tin (Sn)	mg/kg	<2	2	<2	2	1943445
Available Uranium (U)	mg/kg	5.5	0.1	5.7	0.1	1943445
Available Vanadium (V)	mg/kg	43	2	43	2	1943445
Available Zinc (Zn)	mg/kg	60	5	66	5	1943445

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5940		DR5941		
Sampling Date		2009/09/09		2009/09/09		
COC Number		N/A		N/A		
	Units	SED-40	RDL	SED-41	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	11000	10	25000	10	1943445
Available Antimony (Sb)	mg/kg	<2	2	<2	2	1943445
Available Arsenic (As)	mg/kg	<2	2	<2	2	1943445
Available Barium (Ba)	mg/kg	19	5	31	5	1943445
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1943445
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1943445
Available Boron (B)	mg/kg	<5	5	<5	5	1943445
Available Cadmium (Cd)	mg/kg	0.3	0.3	0.4	0.3	1943445
Available Chromium (Cr)	mg/kg	37	2	58	2	1943445
Available Cobalt (Co)	mg/kg	7	1	13	1	1943445
Available Copper (Cu)	mg/kg	17	2	35	2	1943445
Available Iron (Fe)	mg/kg	13000	50	73000	500	1943445
Available Lead (Pb)	mg/kg	7.8	0.5	17	0.5	1943445
Available Lithium (Li)	mg/kg	6	2	8	2	1943445
Available Manganese (Mn)	mg/kg	170	2	480	2	1943445
Available Mercury (Hg)	mg/kg	<0.1	0.1	0.1	0.1	1943445
Available Molybdenum (Mo)	mg/kg	<2	2	8	2	1943445
Available Nickel (Ni)	mg/kg	20	2	18	2	1943445
Available Rubidium (Rb)	mg/kg	3	2	5	2	1943445
Available Selenium (Se)	mg/kg	<2	2	2	2	1943445
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	0.5	1943445
Available Strontium (Sr)	mg/kg	10	5	12	5	1943445
Available Thallium (Tl)	mg/kg	<0.1	0.1	0.1	0.1	1943445
Available Tin (Sn)	mg/kg	<2	2	<2	2	1943445
Available Uranium (U)	mg/kg	2.0	0.1	5.3	0.1	1943445
Available Vanadium (V)	mg/kg	25	2	95	2	1943445
Available Zinc (Zn)	mg/kg	51	5	140	5	1943445

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5942	DR5943	DR5944	DR5945		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-42	SED-43	SED-44	SED-49	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	4100	20000	3800	8400	10	1943445
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1943445
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1943445
Available Barium (Ba)	mg/kg	20	34	6	20	5	1943445
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1943445
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1943445
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1943445
Available Cadmium (Cd)	mg/kg	<0.3	0.4	<0.3	<0.3	0.3	1943445
Available Chromium (Cr)	mg/kg	8	57	10	16	2	1943445
Available Cobalt (Co)	mg/kg	2	11	4	5	1	1943445
Available Copper (Cu)	mg/kg	4	38	5	6	2	1943445
Available Iron (Fe)	mg/kg	14000	24000	5900	9100	50	1943445
Available Lead (Pb)	mg/kg	2.9	14	1.4	6.0	0.5	1943445
Available Lithium (Li)	mg/kg	4	7	5	6	2	1943445
Available Manganese (Mn)	mg/kg	82	220	70	95	2	1943445
Available Mercury (Hg)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1943445
Available Molybdenum (Mo)	mg/kg	<2	4	<2	<2	2	1943445
Available Nickel (Ni)	mg/kg	3	25	8	12	2	1943445
Available Rubidium (Rb)	mg/kg	3	6	<2	4	2	1943445
Available Selenium (Se)	mg/kg	<2	3	<2	<2	2	1943445
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1943445
Available Strontium (Sr)	mg/kg	6	17	8	17	5	1943445
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1943445
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1943445
Available Uranium (U)	mg/kg	0.9	4.9	0.2	0.3	0.1	1943445
Available Vanadium (V)	mg/kg	53	52	10	19	2	1943445
Available Zinc (Zn)	mg/kg	16	77	17	46	5	1943445

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5946	DR5947	DR5948		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A		
	Units	SED-50	SED-51	SED-52	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	9400	7800	3900	10	1943445
Available Antimony (Sb)	mg/kg	<2	<2	<2	2	1943445
Available Arsenic (As)	mg/kg	<2	<2	<2	2	1943445
Available Barium (Ba)	mg/kg	21	15	7	5	1943445
Available Beryllium (Be)	mg/kg	<2	<2	<2	2	1943445
Available Bismuth (Bi)	mg/kg	<2	<2	<2	2	1943445
Available Boron (B)	mg/kg	<5	<5	<5	5	1943445
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	0.3	1943445
Available Chromium (Cr)	mg/kg	20	18	13	2	1943445
Available Cobalt (Co)	mg/kg	6	4	4	1	1943445
Available Copper (Cu)	mg/kg	10	6	3	2	1943445
Available Iron (Fe)	mg/kg	11000	10000	9000	50	1943445
Available Lead (Pb)	mg/kg	5.8	4.4	7.4	0.5	1943445
Available Lithium (Li)	mg/kg	7	6	4	2	1943445
Available Manganese (Mn)	mg/kg	110	97	79	2	1943445
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	0.1	1943445
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	2	1943445
Available Nickel (Ni)	mg/kg	14	12	9	2	1943445
Available Rubidium (Rb)	mg/kg	5	4	2	2	1943445
Available Selenium (Se)	mg/kg	<2	<2	<2	2	1943445
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	0.5	1943445
Available Strontium (Sr)	mg/kg	18	12	8	5	1943445
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	0.1	1943445
Available Tin (Sn)	mg/kg	<2	<2	<2	2	1943445
Available Uranium (U)	mg/kg	0.4	0.3	0.2	0.1	1943445
Available Vanadium (V)	mg/kg	26	24	18	2	1943445
Available Zinc (Zn)	mg/kg	25	22	16	5	1943445

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DR5949		DR5950		
Sampling Date		2009/09/09		2009/09/09		
COC Number		N/A		N/A		
	Units	SED-53	RDL	SED-45	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	5900	10	1400	10	1943846
Available Antimony (Sb)	mg/kg	<2	2	<2	2	1943846
Available Arsenic (As)	mg/kg	<2	2	<2	2	1943846
Available Barium (Ba)	mg/kg	32	5	5	5	1943846
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1943846
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1943846
Available Boron (B)	mg/kg	<5	5	<5	5	1943846
Available Cadmium (Cd)	mg/kg	0.3	0.3	<0.3	0.3	1943846
Available Chromium (Cr)	mg/kg	15	2	5	2	1943846
Available Cobalt (Co)	mg/kg	9	1	<1	1	1943846
Available Copper (Cu)	mg/kg	13	2	9	2	1943846
Available Iron (Fe)	mg/kg	26000	50	2200	50	1943846
Available Lead (Pb)	mg/kg	77	0.5	3.1	0.5	1943846
Available Lithium (Li)	mg/kg	3	2	<2	2	1943846
Available Manganese (Mn)	mg/kg	170	2	22	2	1943846
Available Mercury (Hg)	mg/kg	0.1	0.1	<0.1	0.1	1943846
Available Molybdenum (Mo)	mg/kg	<2	2	<2	2	1943846
Available Nickel (Ni)	mg/kg	26	2	2	2	1943846
Available Rubidium (Rb)	mg/kg	6	2	3	2	1943846
Available Selenium (Se)	mg/kg	<5 (1)	5	<2	2	1943846
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	0.5	1943846
Available Strontium (Sr)	mg/kg	32	5	<5	5	1943846
Available Thallium (Tl)	mg/kg	0.1	0.1	<0.1	0.1	1943846
Available Tin (Sn)	mg/kg	<2	2	<2	2	1943846
Available Uranium (U)	mg/kg	1.7	0.1	0.1	0.1	1943846
Available Vanadium (V)	mg/kg	22	2	4	2	1943846
Available Zinc (Zn)	mg/kg	47	5	16	5	1943846

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DR5925	DR5926	DR5927	DR5928		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-25	SED-26	SED-27	SED-28	RDL	QC Batch

Volatile Organics							
1,1,1-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,1,2-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,1-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,1-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
1,2-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1941915
1,2-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,2-Dichloropropane	ug/kg	<30	<30	<30	<30	30	1941915
1,3-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1941915
1,4-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1941915
Benzene	ug/kg	<30	<30	<30	<30	30	1941915
Bromodichloromethane	ug/kg	<30	<30	<30	<30	30	1941915
Bromoform	ug/kg	<30	<30	<30	<30	30	1941915
Bromomethane	ug/kg	<200	<200	<200	<200	200	1941915
Carbon Tetrachloride	ug/kg	<30	<30	<30	<30	30	1941915
Chlorobenzene	ug/kg	<30	<30	<30	<30	30	1941915
Chloroform	ug/kg	<30	<30	<30	<30	30	1941915
Chloromethane	ug/kg	<30	<30	<30	<30	30	1941915
cis-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
cis-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1941915
Dibromochloromethane	ug/kg	<30	<30	<30	<30	30	1941915
Ethylbenzene	ug/kg	<30	<30	<30	<30	30	1941915
Ethylene Dibromide	ug/kg	<30	<30	<30	<30	30	1941915
Methylene Chloride(Dichloromethane)	ug/kg	<40 (1)	<40 (1)	<40 (1)	<40 (1)	40	1941915
o-Xylene	ug/kg	<30	<30	<30	<30	30	1941915
p+m-Xylene	ug/kg	<30	<30	<30	<30	30	1941915
Styrene	ug/kg	<30	<30	<30	<30	30	1941915
Tetrachloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
Toluene	ug/kg	<30	<30	<30	<30	30	1941915
trans-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1941915

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated Methylene Chloride (Dichloromethane) RDL due to detected level in the method blank.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DR5925	DR5926	DR5927	DR5928		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-25	SED-26	SED-27	SED-28	RDL	QC Batch
trans-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1941915
Trichloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	<30	<30	30	1941915
Vinyl Chloride	ug/kg	<30	<30	<30	<30	30	1941915
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	96	102	94	106		1941915
D4-1,2-Dichloroethane	%	109	113	106	110		1941915
D8-Toluene	%	98	105	98	107		1941915
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DR5929	DR5929	DR5930	DR5931		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-29	SED-29 Lab-Dup	SED-30	SED-31	RDL	QC Batch

Volatiles Organics							
1,1,1-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,1,2-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,1-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,1-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
1,2-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1941915
1,2-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1941915
1,2-Dichloropropane	ug/kg	<30	<30	<30	<30	30	1941915
1,3-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1941915
1,4-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1941915
Benzene	ug/kg	<30	<30	<30	<30	30	1941915
Bromodichloromethane	ug/kg	<30	<30	<30	<30	30	1941915
Bromoform	ug/kg	<30	<30	<30	<30	30	1941915
Bromomethane	ug/kg	<200	<200	<200	<200	200	1941915
Carbon Tetrachloride	ug/kg	<30	<30	<30	<30	30	1941915
Chlorobenzene	ug/kg	<30	<30	<30	<30	30	1941915
Chloroform	ug/kg	<30	<30	<30	36	30	1941915
Chloromethane	ug/kg	<30	<30	<30	<30	30	1941915
cis-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
cis-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1941915
Dibromochloromethane	ug/kg	<30	<30	<30	<30	30	1941915
Ethylbenzene	ug/kg	<30	<30	<30	<30	30	1941915
Ethylene Dibromide	ug/kg	<30	<30	<30	<30	30	1941915
Methylene Chloride(Dichloromethane)	ug/kg	<40 (1)	<40 (1)	<40 (1)	<40 (1)	40	1941915
o-Xylene	ug/kg	<30	<30	<30	<30	30	1941915
p+m-Xylene	ug/kg	<30	<30	<30	<30	30	1941915
Styrene	ug/kg	<30	<30	<30	<30	30	1941915
Tetrachloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
Toluene	ug/kg	<30	<30	<30	<30	30	1941915

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated Methylene Chloride (Dichloromethane) RDL due to detected level in the method blank.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DR5929	DR5929	DR5930	DR5931		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-29	SED-29 Lab-Dup	SED-30	SED-31	RDL	QC Batch
trans-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
trans-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1941915
Trichloroethylene	ug/kg	<30	<30	<30	<30	30	1941915
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	<30	<30	30	1941915
Vinyl Chloride	ug/kg	<30	<30	<30	<30	30	1941915
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	103	94	91	82		1941915
D4-1,2-Dichloroethane	%	116	105	110	104		1941915
D8-Toluene	%	106	95	98	92		1941915
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DR5932	DR5933		DR5934		
Sampling Date		2009/09/09	2009/09/09		2009/09/09		
COC Number		N/A	N/A		N/A		
	Units	SED-32	SED-33	RDL	SED-34	RDL	QC Batch

Volatile Organics							
1,1,1-Trichloroethane	ug/kg	<30	<30	30	<30	30	1941915
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	30	<50 (1)	50	1941915
1,1,2-Trichloroethane	ug/kg	<30	<30	30	<30	30	1941915
1,1-Dichloroethane	ug/kg	<30	<30	30	<30	30	1941915
1,1-Dichloroethylene	ug/kg	<30	<30	30	<30	30	1941915
1,2-Dichlorobenzene	ug/kg	<30	<30	30	<30	30	1941915
1,2-Dichloroethane	ug/kg	<30	<30	30	<30	30	1941915
1,2-Dichloropropane	ug/kg	<30	<30	30	<30	30	1941915
1,3-Dichlorobenzene	ug/kg	<30	<30	30	<30	30	1941915
1,4-Dichlorobenzene	ug/kg	<30	<30	30	<70 (1)	70	1941915
Benzene	ug/kg	<30	<30	30	<30	30	1941915
Bromodichloromethane	ug/kg	<30	<30	30	<30	30	1941915
Bromoform	ug/kg	<30	<30	30	<30	30	1941915
Bromomethane	ug/kg	<200	<200	200	<200	200	1941915
Carbon Tetrachloride	ug/kg	<30	<30	30	<30	30	1941915
Chlorobenzene	ug/kg	<30	<30	30	<30	30	1941915
Chloroform	ug/kg	<30	<30	30	<30	30	1941915
Chloromethane	ug/kg	<30	<30	30	<30	30	1941915
cis-1,2-Dichloroethylene	ug/kg	<30	<30	30	<30	30	1941915
cis-1,3-Dichloropropene	ug/kg	<30	<30	30	<30	30	1941915
Dibromochloromethane	ug/kg	<30	<30	30	<30	30	1941915
Ethylbenzene	ug/kg	<30	<30	30	<30	30	1941915
Ethylene Dibromide	ug/kg	<30	<30	30	<30	30	1941915
Methylene Chloride(Dichloromethane)	ug/kg	<40 (2)	<40 (2)	40	<40 (2)	40	1941915
o-Xylene	ug/kg	<30	<30	30	<30	30	1941915
p+m-Xylene	ug/kg	<30	<30	30	<30	30	1941915
Styrene	ug/kg	<30	<30	30	<30	30	1941915
Tetrachloroethylene	ug/kg	<30	<30	30	<30	30	1941915
Toluene	ug/kg	<30	<30	30	160	30	1941915

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VOC RDL(s) due to matrix interference.

(2) Elevated Methylene Chloride (Dichloromethane) RDL due to detected level in the method blank.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DR5932	DR5933		DR5934		
Sampling Date		2009/09/09	2009/09/09		2009/09/09		
COC Number		N/A	N/A		N/A		
	Units	SED-32	SED-33	RDL	SED-34	RDL	QC Batch
trans-1,2-Dichloroethylene	ug/kg	<30	<30	30	<30	30	1941915
trans-1,3-Dichloropropene	ug/kg	<30	<30	30	<30	30	1941915
Trichloroethylene	ug/kg	<30	<30	30	<30	30	1941915
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	30	<30	30	1941915
Vinyl Chloride	ug/kg	<30	<30	30	<30	30	1941915
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	86	90		93		1941915
D4-1,2-Dichloroethane	%	105	108		111		1941915
D8-Toluene	%	94	97		97		1941915
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DR5935	DR5936	DR5937		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A		
	Units	SED-35	SED-36	SED-37	RDL	QC Batch

Volatile Organics						
1,1,1-Trichloroethane	ug/kg	<30	<30	<30	30	1941915
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	<30	30	1941915
1,1,2-Trichloroethane	ug/kg	<30	<30	<30	30	1941915
1,1-Dichloroethane	ug/kg	<30	<30	<30	30	1941915
1,1-Dichloroethylene	ug/kg	<30	<30	<30	30	1941915
1,2-Dichlorobenzene	ug/kg	<30	<30	<30	30	1941915
1,2-Dichloroethane	ug/kg	<30	<30	<30	30	1941915
1,2-Dichloropropane	ug/kg	<30	<30	<30	30	1941915
1,3-Dichlorobenzene	ug/kg	<30	<30	<30	30	1941915
1,4-Dichlorobenzene	ug/kg	<30	<30	<30	30	1941915
Benzene	ug/kg	<30	<30	<30	30	1941915
Bromodichloromethane	ug/kg	<30	<30	<30	30	1941915
Bromoform	ug/kg	<30	<30	<30	30	1941915
Bromomethane	ug/kg	<200	<200	<200	200	1941915
Carbon Tetrachloride	ug/kg	<30	<30	<30	30	1941915
Chlorobenzene	ug/kg	<30	<30	<30	30	1941915
Chloroform	ug/kg	<30	<30	<30	30	1941915
Chloromethane	ug/kg	<30	<30	<30	30	1941915
cis-1,2-Dichloroethylene	ug/kg	<30	<30	<30	30	1941915
cis-1,3-Dichloropropene	ug/kg	<30	<30	<30	30	1941915
Dibromochloromethane	ug/kg	<30	<30	<30	30	1941915
Ethylbenzene	ug/kg	<30	<30	<30	30	1941915
Ethylene Dibromide	ug/kg	<30	<30	<30	30	1941915
Methylene Chloride(Dichloromethane)	ug/kg	<40 (1)	<40 (1)	<40 (1)	40	1941915
o-Xylene	ug/kg	<30	<30	<30	30	1941915
p+m-Xylene	ug/kg	<30	<30	<30	30	1941915
Styrene	ug/kg	<30	<30	<30	30	1941915
Tetrachloroethylene	ug/kg	<30	<30	<30	30	1941915
Toluene	ug/kg	<30	<30	<30	30	1941915
trans-1,2-Dichloroethylene	ug/kg	<30	<30	<30	30	1941915

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated Methylene Chloride (Dichloromethane) RDL due to detected level in the method blank.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DR5935	DR5936	DR5937		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A		
	Units	SED-35	SED-36	SED-37	RDL	QC Batch
trans-1,3-Dichloropropene	ug/kg	<30	<30	<30	30	1941915
Trichloroethylene	ug/kg	<30	<30	<30	30	1941915
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	<30	30	1941915
Vinyl Chloride	ug/kg	<30	<30	<30	30	1941915
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	104	108	105		1941915
D4-1,2-Dichloroethane	%	115	117	109		1941915
D8-Toluene	%	106	113	103		1941915
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DR5922		DR5923	DR5923		
Sampling Date		2009/09/09		2009/09/09	2009/09/09		
COC Number		N/A		N/A	N/A		
	Units	TP220-BS2	QC Batch	TP221-BS2	TP221-BS2 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1940062	<0.03		0.03	1940062
Toluene	mg/kg	<0.03	1940062	<0.03		0.03	1940062
Ethylbenzene	mg/kg	<0.03	1940062	<0.03		0.03	1940062
Xylene (Total)	mg/kg	<0.05	1940062	<0.05		0.05	1940062
C6 - C10 (less BTEX)	mg/kg	<3	1940062	<3		3	1940062
>C10-C21 Hydrocarbons	mg/kg	22	1940026	580	610	15	1941585
>C21-<C32 Hydrocarbons	mg/kg	110	1940026	2000	2100	15	1941585
Modified TPH (Tier1)	mg/kg	130	1937675	2500		20	1937675
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	107	1940026	86	90		1941585
n-Dotriacontane - Extractable	%	106 (1)	1940026	75 (1)	91		1941585
Isobutylbenzene - Volatile	%	102	1940062	93			1940062

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DR5924		DR5935		
Sampling Date		2009/09/09		2009/09/09		
COC Number		N/A		N/A		
	Units	TP222-BS2	QC Batch	SED-35	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1940062	<0.03	0.03	1940062
Toluene	mg/kg	<0.03	1940062	<0.03	0.03	1940062
Ethylbenzene	mg/kg	<0.03	1940062	<0.03	0.03	1940062
Xylene (Total)	mg/kg	<0.05	1940062	<0.05	0.05	1940062
C6 - C10 (less BTEX)	mg/kg	<3	1940062	<3	3	1940062
>C10-C21 Hydrocarbons	mg/kg	60	1940026	52	15	1940054
>C21-<C32 Hydrocarbons	mg/kg	300	1940026	130	15	1940054
Modified TPH (Tier1)	mg/kg	360	1937675	180	20	1937675
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	110	1940026	100		1940054
n-Dotriacontane - Extractable	%	110 (1)	1940026	94 (2)		1940054
Isobutylbenzene - Volatile	%	97	1940062	123		1940062

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.
(2) One product in fuel / lube range.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DR5936		DR5937		
Sampling Date		2009/09/09		2009/09/09		
COC Number		N/A		N/A		
	Units	SED-36	QC Batch	SED-37	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1940062	<0.03	0.03	1940062
Toluene	mg/kg	<0.03	1940062	<0.03	0.03	1940062
Ethylbenzene	mg/kg	<0.03	1940062	<0.03	0.03	1940062
Xylene (Total)	mg/kg	<0.05	1940062	<0.05	0.05	1940062
C6 - C10 (less BTEX)	mg/kg	<3	1940062	<3	3	1940062
>C10-C21 Hydrocarbons	mg/kg	28	1941585	<15	15	1940026
>C21-<C32 Hydrocarbons	mg/kg	68	1941585	<15	15	1940026
Modified TPH (Tier1)	mg/kg	95	1937675	<20	20	1937675
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	85	1941585	120		1940026
n-Dotriacontane - Extractable	%	84 (1)	1941585	133 (2)		1940026
Isobutylbenzene - Volatile	%	106	1940062	111		1940062

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range.
(2) TEH Surrogate(s): results are within acceptance limits.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DR5945		DR5946		
Sampling Date		2009/09/09		2009/09/09		
COC Number		N/A		N/A		
	Units	SED-49	QC Batch	SED-50	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1940062	<0.03	0.03	1940062
Toluene	mg/kg	0.07	1940062	<0.03	0.03	1940062
Ethylbenzene	mg/kg	<0.03	1940062	<0.03	0.03	1940062
Xylene (Total)	mg/kg	<0.05	1940062	<0.05	0.05	1940062
C6 - C10 (less BTEX)	mg/kg	<3	1940062	<3	3	1940062
>C10-C21 Hydrocarbons	mg/kg	32	1940054	29	15	1940026
>C21-<C32 Hydrocarbons	mg/kg	71	1940054	62	15	1940026
Modified TPH (Tier1)	mg/kg	100	1937675	91	20	1937675
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	93	1940054	101		1940026
n-Dotriacontane - Extractable	%	92 (1)	1940054	120 (1)		1940026
Isobutylbenzene - Volatile	%	106	1940062	110		1940062

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DR5947	DR5948		DR5949		
Sampling Date		2009/09/09	2009/09/09		2009/09/09		
COC Number		N/A	N/A		N/A		
	Units	SED-51	SED-52	QC Batch	SED-53	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1940062	<0.03	0.03	1940062
Toluene	mg/kg	<0.03	<0.03	1940062	<0.03	0.03	1940062
Ethylbenzene	mg/kg	<0.03	<0.03	1940062	<0.03	0.03	1940062
Xylene (Total)	mg/kg	<0.05	<0.05	1940062	<0.05	0.05	1940062
C6 - C10 (less BTEX)	mg/kg	<3	<3	1940062	<3	3	1940062
>C10-C21 Hydrocarbons	mg/kg	<15	36	1940054	310	15	1940026
>C21-<C32 Hydrocarbons	mg/kg	20	47	1940054	690	15	1940026
Modified TPH (Tier1)	mg/kg	<20	83	1937675	1000	20	1937675
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	90	96	1940054	84		1940026
n-Dotriacontane - Extractable	%	98 (1)	98 (2)	1940054	85 (2)		1940026
Isobutylbenzene - Volatile	%	103	119	1940062	94		1940062

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) No resemblance to petroleum products.
(2) One product in fuel / lube range.

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DR5922	DR5923	DR5924	DR5925		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	TP220-BS2	TP221-BS2	TP222-BS2	SED-25	RDL	QC Batch

PCBs							
Total PCB	ug/g	3.4	0.24	0.37	0.58	0.05	1940008
Surrogate Recovery (%)							
Decachlorobiphenyl	%	77 (1)	71 (1)	74 (1)	81 (1)		1940008
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DR5926	DR5927	DR5927	DR5928		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-26	SED-27	SED-27 Lab-Dup	SED-28	RDL	QC Batch

PCBs							
Total PCB	ug/g	16	2.8	2.7	0.18	0.05	1940008
Surrogate Recovery (%)							
Decachlorobiphenyl	%	74 (1)	76 (1)	76	79 (1)		1940008
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DR5929	DR5930	DR5931	DR5932		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-29	SED-30	SED-31	SED-32	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.92	1.7	1.9	0.87	0.05	1940008
Surrogate Recovery (%)							
Decachlorobiphenyl	%	79 (1)	79 (1)	76 (1)	76 (1)		1940008
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DR5933	DR5934	DR5935	DR5936		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-33	SED-34	SED-35	SED-36	RDL	QC Batch

PCBs							
Total PCB	ug/g	1.0	32	<0.05	<0.05	0.05	1940008
Surrogate Recovery (%)							
Decachlorobiphenyl	%	79 (1)	74 (1)	71	73		1940008
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DR5937	DR5938	DR5939		DR5940		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		2009/09/09		
COC Number		N/A	N/A	N/A		N/A		
	Units	SED-37	SED-38	SED-39	QC Batch	SED-40	RDL	QC Batch

PCBs								
Total PCB	ug/g	<0.05	<0.05	<0.05	1940008	<0.05	0.05	1940006
Surrogate Recovery (%)								
Decachlorobiphenyl	%	75	78	78	1940008	120		1940006
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DR5941	DR5941	DR5942	DR5943		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-41	SED-41 Lab-Dup	SED-42	SED-43	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1940006
Surrogate Recovery (%)							
Decachlorobiphenyl	%	115	120	128	112		1940006
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DR5944	DR5945	DR5946	DR5947		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-44	SED-49	SED-50	SED-51	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1940006
Surrogate Recovery (%)							
Decachlorobiphenyl	%	118	113	113	113		1940006
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DR5948	DR5949	DR5950		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A		
	Units	SED-52	SED-53	SED-45	RDL	QC Batch

PCBs						
Total PCB	ug/g	<0.05	<0.05	<0.05	0.05	1941943
Surrogate Recovery (%)						
Decachlorobiphenyl	%	83	79	79		1941943

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9C0235

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1940006 CMI	Matrix Spike [DR5941-01]	Decachlorobiphenyl	2009/09/17		119	%	30 - 130
		Total PCB	2009/09/17		124	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/17		103	%	30 - 130
		Total PCB	2009/09/17		80	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/17		82	%	30 - 130
		Total PCB	2009/09/17	<0.05		ug/g	
	RPD [DR5941-01]	Total PCB	2009/09/17	NC		%	50
1940008 CMI	Matrix Spike [DR5927-01]	Decachlorobiphenyl	2009/09/21		75	%	30 - 130
		Total PCB	2009/09/21		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/21		76	%	30 - 130
		Total PCB	2009/09/21		96	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/21		76	%	30 - 130
		Total PCB	2009/09/21	<0.05		ug/g	
	RPD [DR5927-01]	Total PCB	2009/09/21	0.8		%	50
1940026 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/09/16		105	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/16		94	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/16		103	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/16		97	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/16		93	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/16		94	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/16		95	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/16		101	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/16		108	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/16		87	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/16	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/16	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/09/16	NC		%	50
		>C21-<C32 Hydrocarbons	2009/09/16	NC		%	50
1940054 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/09/16		88	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/16		89	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/16		90	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/16		104	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/17		92	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/17		91	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/17		79	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/17		91	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/16		90	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/16		90	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/16	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/16	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/09/16	NC		%	50
		>C21-<C32 Hydrocarbons	2009/09/16	NC		%	50
1940062 GTH	Matrix Spike	Isobutylbenzene - Volatile	2009/09/16		73	%	60 - 140
		Benzene	2009/09/16		81	%	60 - 140
		Toluene	2009/09/16		109	%	60 - 140
		Ethylbenzene	2009/09/16		101	%	60 - 140
	Spiked Blank	Xylene (Total)	2009/09/16		110	%	60 - 140
		Isobutylbenzene - Volatile	2009/09/16		101	%	60 - 140
		Benzene	2009/09/16		98	%	60 - 140
		Toluene	2009/09/16		100	%	60 - 140
	Method Blank	Ethylbenzene	2009/09/16		97	%	60 - 140
		Xylene (Total)	2009/09/16		100	%	60 - 140
		Isobutylbenzene - Volatile	2009/09/16		100	%	60 - 140

Maxxam Job #: A9C0235
Report Date: 2009/09/22

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DR5948	DR5949	DR5950		
Sampling Date		2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A		
	Units	SED-52	SED-53	SED-45	RDL	QC Batch

PCBs						
Total PCB	ug/g	<0.05	<0.05	<0.05	0.05	1941943
Surrogate Recovery (%)						
Decachlorobiphenyl	%	83	79	79		1941943

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1940062 GTH	Method Blank	Benzene	2009/09/16	<0.03		mg/kg	
		Toluene	2009/09/16	<0.03		mg/kg	
		Ethylbenzene	2009/09/16	<0.03		mg/kg	
		Xylene (Total)	2009/09/16	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/09/16	<3		mg/kg	
	RPD	Benzene	2009/09/16	NC		%	50
		Toluene	2009/09/16	NC		%	50
		Ethylbenzene	2009/09/16	NC		%	50
		Xylene (Total)	2009/09/16	NC		%	50
		C6 - C10 (less BTEX)	2009/09/16	NC		%	50
1941585 SHR	Matrix Spike [DR5923-01]	Isobutylbenzene - Extractable	2009/09/17		84	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/17		81	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/17		NC	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/17		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/17		85	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/17		81	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/17		79	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/17		91	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/17		84	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/17		86	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/17	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/17	<15		mg/kg	
	RPD [DR5923-01]	>C10-C21 Hydrocarbons	2009/09/17	5.2		%	50
		>C21-<C32 Hydrocarbons	2009/09/17	8.5		%	50
1941915 MSK	Matrix Spike [DR5929-01]	4-Bromofluorobenzene	2009/09/18		84	%	60 - 140
		D4-1,2-Dichloroethane	2009/09/18		95	%	60 - 140
		D8-Toluene	2009/09/18		85	%	60 - 140
		1,1,1-Trichloroethane	2009/09/18		77	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/09/18		85	%	60 - 140
		1,1,2-Trichloroethane	2009/09/18		85	%	60 - 140
		1,1-Dichloroethane	2009/09/18		83	%	60 - 140
		1,1-Dichloroethylene	2009/09/18		63	%	60 - 140
		1,2-Dichlorobenzene	2009/09/18		83	%	60 - 140
		1,2-Dichloroethane	2009/09/18		85	%	60 - 140
		1,2-Dichloropropane	2009/09/18		81	%	60 - 140
		1,3-Dichlorobenzene	2009/09/18		79	%	60 - 140
		1,4-Dichlorobenzene	2009/09/18		79	%	60 - 140
		Benzene	2009/09/18		78	%	60 - 140
		Bromodichloromethane	2009/09/18		77	%	60 - 140
		Bromoform	2009/09/18		65	%	60 - 140
		Bromomethane	2009/09/18		65	%	60 - 140
		Carbon Tetrachloride	2009/09/18		71	%	60 - 140
		Chlorobenzene	2009/09/18		83	%	60 - 140
		Chloroform	2009/09/18		87	%	60 - 140
		Chloromethane	2009/09/18		59 (1)	%	60 - 140
		cis-1,2-Dichloroethylene	2009/09/18		86	%	60 - 140
		cis-1,3-Dichloropropene	2009/09/18		69	%	60 - 140
		Dibromochloromethane	2009/09/18		69	%	60 - 140
		Ethylbenzene	2009/09/18		77	%	60 - 140
		Ethylene Dibromide	2009/09/18		84	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/09/18		93	%	60 - 140
		o-Xylene	2009/09/18		84	%	60 - 140
		p+m-Xylene	2009/09/18		88	%	60 - 140

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1941915 MSK	Matrix Spike [DR5929-01]	Styrene	2009/09/18		70	%	60 - 140
		Tetrachloroethylene	2009/09/18		75	%	60 - 140
		Toluene	2009/09/18		77	%	60 - 140
		trans-1,2-Dichloroethylene	2009/09/18		73	%	60 - 140
		trans-1,3-Dichloropropene	2009/09/18		63	%	60 - 140
		Trichloroethylene	2009/09/18		80	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/09/18		71	%	60 - 140
		Vinyl Chloride	2009/09/18		44 (1)	%	60 - 140
	Spiked Blank	4-Bromofluorobenzene	2009/09/18		96	%	60 - 140
		D4-1,2-Dichloroethane	2009/09/18		104	%	60 - 140
		D8-Toluene	2009/09/18		102	%	60 - 140
		1,1,1-Trichloroethane	2009/09/18		96	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/09/18		92	%	60 - 140
		1,1,2-Trichloroethane	2009/09/18		93	%	60 - 140
		1,1-Dichloroethane	2009/09/18		93	%	60 - 140
		1,1-Dichloroethylene	2009/09/18		85	%	60 - 140
		1,2-Dichlorobenzene	2009/09/18		97	%	60 - 140
		1,2-Dichloroethane	2009/09/18		95	%	60 - 140
		1,2-Dichloropropane	2009/09/18		90	%	60 - 140
		1,3-Dichlorobenzene	2009/09/18		98	%	60 - 140
		1,4-Dichlorobenzene	2009/09/18		95	%	60 - 140
		Benzene	2009/09/18		90	%	60 - 140
		Bromodichloromethane	2009/09/18		88	%	60 - 140
		Bromoform	2009/09/18		79	%	60 - 140
		Bromomethane	2009/09/18		66	%	60 - 140
		Carbon Tetrachloride	2009/09/18		90	%	60 - 140
		Chlorobenzene	2009/09/18		97	%	60 - 140
		Chloroform	2009/09/18		98	%	60 - 140
		Chloromethane	2009/09/18		73	%	60 - 140
		cis-1,2-Dichloroethylene	2009/09/18		98	%	60 - 140
		cis-1,3-Dichloropropene	2009/09/18		80	%	60 - 140
		Dibromochloromethane	2009/09/18		82	%	60 - 140
		Ethylbenzene	2009/09/18		92	%	60 - 140
		Ethylene Dibromide	2009/09/18		96	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/09/18		93	%	60 - 140
		o-Xylene	2009/09/18		99	%	60 - 140
		p+m-Xylene	2009/09/18		101	%	60 - 140
		Styrene	2009/09/18		98	%	60 - 140
		Tetrachloroethylene	2009/09/18		95	%	60 - 140
		Toluene	2009/09/18		91	%	60 - 140
		trans-1,2-Dichloroethylene	2009/09/18		88	%	60 - 140
		trans-1,3-Dichloropropene	2009/09/18		72	%	60 - 140
		Trichloroethylene	2009/09/18		96	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/09/18		91	%	60 - 140
		Vinyl Chloride	2009/09/18		65	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/09/18		100	%	60 - 140
		D4-1,2-Dichloroethane	2009/09/18		108	%	60 - 140
		D8-Toluene	2009/09/18		104	%	60 - 140
		1,1,1-Trichloroethane	2009/09/18	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/09/18	<30		ug/kg	
		1,1,2-Trichloroethane	2009/09/18	<30		ug/kg	
		1,1-Dichloroethane	2009/09/18	<30		ug/kg	
		1,1-Dichloroethylene	2009/09/18	<30		ug/kg	
		1,2-Dichlorobenzene	2009/09/18	<30		ug/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1941915 MSK	Method Blank	1,2-Dichloroethane	2009/09/18	<30		ug/kg	
		1,2-Dichloropropane	2009/09/18	<30		ug/kg	
		1,3-Dichlorobenzene	2009/09/18	<30		ug/kg	
		1,4-Dichlorobenzene	2009/09/18	<30		ug/kg	
		Benzene	2009/09/18	<30		ug/kg	
		Bromodichloromethane	2009/09/18	<30		ug/kg	
		Bromoform	2009/09/18	<30		ug/kg	
		Bromomethane	2009/09/18	<200		ug/kg	
		Carbon Tetrachloride	2009/09/18	<30		ug/kg	
		Chlorobenzene	2009/09/18	<30		ug/kg	
		Chloroform	2009/09/18	<30		ug/kg	
		Chloromethane	2009/09/18	<30		ug/kg	
		cis-1,2-Dichloroethylene	2009/09/18	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/09/18	<30		ug/kg	
		Dibromochloromethane	2009/09/18	<30		ug/kg	
		Ethylbenzene	2009/09/18	<30		ug/kg	
		Ethylene Dibromide	2009/09/18	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/09/18	<40		ug/kg	
		o-Xylene	2009/09/18	<30		ug/kg	
		p+m-Xylene	2009/09/18	<30		ug/kg	
		Styrene	2009/09/18	<30		ug/kg	
		Tetrachloroethylene	2009/09/18	<30		ug/kg	
		Toluene	2009/09/18	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/09/18	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/09/18	<30		ug/kg	
		Trichloroethylene	2009/09/18	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/09/18	<30		ug/kg	
		Vinyl Chloride	2009/09/18	<30		ug/kg	
	RPD [DR5929-01]	1,1,1-Trichloroethane	2009/09/18	NC		%	50
		1,1,2,2-Tetrachloroethane	2009/09/18	NC		%	50
		1,1,2-Trichloroethane	2009/09/18	NC		%	50
		1,1-Dichloroethane	2009/09/18	NC		%	50
		1,1-Dichloroethylene	2009/09/18	NC		%	50
		1,2-Dichlorobenzene	2009/09/18	NC		%	50
		1,2-Dichloroethane	2009/09/18	NC		%	50
		1,2-Dichloropropane	2009/09/18	NC		%	50
		1,3-Dichlorobenzene	2009/09/18	NC		%	50
		1,4-Dichlorobenzene	2009/09/18	NC		%	50
		Benzene	2009/09/18	NC		%	50
		Bromodichloromethane	2009/09/18	NC		%	50
		Bromoform	2009/09/18	NC		%	50
		Bromomethane	2009/09/18	NC		%	50
		Carbon Tetrachloride	2009/09/18	NC		%	50
		Chlorobenzene	2009/09/18	NC		%	50
		Chloroform	2009/09/18	NC		%	50
		Chloromethane	2009/09/18	NC		%	50
		cis-1,2-Dichloroethylene	2009/09/18	NC		%	50
		cis-1,3-Dichloropropene	2009/09/18	NC		%	50
		Dibromochloromethane	2009/09/18	NC		%	50
		Ethylbenzene	2009/09/18	NC		%	50
		Ethylene Dibromide	2009/09/18	NC		%	50
		Methylene Chloride(Dichloromethane)	2009/09/18	NC (2)		%	50
		o-Xylene	2009/09/18	NC		%	50
		p+m-Xylene	2009/09/18	NC		%	50
		Styrene	2009/09/18	NC		%	50

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1941915 MSK	RPD [DR5929-01]	Tetrachloroethylene	2009/09/18	NC		%	50	
		Toluene	2009/09/18	NC		%	50	
		trans-1,2-Dichloroethylene	2009/09/18	NC		%	50	
		trans-1,3-Dichloropropene	2009/09/18	NC		%	50	
		Trichloroethylene	2009/09/18	NC		%	50	
		Trichlorofluoromethane (FREON 11)	2009/09/18	NC		%	50	
		Vinyl Chloride	2009/09/18	NC		%	50	
1941943 ASW	Matrix Spike	Decachlorobiphenyl	2009/09/19		80	%	30 - 130	
		Total PCB	2009/09/19		89	%	70 - 130	
	Spiked Blank	Decachlorobiphenyl	2009/09/19		78	%	30 - 130	
		Total PCB	2009/09/19		91	%	70 - 130	
	Method Blank	Decachlorobiphenyl	2009/09/19		81	%	30 - 130	
		Total PCB	2009/09/19	<0.05		ug/g		
	RPD	Total PCB	2009/09/19	NC		%	50	
1942135 JPU	QC Standard	Organic Carbon (TOC)	2009/09/17		98	%	75 - 125	
	Method Blank	Organic Carbon (TOC)	2009/09/17	<0.2		g/kg		
	RPD	Organic Carbon (TOC)	2009/09/17	19.6		%	35	
1943432 KGU	Matrix Spike	Available Aluminum (Al)	2009/09/18		NC	%	75 - 125	
		Available Antimony (Sb)	2009/09/18		94	%	75 - 125	
		Available Arsenic (As)	2009/09/18		100	%	75 - 125	
		Available Barium (Ba)	2009/09/18		NC	%	75 - 125	
		Available Beryllium (Be)	2009/09/18		97	%	75 - 125	
		Available Bismuth (Bi)	2009/09/18		94	%	75 - 125	
		Available Boron (B)	2009/09/18		96	%	75 - 125	
		Available Cadmium (Cd)	2009/09/18		96	%	75 - 125	
		Available Chromium (Cr)	2009/09/18		NC	%	75 - 125	
		Available Cobalt (Co)	2009/09/18		99	%	75 - 125	
		Available Copper (Cu)	2009/09/18		NC	%	75 - 125	
		Available Iron (Fe)	2009/09/18		NC	%	75 - 125	
		Available Lead (Pb)	2009/09/18		97	%	75 - 125	
		Available Lithium (Li)	2009/09/18		98	%	75 - 125	
		Available Manganese (Mn)	2009/09/18		NC	%	75 - 125	
		Available Mercury (Hg)	2009/09/18		103	%	75 - 125	
		Available Molybdenum (Mo)	2009/09/18		99	%	75 - 125	
		Available Nickel (Ni)	2009/09/18		NC	%	75 - 125	
		Available Rubidium (Rb)	2009/09/18		95	%	75 - 125	
		Available Selenium (Se)	2009/09/18		97	%	75 - 125	
		Available Silver (Ag)	2009/09/18		98	%	75 - 125	
		Available Strontium (Sr)	2009/09/18		NC	%	75 - 125	
		Available Thallium (Tl)	2009/09/18		98	%	75 - 125	
		Available Tin (Sn)	2009/09/18		97	%	75 - 125	
		Available Uranium (U)	2009/09/18		97	%	75 - 125	
		Available Vanadium (V)	2009/09/18		NC	%	75 - 125	
		Available Zinc (Zn)	2009/09/18		94	%	75 - 125	
	QC Standard	Available Aluminum (Al)	2009/09/18		81	%	75 - 125	
		Available Arsenic (As)	2009/09/18		111	%	75 - 125	
		Available Barium (Ba)	2009/09/18		108	%	75 - 125	
		Available Chromium (Cr)	2009/09/18		80	%	75 - 125	
		Available Cobalt (Co)	2009/09/18		98	%	75 - 125	
		Available Copper (Cu)	2009/09/18		92	%	75 - 125	
		Available Iron (Fe)	2009/09/18		98	%	75 - 125	
		Available Lead (Pb)	2009/09/18		103	%	75 - 125	
		Available Manganese (Mn)	2009/09/18		108	%	75 - 125	
		Available Nickel (Ni)	2009/09/18		93	%	75 - 125	
		Available Strontium (Sr)	2009/09/18		92	%	75 - 125	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1943432 KGU	QC Standard	Available Vanadium (V)	2009/09/18		99	%	75 - 125	
		Available Zinc (Zn)	2009/09/18		101	%	75 - 125	
	Spiked Blank	Available Aluminum (Al)	2009/09/18		107	%	75 - 125	
		Available Antimony (Sb)	2009/09/18		123	%	75 - 125	
		Available Arsenic (As)	2009/09/18		99	%	75 - 125	
		Available Barium (Ba)	2009/09/18		104	%	75 - 125	
		Available Beryllium (Be)	2009/09/18		104	%	75 - 125	
		Available Bismuth (Bi)	2009/09/18		105	%	75 - 125	
		Available Boron (B)	2009/09/18		99	%	75 - 125	
		Available Cadmium (Cd)	2009/09/18		104	%	75 - 125	
		Available Chromium (Cr)	2009/09/18		117	%	75 - 125	
		Available Cobalt (Co)	2009/09/18		113	%	75 - 125	
		Available Copper (Cu)	2009/09/18		111	%	75 - 125	
		Available Iron (Fe)	2009/09/18		112	%	75 - 125	
		Available Lead (Pb)	2009/09/18		106	%	75 - 125	
		Available Lithium (Li)	2009/09/18		104	%	75 - 125	
		Available Manganese (Mn)	2009/09/18		107	%	75 - 125	
		Available Mercury (Hg)	2009/09/18		118	%	75 - 125	
		Available Molybdenum (Mo)	2009/09/18		108	%	75 - 125	
		Available Nickel (Ni)	2009/09/18		110	%	75 - 125	
		Available Rubidium (Rb)	2009/09/18		103	%	75 - 125	
		Available Selenium (Se)	2009/09/18		84	%	75 - 125	
		Available Silver (Ag)	2009/09/18		107	%	75 - 125	
		Available Strontium (Sr)	2009/09/18		110	%	75 - 125	
		Available Thallium (Tl)	2009/09/18		107	%	75 - 125	
		Available Tin (Sn)	2009/09/18		108	%	75 - 125	
		Available Uranium (U)	2009/09/18		107	%	75 - 125	
		Available Vanadium (V)	2009/09/18		112	%	75 - 125	
		Available Zinc (Zn)	2009/09/18		105	%	75 - 125	
	Method Blank	Available Aluminum (Al)	2009/09/18	<10		mg/kg		
		Available Antimony (Sb)	2009/09/18	<2		mg/kg		
		Available Arsenic (As)	2009/09/18	<2		mg/kg		
		Available Barium (Ba)	2009/09/18	<5		mg/kg		
		Available Beryllium (Be)	2009/09/18	<2		mg/kg		
		Available Bismuth (Bi)	2009/09/18	<2		mg/kg		
		Available Boron (B)	2009/09/18	<5		mg/kg		
		Available Cadmium (Cd)	2009/09/18	<0.3		mg/kg		
		Available Chromium (Cr)	2009/09/18	<2		mg/kg		
		Available Cobalt (Co)	2009/09/18	<1		mg/kg		
		Available Copper (Cu)	2009/09/18	<2		mg/kg		
		Available Iron (Fe)	2009/09/18	<50		mg/kg		
		Available Lead (Pb)	2009/09/18	<0.5		mg/kg		
		Available Lithium (Li)	2009/09/18	<2		mg/kg		
		Available Manganese (Mn)	2009/09/18	<2		mg/kg		
		Available Mercury (Hg)	2009/09/18	<0.1		mg/kg		
		Available Molybdenum (Mo)	2009/09/18	<2		mg/kg		
		Available Nickel (Ni)	2009/09/18	<2		mg/kg		
		Available Rubidium (Rb)	2009/09/18	<2		mg/kg		
		Available Selenium (Se)	2009/09/18	<2		mg/kg		
		Available Silver (Ag)	2009/09/18	<0.5		mg/kg		
		Available Strontium (Sr)	2009/09/18	<5		mg/kg		
		Available Thallium (Tl)	2009/09/18	<0.1		mg/kg		
		Available Tin (Sn)	2009/09/18	<2		mg/kg		
		Available Uranium (U)	2009/09/18	<0.1		mg/kg		
		Available Vanadium (V)	2009/09/18	<2		mg/kg		

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1943432 KGU	Method Blank	Available Zinc (Zn)	2009/09/18	<5		mg/kg	
	RPD	Available Arsenic (As)	2009/09/18	NC		%	35
1943445 KGU	Matrix Spike [DR5939-01]	Available Aluminum (Al)	2009/09/18		NC	%	75 - 125
		Available Antimony (Sb)	2009/09/18		93	%	75 - 125
		Available Arsenic (As)	2009/09/18		98	%	75 - 125
		Available Barium (Ba)	2009/09/18		NC	%	75 - 125
		Available Beryllium (Be)	2009/09/18		93	%	75 - 125
		Available Bismuth (Bi)	2009/09/18		94	%	75 - 125
		Available Boron (B)	2009/09/18		102	%	75 - 125
		Available Cadmium (Cd)	2009/09/18		98	%	75 - 125
		Available Chromium (Cr)	2009/09/18		NC	%	75 - 125
		Available Cobalt (Co)	2009/09/18		NC	%	75 - 125
		Available Copper (Cu)	2009/09/18		NC	%	75 - 125
		Available Iron (Fe)	2009/09/18		NC	%	75 - 125
		Available Lead (Pb)	2009/09/18		NC	%	75 - 125
		Available Lithium (Li)	2009/09/18		99	%	75 - 125
		Available Manganese (Mn)	2009/09/18		NC	%	75 - 125
		Available Mercury (Hg)	2009/09/18		99	%	75 - 125
		Available Molybdenum (Mo)	2009/09/18		97	%	75 - 125
		Available Nickel (Ni)	2009/09/18		NC	%	75 - 125
		Available Rubidium (Rb)	2009/09/18		102	%	75 - 125
		Available Selenium (Se)	2009/09/18		85	%	75 - 125
		Available Silver (Ag)	2009/09/18		98	%	75 - 125
		Available Strontium (Sr)	2009/09/18		NC	%	75 - 125
		Available Thallium (Tl)	2009/09/18		90	%	75 - 125
		Available Tin (Sn)	2009/09/18		94	%	75 - 125
		Available Uranium (U)	2009/09/18		92	%	75 - 125
		Available Vanadium (V)	2009/09/18		NC	%	75 - 125
		Available Zinc (Zn)	2009/09/18		95	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/09/18		88	%	75 - 125
		Available Arsenic (As)	2009/09/18		114	%	75 - 125
		Available Barium (Ba)	2009/09/18		110	%	75 - 125
		Available Chromium (Cr)	2009/09/18		84	%	75 - 125
		Available Cobalt (Co)	2009/09/18		97	%	75 - 125
		Available Copper (Cu)	2009/09/18		92	%	75 - 125
		Available Iron (Fe)	2009/09/18		99	%	75 - 125
		Available Lead (Pb)	2009/09/18		105	%	75 - 125
		Available Manganese (Mn)	2009/09/18		110	%	75 - 125
		Available Nickel (Ni)	2009/09/18		98	%	75 - 125
		Available Strontium (Sr)	2009/09/18		96	%	75 - 125
		Available Vanadium (V)	2009/09/18		97	%	75 - 125
		Available Zinc (Zn)	2009/09/18		104	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/09/18		103	%	75 - 125
		Available Antimony (Sb)	2009/09/18		115	%	75 - 125
		Available Arsenic (As)	2009/09/18		100	%	75 - 125
		Available Barium (Ba)	2009/09/18		95	%	75 - 125
		Available Beryllium (Be)	2009/09/18		95	%	75 - 125
		Available Bismuth (Bi)	2009/09/18		103	%	75 - 125
		Available Boron (B)	2009/09/18		91	%	75 - 125
		Available Cadmium (Cd)	2009/09/18		98	%	75 - 125
		Available Chromium (Cr)	2009/09/18		107	%	75 - 125
		Available Cobalt (Co)	2009/09/18		104	%	75 - 125
		Available Copper (Cu)	2009/09/18		104	%	75 - 125
		Available Iron (Fe)	2009/09/18		104	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch			Date Analyzed						
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits		
1943445 KGU	Spiked Blank	Available Lead (Pb)	2009/09/18		103	%	75 - 125		
		Available Lithium (Li)	2009/09/18		97	%	75 - 125		
		Available Manganese (Mn)	2009/09/18		98	%	75 - 125		
		Available Mercury (Hg)	2009/09/18		118	%	75 - 125		
		Available Molybdenum (Mo)	2009/09/18		99	%	75 - 125		
		Available Nickel (Ni)	2009/09/18		102	%	75 - 125		
		Available Rubidium (Rb)	2009/09/18		103	%	75 - 125		
		Available Selenium (Se)	2009/09/18		92	%	75 - 125		
		Available Silver (Ag)	2009/09/18		99	%	75 - 125		
		Available Strontium (Sr)	2009/09/18		102	%	75 - 125		
		Available Thallium (Tl)	2009/09/18		100	%	75 - 125		
		Available Tin (Sn)	2009/09/18		98	%	75 - 125		
		Available Uranium (U)	2009/09/18		102	%	75 - 125		
		Available Vanadium (V)	2009/09/18		111	%	75 - 125		
		Available Zinc (Zn)	2009/09/18		98	%	75 - 125		
	Method Blank	Available Aluminum (Al)	2009/09/18	<10			mg/kg		
		Available Antimony (Sb)	2009/09/18	<2			mg/kg		
		Available Arsenic (As)	2009/09/18	<2			mg/kg		
		Available Barium (Ba)	2009/09/18	<5			mg/kg		
		Available Beryllium (Be)	2009/09/18	<2			mg/kg		
		Available Bismuth (Bi)	2009/09/18	<2			mg/kg		
		Available Boron (B)	2009/09/18	<5			mg/kg		
		Available Cadmium (Cd)	2009/09/18	<0.3			mg/kg		
		Available Chromium (Cr)	2009/09/18	<2			mg/kg		
		Available Cobalt (Co)	2009/09/18	<1			mg/kg		
		Available Copper (Cu)	2009/09/18	<2			mg/kg		
		Available Iron (Fe)	2009/09/18	<50			mg/kg		
		Available Lead (Pb)	2009/09/18	<0.5			mg/kg		
		Available Lithium (Li)	2009/09/18	<2			mg/kg		
		Available Manganese (Mn)	2009/09/18	<2			mg/kg		
		Available Mercury (Hg)	2009/09/18	<0.1			mg/kg		
		Available Molybdenum (Mo)	2009/09/18	<2			mg/kg		
		Available Nickel (Ni)	2009/09/18	<2			mg/kg		
		Available Rubidium (Rb)	2009/09/18	<2			mg/kg		
		Available Selenium (Se)	2009/09/18	<2			mg/kg		
		Available Silver (Ag)	2009/09/18	<0.5			mg/kg		
		Available Strontium (Sr)	2009/09/18	<5			mg/kg		
		Available Thallium (Tl)	2009/09/18	<0.1			mg/kg		
		Available Tin (Sn)	2009/09/18	<2			mg/kg		
		Available Uranium (U)	2009/09/18	<0.1			mg/kg		
		Available Vanadium (V)	2009/09/18	<2			mg/kg		
		Available Zinc (Zn)	2009/09/18	<5			mg/kg		
		RPD [DR5939-01]	Available Aluminum (Al)	2009/09/18	5.9			%	35
			Available Antimony (Sb)	2009/09/18	NC			%	35
			Available Arsenic (As)	2009/09/18	NC			%	35
Available Barium (Ba)	2009/09/18		9.0			%	35		
Available Beryllium (Be)	2009/09/18		NC			%	35		
Available Bismuth (Bi)	2009/09/18		NC			%	35		
Available Boron (B)	2009/09/18		NC			%	35		
Available Cadmium (Cd)	2009/09/18		NC			%	35		
Available Chromium (Cr)	2009/09/18		1.5			%	35		
Available Cobalt (Co)	2009/09/18		5.6			%	35		
Available Copper (Cu)	2009/09/18		3.1			%	35		
Available Iron (Fe)	2009/09/18		2.0			%	35		
Available Lead (Pb)	2009/09/18		8.3			%	35		

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1943445 KGU	RPD [DR5939-01]	Available Lithium (Li)	2009/09/18	NC		%	35	
		Available Manganese (Mn)	2009/09/18	1.3		%	35	
		Available Mercury (Hg)	2009/09/18	NC		%	35	
		Available Molybdenum (Mo)	2009/09/18	NC		%	35	
		Available Nickel (Ni)	2009/09/18	6.5		%	35	
		Available Rubidium (Rb)	2009/09/18	NC		%	35	
		Available Selenium (Se)	2009/09/18	NC (3)		%	35	
		Available Silver (Ag)	2009/09/18	NC		%	35	
		Available Strontium (Sr)	2009/09/18	NC		%	35	
		Available Thallium (Tl)	2009/09/18	NC		%	35	
		Available Tin (Sn)	2009/09/18	NC		%	35	
		Available Uranium (U)	2009/09/18	4.3		%	35	
		Available Vanadium (V)	2009/09/18	0.8		%	35	
		Available Zinc (Zn)	2009/09/18	8.8		%	35	
1943846 KGU	Matrix Spike	Available Aluminum (Al)	2009/09/18		NC	%	75 - 125	
		Available Antimony (Sb)	2009/09/18		108	%	75 - 125	
		Available Arsenic (As)	2009/09/18		97	%	75 - 125	
		Available Barium (Ba)	2009/09/18		NC	%	75 - 125	
		Available Beryllium (Be)	2009/09/18		94	%	75 - 125	
		Available Bismuth (Bi)	2009/09/18		98	%	75 - 125	
		Available Boron (B)	2009/09/18		91	%	75 - 125	
		Available Cadmium (Cd)	2009/09/18		95	%	75 - 125	
		Available Chromium (Cr)	2009/09/18		101	%	75 - 125	
		Available Cobalt (Co)	2009/09/18		99	%	75 - 125	
		Available Copper (Cu)	2009/09/18		NC	%	75 - 125	
		Available Iron (Fe)	2009/09/18		NC	%	75 - 125	
		Available Lead (Pb)	2009/09/18		NC	%	75 - 125	
		Available Lithium (Li)	2009/09/18		NC	%	75 - 125	
		Available Manganese (Mn)	2009/09/18		NC	%	75 - 125	
		Available Mercury (Hg)	2009/09/18		107	%	75 - 125	
		Available Molybdenum (Mo)	2009/09/18		99	%	75 - 125	
		Available Nickel (Ni)	2009/09/18		98	%	75 - 125	
		Available Rubidium (Rb)	2009/09/18		98	%	75 - 125	
		Available Selenium (Se)	2009/09/18		110	%	75 - 125	
		Available Silver (Ag)	2009/09/18		101	%	75 - 125	
		Available Strontium (Sr)	2009/09/18		89	%	75 - 125	
		Available Thallium (Tl)	2009/09/18		96	%	75 - 125	
		Available Tin (Sn)	2009/09/18		99	%	75 - 125	
		Available Uranium (U)	2009/09/18		98	%	75 - 125	
		Available Vanadium (V)	2009/09/18		100	%	75 - 125	
		Available Zinc (Zn)	2009/09/18		95	%	75 - 125	
	QC Standard	Available Aluminum (Al)	2009/09/18		79	%	75 - 125	
		Available Arsenic (As)	2009/09/18		107	%	75 - 125	
		Available Barium (Ba)	2009/09/18		102	%	75 - 125	
		Available Chromium (Cr)	2009/09/18		88	%	75 - 125	
		Available Cobalt (Co)	2009/09/18		102	%	75 - 125	
		Available Copper (Cu)	2009/09/18		103	%	75 - 125	
		Available Iron (Fe)	2009/09/18		91	%	75 - 125	
		Available Lead (Pb)	2009/09/18		101	%	75 - 125	
		Available Manganese (Mn)	2009/09/18		98	%	75 - 125	
		Available Nickel (Ni)	2009/09/18		107	%	75 - 125	
		Available Strontium (Sr)	2009/09/18		91	%	75 - 125	
		Available Vanadium (V)	2009/09/18		109	%	75 - 125	
		Available Zinc (Zn)	2009/09/18		100	%	75 - 125	
	Spiked Blank	Available Aluminum (Al)	2009/09/18		97	%	75 - 125	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1943846 KGU	Spiked Blank	Available Antimony (Sb)	2009/09/18		107	%	75 - 125	
		Available Arsenic (As)	2009/09/18		97	%	75 - 125	
		Available Barium (Ba)	2009/09/18		94	%	75 - 125	
		Available Beryllium (Be)	2009/09/18		94	%	75 - 125	
		Available Bismuth (Bi)	2009/09/18		99	%	75 - 125	
		Available Boron (B)	2009/09/18		92	%	75 - 125	
		Available Cadmium (Cd)	2009/09/18		96	%	75 - 125	
		Available Chromium (Cr)	2009/09/18		100	%	75 - 125	
		Available Cobalt (Co)	2009/09/18		100	%	75 - 125	
		Available Copper (Cu)	2009/09/18		97	%	75 - 125	
		Available Iron (Fe)	2009/09/18		102	%	75 - 125	
		Available Lead (Pb)	2009/09/18		95	%	75 - 125	
		Available Lithium (Li)	2009/09/18		90	%	75 - 125	
		Available Manganese (Mn)	2009/09/18		91	%	75 - 125	
		Available Mercury (Hg)	2009/09/18		102	%	75 - 125	
		Available Molybdenum (Mo)	2009/09/18		98	%	75 - 125	
		Available Nickel (Ni)	2009/09/18		100	%	75 - 125	
		Available Rubidium (Rb)	2009/09/18		98	%	75 - 125	
		Available Selenium (Se)	2009/09/18		89	%	75 - 125	
		Available Silver (Ag)	2009/09/18		101	%	75 - 125	
		Available Strontium (Sr)	2009/09/18		98	%	75 - 125	
		Available Thallium (Tl)	2009/09/18		92	%	75 - 125	
		Available Tin (Sn)	2009/09/18		94	%	75 - 125	
		Available Uranium (U)	2009/09/18		94	%	75 - 125	
		Available Vanadium (V)	2009/09/18		100	%	75 - 125	
		Available Zinc (Zn)	2009/09/18		95	%	75 - 125	
	Method Blank	Available Aluminum (Al)	2009/09/18	<10		mg/kg		
		Available Antimony (Sb)	2009/09/18	<2		mg/kg		
		Available Arsenic (As)	2009/09/18	<2		mg/kg		
		Available Barium (Ba)	2009/09/18	<5		mg/kg		
		Available Beryllium (Be)	2009/09/18	<2		mg/kg		
		Available Bismuth (Bi)	2009/09/18	<2		mg/kg		
		Available Boron (B)	2009/09/18	<5		mg/kg		
		Available Cadmium (Cd)	2009/09/18	<0.3		mg/kg		
		Available Chromium (Cr)	2009/09/18	<2		mg/kg		
		Available Cobalt (Co)	2009/09/18	<1		mg/kg		
		Available Copper (Cu)	2009/09/18	<2		mg/kg		
		Available Iron (Fe)	2009/09/18	<50		mg/kg		
		Available Lead (Pb)	2009/09/18	<0.5		mg/kg		
		Available Lithium (Li)	2009/09/18	<2		mg/kg		
		Available Manganese (Mn)	2009/09/18	<2		mg/kg		
		Available Mercury (Hg)	2009/09/18	<0.1		mg/kg		
		Available Molybdenum (Mo)	2009/09/18	<2		mg/kg		
		Available Nickel (Ni)	2009/09/18	<2		mg/kg		
		Available Rubidium (Rb)	2009/09/18	<2		mg/kg		
		Available Selenium (Se)	2009/09/18	<2		mg/kg		
		Available Silver (Ag)	2009/09/18	<0.5		mg/kg		
		Available Strontium (Sr)	2009/09/18	<5		mg/kg		
		Available Thallium (Tl)	2009/09/18	<0.1		mg/kg		
		Available Tin (Sn)	2009/09/18	<2		mg/kg		
		Available Uranium (U)	2009/09/18	<0.1		mg/kg		
		Available Vanadium (V)	2009/09/18	<2		mg/kg		
		Available Zinc (Zn)	2009/09/18	<5		mg/kg		
	RPD	Available Aluminum (Al)	2009/09/18	10		%		35
		Available Antimony (Sb)	2009/09/18	NC		%		35

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0235

QA/QC Batch				Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1943846	KGU RPD	Available Arsenic (As)	2009/09/18	NC		%	35	
		Available Barium (Ba)	2009/09/18	NC		%	35	
		Available Beryllium (Be)	2009/09/18	NC		%	35	
		Available Bismuth (Bi)	2009/09/18	NC		%	35	
		Available Boron (B)	2009/09/18	NC		%	35	
		Available Cadmium (Cd)	2009/09/18	NC		%	35	
		Available Chromium (Cr)	2009/09/18	NC		%	35	
		Available Cobalt (Co)	2009/09/18	8.0		%	35	
		Available Copper (Cu)	2009/09/18	7.8		%	35	
		Available Iron (Fe)	2009/09/18	9.5		%	35	
		Available Lead (Pb)	2009/09/18	1.5		%	35	
		Available Lithium (Li)	2009/09/18	11.1		%	35	
		Available Manganese (Mn)	2009/09/18	12.7		%	35	
		Available Mercury (Hg)	2009/09/18	NC		%	35	
		Available Molybdenum (Mo)	2009/09/18	NC		%	35	
		Available Nickel (Ni)	2009/09/18	NC		%	35	
		Available Rubidium (Rb)	2009/09/18	NC		%	35	
		Available Selenium (Se)	2009/09/18	NC		%	35	
		Available Silver (Ag)	2009/09/18	NC		%	35	
		Available Strontium (Sr)	2009/09/18	NC		%	35	
		Available Thallium (Tl)	2009/09/18	NC		%	35	
		Available Tin (Sn)	2009/09/18	NC		%	35	
		Available Uranium (U)	2009/09/18	4.5		%	35	
		Available Vanadium (V)	2009/09/18	NC		%	35	
		Available Zinc (Zn)	2009/09/18	11.6		%	35	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: < 10 % of compounds in multi-component analysis in violation.

(2) Elevated Methylene Chloride (Dichloromethane) RDL due to detected level in the method blank.

(3) Elevated reporting limit due to sample matrix.

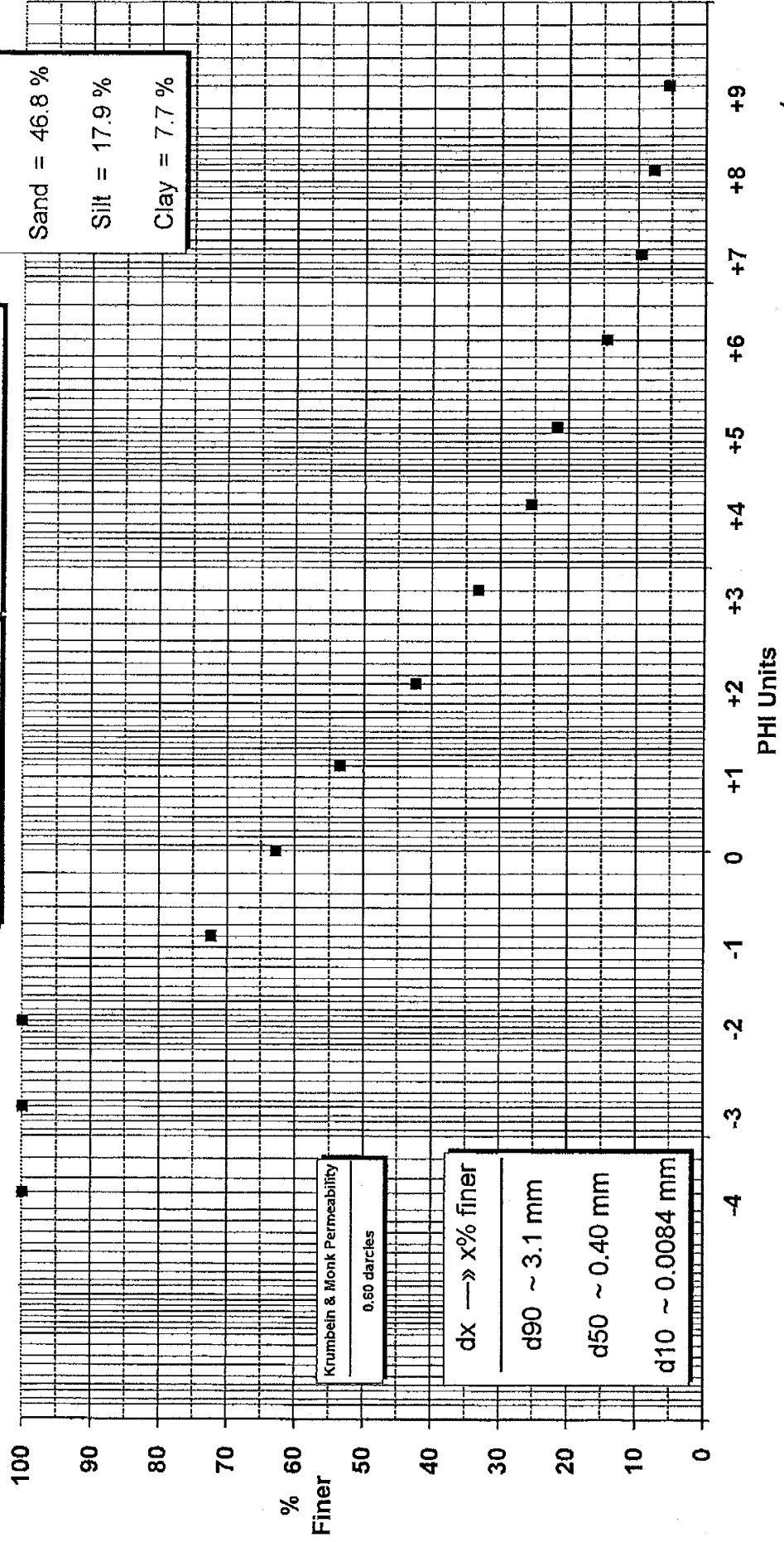
SED-25

Maxxam ID: DR5925-01

A9C0235

Percent Coarser than 75 μ m (PHI = 3.737)	Percent Coarser than 50 μ m (PHI = 4.322)
72.4 %	75.7 %

Wentworth
Gravel = 27.6 %
Sand = 46.8 %
Silt = 17.9 %
Clay = 7.7 %



Approved

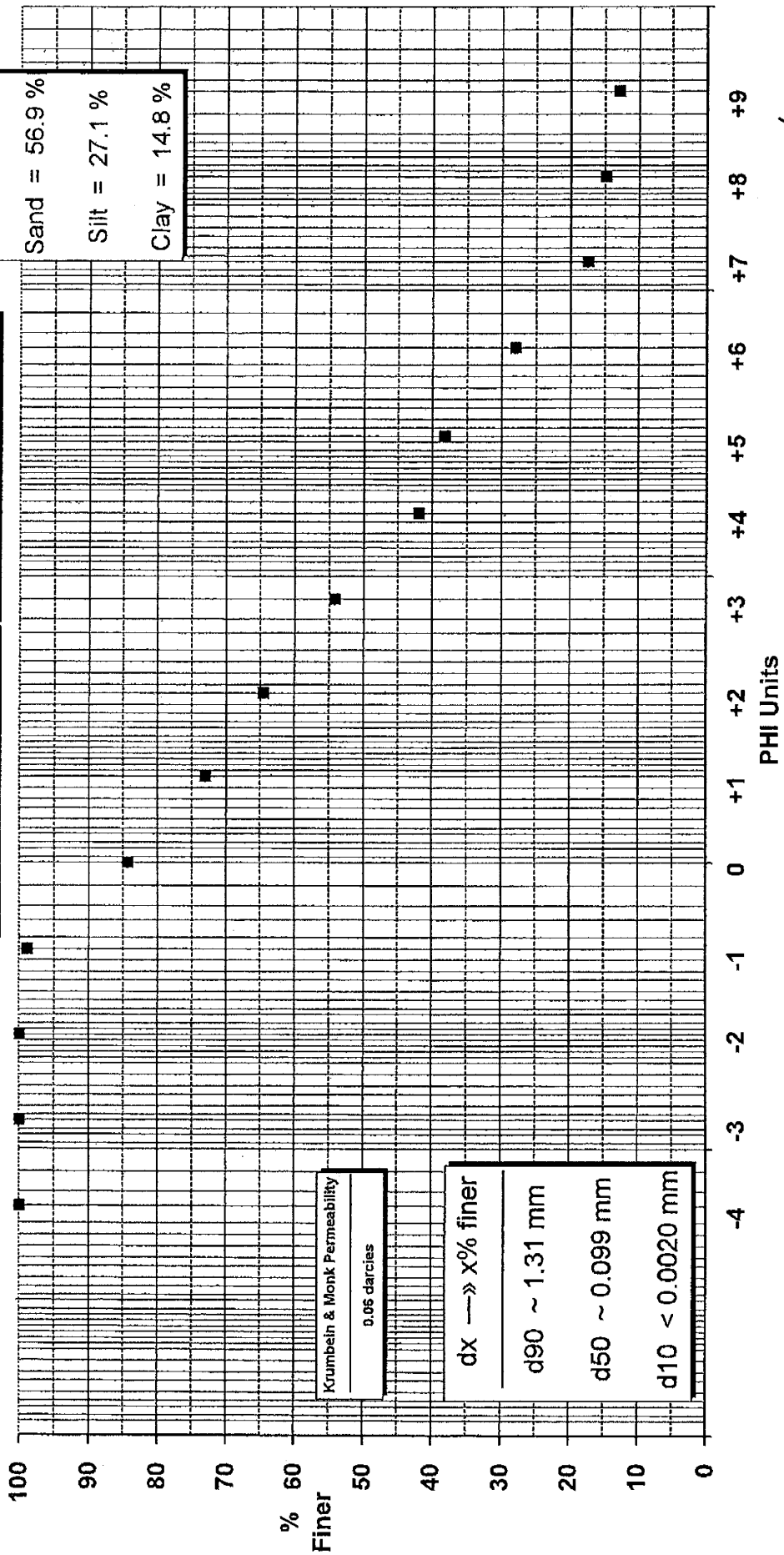
WS#A11111

SED-30

Maxxam ID: DR5930-01

Percent Coarser than 75 μm (PHI = 3.737)	Percent Coarser than 50 μm (PHI = 4.322)
54.8 %	59.3 %

Wentworth
Gravel = 1.2 %
Sand = 56.9 %
Silt = 27.1 %
Clay = 14.8 %



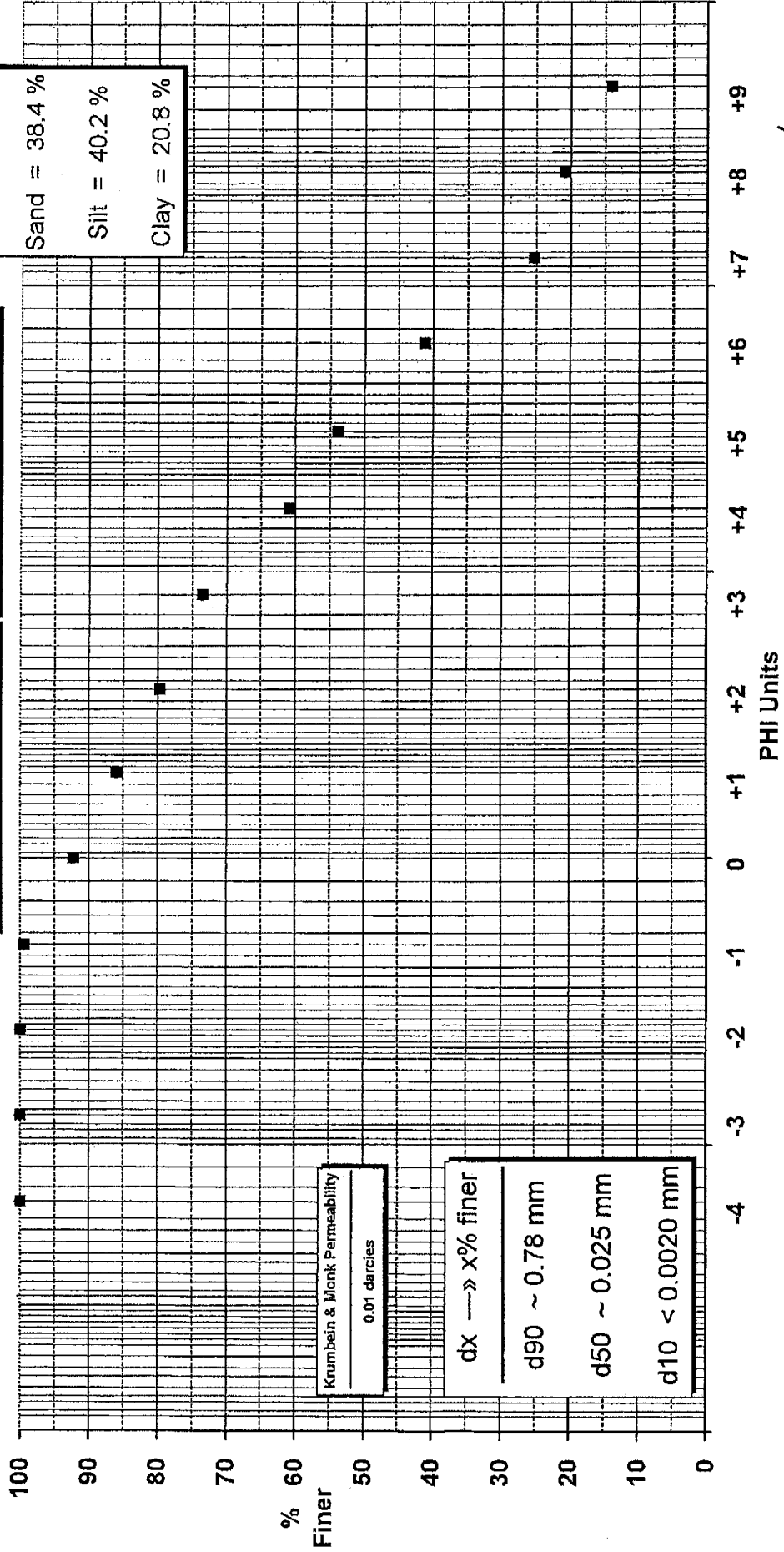
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Approved

SED-33

Maxxam ID: DR59333-01

Percent Coarser than 75 μm ($\text{PHI} = 3.737$)	Percent Coarser than 50 μm ($\text{PHI} = 4.322$)
35.7 %	41.3 %

Wentworth
Gravel = 0.6 %
Sand = 38.4 %
Silt = 40.2 %
Clay = 20.8 %

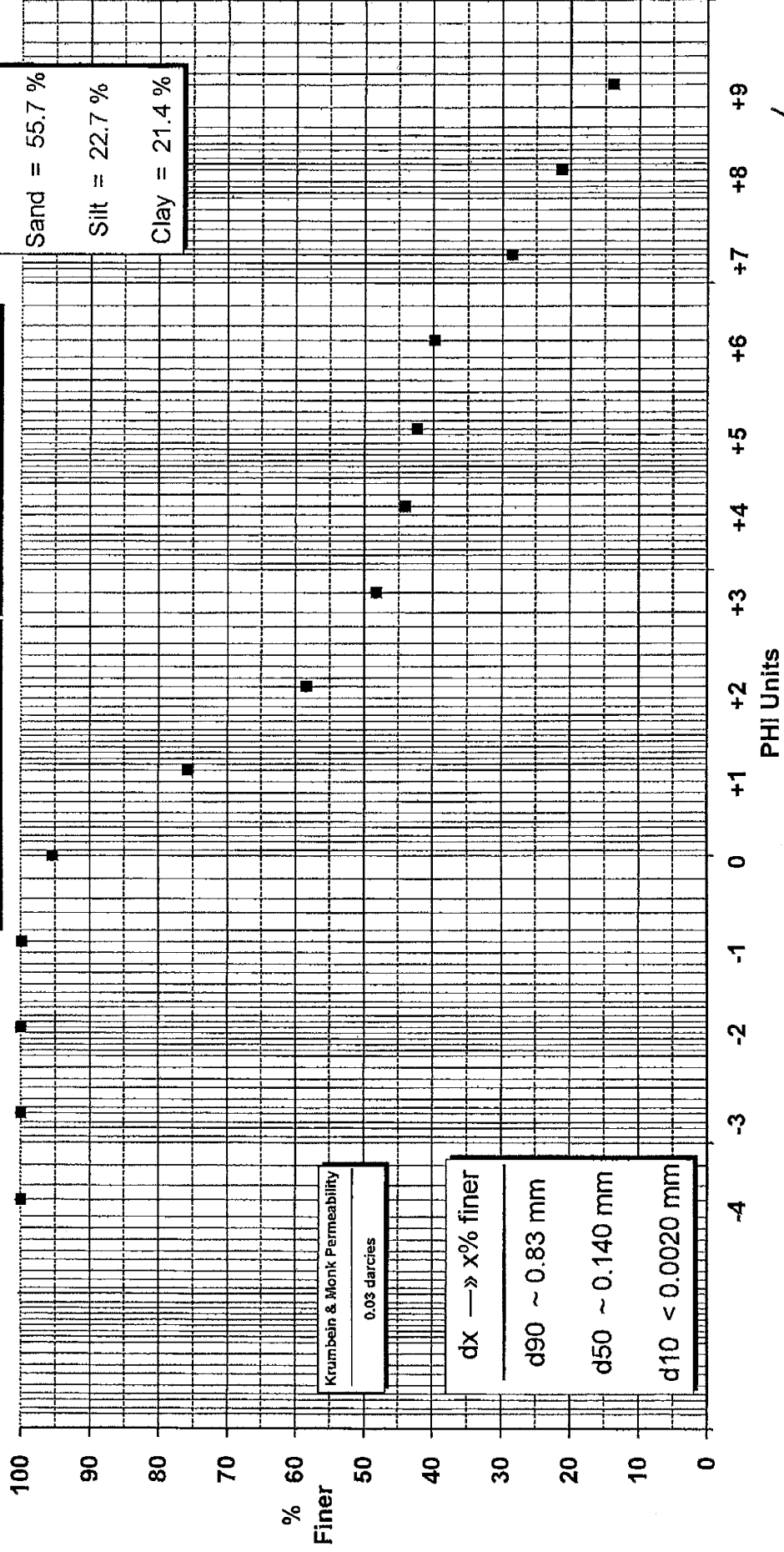


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Approved

SED-39

Percent Coarser than 75 μ m (PHI = 3.737)	Percent Coarser than 50 μ m (PHI = 4.322)
54.8 %	56.4 %

Wentworth
Gravel = 0.2 %
Sand = 55.7 %
Silt = 22.7 %
Clay = 21.4 %



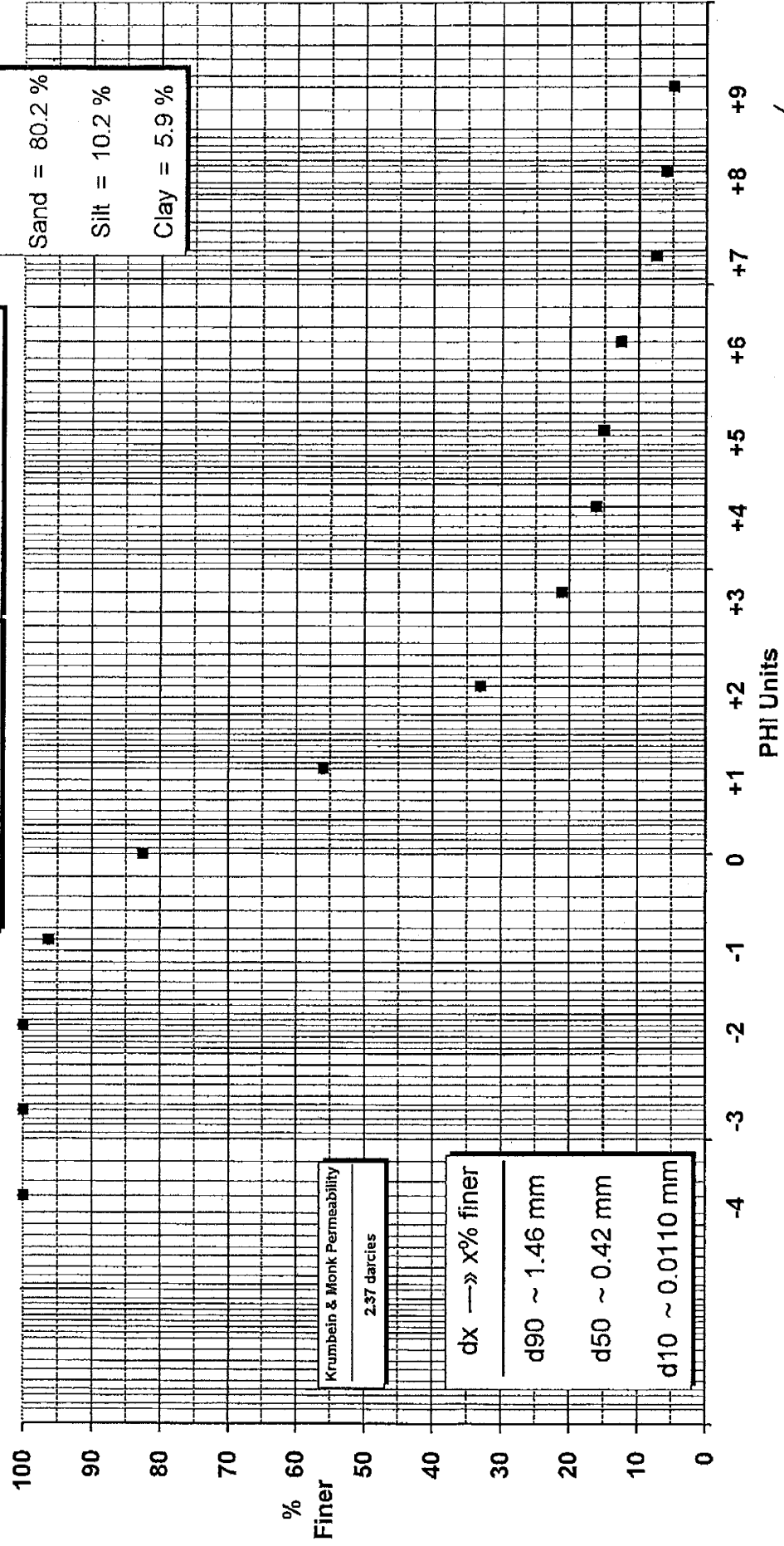
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Approved

SED-42

Maxxam ID: DR5942-01

Percent Coarser than 75 μ m (PH) = 3.737)	Percent Coarser than 50 μ m (PH) = 4.322)
82.6 %	84.2 %

Wentworth
Gravel = 3.7 %
Sand = 80.2 %
Silt = 10.2 %
Clay = 5.9 %



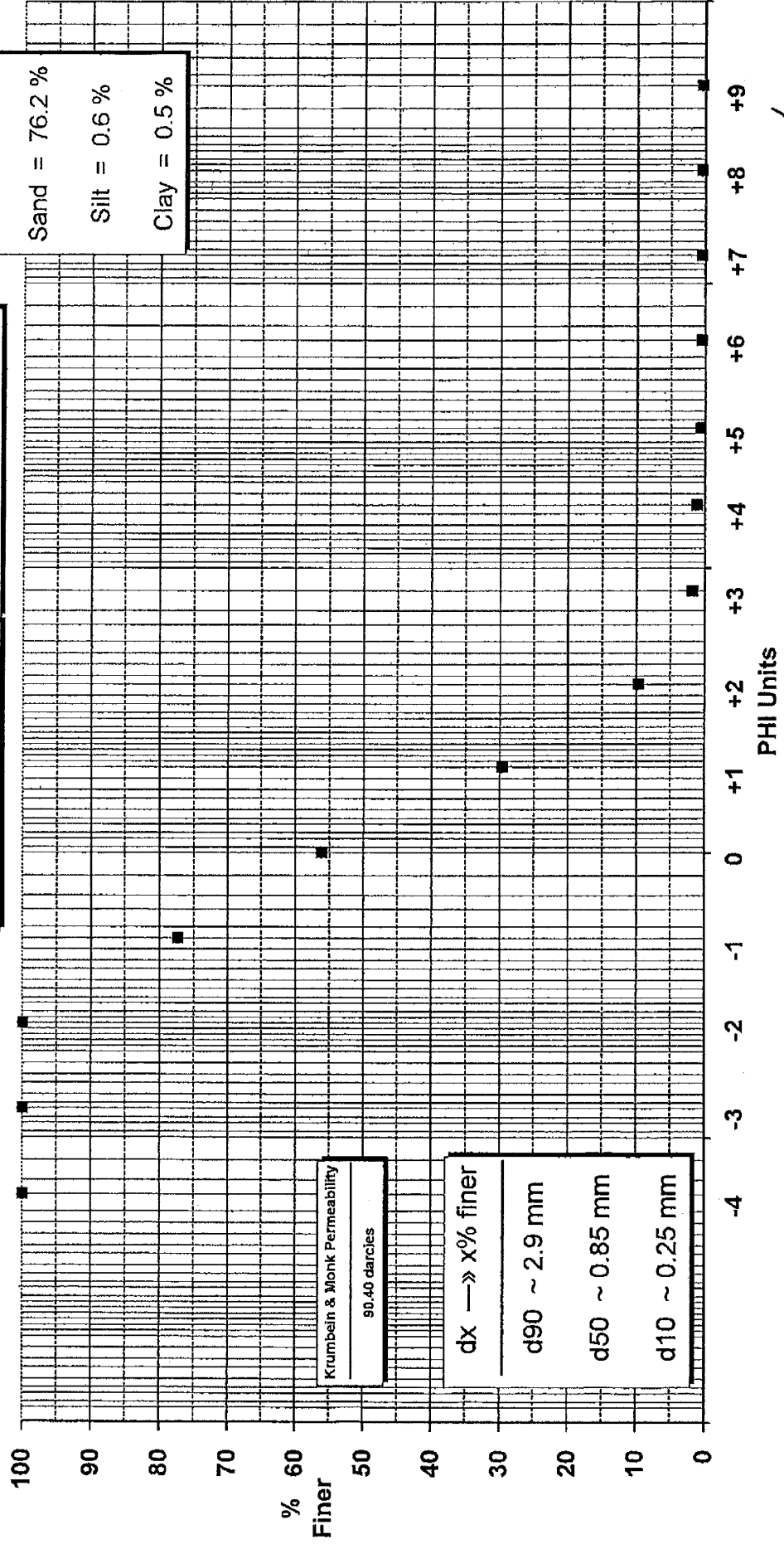
[Signature]
Approved

SED-44

Maxxam ID: DR5944-01

Percent Coarser than 75 μm (PHI = 3.737)	Percent Coarser than 50 μm (PHI = 4.322)
98.7 %	99.0 %

Wentworth
Gravel = 22.7 %
Sand = 76.2 %
Silt = 0.6 %
Clay = 0.5 %



Krumbein & Monk Permeability
90.40 darcies

dx $\rightarrow$ x% finer
d90 ~ 2.9 mm
d50 ~ 0.85 mm
d10 ~ 0.25 mm

[Signature]
Approved

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: 23525

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/04

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A994692
Received: 2009/07/24, 10:57

Sample Matrix: Organic Liquid
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PCBs in oil by GC/ECD	2	2009/07/29	2009/07/31	ATL SOP 00105 R3	Based on EPA8082
Free Product ID	2	2009/07/28	2009/07/30		

Sample Matrix: Soil
Samples Received: 33

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Asbestos	1	N/A	2009/07/27		Asbestos Identificat
TEH in Soil (PIRI)	4	2009/07/29	2009/07/29	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	4	2009/07/29	2009/07/30	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	12	2009/07/30	2009/07/30	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	1	2009/07/30	2009/07/31	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	23	N/A	2009/07/30	ATL SOP 00024 R4	Based on EPA6020A
Moisture	28	N/A	2009/07/29	ATL SOP 00001 R3	MOE Handbook 1983
PAH Compounds by GCMS (SIM) ¶	3	2009/07/29	2009/07/30	ATL SOP 00102 R3	Based on EPA8270C
PAH Compounds by GCMS (SIM) ¶	9	2009/07/29	2009/07/31	ATL SOP 00102 R3	Based on EPA8270C
PCBs in soil by GC/ECD	11	2009/07/30	2009/07/31	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	17	2009/07/29	2009/07/30	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	4	2009/07/29	2009/07/31	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	20	2009/07/27	2009/07/31		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	1	2009/07/27	2009/08/04		Based on Atl. PIRI
Volatile Organic Compounds in Soil	1	2009/07/29	2009/07/30	ATL SOP 00123 R3	Based on USEPA SW-84

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

..12

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: 23525

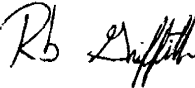
Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/04

CERTIFICATE OF ANALYSIS

-2-

Encryption Key

 Rob Griffith
04 Aug 2009 13:43:53 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 2

Page 2 of 42

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF ORGANIC LIQUID

Maxxam ID		DE8246	DE8247		
Sampling Date		2009/07/24	2009/07/24		
COC Number		23525	23525		
Registration #					
	Units	TAR-1	TAR-2	RDL	QC Batch

Petroleum Hydrocarbons					
Open Characterization by FID	N/A	COMMENT (1)	COMMENT (1)	N/A	1890929

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) No product could be identified within the analysis ranges. An aliquot of sample was dissolved in solvent (Hexane) and analysed by GC-FID.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (ORGANIC LIQUID)

Maxxam ID		DE8246	DE8247		
Sampling Date		2009/07/24	2009/07/24		
COC Number		23525	23525		
Registration #					
	Units	TAR-1	TAR-2	RDL	QC Batch

PCBs					
Total PCB	mg/kg	<1	<1	1	1892150
Surrogate Recovery (%)					
Decachlorobiphenyl	%	88	32 (1)		1892150

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PCB surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DE8214	DE8215	DE8216	DE8217	DE8218		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525	23525		
Registration #								
	Units	TP7-BS2	TP8-BS2	TP10-BS1	TP12-BS2	TP13-BS2	RDL	QC Batch

Inorganics								
Moisture	%	20	8	15	15	13	1	1892230
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DE8219	DE8220	DE8221	DE8222	DE8223		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525	23525		
Registration #								
	Units	TP15-BS2	TP16-BS1	TP17-BS2	TP18-BS2	TP21-BS2	RDL	QC Batch

Inorganics								
Moisture	%	8	12	20	14	13	1	1892230
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DE8225	DE8226	DE8227	DE8228	DE8229		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525	23525		
Registration #								
	Units	TP24-BS2	TP25-BS2	TP30-BS2	TP31-BS2	TP32-BS2	RDL	QC Batch

Inorganics								
Moisture	%	27	13	12	8		1	1892230
Asbestos	%					COMMENT	1	1890334
Chrysotile Asbestos	%					(1 - 5)	1	1890334
Amosite Asbestos	%					<1	1	1890334
Crocidolite Asbestos	%					<1	1	1890334
Tremolite Asbestos	%					<1	1	1890334
Cellulose	%					COMMENT	1	1890334
Mineral Wool	%					<1	1	1890334
Glass Fibres	%					<1	1	1890334
Hair	%					<1	1	1890334
Miscellaneous Fibres	%					<1	1	1890334

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DE8230	DE8231	DE8232	DE8235	DE8236		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525	23525		
Registration #								
	Units	TP33-BS2	TP36-BS3	TP37-BS1	TP41-BS1	TP42-BS2	RDL	QC Batch

Inorganics								
Moisture	%	11	16	12	17	9	1	1892230

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DE8237	DE8238	DE8239	DE8240	DE8241		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525	23525		
Registration #								
	Units	TP43-BS2	TP44-BS2	TP49-BS2	TP52-BS1	TP54-BS2	RDL	QC Batch

Inorganics								
Moisture	%	30	7	36	7	10	1	1892230

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DE8242	DE8243	DE8244	DE8245		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP57-BS1	TP58-BS2	TP62-BS1	TP65-BS1	RDL	QC Batch

Inorganics							
Moisture	%	13	21	12	23	1	1892230

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DE8212	DE8212	DE8213	DE8214		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP1-BS2	TP1-BS2 Lab-Dup	TP2-BS2	TP7-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7500	7300	7600	6800	10	1893699
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1893699
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1893699
Available Barium (Ba)	mg/kg	40	38	29	30	5	1893699
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1893699
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1893699
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1893699
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1893699
Available Chromium (Cr)	mg/kg	62	57	32	30	2	1893699
Available Cobalt (Co)	mg/kg	7	6	4	6	1	1893699
Available Copper (Cu)	mg/kg	23	25	12	21	2	1893699
Available Iron (Fe)	mg/kg	11000	12000	8600	10000	50	1893699
Available Lead (Pb)	mg/kg	9.3	9.1	7.1	26	0.5	1893699
Available Lithium (Li)	mg/kg	10	9	8	7	2	1893699
Available Manganese (Mn)	mg/kg	160	160	84	130	2	1893699
Available Mercury (Hg)	mg/kg	0.2	0.2	<0.1	0.1	0.1	1893699
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1893699
Available Nickel (Ni)	mg/kg	34	31	19	19	2	1893699
Available Rubidium (Rb)	mg/kg	12	10	8	8	2	1893699
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1893699
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1893699
Available Strontium (Sr)	mg/kg	37	41	9	16	5	1893699
Available Thallium (Tl)	mg/kg	0.1	0.1	0.2	<0.1	0.1	1893699
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1893699
Available Uranium (U)	mg/kg	0.2	0.2	0.4	0.4	0.1	1893699
Available Vanadium (V)	mg/kg	20	19	23	18	2	1893699
Available Zinc (Zn)	mg/kg	44	39	44	45	5	1893699

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DE8215	DE8216	DE8217	DE8218		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP8-BS2	TP10-BS1	TP12-BS2	TP13-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	6200	8400	7400	6500	10	1893699
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1893699
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1893699
Available Barium (Ba)	mg/kg	15	45	33	27	5	1893699
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1893699
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1893699
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1893699
Available Cadmium (Cd)	mg/kg	0.9	<0.3	<0.3	1.0	0.3	1893699
Available Chromium (Cr)	mg/kg	14	55	29	19	2	1893699
Available Cobalt (Co)	mg/kg	5	9	6	6	1	1893699
Available Copper (Cu)	mg/kg	17	26	26	18	2	1893699
Available Iron (Fe)	mg/kg	8900	13000	12000	10000	50	1893699
Available Lead (Pb)	mg/kg	23	15	11	70	0.5	1893699
Available Lithium (Li)	mg/kg	5	10	9	8	2	1893699
Available Manganese (Mn)	mg/kg	110	170	130	140	2	1893699
Available Mercury (Hg)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1893699
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1893699
Available Nickel (Ni)	mg/kg	14	28	16	15	2	1893699
Available Rubidium (Rb)	mg/kg	3	15	12	8	2	1893699
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1893699
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1893699
Available Strontium (Sr)	mg/kg	8	13	9	8	5	1893699
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1893699
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1893699
Available Uranium (U)	mg/kg	0.4	0.5	0.4	0.3	0.1	1893699
Available Vanadium (V)	mg/kg	17	23	26	18	2	1893699
Available Zinc (Zn)	mg/kg	81	140	44	170	5	1893699

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DE8220	DE8221	DE8222	DE8223		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP16-BS1	TP17-BS2	TP18-BS2	TP21-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	6600	9000	9000	8800	10	1893699
Available Antimony (Sb)	mg/kg	<2	<2	3	4	2	1893699
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1893699
Available Barium (Ba)	mg/kg	43	39	68	93	5	1893699
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1893699
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1893699
Available Boron (B)	mg/kg	6	<5	10	13	5	1893699
Available Cadmium (Cd)	mg/kg	0.3	<0.3	0.8	1.4	0.3	1893699
Available Chromium (Cr)	mg/kg	20	35	33	28	2	1893699
Available Cobalt (Co)	mg/kg	5	8	7	6	1	1893699
Available Copper (Cu)	mg/kg	15	31	36	48	2	1893699
Available Iron (Fe)	mg/kg	9200	15000	13000	12000	50	1893699
Available Lead (Pb)	mg/kg	18	11	63	120	0.5	1893699
Available Lithium (Li)	mg/kg	6	9	11	10	2	1893699
Available Manganese (Mn)	mg/kg	150	220	220	230	2	1893699
Available Mercury (Hg)	mg/kg	0.2	0.2	0.2	0.1	0.1	1893699
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1893699
Available Nickel (Ni)	mg/kg	16	23	22	19	2	1893699
Available Rubidium (Rb)	mg/kg	5	11	13	13	2	1893699
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1893699
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1893699
Available Strontium (Sr)	mg/kg	15	28	38	56	5	1893699
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1893699
Available Tin (Sn)	mg/kg	<2	<2	<2	2	2	1893699
Available Uranium (U)	mg/kg	0.4	0.5	0.5	0.5	0.1	1893699
Available Vanadium (V)	mg/kg	18	29	27	25	2	1893699
Available Zinc (Zn)	mg/kg	120	120	400	550	5	1893699

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DE8224	DE8227	DE8233	DE8235		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP23-BS2	TP30-BS2	TP37-BS2	TP41-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7100	6600	5400	7100	10	1893699
Available Antimony (Sb)	mg/kg	<2	<2	3	10	2	1893699
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1893699
Available Barium (Ba)	mg/kg	25	29	26	61	5	1893699
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1893699
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1893699
Available Boron (B)	mg/kg	<5	7	8	10	5	1893699
Available Cadmium (Cd)	mg/kg	0.6	1.5	<0.3	0.5	0.3	1893699
Available Chromium (Cr)	mg/kg	21	19	15	22	2	1893699
Available Cobalt (Co)	mg/kg	5	5	4	4	1	1893699
Available Copper (Cu)	mg/kg	23	31	14	77	2	1893699
Available Iron (Fe)	mg/kg	11000	10000	8300	9600	50	1893699
Available Lead (Pb)	mg/kg	9.7	30	28	580	0.5	1893699
Available Lithium (Li)	mg/kg	9	7	6	9	2	1893699
Available Manganese (Mn)	mg/kg	130	140	130	260	2	1893699
Available Mercury (Hg)	mg/kg	0.2	0.2	<0.1	0.1	0.1	1893699
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1893699
Available Nickel (Ni)	mg/kg	13	14	15	13	2	1893699
Available Rubidium (Rb)	mg/kg	8	7	5	7	2	1893699
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1893699
Available Silver (Ag)	mg/kg	6.0	0.9	<0.5	<0.5	0.5	1893699
Available Strontium (Sr)	mg/kg	14	10	16	28	5	1893699
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1893699
Available Tin (Sn)	mg/kg	<2	<2	<2	2	2	1893699
Available Uranium (U)	mg/kg	0.5	0.4	0.3	0.6	0.1	1893699
Available Vanadium (V)	mg/kg	21	17	27	25	2	1893699
Available Zinc (Zn)	mg/kg	98	160	100	170	5	1893699

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DE8236	DE8237	DE8238	DE8239		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP42-BS2	TP43-BS2	TP44-BS2	TP49-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7300	8000	6000	8800	10	1893699
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1893699
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1893699
Available Barium (Ba)	mg/kg	43	44	14	28	5	1893699
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1893699
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1893699
Available Boron (B)	mg/kg	<5	14	<5	<5	5	1893699
Available Cadmium (Cd)	mg/kg	<0.3	2.9	<0.3	<0.3	0.3	1893699
Available Chromium (Cr)	mg/kg	36	34	10	65	2	1893699
Available Cobalt (Co)	mg/kg	6	5	4	7	1	1893699
Available Copper (Cu)	mg/kg	26	24	10	38	2	1893699
Available Iron (Fe)	mg/kg	12000	12000	7500	12000	50	1893699
Available Lead (Pb)	mg/kg	14	25	2.1	7.8	0.5	1893699
Available Lithium (Li)	mg/kg	10	8	5	7	2	1893699
Available Manganese (Mn)	mg/kg	150	140	95	230	2	1893699
Available Mercury (Hg)	mg/kg	<0.1	0.7	<0.1	0.1	0.1	1893699
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1893699
Available Nickel (Ni)	mg/kg	21	21	10	34	2	1893699
Available Rubidium (Rb)	mg/kg	14	9	4	5	2	1893699
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1893699
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1893699
Available Strontium (Sr)	mg/kg	16	14	7	19	5	1893699
Available Thallium (Tl)	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	1893699
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1893699
Available Uranium (U)	mg/kg	0.3	0.5	0.5	0.7	0.1	1893699
Available Vanadium (V)	mg/kg	22	19	12	21	2	1893699
Available Zinc (Zn)	mg/kg	46	180	26	34	5	1893699

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DE8242		DE8243	DE8244		
Sampling Date		2009/07/24		2009/07/24	2009/07/24		
COC Number		23525		23525	23525		
Registration #							
	Units	TP57-BS1	QC Batch	TP58-BS2	TP62-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7700	1893699	13000	4800	10	1893690
Available Antimony (Sb)	mg/kg	<2	1893699	8	4	2	1893690
Available Arsenic (As)	mg/kg	<2	1893699	<2	76	2	1893690
Available Barium (Ba)	mg/kg	42	1893699	110	2700	5	1893690
Available Beryllium (Be)	mg/kg	<2	1893699	<2	<2	2	1893690
Available Bismuth (Bi)	mg/kg	<2	1893699	<2	<2	2	1893690
Available Boron (B)	mg/kg	15	1893699	5	26	5	1893690
Available Cadmium (Cd)	mg/kg	0.7	1893699	1.3	2.7	0.3	1893690
Available Chromium (Cr)	mg/kg	18	1893699	34	13	2	1893690
Available Cobalt (Co)	mg/kg	6	1893699	9	11	1	1893690
Available Copper (Cu)	mg/kg	100	1893699	66	130	2	1893690
Available Iron (Fe)	mg/kg	13000	1893699	17000	27000	50	1893690
Available Lead (Pb)	mg/kg	120	1893699	210	840	0.5	1893690
Available Lithium (Li)	mg/kg	8	1893699	16	3	2	1893690
Available Manganese (Mn)	mg/kg	190	1893699	230	2500	2	1893690
Available Mercury (Hg)	mg/kg	0.1	1893699	0.2	0.2	0.1	1893690
Available Molybdenum (Mo)	mg/kg	<2	1893699	<2	3	2	1893690
Available Nickel (Ni)	mg/kg	14	1893699	23	18	2	1893690
Available Rubidium (Rb)	mg/kg	6	1893699	19	4	2	1893690
Available Selenium (Se)	mg/kg	<2	1893699	<2	<2	2	1893690
Available Silver (Ag)	mg/kg	<0.5	1893699	<0.5	5.8	0.5	1893690
Available Strontium (Sr)	mg/kg	19	1893699	25	74	5	1893690
Available Thallium (Tl)	mg/kg	<0.1	1893699	0.2	0.5	0.1	1893690
Available Tin (Sn)	mg/kg	6	1893699	9	3	2	1893690
Available Uranium (U)	mg/kg	0.4	1893699	0.5	0.9	0.1	1893690
Available Vanadium (V)	mg/kg	26	1893699	30	18	2	1893690
Available Zinc (Zn)	mg/kg	150	1893699	270	310	5	1893690

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DE8245		
Sampling Date		2009/07/24		
COC Number		23525		
Registration #				
	Units	TP65-BS1	RDL	QC Batch

Metals				
Available Aluminum (Al)	mg/kg	7300	10	1893690
Available Antimony (Sb)	mg/kg	4	2	1893690
Available Arsenic (As)	mg/kg	<2	2	1893690
Available Barium (Ba)	mg/kg	230	5	1893690
Available Beryllium (Be)	mg/kg	<2	2	1893690
Available Bismuth (Bi)	mg/kg	<2	2	1893690
Available Boron (B)	mg/kg	<5	5	1893690
Available Cadmium (Cd)	mg/kg	0.4	0.3	1893690
Available Chromium (Cr)	mg/kg	22	2	1893690
Available Cobalt (Co)	mg/kg	5	1	1893690
Available Copper (Cu)	mg/kg	22	2	1893690
Available Iron (Fe)	mg/kg	10000	50	1893690
Available Lead (Pb)	mg/kg	31	0.5	1893690
Available Lithium (Li)	mg/kg	7	2	1893690
Available Manganese (Mn)	mg/kg	190	2	1893690
Available Mercury (Hg)	mg/kg	0.2	0.1	1893690
Available Molybdenum (Mo)	mg/kg	<2	2	1893690
Available Nickel (Ni)	mg/kg	15	2	1893690
Available Rubidium (Rb)	mg/kg	9	2	1893690
Available Selenium (Se)	mg/kg	<2	2	1893690
Available Silver (Ag)	mg/kg	<0.5	0.5	1893690
Available Strontium (Sr)	mg/kg	19	5	1893690
Available Thallium (Tl)	mg/kg	<0.1	0.1	1893690
Available Tin (Sn)	mg/kg	<2	2	1893690
Available Uranium (U)	mg/kg	0.6	0.1	1893690
Available Vanadium (V)	mg/kg	19	2	1893690
Available Zinc (Zn)	mg/kg	87	5	1893690

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DE8214		DE8215	DE8218		
Sampling Date		2009/07/24		2009/07/24	2009/07/24		
COC Number		23525		23525	23525		
Registration #							
	Units	TP7-BS2	RDL	TP8-BS2	TP13-BS2	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	29	0.01	<0.01	<0.01	0.01	1892594
2-Methylnaphthalene	mg/kg	41 (1)	0.05	<0.01	<0.01	0.01	1892594
Acenaphthene	mg/kg	7.8	0.01	<0.01	<0.01	0.01	1892594
Acenaphthylene	mg/kg	0.91	0.01	<0.01	<0.01	0.01	1892594
Anthracene	mg/kg	2.0	0.01	<0.01	0.02	0.01	1892594
Benzo(a)anthracene	mg/kg	1.1	0.01	<0.01	0.03	0.01	1892594
Benzo(a)pyrene	mg/kg	0.27	0.01	<0.01	0.03	0.01	1892594
Benzo(b)fluoranthene	mg/kg	0.40	0.01	<0.01	0.03	0.01	1892594
Benzo(g,h,i)perylene	mg/kg	0.09	0.01	<0.01	0.03	0.01	1892594
Benzo(k)fluoranthene	mg/kg	0.40	0.01	<0.01	0.03	0.01	1892594
Chrysene	mg/kg	1.4	0.01	<0.01	0.04	0.01	1892594
Dibenz(a,h)anthracene	mg/kg	0.03	0.01	<0.01	<0.01	0.01	1892594
Fluoranthene	mg/kg	7.0	0.01	<0.01	0.06	0.01	1892594
Fluorene	mg/kg	7.3	0.01	<0.01	<0.01	0.01	1892594
Indeno(1,2,3-cd)pyrene	mg/kg	0.12	0.01	<0.01	0.03	0.01	1892594
Naphthalene	mg/kg	21	0.01	<0.01	<0.01	0.01	1892594
Perylene	mg/kg	0.10	0.01	<0.01	<0.01	0.01	1892594
Phenanthrene	mg/kg	16	0.01	<0.01	0.04	0.01	1892594
Pyrene	mg/kg	5.2	0.01	<0.01	0.06	0.01	1892594
Surrogate Recovery (%)							
D10-Anthracene	%	90		94	95		1892594
D14-Terphenyl (FS)	%	73		83	86		1892594
D8-Acenaphthylene	%	74		92	93		1892594

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PAH RDL(s) due to sample dilution.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DE8221	DE8223		DE8225		
Sampling Date		2009/07/24	2009/07/24		2009/07/24		
COC Number		23525	23525		23525		
Registration #							
	Units	TP17-BS2	TP21-BS2	RDL	TP24-BS2	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	<0.01	0.02	0.01	<0.01	0.01	1892594
2-Methylnaphthalene	mg/kg	<0.01	0.05	0.01	<0.01	0.01	1892594
Acenaphthene	mg/kg	<0.01	0.05	0.01	<0.01	0.01	1892594
Acenaphthylene	mg/kg	<0.01	0.03	0.01	0.06	0.01	1892594
Anthracene	mg/kg	0.04	0.13	0.01	<0.04 (1)	0.04	1892594
Benzo(a)anthracene	mg/kg	0.01	0.45	0.01	<0.01	0.01	1892594
Benzo(a)pyrene	mg/kg	0.01	0.24	0.01	<0.01	0.01	1892594
Benzo(b)fluoranthene	mg/kg	0.02	0.24	0.01	<0.01	0.01	1892594
Benzo(g,h,i)perylene	mg/kg	0.05	0.20	0.01	<0.01	0.01	1892594
Benzo(k)fluoranthene	mg/kg	0.02	0.24	0.01	<0.01	0.01	1892594
Chrysene	mg/kg	0.02	0.53	0.01	<0.01	0.01	1892594
Dibenz(a,h)anthracene	mg/kg	<0.01	0.05	0.01	<0.01	0.01	1892594
Fluoranthene	mg/kg	0.01	2.3	0.01	<0.01	0.01	1892594
Fluorene	mg/kg	<0.01	0.06	0.01	<0.01	0.01	1892594
Indeno(1,2,3-cd)pyrene	mg/kg	0.04	0.17	0.01	<0.01	0.01	1892594
Naphthalene	mg/kg	<0.01	0.07	0.01	<0.01	0.01	1892594
Perylene	mg/kg	<0.01	0.07	0.01	<0.01	0.01	1892594
Phenanthrene	mg/kg	0.01	0.93	0.01	<0.01	0.01	1892594
Pyrene	mg/kg	0.02	1.7	0.01	<0.01	0.01	1892594
Surrogate Recovery (%)							
D10-Anthracene	%	91	87		93		1892594
D14-Terphenyl (FS)	%	82	73		76		1892594
D8-Acenaphthylene	%	90	87		89		1892594

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PAH RDL(s) due to matrix interference.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DE8225		DE8226	DE8232		
Sampling Date		2009/07/24		2009/07/24	2009/07/24		
COC Number		23525		23525	23525		
Registration #							
	Units	TP24-BS2 Lab-Dup	RDL	TP25-BS2	TP37-BS1	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	<0.01	0.01	0.11	<0.01	0.01	1892594
2-Methylnaphthalene	mg/kg	<0.01	0.01	0.08	<0.01	0.01	1892594
Acenaphthene	mg/kg	<0.01	0.01	0.89	<0.01	0.01	1892594
Acenaphthylene	mg/kg	0.05	0.01	0.10	0.02	0.01	1892594
Anthracene	mg/kg	<0.03 (1)	0.03	0.59	0.03	0.01	1892594
Benzo(a)anthracene	mg/kg	<0.01	0.01	2.0	0.04	0.01	1892594
Benzo(a)pyrene	mg/kg	<0.01	0.01	2.2	0.17	0.01	1892594
Benzo(b)fluoranthene	mg/kg	<0.01	0.01	2.0	0.14	0.01	1892594
Benzo(g,h,i)perylene	mg/kg	<0.01	0.01	1.8	0.18	0.01	1892594
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	2.0	0.14	0.01	1892594
Chrysene	mg/kg	<0.01	0.01	2.3	0.23	0.01	1892594
Dibenz(a,h)anthracene	mg/kg	<0.01	0.01	0.50	0.06	0.01	1892594
Fluoranthene	mg/kg	<0.01	0.01	4.1	0.04	0.01	1892594
Fluorene	mg/kg	<0.01	0.01	0.77	<0.01	0.01	1892594
Indeno(1,2,3-cd)pyrene	mg/kg	<0.01	0.01	2.1	0.14	0.01	1892594
Naphthalene	mg/kg	<0.01	0.01	0.03	0.02	0.01	1892594
Perylene	mg/kg	<0.01	0.01	0.66	0.05	0.01	1892594
Phenanthrene	mg/kg	<0.01	0.01	3.2	0.03	0.01	1892594
Pyrene	mg/kg	<0.01	0.01	2.8	0.16	0.01	1892594
Surrogate Recovery (%)							
D10-Anthracene	%	93		91	86		1892594
D14-Terphenyl (FS)	%	73		84	78		1892594
D8-Acenaphthylene	%	90		111	87		1892594

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PAH RDL(s) due to matrix interference.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DE8237	DE8239	DE8242	DE8243		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP43-BS2	TP49-BS2	TP57-BS1	TP58-BS2	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	0.27	<0.01	<0.01	<0.01	0.01	1892594
2-Methylnaphthalene	mg/kg	0.58	<0.01	<0.01	<0.01	0.01	1892594
Acenaphthene	mg/kg	6.5	<0.01	<0.01	<0.01	0.01	1892594
Acenaphthylene	mg/kg	0.31	0.03	<0.01	<0.01	0.01	1892594
Anthracene	mg/kg	2.4	0.06	<0.01	0.02	0.01	1892594
Benzo(a)anthracene	mg/kg	17	0.02	<0.01	0.03	0.01	1892594
Benzo(a)pyrene	mg/kg	18	0.08	<0.01	0.02	0.01	1892594
Benzo(b)fluoranthene	mg/kg	17	0.08	0.03	0.02	0.01	1892594
Benzo(g,h,i)perylene	mg/kg	11	0.07	0.02	0.05	0.01	1892594
Benzo(k)fluoranthene	mg/kg	17	0.09	0.03	0.02	0.01	1892594
Chrysene	mg/kg	18	0.07	0.05	0.03	0.01	1892594
Dibenz(a,h)anthracene	mg/kg	3.6	0.02	<0.01	<0.01	0.01	1892594
Fluoranthene	mg/kg	33	0.02	0.05	0.05	0.01	1892594
Fluorene	mg/kg	0.06	<0.01	<0.01	<0.01	0.01	1892594
Indeno(1,2,3-cd)pyrene	mg/kg	12	0.08	0.02	0.02	0.01	1892594
Naphthalene	mg/kg	0.09	<0.01	<0.01	<0.01	0.01	1892594
Perylene	mg/kg	4.6	0.04	<0.01	<0.01	0.01	1892594
Phenanthrene	mg/kg	2.4	<0.01	<0.01	0.02	0.01	1892594
Pyrene	mg/kg	42 (1)	0.03	0.05	0.04	0.01	1892594
Surrogate Recovery (%)							
D10-Anthracene	%	87	88	93	89		1892594
D14-Terphenyl (FS)	%	74	74	77	91		1892594
D8-Acenaphthylene	%	109	88	92	90		1892594

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PAH RDL(s) due to sample dilution.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DE8237		DE8237		
Sampling Date		2009/07/24		2009/07/24		
COC Number		23525		23525		
Registration #						
	Units	TP43-BS2	RDL	TP43-BS2 Lab-Dup	RDL	QC Batch

Volatile Organics						
1,1,1-Trichloroethane	ug/kg	<30	30	<30	30	1893268
1,1,2,2-Tetrachloroethane	ug/kg	160	30	150	30	1893268
1,1,2-Trichloroethane	ug/kg	<4000 (1)	4000	<4000 (1)	4000	1893268
1,1-Dichloroethane	ug/kg	<30	30	<30	30	1893268
1,1-Dichloroethylene	ug/kg	<30	30	<30	30	1893268
1,2-Dichlorobenzene	ug/kg	<30	30	<30	30	1893268
1,2-Dichloroethane	ug/kg	<30	30	<30	30	1893268
1,2-Dichloropropane	ug/kg	<30	30	<30	30	1893268
1,3-Dichlorobenzene	ug/kg	<30	30	<200 (1)	200	1893268
1,4-Dichlorobenzene	ug/kg	<30	30	140 (2)	30	1893268
Benzene	ug/kg	<30	30	<30	30	1893268
Bromodichloromethane	ug/kg	<40 (1)	40	<40 (1)	40	1893268
Bromoform	ug/kg	<30	30	<30	30	1893268
Bromomethane	ug/kg	<200	200	<200	200	1893268
Carbon Tetrachloride	ug/kg	<30	30	<30	30	1893268
Chlorobenzene	ug/kg	<30	30	<30	30	1893268
Chloroform	ug/kg	<30	30	<30	30	1893268
Chloromethane	ug/kg	<30	30	<30	30	1893268
cis-1,2-Dichloroethylene	ug/kg	<30	30	<30	30	1893268
cis-1,3-Dichloropropene	ug/kg	<30	30	<30	30	1893268
Dibromochloromethane	ug/kg	<30	30	<30	30	1893268
Ethylbenzene	ug/kg	<30	30	<30	30	1893268
Ethylene Dibromide	ug/kg	<30	30	<30	30	1893268
Methylene Chloride(Dichloromethane)	ug/kg	<30	30	<30	30	1893268
o-Xylene	ug/kg	<30	30	<30	30	1893268
p+m-Xylene	ug/kg	<40 (1)	40	<30	30	1893268
Styrene	ug/kg	<30	30	<30	30	1893268
Tetrachloroethylene	ug/kg	<30	30	<30	30	1893268
Toluene	ug/kg	<30	30	<30	30	1893268

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VOC RDL(s) due to matrix interference.

(2) Duplicate: sample results are within 5x RDL.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DE8237		DE8237		
Sampling Date		2009/07/24		2009/07/24		
COC Number		23525		23525		
Registration #						
	Units	TP43-BS2	RDL	TP43-BS2 Lab-Dup	RDL	QC Batch

trans-1,2-Dichloroethylene	ug/kg	<30	30	<30	30	1893268
trans-1,3-Dichloropropene	ug/kg	<30	30	<30	30	1893268
Trichloroethylene	ug/kg	<30	30	<30	30	1893268
Trichlorofluoromethane (FREON 11)	ug/kg	<30	30	<30	30	1893268
Vinyl Chloride	ug/kg	<30	30	<30	30	1893268
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	623 (1)		497 (1)		1893268
D4-1,2-Dichloroethane	%	111		106		1893268
D8-Toluene	%	125		117		1893268

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) VOC surrogate not within acceptance limits. Analysis was repeated with similar results.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DE8214		DE8216		
Sampling Date		2009/07/24		2009/07/24		
COC Number		23525		23525		
Registration #						
	Units	TP7-BS2	RDL	TP10-BS1	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.3	0.3	<0.03	0.03	1893256
Toluene	mg/kg	<0.3	0.3	<0.03	0.03	1893256
Ethylbenzene	mg/kg	<0.3	0.3	<0.03	0.03	1893256
Xylene (Total)	mg/kg	1.7	0.5	<0.05	0.05	1893256
C6 - C10 (less BTEX)	mg/kg	490	30	<3	3	1893256
>C10-C21 Hydrocarbons	mg/kg	17000	15	2200	15	1893303
>C21-<C32 Hydrocarbons	mg/kg	3800	15	83	15	1893303
Modified TPH (Tier1)	mg/kg	22000	30	2200	20	1889404
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	10 (1)		97		1893303
n-Dotriacontane - Extractable	%	95 (2)		91 (3)		1893303
Isobutylbenzene - Volatile	%	107 (4)		83		1893256

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(2) Fuel oil fraction. Lube oil fraction.

(3) Weathered fuel oil fraction.

(4) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DE8217	DE8219	DE8219	DE8220		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP12-BS2	TP15-BS2	TP15-BS2 Lab-Dup	TP16-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03		<0.03	0.03	1893404
Toluene	mg/kg	<0.03	<0.03		<0.03	0.03	1893404
Ethylbenzene	mg/kg	<0.03	<0.03		<0.03	0.03	1893404
Xylene (Total)	mg/kg	<0.05	<0.05		<0.05	0.05	1893404
C6 - C10 (less BTEX)	mg/kg	<3	<3		<3	3	1893404
>C10-C21 Hydrocarbons	mg/kg	31	28	27	56	15	1893303
>C21-<C32 Hydrocarbons	mg/kg	81	130	150	110	15	1893303
Modified TPH (Tier1)	mg/kg	110	160		170	20	1889404
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	96	95	97	91		1893303
n-Dotriacontane - Extractable	%	91 (1)	100 (2)	87	92 (1)		1893303
Isobutylbenzene - Volatile	%	98	102		107		1893404

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range.
(2) Lube oil fraction.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DE8222	DE8223	DE8225	DE8227		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP18-BS2	TP21-BS2	TP24-BS2	TP30-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1893404
Toluene	mg/kg	<0.03	<0.03	<0.03	4.7	0.03	1893404
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1893404
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1893404
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1893404
>C10-C21 Hydrocarbons	mg/kg	170	210	2400	29	15	1893303
>C21-<C32 Hydrocarbons	mg/kg	350	310	290	160	15	1893303
Modified TPH (Tier1)	mg/kg	510	520	2700	180	20	1889404
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	98	96	99	94		1893303
n-Dotriacontane - Extractable	%	99 (1)	80 (1)	97 (2)	88 (3)		1893303
Isobutylbenzene - Volatile	%	102	98	84	104		1893404

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Lube oil fraction.

(2) One product in fuel / lube range.

(3) Lube oil fraction.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DE8230	DE8231	DE8231		
Sampling Date		2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525		
Registration #						
	Units	TP33-BS2	TP36-BS3	TP36-BS3 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1893404
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1893404
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1893404
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1893404
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1893404
>C10-C21 Hydrocarbons	mg/kg	50	<15		15	1893303
>C21-<C32 Hydrocarbons	mg/kg	200	<15		15	1893303
Modified TPH (Tier1)	mg/kg	250	<20		20	1889404
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	99	92			1893303
n-Dotriacontane - Extractable	%	93 (1)	95			1893303
Isobutylbenzene - Volatile	%	99	100	103		1893404

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DE8232	DE8235	DE8236		
Sampling Date		2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525		
Registration #						
	Units	TP37-BS1	TP41-BS1	TP42-BS2	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1893404
Toluene	mg/kg	0.07	<0.03	<0.03	0.03	1893404
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1893404
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1893404
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1893404
>C10-C21 Hydrocarbons	mg/kg	36	45	170	15	1892417
>C21-<C32 Hydrocarbons	mg/kg	360	380	450	15	1892417
Modified TPH (Tier1)	mg/kg	400	420	620	20	1889404
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	98	105	101		1892417
n-Dotriacontane - Extractable	%	93 (1)	93 (2)	108 (3)		1892417
Isobutylbenzene - Volatile	%	96	102	95		1893404

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Lube oil fraction.

(2) One product in fuel oil range. Lube oil fraction.

(3) One product in fuel / lube range. Lube oil fraction.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DE8237		DE8238	DE8240		
Sampling Date		2009/07/24		2009/07/24	2009/07/24		
COC Number		23525		23525	23525		
Registration #							
	Units	TP43-BS2	RDL	TP44-BS2	TP52-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.3	0.3	<0.03	<0.03	0.03	1893404
Toluene	mg/kg	<0.3	0.3	<0.03	<0.03	0.03	1893404
Ethylbenzene	mg/kg	<0.3	0.3	<0.03	<0.03	0.03	1893404
Xylene (Total)	mg/kg	<0.5	0.5	<0.05	<0.05	0.05	1893404
C6 - C10 (less BTEX)	mg/kg	800	30	<3	<3	3	1893404
>C10-C21 Hydrocarbons	mg/kg	22000	150	<15	<15	15	1892417
>C21-<C32 Hydrocarbons	mg/kg	2300	15	<15	20	15	1892417
Modified TPH (Tier1)	mg/kg	25000	200	<20	20	20	1889404
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	90		100	101		1892417
n-Dotriacontane - Extractable	%	110 (1)		104	109 (2)		1892417
Isobutylbenzene - Volatile	%	88 (3)		97	99		1893404

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction. Lube oil fraction. Elevated TEH RDL(s) due to sample dilution.

(2) Possible lube oil fraction.

(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DE8241	DE8241		DE8243		
Sampling Date		2009/07/24	2009/07/24		2009/07/24		
COC Number		23525	23525		23525		
Registration #							
	Units	TP54-BS2	TP54-BS2 Lab-Dup	QC Batch	TP58-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03		1893404	<0.03	0.03	1893404
Toluene	mg/kg	<0.03		1893404	<0.03	0.03	1893404
Ethylbenzene	mg/kg	<0.03		1893404	<0.03	0.03	1893404
Xylene (Total)	mg/kg	<0.05		1893404	<0.05	0.05	1893404
C6 - C10 (less BTEX)	mg/kg	<3		1893404	<3	3	1893404
>C10-C21 Hydrocarbons	mg/kg	50	46	1892417	180	15	1893303
>C21-<C32 Hydrocarbons	mg/kg	160	160	1892417	1200	15	1893303
Modified TPH (Tier1)	mg/kg	210		1889404	1400	20	1889404
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	98	98	1892417	99		1893303
n-Dotriacontane - Extractable	%	106 (1)	104	1892417	101 (2)		1893303
Isobutylbenzene - Volatile	%	84		1893404	100		1893404

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel oil range. Lube oil fraction.

(2) One product in fuel / lube range. Lube oil fraction.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DE8244	DE8245		
Sampling Date		2009/07/24	2009/07/24		
COC Number		23525	23525		
Registration #					
	Units	TP62-BS1	TP65-BS1	RDL	QC Batch

Petroleum Hydrocarbons					
Benzene	mg/kg	<0.03	<0.03	0.03	1893404
Toluene	mg/kg	<0.03	<0.03	0.03	1893404
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	1893404
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	1893404
C6 - C10 (less BTEX)	mg/kg	<3	<3	3	1893404
>C10-C21 Hydrocarbons	mg/kg	48	20	15	1893303
>C21-<C32 Hydrocarbons	mg/kg	160	69	15	1893303
Modified TPH (Tier1)	mg/kg	210	89	20	1889404
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	100	98		1893303
n-Dotriacontane - Extractable	%	97 (1)	114 (2)		1893303
Isobutylbenzene - Volatile	%	98	97		1893404

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Lube oil fraction.

(2) No resemblance to petroleum products in fuel oil range. Possible lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DE8214	DE8218	DE8220	DE8223		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP7-BS2	TP13-BS2	TP16-BS1	TP21-BS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	2.3	<0.05	3.2	0.05	1893227
Surrogate Recovery (%)							
Decachlorobiphenyl	%	78	80 (1)	79 (2)	87 (1)		1893227
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260. (2) PCB:Unidentified (possibly halogenated) compounds detected.							

Maxxam ID		DE8225	DE8228	DE8232	DE8235		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP24-BS2	TP31-BS2	TP37-BS1	TP41-BS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	0.95	0.05	1893227
Surrogate Recovery (%)							
Decachlorobiphenyl	%	93	80	81	84 (1)		1893227
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A994692
Report Date: 2009/08/04

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DE8237	DE8240	DE8244	DE8244		
Sampling Date		2009/07/24	2009/07/24	2009/07/24	2009/07/24		
COC Number		23525	23525	23525	23525		
Registration #							
	Units	TP43-BS2	TP52-BS1	TP62-BS1	TP62-BS1 Lab-Dup	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	0.59	0.56	0.05	1893227
Surrogate Recovery (%)							
Decachlorobiphenyl	%	80 (1)	85	80 (2)	84		1893227

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) PCB:Unidentified (possibly halogenated) compounds detected.

(2) Aroclor 1260.

Maxxam Job #: A994692
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Jacques Whitford Limited
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Project name: HOPEDALE
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GENERAL COMMENTS

Samples TP32-BS2 and TP39-BS2 were found to contain asbestos. Analysis could not be completed on these samples.

Sample DE8229-01: The sample submitted for asbestos analysis was a large quantity of a wet gravel-soil mixture. The sample was spread out in a glass dish and examined at low magnification by stereomicroscope. Fragments of construction debris could be seen throughout the sample, including wood fragments, multiple fragments of an asphalt-saturated fibre product and a single roofing nail.

The fragments of asphaltic material ranged in size from very small to about 2 cm in length. Several of the largest of these were removed for toluene extraction and identification of the cleaned fibres. Significant quantities of chrysotile asbestos (est. 30 to 50% of the asphalt/fibre product) were found.

The examination of bulk samples for the presence of asbestos is normally applied to building materials, insulation and similar manufactured products. Wet soil is a much more heterogeneous mixture and the original sampling site may contain more or less of the asbestos containing products than the submitted sample. Also, small quantities of individual asbestos fibres or fibre bundles may not be detected by this examination.

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: Chloroethane unavailable due to calibration non-conformance.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA994692

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1892150 CMI	MATRIX SPIKE	Decachlorobiphenyl	2009/07/31		91	%	30 - 130
		Total PCB	2009/07/31		96	%	30 - 130
	Spiked Blank	Decachlorobiphenyl	2009/07/31		84	%	30 - 130
		Total PCB	2009/07/31		94	%	30 - 130
	Method Blank	Decachlorobiphenyl	2009/07/31		99	%	30 - 130
		Total PCB	2009/07/31	<1		mg/kg	
	RPD	Total PCB	2009/07/31	NC		%	50
1892417 LMU	MATRIX SPIKE [DE8241-01]	Isobutylbenzene - Extractable	2009/07/29		99	%	30 - 130
		n-Dotriacontane - Extractable	2009/07/29		96	%	30 - 130
		>C10-C21 Hydrocarbons	2009/07/29		93	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/07/29		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/07/29		90	%	30 - 130
		n-Dotriacontane - Extractable	2009/07/29		99	%	30 - 130
		>C10-C21 Hydrocarbons	2009/07/29		91	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/07/29		103	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/07/29		95	%	30 - 130
		n-Dotriacontane - Extractable	2009/07/29		111	%	30 - 130
		>C10-C21 Hydrocarbons	2009/07/29	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/07/29	<15		mg/kg	
	RPD [DE8241-01]	>C10-C21 Hydrocarbons	2009/07/29	NC		%	50
		>C21-<C32 Hydrocarbons	2009/07/29	2.3		%	50
1892594 SOD	MATRIX SPIKE [DE8225-01]	D10-Anthracene	2009/07/30		98	%	30 - 130
		D14-Terphenyl (FS)	2009/07/30		91	%	30 - 130
		D8-Acenaphthylene	2009/07/30		95	%	30 - 130
		1-Methylnaphthalene	2009/07/30		103	%	30 - 130
		2-Methylnaphthalene	2009/07/30		106	%	30 - 130
		Acenaphthene	2009/07/30		97	%	30 - 130
		Acenaphthylene	2009/07/30		102	%	30 - 130
		Anthracene	2009/07/30		106	%	30 - 130
		Benzo(a)anthracene	2009/07/30		104	%	30 - 130
		Benzo(a)pyrene	2009/07/30		88	%	30 - 130
		Benzo(b)fluoranthene	2009/07/30		87	%	30 - 130
		Benzo(g,h,i)perylene	2009/07/30		91	%	30 - 130
		Benzo(k)fluoranthene	2009/07/30		87	%	30 - 130
		Chrysene	2009/07/30		105	%	30 - 130
		Dibenz(a,h)anthracene	2009/07/30		93	%	30 - 130
		Fluoranthene	2009/07/30		100	%	30 - 130
		Fluorene	2009/07/30		93	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/07/30		89	%	30 - 130
		Naphthalene	2009/07/30		97	%	30 - 130
		Perylene	2009/07/30		86	%	30 - 130
	Spiked Blank	Phenanthrene	2009/07/30		104	%	30 - 130
		Pyrene	2009/07/30		99	%	30 - 130
		D10-Anthracene	2009/07/30		90	%	30 - 130
		D14-Terphenyl (FS)	2009/07/30		86	%	30 - 130
		D8-Acenaphthylene	2009/07/30		87	%	30 - 130
		1-Methylnaphthalene	2009/07/30		101	%	30 - 130
		2-Methylnaphthalene	2009/07/30		101	%	30 - 130
		Acenaphthene	2009/07/30		98	%	30 - 130
		Acenaphthylene	2009/07/30		96	%	30 - 130
		Anthracene	2009/07/30		99	%	30 - 130
		Benzo(a)anthracene	2009/07/30		97	%	30 - 130
		Benzo(a)pyrene	2009/07/30		92	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA994692

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1892594 SOD	Spiked Blank	Benzo(b)fluoranthene	2009/07/30		93	%	30 - 130
		Benzo(g,h,i)perylene	2009/07/30		77	%	30 - 130
		Benzo(k)fluoranthene	2009/07/30		93	%	30 - 130
		Chrysene	2009/07/30		106	%	30 - 130
		Dibenz(a,h)anthracene	2009/07/30		75	%	30 - 130
		Fluoranthene	2009/07/30		99	%	30 - 130
		Fluorene	2009/07/30		93	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/07/30		70	%	30 - 130
		Naphthalene	2009/07/30		94	%	30 - 130
		Perylene	2009/07/30		90	%	30 - 130
		Phenanthrene	2009/07/30		102	%	30 - 130
		Pyrene	2009/07/30		99	%	30 - 130
	Method Blank	D10-Anthracene	2009/07/30		94	%	30 - 130
		D14-Terphenyl (FS)	2009/07/30		92	%	30 - 130
		D8-Acenaphthylene	2009/07/30		91	%	30 - 130
		1-Methylnaphthalene	2009/07/30	<0.01		mg/kg	
		2-Methylnaphthalene	2009/07/30	<0.01		mg/kg	
		Acenaphthene	2009/07/30	<0.01		mg/kg	
		Acenaphthylene	2009/07/30	<0.01		mg/kg	
		Anthracene	2009/07/30	<0.01		mg/kg	
		Benzo(a)anthracene	2009/07/30	<0.01		mg/kg	
		Benzo(a)pyrene	2009/07/30	<0.01		mg/kg	
		Benzo(b)fluoranthene	2009/07/30	<0.01		mg/kg	
		Benzo(g,h,i)perylene	2009/07/30	<0.01		mg/kg	
		Benzo(k)fluoranthene	2009/07/30	<0.01		mg/kg	
		Chrysene	2009/07/30	<0.01		mg/kg	
		Dibenz(a,h)anthracene	2009/07/30	<0.01		mg/kg	
		Fluoranthene	2009/07/30	<0.01		mg/kg	
		Fluorene	2009/07/30	<0.01		mg/kg	
		Indeno(1,2,3-cd)pyrene	2009/07/30	<0.01		mg/kg	
		Naphthalene	2009/07/30	<0.01		mg/kg	
		Perylene	2009/07/30	<0.01		mg/kg	
		Phenanthrene	2009/07/30	<0.01		mg/kg	
		Pyrene	2009/07/30	<0.01		mg/kg	
	RPD [DE8225-01]	1-Methylnaphthalene	2009/07/30	NC		%	50
		2-Methylnaphthalene	2009/07/30	NC		%	50
		Acenaphthene	2009/07/30	NC		%	50
		Acenaphthylene	2009/07/30	10.2		%	50
		Anthracene	2009/07/30	NC (1)		%	50
		Benzo(a)anthracene	2009/07/30	NC		%	50
		Benzo(a)pyrene	2009/07/30	NC		%	50
		Benzo(b)fluoranthene	2009/07/30	NC		%	50
		Benzo(g,h,i)perylene	2009/07/30	NC		%	50
		Benzo(k)fluoranthene	2009/07/30	NC		%	50
		Chrysene	2009/07/30	NC		%	50
		Dibenz(a,h)anthracene	2009/07/30	NC		%	50
		Fluoranthene	2009/07/30	NC		%	50
		Fluorene	2009/07/30	NC		%	50
		Indeno(1,2,3-cd)pyrene	2009/07/30	NC		%	50
		Naphthalene	2009/07/30	NC		%	50
		Perylene	2009/07/30	NC		%	50
		Phenanthrene	2009/07/30	NC		%	50
		Pyrene	2009/07/30	NC		%	50
1893227 CMI	MATRIX SPIKE [DE8244-01]	Decachlorobiphenyl	2009/07/31		84	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA994692

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1893227 CMI	MATRIX SPIKE [DE8244-01]	Total PCB	2009/07/31		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/07/31		91	%	30 - 130
		Total PCB	2009/07/31		92	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/07/31		92	%	30 - 130
		Total PCB	2009/07/31	<0.05		ug/g	
	RPD [DE8244-01]	Total PCB	2009/07/31	5.3		%	50
1893256 ASL	MATRIX SPIKE	Isobutylbenzene - Volatile	2009/07/30		97	%	60 - 140
		Benzene	2009/07/30		83	%	60 - 140
		Toluene	2009/07/30		107	%	60 - 140
		Ethylbenzene	2009/07/30		89	%	60 - 140
		Xylene (Total)	2009/07/30		111	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/07/30		102	%	60 - 140
		Benzene	2009/07/30		86	%	60 - 140
		Toluene	2009/07/30		87	%	60 - 140
		Ethylbenzene	2009/07/30		83	%	60 - 140
		Xylene (Total)	2009/07/30		87	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/07/30		104	%	60 - 140
		Benzene	2009/07/30	<0.03		mg/kg	
		Toluene	2009/07/30	<0.03		mg/kg	
		Ethylbenzene	2009/07/30	<0.03		mg/kg	
		Xylene (Total)	2009/07/30	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/07/30	<3		mg/kg	
	RPD	Benzene	2009/07/30	NC		%	50
		Toluene	2009/07/30	NC		%	50
		Ethylbenzene	2009/07/30	NC		%	50
		Xylene (Total)	2009/07/30	NC		%	50
		C6 - C10 (less BTEX)	2009/07/30	NC		%	50
1893268 MSK	MATRIX SPIKE [DE8237-01]	4-Bromofluorobenzene	2009/07/30		401 (2)	%	60 - 140
		D4-1,2-Dichloroethane	2009/07/30		81	%	60 - 140
		D8-Toluene	2009/07/30		94	%	60 - 140
		1,1,1-Trichloroethane	2009/07/30		77	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/07/30		468 (3)	%	60 - 140
		1,1,2-Trichloroethane	2009/07/30		NC	%	60 - 140
		1,1-Dichloroethane	2009/07/30		81	%	60 - 140
		1,1-Dichloroethylene	2009/07/30		75	%	60 - 140
		1,2-Dichlorobenzene	2009/07/30		67	%	60 - 140
		1,2-Dichloroethane	2009/07/30		75	%	60 - 140
		1,2-Dichloropropane	2009/07/30		77	%	60 - 140
		1,3-Dichlorobenzene	2009/07/30		73	%	60 - 140
		1,4-Dichlorobenzene	2009/07/30		69	%	60 - 140
		Benzene	2009/07/30		74	%	60 - 140
		Bromodichloromethane	2009/07/30		67	%	60 - 140
		Bromoform	2009/07/30		57 (3)	%	60 - 140
		Bromomethane	2009/07/30		69	%	60 - 140
		Carbon Tetrachloride	2009/07/30		69	%	60 - 140
		Chlorobenzene	2009/07/30		75	%	60 - 140
		Chloroform	2009/07/30		81	%	60 - 140
		Chloromethane	2009/07/30		61	%	60 - 140
		cis-1,2-Dichloroethylene	2009/07/30		84	%	60 - 140
		cis-1,3-Dichloropropene	2009/07/30		67	%	60 - 140
		Dibromochloromethane	2009/07/30		77	%	60 - 140
		Ethylbenzene	2009/07/30		73	%	60 - 140
		Ethylene Dibromide	2009/07/30		76	%	60 - 140

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA994692

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1893268 MSK	MATRIX SPIKE [DE8237-01]	Methylene Chloride(Dichloromethane)	2009/07/30		85	%	60 - 140
		o-Xylene	2009/07/30		72	%	60 - 140
		p+m-Xylene	2009/07/30		76	%	60 - 140
		Styrene	2009/07/30		74	%	60 - 140
		Tetrachloroethylene	2009/07/30		65	%	60 - 140
		Toluene	2009/07/30		73	%	60 - 140
		trans-1,2-Dichloroethylene	2009/07/30		75	%	60 - 140
		trans-1,3-Dichloropropene	2009/07/30		59 (3)	%	60 - 140
		Trichloroethylene	2009/07/30		77	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/07/30		71	%	60 - 140
		Vinyl Chloride	2009/07/30		61	%	60 - 140
	Spiked Blank	4-Bromofluorobenzene	2009/07/30		107	%	60 - 140
		D4-1,2-Dichloroethane	2009/07/30		107	%	60 - 140
		D8-Toluene	2009/07/30		115	%	60 - 140
		1,1,1-Trichloroethane	2009/07/30		100	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/07/30		97	%	60 - 140
		1,1,2-Trichloroethane	2009/07/30		100	%	60 - 140
		1,1-Dichloroethane	2009/07/30		99	%	60 - 140
		1,1-Dichloroethylene	2009/07/30		105	%	60 - 140
		1,2-Dichlorobenzene	2009/07/30		102	%	60 - 140
		1,2-Dichloroethane	2009/07/30		100	%	60 - 140
		1,2-Dichloropropane	2009/07/30		98	%	60 - 140
		1,3-Dichlorobenzene	2009/07/30		100	%	60 - 140
		1,4-Dichlorobenzene	2009/07/30		99	%	60 - 140
		Benzene	2009/07/30		98	%	60 - 140
		Bromodichloromethane	2009/07/30		88	%	60 - 140
		Bromoform	2009/07/30		76	%	60 - 140
		Bromomethane	2009/07/30		86	%	60 - 140
		Carbon Tetrachloride	2009/07/30		97	%	60 - 140
		Chlorobenzene	2009/07/30		100	%	60 - 140
		Chloroform	2009/07/30		102	%	60 - 140
		Chloromethane	2009/07/30		93	%	60 - 140
		cis-1,2-Dichloroethylene	2009/07/30		103	%	60 - 140
		cis-1,3-Dichloropropene	2009/07/30		86	%	60 - 140
		Dibromochloromethane	2009/07/30		81	%	60 - 140
		Ethylbenzene	2009/07/30		97	%	60 - 140
		Ethylene Dibromide	2009/07/30		97	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/07/30		94	%	60 - 140
		o-Xylene	2009/07/30		104	%	60 - 140
		p+m-Xylene	2009/07/30		104	%	60 - 140
		Styrene	2009/07/30		104	%	60 - 140
		Tetrachloroethylene	2009/07/30		106	%	60 - 140
		Toluene	2009/07/30		96	%	60 - 140
		trans-1,2-Dichloroethylene	2009/07/30		99	%	60 - 140
		trans-1,3-Dichloropropene	2009/07/30		80	%	60 - 140
		Trichloroethylene	2009/07/30		104	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/07/30		101	%	60 - 140
		Vinyl Chloride	2009/07/30		87	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/07/30		109	%	60 - 140
		D4-1,2-Dichloroethane	2009/07/30		110	%	60 - 140
		D8-Toluene	2009/07/30		113	%	60 - 140
		1,1,1-Trichloroethane	2009/07/30	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/07/30	<30		ug/kg	
		1,1,2-Trichloroethane	2009/07/30	<30		ug/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA994692

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1893268 MSK	Method Blank	1,1-Dichloroethane	2009/07/30	<30		ug/kg	
		1,1-Dichloroethylene	2009/07/30	<30		ug/kg	
		1,2-Dichlorobenzene	2009/07/30	<30		ug/kg	
		1,2-Dichloroethane	2009/07/30	<30		ug/kg	
		1,2-Dichloropropane	2009/07/30	<30		ug/kg	
		1,3-Dichlorobenzene	2009/07/30	<30		ug/kg	
		1,4-Dichlorobenzene	2009/07/30	<30		ug/kg	
		Benzene	2009/07/30	<30		ug/kg	
		Bromodichloromethane	2009/07/30	<30		ug/kg	
		Bromoform	2009/07/30	<30		ug/kg	
		Bromomethane	2009/07/30	<200		ug/kg	
		Carbon Tetrachloride	2009/07/30	<30		ug/kg	
		Chlorobenzene	2009/07/30	<30		ug/kg	
		Chloroform	2009/07/30	<30		ug/kg	
		Chloromethane	2009/07/30	<30		ug/kg	
		cis-1,2-Dichloroethylene	2009/07/30	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/07/30	<30		ug/kg	
		Dibromochloromethane	2009/07/30	<30		ug/kg	
		Ethylbenzene	2009/07/30	<30		ug/kg	
		Ethylene Dibromide	2009/07/30	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/07/30	<30		ug/kg	
		o-Xylene	2009/07/30	<30		ug/kg	
		p+m-Xylene	2009/07/30	<30		ug/kg	
		Styrene	2009/07/30	<30		ug/kg	
		Tetrachloroethylene	2009/07/30	<30		ug/kg	
		Toluene	2009/07/30	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/07/30	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/07/30	<30		ug/kg	
		Trichloroethylene	2009/07/30	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/07/30	<30		ug/kg	
		Vinyl Chloride	2009/07/30	<30		ug/kg	
	RPD [DE8237-01]	1,1,1-Trichloroethane	2009/07/30	NC		%	50
		1,1,1,2-Tetrachloroethane	2009/07/30	1		%	50
		1,1,2-Trichloroethane	2009/07/30	NC (4)		%	50
		1,1-Dichloroethane	2009/07/30	NC		%	50
		1,1-Dichloroethylene	2009/07/30	NC		%	50
		1,2-Dichlorobenzene	2009/07/30	NC		%	50
		1,2-Dichloroethane	2009/07/30	NC		%	50
		1,2-Dichloropropane	2009/07/30	NC		%	50
		1,3-Dichlorobenzene	2009/07/30	NC (4)		%	50
		1,4-Dichlorobenzene	2009/07/30	NC (5)		%	50
		Benzene	2009/07/30	NC		%	50
		Bromodichloromethane	2009/07/30	NC (4)		%	50
		Bromoform	2009/07/30	NC		%	50
		Bromomethane	2009/07/30	NC		%	50
		Carbon Tetrachloride	2009/07/30	NC		%	50
		Chlorobenzene	2009/07/30	NC		%	50
		Chloroform	2009/07/30	NC		%	50
		Chloromethane	2009/07/30	NC		%	50
		cis-1,2-Dichloroethylene	2009/07/30	NC		%	50
		cis-1,3-Dichloropropene	2009/07/30	NC		%	50
		Dibromochloromethane	2009/07/30	NC		%	50
		Ethylbenzene	2009/07/30	NC		%	50
		Ethylene Dibromide	2009/07/30	NC		%	50
		Methylene Chloride(Dichloromethane)	2009/07/30	NC		%	50

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1893268 MSK	RPD [DE8237-01]	o-Xylene	2009/07/30	NC		%	50
		p+m-Xylene	2009/07/30	NC		%	50
		Styrene	2009/07/30	NC		%	50
		Tetrachloroethylene	2009/07/30	NC		%	50
		Toluene	2009/07/30	NC		%	50
		trans-1,2-Dichloroethylene	2009/07/30	NC		%	50
		trans-1,3-Dichloropropene	2009/07/30	NC		%	50
		Trichloroethylene	2009/07/30	NC		%	50
		Trichlorofluoromethane (FREON 11)	2009/07/30	NC		%	50
		Vinyl Chloride	2009/07/30	NC		%	50
1893303 SHR	MATRIX SPIKE [DE8219-01]	Isobutylbenzene - Extractable	2009/07/30		96	%	30 - 130
		n-Dotriacontane - Extractable	2009/07/30		78	%	30 - 130
		>C10-C21 Hydrocarbons	2009/07/30		85	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/07/30		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/07/30		100	%	30 - 130
		n-Dotriacontane - Extractable	2009/07/30		100	%	30 - 130
		>C10-C21 Hydrocarbons	2009/07/30		99	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/07/30		110	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/07/30		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/07/30		71	%	30 - 130
		>C10-C21 Hydrocarbons	2009/07/30	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/07/30	<15		mg/kg	
	RPD [DE8219-01]	>C10-C21 Hydrocarbons	2009/07/30	NC		%	50
		>C21-<C32 Hydrocarbons	2009/07/30	14.6		%	50
1893404 ASL	MATRIX SPIKE [DE8231-01]	Isobutylbenzene - Volatile	2009/07/30		87	%	60 - 140
		Benzene	2009/07/30		92	%	60 - 140
		Toluene	2009/07/30		109	%	60 - 140
		Ethylbenzene	2009/07/30		95	%	60 - 140
		Xylene (Total)	2009/07/30		116	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/07/30		94	%	60 - 140
		Benzene	2009/07/30		96	%	60 - 140
		Toluene	2009/07/30		97	%	60 - 140
		Ethylbenzene	2009/07/30		96	%	60 - 140
		Xylene (Total)	2009/07/30		97	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/07/30		92	%	60 - 140
		Benzene	2009/07/30	<0.03		mg/kg	
		Toluene	2009/07/30	<0.03		mg/kg	
		Ethylbenzene	2009/07/30	<0.03		mg/kg	
		Xylene (Total)	2009/07/30	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/07/30	<3		mg/kg	
	RPD [DE8231-01]	Benzene	2009/07/30	NC		%	50
		Toluene	2009/07/30	NC		%	50
		Ethylbenzene	2009/07/30	NC		%	50
		Xylene (Total)	2009/07/30	NC		%	50
		C6 - C10 (less BTEX)	2009/07/30	NC		%	50
1893690 MPT	MATRIX SPIKE	Available Aluminum (Al)	2009/07/30		NC	%	75 - 125
		Available Antimony (Sb)	2009/07/30		74 (6)	%	75 - 125
		Available Arsenic (As)	2009/07/30		NC	%	75 - 125
		Available Barium (Ba)	2009/07/30		NC	%	75 - 125
		Available Beryllium (Be)	2009/07/30		95	%	75 - 125
		Available Bismuth (Bi)	2009/07/30		97	%	75 - 125
		Available Boron (B)	2009/07/30		91	%	75 - 125
		Available Cadmium (Cd)	2009/07/30		101	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
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Project name: HOPEDALE

Quality Assurance Report (Continued)

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QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1893690 MPT	MATRIX SPIKE	Available Chromium (Cr)	2009/07/30		NC	%	75 - 125	
		Available Cobalt (Co)	2009/07/30		NC	%	75 - 125	
		Available Copper (Cu)	2009/07/30		NC	%	75 - 125	
		Available Iron (Fe)	2009/07/30		NC	%	75 - 125	
		Available Lead (Pb)	2009/07/30		NC	%	75 - 125	
		Available Lithium (Li)	2009/07/30		NC	%	75 - 125	
		Available Manganese (Mn)	2009/07/30		NC	%	75 - 125	
		Available Mercury (Hg)	2009/07/30		98	%	75 - 125	
		Available Molybdenum (Mo)	2009/07/30		98	%	75 - 125	
		Available Nickel (Ni)	2009/07/30		NC	%	75 - 125	
		Available Rubidium (Rb)	2009/07/30		NC	%	75 - 125	
		Available Selenium (Se)	2009/07/30		93	%	75 - 125	
		Available Silver (Ag)	2009/07/30		NC	%	75 - 125	
		Available Strontium (Sr)	2009/07/30		NC	%	75 - 125	
		Available Thallium (Tl)	2009/07/30		91	%	75 - 125	
		Available Tin (Sn)	2009/07/30		NC	%	75 - 125	
		Available Uranium (U)	2009/07/30		94	%	75 - 125	
		Available Vanadium (V)	2009/07/30		NC	%	75 - 125	
		Available Zinc (Zn)	2009/07/30		NC	%	75 - 125	
	QC STANDARD	Available Aluminum (Al)	2009/07/30		85	%	75 - 125	
		Available Arsenic (As)	2009/07/30		108	%	75 - 125	
		Available Barium (Ba)	2009/07/30		106	%	75 - 125	
		Available Chromium (Cr)	2009/07/30		92	%	75 - 125	
		Available Cobalt (Co)	2009/07/30		100	%	75 - 125	
		Available Copper (Cu)	2009/07/30		98	%	75 - 125	
		Available Iron (Fe)	2009/07/30		94	%	75 - 125	
		Available Lead (Pb)	2009/07/30		100	%	75 - 125	
		Available Manganese (Mn)	2009/07/30		98	%	75 - 125	
		Available Nickel (Ni)	2009/07/30		101	%	75 - 125	
		Available Strontium (Sr)	2009/07/30		85	%	75 - 125	
		Available Vanadium (V)	2009/07/30		110	%	75 - 125	
		Available Zinc (Zn)	2009/07/30		99	%	75 - 125	
	Spiked Blank	Available Aluminum (Al)	2009/07/30		104	%	75 - 125	
		Available Antimony (Sb)	2009/07/30		95	%	75 - 125	
		Available Arsenic (As)	2009/07/30		92	%	75 - 125	
		Available Barium (Ba)	2009/07/30		97	%	75 - 125	
		Available Beryllium (Be)	2009/07/30		92	%	75 - 125	
		Available Bismuth (Bi)	2009/07/30		100	%	75 - 125	
		Available Boron (B)	2009/07/30		90	%	75 - 125	
		Available Cadmium (Cd)	2009/07/30		90	%	75 - 125	
		Available Chromium (Cr)	2009/07/30		107	%	75 - 125	
		Available Cobalt (Co)	2009/07/30		102	%	75 - 125	
		Available Copper (Cu)	2009/07/30		100	%	75 - 125	
		Available Iron (Fe)	2009/07/30		110	%	75 - 125	
		Available Lead (Pb)	2009/07/30		99	%	75 - 125	
		Available Lithium (Li)	2009/07/30		90	%	75 - 125	
		Available Manganese (Mn)	2009/07/30		97	%	75 - 125	
		Available Mercury (Hg)	2009/07/30		102	%	75 - 125	
		Available Molybdenum (Mo)	2009/07/30		93	%	75 - 125	
		Available Nickel (Ni)	2009/07/30		103	%	75 - 125	
		Available Rubidium (Rb)	2009/07/30		93	%	75 - 125	
		Available Selenium (Se)	2009/07/30		77	%	75 - 125	
		Available Silver (Ag)	2009/07/30		96	%	75 - 125	
		Available Strontium (Sr)	2009/07/30		97	%	75 - 125	
		Available Thallium (Tl)	2009/07/30		97	%	75 - 125	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
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Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA994692

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1893690 MPT	Spiked Blank	Available Tin (Sn)	2009/07/30		93	%	75 - 125
		Available Uranium (U)	2009/07/30		100	%	75 - 125
		Available Vanadium (V)	2009/07/30		108	%	75 - 125
		Available Zinc (Zn)	2009/07/30		89	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/07/30	<10		mg/kg	
		Available Antimony (Sb)	2009/07/30	<2		mg/kg	
		Available Arsenic (As)	2009/07/30	<2		mg/kg	
		Available Barium (Ba)	2009/07/30	<5		mg/kg	
		Available Beryllium (Be)	2009/07/30	<2		mg/kg	
		Available Bismuth (Bi)	2009/07/30	<2		mg/kg	
		Available Boron (B)	2009/07/30	<5		mg/kg	
		Available Cadmium (Cd)	2009/07/30	<0.3		mg/kg	
		Available Chromium (Cr)	2009/07/30	<2		mg/kg	
		Available Cobalt (Co)	2009/07/30	<1		mg/kg	
		Available Copper (Cu)	2009/07/30	<2		mg/kg	
		Available Iron (Fe)	2009/07/30	<50		mg/kg	
		Available Lead (Pb)	2009/07/30	<0.5		mg/kg	
		Available Lithium (Li)	2009/07/30	<2		mg/kg	
		Available Manganese (Mn)	2009/07/30	<2		mg/kg	
		Available Mercury (Hg)	2009/07/30	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/07/30	<2		mg/kg	
		Available Nickel (Ni)	2009/07/30	<2		mg/kg	
		Available Rubidium (Rb)	2009/07/30	<2		mg/kg	
		Available Selenium (Se)	2009/07/30	<2		mg/kg	
		Available Silver (Ag)	2009/07/30	<0.5		mg/kg	
		Available Strontium (Sr)	2009/07/30	<5		mg/kg	
		Available Thallium (Tl)	2009/07/30	<0.1		mg/kg	
		Available Tin (Sn)	2009/07/30	<2		mg/kg	
		Available Uranium (U)	2009/07/30	<0.1		mg/kg	
		Available Vanadium (V)	2009/07/30	<2		mg/kg	
		Available Zinc (Zn)	2009/07/30	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/07/30	5.1		%	35
		Available Antimony (Sb)	2009/07/30	NC		%	35
		Available Arsenic (As)	2009/07/30	2.8		%	35
		Available Barium (Ba)	2009/07/30	3.4		%	35
		Available Beryllium (Be)	2009/07/30	NC		%	35
		Available Bismuth (Bi)	2009/07/30	NC		%	35
		Available Boron (B)	2009/07/30	NC		%	35
		Available Cadmium (Cd)	2009/07/30	2.1		%	35
		Available Chromium (Cr)	2009/07/30	5.6		%	35
		Available Cobalt (Co)	2009/07/30	3.5		%	35
		Available Copper (Cu)	2009/07/30	6.3		%	35
		Available Iron (Fe)	2009/07/30	4.9		%	35
		Available Lead (Pb)	2009/07/30	0.2		%	35
		Available Lithium (Li)	2009/07/30	0.4		%	35
		Available Manganese (Mn)	2009/07/30	5.0		%	35
		Available Mercury (Hg)	2009/07/30	NC		%	35
		Available Molybdenum (Mo)	2009/07/30	NC		%	35
		Available Nickel (Ni)	2009/07/30	4.7		%	35
		Available Rubidium (Rb)	2009/07/30	1.7		%	35
		Available Selenium (Se)	2009/07/30	NC		%	35
		Available Silver (Ag)	2009/07/30	NC		%	35
		Available Strontium (Sr)	2009/07/30	NC		%	35
		Available Thallium (Tl)	2009/07/30	NC		%	35
		Available Tin (Sn)	2009/07/30	0.4		%	35

Jacques Whitford Limited
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Client Project #: 1044856/Z9100
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Project name: HOPEDALE

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QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1893690 MPT	RPD	Available Uranium (U)	2009/07/30	2.9		%	35	
		Available Vanadium (V)	2009/07/30	5.3		%	35	
		Available Zinc (Zn)	2009/07/30	2.9		%	35	
1893699 MPT	MATRIX SPIKE [DE8212-01]	Available Aluminum (Al)	2009/07/30		NC	%	75 - 125	
		Available Antimony (Sb)	2009/07/30		83	%	75 - 125	
		Available Arsenic (As)	2009/07/30		102	%	75 - 125	
		Available Barium (Ba)	2009/07/30		NC	%	75 - 125	
		Available Beryllium (Be)	2009/07/30		95	%	75 - 125	
		Available Bismuth (Bi)	2009/07/30		101	%	75 - 125	
		Available Boron (B)	2009/07/30		93	%	75 - 125	
		Available Cadmium (Cd)	2009/07/30		96	%	75 - 125	
		Available Chromium (Cr)	2009/07/30		NC	%	75 - 125	
		Available Cobalt (Co)	2009/07/30		96	%	75 - 125	
		Available Copper (Cu)	2009/07/30		NC	%	75 - 125	
		Available Iron (Fe)	2009/07/30		NC	%	75 - 125	
		Available Lead (Pb)	2009/07/30		602 (7)	%	75 - 125	
		Available Lithium (Li)	2009/07/30		NC	%	75 - 125	
		Available Manganese (Mn)	2009/07/30		NC	%	75 - 125	
		Available Mercury (Hg)	2009/07/30		100	%	75 - 125	
		Available Molybdenum (Mo)	2009/07/30		101	%	75 - 125	
		Available Nickel (Ni)	2009/07/30		NC	%	75 - 125	
		Available Rubidium (Rb)	2009/07/30		NC	%	75 - 125	
		Available Selenium (Se)	2009/07/30		94	%	75 - 125	
		Available Silver (Ag)	2009/07/30		98	%	75 - 125	
		Available Strontium (Sr)	2009/07/30		NC	%	75 - 125	
		Available Thallium (Tl)	2009/07/30		95	%	75 - 125	
		Available Tin (Sn)	2009/07/30		104	%	75 - 125	
		Available Uranium (U)	2009/07/30		101	%	75 - 125	
		Available Vanadium (V)	2009/07/30		NC	%	75 - 125	
		Available Zinc (Zn)	2009/07/30		96	%	75 - 125	
	QC STANDARD	Available Aluminum (Al)	2009/07/30		86	%	75 - 125	
		Available Arsenic (As)	2009/07/30		110	%	75 - 125	
		Available Barium (Ba)	2009/07/30		107	%	75 - 125	
		Available Chromium (Cr)	2009/07/30		94	%	75 - 125	
		Available Cobalt (Co)	2009/07/30		99	%	75 - 125	
		Available Copper (Cu)	2009/07/30		95	%	75 - 125	
		Available Iron (Fe)	2009/07/30		94	%	75 - 125	
		Available Lead (Pb)	2009/07/30		101	%	75 - 125	
		Available Manganese (Mn)	2009/07/30		98	%	75 - 125	
		Available Nickel (Ni)	2009/07/30		102	%	75 - 125	
		Available Strontium (Sr)	2009/07/30		89	%	75 - 125	
		Available Vanadium (V)	2009/07/30		111	%	75 - 125	
		Available Zinc (Zn)	2009/07/30		103	%	75 - 125	
	Spiked Blank	Available Aluminum (Al)	2009/07/30		105	%	75 - 125	
		Available Antimony (Sb)	2009/07/30		98	%	75 - 125	
		Available Arsenic (As)	2009/07/30		97	%	75 - 125	
		Available Barium (Ba)	2009/07/30		97	%	75 - 125	
		Available Beryllium (Be)	2009/07/30		94	%	75 - 125	
		Available Bismuth (Bi)	2009/07/30		103	%	75 - 125	
		Available Boron (B)	2009/07/30		93	%	75 - 125	
		Available Cadmium (Cd)	2009/07/30		92	%	75 - 125	
		Available Chromium (Cr)	2009/07/30		106	%	75 - 125	
		Available Cobalt (Co)	2009/07/30		103	%	75 - 125	
		Available Copper (Cu)	2009/07/30		100	%	75 - 125	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA994692

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1893699 MPT	Spiked Blank	Available Iron (Fe)	2009/07/30		108	%	75 - 125
		Available Lead (Pb)	2009/07/30		101	%	75 - 125
		Available Lithium (Li)	2009/07/30		91	%	75 - 125
		Available Manganese (Mn)	2009/07/30		97	%	75 - 125
		Available Mercury (Hg)	2009/07/30		106	%	75 - 125
		Available Molybdenum (Mo)	2009/07/30		99	%	75 - 125
		Available Nickel (Ni)	2009/07/30		102	%	75 - 125
		Available Rubidium (Rb)	2009/07/30		98	%	75 - 125
		Available Selenium (Se)	2009/07/30		81	%	75 - 125
		Available Silver (Ag)	2009/07/30		102	%	75 - 125
		Available Strontium (Sr)	2009/07/30		98	%	75 - 125
		Available Thallium (Tl)	2009/07/30		99	%	75 - 125
		Available Tin (Sn)	2009/07/30		100	%	75 - 125
		Available Uranium (U)	2009/07/30		103	%	75 - 125
		Available Vanadium (V)	2009/07/30		109	%	75 - 125
		Available Zinc (Zn)	2009/07/30		94	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/07/30	<10		mg/kg	
		Available Antimony (Sb)	2009/07/30	<2		mg/kg	
		Available Arsenic (As)	2009/07/30	<2		mg/kg	
		Available Barium (Ba)	2009/07/30	<5		mg/kg	
		Available Beryllium (Be)	2009/07/30	<2		mg/kg	
		Available Bismuth (Bi)	2009/07/30	<2		mg/kg	
		Available Boron (B)	2009/07/30	<5		mg/kg	
		Available Cadmium (Cd)	2009/07/30	<0.3		mg/kg	
		Available Chromium (Cr)	2009/07/30	<2		mg/kg	
		Available Cobalt (Co)	2009/07/30	<1		mg/kg	
		Available Copper (Cu)	2009/07/30	<2		mg/kg	
		Available Iron (Fe)	2009/07/30	<50		mg/kg	
		Available Lead (Pb)	2009/07/30	<0.5		mg/kg	
		Available Lithium (Li)	2009/07/30	<2		mg/kg	
		Available Manganese (Mn)	2009/07/30	<2		mg/kg	
		Available Mercury (Hg)	2009/07/30	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/07/30	<2		mg/kg	
		Available Nickel (Ni)	2009/07/30	<2		mg/kg	
		Available Rubidium (Rb)	2009/07/30	<2		mg/kg	
		Available Selenium (Se)	2009/07/30	<2		mg/kg	
		Available Silver (Ag)	2009/07/30	<0.5		mg/kg	
		Available Strontium (Sr)	2009/07/30	<5		mg/kg	
		Available Thallium (Tl)	2009/07/30	<0.1		mg/kg	
		Available Tin (Sn)	2009/07/30	<2		mg/kg	
		Available Uranium (U)	2009/07/30	<0.1		mg/kg	
		Available Vanadium (V)	2009/07/30	<2		mg/kg	
		Available Zinc (Zn)	2009/07/30	<5		mg/kg	
	RPD [DE8212-01]	Available Aluminum (Al)	2009/07/30	2.7		%	35
		Available Antimony (Sb)	2009/07/30	NC		%	35
		Available Arsenic (As)	2009/07/30	NC		%	35
		Available Barium (Ba)	2009/07/30	5.7		%	35
		Available Beryllium (Be)	2009/07/30	NC		%	35
		Available Bismuth (Bi)	2009/07/30	NC		%	35
		Available Boron (B)	2009/07/30	NC		%	35
		Available Cadmium (Cd)	2009/07/30	NC		%	35
		Available Chromium (Cr)	2009/07/30	7.7		%	35
		Available Cobalt (Co)	2009/07/30	7.5		%	35
		Available Copper (Cu)	2009/07/30	6.8		%	35
		Available Iron (Fe)	2009/07/30	4.8		%	35

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA994692

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1893699 MPT	RPD [DE8212-01]	Available Lead (Pb)	2009/07/30	2.0		%	35
		Available Lithium (Li)	2009/07/30	NC		%	35
		Available Manganese (Mn)	2009/07/30	2.4		%	35
		Available Mercury (Hg)	2009/07/30	NC		%	35
		Available Molybdenum (Mo)	2009/07/30	NC		%	35
		Available Nickel (Ni)	2009/07/30	9.6		%	35
		Available Rubidium (Rb)	2009/07/30	12.0		%	35
		Available Selenium (Se)	2009/07/30	NC		%	35
		Available Silver (Ag)	2009/07/30	NC		%	35
		Available Strontium (Sr)	2009/07/30	8.6		%	35
		Available Thallium (Tl)	2009/07/30	NC		%	35
		Available Tin (Sn)	2009/07/30	NC		%	35
		Available Uranium (U)	2009/07/30	NC		%	35
		Available Vanadium (V)	2009/07/30	8.2		%	35
		Available Zinc (Zn)	2009/07/30	10.7		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

- (1) Elevated PAH RDL(s) due to matrix interference.
- (2) VOC surrogate not within acceptance limits. Analysis was repeated with similar results.
- (3) Matrix Spike: < 10 % of compounds in multi-component analysis in violation.
- (4) Elevated VOC RDL(s) due to matrix interference.
- (5) Duplicate: sample results are within 5x RDL.
- (6) Low recovery due to sample matrix.
- (7) Elevated recovery due to sample inhomogeneity.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/07

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9C0252
Received: 2009/09/12, 9:56

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Carbonate, Bicarbonate and Hydroxide	6	N/A	2009/09/18		
Alkalinity	1	N/A	2009/09/16	ATL SOP 00013 R4	Based on EPA310.2
Alkalinity	5	N/A	2009/09/17	ATL SOP 00013 R4	Based on EPA310.2
Chloride	1	N/A	2009/09/17	ATL SOP 00014 R6	Based on SM4500-Cl-
Chloride	5	N/A	2009/09/18	ATL SOP 00014 R6	Based on SM4500-Cl-
Colour	1	N/A	2009/09/16	ATL SOP 00020 R3.	Based on SM2120C
Colour	5	N/A	2009/09/18	ATL SOP 00020 R3.	Based on SM2120C
Conductance - water	6	N/A	2009/09/18	ATL SOP 00004 R4/00006 R4	Based on SM2510B
Hardness (calculated as CaCO3)	6	N/A	2009/09/18	ATL SOP 00048	Based on SM2340B
Metals Water Total OES - Partial Scan	6	N/A	2009/09/18	ATL SOP 00025 R4	Based on EPA200.7
Metals Water Total MS - Low Level	6	N/A	2009/09/17	ATL SOP 00024 R4	Based on EPA6020A
Ion Balance (% Difference)	6	N/A	2009/09/18		
Anion and Cation Sum	6	N/A	2009/09/18		
Nitrogen Ammonia - water	6	N/A	2009/09/17	ATL SOP 00015 R5	Based on USEPA 350.1
Nitrogen - Nitrate + Nitrite	1	N/A	2009/09/16	ATL SOP 00016 R4	Based on USGS - Enz.
Nitrogen - Nitrate + Nitrite	5	N/A	2009/09/18	ATL SOP 00016 R4	Based on USGS - Enz.
Nitrogen - Nitrite	1	N/A	2009/09/17	ATL SOP 00017 R4	Based on USEPA 354.1
Nitrogen - Nitrite	5	N/A	2009/09/18	ATL SOP 00017 R4	Based on USEPA 354.1
Nitrogen - Nitrate (as N)	1	N/A	2009/09/17	ATL SOP 00018 R3	Based on ASTM D3867
Nitrogen - Nitrate (as N)	5	N/A	2009/09/18	ATL SOP 00018 R3	Based on ASTM D3867
PCBs in water by GC/ECD	3	2009/09/17	2009/09/21	ATL SOP 00107 R3	Based on EPA8082
pH	6	N/A	2009/09/18	ATL SOP 00003 R5/00005 R6	Based on EPA150.1
Phosphorus - ortho	1	N/A	2009/09/17	ATL SOP 00021 R3	Based on USEPA 365.1
Phosphorus - ortho	5	N/A	2009/09/18	ATL SOP 00021 R3	Based on USEPA 365.1
Sat. pH and Langelier Index (@ 20C)	6	N/A	2009/09/18		
Sat. pH and Langelier Index (@ 4C)	6	N/A	2009/09/18		
Reactive Silica	1	N/A	2009/09/16	ATL SOP 00022 R3	Based on EPA 366.0
Reactive Silica	5	N/A	2009/09/18	ATL SOP 00022 R3	Based on EPA 366.0
Sulphate	1	N/A	2009/09/16	ATL SOP 00023 R3	Based on EPA 375.4
Sulphate	5	N/A	2009/09/18	ATL SOP 00023 R3	Based on EPA 375.4
Total Dissolved Solids (TDS calc)	6	N/A	2009/09/18		
Organic carbon - Total (TOC)	6	N/A	2009/09/11	ATL SOP 00037 R3	Based on SM5310C
Turbidity	6	N/A	2009/09/21	ATL SOP 00011 R4	based on EPA 180.1
Volatile Organic Compounds in Water	1	2009/09/17	2009/09/17	ATL SOP 00122 R3	Based on EPA624
Volatile Organic Compounds in Water	2	2009/09/17	2009/09/18	ATL SOP 00122 R3	Based on EPA624

../2

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/07

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

-2-

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Michelle Hill

07 Oct 2009 14:20:07 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 2

Page 2 of 20

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF WATER

Maxxam ID		DR6006	DR6006		DR6018		
Sampling Date		2009/09/10	2009/09/10		2009/09/10		
COC Number		N/A	N/A		N/A		
	Units	SW-1	SW-1 Lab-Dup	QC Batch	SW-2	RDL	QC Batch

Calculated Parameters							
Anion Sum	me/L	0.440		1937877	0.430	N/A	1937877
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	15		1937873	14	1	1937873
Calculated TDS	mg/L	27		1937880	28	1	1937880
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1		1937873	<1	1	1937873
Cation Sum	me/L	0.560		1937877	0.600	N/A	1937877
Hardness (CaCO ₃)	mg/L	17		1937875	18	1	1937875
Ion Balance (% Difference)	%	12.0		1937876	16.5	N/A	1937876
Langelier Index (@ 20C)	N/A	-2.21		1937878	-2.38		1937878
Langelier Index (@ 4C)	N/A	-2.46		1937879	-2.64		1937879
Nitrate (N)	mg/L	<0.05		1937344	<0.05	0.05	1937344
Saturation pH (@ 20C)	N/A	9.43		1937878	9.40		1937878
Saturation pH (@ 4C)	N/A	9.68		1937879	9.66		1937879
Inorganics							
Total Alkalinity (Total as CaCO ₃)	mg/L	15		1940260	15	5	1942005
Dissolved Chloride (Cl)	mg/L	5		1940275	5	1	1942013
Colour	TCU	100		1940278	120	30	1942019
Nitrate + Nitrite	mg/L	<0.05		1940282	<0.05	0.05	1942026
Nitrite (N)	mg/L	<0.01		1940285	<0.01	0.01	1942030
Nitrogen (Ammonia Nitrogen)	mg/L	<0.05	<0.05	1942287	<0.05	0.05	1942299
Total Organic Carbon (C)	mg/L	10		1943461	12	0.5	1943461
Orthophosphate (P)	mg/L	<0.01		1940281	<0.01	0.01	1942023
pH	pH	7.22		1943702	7.02	N/A	1943702
Reactive Silica (SiO ₂)	mg/L	1.7		1940277	1.7	0.5	1942017
Dissolved Sulphate (SO ₄)	mg/L	<2		1940276	<2	2	1942015
Turbidity	NTU	1.4	1.2	1945543	1.2	0.1	1945547
Conductivity	uS/cm	52		1943749	51	1	1943749

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF WATER

Maxxam ID		DR6020	DR6020		DR6021		
Sampling Date		2009/09/10	2009/09/10		2009/09/10		
COC Number		N/A	N/A		N/A		
	Units	SW-3	SW-3 Lab-Dup	RDL	SW-4	RDL	QC Batch

Calculated Parameters							
Anion Sum	me/L	0.420		N/A	0.100	N/A	1937877
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	15		1	<1	1	1937873
Calculated TDS	mg/L	27		1	9	1	1937880
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1		1	<1	1	1937873
Cation Sum	me/L	0.550		N/A	0.200	N/A	1937877
Hardness (CaCO3)	mg/L	17		1	4	1	1937875
Ion Balance (% Difference)	%	13.4		N/A	33.3	N/A	1937876
Langelier Index (@ 20C)	N/A	-2.26			NC		1937878
Langelier Index (@ 4C)	N/A	-2.51			NC		1937879
Nitrate (N)	mg/L	<0.05		0.05	<0.05	0.05	1937344
Saturation pH (@ 20C)	N/A	9.44			NC		1937878
Saturation pH (@ 4C)	N/A	9.69			NC		1937879
Inorganics							
Total Alkalinity (Total as CaCO3)	mg/L	15	15	5	<5	5	1942005
Dissolved Chloride (Cl)	mg/L	5	5	1	4	1	1942013
Colour	TCU	110	100	30	28	5	1942019
Nitrate + Nitrite	mg/L	<0.05	<0.05	0.05	<0.05	0.05	1942026
Nitrite (N)	mg/L	<0.01	<0.01	0.01	<0.01	0.01	1942030
Nitrogen (Ammonia Nitrogen)	mg/L	<0.05		0.05	<0.05	0.05	1942299
Total Organic Carbon (C)	mg/L	13		0.5	5.6	0.5	1943461
Orthophosphate (P)	mg/L	<0.01	<0.01	0.01	<0.01	0.01	1942023
pH	pH	7.18		N/A	6.41	N/A	1943702
Reactive Silica (SiO2)	mg/L	1.9	1.9	0.5	0.7	0.5	1942017
Dissolved Sulphate (SO4)	mg/L	<2	<2	2	<2	2	1942015
Turbidity	NTU	1.0		0.1	1.1	0.1	1945547
Conductivity	uS/cm	51		1	22	1	1943749

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF WATER

Maxxam ID		DR6039	DR6040	DR6040		
Sampling Date		2009/09/10	2009/09/10	2009/09/10		
COC Number		N/A	N/A	N/A		
	Units	SW-5	SW-6	SW-6 Lab-Dup	RDL	QC Batch

Calculated Parameters						
Anion Sum	me/L	0.100	0.100		N/A	1937877
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	<1	<1		1	1937873
Calculated TDS	mg/L	9	9		1	1937880
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1	<1		1	1937873
Cation Sum	me/L	0.210	0.210		N/A	1937877
Hardness (CaCO ₃)	mg/L	4	4		1	1937875
Ion Balance (% Difference)	%	35.5	35.5		N/A	1937876
Langelier Index (@ 20C)	N/A	NC	NC			1937878
Langelier Index (@ 4C)	N/A	NC	NC			1937879
Nitrate (N)	mg/L	<0.05	<0.05		0.05	1937344
Saturation pH (@ 20C)	N/A	NC	NC			1937878
Saturation pH (@ 4C)	N/A	NC	NC			1937879
Inorganics						
Total Alkalinity (Total as CaCO ₃)	mg/L	<5	<5		5	1942005
Dissolved Chloride (Cl)	mg/L	4	4		1	1942013
Colour	TCU	26	26		5	1942019
Nitrate + Nitrite	mg/L	<0.05	<0.05		0.05	1942026
Nitrite (N)	mg/L	<0.01	<0.01		0.01	1942030
Nitrogen (Ammonia Nitrogen)	mg/L	<0.05	<0.05		0.05	1942299
Total Organic Carbon (C)	mg/L	4.7	5.0		0.5	1943461
Orthophosphate (P)	mg/L	<0.01	<0.01		0.01	1942023
pH	pH	6.26	6.39	6.37	N/A	1943702
Reactive Silica (SiO ₂)	mg/L	0.6	0.6		0.5	1942017
Dissolved Sulphate (SO ₄)	mg/L	<2	<2		2	1942015
Turbidity	NTU	0.9	0.9		0.1	1945547
Conductivity	uS/cm	22	22	22	1	1943749

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP-AES (WATER)

Maxxam ID		DR6006	DR6018	DR6020	DR6021	DR6039		
Sampling Date		2009/09/10	2009/09/10	2009/09/10	2009/09/10	2009/09/10		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SW-1	SW-2	SW-3	SW-4	SW-5	RDL	QC Batch

Metals								
Total Calcium (Ca)	mg/L	4.9	5.3	4.9	1.0	1.0	0.1	1943293
Total Magnesium (Mg)	mg/L	1.2	1.2	1.1	0.4	0.4	0.1	1943293
Total Phosphorus (P)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	1943293
Total Potassium (K)	mg/L	0.4	0.4	0.4	0.2	0.2	0.1	1943293
Total Sodium (Na)	mg/L	4.2	4.6	4.1	2.6	2.7	0.1	1943293

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DR6039	DR6040		
Sampling Date		2009/09/10	2009/09/10		
COC Number		N/A	N/A		
	Units	SW-5 Lab-Dup	SW-6	RDL	QC Batch

Metals					
Total Calcium (Ca)	mg/L	1.0	1.0	0.1	1943293
Total Magnesium (Mg)	mg/L	0.4	0.4	0.1	1943293
Total Phosphorus (P)	mg/L	<0.1	<0.1	0.1	1943293
Total Potassium (K)	mg/L	0.2	0.3	0.1	1943293
Total Sodium (Na)	mg/L	2.7	2.7	0.1	1943293

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DR6006	DR6018	DR6020	DR6021	DR6039		
Sampling Date		2009/09/10	2009/09/10	2009/09/10	2009/09/10	2009/09/10		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SW-1	SW-2	SW-3	SW-4	SW-5	RDL	QC Batch

Metals								
Total Aluminum (Al)	ug/L	157	176	155	81.4	86.0	5.0	1942840
Total Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1942840
Total Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1942840
Total Barium (Ba)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	1942840
Total Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1942840
Total Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1942840
Total Boron (B)	ug/L	5.3	6.6	5.4	<5.0	<5.0	5.0	1942840
Total Cadmium (Cd)	ug/L	0.027	0.027	<0.017	<0.017	<0.017	0.017	1942840
Total Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1942840
Total Cobalt (Co)	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	1942840
Total Copper (Cu)	ug/L	2.5	2.7	3.0	<2.0	<2.0	2.0	1942840
Total Iron (Fe)	ug/L	743	804	697	90	90	50	1942840
Total Lead (Pb)	ug/L	1.29	1.38	1.31	<0.50	<0.50	0.50	1942840
Total Manganese (Mn)	ug/L	3.3	3.9	3.5	7.3	6.9	2.0	1942840
Total Molybdenum (Mo)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1942840
Total Nickel (Ni)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1942840
Total Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1942840
Total Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	1942840
Total Strontium (Sr)	ug/L	15.4	16.0	14.8	<5.0	<5.0	5.0	1942840
Total Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	1942840
Total Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1942840
Total Titanium (Ti)	ug/L	3.5	3.1	3.1	<2.0	<2.0	2.0	1942840
Total Uranium (U)	ug/L	0.22	0.23	0.21	<0.10	<0.10	0.10	1942840
Total Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1942840
Total Zinc (Zn)	ug/L	10.8	11.1	8.9	<5.0	<5.0	5.0	1942840

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DR6039	DR6040		
Sampling Date		2009/09/10	2009/09/10		
COC Number		N/A	N/A		
	Units	SW-5 Lab-Dup	SW-6	RDL	QC Batch

Metals					
Total Aluminum (Al)	ug/L	85.7	82.4	5.0	1942840
Total Antimony (Sb)	ug/L	<2.0	<2.0	2.0	1942840
Total Arsenic (As)	ug/L	<2.0	<2.0	2.0	1942840
Total Barium (Ba)	ug/L	<5.0	<5.0	5.0	1942840
Total Beryllium (Be)	ug/L	<2.0	<2.0	2.0	1942840
Total Bismuth (Bi)	ug/L	<2.0	<2.0	2.0	1942840
Total Boron (B)	ug/L	<5.0	<5.0	5.0	1942840
Total Cadmium (Cd)	ug/L	0.038	<0.017	0.017	1942840
Total Chromium (Cr)	ug/L	<1.0	<1.0	1.0	1942840
Total Cobalt (Co)	ug/L	<0.40	<0.40	0.40	1942840
Total Copper (Cu)	ug/L	<2.0	<2.0	2.0	1942840
Total Iron (Fe)	ug/L	97	93	50	1942840
Total Lead (Pb)	ug/L	<0.50	<0.50	0.50	1942840
Total Manganese (Mn)	ug/L	7.1	6.6	2.0	1942840
Total Molybdenum (Mo)	ug/L	<2.0	<2.0	2.0	1942840
Total Nickel (Ni)	ug/L	<2.0	<2.0	2.0	1942840
Total Selenium (Se)	ug/L	<1.0	<1.0	1.0	1942840
Total Silver (Ag)	ug/L	<0.10	<0.10	0.10	1942840
Total Strontium (Sr)	ug/L	<5.0	<5.0	5.0	1942840
Total Thallium (Tl)	ug/L	<0.10	<0.10	0.10	1942840
Total Tin (Sn)	ug/L	<2.0	<2.0	2.0	1942840
Total Titanium (Ti)	ug/L	<2.0	<2.0	2.0	1942840
Total Uranium (U)	ug/L	<0.10	<0.10	0.10	1942840
Total Vanadium (V)	ug/L	<2.0	<2.0	2.0	1942840
Total Zinc (Zn)	ug/L	<5.0	5.1	5.0	1942840

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DR6006	DR6006	DR6018	DR6020		
Sampling Date		2009/09/10	2009/09/10	2009/09/10	2009/09/10		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-1	SW-1 Lab-Dup	SW-2	SW-3	RDL	QC Batch

Chlorobenzenes							
1,2-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1941912
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1941912
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1941912
Chlorobenzene	ug/L	<1	<1	<1	<1	1	1941912
Volatile Organics							
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	1	1941912
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	1	1941912
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	1	1941912
1,1-Dichloroethane	ug/L	<2	<2	<2	<2	2	1941912
1,1-Dichloroethylene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1941912
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	1	1941912
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	1	1941912
Benzene	ug/L	<1	<1	<1	<1	1	1941912
Bromodichloromethane	ug/L	<1	<1	<1	<1	1	1941912
Bromoform	ug/L	<1	<1	<1	<1	1	1941912
Bromomethane	ug/L	<3	<3	<3	<3	3	1941912
Carbon Tetrachloride	ug/L	<1	<1	<1	<1	1	1941912
Chloroethane	ug/L	<8	<8	<8	<8	8	1941912
Chloroform	ug/L	<1	<1	<1	<1	1	1941912
Chloromethane	ug/L	<8	<8	<8	<8	8	1941912
cis-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1941912
cis-1,3-Dichloropropene	ug/L	<2	<2	<2	<2	2	1941912
Dibromochloromethane	ug/L	<1	<1	<1	<1	1	1941912
Ethylbenzene	ug/L	<1	<1	<1	<1	1	1941912
Ethylene Dibromide	ug/L	<1	<1	<1	<1	1	1941912
Methylene Chloride(Dichloromethane)	ug/L	<3	<3	<3	<3	3	1941912
o-Xylene	ug/L	<1	<1	<1	1	1	1941912
p+m-Xylene	ug/L	3	2	2	3	2	1941912
Styrene	ug/L	<1	<1	<1	<1	1	1941912
Tetrachloroethylene	ug/L	<1	<1	<1	<1	1	1941912

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DR6006	DR6006	DR6018	DR6020		
Sampling Date		2009/09/10	2009/09/10	2009/09/10	2009/09/10		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-1	SW-1 Lab-Dup	SW-2	SW-3	RDL	QC Batch

Toluene	ug/L	4	4	5	5	1	1941912
trans-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1941912
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	1	1941912
Trichloroethylene	ug/L	<1	<1	<1	<1	1	1941912
Trichlorofluoromethane (FREON 11)	ug/L	<8	<8	<8	<8	8	1941912
Vinyl Chloride	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1941912
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	101	99	99	100		1941912
D4-1,2-Dichloroethane	%	103	103	102	102		1941912
D8-Toluene	%	98	97	97	97		1941912

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DR6021	DR6021	DR6039	DR6040		
Sampling Date		2009/09/10	2009/09/10	2009/09/10	2009/09/10		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-4	SW-4 Lab-Dup	SW-5	SW-6	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1942105
Surrogate Recovery (%)							
Decachlorobiphenyl	%	95	91	93	93		1942105

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0252
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Revised report: Revised to report correct reference material recovery for Cl. October 7, 2009

Sample DR6006-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L. Low ionic strength sample.

Sample DR6018-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L. Low ionic strength sample.

Sample DR6020-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L. Low ionic strength sample.

Sample DR6021-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L. Low ionic strength sample.

Sample DR6039-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L. Low ionic strength sample.

Sample DR6040-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L. Low ionic strength sample.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9C0252

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1940260 MCN	Matrix Spike	Total Alkalinity (Total as CaCO ₃)	2009/09/17		NC	%	80 - 120
	QC Standard	Total Alkalinity (Total as CaCO ₃)	2009/09/16		105	%	80 - 120
	Spiked Blank	Total Alkalinity (Total as CaCO ₃)	2009/09/16		109	%	80 - 120
	Method Blank	Total Alkalinity (Total as CaCO ₃)	2009/09/16	<5		mg/L	
	RPD	Total Alkalinity (Total as CaCO ₃)	2009/09/16	4.7		%	25
1940275 MCN	Matrix Spike	Dissolved Chloride (Cl)	2009/09/17		NC	%	80 - 120
	QC Standard	Dissolved Chloride (Cl)	2009/09/17		103	%	80 - 120
	Spiked Blank	Dissolved Chloride (Cl)	2009/09/17		103	%	80 - 120
	Method Blank	Dissolved Chloride (Cl)	2009/09/17	<1		mg/L	
	RPD	Dissolved Chloride (Cl)	2009/09/17	3.2		%	25
1940276 SMT	Matrix Spike	Dissolved Sulphate (SO ₄)	2009/09/16		NC	%	80 - 120
	QC Standard	Dissolved Sulphate (SO ₄)	2009/09/16		103	%	80 - 120
	Spiked Blank	Dissolved Sulphate (SO ₄)	2009/09/16		104	%	80 - 120
	Method Blank	Dissolved Sulphate (SO ₄)	2009/09/16	<2		mg/L	
	RPD	Dissolved Sulphate (SO ₄)	2009/09/16	1.1		%	25
1940277 MCN	Matrix Spike	Reactive Silica (SiO ₂)	2009/09/16		NC	%	80 - 120
	QC Standard	Reactive Silica (SiO ₂)	2009/09/16		103	%	75 - 125
	Spiked Blank	Reactive Silica (SiO ₂)	2009/09/16		99	%	80 - 120
	Method Blank	Reactive Silica (SiO ₂)	2009/09/16	<0.5		mg/L	
	RPD	Reactive Silica (SiO ₂)	2009/09/16	0		%	25
1940278 MCN	QC Standard	Colour	2009/09/16		103	%	80 - 120
	Method Blank	Colour	2009/09/16	<5		TCU	
	RPD	Colour	2009/09/16	NC		%	25
1940281 SMT	Matrix Spike	Orthophosphate (P)	2009/09/17		87	%	80 - 120
	QC Standard	Orthophosphate (P)	2009/09/17		99	%	80 - 120
	Spiked Blank	Orthophosphate (P)	2009/09/17		99	%	80 - 120
	Method Blank	Orthophosphate (P)	2009/09/17	<0.01		mg/L	
	RPD	Orthophosphate (P)	2009/09/17	NC		%	25
1940282 MCN	Matrix Spike	Nitrate + Nitrite	2009/09/16		101	%	80 - 120
	QC Standard	Nitrate + Nitrite	2009/09/16		104	%	80 - 120
	Spiked Blank	Nitrate + Nitrite	2009/09/16		103	%	80 - 120
	Method Blank	Nitrate + Nitrite	2009/09/16	<0.05		mg/L	
	RPD	Nitrate + Nitrite	2009/09/16	NC		%	25
1940285 MCN	Matrix Spike	Nitrite (N)	2009/09/17		91	%	80 - 120
	QC Standard	Nitrite (N)	2009/09/17		95	%	80 - 120
	Spiked Blank	Nitrite (N)	2009/09/17		101	%	80 - 120
	Method Blank	Nitrite (N)	2009/09/17	<0.01		mg/L	
	RPD	Nitrite (N)	2009/09/17	NC		%	25
1941912 MSK [DR6018-01]	Matrix Spike	1,2-Dichlorobenzene	2009/09/18		100	%	70 - 130
		1,3-Dichlorobenzene	2009/09/18		95	%	70 - 130
		1,4-Dichlorobenzene	2009/09/18		95	%	70 - 130
		Chlorobenzene	2009/09/18		105	%	70 - 130
		1,1,1-Trichloroethane	2009/09/18		105	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/09/18		95	%	70 - 130
		1,1,2-Trichloroethane	2009/09/18		105	%	70 - 130
		1,1-Dichloroethane	2009/09/18		105	%	70 - 130
		1,1-Dichloroethylene	2009/09/18		105	%	70 - 130
		1,2-Dichloroethane	2009/09/18		100	%	70 - 130
		1,2-Dichloropropane	2009/09/18		100	%	70 - 130
		4-Bromofluorobenzene	2009/09/18		102	%	70 - 130
		Benzene	2009/09/18		105	%	70 - 130
		Bromodichloromethane	2009/09/18		100	%	70 - 130
		Bromoform	2009/09/18		89	%	70 - 130
		Bromomethane	2009/09/18		68 (1)	%	70 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0252

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1941912 MSK	Matrix Spike [DR6018-01]	Carbon Tetrachloride	2009/09/18		105	%	70 - 130
		Chloroethane	2009/09/18		95	%	70 - 130
		Chloroform	2009/09/18		105	%	70 - 130
		Chloromethane	2009/09/18		89	%	70 - 130
		cis-1,2-Dichloroethylene	2009/09/18		100	%	70 - 130
		cis-1,3-Dichloropropene	2009/09/18		89	%	70 - 130
		D4-1,2-Dichloroethane	2009/09/18		102	%	70 - 130
		D8-Toluene	2009/09/18		102	%	70 - 130
		Dibromochloromethane	2009/09/18		95	%	70 - 130
		Ethylbenzene	2009/09/18		105	%	70 - 130
		Ethylene Dibromide	2009/09/18		95	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/09/18		105	%	70 - 130
		o-Xylene	2009/09/18		105	%	70 - 130
		p+m-Xylene	2009/09/18		108	%	70 - 130
		Styrene	2009/09/18		100	%	70 - 130
		Tetrachloroethylene	2009/09/18		105	%	70 - 130
		Toluene	2009/09/18		95	%	70 - 130
		trans-1,2-Dichloroethylene	2009/09/18		100	%	70 - 130
		trans-1,3-Dichloropropene	2009/09/18		84	%	70 - 130
		Trichloroethylene	2009/09/18		105	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/09/18		100	%	70 - 130
		Vinyl Chloride	2009/09/18		84	%	70 - 130
	Spiked Blank	1,2-Dichlorobenzene	2009/09/17		99	%	70 - 130
		1,3-Dichlorobenzene	2009/09/17		98	%	70 - 130
		1,4-Dichlorobenzene	2009/09/17		98	%	70 - 130
		Chlorobenzene	2009/09/17		105	%	70 - 130
		1,1,1-Trichloroethane	2009/09/17		106	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/09/17		96	%	70 - 130
		1,1,2-Trichloroethane	2009/09/17		102	%	70 - 130
		1,1-Dichloroethane	2009/09/17		103	%	70 - 130
		1,1-Dichloroethylene	2009/09/17		106	%	70 - 130
		1,2-Dichloroethane	2009/09/17		101	%	70 - 130
		1,2-Dichloropropane	2009/09/17		99	%	70 - 130
		4-Bromofluorobenzene	2009/09/17		103	%	70 - 130
		Benzene	2009/09/17		103	%	70 - 130
		Bromodichloromethane	2009/09/17		98	%	70 - 130
		Bromoform	2009/09/17		90	%	70 - 130
		Bromomethane	2009/09/17		64 (2)	%	70 - 130
		Carbon Tetrachloride	2009/09/17		107	%	70 - 130
		Chloroethane	2009/09/17		103	%	70 - 130
		Chloroform	2009/09/17		105	%	70 - 130
		Chloromethane	2009/09/17		92	%	70 - 130
		cis-1,2-Dichloroethylene	2009/09/17		101	%	70 - 130
		cis-1,3-Dichloropropene	2009/09/17		96	%	70 - 130
		D4-1,2-Dichloroethane	2009/09/17		101	%	70 - 130
		D8-Toluene	2009/09/17		102	%	70 - 130
		Dibromochloromethane	2009/09/17		97	%	70 - 130
		Ethylbenzene	2009/09/17		101	%	70 - 130
		Ethylene Dibromide	2009/09/17		96	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/09/17		106	%	70 - 130
		o-Xylene	2009/09/17		100	%	70 - 130
		p+m-Xylene	2009/09/17		105	%	70 - 130
		Styrene	2009/09/17		100	%	70 - 130
		Tetrachloroethylene	2009/09/17		109	%	70 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0252

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1941912 MSK	Spiked Blank	Toluene	2009/09/17		101	%	70 - 130
		trans-1,2-Dichloroethylene	2009/09/17		101	%	70 - 130
		trans-1,3-Dichloropropene	2009/09/17		86	%	70 - 130
		Trichloroethylene	2009/09/17		107	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/09/17		103	%	70 - 130
		Vinyl Chloride	2009/09/17		84	%	70 - 130
	Method Blank	1,2-Dichlorobenzene	2009/09/17	<0.5		ug/L	
		1,3-Dichlorobenzene	2009/09/17	<1		ug/L	
		1,4-Dichlorobenzene	2009/09/17	<1		ug/L	
		Chlorobenzene	2009/09/17	<1		ug/L	
		1,1,1-Trichloroethane	2009/09/17	<1		ug/L	
		1,1,2,2-Tetrachloroethane	2009/09/17	<1		ug/L	
		1,1,2-Trichloroethane	2009/09/17	<1		ug/L	
		1,1-Dichloroethane	2009/09/17	<2		ug/L	
		1,1-Dichloroethylene	2009/09/17	<0.5		ug/L	
		1,2-Dichloroethane	2009/09/17	<1		ug/L	
		1,2-Dichloropropane	2009/09/17	<1		ug/L	
		4-Bromofluorobenzene	2009/09/17		99	%	70 - 130
		Benzene	2009/09/17	<1		ug/L	
		Bromodichloromethane	2009/09/17	<1		ug/L	
		Bromoform	2009/09/17	<1		ug/L	
		Bromomethane	2009/09/17	<3		ug/L	
		Carbon Tetrachloride	2009/09/17	<1		ug/L	
		Chloroethane	2009/09/17	<8		ug/L	
		Chloroform	2009/09/17	<1		ug/L	
		Chloromethane	2009/09/17	<8		ug/L	
		cis-1,2-Dichloroethylene	2009/09/17	<2		ug/L	
		cis-1,3-Dichloropropene	2009/09/17	<2		ug/L	
		D4-1,2-Dichloroethane	2009/09/17		102	%	70 - 130
		D8-Toluene	2009/09/17		98	%	70 - 130
		Dibromochloromethane	2009/09/17	<1		ug/L	
		Ethylbenzene	2009/09/17	<1		ug/L	
		Ethylene Dibromide	2009/09/17	<1		ug/L	
		Methylene Chloride(Dichloromethane)	2009/09/17	<3		ug/L	
		o-Xylene	2009/09/17	<1		ug/L	
		p+m-Xylene	2009/09/17	<2		ug/L	
		Styrene	2009/09/17	<1		ug/L	
		Tetrachloroethylene	2009/09/17	<1		ug/L	
		Toluene	2009/09/17	<1		ug/L	
		trans-1,2-Dichloroethylene	2009/09/17	<2		ug/L	
		trans-1,3-Dichloropropene	2009/09/17	<1		ug/L	
		Trichloroethylene	2009/09/17	<1		ug/L	
		Trichlorofluoromethane (FREON 11)	2009/09/17	<8		ug/L	
		Vinyl Chloride	2009/09/17	<0.5		ug/L	
	RPD [DR6006-01]	1,2-Dichlorobenzene	2009/09/18	NC		%	40
		1,3-Dichlorobenzene	2009/09/18	NC		%	40
		1,4-Dichlorobenzene	2009/09/18	NC		%	40
		Chlorobenzene	2009/09/18	NC		%	40
		1,1,1-Trichloroethane	2009/09/18	NC		%	40
		1,1,2,2-Tetrachloroethane	2009/09/18	NC		%	40
		1,1,2-Trichloroethane	2009/09/18	NC		%	40
		1,1-Dichloroethane	2009/09/18	NC		%	40
		1,1-Dichloroethylene	2009/09/18	NC		%	40
		1,2-Dichloroethane	2009/09/18	NC		%	40
		1,2-Dichloropropane	2009/09/18	NC		%	40

Jacques Whitford Limited
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Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0252

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1941912 MSK	RPD [DR6006-01]	Benzene	2009/09/18	NC		%	40
		Bromodichloromethane	2009/09/18	NC		%	40
		Bromoform	2009/09/18	NC		%	40
		Bromomethane	2009/09/18	NC		%	40
		Carbon Tetrachloride	2009/09/18	NC		%	40
		Chloroethane	2009/09/18	NC		%	40
		Chloroform	2009/09/18	NC		%	40
		Chloromethane	2009/09/18	NC		%	40
		cis-1,2-Dichloroethylene	2009/09/18	NC		%	40
		cis-1,3-Dichloropropene	2009/09/18	NC		%	40
		Dibromochloromethane	2009/09/18	NC		%	40
		Ethylbenzene	2009/09/18	NC		%	40
		Ethylene Dibromide	2009/09/18	NC		%	40
		Methylene Chloride(Dichloromethane)	2009/09/18	NC		%	40
		o-Xylene	2009/09/18	NC		%	40
		p+m-Xylene	2009/09/18	NC		%	40
		Styrene	2009/09/18	NC		%	40
		Tetrachloroethylene	2009/09/18	NC		%	40
		Toluene	2009/09/18	NC		%	40
		trans-1,2-Dichloroethylene	2009/09/18	NC		%	40
		trans-1,3-Dichloropropene	2009/09/18	NC		%	40
		Trichloroethylene	2009/09/18	NC		%	40
		Trichlorofluoromethane (FREON 11)	2009/09/18	NC		%	40
		Vinyl Chloride	2009/09/18	NC		%	40
1942005 MCN	Matrix Spike [DR6020-01]	Total Alkalinity (Total as CaCO3)	2009/09/17		96	%	80 - 120
	QC Standard	Total Alkalinity (Total as CaCO3)	2009/09/17		103	%	80 - 120
	Spiked Blank	Total Alkalinity (Total as CaCO3)	2009/09/17		96	%	80 - 120
	Method Blank	Total Alkalinity (Total as CaCO3)	2009/09/17	<5		mg/L	
	RPD [DR6020-01]	Total Alkalinity (Total as CaCO3)	2009/09/17	NC		%	25
1942013 MCN	Matrix Spike [DR6020-01]	Dissolved Chloride (Cl)	2009/09/18		101	%	80 - 120
	QC Standard	Dissolved Chloride (Cl)	2009/09/18		102	%	80 - 120
	Spiked Blank	Dissolved Chloride (Cl)	2009/09/18		99	%	80 - 120
	Method Blank	Dissolved Chloride (Cl)	2009/09/18	<1		mg/L	
	RPD [DR6020-01]	Dissolved Chloride (Cl)	2009/09/18	NC		%	25
1942015 MCN	Matrix Spike [DR6020-01]	Dissolved Sulphate (SO4)	2009/09/18		115	%	80 - 120
	QC Standard	Dissolved Sulphate (SO4)	2009/09/18		107	%	80 - 120
	Spiked Blank	Dissolved Sulphate (SO4)	2009/09/18		106	%	80 - 120
	Method Blank	Dissolved Sulphate (SO4)	2009/09/18	<2		mg/L	
	RPD [DR6020-01]	Dissolved Sulphate (SO4)	2009/09/18	NC		%	25
1942017 MCN	Matrix Spike [DR6020-01]	Reactive Silica (SiO2)	2009/09/18		94	%	80 - 120
	QC Standard	Reactive Silica (SiO2)	2009/09/18		96	%	75 - 125
	Spiked Blank	Reactive Silica (SiO2)	2009/09/18		96	%	80 - 120
	Method Blank	Reactive Silica (SiO2)	2009/09/18	<0.5		mg/L	
	RPD [DR6020-01]	Reactive Silica (SiO2)	2009/09/18	NC		%	25
1942019 MCN	QC Standard	Colour	2009/09/18		100	%	80 - 120
	Method Blank	Colour	2009/09/18	<5		TCU	
	RPD [DR6020-01]	Colour	2009/09/18	NC		%	25
1942023 MCN	Matrix Spike [DR6020-01]	Orthophosphate (P)	2009/09/18		81	%	80 - 120
	QC Standard	Orthophosphate (P)	2009/09/18		98	%	80 - 120
	Spiked Blank	Orthophosphate (P)	2009/09/18		101	%	80 - 120

Jacques Whitford Limited
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Client Project #: 1044856/Z9100
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Project name: HOPEDALE

Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1942023 MCN	Method Blank	Orthophosphate (P)	2009/09/18	<0.01		mg/L	
	RPD [DR6020-01]	Orthophosphate (P)	2009/09/18	NC		%	25
1942026 MCN	Matrix Spike						
	[DR6020-01]	Nitrate + Nitrite	2009/09/18		99	%	80 - 120
	QC Standard	Nitrate + Nitrite	2009/09/18		101	%	80 - 120
	Spiked Blank	Nitrate + Nitrite	2009/09/18		99	%	80 - 120
	Method Blank	Nitrate + Nitrite	2009/09/18	<0.05		mg/L	
	RPD [DR6020-01]	Nitrate + Nitrite	2009/09/18	NC		%	25
1942030 MCN	Matrix Spike						
	[DR6020-01]	Nitrite (N)	2009/09/18		84	%	80 - 120
	QC Standard	Nitrite (N)	2009/09/18		89	%	80 - 120
	Spiked Blank	Nitrite (N)	2009/09/18		99	%	80 - 120
	Method Blank	Nitrite (N)	2009/09/18	<0.01		mg/L	
	RPD [DR6020-01]	Nitrite (N)	2009/09/18	NC		%	25
1942105 CMI	Matrix Spike						
	[DR6039-02]	Decachlorobiphenyl	2009/09/21		97	%	30 - 130
		Total PCB	2009/09/21		123	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/21		71	%	30 - 130
		Total PCB	2009/09/21		119	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/21		85	%	30 - 130
		Total PCB	2009/09/21	<0.05		ug/L	
	RPD [DR6021-02]	Total PCB	2009/09/21	NC		%	40
1942287 MCN	Matrix Spike						
	[DR6006-01]	Nitrogen (Ammonia Nitrogen)	2009/09/17		95	%	80 - 120
	QC Standard	Nitrogen (Ammonia Nitrogen)	2009/09/17		101	%	80 - 120
	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2009/09/17		97	%	80 - 120
	Method Blank	Nitrogen (Ammonia Nitrogen)	2009/09/17	<0.05		mg/L	
	RPD [DR6006-01]	Nitrogen (Ammonia Nitrogen)	2009/09/17	NC		%	25
1942299 MCN	Matrix Spike						
		Nitrogen (Ammonia Nitrogen)	2009/09/18		105	%	80 - 120
	QC Standard	Nitrogen (Ammonia Nitrogen)	2009/09/17		101	%	80 - 120
	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2009/09/17		97	%	80 - 120
	Method Blank	Nitrogen (Ammonia Nitrogen)	2009/09/17	<0.05		mg/L	
	RPD	Nitrogen (Ammonia Nitrogen)	2009/09/18	8.8		%	25
1942840 KGU	QC Standard	Total Aluminum (Al)	2009/09/17		89	%	80 - 120
		Total Antimony (Sb)	2009/09/17		121 (3)	%	80 - 120
		Total Arsenic (As)	2009/09/17		93	%	80 - 120
		Total Barium (Ba)	2009/09/17		90	%	80 - 120
		Total Beryllium (Be)	2009/09/17		100	%	80 - 120
		Total Boron (B)	2009/09/17		85	%	80 - 120
		Total Cadmium (Cd)	2009/09/17		91	%	80 - 120
		Total Chromium (Cr)	2009/09/17		105	%	80 - 120
		Total Cobalt (Co)	2009/09/17		105	%	80 - 120
		Total Copper (Cu)	2009/09/17		106	%	80 - 120
		Total Iron (Fe)	2009/09/17		103	%	80 - 120
		Total Lead (Pb)	2009/09/17		101	%	80 - 120
		Total Manganese (Mn)	2009/09/17		94	%	80 - 120
		Total Molybdenum (Mo)	2009/09/17		102	%	80 - 120
		Total Nickel (Ni)	2009/09/17		107	%	80 - 120
		Total Selenium (Se)	2009/09/17		91	%	80 - 120
		Total Strontium (Sr)	2009/09/17		99	%	80 - 120
		Total Thallium (Tl)	2009/09/17		127 (4)	%	80 - 120
		Total Uranium (U)	2009/09/17		88	%	80 - 120
		Total Vanadium (V)	2009/09/17		106	%	80 - 120
		Total Zinc (Zn)	2009/09/17		94	%	80 - 120
	Spiked Blank	Total Aluminum (Al)	2009/09/17		100	%	80 - 120

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Client Project #: 1044856/Z9100
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Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0252

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1942840 KGU	Spiked Blank	Total Antimony (Sb)	2009/09/17		93	%	80 - 120
		Total Arsenic (As)	2009/09/17		90	%	80 - 120
		Total Barium (Ba)	2009/09/17		90	%	80 - 120
		Total Beryllium (Be)	2009/09/17		93	%	80 - 120
		Total Bismuth (Bi)	2009/09/17		96	%	80 - 120
		Total Boron (B)	2009/09/17		92	%	80 - 120
		Total Cadmium (Cd)	2009/09/17		90	%	80 - 120
		Total Chromium (Cr)	2009/09/17		91	%	80 - 120
		Total Cobalt (Co)	2009/09/17		91	%	80 - 120
		Total Copper (Cu)	2009/09/17		93	%	80 - 120
		Total Lead (Pb)	2009/09/17		96	%	80 - 120
		Total Manganese (Mn)	2009/09/17		98	%	80 - 120
		Total Molybdenum (Mo)	2009/09/17		92	%	80 - 120
		Total Nickel (Ni)	2009/09/17		92	%	80 - 120
		Total Selenium (Se)	2009/09/17		91	%	80 - 120
		Total Silver (Ag)	2009/09/17		96	%	80 - 120
		Total Strontium (Sr)	2009/09/17		92	%	80 - 120
		Total Thallium (Tl)	2009/09/17		93	%	80 - 120
		Total Tin (Sn)	2009/09/17		89	%	80 - 120
		Total Titanium (Ti)	2009/09/17		92	%	80 - 120
		Total Uranium (U)	2009/09/17		96	%	80 - 120
		Total Vanadium (V)	2009/09/17		93	%	80 - 120
		Total Zinc (Zn)	2009/09/17		93	%	80 - 120
	Method Blank	Total Aluminum (Al)	2009/09/17	<5.0		ug/L	
		Total Antimony (Sb)	2009/09/17	<2.0		ug/L	
		Total Arsenic (As)	2009/09/17	<2.0		ug/L	
		Total Barium (Ba)	2009/09/17	<5.0		ug/L	
		Total Beryllium (Be)	2009/09/17	<2.0		ug/L	
		Total Bismuth (Bi)	2009/09/17	<2.0		ug/L	
		Total Boron (B)	2009/09/17	<5.0		ug/L	
		Total Cadmium (Cd)	2009/09/17	<0.017		ug/L	
		Total Chromium (Cr)	2009/09/17	1.6, RDL=1.0		ug/L	
		Total Cobalt (Co)	2009/09/17	<0.40		ug/L	
		Total Copper (Cu)	2009/09/17	<2.0		ug/L	
		Total Iron (Fe)	2009/09/17	<50		ug/L	
		Total Lead (Pb)	2009/09/17	<0.50		ug/L	
		Total Manganese (Mn)	2009/09/17	<2.0		ug/L	
		Total Molybdenum (Mo)	2009/09/17	<2.0		ug/L	
		Total Nickel (Ni)	2009/09/17	<2.0		ug/L	
		Total Selenium (Se)	2009/09/17	<1.0		ug/L	
		Total Silver (Ag)	2009/09/17	<0.10		ug/L	
		Total Strontium (Sr)	2009/09/17	<5.0		ug/L	
		Total Thallium (Tl)	2009/09/17	<0.10		ug/L	
		Total Tin (Sn)	2009/09/17	<2.0		ug/L	
		Total Titanium (Ti)	2009/09/17	<2.0		ug/L	
		Total Uranium (U)	2009/09/17	<0.10		ug/L	
		Total Vanadium (V)	2009/09/17	<2.0		ug/L	
		Total Zinc (Zn)	2009/09/17	<5.0		ug/L	
	RPD [DR6039-01]	Total Aluminum (Al)	2009/09/17	0.3		%	25
		Total Antimony (Sb)	2009/09/17	NC		%	25
		Total Arsenic (As)	2009/09/17	NC		%	25
		Total Barium (Ba)	2009/09/17	NC		%	25
		Total Beryllium (Be)	2009/09/17	NC		%	25
		Total Bismuth (Bi)	2009/09/17	NC		%	25
		Total Boron (B)	2009/09/17	NC		%	25

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Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0252

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1942840 KGU	RPD [DR6039-01]	Total Cadmium (Cd)	2009/09/17	NC		%	25
		Total Chromium (Cr)	2009/09/17	NC		%	25
		Total Cobalt (Co)	2009/09/17	NC		%	25
		Total Copper (Cu)	2009/09/17	NC		%	25
		Total Iron (Fe)	2009/09/17	NC		%	25
		Total Lead (Pb)	2009/09/17	NC		%	25
		Total Manganese (Mn)	2009/09/17	NC		%	25
		Total Molybdenum (Mo)	2009/09/17	NC		%	25
		Total Nickel (Ni)	2009/09/17	NC		%	25
		Total Selenium (Se)	2009/09/17	NC		%	25
		Total Silver (Ag)	2009/09/17	NC		%	25
		Total Strontium (Sr)	2009/09/17	NC		%	25
		Total Thallium (Tl)	2009/09/17	NC		%	25
		Total Tin (Sn)	2009/09/17	NC		%	25
		Total Titanium (Ti)	2009/09/17	NC		%	25
		Total Uranium (U)	2009/09/17	NC		%	25
		Total Vanadium (V)	2009/09/17	NC		%	25
		Total Zinc (Zn)	2009/09/17	NC		%	25
1943293 ABU	Matrix Spike [DR6039-01]	Total Calcium (Ca)	2009/09/18		96	%	80 - 120
		Total Magnesium (Mg)	2009/09/18		97	%	80 - 120
		Total Phosphorus (P)	2009/09/18		102	%	80 - 120
		Total Potassium (K)	2009/09/18		102	%	80 - 120
		Total Sodium (Na)	2009/09/18		103	%	80 - 120
	QC Standard	Total Calcium (Ca)	2009/09/18		101	%	80 - 120
		Total Magnesium (Mg)	2009/09/18		98	%	80 - 120
		Total Phosphorus (P)	2009/09/18		93	%	80 - 120
		Total Potassium (K)	2009/09/18		104	%	80 - 120
		Total Sodium (Na)	2009/09/18		108	%	80 - 120
	Spiked Blank	Total Calcium (Ca)	2009/09/18		95	%	80 - 120
		Total Magnesium (Mg)	2009/09/18		95	%	80 - 120
		Total Phosphorus (P)	2009/09/18		100	%	80 - 120
		Total Potassium (K)	2009/09/18		100	%	80 - 120
		Total Sodium (Na)	2009/09/18		102	%	80 - 120
	Method Blank	Total Calcium (Ca)	2009/09/18	<0.1		mg/L	
		Total Magnesium (Mg)	2009/09/18	<0.1		mg/L	
		Total Phosphorus (P)	2009/09/18	<0.1		mg/L	
		Total Potassium (K)	2009/09/18	<0.1		mg/L	
		Total Sodium (Na)	2009/09/18	<0.1		mg/L	
	RPD [DR6039-01]	Total Calcium (Ca)	2009/09/18	0.9		%	25
		Total Magnesium (Mg)	2009/09/18	NC		%	25
		Total Phosphorus (P)	2009/09/18	NC		%	25
		Total Potassium (K)	2009/09/18	NC		%	25
		Total Sodium (Na)	2009/09/18	0.9		%	25
1943461 KMC	Matrix Spike	Total Organic Carbon (C)	2009/09/18		91	%	75 - 125
	QC Standard	Total Organic Carbon (C)	2009/09/11		93	%	80 - 120
	Spiked Blank	Total Organic Carbon (C)	2009/09/11		118	%	75 - 125
	Method Blank	Total Organic Carbon (C)	2009/09/11	<0.5		mg/L	
	RPD	Total Organic Carbon (C)	2009/09/11	NC		%	25
1943702 ARS	QC Standard	pH	2009/09/18		101	%	80 - 120
	Method Blank	pH	2009/09/18	5.86, RDL=0		pH	
	RPD [DR6040-01]	pH	2009/09/18	0.3		%	25
1943749 ARS	QC Standard	Conductivity	2009/09/18		103	%	80 - 120
	Method Blank	Conductivity	2009/09/18	<1		uS/cm	
	RPD [DR6040-01]	Conductivity	2009/09/18	1.4		%	25

Jacques Whitford Limited
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Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C0252

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1945543 JRC	QC Standard	Turbidity	2009/09/21		101	%	80 - 120
	Method Blank	Turbidity	2009/09/21	0.1, RDL=0.1		NTU	
	RPD [DR6006-01]	Turbidity	2009/09/21	16.0		%	25
1945547 JRC	QC Standard	Turbidity	2009/09/21		100	%	80 - 120
	Method Blank	Turbidity	2009/09/21	<0.1		NTU	
	RPD	Turbidity	2009/09/21	24.3		%	25

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: < 10 % of compounds in multi-component analysis in violation.

(2) Data within statistical control.

(3) Suspect problem with RM. Minimal impact on data quality.

(4) Secondary RM is acceptable.

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: N/A

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/21

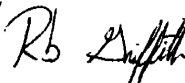
CERTIFICATE OF ANALYSIS**MAXXAM JOB #: A9D6988****Received: 2009/10/10, 9:48**

Sample Matrix: Water
 # Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (PIRI)	5	2009/10/17	2009/10/19	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	1	2009/10/17	2009/10/20	ATL SOP 00113 R3	Based on Atl. PIRI
Metals Water Diss. MS - Low Level	1	N/A	2009/10/19	ATL SOP 00024 R4	Based on EPA6020A
PCBs in water by GC/ECD	2	2009/10/15	2009/10/21	ATL SOP 00107 R3	Based on EPA8082
VPH in Water (PIRI)	2	2009/10/17	2009/10/18	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	4	2009/10/19	2009/10/19	ATL SOP 00118 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	6	N/A	2009/10/20		Based on Atl. PIRI
Volatile Organic Compounds in Water	1	2009/10/16	2009/10/17	ATL SOP 00122 R3	Based on EPA624

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key


 Rob Griffith
 21 Oct 2009 11:20:08 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D6988
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		EA2183		
Sampling Date		2009/10/10		
COC Number		N/A		
	Units	MW-61	RDL	QC Batch

Metals				
Dissolved Aluminum (Al)	ug/L	114	5.0	1976003
Dissolved Antimony (Sb)	ug/L	<2.0	2.0	1976003
Dissolved Arsenic (As)	ug/L	<2.0	2.0	1976003
Dissolved Barium (Ba)	ug/L	46.5	5.0	1976003
Dissolved Beryllium (Be)	ug/L	<2.0	2.0	1976003
Dissolved Bismuth (Bi)	ug/L	<2.0	2.0	1976003
Dissolved Boron (B)	ug/L	54.0	5.0	1976003
Dissolved Cadmium (Cd)	ug/L	<0.017	0.017	1976003
Dissolved Chromium (Cr)	ug/L	<1.0	1.0	1976003
Dissolved Cobalt (Co)	ug/L	<0.40	0.40	1976003
Dissolved Copper (Cu)	ug/L	<2.0	2.0	1976003
Dissolved Iron (Fe)	ug/L	17900	50	1976003
Dissolved Lead (Pb)	ug/L	0.63	0.50	1976003
Dissolved Manganese (Mn)	ug/L	630	2.0	1976003
Dissolved Molybdenum (Mo)	ug/L	<2.0	2.0	1976003
Dissolved Nickel (Ni)	ug/L	<2.0	2.0	1976003
Dissolved Selenium (Se)	ug/L	<1.0	1.0	1976003
Dissolved Silver (Ag)	ug/L	<0.10	0.10	1976003
Dissolved Strontium (Sr)	ug/L	78.3	5.0	1976003
Dissolved Thallium (Tl)	ug/L	<0.10	0.10	1976003
Dissolved Tin (Sn)	ug/L	<2.0	2.0	1976003
Dissolved Titanium (Ti)	ug/L	2.9	2.0	1976003
Dissolved Uranium (U)	ug/L	<0.10	0.10	1976003
Dissolved Vanadium (V)	ug/L	<2.0	2.0	1976003
Dissolved Zinc (Zn)	ug/L	12.3	5.0	1976003

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D6988
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		EA2184		
Sampling Date		2009/10/10		
COC Number		N/A		
	Units	MW-62	RDL	QC Batch

Chlorobenzenes				
1,2-Dichlorobenzene	ug/L	<0.5	0.5	1973541
1,3-Dichlorobenzene	ug/L	<1	1	1973541
1,4-Dichlorobenzene	ug/L	<1	1	1973541
Chlorobenzene	ug/L	<1	1	1973541
Volatile Organics				
1,1,1-Trichloroethane	ug/L	<1	1	1973541
1,1,2,2-Tetrachloroethane	ug/L	<1	1	1973541
1,1,2-Trichloroethane	ug/L	<20 (1)	20	1973541
1,1-Dichloroethane	ug/L	4	2	1973541
1,1-Dichloroethylene	ug/L	<0.5	0.5	1973541
1,2-Dichloroethane	ug/L	<1	1	1973541
1,2-Dichloropropane	ug/L	<2 (1)	2	1973541
Benzene	ug/L	1	1	1973541
Bromodichloromethane	ug/L	<40 (1)	40	1973541
Bromoform	ug/L	<1	1	1973541
Bromomethane	ug/L	<3	3	1973541
Carbon Tetrachloride	ug/L	<1	1	1973541
Chloroethane	ug/L	<8	8	1973541
Chloroform	ug/L	<20 (1)	20	1973541
Chloromethane	ug/L	<8	8	1973541
cis-1,2-Dichloroethylene	ug/L	<2	2	1973541
cis-1,3-Dichloropropene	ug/L	<2	2	1973541
Dibromochloromethane	ug/L	<1	1	1973541
Ethylbenzene	ug/L	1	1	1973541
Ethylene Dibromide	ug/L	<1	1	1973541
Methylene Chloride(Dichloromethane)	ug/L	<3	3	1973541
o-Xylene	ug/L	1	1	1973541
p+m-Xylene	ug/L	6	2	1973541
Styrene	ug/L	<1	1	1973541
Tetrachloroethylene	ug/L	<1	1	1973541

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated VOC RDL(s) due to matrix interference.

Maxxam Job #: A9D6988
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VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		EA2184		
Sampling Date		2009/10/10		
COC Number		N/A		
	Units	MW-62	RDL	QC Batch
Toluene	ug/L	5	1	1973541
trans-1,2-Dichloroethylene	ug/L	<2	2	1973541
trans-1,3-Dichloropropene	ug/L	<1	1	1973541
Trichloroethylene	ug/L	<1	1	1973541
Trichlorofluoromethane (FREON 11)	ug/L	<8	8	1973541
Vinyl Chloride	ug/L	<0.5	0.5	1973541
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	101		1973541
D4-1,2-Dichloroethane	%	101		1973541
D8-Toluene	%	112		1973541
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A9D6988
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Jacques Whitford Limited
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Project name: HOPEDALE
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ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EA2180	EA2181	EA2182		
Sampling Date		2009/10/10	2009/10/10	2009/10/10		
COC Number		N/A	N/A	N/A		
	Units	MW-54	MW-55	MW-56	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/L	<0.001	0.001	0.001	0.001	1975581
Toluene	mg/L	0.002	0.007	0.009	0.001	1975581
Ethylbenzene	mg/L	<0.001	<0.001	0.002	0.001	1975581
Xylene (Total)	mg/L	<0.002	0.005	0.008	0.002	1975581
C6 - C10 (less BTEX)	mg/L	<0.01	<0.01	0.03	0.01	1975581
>C10-C21 Hydrocarbons	mg/L	0.55	0.19	0.35	0.06	1974947
>C21-<C32 Hydrocarbons	mg/L	<0.1	0.1	<0.1	0.1	1974947
Modified TPH (Tier1)	mg/L	0.5	0.3	0.4	0.1	1970923
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	102	100	109		1974947
n-Dotriacontane - Extractable	%	100 (1)	102 (2)	107 (1)		1974947
Isobutylbenzene - Volatile	%	106	109	87		1975581

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. TEH sample decanted due to sediment. Elevated TEH RDL(s) due to insufficient sample.

(2) Weathered fuel oil fraction. Possible lube oil fraction. TEH sample decanted due to sediment. Elevated TEH RDL(s) due to insufficient sample.

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ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EA2183			EA2184		
Sampling Date		2009/10/10			2009/10/10		
COC Number		N/A			N/A		
	Units	MW-61	RDL	QC Batch	MW-62	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	0.001	0.001	1975581	<0.002 (1)	0.002	1975151
Toluene	mg/L	0.006	0.001	1975581	0.006	0.001	1975151
Ethylbenzene	mg/L	0.003	0.001	1975581	0.002	0.001	1975151
Xylene (Total)	mg/L	0.013	0.002	1975581	0.010	0.002	1975151
C6 - C10 (less BTEX)	mg/L	0.17	0.01	1975581	1.0	0.01	1975151
>C10-C21 Hydrocarbons	mg/L	6.8	0.05	1974947	0.19	0.05	1974947
>C21-<C32 Hydrocarbons	mg/L	3.5	0.1	1974947	0.1	0.1	1974947
Modified TPH (Tier1)	mg/L	10	0.1	1970923	1.3	0.1	1970923
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	100		1974947	106		1974947
n-Dotriacontane - Extractable	%	100 (2)		1974947	103 (3)		1974947
Isobutylbenzene - Volatile	%	87		1975581	99		1975151

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VPH RDL(s) due to matrix interference.

(2) Fuel oil fraction. Lube oil fraction. TEH sample contained sediment.

(3) One product in the gas/fuel oil range. Possible lube oil fraction.

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ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EA2185		
Sampling Date		2009/10/10		
COC Number		N/A		
	Units	MW-69	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/L	0.005	0.001	1975151
Toluene	mg/L	0.008	0.001	1975151
Ethylbenzene	mg/L	0.001	0.001	1975151
Xylene (Total)	mg/L	0.005	0.002	1975151
C6 - C10 (less BTEX)	mg/L	<0.01	0.01	1975151
>C10-C21 Hydrocarbons	mg/L	0.20	0.05	1974947
>C21-<C32 Hydrocarbons	mg/L	<0.1	0.1	1974947
Modified TPH (Tier1)	mg/L	0.2	0.1	1970923
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	109		1974947
n-Dotriacontane - Extractable	%	96 (f)		1974947
Isobutylbenzene - Volatile	%	100		1975151

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction.

Maxxam Job #: A9D6988
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POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		EA2183	EA2184	EA2184		
Sampling Date		2009/10/10	2009/10/10	2009/10/10		
COC Number		N/A	N/A	N/A		
	Units	MW-61	MW-62	MW-62 Lab-Dup	RDL	QC Batch

PCBs						
Total PCB	ug/L	<0.05	<0.05	<0.05	0.05	1972637
Surrogate Recovery (%)						
Decachlorobiphenyl	%	27 (1)	56	54		1972637

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PCB sample contained sediment. PCB surrogate not within acceptance limits. Sample past recommended hold time for repeat analysis.

Maxxam Job #: A9D6988
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9D6988

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1972637 RST	Matrix Spike	Decachlorobiphenyl	2009/10/21		61	%	30 - 130
		Total PCB	2009/10/21		97	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/21		32	%	30 - 130
		Total PCB	2009/10/21		119	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/21		32	%	30 - 130
		Total PCB	2009/10/21	<0.05		ug/L	
1973541 MSK	RPD [EA2184-01]	Total PCB	2009/10/21	NC		%	40
		Matrix Spike					
		1,2-Dichlorobenzene	2009/10/17		105	%	70 - 130
		1,3-Dichlorobenzene	2009/10/17		105	%	70 - 130
		1,4-Dichlorobenzene	2009/10/17		105	%	70 - 130
		Chlorobenzene	2009/10/17		111	%	70 - 130
		1,1,1-Trichloroethane	2009/10/17		121	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/10/17		116	%	70 - 130
		1,1,2-Trichloroethane	2009/10/17		121	%	70 - 130
		1,1-Dichloroethane	2009/10/17		121	%	70 - 130
		1,1-Dichloroethylene	2009/10/17		121	%	70 - 130
		1,2-Dichloroethane	2009/10/17		121	%	70 - 130
		1,2-Dichloropropane	2009/10/17		116	%	70 - 130
		4-Bromofluorobenzene	2009/10/17		103	%	70 - 130
		Benzene	2009/10/17		116	%	70 - 130
		Bromodichloromethane	2009/10/17		116	%	70 - 130
		Bromoform	2009/10/17		111	%	70 - 130
		Bromomethane	2009/10/17		100	%	70 - 130
		Carbon Tetrachloride	2009/10/17		126	%	70 - 130
		Chloroethane	2009/10/17		116	%	70 - 130
		Chloroform	2009/10/17		126	%	70 - 130
		Chloromethane	2009/10/17		105	%	70 - 130
		cis-1,2-Dichloroethylene	2009/10/17		120	%	70 - 130
		cis-1,3-Dichloropropene	2009/10/17		111	%	70 - 130
		D4-1,2-Dichloroethane	2009/10/17		105	%	70 - 130
		D8-Toluene	2009/10/17		103	%	70 - 130
		Dibromochloromethane	2009/10/17		111	%	70 - 130
		Ethylbenzene	2009/10/17		111	%	70 - 130
		Ethylene Dibromide	2009/10/17		115	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/10/17		121	%	70 - 130
		o-Xylene	2009/10/17		105	%	70 - 130
		p+m-Xylene	2009/10/17		110	%	70 - 130
		Styrene	2009/10/17		105	%	70 - 130
		Tetrachloroethylene	2009/10/17		116	%	70 - 130
		Toluene	2009/10/17		111	%	70 - 130
		trans-1,2-Dichloroethylene	2009/10/17		121	%	70 - 130
		trans-1,3-Dichloropropene	2009/10/17		105	%	70 - 130
		Trichloroethylene	2009/10/17		121	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/10/17		121	%	70 - 130
		Vinyl Chloride	2009/10/17		100	%	70 - 130
	Spiked Blank	1,2-Dichlorobenzene	2009/10/16		103	%	70 - 130
		1,3-Dichlorobenzene	2009/10/16		102	%	70 - 130
		1,4-Dichlorobenzene	2009/10/16		99	%	70 - 130
		Chlorobenzene	2009/10/16		109	%	70 - 130
		1,1,1-Trichloroethane	2009/10/16		119	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/10/16		111	%	70 - 130
		1,1,2-Trichloroethane	2009/10/16		115	%	70 - 130
		1,1-Dichloroethane	2009/10/16		117	%	70 - 130
		1,1-Dichloroethylene	2009/10/16		118	%	70 - 130
		1,2-Dichloroethane	2009/10/16		115	%	70 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6988

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1973541 MSK	Spiked Blank	1,2-Dichloropropane	2009/10/16		111	%	70 - 130
		4-Bromofluorobenzene	2009/10/16		101	%	70 - 130
		Benzene	2009/10/16		110	%	70 - 130
		Bromodichloromethane	2009/10/16		111	%	70 - 130
		Bromoform	2009/10/16		103	%	70 - 130
		Bromomethane	2009/10/16		90	%	70 - 130
		Carbon Tetrachloride	2009/10/16		118	%	70 - 130
		Chloroethane	2009/10/16		115	%	70 - 130
		Chloroform	2009/10/16		120	%	70 - 130
		Chloromethane	2009/10/16		104	%	70 - 130
		cis-1,2-Dichloroethylene	2009/10/16		113	%	70 - 130
		cis-1,3-Dichloropropene	2009/10/16		103	%	70 - 130
		D4-1,2-Dichloroethane	2009/10/16		104	%	70 - 130
		D8-Toluene	2009/10/16		103	%	70 - 130
		Dibromochloromethane	2009/10/16		107	%	70 - 130
		Ethylbenzene	2009/10/16		106	%	70 - 130
		Ethylene Dibromide	2009/10/16		110	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/10/16		116	%	70 - 130
		o-Xylene	2009/10/16		104	%	70 - 130
		p+m-Xylene	2009/10/16		110	%	70 - 130
		Styrene	2009/10/16		105	%	70 - 130
		Tetrachloroethylene	2009/10/16		110	%	70 - 130
		Toluene	2009/10/16		111	%	70 - 130
		trans-1,2-Dichloroethylene	2009/10/16		114	%	70 - 130
		trans-1,3-Dichloropropene	2009/10/16		101	%	70 - 130
		Trichloroethylene	2009/10/16		115	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/10/16		115	%	70 - 130
		Vinyl Chloride	2009/10/16		99	%	70 - 130
	Method Blank	1,2-Dichlorobenzene	2009/10/16	<0.5		ug/L	
		1,3-Dichlorobenzene	2009/10/16	<1		ug/L	
		1,4-Dichlorobenzene	2009/10/16	<1		ug/L	
		Chlorobenzene	2009/10/16	<1		ug/L	
		1,1,1-Trichloroethane	2009/10/16	<1		ug/L	
		1,1,2,2-Tetrachloroethane	2009/10/16	<1		ug/L	
		1,1,2-Trichloroethane	2009/10/16	<1		ug/L	
		1,1-Dichloroethane	2009/10/16	<2		ug/L	
		1,1-Dichloroethylene	2009/10/16	<0.5		ug/L	
		1,2-Dichloroethane	2009/10/16	<1		ug/L	
		1,2-Dichloropropane	2009/10/16	<1		ug/L	
		4-Bromofluorobenzene	2009/10/16		99	%	70 - 130
		Benzene	2009/10/16	<1		ug/L	
		Bromodichloromethane	2009/10/16	<1		ug/L	
		Bromoform	2009/10/16	<1		ug/L	
		Bromomethane	2009/10/16	<3		ug/L	
		Carbon Tetrachloride	2009/10/16	<1		ug/L	
		Chloroethane	2009/10/16	<8		ug/L	
		Chloroform	2009/10/16	<1		ug/L	
		Chloromethane	2009/10/16	<8		ug/L	
		cis-1,2-Dichloroethylene	2009/10/16	<2		ug/L	
		cis-1,3-Dichloropropene	2009/10/16	<2		ug/L	
		D4-1,2-Dichloroethane	2009/10/16		106	%	70 - 130
		D8-Toluene	2009/10/16		98	%	70 - 130
		Dibromochloromethane	2009/10/16	<1		ug/L	
		Ethylbenzene	2009/10/16	<1		ug/L	
		Ethylene Dibromide	2009/10/16	<1		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6988

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1973541 MSK	Method Blank	Methylene Chloride(Dichloromethane)	2009/10/16	<3		ug/L	
		o-Xylene	2009/10/16	<1		ug/L	
		p+m-Xylene	2009/10/16	<2		ug/L	
		Styrene	2009/10/16	<1		ug/L	
		Tetrachloroethylene	2009/10/16	<1		ug/L	
		Toluene	2009/10/16	<1		ug/L	
		trans-1,2-Dichloroethylene	2009/10/16	<2		ug/L	
		trans-1,3-Dichloropropene	2009/10/16	<1		ug/L	
		Trichloroethylene	2009/10/16	<1		ug/L	
		Trichlorofluoromethane (FREON 11)	2009/10/16	<8		ug/L	
		Vinyl Chloride	2009/10/16	<0.5		ug/L	
	RPD	1,2-Dichlorobenzene	2009/10/16	NC		%	40
		1,3-Dichlorobenzene	2009/10/16	NC		%	40
		1,4-Dichlorobenzene	2009/10/16	NC		%	40
		Chlorobenzene	2009/10/16	NC		%	40
		1,1,1-Trichloroethane	2009/10/16	NC		%	40
		1,1,2,2-Tetrachloroethane	2009/10/16	NC		%	40
		1,1,2-Trichloroethane	2009/10/16	NC		%	40
		1,1-Dichloroethane	2009/10/16	NC		%	40
		1,1-Dichloroethylene	2009/10/16	NC		%	40
		1,2-Dichloroethane	2009/10/16	NC		%	40
		1,2-Dichloropropane	2009/10/16	NC		%	40
		Benzene	2009/10/16	NC		%	40
		Bromodichloromethane	2009/10/16	NC		%	40
		Bromoform	2009/10/16	NC		%	40
		Bromomethane	2009/10/16	NC		%	40
		Carbon Tetrachloride	2009/10/16	NC		%	40
		Chloroethane	2009/10/16	NC		%	40
		Chloroform	2009/10/16	NC		%	40
		Chloromethane	2009/10/16	NC		%	40
		cis-1,2-Dichloroethylene	2009/10/16	NC		%	40
		cis-1,3-Dichloropropene	2009/10/16	NC		%	40
		Dibromochloromethane	2009/10/16	NC		%	40
		Ethylbenzene	2009/10/16	NC		%	40
		Ethylene Dibromide	2009/10/16	NC		%	40
		Methylene Chloride(Dichloromethane)	2009/10/16	NC		%	40
		o-Xylene	2009/10/16	NC		%	40
		p+m-Xylene	2009/10/16	NC		%	40
		Styrene	2009/10/16	NC		%	40
		Tetrachloroethylene	2009/10/16	NC		%	40
		Toluene	2009/10/16	NC		%	40
		trans-1,2-Dichloroethylene	2009/10/16	NC		%	40
		trans-1,3-Dichloropropene	2009/10/16	NC		%	40
		Trichloroethylene	2009/10/16	NC		%	40
		Trichlorofluoromethane (FREON 11)	2009/10/16	NC		%	40
		Vinyl Chloride	2009/10/16	NC		%	40
1974947 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/19		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/19		102	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/19		96	%	30 - 130
	Spiked Blank	>C21-<C32 Hydrocarbons	2009/10/19		105	%	30 - 130
		Isobutylbenzene - Extractable	2009/10/19		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/19		87	%	30 - 130
	Method Blank	>C10-C21 Hydrocarbons	2009/10/19		96	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/19		103	%	30 - 130
		Isobutylbenzene - Extractable	2009/10/19		100	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6988

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1974947 LMU	Method Blank	n-Dotriacontane - Extractable	2009/10/19		76	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/19	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/19	<0.1		mg/L	
	RPD	>C10-C21 Hydrocarbons	2009/10/19	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/19	NC		%	40
1975151 SHL	Matrix Spike	Isobutylbenzene - Volatile	2009/10/17		107	%	70 - 130
		Benzene	2009/10/17		113	%	70 - 130
		Toluene	2009/10/17		113	%	70 - 130
		Ethylbenzene	2009/10/17		109	%	70 - 130
		Xylene (Total)	2009/10/17		109	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/17		102	%	70 - 130
		Benzene	2009/10/17		104	%	70 - 130
		Toluene	2009/10/17		110	%	70 - 130
		Ethylbenzene	2009/10/17		111	%	70 - 130
		Xylene (Total)	2009/10/17		110	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/17		103	%	70 - 130
		Benzene	2009/10/17	<0.001		mg/L	
		Toluene	2009/10/17	<0.001		mg/L	
		Ethylbenzene	2009/10/17	<0.001		mg/L	
		Xylene (Total)	2009/10/17	<0.002		mg/L	
		C6 - C10 (less BTEX)	2009/10/17	<0.01		mg/L	
	RPD	Benzene	2009/10/17	NC		%	40
		Toluene	2009/10/17	NC		%	40
		Ethylbenzene	2009/10/17	NC		%	40
		Xylene (Total)	2009/10/17	NC		%	40
		C6 - C10 (less BTEX)	2009/10/17	NC		%	40
1975581 GTH	Matrix Spike	Isobutylbenzene - Volatile	2009/10/19		106	%	70 - 130
		Benzene	2009/10/19		135 (1)	%	70 - 130
		Toluene	2009/10/19		126	%	70 - 130
		Ethylbenzene	2009/10/19		126	%	70 - 130
		Xylene (Total)	2009/10/19		123	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/19		104	%	70 - 130
		Benzene	2009/10/19		99	%	70 - 130
		Toluene	2009/10/19		108	%	70 - 130
		Ethylbenzene	2009/10/19		108	%	70 - 130
		Xylene (Total)	2009/10/19		107	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/19		109	%	70 - 130
		Benzene	2009/10/19	<0.001		mg/L	
		Toluene	2009/10/19	<0.001		mg/L	
		Ethylbenzene	2009/10/19	<0.001		mg/L	
		Xylene (Total)	2009/10/19	<0.002		mg/L	
		C6 - C10 (less BTEX)	2009/10/19	<0.01		mg/L	
	RPD	Benzene	2009/10/19	NC		%	40
		Toluene	2009/10/19	16.6		%	40
		Ethylbenzene	2009/10/19	NC		%	40
		Xylene (Total)	2009/10/19	NC		%	40
		C6 - C10 (less BTEX)	2009/10/19	NC		%	40
1976003 KGU	QC Standard	Dissolved Aluminum (Al)	2009/10/19		109	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/19		102	%	80 - 120
		Dissolved Arsenic (As)	2009/10/19		79 (2)	%	80 - 120
		Dissolved Barium (Ba)	2009/10/19		98	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/19		83	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/19		94	%	80 - 120
		Dissolved Boron (B)	2009/10/19		87	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/19		91	%	80 - 120

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6988

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1976003 KGU	QC Standard	Dissolved Chromium (Cr)	2009/10/19		108	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/19		105	%	80 - 120
		Dissolved Copper (Cu)	2009/10/19		99	%	80 - 120
		Dissolved Iron (Fe)	2009/10/19		88	%	80 - 120
		Dissolved Lead (Pb)	2009/10/19		97	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/19		96	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/19		103	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/19		101	%	80 - 120
		Dissolved Selenium (Se)	2009/10/19		81	%	80 - 120
		Dissolved Silver (Ag)	2009/10/19		82	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/19		100	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/19		97	%	80 - 120
		Dissolved Vanadium (V)	2009/10/19		111	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/19		96	%	80 - 120
	Spiked Blank	Dissolved Aluminum (Al)	2009/10/19		100	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/19		87	%	80 - 120
		Dissolved Arsenic (As)	2009/10/19		96	%	80 - 120
		Dissolved Barium (Ba)	2009/10/19		100	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/19		102	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/19		101	%	80 - 120
		Dissolved Boron (B)	2009/10/19		89	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/19		99	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/19		103	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/19		103	%	80 - 120
		Dissolved Copper (Cu)	2009/10/19		105	%	80 - 120
		Dissolved Lead (Pb)	2009/10/19		103	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/19		95	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/19		100	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/19		107	%	80 - 120
		Dissolved Selenium (Se)	2009/10/19		97	%	80 - 120
		Dissolved Silver (Ag)	2009/10/19		92	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/19		100	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/19		113	%	80 - 120
		Dissolved Tin (Sn)	2009/10/19		100	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/19		102	%	80 - 120
		Dissolved Uranium (U)	2009/10/19		106	%	80 - 120
		Dissolved Vanadium (V)	2009/10/19		105	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/19		104	%	80 - 120
	Method Blank	Dissolved Aluminum (Al)	2009/10/19	<5.0		ug/L	
		Dissolved Antimony (Sb)	2009/10/19	<2.0		ug/L	
		Dissolved Arsenic (As)	2009/10/19	<2.0		ug/L	
		Dissolved Barium (Ba)	2009/10/19	<5.0		ug/L	
		Dissolved Beryllium (Be)	2009/10/19	<2.0		ug/L	
		Dissolved Bismuth (Bi)	2009/10/19	<2.0		ug/L	
		Dissolved Boron (B)	2009/10/19	<5.0		ug/L	
		Dissolved Cadmium (Cd)	2009/10/19	<0.017		ug/L	
		Dissolved Chromium (Cr)	2009/10/19	<1.0		ug/L	
		Dissolved Cobalt (Co)	2009/10/19	<0.40		ug/L	
		Dissolved Copper (Cu)	2009/10/19	<2.0		ug/L	
		Dissolved Iron (Fe)	2009/10/19	<50		ug/L	
		Dissolved Lead (Pb)	2009/10/19	<0.50		ug/L	
		Dissolved Manganese (Mn)	2009/10/19	<2.0		ug/L	
		Dissolved Molybdenum (Mo)	2009/10/19	<2.0		ug/L	
		Dissolved Nickel (Ni)	2009/10/19	<2.0		ug/L	
		Dissolved Selenium (Se)	2009/10/19	<1.0		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6988

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1976003	KGU	Method Blank	2009/10/19	<0.10		ug/L	
		Dissolved Silver (Ag)	2009/10/19	<0.10		ug/L	
		Dissolved Strontium (Sr)	2009/10/19	<5.0		ug/L	
		Dissolved Thallium (Tl)	2009/10/19	<0.10		ug/L	
		Dissolved Tin (Sn)	2009/10/19	<2.0		ug/L	
		Dissolved Titanium (Ti)	2009/10/19	<2.0		ug/L	
		Dissolved Uranium (U)	2009/10/19	<0.10		ug/L	
		Dissolved Vanadium (V)	2009/10/19	<2.0		ug/L	
		Dissolved Zinc (Zn)	2009/10/19	<5.0		ug/L	
	RPD	Dissolved Aluminum (Al)	2009/10/19	NC		%	35
		Dissolved Antimony (Sb)	2009/10/19	NC		%	25
		Dissolved Arsenic (As)	2009/10/19	2.8		%	25
		Dissolved Barium (Ba)	2009/10/19	1.2		%	25
		Dissolved Beryllium (Be)	2009/10/19	NC		%	25
		Dissolved Bismuth (Bi)	2009/10/19	NC		%	25
		Dissolved Boron (B)	2009/10/19	NC		%	25
		Dissolved Cadmium (Cd)	2009/10/19	NC		%	25
		Dissolved Chromium (Cr)	2009/10/19	NC		%	25
		Dissolved Cobalt (Co)	2009/10/19	NC		%	25
		Dissolved Copper (Cu)	2009/10/19	NC		%	25
		Dissolved Iron (Fe)	2009/10/19	NC		%	25
		Dissolved Lead (Pb)	2009/10/19	NC		%	25
		Dissolved Manganese (Mn)	2009/10/19	0.2		%	25
		Dissolved Molybdenum (Mo)	2009/10/19	NC		%	25
		Dissolved Nickel (Ni)	2009/10/19	NC		%	25
		Dissolved Selenium (Se)	2009/10/19	NC		%	25
		Dissolved Silver (Ag)	2009/10/19	NC		%	25
		Dissolved Strontium (Sr)	2009/10/19	0.6		%	25
		Dissolved Thallium (Tl)	2009/10/19	NC		%	25
		Dissolved Tin (Sn)	2009/10/19	NC		%	25
		Dissolved Titanium (Ti)	2009/10/19	NC		%	25
		Dissolved Uranium (U)	2009/10/19	3.9		%	25
		Dissolved Vanadium (V)	2009/10/19	5.0		%	25
		Dissolved Zinc (Zn)	2009/10/19	NC		%	25

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: results are outside acceptance limit. Analysis was repeated with similar results.

(2) Low recovery due to instrument performance.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: Jim Slade
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/07

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9C2256
Received: 2009/09/15, 10:32

Sample Matrix: Soil
Samples Received: 15

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	7	2009/09/21	2009/09/22	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	15	N/A	2009/09/25	ATL SOP 00024 R4	Based on EPA6020A
Moisture	15	N/A	2009/09/21	ATL SOP 00001 R3	MOE Handbook 1983
PAH Compounds by GCMS (SIM) ¶	1	2009/09/21	2009/09/21	ATL SOP 00102 R3	Based on EPA8270C
PAH Compounds by GCMS (SIM) ¶	3	2009/09/21	2009/09/22	ATL SOP 00102 R3	Based on EPA8270C
PCBs in soil by GC/ECD	15	2009/09/21	2009/09/25	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	7	2009/09/21	2009/09/23	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
Particle size in solids (pipette&sieve)	8	N/A	2009/09/22	ATL SOP 00012 R3	based on MSAMS-1978
Total Organic Carbon in Soil	7	N/A	2009/09/29	ATL SOP 00044 R3/00045 R4	LECO 203-601-224
Total Organic Carbon in Soil	1	N/A	2009/10/01	ATL SOP 00044 R3/00045 R4	LECO 203-601-224
ModTPH (T1) Calc. for Soil	7	2009/09/17	2009/09/23		Based on Atl. PIRI
Volatile Organic Compounds in Soil	4	2009/09/21	2009/09/21	ATL SOP 00123 R3	Based on USEPA SW-84

Sample Matrix: TISSUE
Samples Received: 14

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Metals Tissue MS - Nitric	14	N/A	2009/09/25	ATL SOP 00024 R4	Based on EPA6020A
PCBs in tissue by GC/ECD	14	2009/10/01	2009/10/07	ATL SOP 00110 R3	Based on EPA8082
Sample weight	14	2009/09/24	2009/09/24		

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Carbonate, Bicarbonate and Hydroxide	6	N/A	2009/09/18		
Alkalinity	6	N/A	2009/09/21	ATL SOP 00013 R4	Based on EPA310.2
Chloride	6	N/A	2009/09/21	ATL SOP 00014 R6	Based on SM4500-Cl- ..12

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: Jim Slade
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/07

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

-2-

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Colour	6	N/A	2009/09/21	ATL SOP 00020 R3.	Based on SM2120C
Conductance - water	6	N/A	2009/09/18	ATL SOP 00004 R4/00006 R4	Based on SM2510B
Hardness (calculated as CaCO ₃)	6	N/A	2009/09/22	ATL SOP 00048	Based on SM2340B
Metals Water Total OES - Partial Scan	6	N/A	2009/09/21	ATL SOP 00025 R4	Based on EPA200.7
Metals Water Total MS - Low Level	6	N/A	2009/09/19	ATL SOP 00024 R4	Based on EPA6020A
Ion Balance (% Difference)	6	N/A	2009/09/22		
Anion and Cation Sum	6	N/A	2009/09/22		
Nitrogen Ammonia - water	6	N/A	2009/09/21	ATL SOP 00015 R5	Based on USEPA 350.1
Nitrogen - Nitrate + Nitrite	6	N/A	2009/09/22	ATL SOP 00016 R4	Based on USGS - Enz.
Nitrogen - Nitrite	6	N/A	2009/09/21	ATL SOP 00017 R4	Based on USEPA 354.1
Nitrogen - Nitrate (as N)	6	N/A	2009/09/22	ATL SOP 00018 R3	Based on ASTM D3867
PCBs in water by GC/ECD	4	2009/09/18	2009/10/05	ATL SOP 00107 R3	Based on EPA8082
pH	6	N/A	2009/09/18	ATL SOP 00003 R5/00005 R6	Based on EPA150.1
Phosphorus - ortho	6	N/A	2009/09/21	ATL SOP 00021 R3	Based on USEPA 365.1
Sat. pH and Langelier Index (@ 20C)	6	N/A	2009/09/22		
Sat. pH and Langelier Index (@ 4C)	6	N/A	2009/09/22		
Reactive Silica	6	N/A	2009/09/22	ATL SOP 00022 R3	Based on EPA 366.0
Sulphate	6	N/A	2009/09/21	ATL SOP 00023 R3	Based on EPA 375.4
Total Dissolved Solids (TDS calc)	6	N/A	2009/09/22		
Organic carbon - Total (TOC)	6	N/A	2009/10/05	ATL SOP 00037 R3	Based on SM5310C
Turbidity	6	N/A	2009/10/05	ATL SOP 00011 R4	based on EPA 180.1

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

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Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: Jim Slade
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/07

CERTIFICATE OF ANALYSIS

-3-

Encryption Key



Michelle Hill

08 Oct 2009 09:42:39 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

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Total cover pages: 3

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DS5986			DS5987		
Sampling Date		2009/09/11			2009/09/11		
COC Number		N/A			N/A		
	Units	SED-54	RDL	QC Batch	SED-55	RDL	QC Batch

Inorganics							
Moisture	%	87	1	1944662	91	1	1944662
Organic Carbon (TOC)	g/kg	100	2	1957257	160	0.8	1956194
< -4 Phi (16 mm)	%	100	0.1	1946362	100	0.1	1946362
< -3 Phi (8 mm)	%	100	0.1	1946362	100	0.1	1946362
< -2 Phi (4 mm)	%	100	0.1	1946362	100	0.1	1946362
< -1 Phi (2 mm)	%	71	0.1	1946362	67	0.1	1946362
< 0 Phi (1 mm)	%	55	0.1	1946362	55	0.1	1946362
< +1 Phi (0.5 mm)	%	45	0.1	1946362	47	0.1	1946362
< +2 Phi (0.25 mm)	%	37	0.1	1946362	39	0.1	1946362
< +3 Phi (0.12 mm)	%	29	0.1	1946362	29	0.1	1946362
< +4 Phi (0.062 mm)	%	23	0.1	1946362	25	0.1	1946362
< +5 Phi (0.031 mm)	%	20	0.1	1946362	22	0.1	1946362
< +6 Phi (0.016 mm)	%	15	0.1	1946362	19	0.1	1946362
< +7 Phi (0.0078 mm)	%	9.5	0.1	1946362	14	0.1	1946362
< +8 Phi (0.0039 mm)	%	7.5	0.1	1946362	11	0.1	1946362
< +9 Phi (0.0020 mm)	%	6.0	0.1	1946362	8.1	0.1	1946362
Gravel	%	29	0.1	1946362	33	0.1	1946362
Sand	%	48	0.1	1946362	42	0.1	1946362
Silt	%	16	0.1	1946362	13	0.1	1946362
Clay	%	7.5	0.1	1946362	11	0.1	1946362

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DS5988		DS5989		DS5990		
Sampling Date		2009/09/11		2009/09/11		2009/09/11		
COC Number		N/A		N/A		N/A		
	Units	SED-56	RDL	SED-57	RDL	SED-58	RDL	QC Batch

Inorganics								
Moisture	%	42	1	92	1	22	1	1944662
Organic Carbon (TOC)	g/kg	5.4	0.2	160	0.9	5.0	0.2	1956194
< -4 Phi (16 mm)	%	100	0.1	100	0.1	100	0.1	1946362
< -3 Phi (8 mm)	%	100	0.1	100	0.1	100	0.1	1946362
< -2 Phi (4 mm)	%	100	0.1	100	0.1	100	0.1	1946362
< -1 Phi (2 mm)	%	94	0.1	56	0.1	74	0.1	1946362
< 0 Phi (1 mm)	%	90	0.1	48	0.1	64	0.1	1946362
< +1 Phi (0.5 mm)	%	88	0.1	43	0.1	58	0.1	1946362
< +2 Phi (0.25 mm)	%	84	0.1	38	0.1	55	0.1	1946362
< +3 Phi (0.12 mm)	%	73	0.1	30	0.1	48	0.1	1946362
< +4 Phi (0.062 mm)	%	54	0.1	27	0.1	38	0.1	1946362
< +5 Phi (0.031 mm)	%	38	0.1	24	0.1	29	0.1	1946362
< +6 Phi (0.016 mm)	%	25	0.1	21	0.1	19	0.1	1946362
< +7 Phi (0.0078 mm)	%	12	0.1	16	0.1	9.3	0.1	1946362
< +8 Phi (0.0039 mm)	%	8.2	0.1	14	0.1	7.1	0.1	1946362
< +9 Phi (0.0020 mm)	%	4.2	0.1	7.5	0.1	4.2	0.1	1946362
Gravel	%	6.0	0.1	44	0.1	26	0.1	1946362
Sand	%	40	0.1	30	0.1	37	0.1	1946362
Silt	%	45	0.1	13	0.1	30	0.1	1946362
Clay	%	8.2	0.1	14	0.1	7.1	0.1	1946362

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DS5991	DS5992	DS5993	DS5994	DS5995		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SED-65	SED-66	SED-67	SED-68	SED-59	RDL	QC Batch

Inorganics								
Moisture	%	25	14	4	11	52	1	1944662

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DS5996	DS5997		DS6001	DS6001		
Sampling Date		2009/09/11	2009/09/11		2009/09/13	2009/09/13		
COC Number		N/A	N/A		N/A	N/A		
	Units	SED-60	SED-61	RDL	SED-69	SED-69 Lab-Dup	RDL	QC Batch

Inorganics								
Moisture	%	23	21	1	41		1	1944662
Organic Carbon (TOC)	g/kg			0.2	25		0.4	1956194
< -4 Phi (16 mm)	%			0.1	100	100	0.1	1946362
< -3 Phi (8 mm)	%			0.1	100	100	0.1	1946362
< -2 Phi (4 mm)	%			0.1	100	100	0.1	1946362
< -1 Phi (2 mm)	%			0.1	98	91	0.1	1946362
< 0 Phi (1 mm)	%			0.1	96	85	0.1	1946362
< +1 Phi (0.5 mm)	%			0.1	85	73	0.1	1946362
< +2 Phi (0.25 mm)	%			0.1	53	41	0.1	1946362
< +3 Phi (0.12 mm)	%			0.1	23	17 (1)	0.1	1946362
< +4 Phi (0.062 mm)	%			0.1	6.5	5.2	0.1	1946362
< +5 Phi (0.031 mm)	%			0.1	3.2	3.5	0.1	1946362
< +6 Phi (0.016 mm)	%			0.1	1.9	2.3	0.1	1946362
< +7 Phi (0.0078 mm)	%			0.1	1.0	1.3 (1)	0.1	1946362
< +8 Phi (0.0039 mm)	%			0.1	0.8	1.2 (1)	0.1	1946362
< +9 Phi (0.0020 mm)	%			0.1	0.8	1.0 (1)	0.1	1946362
Gravel	%			0.1	1.8	9.1 (2)	0.1	1946362
Sand	%			0.1	92	86	0.1	1946362
Silt	%			0.1	5.8	4.0 (2)	0.1	1946362
Clay	%			0.1	0.8	1.2 (2)	0.1	1946362

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) %RPD criteria not applicable for individual PHI fractions.

(2) %RPD acceptable. Absolute duplicate values agree within 10%.

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DS6002		DS6003		
Sampling Date		2009/09/13		2009/09/13		
COC Number		N/A		N/A		
	Units	SED-70	RDL	SED-71	RDL	QC Batch

Inorganics						
Moisture	%	24	1	88	1	1944662
Organic Carbon (TOC)	g/kg	5.1	0.2	110	0.5	1956194
< -4 Phi (16 mm)	%	100	0.1	100	0.1	1946362
< -3 Phi (8 mm)	%	100	0.1	100	0.1	1946362
< -2 Phi (4 mm)	%	100	0.1	100	0.1	1946362
< -1 Phi (2 mm)	%	97	0.1	82	0.1	1946362
< 0 Phi (1 mm)	%	92	0.1	51	0.1	1946362
< +1 Phi (0.5 mm)	%	84	0.1	40	0.1	1946362
< +2 Phi (0.25 mm)	%	59	0.1	33	0.1	1946362
< +3 Phi (0.12 mm)	%	12	0.1	25	0.1	1946362
< +4 Phi (0.062 mm)	%	2.3	0.1	17	0.1	1946362
< +5 Phi (0.031 mm)	%	1.4	0.1	15	0.1	1946362
< +6 Phi (0.016 mm)	%	0.9	0.1	11	0.1	1946362
< +7 Phi (0.0078 mm)	%	0.6	0.1	7.1	0.1	1946362
< +8 Phi (0.0039 mm)	%	0.5	0.1	6.3	0.1	1946362
< +9 Phi (0.0020 mm)	%	0.6	0.1	5.4	0.1	1946362
Gravel	%	2.5	0.1	18	0.1	1946362
Sand	%	95	0.1	66	0.1	1946362
Silt	%	1.8	0.1	10	0.1	1946362
Clay	%	0.5	0.1	6.3	0.1	1946362

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DS5986	DS5987	DS5988	DS5989		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-54	SED-55	SED-56	SED-57	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	16000	26000	14000	24000	10	1951917
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1951917
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1951917
Available Barium (Ba)	mg/kg	23	26	18	21	5	1951917
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1951917
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1951917
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1951917
Available Cadmium (Cd)	mg/kg	0.3	1.3	<0.3	0.7	0.3	1951917
Available Chromium (Cr)	mg/kg	20	26	20	27	2	1951917
Available Cobalt (Co)	mg/kg	4	8	6	8	1	1951917
Available Copper (Cu)	mg/kg	17	38	23	36	2	1951917
Available Iron (Fe)	mg/kg	11000	11000	11000	12000	50	1951917
Available Lead (Pb)	mg/kg	11	4.3	2.6	3.7	0.5	1951917
Available Lithium (Li)	mg/kg	4	3	6	3	2	1951917
Available Manganese (Mn)	mg/kg	140	180	91	140	2	1951917
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1951917
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1951917
Available Nickel (Ni)	mg/kg	14	21	20	20	2	1951917
Available Rubidium (Rb)	mg/kg	<2	<2	4	<2	2	1951917
Available Selenium (Se)	mg/kg	<2	2	<2	3	2	1951917
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1951917
Available Strontium (Sr)	mg/kg	16	15	15	14	5	1951917
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	0.2	0.1	1951917
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1951917
Available Uranium (U)	mg/kg	3.3	8.2	2.9	8.8	0.1	1951917
Available Vanadium (V)	mg/kg	23	45	27	56	2	1951917
Available Zinc (Zn)	mg/kg	38	160	29	160	5	1951917

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DS5990	DS5991	DS5992	DS5993		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-58	SED-65	SED-66	SED-67	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	9800	8000	8300	4600	10	1951917
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1951917
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1951917
Available Barium (Ba)	mg/kg	14	30	40	21	5	1951917
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1951917
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1951917
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1951917
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1951917
Available Chromium (Cr)	mg/kg	13	15	16	10	2	1951917
Available Cobalt (Co)	mg/kg	6	8	6	4	1	1951917
Available Copper (Cu)	mg/kg	16	6	13	9	2	1951917
Available Iron (Fe)	mg/kg	9400	9800	12000	7800	50	1951917
Available Lead (Pb)	mg/kg	2.4	2.8	4.2	4.4	0.5	1951917
Available Lithium (Li)	mg/kg	6	7	10	8	2	1951917
Available Manganese (Mn)	mg/kg	84	240	230	130	2	1951917
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1951917
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1951917
Available Nickel (Ni)	mg/kg	18	12	13	8	2	1951917
Available Rubidium (Rb)	mg/kg	3	6	13	10	2	1951917
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1951917
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1951917
Available Strontium (Sr)	mg/kg	10	18	15	7	5	1951917
Available Thallium (Tl)	mg/kg	<0.1	<0.1	0.1	0.1	0.1	1951917
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1951917
Available Uranium (U)	mg/kg	1.9	0.4	0.5	5.7	0.1	1951917
Available Vanadium (V)	mg/kg	21	18	22	15	2	1951917
Available Zinc (Zn)	mg/kg	35	38	46	31	5	1951917

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DS5994	DS5995	DS5996	DS5997		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-68	SED-59	SED-60	SED-61	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	3000	10000	10000	1300	10	1951917
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1951917
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1951917
Available Barium (Ba)	mg/kg	13	25	20	<5	5	1951917
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1951917
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1951917
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1951917
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1951917
Available Chromium (Cr)	mg/kg	6	16	19	3	2	1951917
Available Cobalt (Co)	mg/kg	3	7	4	<1	1	1951917
Available Copper (Cu)	mg/kg	5	18	13	<2	2	1951917
Available Iron (Fe)	mg/kg	5900	22000	10000	2000	50	1951917
Available Lead (Pb)	mg/kg	3.1	5.8	6.5	1.6	0.5	1951917
Available Lithium (Li)	mg/kg	6	5	7	<2	2	1951917
Available Manganese (Mn)	mg/kg	92	240	81	22	2	1951917
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1951917
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1951917
Available Nickel (Ni)	mg/kg	5	10	11	2	2	1951917
Available Rubidium (Rb)	mg/kg	6	4	5	<2	2	1951917
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1951917
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1951917
Available Strontium (Sr)	mg/kg	<5	18	12	5	5	1951917
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1951917
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1951917
Available Uranium (U)	mg/kg	0.2	4.2	1.8	<0.1	0.1	1951917
Available Vanadium (V)	mg/kg	9	22	25	5	2	1951917
Available Zinc (Zn)	mg/kg	26	35	23	6	5	1951917

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DS6001	DS6001	DS6002	DS6003		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-69	SED-69 Lab-Dup	SED-70	SED-71	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	4600	5800	2600	18000	10	1951917
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1951917
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1951917
Available Barium (Ba)	mg/kg	14	16	8	53	5	1951917
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1951917
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1951917
Available Boron (B)	mg/kg	<5	<5	<5	5	5	1951917
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1951917
Available Chromium (Cr)	mg/kg	11	13	5	39	2	1951917
Available Cobalt (Co)	mg/kg	3	3	2	8	1	1951917
Available Copper (Cu)	mg/kg	3	4	2	25	2	1951917
Available Iron (Fe)	mg/kg	6400	7700	3400	13000	50	1951917
Available Lead (Pb)	mg/kg	3.2	3.8	1.5	3.4	0.5	1951917
Available Lithium (Li)	mg/kg	4	6	3	9	2	1951917
Available Manganese (Mn)	mg/kg	51	65	32	100	2	1951917
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1951917
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1951917
Available Nickel (Ni)	mg/kg	8	9	4	26	2	1951917
Available Rubidium (Rb)	mg/kg	3	3	<2	7	2	1951917
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1951917
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1951917
Available Strontium (Sr)	mg/kg	7	8	5	23	5	1951917
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	0.1	0.1	1951917
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1951917
Available Uranium (U)	mg/kg	0.4	0.5	0.2	2.7	0.1	1951917
Available Vanadium (V)	mg/kg	12	14	6	33	2	1951917
Available Zinc (Zn)	mg/kg	25	26	10	51	5	1951917

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DS5991	DS5992	DS5993	DS5994		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-65	SED-66	SED-67	SED-68	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
2-Methylnaphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Benzo(a)anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Benzo(a)pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Benzo(b)fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Benzo(g,h,i)perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Benzo(k)fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Chrysene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Dibenz(a,h)anthracene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Fluorene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Indeno(1,2,3-cd)pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Naphthalene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Perylene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Phenanthrene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Pyrene	mg/kg	<0.01	<0.01	<0.01	<0.01	0.01	1945549
Surrogate Recovery (%)							
D10-Anthracene	%	105	107	109	96		1945549
D14-Terphenyl (FS)	%	91	91	89	88		1945549
D8-Acenaphthylene	%	108	107	110	91		1945549

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DS5994		
Sampling Date		2009/09/11		
COC Number		N/A		
	Units	SED-68 Lab-Dup	RDL	QC Batch

Polyaromatic Hydrocarbons				
1-Methylnaphthalene	mg/kg	<0.01	0.01	1945549
2-Methylnaphthalene	mg/kg	<0.01	0.01	1945549
Acenaphthene	mg/kg	<0.01	0.01	1945549
Acenaphthylene	mg/kg	<0.01	0.01	1945549
Anthracene	mg/kg	<0.01	0.01	1945549
Benzo(a)anthracene	mg/kg	<0.01	0.01	1945549
Benzo(a)pyrene	mg/kg	<0.01	0.01	1945549
Benzo(b)fluoranthene	mg/kg	<0.01	0.01	1945549
Benzo(g,h,i)perylene	mg/kg	<0.01	0.01	1945549
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	1945549
Chrysene	mg/kg	<0.01	0.01	1945549
Dibenz(a,h)anthracene	mg/kg	<0.01	0.01	1945549
Fluoranthene	mg/kg	<0.01	0.01	1945549
Fluorene	mg/kg	<0.01	0.01	1945549
Indeno(1,2,3-cd)pyrene	mg/kg	<0.01	0.01	1945549
Naphthalene	mg/kg	<0.01	0.01	1945549
Perylene	mg/kg	<0.01	0.01	1945549
Phenanthrene	mg/kg	<0.01	0.01	1945549
Pyrene	mg/kg	<0.01	0.01	1945549
Surrogate Recovery (%)				
D10-Anthracene	%	101		1945549
D14-Terphenyl (FS)	%	94		1945549
D8-Acenaphthylene	%	98		1945549

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DS5991	DS5992	DS5993	DS5994		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-65	SED-66	SED-67	SED-68	RDL	QC Batch

Volatile Organics							
1,1,1-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1945323
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	<30	<30	30	1945323
1,1,2-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1945323
1,1-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1945323
1,1-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1945323
1,2-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1945323
1,2-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1945323
1,2-Dichloropropane	ug/kg	<30	<30	<30	<30	30	1945323
1,3-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1945323
1,4-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1945323
Benzene	ug/kg	<30	<30	<30	<30	30	1945323
Bromodichloromethane	ug/kg	<30	<30	<30	<30	30	1945323
Bromoform	ug/kg	<30	<30	<30	<30	30	1945323
Bromomethane	ug/kg	<200	<200	<200	<200	200	1945323
Carbon Tetrachloride	ug/kg	<30	<30	<30	<30	30	1945323
Chlorobenzene	ug/kg	<30	<30	<30	<30	30	1945323
Chloroform	ug/kg	<30	<30	<30	<30	30	1945323
Chloromethane	ug/kg	<30	<30	<30	<30	30	1945323
cis-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1945323
cis-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1945323
Dibromochloromethane	ug/kg	<30	<30	<30	<30	30	1945323
Ethylbenzene	ug/kg	<30	<30	<30	<30	30	1945323
Ethylene Dibromide	ug/kg	<30	<30	<30	<30	30	1945323
Methylene Chloride(Dichloromethane)	ug/kg	<30	<30	<30	<30	30	1945323
o-Xylene	ug/kg	<30	<30	<30	<30	30	1945323
p+m-Xylene	ug/kg	<30	<30	<30	<30	30	1945323
Styrene	ug/kg	<30	<30	<30	<30	30	1945323
Tetrachloroethylene	ug/kg	<30	<30	<30	<30	30	1945323
Toluene	ug/kg	<30	<30	<30	<30	30	1945323
trans-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1945323

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DS5991	DS5992	DS5993	DS5994		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-65	SED-66	SED-67	SED-68	RDL	QC Batch
trans-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1945323
Trichloroethylene	ug/kg	<30	<30	<30	<30	30	1945323
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	<30	<30	30	1945323
Vinyl Chloride	ug/kg	<30	<30	<30	<30	30	1945323
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	96	97	92	99		1945323
D4-1,2-Dichloroethane	%	105	105	100	108		1945323
D8-Toluene	%	99	100	95	103		1945323
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DS5991	DS5991	DS5992	DS5993		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-65	SED-65 Lab-Dup	SED-66	SED-67	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1945101
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1945101
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1945101
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1945101
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1945101
>C10-C21 Hydrocarbons	mg/kg	61		32	19	15	1945191
>C21-<C32 Hydrocarbons	mg/kg	33		68	63	15	1945191
Modified TPH (Tier1)	mg/kg	94		100	82	20	1942173
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	83		82	94		1945191
n-Dotriacontane - Extractable	%	95 (1)		85 (2)	90 (2)		1945191
Isobutylbenzene - Volatile	%	99	107	94	91		1945101

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range. Weathered fuel oil fraction.
(2) One product in fuel / lube range.

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DS5994	DS5995	DS5996	DS5997		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-68	SED-59	SED-60	SED-61	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1945101
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1945101
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1945101
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1945101
C6 - C10 (less BTEX)	mg/kg	<3	<3	5	<3	3	1945101
>C10-C21 Hydrocarbons	mg/kg	21	1600	1600	240	15	1945191
>C21-<C32 Hydrocarbons	mg/kg	84	360	83	71	15	1945191
Modified TPH (Tier1)	mg/kg	110	2000	1600	310	20	1942173
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	86	77	89	68		1945191
n-Dotriacontane - Extractable	%	89 (1)	99 (2)	99 (2)	117 (2)		1945191
Isobutylbenzene - Volatile	%	100	89	90	103		1945101

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range.

(2) One product in fuel / lube range. Weathered fuel oil fraction.

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DS5986	DS5987	DS5988	DS5988		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-54	SED-55	SED-56	SED-56 Lab-Dup	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1945166
Surrogate Recovery (%)							
Decachlorobiphenyl	%	77	79	82	88		1945166
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DS5989	DS5990	DS5991	DS5992		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-57	SED-58	SED-65	SED-66	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1945166
Surrogate Recovery (%)							
Decachlorobiphenyl	%	76	76	81	78		1945166
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DS5993	DS5994	DS5995	DS5996		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-67	SED-68	SED-59	SED-60	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.48	0.40	<0.05	<0.05	0.05	1945166
Surrogate Recovery (%)							
Decachlorobiphenyl	%	76 (1)	77 (1)	77	79		1945166
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DS5997	DS6001	DS6002	DS6003		
Sampling Date		2009/09/11	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-61	SED-69	SED-70	SED-71	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1945166
Surrogate Recovery (%)							
Decachlorobiphenyl	%	75	78	79	78		1945166

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF TISSUE

Maxxam ID		DS6004	DS6005	DS6006	DS6007	DS6008		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SM-2	SM-3	SM-4	SM-5	SM-16	RDL	QC Batch

Inorganics								
Weight	g	15.3	14.1	17.6	18.2	16.7	0.1	1949098
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DS6009	DS6010	DS6011	DS6012	DS6013		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SM-17	SM-20	SM-29	SM-30	SM-31	RDL	QC Batch

Inorganics								
Weight	g	18.3	16.4	13.5	20.7	23.6	0.1	1949098
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DS6014	DS6015	DS6016	DS6017		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A		
	Units	SM-32	SM-34	SM-36	SM-37	RDL	QC Batch

Inorganics							
Weight	g	17.6	19.2	18.4	19.1	0.1	1949098
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (TISSUE)

Maxxam ID		DS6004	DS6005	DS6006	DS6007	DS6008		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SM-2	SM-3	SM-4	SM-5	SM-16	RDL	QC Batch

Metals								
Aluminum (Al)	mg/kg	25.9	17.5	17.8	4.6	<2.5	2.5	1952237
Antimony (Sb)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Arsenic (As)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Barium (Ba)	mg/kg	<1.5	1.7	3.6	4.1	1.9	1.5	1952237
Beryllium (Be)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Boron (B)	mg/kg	<1.5	<1.5	<1.5	<1.5	<1.5	1.5	1952237
Cadmium (Cd)	mg/kg	<0.050	<0.050	0.060	<0.050	<0.050	0.050	1952237
Chromium (Cr)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Cobalt (Co)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	1952237
Copper (Cu)	mg/kg	3.04	2.40	2.76	3.24	3.55	0.50	1952237
Iron (Fe)	mg/kg	68	64	72	62	72	15	1952237
Lead (Pb)	mg/kg	0.26	<0.18	0.26	0.30	0.18	0.18	1952237
Lithium (Li)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Manganese (Mn)	mg/kg	17.0	6.43	1.77	1.61	1.70	0.50	1952237
Molybdenum (Mo)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Nickel (Ni)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Silver (Ag)	mg/kg	<0.12	<0.12	<0.12	<0.12	<0.12	0.12	1952237
Strontium (Sr)	mg/kg	<1.5	2.7	5.4	6.8	8.6	1.5	1952237
Thallium (Tl)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	1952237
Tin (Sn)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Uranium (U)	mg/kg	0.052	<0.020	<0.020	<0.020	<0.020	0.020	1952237
Vanadium (V)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Zinc (Zn)	mg/kg	17.9	21.5	25.8	25.7	27.7	1.5	1952237

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (TISSUE)

Maxxam ID		DS6009	DS6010	DS6011	DS6011	DS6012		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SM-17	SM-20	SM-29	SM-29 Lab-Dup	SM-30	RDL	QC Batch

Metals								
Aluminum (Al)	mg/kg	88.0	3.3	<2.5	<2.5	11.4	2.5	1952237
Antimony (Sb)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Arsenic (As)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Barium (Ba)	mg/kg	3.3	6.8	<1.5	3.3	<1.5	1.5	1952237
Beryllium (Be)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Boron (B)	mg/kg	<1.5	<1.5	<1.5	<1.5	1.8	1.5	1952237
Cadmium (Cd)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	1952237
Chromium (Cr)	mg/kg	0.71	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Cobalt (Co)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	1952237
Copper (Cu)	mg/kg	3.66	2.60	3.90	3.04	4.35	0.50	1952237
Iron (Fe)	mg/kg	192	39	67	67	57	15	1952237
Lead (Pb)	mg/kg	<0.18	0.34	<0.18	0.34	0.45	0.18	1952237
Lithium (Li)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Manganese (Mn)	mg/kg	7.84	1.70	3.08	2.03 (1)	5.48	0.50	1952237
Molybdenum (Mo)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Nickel (Ni)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Silver (Ag)	mg/kg	<0.12	<0.12	<0.12	<0.12	<0.12	0.12	1952237
Strontium (Sr)	mg/kg	3.1	8.6	<1.5	4.1	<1.5	1.5	1952237
Thallium (Tl)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	1952237
Tin (Sn)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Uranium (U)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	1952237
Vanadium (V)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Zinc (Zn)	mg/kg	23.9	29.3	23.6	23.8	23.1	1.5	1952237

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Poor RPD due to sample inhomogeneity.

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (TISSUE)

Maxxam ID		DS6013	DS6014	DS6015	DS6016	DS6017		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SM-31	SM-32	SM-34	SM-36	SM-37	RDL	QC Batch

Metals								
Aluminum (Al)	mg/kg	12.9	10.5	3.2	2.7	6.3	2.5	1952237
Antimony (Sb)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Arsenic (As)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Barium (Ba)	mg/kg	9.1	<1.5	3.7	7.2	4.1	1.5	1952237
Beryllium (Be)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Boron (B)	mg/kg	<1.5	<1.5	<1.5	<1.5	<1.5	1.5	1952237
Cadmium (Cd)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	1952237
Chromium (Cr)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Cobalt (Co)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	1952237
Copper (Cu)	mg/kg	2.65	2.97	2.67	2.30	2.60	0.50	1952237
Iron (Fe)	mg/kg	93	50	48	41	58	15	1952237
Lead (Pb)	mg/kg	1.33	0.20	0.27	<0.18	0.55	0.18	1952237
Lithium (Li)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Manganese (Mn)	mg/kg	3.25	5.75	3.12	5.21	5.27	0.50	1952237
Molybdenum (Mo)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Nickel (Ni)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Silver (Ag)	mg/kg	<0.12	<0.12	<0.12	<0.12	<0.12	0.12	1952237
Strontium (Sr)	mg/kg	11.0	<1.5	11.4	7.3	5.0	1.5	1952237
Thallium (Tl)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	1952237
Tin (Sn)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Uranium (U)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	1952237
Vanadium (V)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	1952237
Zinc (Zn)	mg/kg	28.5	23.4	25.8	23.7	24.8	1.5	1952237

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (TISSUE)

Maxxam ID		DS6004	DS6005	DS6006	DS6007		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A		
	Units	SM-2	SM-3	SM-4	SM-5	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	0.51	0.34	0.05	1957638
Surrogate Recovery (%)							
Decachlorobiphenyl	%	75	87	74 (1)	90 (2)		1957638
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1254, 1260. (2) Aroclor 1260.							

Maxxam ID		DS6008	DS6009	DS6010	DS6011		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A		
	Units	SM-16	SM-17	SM-20	SM-29	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.15	0.08	0.23	<0.05	0.05	1957638
Surrogate Recovery (%)							
Decachlorobiphenyl	%	94 (1)	71 (1)	81 (1)	101		1957638
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (TISSUE)

Maxxam ID		DS6012	DS6013	DS6013	DS6014		
Sampling Date		2009/09/13	2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A		
	Units	SM-30	SM-31	SM-31 Lab-Dup	SM-32	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	0.16	0.05	1957638
Surrogate Recovery (%)							
Decachlorobiphenyl	%	73	71	72	104 (1)		1957638

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DS6015	DS6016	DS6017		
Sampling Date		2009/09/13	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A		
	Units	SM-34	SM-36	SM-37	RDL	QC Batch

PCBs						
Total PCB	ug/g	0.15	0.09	0.13	0.05	1957638
Surrogate Recovery (%)						
Decachlorobiphenyl	%	78 (1)	73 (1)	72 (1)		1957638

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF WATER

Maxxam ID		DS5982	DS5982		DS5984		
Sampling Date		2009/09/11	2009/09/11		2009/09/11		
COC Number		N/A	N/A		N/A		
	Units	SW-7	SW-7 Lab-Dup	QC Batch	SW-8	RDL	QC Batch

Calculated Parameters							
Anion Sum	me/L	0.0900		1942153	0.160	N/A	1942153
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	<1		1942139	<1	1	1942139
Calculated TDS	mg/L	7		1942172	10	1	1942172
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1		1942139	<1	1	1942139
Cation Sum	me/L	0.180		1942153	0.170	N/A	1942153
Hardness (CaCO3)	mg/L	4		1942151	3	1	1942151
Ion Balance (% Difference)	%	33.3		1942152	3.03	N/A	1942152
Langelier Index (@ 20C)	N/A	NC		1942168	NC		1942168
Langelier Index (@ 4C)	N/A	NC		1942169	NC		1942169
Nitrate (N)	mg/L	<0.05		1942154	<0.05	0.05	1942154
Saturation pH (@ 20C)	N/A	NC		1942168	NC		1942168
Saturation pH (@ 4C)	N/A	NC		1942169	NC		1942169
Inorganics							
Total Alkalinity (Total as CaCO3)	mg/L	<5		1944868	<5	5	1944880
Dissolved Chloride (Cl)	mg/L	3		1944869	3	1	1944884
Colour	TCU	7		1944872	<5	5	1944887
Nitrate + Nitrite	mg/L	<0.05		1944874	<0.05	0.05	1944889
Nitrite (N)	mg/L	<0.01		1944875	<0.01	0.01	1944890
Nitrogen (Ammonia Nitrogen)	mg/L	<0.05		1945327	<0.05	0.05	1945327
Total Organic Carbon (C)	mg/L	2.2		1961815	2.5	0.5	1961815
Orthophosphate (P)	mg/L	<0.01		1944873	<0.01	0.01	1944888
pH	pH	6.62	6.43	1943751	6.45	N/A	1943761
Reactive Silica (SiO2)	mg/L	<0.5		1944871	<0.5	0.5	1944886
Dissolved Sulphate (SO4)	mg/L	<2		1944870	3	2	1944885
Turbidity	NTU	0.5		1961707	0.5	0.1	1961707
Conductivity	uS/cm	18	20	1943757	20	1	1943765

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF WATER

Maxxam ID		DS5985	DS5985	DS5998	DS5999		
Sampling Date		2009/09/11	2009/09/11	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-9	SW-9 Lab-Dup	SW-10	SW-11	RDL	QC Batch

Calculated Parameters							
Anion Sum	me/L	0.0900		0.220	0.120	N/A	1942153
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	<1		5	<1	1	1942139
Calculated TDS	mg/L	7		13	10	1	1942172
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1		<1	<1	1	1942139
Cation Sum	me/L	0.170		0.270	0.260	N/A	1942153
Hardness (CaCO3)	mg/L	3		6	6	1	1942151
Ion Balance (% Difference)	%	30.8		10.2	36.8	N/A	1942152
Langelier Index (@ 20C)	N/A	NC		-3.70	NC		1942168
Langelier Index (@ 4C)	N/A	NC		-3.96	NC		1942169
Nitrate (N)	mg/L	<0.05		<0.05	<0.05	0.05	1942154
Saturation pH (@ 20C)	N/A	NC		10.4	NC		1942168
Saturation pH (@ 4C)	N/A	NC		10.6	NC		1942169
Inorganics							
Total Alkalinity (Total as CaCO3)	mg/L	<5	<5	5	<5	5	1944880
Dissolved Chloride (Cl)	mg/L	3	3	4	4	1	1944884
Colour	TCU	9	7	21	24	5	1944887
Nitrate + Nitrite	mg/L	<0.05	<0.05	<0.05	<0.05	0.05	1944889
Nitrite (N)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	1944890
Nitrogen (Ammonia Nitrogen)	mg/L	<0.05		<0.05	<0.05	0.05	1945327
Total Organic Carbon (C)	mg/L	1.9		3.9	4.6	0.5	1961815
Orthophosphate (P)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	1944888
pH	pH	6.36		6.69	6.72	N/A	1943761
Reactive Silica (SiO2)	mg/L	<0.5	<0.5	0.6	0.8	0.5	1944886
Dissolved Sulphate (SO4)	mg/L	<2	<2	<2	<2	2	1944885
Turbidity	NTU	0.5		0.3	1.3	0.1	1961707
Conductivity	uS/cm	17		28	25	1	1943765

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF WATER

Maxxam ID		DS6000		
Sampling Date		2009/09/13		
COC Number		N/A		
	Units	SW-12	RDL	QC Batch

Calculated Parameters				
Anion Sum	me/L	0.120	N/A	1942153
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	<1	1	1942139
Calculated TDS	mg/L	11	1	1942172
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1	1	1942139
Cation Sum	me/L	0.280	N/A	1942153
Hardness (CaCO ₃)	mg/L	6	1	1942151
Ion Balance (% Difference)	%	40.0	N/A	1942152
Langelier Index (@ 20C)	N/A	NC		1942168
Langelier Index (@ 4C)	N/A	NC		1942169
Nitrate (N)	mg/L	<0.05	0.05	1942154
Saturation pH (@ 20C)	N/A	NC		1942168
Saturation pH (@ 4C)	N/A	NC		1942169
Inorganics				
Total Alkalinity (Total as CaCO ₃)	mg/L	<5	5	1944880
Dissolved Chloride (Cl)	mg/L	4	1	1944884
Colour	TCU	20	5	1944887
Nitrate + Nitrite	mg/L	<0.05	0.05	1944889
Nitrite (N)	mg/L	<0.01	0.01	1944890
Nitrogen (Ammonia Nitrogen)	mg/L	<0.05	0.05	1945327
Total Organic Carbon (C)	mg/L	4.0	0.5	1961815
Orthophosphate (P)	mg/L	<0.01	0.01	1944888
pH	pH	6.74	N/A	1943761
Reactive Silica (SiO ₂)	mg/L	0.6	0.5	1944886
Dissolved Sulphate (SO ₄)	mg/L	<2	2	1944885
Turbidity	NTU	1.4	0.1	1961707
Conductivity	uS/cm	28	1	1943765
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP-AES (WATER)

Maxxam ID		DS5982	DS5984	DS5985	DS5998	DS5999		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SW-7	SW-8	SW-9	SW-10	SW-11	RDL	QC Batch

Metals								
Total Calcium (Ca)	mg/L	0.8	0.8	0.7	1.5	1.5	0.1	1945365
Total Magnesium (Mg)	mg/L	0.4	0.3	0.3	0.5	0.5	0.1	1945365
Total Phosphorus (P)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	1945365
Total Potassium (K)	mg/L	0.1	0.2	0.1	0.3	0.2	0.1	1945365
Total Sodium (Na)	mg/L	2.5	2.4	2.4	3.3	3.2	0.1	1945365

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DS6000		
Sampling Date		2009/09/13		
COC Number		N/A		
	Units	SW-12	RDL	QC Batch

Metals				
Total Calcium (Ca)	mg/L	1.5	0.1	1945365
Total Magnesium (Mg)	mg/L	0.5	0.1	1945365
Total Phosphorus (P)	mg/L	<0.1	0.1	1945365
Total Potassium (K)	mg/L	0.4	0.1	1945365
Total Sodium (Na)	mg/L	3.4	0.1	1945365

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DS5982	DS5984	DS5985	DS5998	DS5999		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/13	2009/09/13		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SW-7	SW-8	SW-9	SW-10	SW-11	RDL	QC Batch

Metals								
Total Aluminum (Al)	ug/L	48.7	46.0	44.7	123	110	5.0	1944695
Total Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Barium (Ba)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	1944695
Total Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Boron (B)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	1944695
Total Cadmium (Cd)	ug/L	<0.017	<0.017	<0.017	<0.017	<0.017	0.017	1944695
Total Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1944695
Total Cobalt (Co)	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	1944695
Total Copper (Cu)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Iron (Fe)	ug/L	<50	<50	<50	55	<50	50	1944695
Total Lead (Pb)	ug/L	0.76	<0.50	0.67	<0.50	1.19	0.50	1944695
Total Manganese (Mn)	ug/L	3.3	2.9	3.0	4.0	3.5	2.0	1944695
Total Molybdenum (Mo)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Nickel (Ni)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1944695
Total Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	1944695
Total Strontium (Sr)	ug/L	<5.0	<5.0	<5.0	<5.0	5.2	5.0	1944695
Total Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	1944695
Total Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Titanium (Ti)	ug/L	<2.0	<2.0	<2.0	2.3	<2.0	2.0	1944695
Total Uranium (U)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	1944695
Total Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	1944695
Total Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	10.7	<5.0	5.0	1944695

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DS6000		
Sampling Date		2009/09/13		
COC Number		N/A		
	Units	SW-12	RDL	QC Batch

Metals				
Total Aluminum (Al)	ug/L	92.3	5.0	1944695
Total Antimony (Sb)	ug/L	<2.0	2.0	1944695
Total Arsenic (As)	ug/L	<2.0	2.0	1944695
Total Barium (Ba)	ug/L	<5.0	5.0	1944695
Total Beryllium (Be)	ug/L	<2.0	2.0	1944695
Total Bismuth (Bi)	ug/L	<2.0	2.0	1944695
Total Boron (B)	ug/L	<5.0	5.0	1944695
Total Cadmium (Cd)	ug/L	<0.017	0.017	1944695
Total Chromium (Cr)	ug/L	1.1	1.0	1944695
Total Cobalt (Co)	ug/L	<0.40	0.40	1944695
Total Copper (Cu)	ug/L	<2.0	2.0	1944695
Total Iron (Fe)	ug/L	<50	50	1944695
Total Lead (Pb)	ug/L	<0.50	0.50	1944695
Total Manganese (Mn)	ug/L	3.6	2.0	1944695
Total Molybdenum (Mo)	ug/L	<2.0	2.0	1944695
Total Nickel (Ni)	ug/L	<2.0	2.0	1944695
Total Selenium (Se)	ug/L	<1.0	1.0	1944695
Total Silver (Ag)	ug/L	<0.10	0.10	1944695
Total Strontium (Sr)	ug/L	5.3	5.0	1944695
Total Thallium (Tl)	ug/L	<0.10	0.10	1944695
Total Tin (Sn)	ug/L	<2.0	2.0	1944695
Total Titanium (Ti)	ug/L	<2.0	2.0	1944695
Total Uranium (U)	ug/L	<0.10	0.10	1944695
Total Vanadium (V)	ug/L	<2.0	2.0	1944695
Total Zinc (Zn)	ug/L	6.6	5.0	1944695

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DS5982	DS5982	DS5984	DS5985		
Sampling Date		2009/09/11	2009/09/11	2009/09/11	2009/09/11		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-7	SW-7 Lab-Dup	SW-8	SW-9	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1943447
Surrogate Recovery (%)							
Decachlorobiphenyl	%	83	81	75	69		1943447

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DS5999		
Sampling Date		2009/09/13		
COC Number		N/A		
	Units	SW-11	RDL	QC Batch

PCBs				
Total PCB	ug/L	<0.05	0.05	1943447
Surrogate Recovery (%)				
Decachlorobiphenyl	%	66		1943447

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C2256
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Sample DS5982-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample DS5998-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample DS5999-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Sample DS6000-01: RCap Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: WS#1945323 - Chloroethane unavailable due to calibration non-conformance.

RESULTS OF ANALYSES OF TISSUE

Sample weight: The sample weights were taken after homogenization.

Results relate only to the items tested.

Jacques Whitford Limited
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Quality Assurance Report
Maxxam Job Number: DA9C2256

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1943447 RST	Matrix Spike [DS5984-02]	Decachlorobiphenyl	2009/10/05		83	%	30 - 130
		Total PCB	2009/10/05		97	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/05		59	%	30 - 130
		Total PCB	2009/10/05		91	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/05		45	%	30 - 130
		Total PCB	2009/10/05	<0.05		ug/L	
	RPD [DS5982-02]	Total PCB	2009/10/05	NC		%	40
		pH	2009/09/18		101	%	80 - 120
	Method Blank	pH	2009/09/18	5.94, RDL=0		pH	
		pH	2009/09/18	2.9		%	25
1943751 ARS	QC Standard	Conductivity	2009/09/18		104	%	80 - 120
	Method Blank	Conductivity	2009/09/18	<1		uS/cm	
	RPD [DS5982-01]	Conductivity	2009/09/18	13.5		%	25
1943757 ARS	QC Standard	pH	2009/09/18		101	%	80 - 120
	Method Blank	pH	2009/09/18	6.19, RDL=0		pH	
	RPD	pH	2009/09/18	2.3		%	25
1943761 ARS	QC Standard	Conductivity	2009/09/18		104	%	80 - 120
	Method Blank	Conductivity	2009/09/18	<1		uS/cm	
	RPD	Conductivity	2009/09/18	13.8		%	25
1943765 ARS	QC Standard	Total Aluminum (Al)	2009/09/19		106	%	80 - 120
	Method Blank	Total Antimony (Sb)	2009/09/19		112	%	80 - 120
	RPD	Total Arsenic (As)	2009/09/19		103	%	80 - 120
1944695 DLB	QC Standard	Total Barium (Ba)	2009/09/19		98	%	80 - 120
		Total Beryllium (Be)	2009/09/19		108	%	80 - 120
		Total Boron (B)	2009/09/19		98	%	80 - 120
		Total Cadmium (Cd)	2009/09/19		99	%	80 - 120
		Total Chromium (Cr)	2009/09/19		104	%	80 - 120
		Total Cobalt (Co)	2009/09/19		105	%	80 - 120
		Total Copper (Cu)	2009/09/19		106	%	80 - 120
		Total Iron (Fe)	2009/09/19		109	%	80 - 120
		Total Lead (Pb)	2009/09/19		104	%	80 - 120
		Total Manganese (Mn)	2009/09/19		104	%	80 - 120
		Total Molybdenum (Mo)	2009/09/19		103	%	80 - 120
		Total Nickel (Ni)	2009/09/19		104	%	80 - 120
		Total Selenium (Se)	2009/09/19		82	%	80 - 120
		Total Strontium (Sr)	2009/09/19		105	%	80 - 120
		Total Thallium (Tl)	2009/09/19		109	%	80 - 120
		Total Uranium (U)	2009/09/19		82	%	80 - 120
		Total Vanadium (V)	2009/09/19		104	%	80 - 120
		Total Zinc (Zn)	2009/09/19		102	%	80 - 120
	Spiked Blank	Total Aluminum (Al)	2009/09/19		109	%	80 - 120
		Total Antimony (Sb)	2009/09/19		99	%	80 - 120
		Total Arsenic (As)	2009/09/19		98	%	80 - 120
		Total Barium (Ba)	2009/09/19		100	%	80 - 120
		Total Beryllium (Be)	2009/09/19		94	%	80 - 120
		Total Bismuth (Bi)	2009/09/19		100	%	80 - 120
		Total Boron (B)	2009/09/19		90	%	80 - 120
		Total Cadmium (Cd)	2009/09/19		100	%	80 - 120
		Total Chromium (Cr)	2009/09/19		100	%	80 - 120
		Total Cobalt (Co)	2009/09/19		103	%	80 - 120
		Total Copper (Cu)	2009/09/19		102	%	80 - 120
		Total Lead (Pb)	2009/09/19		100	%	80 - 120
		Total Manganese (Mn)	2009/09/19		106	%	80 - 120
		Total Molybdenum (Mo)	2009/09/19		102	%	80 - 120

Jacques Whitford Limited
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Quality Assurance Report (Continued)

Maxxam Job Number: DA9C2256

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1944695 DLB	Spiked Blank	Total Nickel (Ni)	2009/09/19		102	%	80 - 120
		Total Selenium (Se)	2009/09/19		98	%	80 - 120
		Total Silver (Ag)	2009/09/19		98	%	80 - 120
		Total Strontium (Sr)	2009/09/19		101	%	80 - 120
		Total Thallium (Tl)	2009/09/19		96	%	80 - 120
		Total Tin (Sn)	2009/09/19		103	%	80 - 120
		Total Titanium (Ti)	2009/09/19		99	%	80 - 120
		Total Uranium (U)	2009/09/19		101	%	80 - 120
		Total Vanadium (V)	2009/09/19		103	%	80 - 120
	Method Blank	Total Zinc (Zn)	2009/09/19		98	%	80 - 120
		Total Aluminum (Al)	2009/09/19	<5.0		ug/L	
		Total Antimony (Sb)	2009/09/19	<2.0		ug/L	
		Total Arsenic (As)	2009/09/19	<2.0		ug/L	
		Total Barium (Ba)	2009/09/19	<5.0		ug/L	
		Total Beryllium (Be)	2009/09/19	<2.0		ug/L	
		Total Bismuth (Bi)	2009/09/19	<2.0		ug/L	
		Total Boron (B)	2009/09/19	<5.0		ug/L	
		Total Cadmium (Cd)	2009/09/19	<0.017		ug/L	
		Total Chromium (Cr)	2009/09/19	<1.0		ug/L	
		Total Cobalt (Co)	2009/09/19	<0.40		ug/L	
		Total Copper (Cu)	2009/09/19	<2.0		ug/L	
		Total Iron (Fe)	2009/09/19	<50		ug/L	
		Total Lead (Pb)	2009/09/19	<0.50		ug/L	
		Total Manganese (Mn)	2009/09/19	<2.0		ug/L	
		Total Molybdenum (Mo)	2009/09/19	<2.0		ug/L	
		Total Nickel (Ni)	2009/09/19	<2.0		ug/L	
		Total Selenium (Se)	2009/09/19	<1.0		ug/L	
		Total Silver (Ag)	2009/09/19	<0.10		ug/L	
		Total Strontium (Sr)	2009/09/19	<5.0		ug/L	
		Total Thallium (Tl)	2009/09/19	<0.10		ug/L	
		Total Tin (Sn)	2009/09/19	<2.0		ug/L	
		Total Titanium (Ti)	2009/09/19	<2.0		ug/L	
		Total Uranium (U)	2009/09/19	<0.10		ug/L	
		Total Vanadium (V)	2009/09/19	<2.0		ug/L	
		Total Zinc (Zn)	2009/09/19	<5.0		ug/L	
1944868 JOA	Matrix Spike	Total Alkalinity (Total as CaCO3)	2009/09/21		NC	%	80 - 120
	QC Standard	Total Alkalinity (Total as CaCO3)	2009/09/21		103	%	80 - 120
	Spiked Blank	Total Alkalinity (Total as CaCO3)	2009/09/21		110	%	80 - 120
	Method Blank	Total Alkalinity (Total as CaCO3)	2009/09/21	<5		mg/L	
	RPD	Total Alkalinity (Total as CaCO3)	2009/09/21	NC		%	25
1944869 JOA	Matrix Spike	Dissolved Chloride (Cl)	2009/09/21		102	%	80 - 120
	QC Standard	Dissolved Chloride (Cl)	2009/09/21		105	%	80 - 120
	Spiked Blank	Dissolved Chloride (Cl)	2009/09/21		104	%	80 - 120
	Method Blank	Dissolved Chloride (Cl)	2009/09/21	<1		mg/L	
	RPD	Dissolved Chloride (Cl)	2009/09/21	2.4		%	25
1944870 SMT	Matrix Spike	Dissolved Sulphate (SO4)	2009/09/21		108	%	80 - 120
	QC Standard	Dissolved Sulphate (SO4)	2009/09/21		102	%	80 - 120
	Spiked Blank	Dissolved Sulphate (SO4)	2009/09/21		106	%	80 - 120
	Method Blank	Dissolved Sulphate (SO4)	2009/09/21	<2		mg/L	
	RPD	Dissolved Sulphate (SO4)	2009/09/21	5.0		%	25
1944871 JOA	Matrix Spike	Reactive Silica (SiO2)	2009/09/22		NC	%	80 - 120
	QC Standard	Reactive Silica (SiO2)	2009/09/22		98	%	75 - 125
	Spiked Blank	Reactive Silica (SiO2)	2009/09/22		98	%	80 - 120
	Method Blank	Reactive Silica (SiO2)	2009/09/22	<0.5		mg/L	
	RPD	Reactive Silica (SiO2)	2009/09/22	0.8		%	25

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Quality Assurance Report (Continued)

Maxxam Job Number: DA9C2256

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1944872 JOA	Spiked Blank	Colour	2009/09/21		108	%	N/A
	Method Blank	Colour	2009/09/21	<5		TCU	
	RPD	Colour	2009/09/21	NC		%	25
1944873 JOA	Matrix Spike	Orthophosphate (P)	2009/09/21		96	%	80 - 120
	QC Standard	Orthophosphate (P)	2009/09/21		102	%	80 - 120
	Spiked Blank	Orthophosphate (P)	2009/09/21		103	%	80 - 120
	Method Blank	Orthophosphate (P)	2009/09/21	<0.01		mg/L	
	RPD	Orthophosphate (P)	2009/09/21	NC		%	25
1944874 SMT	Matrix Spike	Nitrate + Nitrite	2009/09/22		NC	%	80 - 120
	QC Standard	Nitrate + Nitrite	2009/09/22		104	%	80 - 120
	Spiked Blank	Nitrate + Nitrite	2009/09/22		107	%	80 - 120
	Method Blank	Nitrate + Nitrite	2009/09/22	<0.05		mg/L	
	RPD	Nitrate + Nitrite	2009/09/22	0.7		%	25
1944875 JOA	Matrix Spike	Nitrite (N)	2009/09/21		92	%	80 - 120
	QC Standard	Nitrite (N)	2009/09/21		99	%	80 - 120
	Spiked Blank	Nitrite (N)	2009/09/21		97	%	80 - 120
	Method Blank	Nitrite (N)	2009/09/21	<0.01		mg/L	
	RPD	Nitrite (N)	2009/09/21	NC		%	25
1944880 JOA	Matrix Spike	Total Alkalinity (Total as CaCO3)	2009/09/21		108	%	80 - 120
	[DS5985-01]	Total Alkalinity (Total as CaCO3)	2009/09/21		108	%	80 - 120
	QC Standard	Total Alkalinity (Total as CaCO3)	2009/09/21		118	%	80 - 120
	Spiked Blank	Total Alkalinity (Total as CaCO3)	2009/09/21			mg/L	
	Method Blank	Total Alkalinity (Total as CaCO3)	2009/09/21	<5		mg/L	
	RPD [DS5985-01]	Total Alkalinity (Total as CaCO3)	2009/09/21	NC		%	25
1944884 JOA	Matrix Spike	Dissolved Chloride (Cl)	2009/09/21		103	%	80 - 120
	[DS5985-01]	Dissolved Chloride (Cl)	2009/09/21		102	%	80 - 120
	QC Standard	Dissolved Chloride (Cl)	2009/09/21		106	%	80 - 120
	Spiked Blank	Dissolved Chloride (Cl)	2009/09/21			mg/L	
	Method Blank	Dissolved Chloride (Cl)	2009/09/21	<1		mg/L	
	RPD [DS5985-01]	Dissolved Chloride (Cl)	2009/09/21	NC		%	25
1944885 SMT	Matrix Spike	Dissolved Sulphate (SO4)	2009/09/21		104	%	80 - 120
	[DS5985-01]	Dissolved Sulphate (SO4)	2009/09/21		105	%	80 - 120
	QC Standard	Dissolved Sulphate (SO4)	2009/09/21		108	%	80 - 120
	Spiked Blank	Dissolved Sulphate (SO4)	2009/09/21			mg/L	
	Method Blank	Dissolved Sulphate (SO4)	2009/09/21	<2		mg/L	
	RPD [DS5985-01]	Dissolved Sulphate (SO4)	2009/09/21	NC		%	25
1944886 JOA	Matrix Spike	Reactive Silica (SiO2)	2009/09/22		100	%	80 - 120
	[DS5985-01]	Reactive Silica (SiO2)	2009/09/22		99	%	75 - 125
	QC Standard	Reactive Silica (SiO2)	2009/09/22		98	%	80 - 120
	Spiked Blank	Reactive Silica (SiO2)	2009/09/22			mg/L	
	Method Blank	Reactive Silica (SiO2)	2009/09/22	<0.5		mg/L	
	RPD [DS5985-01]	Reactive Silica (SiO2)	2009/09/22	NC		%	25
1944887 JOA	QC Standard	Colour	2009/09/21		109	%	80 - 120
	Method Blank	Colour	2009/09/21	<5		TCU	
	RPD [DS5985-01]	Colour	2009/09/21	NC		%	25
1944888 JOA	Matrix Spike	Orthophosphate (P)	2009/09/21		92	%	80 - 120
	[DS5985-01]	Orthophosphate (P)	2009/09/21		103	%	80 - 120
	QC Standard	Orthophosphate (P)	2009/09/21		103	%	80 - 120
	Spiked Blank	Orthophosphate (P)	2009/09/21			mg/L	
	Method Blank	Orthophosphate (P)	2009/09/21	<0.01		mg/L	
	RPD [DS5985-01]	Orthophosphate (P)	2009/09/21	NC		%	25
1944889 SMT	Matrix Spike	Nitrate + Nitrite	2009/09/22		102	%	80 - 120
	[DS5985-01]	Nitrate + Nitrite	2009/09/22		101	%	80 - 120
	QC Standard	Nitrate + Nitrite	2009/09/22		104	%	80 - 120
	Spiked Blank	Nitrate + Nitrite	2009/09/22			%	

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Quality Assurance Report (Continued)

Maxxam Job Number: DA9C2256

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1944889 SMT	Method Blank	Nitrate + Nitrite	2009/09/22	<0.05		mg/L	
	RPD [DS5985-01]	Nitrate + Nitrite	2009/09/22	NC		%	25
1944890 JOA	Matrix Spike						
	[DS5985-01]	Nitrite (N)	2009/09/21		90	%	80 - 120
	QC Standard	Nitrite (N)	2009/09/21		105	%	80 - 120
	Spiked Blank	Nitrite (N)	2009/09/21		97	%	80 - 120
	Method Blank	Nitrite (N)	2009/09/21	<0.01		mg/L	
	RPD [DS5985-01]	Nitrite (N)	2009/09/21	NC		%	25
1945101 ASL	Matrix Spike						
	[DS5991-01]	Isobutylbenzene - Volatile	2009/09/23		84	%	60 - 140
		Benzene	2009/09/23		100	%	60 - 140
		Toluene	2009/09/23		129	%	60 - 140
		Ethylbenzene	2009/09/23		118	%	60 - 140
		Xylene (Total)	2009/09/23		128	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/09/23		94	%	60 - 140
		Benzene	2009/09/23		91	%	60 - 140
		Toluene	2009/09/23		93	%	60 - 140
		Ethylbenzene	2009/09/23		91	%	60 - 140
		Xylene (Total)	2009/09/23		93	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/09/22		95	%	60 - 140
		Benzene	2009/09/22	<0.03		mg/kg	
		Toluene	2009/09/22	<0.03		mg/kg	
		Ethylbenzene	2009/09/22	<0.03		mg/kg	
		Xylene (Total)	2009/09/22	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/09/22	<3		mg/kg	
	RPD [DS5991-01]	Benzene	2009/09/23	NC		%	50
		Toluene	2009/09/23	NC		%	50
		Ethylbenzene	2009/09/23	NC		%	50
		Xylene (Total)	2009/09/23	NC		%	50
		C6 - C10 (less BTEX)	2009/09/23	NC		%	50
1945166 RST	Matrix Spike						
	[DS5988-01]	Decachlorobiphenyl	2009/09/25		86	%	30 - 130
		Total PCB	2009/09/25		124	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/25		73	%	30 - 130
		Total PCB	2009/09/25		124	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/25		73	%	30 - 130
		Total PCB	2009/09/25	<0.05		ug/g	
	RPD [DS5988-01]	Total PCB	2009/09/25	NC		%	50
1945191 SHR	Matrix Spike						
		Isobutylbenzene - Extractable	2009/09/22		93	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/22		122	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/22		90	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/22		91	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/22		95	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/22		100	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/22		88	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/22		101	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/22		99	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/22		98	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/22	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/22	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/09/22	NC		%	50
		>C21-<C32 Hydrocarbons	2009/09/22	NC		%	50
1945323 MSK	Spiked Blank						
		4-Bromofluorobenzene	2009/09/22		97	%	60 - 140
		D4-1,2-Dichloroethane	2009/09/22		103	%	60 - 140
		D8-Toluene	2009/09/22		99	%	60 - 140

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Quality Assurance Report (Continued)

Maxxam Job Number: DA9C2256

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1945323 MSK	Spiked Blank	1,1,1-Trichloroethane	2009/09/22		103	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/09/22		92	%	60 - 140
		1,1,2-Trichloroethane	2009/09/22		95	%	60 - 140
		1,1-Dichloroethane	2009/09/22		98	%	60 - 140
		1,1-Dichloroethylene	2009/09/22		92	%	60 - 140
		1,2-Dichlorobenzene	2009/09/22		101	%	60 - 140
		1,2-Dichloroethane	2009/09/22		101	%	60 - 140
		1,2-Dichloropropane	2009/09/22		94	%	60 - 140
		1,3-Dichlorobenzene	2009/09/22		102	%	60 - 140
		1,4-Dichlorobenzene	2009/09/22		99	%	60 - 140
		Benzene	2009/09/22		95	%	60 - 140
		Bromodichloromethane	2009/09/22		93	%	60 - 140
		Bromoform	2009/09/22		84	%	60 - 140
		Bromomethane	2009/09/22		73	%	60 - 140
		Carbon Tetrachloride	2009/09/22		101	%	60 - 140
		Chlorobenzene	2009/09/22		100	%	60 - 140
		Chloroform	2009/09/22		104	%	60 - 140
		Chloromethane	2009/09/22		88	%	60 - 140
		cis-1,2-Dichloroethylene	2009/09/22		104	%	60 - 140
		cis-1,3-Dichloropropene	2009/09/22		89	%	60 - 140
		Dibromochloromethane	2009/09/22		84	%	60 - 140
		Ethylbenzene	2009/09/22		97	%	60 - 140
		Ethylene Dibromide	2009/09/22		97	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/09/22		105	%	60 - 140
		o-Xylene	2009/09/22		101	%	60 - 140
		p+m-Xylene	2009/09/22		107	%	60 - 140
		Styrene	2009/09/22		102	%	60 - 140
		Tetrachloroethylene	2009/09/22		101	%	60 - 140
		Toluene	2009/09/22		93	%	60 - 140
		trans-1,2-Dichloroethylene	2009/09/22		100	%	60 - 140
		trans-1,3-Dichloropropene	2009/09/22		80	%	60 - 140
		Trichloroethylene	2009/09/22		103	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/09/22		104	%	60 - 140
		Vinyl Chloride	2009/09/22		79	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/09/21		94	%	60 - 140
		D4-1,2-Dichloroethane	2009/09/21		102	%	60 - 140
		D8-Toluene	2009/09/21		97	%	60 - 140
		1,1,1-Trichloroethane	2009/09/21	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/09/21	<30		ug/kg	
		1,1,2-Trichloroethane	2009/09/21	<30		ug/kg	
		1,1-Dichloroethane	2009/09/21	<30		ug/kg	
		1,1-Dichloroethylene	2009/09/21	<30		ug/kg	
		1,2-Dichlorobenzene	2009/09/21	<30		ug/kg	
		1,2-Dichloroethane	2009/09/21	<30		ug/kg	
		1,2-Dichloropropane	2009/09/21	<30		ug/kg	
		1,3-Dichlorobenzene	2009/09/21	<30		ug/kg	
		1,4-Dichlorobenzene	2009/09/21	<30		ug/kg	
		Benzene	2009/09/21	<30		ug/kg	
		Bromodichloromethane	2009/09/21	<30		ug/kg	
		Bromoform	2009/09/21	<30		ug/kg	
		Bromomethane	2009/09/21	<200		ug/kg	
		Carbon Tetrachloride	2009/09/21	<30		ug/kg	
		Chlorobenzene	2009/09/21	<30		ug/kg	
		Chloroform	2009/09/21	<30		ug/kg	
		Chloromethane	2009/09/21	<30		ug/kg	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1945323 MSK	Method Blank	cis-1,2-Dichloroethylene	2009/09/21	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/09/21	<30		ug/kg	
		Dibromochloromethane	2009/09/21	<30		ug/kg	
		Ethylbenzene	2009/09/21	<30		ug/kg	
		Ethylene Dibromide	2009/09/21	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/09/21	<30		ug/kg	
		o-Xylene	2009/09/21	<30		ug/kg	
		p+m-Xylene	2009/09/21	<30		ug/kg	
		Styrene	2009/09/21	<30		ug/kg	
		Tetrachloroethylene	2009/09/21	<30		ug/kg	
		Toluene	2009/09/21	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/09/21	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/09/21	<30		ug/kg	
		Trichloroethylene	2009/09/21	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/09/21	<30		ug/kg	
		Vinyl Chloride	2009/09/21	<30		ug/kg	
1945327 SMT	Matrix Spike	Nitrogen (Ammonia Nitrogen)	2009/09/21		87	%	80 - 120
	QC Standard	Nitrogen (Ammonia Nitrogen)	2009/09/21		101	%	80 - 120
	Spiked Blank	Nitrogen (Ammonia Nitrogen)	2009/09/21		100	%	80 - 120
	Method Blank	Nitrogen (Ammonia Nitrogen)	2009/09/21	<0.05		mg/L	
	RPD	Nitrogen (Ammonia Nitrogen)	2009/09/21	NC		%	25
1945365 ABU	Matrix Spike	Total Calcium (Ca)	2009/09/21		93	%	80 - 120
		Total Magnesium (Mg)	2009/09/21		95	%	80 - 120
		Total Phosphorus (P)	2009/09/21		99	%	80 - 120
		Total Potassium (K)	2009/09/21		104	%	80 - 120
		Total Sodium (Na)	2009/09/21		100	%	80 - 120
	QC Standard	Total Calcium (Ca)	2009/09/21		99	%	80 - 120
		Total Magnesium (Mg)	2009/09/21		95	%	80 - 120
		Total Phosphorus (P)	2009/09/21		95	%	80 - 120
		Total Potassium (K)	2009/09/21		107	%	80 - 120
		Total Sodium (Na)	2009/09/21		104	%	80 - 120
	Spiked Blank	Total Calcium (Ca)	2009/09/21		90	%	80 - 120
		Total Magnesium (Mg)	2009/09/21		90	%	80 - 120
		Total Phosphorus (P)	2009/09/21		96	%	80 - 120
		Total Potassium (K)	2009/09/21		98	%	80 - 120
		Total Sodium (Na)	2009/09/21		97	%	80 - 120
	Method Blank	Total Calcium (Ca)	2009/09/21	<0.1		mg/L	
		Total Magnesium (Mg)	2009/09/21	<0.1		mg/L	
		Total Phosphorus (P)	2009/09/21	<0.1		mg/L	
		Total Potassium (K)	2009/09/21	<0.1		mg/L	
		Total Sodium (Na)	2009/09/21	<0.1		mg/L	
	RPD	Total Calcium (Ca)	2009/09/21	3.7		%	25
		Total Magnesium (Mg)	2009/09/21	0.9		%	25
		Total Phosphorus (P)	2009/09/21	NC		%	25
		Total Potassium (K)	2009/09/21	5.0		%	25
		Total Sodium (Na)	2009/09/21	3.6		%	25
1945549 SOD	Matrix Spike [DS5994-01]	D10-Anthracene	2009/09/21		102	%	30 - 130
		D14-Terphenyl (FS)	2009/09/21		85	%	30 - 130
		D8-Acenaphthylene	2009/09/21		99	%	30 - 130
		1-Methylnaphthalene	2009/09/21		94	%	30 - 130
		2-Methylnaphthalene	2009/09/21		98	%	30 - 130
		Acenaphthene	2009/09/21		104	%	30 - 130
		Acenaphthylene	2009/09/21		87	%	30 - 130
		Anthracene	2009/09/21		106	%	30 - 130

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1945549 SOD	Matrix Spike [DS5994-01]	Benzo(a)anthracene	2009/09/21		89	%	30 - 130
		Benzo(a)pyrene	2009/09/21		95	%	30 - 130
		Benzo(b)fluoranthene	2009/09/21		104	%	30 - 130
		Benzo(g,h,i)perylene	2009/09/21		103	%	30 - 130
		Benzo(k)fluoranthene	2009/09/21		105	%	30 - 130
		Chrysene	2009/09/21		108	%	30 - 130
		Dibenz(a,h)anthracene	2009/09/21		109	%	30 - 130
		Fluoranthene	2009/09/21		100	%	30 - 130
		Fluorene	2009/09/21		99	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/09/21		103	%	30 - 130
		Naphthalene	2009/09/21		100	%	30 - 130
		Perylene	2009/09/21		95	%	30 - 130
		Phenanthrene	2009/09/21		111	%	30 - 130
		Pyrene	2009/09/21		103	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/09/21		103	%	30 - 130
		D14-Terphenyl (FS)	2009/09/21		87	%	30 - 130
		D8-Acenaphthylene	2009/09/21		100	%	30 - 130
		1-Methylnaphthalene	2009/09/21		101	%	30 - 130
		2-Methylnaphthalene	2009/09/21		104	%	30 - 130
		Acenaphthene	2009/09/21		105	%	30 - 130
		Acenaphthylene	2009/09/21		87	%	30 - 130
		Anthracene	2009/09/21		101	%	30 - 130
		Benzo(a)anthracene	2009/09/21		82	%	30 - 130
		Benzo(a)pyrene	2009/09/21		88	%	30 - 130
		Benzo(b)fluoranthene	2009/09/21		104	%	30 - 130
		Benzo(g,h,i)perylene	2009/09/21		103	%	30 - 130
		Benzo(k)fluoranthene	2009/09/21		104	%	30 - 130
		Chrysene	2009/09/21		114	%	30 - 130
		Dibenz(a,h)anthracene	2009/09/21		90	%	30 - 130
		Fluoranthene	2009/09/21		104	%	30 - 130
		Fluorene	2009/09/21		99	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/09/21		85	%	30 - 130
		Naphthalene	2009/09/21		102	%	30 - 130
		Perylene	2009/09/21		87	%	30 - 130
		Phenanthrene	2009/09/21		114	%	30 - 130
		Pyrene	2009/09/21		107	%	30 - 130
	Method Blank	D10-Anthracene	2009/09/21		105	%	30 - 130
		D14-Terphenyl (FS)	2009/09/21		103	%	30 - 130
		D8-Acenaphthylene	2009/09/21		97	%	30 - 130
		1-Methylnaphthalene	2009/09/21	<0.01		mg/kg	
		2-Methylnaphthalene	2009/09/21	<0.01		mg/kg	
		Acenaphthene	2009/09/21	<0.01		mg/kg	
		Acenaphthylene	2009/09/21	<0.01		mg/kg	
		Anthracene	2009/09/21	<0.01		mg/kg	
		Benzo(a)anthracene	2009/09/21	<0.01		mg/kg	
		Benzo(a)pyrene	2009/09/21	<0.01		mg/kg	
		Benzo(b)fluoranthene	2009/09/21	<0.01		mg/kg	
		Benzo(g,h,i)perylene	2009/09/21	<0.01		mg/kg	
		Benzo(k)fluoranthene	2009/09/21	<0.01		mg/kg	
		Chrysene	2009/09/21	<0.01		mg/kg	
		Dibenz(a,h)anthracene	2009/09/21	<0.01		mg/kg	
		Fluoranthene	2009/09/21	<0.01		mg/kg	
		Fluorene	2009/09/21	<0.01		mg/kg	
		Indeno(1,2,3-cd)pyrene	2009/09/21	<0.01		mg/kg	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1945549 SOD	Method Blank	Naphthalene	2009/09/21	<0.01		mg/kg	
		Perylene	2009/09/21	<0.01		mg/kg	
		Phenanthrene	2009/09/21	<0.01		mg/kg	
		Pyrene	2009/09/21	<0.01		mg/kg	
	RPD [DS5994-01]	1-Methylnaphthalene	2009/09/21	NC		%	50
		2-Methylnaphthalene	2009/09/21	NC		%	50
		Acenaphthene	2009/09/21	NC		%	50
		Acenaphthylene	2009/09/21	NC		%	50
		Anthracene	2009/09/21	NC		%	50
		Benzo(a)anthracene	2009/09/21	NC		%	50
		Benzo(a)pyrene	2009/09/21	NC		%	50
		Benzo(b)fluoranthene	2009/09/21	NC		%	50
		Benzo(g,h,i)perylene	2009/09/21	NC		%	50
		Benzo(k)fluoranthene	2009/09/21	NC		%	50
		Chrysene	2009/09/21	NC		%	50
		Dibenz(a,h)anthracene	2009/09/21	NC		%	50
		Fluoranthene	2009/09/21	NC		%	50
		Fluorene	2009/09/21	NC		%	50
		Indeno(1,2,3-cd)pyrene	2009/09/21	NC		%	50
		Naphthalene	2009/09/21	NC		%	50
		Perylene	2009/09/21	NC		%	50
		Phenanthrene	2009/09/21	NC		%	50
		Pyrene	2009/09/21	NC		%	50
1946362 MC2	RPD [DS6001-01]	< -4 Phi (16 mm)	2009/09/22	0		%	25
		< -3 Phi (8 mm)	2009/09/22	0		%	25
		< -2 Phi (4 mm)	2009/09/22	0		%	25
		< -1 Phi (2 mm)	2009/09/22	7.7		%	25
		< 0 Phi (1 mm)	2009/09/22	12.0		%	25
		< +1 Phi (0.5 mm)	2009/09/22	15.4		%	25
		< +2 Phi (0.25 mm)	2009/09/22	24.9		%	25
		< +3 Phi (0.12 mm)	2009/09/22	30.0 (1)		%	25
		< +4 Phi (0.062 mm)	2009/09/22	22.3		%	25
		< +5 Phi (0.031 mm)	2009/09/22	9.4		%	25
		< +6 Phi (0.016 mm)	2009/09/22	17.7		%	25
		< +7 Phi (0.0078 mm)	2009/09/22	27.5 (1)		%	25
		< +8 Phi (0.0039 mm)	2009/09/22	42.2 (1)		%	25
		< +9 Phi (0.0020 mm)	2009/09/22	26.7 (1)		%	25
		Gravel	2009/09/22	135 (2)		%	25
		Sand	2009/09/22	6.8		%	25
		Silt	2009/09/22	35.2 (2)		%	25
		Clay	2009/09/22	42.2 (2)		%	25
1951917 KGU	Matrix Spike [DS6001-01]	Available Aluminum (Al)	2009/09/25		NC	%	75 - 125
		Available Antimony (Sb)	2009/09/25		80	%	75 - 125
		Available Arsenic (As)	2009/09/25		101	%	75 - 125
		Available Barium (Ba)	2009/09/25		NC	%	75 - 125
		Available Beryllium (Be)	2009/09/25		95	%	75 - 125
		Available Bismuth (Bi)	2009/09/25		94	%	75 - 125
		Available Boron (B)	2009/09/25		95	%	75 - 125
		Available Cadmium (Cd)	2009/09/25		97	%	75 - 125
		Available Chromium (Cr)	2009/09/25		NC	%	75 - 125
		Available Cobalt (Co)	2009/09/25		95	%	75 - 125
		Available Copper (Cu)	2009/09/25		93	%	75 - 125
		Available Iron (Fe)	2009/09/25		NC	%	75 - 125
		Available Lead (Pb)	2009/09/25		96	%	75 - 125

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951917 KGU	Matrix Spike [DS6001-01]	Available Lithium (Li)	2009/09/25		98	%	75 - 125
		Available Manganese (Mn)	2009/09/25		NC	%	75 - 125
		Available Mercury (Hg)	2009/09/25		103	%	75 - 125
		Available Molybdenum (Mo)	2009/09/25		97	%	75 - 125
		Available Nickel (Ni)	2009/09/25		93	%	75 - 125
		Available Rubidium (Rb)	2009/09/25		105	%	75 - 125
		Available Selenium (Se)	2009/09/25		98	%	75 - 125
		Available Silver (Ag)	2009/09/25		102	%	75 - 125
		Available Strontium (Sr)	2009/09/25		99	%	75 - 125
		Available Thallium (Tl)	2009/09/25		91	%	75 - 125
		Available Tin (Sn)	2009/09/25		94	%	75 - 125
		Available Uranium (U)	2009/09/25		91	%	75 - 125
		Available Vanadium (V)	2009/09/25		NC	%	75 - 125
		Available Zinc (Zn)	2009/09/25		94	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/09/25		84	%	75 - 125
		Available Arsenic (As)	2009/09/25		94	%	75 - 125
		Available Barium (Ba)	2009/09/25		103	%	75 - 125
		Available Chromium (Cr)	2009/09/25		89	%	75 - 125
		Available Cobalt (Co)	2009/09/25		95	%	75 - 125
		Available Copper (Cu)	2009/09/25		91	%	75 - 125
		Available Iron (Fe)	2009/09/25		93	%	75 - 125
		Available Lead (Pb)	2009/09/25		101	%	75 - 125
		Available Manganese (Mn)	2009/09/25		105	%	75 - 125
		Available Nickel (Ni)	2009/09/25		96	%	75 - 125
	Spiked Blank	Available Strontium (Sr)	2009/09/25		88	%	75 - 125
		Available Vanadium (V)	2009/09/25		110	%	75 - 125
		Available Zinc (Zn)	2009/09/25		90	%	75 - 125
		Available Aluminum (Al)	2009/09/25		98	%	75 - 125
		Available Antimony (Sb)	2009/09/25		85	%	75 - 125
		Available Arsenic (As)	2009/09/25		85	%	75 - 125
		Available Barium (Ba)	2009/09/25		98	%	75 - 125
		Available Beryllium (Be)	2009/09/25		90	%	75 - 125
		Available Bismuth (Bi)	2009/09/25		90	%	75 - 125
		Available Boron (B)	2009/09/25		101	%	75 - 125
		Available Cadmium (Cd)	2009/09/25		89	%	75 - 125
		Available Chromium (Cr)	2009/09/25		101	%	75 - 125
		Available Cobalt (Co)	2009/09/25		96	%	75 - 125
		Available Copper (Cu)	2009/09/25		98	%	75 - 125
		Available Iron (Fe)	2009/09/25		98	%	75 - 125
		Available Lead (Pb)	2009/09/25		95	%	75 - 125
		Available Lithium (Li)	2009/09/25		91	%	75 - 125
		Available Manganese (Mn)	2009/09/25		96	%	75 - 125
		Available Mercury (Hg)	2009/09/25		108	%	75 - 125
		Available Molybdenum (Mo)	2009/09/25		92	%	75 - 125
		Available Nickel (Ni)	2009/09/25		95	%	75 - 125
		Available Rubidium (Rb)	2009/09/25		91	%	75 - 125
		Available Selenium (Se)	2009/09/25		84	%	75 - 125
		Available Silver (Ag)	2009/09/25		97	%	75 - 125
		Available Strontium (Sr)	2009/09/25		97	%	75 - 125
		Available Thallium (Tl)	2009/09/25		90	%	75 - 125
		Available Tin (Sn)	2009/09/25		84	%	75 - 125
		Available Uranium (U)	2009/09/25		83	%	75 - 125
		Available Vanadium (V)	2009/09/25		102	%	75 - 125
		Available Zinc (Zn)	2009/09/25		90	%	75 - 125

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951917 KGU	Method Blank	Available Aluminum (Al)	2009/09/25	<10		mg/kg	
		Available Antimony (Sb)	2009/09/25	<2		mg/kg	
		Available Arsenic (As)	2009/09/25	<2		mg/kg	
		Available Barium (Ba)	2009/09/25	<5		mg/kg	
		Available Beryllium (Be)	2009/09/25	<2		mg/kg	
		Available Bismuth (Bi)	2009/09/25	<2		mg/kg	
		Available Boron (B)	2009/09/25	<5		mg/kg	
		Available Cadmium (Cd)	2009/09/25	<0.3		mg/kg	
		Available Chromium (Cr)	2009/09/25	<2		mg/kg	
		Available Cobalt (Co)	2009/09/25	<1		mg/kg	
		Available Copper (Cu)	2009/09/25	<2		mg/kg	
		Available Iron (Fe)	2009/09/25	<50		mg/kg	
		Available Lead (Pb)	2009/09/25	<0.5		mg/kg	
		Available Lithium (Li)	2009/09/25	<2		mg/kg	
		Available Manganese (Mn)	2009/09/25	<2		mg/kg	
		Available Mercury (Hg)	2009/09/25	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/09/25	<2		mg/kg	
		Available Nickel (Ni)	2009/09/25	<2		mg/kg	
		Available Rubidium (Rb)	2009/09/25	<2		mg/kg	
		Available Selenium (Se)	2009/09/25	<2		mg/kg	
		Available Silver (Ag)	2009/09/25	<0.5		mg/kg	
		Available Strontium (Sr)	2009/09/25	<5		mg/kg	
		Available Thallium (Tl)	2009/09/25	<0.1		mg/kg	
		Available Tin (Sn)	2009/09/25	<2		mg/kg	
		Available Uranium (U)	2009/09/25	<0.1		mg/kg	
		Available Vanadium (V)	2009/09/25	<2		mg/kg	
		Available Zinc (Zn)	2009/09/25	<5		mg/kg	
	RPD [DS6001-01]	Available Aluminum (Al)	2009/09/25	21.9		%	35
		Available Antimony (Sb)	2009/09/25	NC		%	35
		Available Arsenic (As)	2009/09/25	NC		%	35
		Available Barium (Ba)	2009/09/25	NC		%	35
		Available Beryllium (Be)	2009/09/25	NC		%	35
		Available Bismuth (Bi)	2009/09/25	NC		%	35
		Available Boron (B)	2009/09/25	NC		%	35
		Available Cadmium (Cd)	2009/09/25	NC		%	35
		Available Chromium (Cr)	2009/09/25	17.8		%	35
		Available Cobalt (Co)	2009/09/25	NC		%	35
		Available Copper (Cu)	2009/09/25	NC		%	35
		Available Iron (Fe)	2009/09/25	19.4		%	35
		Available Lead (Pb)	2009/09/25	18.2		%	35
		Available Lithium (Li)	2009/09/25	NC		%	35
		Available Manganese (Mn)	2009/09/25	23.6		%	35
		Available Mercury (Hg)	2009/09/25	NC		%	35
		Available Molybdenum (Mo)	2009/09/25	NC		%	35
		Available Nickel (Ni)	2009/09/25	NC		%	35
		Available Rubidium (Rb)	2009/09/25	NC		%	35
		Available Selenium (Se)	2009/09/25	NC		%	35
		Available Silver (Ag)	2009/09/25	NC		%	35
		Available Strontium (Sr)	2009/09/25	NC		%	35
		Available Thallium (Tl)	2009/09/25	NC		%	35
		Available Tin (Sn)	2009/09/25	NC		%	35
		Available Uranium (U)	2009/09/25	NC		%	35
		Available Vanadium (V)	2009/09/25	16.5		%	35
		Available Zinc (Zn)	2009/09/25	NC		%	35
1952237 KGU	Matrix Spike [DS6011-01]	Aluminum (Al)	2009/09/25		NC	%	75 - 125

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Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C2256

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1952237 KGU	Matrix Spike [DS6011-01]	Antimony (Sb)	2009/09/25		85	%	75 - 125
		Arsenic (As)	2009/09/25		105	%	75 - 125
		Barium (Ba)	2009/09/25		NC	%	75 - 125
		Beryllium (Be)	2009/09/25		96	%	75 - 125
		Boron (B)	2009/09/25		NC	%	75 - 125
		Cadmium (Cd)	2009/09/25		94	%	75 - 125
		Chromium (Cr)	2009/09/25		96	%	75 - 125
		Cobalt (Co)	2009/09/25		95	%	75 - 125
		Copper (Cu)	2009/09/25		NC	%	75 - 125
		Iron (Fe)	2009/09/25		NC	%	75 - 125
		Lead (Pb)	2009/09/25		127 (3)	%	75 - 125
		Lithium (Li)	2009/09/25		103	%	75 - 125
		Manganese (Mn)	2009/09/25		NC	%	75 - 125
		Molybdenum (Mo)	2009/09/25		87	%	75 - 125
		Nickel (Ni)	2009/09/25		88	%	75 - 125
		Selenium (Se)	2009/09/25		79	%	75 - 125
		Silver (Ag)	2009/09/25		94	%	75 - 125
		Strontium (Sr)	2009/09/25		NC	%	75 - 125
		Thallium (Tl)	2009/09/25		92	%	75 - 125
		Tin (Sn)	2009/09/25		85	%	75 - 125
		Uranium (U)	2009/09/25		87	%	75 - 125
		Vanadium (V)	2009/09/25		99	%	75 - 125
		Zinc (Zn)	2009/09/25		NC	%	75 - 125
	QC Standard	Arsenic (As)	2009/09/25		92	%	75 - 125
		Cadmium (Cd)	2009/09/25		84	%	75 - 125
		Chromium (Cr)	2009/09/25		73 (4)	%	75 - 125
		Copper (Cu)	2009/09/25		92	%	75 - 125
		Iron (Fe)	2009/09/25		83	%	75 - 125
		Lead (Pb)	2009/09/25		45 (5)	%	75 - 125
		Zinc (Zn)	2009/09/25		86	%	75 - 125
	Spiked Blank	Aluminum (Al)	2009/09/25		112	%	75 - 125
		Antimony (Sb)	2009/09/25		91	%	75 - 125
		Arsenic (As)	2009/09/25		93	%	75 - 125
		Barium (Ba)	2009/09/25		98	%	75 - 125
		Beryllium (Be)	2009/09/25		99	%	75 - 125
		Boron (B)	2009/09/25		101	%	75 - 125
		Cadmium (Cd)	2009/09/25		92	%	75 - 125
		Chromium (Cr)	2009/09/25		98	%	75 - 125
		Cobalt (Co)	2009/09/25		98	%	75 - 125
		Copper (Cu)	2009/09/25		97	%	75 - 125
		Iron (Fe)	2009/09/25		101	%	75 - 125
		Lead (Pb)	2009/09/25		99	%	75 - 125
		Lithium (Li)	2009/09/25		107	%	75 - 125
		Manganese (Mn)	2009/09/25		106	%	75 - 125
		Molybdenum (Mo)	2009/09/25		91	%	75 - 125
		Nickel (Ni)	2009/09/25		96	%	75 - 125
		Selenium (Se)	2009/09/25		73 (6)	%	75 - 125
		Silver (Ag)	2009/09/25		99	%	75 - 125
		Strontium (Sr)	2009/09/25		99	%	75 - 125
		Thallium (Tl)	2009/09/25		92	%	75 - 125
		Tin (Sn)	2009/09/25		88	%	75 - 125
		Uranium (U)	2009/09/25		91	%	75 - 125
		Vanadium (V)	2009/09/25		99	%	75 - 125
		Zinc (Zn)	2009/09/25		91	%	75 - 125

Jacques Whitford Limited
Attention: Jim Slade
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C2256

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1952237	KGU	Method Blank	2009/09/25	<2.5		mg/kg	
		Aluminum (Al)	2009/09/25	<0.50		mg/kg	
		Antimony (Sb)	2009/09/25	<0.50		mg/kg	
		Arsenic (As)	2009/09/25	<1.5		mg/kg	
		Barium (Ba)	2009/09/25	<0.50		mg/kg	
		Beryllium (Be)	2009/09/25	<1.5		mg/kg	
		Boron (B)	2009/09/25	<0.050		mg/kg	
		Cadmium (Cd)	2009/09/25	<0.50		mg/kg	
		Chromium (Cr)	2009/09/25	<0.20		mg/kg	
		Cobalt (Co)	2009/09/25	<0.50		mg/kg	
		Copper (Cu)	2009/09/25	<15		mg/kg	
		Iron (Fe)	2009/09/25	<0.18		mg/kg	
		Lead (Pb)	2009/09/25	<0.50		mg/kg	
		Lithium (Li)	2009/09/25	<0.50		mg/kg	
		Manganese (Mn)	2009/09/25	<0.50		mg/kg	
		Molybdenum (Mo)	2009/09/25	<0.50		mg/kg	
		Nickel (Ni)	2009/09/25	<0.50		mg/kg	
		Selenium (Se)	2009/09/25	<0.50		mg/kg	
		Silver (Ag)	2009/09/25	<0.12		mg/kg	
		Strontium (Sr)	2009/09/25	<1.5		mg/kg	
		Thallium (Tl)	2009/09/25	<0.020		mg/kg	
		Tin (Sn)	2009/09/25	<0.50		mg/kg	
		Uranium (U)	2009/09/25	<0.020		mg/kg	
		Vanadium (V)	2009/09/25	<0.50		mg/kg	
		Zinc (Zn)	2009/09/25	<1.5		mg/kg	
	RPD [DS6011-01]	Aluminum (Al)	2009/09/25	NC		%	25
		Antimony (Sb)	2009/09/25	NC		%	25
		Arsenic (As)	2009/09/25	NC		%	25
		Barium (Ba)	2009/09/25	NC		%	25
		Beryllium (Be)	2009/09/25	NC		%	25
		Boron (B)	2009/09/25	NC		%	25
		Cadmium (Cd)	2009/09/25	NC		%	25
		Chromium (Cr)	2009/09/25	NC		%	25
		Cobalt (Co)	2009/09/25	NC		%	25
		Copper (Cu)	2009/09/25	24.8		%	25
		Iron (Fe)	2009/09/25	NC		%	25
		Lead (Pb)	2009/09/25	NC		%	25
		Lithium (Li)	2009/09/25	NC		%	25
		Manganese (Mn)	2009/09/25	NC (7)		%	25
		Molybdenum (Mo)	2009/09/25	NC		%	25
		Nickel (Ni)	2009/09/25	NC		%	25
		Selenium (Se)	2009/09/25	NC		%	25
		Silver (Ag)	2009/09/25	NC		%	25
		Strontium (Sr)	2009/09/25	NC		%	25
		Thallium (Tl)	2009/09/25	NC		%	25
		Tin (Sn)	2009/09/25	NC		%	25
		Uranium (U)	2009/09/25	NC		%	25
		Vanadium (V)	2009/09/25	NC		%	25
		Zinc (Zn)	2009/09/25	1.1		%	25
1956194	BMM	QC Standard	2009/09/29		98	%	75 - 125
		Method Blank	2009/09/29	<0.2		g/kg	
		RPD	2009/09/29	4.7		%	35
1957257	BMM	QC Standard	2009/10/01		92	%	75 - 125
		Method Blank	2009/10/01	<0.2		g/kg	
		RPD	2009/10/01	NC		%	35
1957638	CMI	Matrix Spike [DS6013-01]	2009/10/07		81	%	30 - 130
		Decachlorobiphenyl					

Jacques Whitford Limited
Attention: Jim Slade
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C2256

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1957638 CMI	Matrix Spike	Total PCB	2009/10/07		89	%	30 - 130
	[DS6013-01]	Decachlorobiphenyl	2009/10/07		92	%	30 - 130
	Spiked Blank	Total PCB	2009/10/07		97	%	30 - 130
	Method Blank	Decachlorobiphenyl	2009/10/07		73	%	30 - 130
		Total PCB	2009/10/07	<0.05		ug/g	
	RPD [DS6013-01]	Total PCB	2009/10/07	NC		%	50
1961707 JRC	QC Standard	Turbidity	2009/10/05		100	%	80 - 120
	Method Blank	Turbidity	2009/10/05	<0.1		NTU	
	RPD	Turbidity	2009/10/05	3.2		%	25
1961815 CDR	Matrix Spike	Total Organic Carbon (C)	2009/10/05		100	%	75 - 125
	QC Standard	Total Organic Carbon (C)	2009/10/05		112	%	80 - 120
	Spiked Blank	Total Organic Carbon (C)	2009/10/05		97	%	75 - 125
	Method Blank	Total Organic Carbon (C)	2009/10/05	<0.5		mg/L	
	RPD	Total Organic Carbon (C)	2009/10/05	NC (8)		%	25

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) %RPD criteria not applicable for individual PHI fractions.

(2) %RPD acceptable. Absolute duplicate values agree within 10%.

(3) Elevated recovery due to sample matrix.

(4) Typical recovery for RM matrix.

(5) Secondary RM is acceptable.

(6) Low recovery due to digestion efficiency.

(7) Poor RPD due to sample inhomogeneity.

(8) TOC Detection Limit increased due to matrix interference. (turbidity)

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: 25980

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/31

CERTIFICATE OF ANALYSIS

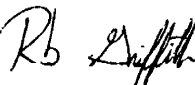
MAXXAM JOB #: A9A9801
Received: 2009/08/22, 10:18

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	4	2009/08/26	2009/08/26	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	3	2009/08/26	2009/08/27	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	1	N/A	2009/08/26	ATL SOP 00024 R4	Based on EPA6020A
Moisture	7	N/A	2009/08/25	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	4	2009/08/26	2009/08/31	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	7	2009/08/25	2009/08/27	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	7	2009/08/25	2009/08/28		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
31 Aug 2009 14:18:59 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9A9801
Report Date: 2009/08/31

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DM1644	DM1645	DM1646	DM1647	DM1648		
Sampling Date								
COC Number		25980	25980	25980	25980	25980		
Registration #								
	Units	BS 215	BS 197	BS 232	BS 236	BS 244	RDL	QC Batch

Inorganics								
Moisture	%	11	17	48	15	56	1	1917575

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DM1649	DM1650		
Sampling Date					
COC Number		25980	25980		
Registration #					
	Units	TP 236	TP 239	RDL	QC Batch

Inorganics					
Moisture	%	34	9	1	1917575

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A9801
Report Date: 2009/08/31

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DM1650		
Sampling Date				
COC Number		25980		
Registration #				
	Units	TP 239	RDL	QC Batch

Metals				
Available Aluminum (Al)	mg/kg	6600	10	1919156
Available Antimony (Sb)	mg/kg	<2	2	1919156
Available Arsenic (As)	mg/kg	<2	2	1919156
Available Barium (Ba)	mg/kg	13	5	1919156
Available Beryllium (Be)	mg/kg	<2	2	1919156
Available Bismuth (Bi)	mg/kg	<2	2	1919156
Available Boron (B)	mg/kg	<5	5	1919156
Available Cadmium (Cd)	mg/kg	<0.3	0.3	1919156
Available Chromium (Cr)	mg/kg	16	2	1919156
Available Cobalt (Co)	mg/kg	5	1	1919156
Available Copper (Cu)	mg/kg	15	2	1919156
Available Iron (Fe)	mg/kg	9100	50	1919156
Available Lead (Pb)	mg/kg	2.4	0.5	1919156
Available Lithium (Li)	mg/kg	6	2	1919156
Available Manganese (Mn)	mg/kg	110	2	1919156
Available Mercury (Hg)	mg/kg	<0.1	0.1	1919156
Available Molybdenum (Mo)	mg/kg	<2	2	1919156
Available Nickel (Ni)	mg/kg	13	2	1919156
Available Rubidium (Rb)	mg/kg	3	2	1919156
Available Selenium (Se)	mg/kg	<2	2	1919156
Available Silver (Ag)	mg/kg	<0.5	0.5	1919156
Available Strontium (Sr)	mg/kg	9	5	1919156
Available Thallium (Tl)	mg/kg	<0.1	0.1	1919156
Available Tin (Sn)	mg/kg	<2	2	1919156
Available Uranium (U)	mg/kg	0.3	0.1	1919156
Available Vanadium (V)	mg/kg	19	2	1919156
Available Zinc (Zn)	mg/kg	19	5	1919156

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A9801
Report Date: 2009/08/31

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DM1644	DM1645		DM1646		
Sampling Date							
COC Number		25980	25980		25980		
Registration #							
	Units	BS 215	BS 197	RDL	BS 232	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1920598
Toluene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1920598
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1920598
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	<0.3	0.3	1920598
C6 - C10 (less BTEX)	mg/kg	<3	<3	3	<10	10	1920598
>C10-C21 Hydrocarbons	mg/kg	20	<15	15	250	15	1919119
>C21-<C32 Hydrocarbons	mg/kg	42	<15	15	390	15	1919119
Modified TPH (Tier1)	mg/kg	62	<20	20	640	20	1917609
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	105	102		101		1919119
n-Dotriacontane - Extractable	%	101 (1)	110		100 (2)		1919119
Isobutylbenzene - Volatile	%	100	106		94 (3)		1920598

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.
(2) One product in fuel / lube range.
(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9A9801
Report Date: 2009/08/31

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DM1647	DM1648		DM1649		
Sampling Date							
COC Number		25980	25980		25980		
Registration #							
	Units	BS 236	BS 244	RDL	TP 236	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1920598
Toluene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1920598
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1920598
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	<0.3	0.3	1920598
C6 - C10 (less BTEX)	mg/kg	<3	<3	3	<10	10	1920598
>C10-C21 Hydrocarbons	mg/kg	<15	93	15	320	15	1918820
>C21-<C32 Hydrocarbons	mg/kg	52	250	15	720	15	1918820
Modified TPH (Tier1)	mg/kg	52	340	20	1000	20	1917609
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	110	104		110		1918820
n-Dotriacontane - Extractable	%	127 (1)	99 (2)		135 (3)		1918820
Isobutylbenzene - Volatile	%	96	85		95 (4)		1920598

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Possible lube oil fraction.

(2) One product in fuel / lube range.

(3) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. TEH Surrogate(s): results are within acceptance limits.

(4) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9A9801
Report Date: 2009/08/31

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DM1650		
Sampling Date				
COC Number		25980		
Registration #				
	Units	TP 239	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	<0.03	0.03	1920598
Toluene	mg/kg	<0.03	0.03	1920598
Ethylbenzene	mg/kg	<0.03	0.03	1920598
Xylene (Total)	mg/kg	<0.05	0.05	1920598
C6 - C10 (less BTEX)	mg/kg	<3	3	1920598
>C10-C21 Hydrocarbons	mg/kg	<15	15	1918820
>C21-<C32 Hydrocarbons	mg/kg	27	15	1918820
Modified TPH (Tier1)	mg/kg	27	20	1917609
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	107		1918820
n-Dotriacontane - Extractable	%	117 (1)		1918820
Isobutylbenzene - Volatile	%	101		1920598
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) No resemblance to petroleum products.				

Maxxam Job #: A9A9801
Report Date: 2009/08/31

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DM1645	DM1648	DM1649	DM1650		
Sampling Date							
COC Number		25980	25980	25980	25980		
Registration #							
	Units	BS 197	BS 244	TP 236	TP 239	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	0.54	<0.05	0.05	1918772
Surrogate Recovery (%)							
Decachlorobiphenyl	%	94	100	96 (1)	98		1918772

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9A9801
Report Date: 2009/08/31

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9A9801

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1918772 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/27		130	%	30 - 130
		Total PCB	2009/08/27		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/27		101	%	30 - 130
		Total PCB	2009/08/27		104	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/27		96	%	30 - 130
		Total PCB	2009/08/27	<0.05		ug/g	
	RPD	Total PCB	2009/08/27	8.2		%	50
	Matrix Spike	Isobutylbenzene - Extractable	2009/08/26		95	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/26		89	%	30 - 130
1918820 SHR		>C10-C21 Hydrocarbons	2009/08/26		94	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/26		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/26		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/26		97	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/26		99	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/26		112	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/26		93	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/26		88	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/26	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/26	<15		mg/kg	
1919119 SHR	Matrix Spike	>C10-C21 Hydrocarbons	2009/08/26		NC	%	50
		>C21-<C32 Hydrocarbons	2009/08/26	30.4		%	50
		Isobutylbenzene - Extractable	2009/08/26		95	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/26		98	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/26		86	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/26		101	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/26		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/26		106	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/26		101	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/26		114	%	30 - 130
1919156 DLB	Method Blank	Isobutylbenzene - Extractable	2009/08/26		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/26		98	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/26	16, RDL=15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/26	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/26	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/26	NC		%	50
	QC Standard	Available Aluminum (Al)	2009/08/26		92	%	75 - 125
		Available Arsenic (As)	2009/08/26		115	%	75 - 125
		Available Barium (Ba)	2009/08/26		106	%	75 - 125
		Available Chromium (Cr)	2009/08/26		91	%	75 - 125
		Available Cobalt (Co)	2009/08/26		98	%	75 - 125
		Available Copper (Cu)	2009/08/26		94	%	75 - 125
		Available Iron (Fe)	2009/08/26		94	%	75 - 125
		Available Lead (Pb)	2009/08/26		99	%	75 - 125
		Available Manganese (Mn)	2009/08/26		107	%	75 - 125
		Available Nickel (Ni)	2009/08/26		97	%	75 - 125
		Available Strontium (Sr)	2009/08/26		89	%	75 - 125
		Available Vanadium (V)	2009/08/26		111	%	75 - 125
		Available Zinc (Zn)	2009/08/26		114	%	75 - 125
		Available Aluminum (Al)	2009/08/26		101	%	75 - 125
	Spiked Blank	Available Antimony (Sb)	2009/08/26		108	%	75 - 125
		Available Arsenic (As)	2009/08/26		95	%	75 - 125
		Available Barium (Ba)	2009/08/26		91	%	75 - 125
		Available Beryllium (Be)	2009/08/26		93	%	75 - 125
		Available Bismuth (Bi)	2009/08/26		100	%	75 - 125
		Available Boron (B)	2009/08/26		89	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A9801

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1919156 DLB	Spiked Blank	Available Cadmium (Cd)	2009/08/26		94	%	75 - 125
		Available Chromium (Cr)	2009/08/26		102	%	75 - 125
		Available Cobalt (Co)	2009/08/26		102	%	75 - 125
		Available Copper (Cu)	2009/08/26		96	%	75 - 125
		Available Iron (Fe)	2009/08/26		95	%	75 - 125
		Available Lead (Pb)	2009/08/26		96	%	75 - 125
		Available Lithium (Li)	2009/08/26		97	%	75 - 125
		Available Manganese (Mn)	2009/08/26		99	%	75 - 125
		Available Mercury (Hg)	2009/08/26		96	%	75 - 125
		Available Molybdenum (Mo)	2009/08/26		98	%	75 - 125
		Available Nickel (Ni)	2009/08/26		100	%	75 - 125
		Available Rubidium (Rb)	2009/08/26		97	%	75 - 125
		Available Selenium (Se)	2009/08/26		99	%	75 - 125
		Available Silver (Ag)	2009/08/26		100	%	75 - 125
		Available Strontium (Sr)	2009/08/26		97	%	75 - 125
		Available Thallium (Tl)	2009/08/26		95	%	75 - 125
		Available Tin (Sn)	2009/08/26		97	%	75 - 125
		Available Uranium (U)	2009/08/26		98	%	75 - 125
		Available Vanadium (V)	2009/08/26		115	%	75 - 125
		Available Zinc (Zn)	2009/08/26		94	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/26	<10		mg/kg	
		Available Antimony (Sb)	2009/08/26	<2		mg/kg	
		Available Arsenic (As)	2009/08/26	<2		mg/kg	
		Available Barium (Ba)	2009/08/26	<5		mg/kg	
		Available Beryllium (Be)	2009/08/26	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/26	<2		mg/kg	
		Available Boron (B)	2009/08/26	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/26	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/26	<2		mg/kg	
		Available Cobalt (Co)	2009/08/26	<1		mg/kg	
		Available Copper (Cu)	2009/08/26	<2		mg/kg	
		Available Iron (Fe)	2009/08/26	<50		mg/kg	
		Available Lead (Pb)	2009/08/26	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/26	<2		mg/kg	
		Available Manganese (Mn)	2009/08/26	<2		mg/kg	
		Available Mercury (Hg)	2009/08/26	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/26	<2		mg/kg	
		Available Nickel (Ni)	2009/08/26	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/26	<2		mg/kg	
		Available Selenium (Se)	2009/08/26	<2		mg/kg	
		Available Silver (Ag)	2009/08/26	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/26	<5		mg/kg	
		Available Thallium (Tl)	2009/08/26	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/26	<2		mg/kg	
		Available Uranium (U)	2009/08/26	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/26	<2		mg/kg	
		Available Zinc (Zn)	2009/08/26	<5		mg/kg	
1920598 GTH	Matrix Spike	Isobutylbenzene - Volatile	2009/08/27		90	%	60 - 140
		Benzene	2009/08/27		83	%	60 - 140
		Toluene	2009/08/27		99	%	60 - 140
		Ethylbenzene	2009/08/27		89	%	60 - 140
		Xylene (Total)	2009/08/27		110	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/27		94	%	60 - 140
		Benzene	2009/08/27		89	%	60 - 140
		Toluene	2009/08/27		88	%	60 - 140

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A9801

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1920598 GTH	Spiked Blank	Ethylbenzene	2009/08/27		91	%	60 - 140
		Xylene (Total)	2009/08/27		90	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/27		96	%	60 - 140
		Benzene	2009/08/27	<0.03		mg/kg	
		Toluene	2009/08/27	<0.03		mg/kg	
		Ethylbenzene	2009/08/27	<0.03		mg/kg	
		Xylene (Total)	2009/08/27	<0.05		mg/kg	
	RPD	C6 - C10 (less BTEX)	2009/08/27	<3		mg/kg	
		Benzene	2009/08/27	NC		%	50
		Toluene	2009/08/27	NC		%	50
		Ethylbenzene	2009/08/27	NC		%	50
		Xylene (Total)	2009/08/27	NC		%	50
		C6 - C10 (less BTEX)	2009/08/27	NC		%	50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/07

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9C6758

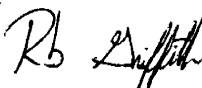
Received: 2009/09/24, 9:16

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	4	2009/10/01	2009/10/02	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	1	2009/10/01	2009/10/06	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	5	N/A	2009/10/01	ATL SOP 00024 R4	Based on EPA6020A
Moisture	5	N/A	2009/09/25	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	5	2009/09/28	2009/09/30	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	5	2009/09/25	2009/09/30	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
Particle size in solids (pipette&sieve)	3	N/A	2009/09/29	ATL SOP 00012 R3	based on MSAMS-1978
Total Organic Carbon in Soil	3	N/A	2009/09/29	ATL SOP 00044 R3/00045 R4	LECO 203-601-224
ModTPH (T1) Calc. for Soil	4	2009/09/24	2009/10/02		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	1	2009/09/24	2009/10/06		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
07 Oct 2009 14:11:43 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 13

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9C6758
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DU9478	DU9481		DU9482	DU9483		
Sampling Date		2009/09/23	2009/09/23		2009/09/23	2009/09/23		
COC Number		N/A	N/A		N/A	N/A		
	Units	SED-20	SED-21	RDL	SED-22	SED-23	RDL	QC Batch

Inorganics								
Moisture	%	82	68	1	18	33	1	1951035
Organic Carbon (TOC)	g/kg	110		2	8.2		0.2	1953024
< -4 Phi (16 mm)	%	100		0.1	100		0.1	1954333
< -3 Phi (8 mm)	%	100		0.1	100		0.1	1954333
< -2 Phi (4 mm)	%	100		0.1	100		0.1	1954333
< -1 Phi (2 mm)	%	97		0.1	83		0.1	1954333
< 0 Phi (1 mm)	%	81		0.1	81		0.1	1954333
< +1 Phi (0.5 mm)	%	71		0.1	80		0.1	1954333
< +2 Phi (0.25 mm)	%	64		0.1	78		0.1	1954333
< +3 Phi (0.12 mm)	%	58		0.1	75		0.1	1954333
< +4 Phi (0.062 mm)	%	54		0.1	70		0.1	1954333
< +5 Phi (0.031 mm)	%	50		0.1	60		0.1	1954333
< +6 Phi (0.016 mm)	%	38		0.1	44		0.1	1954333
< +7 Phi (0.0078 mm)	%	24		0.1	28		0.1	1954333
< +8 Phi (0.0039 mm)	%	19		0.1	23		0.1	1954333
< +9 Phi (0.0020 mm)	%	14		0.1	16		0.1	1954333
Gravel	%	3.5		0.1	17		0.1	1954333
Sand	%	42		0.1	13		0.1	1954333
Silt	%	35		0.1	47		0.1	1954333
Clay	%	19		0.1	23		0.1	1954333

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6758
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DU9484		DU9484		
Sampling Date		2009/09/23		2009/09/23		
COC Number		N/A		N/A		
	Units	SED-24	RDL	SED-24 Lab-Dup	RDL	QC Batch

Inorganics						
Moisture	%	65	1		1	1951035
Organic Carbon (TOC)	g/kg	84	1	92	2	1953024
< -4 Phi (16 mm)	%	100	0.1			1954333
< -3 Phi (8 mm)	%	100	0.1			1954333
< -2 Phi (4 mm)	%	100	0.1			1954333
< -1 Phi (2 mm)	%	100	0.1			1954333
< 0 Phi (1 mm)	%	98	0.1			1954333
< +1 Phi (0.5 mm)	%	91	0.1			1954333
< +2 Phi (0.25 mm)	%	81	0.1			1954333
< +3 Phi (0.12 mm)	%	68	0.1			1954333
< +4 Phi (0.062 mm)	%	49	0.1			1954333
< +5 Phi (0.031 mm)	%	33	0.1			1954333
< +6 Phi (0.016 mm)	%	20	0.1			1954333
< +7 Phi (0.0078 mm)	%	12	0.1			1954333
< +8 Phi (0.0039 mm)	%	8.8	0.1			1954333
< +9 Phi (0.0020 mm)	%	5.8	0.1			1954333
Gravel	%	0.4	0.1			1954333
Sand	%	50	0.1			1954333
Silt	%	40	0.1			1954333
Clay	%	8.8	0.1			1954333
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A9C6758
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DU9478	DU9481	DU9482	DU9483		
Sampling Date		2009/09/23	2009/09/23	2009/09/23	2009/09/23		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-20	SED-21	SED-22	SED-23	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	16000	11000	17000	3500	10	1957648
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1957648
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1957648
Available Barium (Ba)	mg/kg	65	40	55	13	5	1957648
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1957648
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1957648
Available Boron (B)	mg/kg	5	<5	<5	<5	5	1957648
Available Cadmium (Cd)	mg/kg	0.3	<0.3	<0.3	<0.3	0.3	1957648
Available Chromium (Cr)	mg/kg	26	21	30	6	2	1957648
Available Cobalt (Co)	mg/kg	10	6	11	3	1	1957648
Available Copper (Cu)	mg/kg	29	18	16	5	2	1957648
Available Iron (Fe)	mg/kg	15000	9900	20000	5500	50	1957648
Available Lead (Pb)	mg/kg	16	6.3	4.9	12	0.5	1957648
Available Lithium (Li)	mg/kg	11	6	13	2	2	1957648
Available Manganese (Mn)	mg/kg	200	140	330	73	2	1957648
Available Mercury (Hg)	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	1957648
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1957648
Available Nickel (Ni)	mg/kg	21	14	24	4	2	1957648
Available Rubidium (Rb)	mg/kg	10	6	14	<2	2	1957648
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1957648
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1957648
Available Strontium (Sr)	mg/kg	35	26	39	7	5	1957648
Available Thallium (Tl)	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	1957648
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1957648
Available Uranium (U)	mg/kg	2.6	2.1	0.6	0.3	0.1	1957648
Available Vanadium (V)	mg/kg	30	21	34	13	2	1957648
Available Zinc (Zn)	mg/kg	95	45	53	23	5	1957648

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6758
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DU9484		
Sampling Date		2009/09/23		
COC Number		N/A		
	Units	SED-24	RDL	QC Batch

Metals				
Available Aluminum (Al)	mg/kg	12000	10	1957648
Available Antimony (Sb)	mg/kg	<2	2	1957648
Available Arsenic (As)	mg/kg	<2	2	1957648
Available Barium (Ba)	mg/kg	42	5	1957648
Available Beryllium (Be)	mg/kg	<2	2	1957648
Available Bismuth (Bi)	mg/kg	<2	2	1957648
Available Boron (B)	mg/kg	<5	5	1957648
Available Cadmium (Cd)	mg/kg	<0.3	0.3	1957648
Available Chromium (Cr)	mg/kg	21	2	1957648
Available Cobalt (Co)	mg/kg	7	1	1957648
Available Copper (Cu)	mg/kg	19	2	1957648
Available Iron (Fe)	mg/kg	18000	50	1957648
Available Lead (Pb)	mg/kg	8.2	0.5	1957648
Available Lithium (Li)	mg/kg	7	2	1957648
Available Manganese (Mn)	mg/kg	180	2	1957648
Available Mercury (Hg)	mg/kg	<0.1	0.1	1957648
Available Molybdenum (Mo)	mg/kg	<2	2	1957648
Available Nickel (Ni)	mg/kg	14	2	1957648
Available Rubidium (Rb)	mg/kg	6	2	1957648
Available Selenium (Se)	mg/kg	<2	2	1957648
Available Silver (Ag)	mg/kg	<0.5	0.5	1957648
Available Strontium (Sr)	mg/kg	22	5	1957648
Available Thallium (Tl)	mg/kg	<0.1	0.1	1957648
Available Tin (Sn)	mg/kg	<2	2	1957648
Available Uranium (U)	mg/kg	2.7	0.1	1957648
Available Vanadium (V)	mg/kg	25	2	1957648
Available Zinc (Zn)	mg/kg	97	5	1957648

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6758
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU9478	DU9481	DU9482	DU9483		
Sampling Date		2009/09/23	2009/09/23	2009/09/23	2009/09/23		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-20	SED-21	SED-22	SED-23	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1954871
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1954871
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1954871
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1954871
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1954871
>C10-C21 Hydrocarbons	mg/kg	15000	2400	<15	500	15	1957308
>C21-<C32 Hydrocarbons	mg/kg	1300	280	<15	100	15	1957308
Modified TPH (Tier1)	mg/kg	16000	2700	<20	600	20	1950185
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	96	103	94	96		1957308
n-Dotriacontane - Extractable	%	109 (1)	111 (1)	101 (2)	108 (1)		1957308
Isobutylbenzene - Volatile	%	59 (3)	84	108	95		1954871

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) Silica gel clean-up performed prior to analysis as per client request.

(3) VPH surrogate not within acceptance limits due to matrix interference.

Maxxam Job #: A9C6758
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU9484		
Sampling Date		2009/09/23		
COC Number		N/A		
	Units	SED-24	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	<0.03	0.03	1954871
Toluene	mg/kg	<0.03	0.03	1954871
Ethylbenzene	mg/kg	<0.03	0.03	1954871
Xylene (Total)	mg/kg	<0.05	0.05	1954871
C6 - C10 (less BTEX)	mg/kg	<3	3	1954871
>C10-C21 Hydrocarbons	mg/kg	6400	15	1957308
>C21-<C32 Hydrocarbons	mg/kg	320	15	1957308
Modified TPH (Tier1)	mg/kg	6700	20	1950185
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	105		1957308
n-Dotriacontane - Extractable	%	113 (1)		1957308
Isobutylbenzene - Volatile	%	80		1954871

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6758
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DU9478	DU9481	DU9482	DU9483		
Sampling Date		2009/09/23	2009/09/23	2009/09/23	2009/09/23		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-20	SED-21	SED-22	SED-23	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.68	<0.05	<0.05	<0.05	0.05	1953267
Surrogate Recovery (%)							
Decachlorobiphenyl	%	103 (1)	84	79	94		1953267

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DU9484		
Sampling Date		2009/09/23		
COC Number		N/A		
	Units	SED-24	RDL	QC Batch

PCBs				
Total PCB	ug/g	<0.05	0.05	1953267
Surrogate Recovery (%)				
Decachlorobiphenyl	%	95		1953267

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6758
Report Date: 2009/10/07

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9C6758

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1953024 BMM	QC Standard	Organic Carbon (TOC)	2009/09/29		95	%	75 - 125
	Method Blank	Organic Carbon (TOC)	2009/09/29	<0.2		g/kg	
	RPD [DU9484-01]	Organic Carbon (TOC)	2009/09/29	8.9		%	35
1953267 CMI	Matrix Spike	Decachlorobiphenyl	2009/09/29		96	%	30 - 130
		Total PCB	2009/09/29		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/29		96	%	30 - 130
		Total PCB	2009/09/29		128	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/29		96	%	30 - 130
		Total PCB	2009/09/29	<0.05		ug/g	
	RPD	Total PCB	2009/09/29	28.6		%	50
1954871 ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/09/30		87	%	60 - 140
		Benzene	2009/09/30		76	%	60 - 140
		Toluene	2009/09/30		104	%	60 - 140
		Ethylbenzene	2009/09/30		95	%	60 - 140
		Xylene (Total)	2009/09/30		106	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/09/30		98	%	60 - 140
		Benzene	2009/09/30		85	%	60 - 140
		Toluene	2009/09/30		90	%	60 - 140
		Ethylbenzene	2009/09/30		88	%	60 - 140
		Xylene (Total)	2009/09/30		93	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/09/30		101	%	60 - 140
		Benzene	2009/09/30	<0.03		mg/kg	
		Toluene	2009/09/30	<0.03		mg/kg	
		Ethylbenzene	2009/09/30	<0.03		mg/kg	
		Xylene (Total)	2009/09/30	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/09/30	<3		mg/kg	
	RPD	Benzene	2009/09/30	NC		%	50
		Toluene	2009/09/30	NC		%	50
		Ethylbenzene	2009/09/30	NC		%	50
		Xylene (Total)	2009/09/30	NC		%	50
		C6 - C10 (less BTEX)	2009/09/30	NC		%	50
1957308 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/10/01		89	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/01		89	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/01		75	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/01		89	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/01		86	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/01		87	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/01		71	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/01		85	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/01		90	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/01		91	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/01	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/10/01	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/10/01	NC		%	50
		>C21-<C32 Hydrocarbons	2009/10/01	NC		%	50
1957648 KGU	Matrix Spike	Available Aluminum (Al)	2009/10/01		NC	%	75 - 125
		Available Antimony (Sb)	2009/10/01		83	%	75 - 125
		Available Arsenic (As)	2009/10/01		91	%	75 - 125
		Available Barium (Ba)	2009/10/01		97	%	75 - 125
		Available Beryllium (Be)	2009/10/01		95	%	75 - 125
		Available Bismuth (Bi)	2009/10/01		99	%	75 - 125
		Available Boron (B)	2009/10/01		108	%	75 - 125
		Available Cadmium (Cd)	2009/10/01		96	%	75 - 125
		Available Chromium (Cr)	2009/10/01		NC	%	75 - 125
		Available Cobalt (Co)	2009/10/01		101	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C6758

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1957648 KGU	Matrix Spike	Available Copper (Cu)	2009/10/01		102	%	75 - 125	
		Available Iron (Fe)	2009/10/01		NC	%	75 - 125	
		Available Lead (Pb)	2009/10/01		98	%	75 - 125	
		Available Lithium (Li)	2009/10/01		101	%	75 - 125	
		Available Manganese (Mn)	2009/10/01		NC	%	75 - 125	
		Available Mercury (Hg)	2009/10/01		110	%	75 - 125	
		Available Molybdenum (Mo)	2009/10/01		93	%	75 - 125	
		Available Nickel (Ni)	2009/10/01		102	%	75 - 125	
		Available Rubidium (Rb)	2009/10/01		100	%	75 - 125	
		Available Selenium (Se)	2009/10/01		81	%	75 - 125	
		Available Silver (Ag)	2009/10/01		100	%	75 - 125	
		Available Strontium (Sr)	2009/10/01		98	%	75 - 125	
		Available Thallium (Tl)	2009/10/01		99	%	75 - 125	
		Available Tin (Sn)	2009/10/01		102	%	75 - 125	
		Available Uranium (U)	2009/10/01		100	%	75 - 125	
		Available Vanadium (V)	2009/10/01		102	%	75 - 125	
	QC Standard	Available Zinc (Zn)	2009/10/01		NC	%	75 - 125	
		Available Aluminum (Al)	2009/10/01		81	%	75 - 125	
		Available Arsenic (As)	2009/10/01		108	%	75 - 125	
		Available Barium (Ba)	2009/10/01		106	%	75 - 125	
		Available Chromium (Cr)	2009/10/01		89	%	75 - 125	
		Available Cobalt (Co)	2009/10/01		100	%	75 - 125	
		Available Copper (Cu)	2009/10/01		91	%	75 - 125	
		Available Iron (Fe)	2009/10/01		93	%	75 - 125	
		Available Lead (Pb)	2009/10/01		98	%	75 - 125	
		Available Manganese (Mn)	2009/10/01		98	%	75 - 125	
		Available Nickel (Ni)	2009/10/01		101	%	75 - 125	
		Available Strontium (Sr)	2009/10/01		89	%	75 - 125	
		Available Vanadium (V)	2009/10/01		111	%	75 - 125	
		Available Zinc (Zn)	2009/10/01		92	%	75 - 125	
	Spiked Blank	Available Aluminum (Al)	2009/10/01		99	%	75 - 125	
		Available Antimony (Sb)	2009/10/01		101	%	75 - 125	
		Available Arsenic (As)	2009/10/01		94	%	75 - 125	
		Available Barium (Ba)	2009/10/01		96	%	75 - 125	
		Available Beryllium (Be)	2009/10/01		86	%	75 - 125	
		Available Bismuth (Bi)	2009/10/01		98	%	75 - 125	
		Available Boron (B)	2009/10/01		90	%	75 - 125	
		Available Cadmium (Cd)	2009/10/01		93	%	75 - 125	
		Available Chromium (Cr)	2009/10/01		100	%	75 - 125	
		Available Cobalt (Co)	2009/10/01		101	%	75 - 125	
		Available Copper (Cu)	2009/10/01		97	%	75 - 125	
		Available Iron (Fe)	2009/10/01		103	%	75 - 125	
		Available Lead (Pb)	2009/10/01		97	%	75 - 125	
		Available Lithium (Li)	2009/10/01		89	%	75 - 125	
		Available Manganese (Mn)	2009/10/01		98	%	75 - 125	
		Available Mercury (Hg)	2009/10/01		110	%	75 - 125	
		Available Molybdenum (Mo)	2009/10/01		94	%	75 - 125	
		Available Nickel (Ni)	2009/10/01		104	%	75 - 125	
		Available Rubidium (Rb)	2009/10/01		98	%	75 - 125	
		Available Selenium (Se)	2009/10/01		92	%	75 - 125	
		Available Silver (Ag)	2009/10/01		97	%	75 - 125	
		Available Strontium (Sr)	2009/10/01		99	%	75 - 125	
		Available Thallium (Tl)	2009/10/01		94	%	75 - 125	
		Available Tin (Sn)	2009/10/01		99	%	75 - 125	
		Available Uranium (U)	2009/10/01		100	%	75 - 125	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C6758

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1957648 KGU	Spiked Blank	Available Vanadium (V)	2009/10/01		108	%	75 - 125
		Available Zinc (Zn)	2009/10/01		92	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/10/01	<10		mg/kg	
		Available Antimony (Sb)	2009/10/01	<2		mg/kg	
		Available Arsenic (As)	2009/10/01	<2		mg/kg	
		Available Barium (Ba)	2009/10/01	<5		mg/kg	
		Available Beryllium (Be)	2009/10/01	<2		mg/kg	
		Available Bismuth (Bi)	2009/10/01	<2		mg/kg	
		Available Boron (B)	2009/10/01	<5		mg/kg	
		Available Cadmium (Cd)	2009/10/01	<0.3		mg/kg	
		Available Chromium (Cr)	2009/10/01	<2		mg/kg	
		Available Cobalt (Co)	2009/10/01	<1		mg/kg	
		Available Copper (Cu)	2009/10/01	<2		mg/kg	
		Available Iron (Fe)	2009/10/01	<50		mg/kg	
		Available Lead (Pb)	2009/10/01	<0.5		mg/kg	
		Available Lithium (Li)	2009/10/01	<2		mg/kg	
		Available Manganese (Mn)	2009/10/01	<2		mg/kg	
		Available Mercury (Hg)	2009/10/01	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/10/01	<2		mg/kg	
		Available Nickel (Ni)	2009/10/01	<2		mg/kg	
		Available Rubidium (Rb)	2009/10/01	<2		mg/kg	
		Available Selenium (Se)	2009/10/01	<2		mg/kg	
		Available Silver (Ag)	2009/10/01	<0.5		mg/kg	
		Available Strontium (Sr)	2009/10/01	<5		mg/kg	
		Available Thallium (Tl)	2009/10/01	<0.1		mg/kg	
		Available Tin (Sn)	2009/10/01	<2		mg/kg	
		Available Uranium (U)	2009/10/01	<0.1		mg/kg	
		Available Vanadium (V)	2009/10/01	<2		mg/kg	
		Available Zinc (Zn)	2009/10/01	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/10/01	0.5		%	35
		Available Antimony (Sb)	2009/10/01	NC		%	35
		Available Arsenic (As)	2009/10/01	NC		%	35
		Available Barium (Ba)	2009/10/01	NC		%	35
		Available Cadmium (Cd)	2009/10/01	NC		%	35
		Available Chromium (Cr)	2009/10/01	6.8		%	35
		Available Cobalt (Co)	2009/10/01	NC		%	35
		Available Copper (Cu)	2009/10/01	NC		%	35
		Available Iron (Fe)	2009/10/01	10.5		%	35
		Available Lead (Pb)	2009/10/01	NC		%	35
		Available Manganese (Mn)	2009/10/01	15.8		%	35
		Available Mercury (Hg)	2009/10/01	NC		%	35
		Available Molybdenum (Mo)	2009/10/01	NC		%	35
		Available Nickel (Ni)	2009/10/01	NC		%	35
		Available Selenium (Se)	2009/10/01	NC		%	35
		Available Silver (Ag)	2009/10/01	NC		%	35
		Available Strontium (Sr)	2009/10/01	NC		%	35
		Available Tin (Sn)	2009/10/01	NC		%	35
		Available Vanadium (V)	2009/10/01	NC		%	35
		Available Zinc (Zn)	2009/10/01	7.0		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C6758

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/17

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9A0584

Received: 2009/08/05, 9:39

Sample Matrix: Soil
Samples Received: 69

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (AA PIRI)	1	N/A	2009/08/13	ATL SOP 00116 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	3	2009/08/08	2009/08/09	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	12	2009/08/10	2009/08/11	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	2	2009/08/10	2009/08/13	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	7	2009/08/11	2009/08/11	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	2	2009/08/11	2009/08/12	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	33	N/A	2009/08/12	ATL SOP 00024 R4	Based on EPA6020A
Metals Solid Avail. Unified MS - Nper	1	N/A	2009/08/13	ATL SOP 00024 R4	Based on EPA6020A
Moisture	16	N/A	2009/08/08	ATL SOP 00001 R3	MOE Handbook 1983
Moisture	44	N/A	2009/08/10	ATL SOP 00001 R3	MOE Handbook 1983
PAH Compounds by GCMS (SIM) Ø	3	2009/08/11	2009/08/14	ATL SOP 00102 R3	Based on EPA8270C
PCBs in soil by GC/ECD	14	2009/08/10	2009/08/11	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	20	2009/08/10	2009/08/12	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	10	2009/08/10	2009/08/13	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI2)	1	N/A	2009/08/10	ATL SOP 00120 R4	Based on Atl. PIRI
VPH in Soil (PIRI)	12	2009/08/08	2009/08/10	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	12	2009/08/08	2009/08/11	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	1	2009/08/08	2009/08/12	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	1	2009/08/10	2009/08/12	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	3	2009/08/07	2009/08/11		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	18	2009/08/07	2009/08/12		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	5	2009/08/07	2009/08/13		Based on Atl. PIRI
ModTPH (T2) Calc. for Soil	1	N/A	2009/08/13	n/a	Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

./2

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

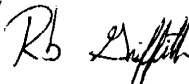
Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/17

CERTIFICATE OF ANALYSIS

-2-

Encryption Key

 Rob Griffith
17 Aug 2009 17:49:58 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 2

Page 2 of 54

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH5561	DH5562	DH5563	DH5565	DH5566		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS43	BS44	BS46	BS48	BS53	RDL	QC Batch

Inorganics								
Moisture	%	6	8	2	13	6	1	1901392
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH5567	DH5568	DH5570	DH5571	DH5572		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS57	BS58	BS61	BS65	BS72	RDL	QC Batch

Inorganics								
Moisture	%	10	6	18	6	7	1	1901392
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH5573	DH5574	DH5575	DH5576	DH5577		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS75	BS78	BS81	BS84	BS91	RDL	QC Batch

Inorganics								
Moisture	%	5	4	18	6	23	1	1901392
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH5579		DH5580	DH5581	DH5584		
Sampling Date		2009/08/04		2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A		N/A	N/A	N/A		
Registration #								
	Units	BS95	QC Batch	BS97	BS100	BS121	RDL	QC Batch

Inorganics								
Moisture	%	3	1901392	15	5	46	1	1901735
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH5585	DH5586	DH5587	DH5588	DH5589		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS122	BS123	BS124	BS125	BS126	RDL	QC Batch

Inorganics								
Moisture	%	45	25	73	35	41	1	1901735
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH5590	DH5592	DH5593	DH5594	DH5595		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS127	BS129	BS130	BS131	BS132	RDL	QC Batch

Inorganics								
Moisture	%	46	33	9	23	2	1	1901735
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

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Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH5596	DH5598	DH5599	DH5600	DH5601		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS134	BS137	BS138	BS139	BS140	RDL	QC Batch

Inorganics								
Moisture	%	60	3	5	5	3	1	1901735
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH5602	DH5603	DH5604	DH5605	DH5606		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS142	BS144	BS145	TP149-BS1	TP151-BS1	RDL	QC Batch

Inorganics								
Moisture	%	11	4	6	13	31	1	1901735
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH5607	DH5608	DH5609	DH5611	DH5612		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP152-BS2	TP153-BS1	TP154-BS1	TP157-BS2	TP160-BS1	RDL	QC Batch

Inorganics								
Moisture	%	39	27	12	50	16	1	1901735
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

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Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH5613	DH5614	DH5615	DH5616	DH5617		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP161-BS1	TP161-BS2	TP162-BS1	TP162-BS2	TP163-BS1	RDL	QC Batch

Inorganics								
Moisture	%	22	11	27	15	31	1	1901735
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH5618	DH5619	DH5620		DH5621		
Sampling Date		2009/08/04	2009/08/04	2009/08/04		2009/08/04		
COC Number		N/A	N/A	N/A		N/A		
Registration #								
	Units	TP164-BS1	TP165-BS1	TP165-BS2	QC Batch	TP166-BS1	RDL	QC Batch

Inorganics								
Moisture	%	22	25	37	1901735	20	1	1902019
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DH5622	DH5623	DH5624	DH5625	DH5626		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP167-BS1	TP169-BS1	TP169-BS2	TP170-BS2	TP171-BS1	RDL	QC Batch

Inorganics								
Moisture	%	13	65	11	8	50	1	1902019
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9A0584
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Jacques Whitford Limited
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Project name: HOPEDALE
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RESULTS OF ANALYSES OF SOIL

Maxxam ID		DH5627	DH5645		
Sampling Date		2009/08/04	2009/08/04		
COC Number		N/A	N/A		
Registration #					
	Units	TP172-BS1	TP176-BS1	RDL	QC Batch

Inorganics					
Moisture	%	40	9	1	1902019

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5564	DH5564	DH5568	DH5569		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS47	BS47 Lab-Dup	BS58	BS59	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	8200	7900	5600	5600	10	1904743
Available Antimony (Sb)	mg/kg	4	4	<2	<2	2	1904743
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904743
Available Barium (Ba)	mg/kg	140	130	17	13	5	1904743
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904743
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904743
Available Boron (B)	mg/kg	35	28	<5	<5	5	1904743
Available Cadmium (Cd)	mg/kg	1.1	1.0	<0.3	<0.3	0.3	1904743
Available Chromium (Cr)	mg/kg	30	29	14	13	2	1904743
Available Cobalt (Co)	mg/kg	5	5	5	4	1	1904743
Available Copper (Cu)	mg/kg	30	38	13	12	2	1904743
Available Iron (Fe)	mg/kg	11000	14000	8400	7800	50	1904743
Available Lead (Pb)	mg/kg	320	130 (1)	2.5	4.1	0.5	1904743
Available Lithium (Li)	mg/kg	12	13	7	6	2	1904743
Available Manganese (Mn)	mg/kg	260	290	120	100	2	1904743
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904743
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1904743
Available Nickel (Ni)	mg/kg	19	18	16	12	2	1904743
Available Rubidium (Rb)	mg/kg	11	11	5	4	2	1904743
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904743
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904743
Available Strontium (Sr)	mg/kg	27	27	8	7	5	1904743
Available Thallium (Tl)	mg/kg	0.1	0.1	<0.1	<0.1	0.1	1904743
Available Tin (Sn)	mg/kg	3	2	<2	<2	2	1904743
Available Uranium (U)	mg/kg	0.5	0.6	0.5	0.5	0.1	1904743
Available Vanadium (V)	mg/kg	19	18	15	14	2	1904743
Available Zinc (Zn)	mg/kg	190	200	23	21	5	1904743

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Poor duplicate agreement due to sample inhomogeneity.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5571		DH5574	DH5576		
Sampling Date		2009/08/04		2009/08/04	2009/08/04		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS65	RDL	BS78	BS84	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	4600	10	5700	12000	10	1904743
Available Antimony (Sb)	mg/kg	<2	2	<2	5	2	1904743
Available Arsenic (As)	mg/kg	<2	2	<2	<2	2	1904743
Available Barium (Ba)	mg/kg	24	5	36	85	5	1904743
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1904743
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1904743
Available Boron (B)	mg/kg	6	5	<5	40	5	1904743
Available Cadmium (Cd)	mg/kg	1.9	0.3	<0.3	1.8	0.3	1904743
Available Chromium (Cr)	mg/kg	21	2	15	40	2	1904743
Available Cobalt (Co)	mg/kg	6	1	5	8	1	1904743
Available Copper (Cu)	mg/kg	54	2	18	2200	2	1904743
Available Iron (Fe)	mg/kg	10000	50	12000	15000	50	1904743
Available Lead (Pb)	mg/kg	120	0.5	21	82	0.5	1904743
Available Lithium (Li)	mg/kg	7	2	7	15	2	1904743
Available Manganese (Mn)	mg/kg	170	2	160	380	2	1904743
Available Mercury (Hg)	mg/kg	<0.2 (1)	0.2	<0.1	<0.1	0.1	1904743
Available Molybdenum (Mo)	mg/kg	<2	2	<2	<2	2	1904743
Available Nickel (Ni)	mg/kg	18	2	13	26	2	1904743
Available Rubidium (Rb)	mg/kg	4	2	5	18	2	1904743
Available Selenium (Se)	mg/kg	<2	2	<2	<2	2	1904743
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	<0.5	0.5	1904743
Available Strontium (Sr)	mg/kg	7	5	29	33	5	1904743
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	0.1	0.1	1904743
Available Tin (Sn)	mg/kg	13	2	<2	6	2	1904743
Available Uranium (U)	mg/kg	0.2	0.1	0.4	1.3	0.1	1904743
Available Vanadium (V)	mg/kg	14	2	17	40	2	1904743
Available Zinc (Zn)	mg/kg	820	5	210	800	5	1904743

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5578	DH5582	DH5583		
Sampling Date		2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	BS92	BS101	BS103	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	6300	4800	8200	10	1904743
Available Antimony (Sb)	mg/kg	<2	<2	<2	2	1904743
Available Arsenic (As)	mg/kg	<2	<2	<2	2	1904743
Available Barium (Ba)	mg/kg	10	18	16	5	1904743
Available Beryllium (Be)	mg/kg	<2	<2	<2	2	1904743
Available Bismuth (Bi)	mg/kg	<2	<2	<2	2	1904743
Available Boron (B)	mg/kg	<5	<5	<5	5	1904743
Available Cadmium (Cd)	mg/kg	1.8	0.3	0.6	0.3	1904743
Available Chromium (Cr)	mg/kg	15	24	15	2	1904743
Available Cobalt (Co)	mg/kg	2	3	3	1	1904743
Available Copper (Cu)	mg/kg	12	11	17	2	1904743
Available Iron (Fe)	mg/kg	9200	9300	6300	50	1904743
Available Lead (Pb)	mg/kg	4.4	10	5.1	0.5	1904743
Available Lithium (Li)	mg/kg	3	5	5	2	1904743
Available Manganese (Mn)	mg/kg	45	84	71	2	1904743
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	0.1	1904743
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	2	1904743
Available Nickel (Ni)	mg/kg	5	12	11	2	1904743
Available Rubidium (Rb)	mg/kg	2	7	3	2	1904743
Available Selenium (Se)	mg/kg	<2	<2	<2	2	1904743
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	0.5	1904743
Available Strontium (Sr)	mg/kg	7	11	13	5	1904743
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	0.1	1904743
Available Tin (Sn)	mg/kg	<2	<2	<2	2	1904743
Available Uranium (U)	mg/kg	0.4	0.7	0.6	0.1	1904743
Available Vanadium (V)	mg/kg	24	21	17	2	1904743
Available Zinc (Zn)	mg/kg	28	42	35	5	1904743

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5584			DH5585		
Sampling Date		2009/08/04			2009/08/04		
COC Number		N/A			N/A		
Registration #							
	Units	BS121	RDL	QC Batch	BS122	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	12000	10	1904743	6500	10	1904744
Available Antimony (Sb)	mg/kg	5	2	1904743	<2	2	1904744
Available Arsenic (As)	mg/kg	3	2	1904743	<2	2	1904744
Available Barium (Ba)	mg/kg	170	5	1904743	150	5	1904744
Available Beryllium (Be)	mg/kg	<2	2	1904743	<2	2	1904744
Available Bismuth (Bi)	mg/kg	<2	2	1904743	<2	2	1904744
Available Boron (B)	mg/kg	7	5	1904743	<5	5	1904744
Available Cadmium (Cd)	mg/kg	18	0.3	1904743	15	0.3	1904744
Available Chromium (Cr)	mg/kg	36	2	1904743	11	2	1904744
Available Cobalt (Co)	mg/kg	7	1	1904743	3	1	1904744
Available Copper (Cu)	mg/kg	150	2	1904743	84	2	1904744
Available Iron (Fe)	mg/kg	21000	50	1904743	6100	50	1904744
Available Lead (Pb)	mg/kg	3000	5	1904743	220	0.5	1904744
Available Lithium (Li)	mg/kg	7	2	1904743	4	2	1904744
Available Manganese (Mn)	mg/kg	370	2	1904743	98	2	1904744
Available Mercury (Hg)	mg/kg	<0.2 (1)	0.2	1904743	0.2	0.1	1904744
Available Molybdenum (Mo)	mg/kg	2	2	1904743	<2	2	1904744
Available Nickel (Ni)	mg/kg	14	2	1904743	4	2	1904744
Available Rubidium (Rb)	mg/kg	9	2	1904743	6	2	1904744
Available Selenium (Se)	mg/kg	<2	2	1904743	<2	2	1904744
Available Silver (Ag)	mg/kg	<0.5	0.5	1904743	<0.5	0.5	1904744
Available Strontium (Sr)	mg/kg	52	5	1904743	45	5	1904744
Available Thallium (Tl)	mg/kg	<0.1	0.1	1904743	<0.1	0.1	1904744
Available Tin (Sn)	mg/kg	5	2	1904743	<2	2	1904744
Available Uranium (U)	mg/kg	1.5	0.1	1904743	1.4	0.1	1904744
Available Vanadium (V)	mg/kg	21	2	1904743	14	2	1904744
Available Zinc (Zn)	mg/kg	1800	5	1904743	970	5	1904744

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5587	DH5589	DH5591		
Sampling Date		2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	BS124	BS126	BS128	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	7000	5000	5600	10	1904744
Available Antimony (Sb)	mg/kg	3	2	<2	2	1904744
Available Arsenic (As)	mg/kg	<2	<2	<2	2	1904744
Available Barium (Ba)	mg/kg	51	140	43	5	1904744
Available Beryllium (Be)	mg/kg	<2	<2	<2	2	1904744
Available Bismuth (Bi)	mg/kg	<2	<2	<2	2	1904744
Available Boron (B)	mg/kg	11	14	<5	5	1904744
Available Cadmium (Cd)	mg/kg	9.0	29	22	0.3	1904744
Available Chromium (Cr)	mg/kg	25	12	14	2	1904744
Available Cobalt (Co)	mg/kg	3	4	4	1	1904744
Available Copper (Cu)	mg/kg	54	200	100	2	1904744
Available Iron (Fe)	mg/kg	7100	7100	6600	50	1904744
Available Lead (Pb)	mg/kg	120	280	24	0.5	1904744
Available Lithium (Li)	mg/kg	8	4	3	2	1904744
Available Manganese (Mn)	mg/kg	150	180	150	2	1904744
Available Mercury (Hg)	mg/kg	0.7	0.2	<0.2 (1)	0.2	1904744
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	2	1904744
Available Nickel (Ni)	mg/kg	6	7	7	2	1904744
Available Rubidium (Rb)	mg/kg	18	10	3	2	1904744
Available Selenium (Se)	mg/kg	<2	2	<2	2	1904744
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	0.5	1904744
Available Strontium (Sr)	mg/kg	170	44	21	5	1904744
Available Thallium (Tl)	mg/kg	0.1	<0.1	<0.1	0.1	1904744
Available Tin (Sn)	mg/kg	2	2	6	2	1904744
Available Uranium (U)	mg/kg	1.3	1.2	1.5	0.1	1904744
Available Vanadium (V)	mg/kg	16	16	13	2	1904744
Available Zinc (Zn)	mg/kg	420	960	420	5	1904744

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5592		DH5594	DH5594		
Sampling Date		2009/08/04		2009/08/04	2009/08/04		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS129	QC Batch	BS131	BS131 Lab-Dup	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	8200	1906463	8000	8100	10	1904744
Available Antimony (Sb)	mg/kg	6	1906463	<2	<2	2	1904744
Available Arsenic (As)	mg/kg	<2	1906463	<2	<2	2	1904744
Available Barium (Ba)	mg/kg	41	1906463	68	65	5	1904744
Available Beryllium (Be)	mg/kg	<2	1906463	<2	<2	2	1904744
Available Bismuth (Bi)	mg/kg	<2	1906463	<2	<2	2	1904744
Available Boron (B)	mg/kg	<5	1906463	<5	<5	5	1904744
Available Cadmium (Cd)	mg/kg	<0.3	1906463	11	11	0.3	1904744
Available Chromium (Cr)	mg/kg	24	1906463	14	13	2	1904744
Available Cobalt (Co)	mg/kg	6	1906463	12	11	1	1904744
Available Copper (Cu)	mg/kg	10	1906463	56	45	2	1904744
Available Iron (Fe)	mg/kg	15000	1906463	12000	11000	50	1904744
Available Lead (Pb)	mg/kg	6.6	1906463	87	46 (1)	0.5	1904744
Available Lithium (Li)	mg/kg	9	1906463	16	16	2	1904744
Available Manganese (Mn)	mg/kg	130	1906463	170	160	2	1904744
Available Mercury (Hg)	mg/kg	<0.2 (2)	1906463	<0.2 (2)	<0.2 (2)	0.2	1904744
Available Molybdenum (Mo)	mg/kg	<2	1906463	<2	<2	2	1904744
Available Nickel (Ni)	mg/kg	11	1906463	12	12	2	1904744
Available Rubidium (Rb)	mg/kg	15	1906463	26	26	2	1904744
Available Selenium (Se)	mg/kg	<2	1906463	<2	<2	2	1904744
Available Silver (Ag)	mg/kg	<0.5	1906463	<0.5	<0.5	0.5	1904744
Available Strontium (Sr)	mg/kg	<5	1906463	15	14	5	1904744
Available Thallium (Tl)	mg/kg	0.1	1906463	0.2	0.2	0.1	1904744
Available Tin (Sn)	mg/kg	<2	1906463	<2	<2	2	1904744
Available Uranium (U)	mg/kg	0.7	1906463	0.3	0.3	0.1	1904744
Available Vanadium (V)	mg/kg	40	1906463	21	20	2	1904744
Available Zinc (Zn)	mg/kg	34	1906463	94	96	5	1904744

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Poor duplicate agreement due to sample inhomogeneity.
(2) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5597		DH5600	DH5601		
Sampling Date		2009/08/04		2009/08/04	2009/08/04		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS135	RDL	BS139	BS140	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7900	10	4700	2100	10	1904744
Available Antimony (Sb)	mg/kg	<2	2	<2	5	2	1904744
Available Arsenic (As)	mg/kg	4	2	2	<2	2	1904744
Available Barium (Ba)	mg/kg	32	5	25	17	5	1904744
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1904744
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1904744
Available Boron (B)	mg/kg	<5	5	<5	<5	5	1904744
Available Cadmium (Cd)	mg/kg	13	0.3	4.9	<0.3	0.3	1904744
Available Chromium (Cr)	mg/kg	1200	2	15	12	2	1904744
Available Cobalt (Co)	mg/kg	11	1	4	5	1	1904744
Available Copper (Cu)	mg/kg	210	2	10	140	2	1904744
Available Iron (Fe)	mg/kg	15000	50	9200	6900	50	1904744
Available Lead (Pb)	mg/kg	3200	5	16	57	0.5	1904744
Available Lithium (Li)	mg/kg	10	2	8	3	2	1904744
Available Manganese (Mn)	mg/kg	270	2	130	78	2	1904744
Available Mercury (Hg)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1904744
Available Molybdenum (Mo)	mg/kg	81	2	<2	<2	2	1904744
Available Nickel (Ni)	mg/kg	14	2	14	13	2	1904744
Available Rubidium (Rb)	mg/kg	6	2	4	3	2	1904744
Available Selenium (Se)	mg/kg	<2	2	<2	<2	2	1904744
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	<0.5	0.5	1904744
Available Strontium (Sr)	mg/kg	64	5	11	<5	5	1904744
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1904744
Available Tin (Sn)	mg/kg	2	2	<2	23	2	1904744
Available Uranium (U)	mg/kg	0.6	0.1	0.2	0.1	0.1	1904744
Available Vanadium (V)	mg/kg	19	2	13	8	2	1904744
Available Zinc (Zn)	mg/kg	22000	5	84	470	5	1904744

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5602	DH5603	DH5604	DH5605		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS142	BS144	BS145	TP149-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	6500	3900	3700	7000	10	1904744
Available Antimony (Sb)	mg/kg	2	<2	<2	<2	2	1904744
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904744
Available Barium (Ba)	mg/kg	52	36	13	27	5	1904744
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904744
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904744
Available Boron (B)	mg/kg	5	<5	<5	<5	5	1904744
Available Cadmium (Cd)	mg/kg	0.7	<0.3	<0.3	<0.3	0.3	1904744
Available Chromium (Cr)	mg/kg	23	14	21	41	2	1904744
Available Cobalt (Co)	mg/kg	4	3	3	5	1	1904744
Available Copper (Cu)	mg/kg	59	43	21	25	2	1904744
Available Iron (Fe)	mg/kg	8700	8500	7100	10000	50	1904744
Available Lead (Pb)	mg/kg	440	24	11	17	0.5	1904744
Available Lithium (Li)	mg/kg	10	7	5	10	2	1904744
Available Manganese (Mn)	mg/kg	250	85	59	120	2	1904744
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904744
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1904744
Available Nickel (Ni)	mg/kg	14	11	14	19	2	1904744
Available Rubidium (Rb)	mg/kg	13	11	6	11	2	1904744
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904744
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904744
Available Strontium (Sr)	mg/kg	31	<5	<5	9	5	1904744
Available Thallium (Tl)	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	1904744
Available Tin (Sn)	mg/kg	4	<2	<2	<2	2	1904744
Available Uranium (U)	mg/kg	0.7	0.2	0.2	0.5	0.1	1904744
Available Vanadium (V)	mg/kg	19	12	17	22	2	1904744
Available Zinc (Zn)	mg/kg	450	110	44	45	5	1904744

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5606		DH5608	DH5609		
Sampling Date		2009/08/04		2009/08/04	2009/08/04		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	TP151-BS1	RDL	TP153-BS1	TP154-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5600	10	14000	3700	10	1904744
Available Antimony (Sb)	mg/kg	<2	2	<2	<2	2	1904744
Available Arsenic (As)	mg/kg	<2	2	<2	<2	2	1904744
Available Barium (Ba)	mg/kg	41	5	49	10	5	1904744
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1904744
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1904744
Available Boron (B)	mg/kg	<5	5	<5	<5	5	1904744
Available Cadmium (Cd)	mg/kg	<0.3	0.3	<0.3	<0.3	0.3	1904744
Available Chromium (Cr)	mg/kg	26	2	26	11	2	1904744
Available Cobalt (Co)	mg/kg	5	1	8	2	1	1904744
Available Copper (Cu)	mg/kg	50	2	15	10	2	1904744
Available Iron (Fe)	mg/kg	9200	50	16000	5100	50	1904744
Available Lead (Pb)	mg/kg	6.0	0.5	11	4.4	0.5	1904744
Available Lithium (Li)	mg/kg	11	2	10	5	2	1904744
Available Manganese (Mn)	mg/kg	110	2	220	69	2	1904744
Available Mercury (Hg)	mg/kg	<0.2 (1)	0.2	<0.1	<0.1	0.1	1904744
Available Molybdenum (Mo)	mg/kg	<2	2	<2	<2	2	1904744
Available Nickel (Ni)	mg/kg	19	2	18	7	2	1904744
Available Rubidium (Rb)	mg/kg	16	2	12	3	2	1904744
Available Selenium (Se)	mg/kg	<2	2	<2	<2	2	1904744
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	<0.5	0.5	1904744
Available Strontium (Sr)	mg/kg	13	5	35	10	5	1904744
Available Thallium (Tl)	mg/kg	0.1	0.1	<0.1	<0.1	0.1	1904744
Available Tin (Sn)	mg/kg	4	2	<2	<2	2	1904744
Available Uranium (U)	mg/kg	0.6	0.1	0.9	0.4	0.1	1904744
Available Vanadium (V)	mg/kg	17	2	31	10	2	1904744
Available Zinc (Zn)	mg/kg	25	5	39	15	5	1904744

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5610	DH5611	DH5612	DH5617		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP155-BS1	TP157-BS2	TP160-BS1	TP163-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7900	19000	7800	7100	10	1904744
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1904744
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904744
Available Barium (Ba)	mg/kg	29	24	38	15	5	1904744
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904744
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904744
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1904744
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1904744
Available Chromium (Cr)	mg/kg	18	21	50	17	2	1904744
Available Cobalt (Co)	mg/kg	5	5	6	2	1	1904744
Available Copper (Cu)	mg/kg	17	18	20	4	2	1904744
Available Iron (Fe)	mg/kg	10000	23000	13000	5000	50	1904744
Available Lead (Pb)	mg/kg	9.1	3.6	61	2.2	0.5	1904744
Available Lithium (Li)	mg/kg	9	7	12	5	2	1904744
Available Manganese (Mn)	mg/kg	120	110	190	62	2	1904744
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904744
Available Molybdenum (Mo)	mg/kg	<2	<2	5	<2	2	1904744
Available Nickel (Ni)	mg/kg	13	14	17	7	2	1904744
Available Rubidium (Rb)	mg/kg	8	6	11	3	2	1904744
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904744
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904744
Available Strontium (Sr)	mg/kg	12	13	10	15	5	1904744
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904744
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1904744
Available Uranium (U)	mg/kg	0.5	1.8	0.4	0.8	0.1	1904744
Available Vanadium (V)	mg/kg	20	26	22	15	2	1904744
Available Zinc (Zn)	mg/kg	30	24	38	15	5	1904744

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5623	DH5624	DH5624	DH5626		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP169-BS1	TP169-BS2	TP169-BS2 Lab-Dup	TP171-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	6000	5300	5400	3100	10	1904754
Available Antimony (Sb)	mg/kg	<2	<2	<2	14	2	1904754
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1904754
Available Barium (Ba)	mg/kg	7	7	8	68	5	1904754
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1904754
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1904754
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1904754
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1904754
Available Chromium (Cr)	mg/kg	11	13	12	9	2	1904754
Available Cobalt (Co)	mg/kg	2	2	2	2	1	1904754
Available Copper (Cu)	mg/kg	10	10	10	11	2	1904754
Available Iron (Fe)	mg/kg	2800	3000	3000	5100	50	1904754
Available Lead (Pb)	mg/kg	1.5	1.2	1.2	20	0.5	1904754
Available Lithium (Li)	mg/kg	3	3	3	<2	2	1904754
Available Manganese (Mn)	mg/kg	37	38	38	32	2	1904754
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	0.2	0.1	1904754
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1904754
Available Nickel (Ni)	mg/kg	6	6	7	4	2	1904754
Available Rubidium (Rb)	mg/kg	<2	<2	<2	3	2	1904754
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1904754
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1904754
Available Strontium (Sr)	mg/kg	12	10	11	13	5	1904754
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1904754
Available Tin (Sn)	mg/kg	<2	<2	<2	3	2	1904754
Available Uranium (U)	mg/kg	2.4	0.6	0.6	0.3	0.1	1904754
Available Vanadium (V)	mg/kg	10	15	14	8	2	1904754
Available Zinc (Zn)	mg/kg	9	9	9	34	5	1904754

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DH5628		
Sampling Date		2009/08/04		
COC Number		N/A		
Registration #				
	Units	TP174-BS1	RDL	QC Batch

Metals				
Available Aluminum (Al)	mg/kg	7200	10	1904754
Available Antimony (Sb)	mg/kg	2	2	1904754
Available Arsenic (As)	mg/kg	<2	2	1904754
Available Barium (Ba)	mg/kg	120	5	1904754
Available Beryllium (Be)	mg/kg	<2	2	1904754
Available Bismuth (Bi)	mg/kg	<2	2	1904754
Available Boron (B)	mg/kg	<5	5	1904754
Available Cadmium (Cd)	mg/kg	1.0	0.3	1904754
Available Chromium (Cr)	mg/kg	19	2	1904754
Available Cobalt (Co)	mg/kg	6	1	1904754
Available Copper (Cu)	mg/kg	44	2	1904754
Available Iron (Fe)	mg/kg	16000	50	1904754
Available Lead (Pb)	mg/kg	130	0.5	1904754
Available Lithium (Li)	mg/kg	9	2	1904754
Available Manganese (Mn)	mg/kg	160	2	1904754
Available Mercury (Hg)	mg/kg	0.5	0.1	1904754
Available Molybdenum (Mo)	mg/kg	<2	2	1904754
Available Nickel (Ni)	mg/kg	17	2	1904754
Available Rubidium (Rb)	mg/kg	16	2	1904754
Available Selenium (Se)	mg/kg	<2	2	1904754
Available Silver (Ag)	mg/kg	<0.5	0.5	1904754
Available Strontium (Sr)	mg/kg	11	5	1904754
Available Thallium (Tl)	mg/kg	0.1	0.1	1904754
Available Tin (Sn)	mg/kg	30	2	1904754
Available Uranium (U)	mg/kg	0.4	0.1	1904754
Available Vanadium (V)	mg/kg	24	2	1904754
Available Zinc (Zn)	mg/kg	420	5	1904754

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DH5609		DH5613		
Sampling Date		2009/08/04		2009/08/04		
COC Number		N/A		N/A		
Registration #						
	Units	TP154-BS1	RDL	TP161-BS1	RDL	QC Batch

Polyaromatic Hydrocarbons						
1-Methylnaphthalene	mg/kg	<0.01	0.01	3.7	0.01	1902952
2-Methylnaphthalene	mg/kg	<0.01	0.01	5.5	0.01	1902952
Acenaphthene	mg/kg	<0.01	0.01	<0.9 (1)	0.9	1902952
Acenaphthylene	mg/kg	<0.01	0.01	0.1 (1)	0.1	1902952
Anthracene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Benzo(a)anthracene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Benzo(a)pyrene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Benzo(b)fluoranthene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Benzo(g,h,i)perylene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Chrysene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Dibenz(a,h)anthracene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Fluoranthene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Fluorene	mg/kg	<0.01	0.01	0.48	0.01	1902952
Indeno(1,2,3-cd)pyrene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Naphthalene	mg/kg	<0.01	0.01	1.2	0.01	1902952
Perylene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Phenanthrene	mg/kg	<0.01	0.01	<0.01	0.01	1902952
Pyrene	mg/kg	<0.01	0.01	0.02	0.01	1902952
Surrogate Recovery (%)						
D10-Anthracene	%	95		87		1902952
D14-Terphenyl (FS)	%	94		91		1902952
D8-Acenaphthylene	%	94		71		1902952

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PAH RDL(s) due to matrix interference.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DH5614		
Sampling Date		2009/08/04		
COC Number		N/A		
Registration #				
	Units	TP161-BS2	RDL	QC Batch

Polyaromatic Hydrocarbons				
1-Methylnaphthalene	mg/kg	0.13	0.01	1902952
2-Methylnaphthalene	mg/kg	0.14	0.01	1902952
Acenaphthene	mg/kg	<0.04 (1)	0.04	1902952
Acenaphthylene	mg/kg	<0.05 (1)	0.05	1902952
Anthracene	mg/kg	<0.01	0.01	1902952
Benzo(a)anthracene	mg/kg	<0.01	0.01	1902952
Benzo(a)pyrene	mg/kg	<0.01	0.01	1902952
Benzo(b)fluoranthene	mg/kg	<0.01	0.01	1902952
Benzo(g,h,i)perylene	mg/kg	<0.01	0.01	1902952
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	1902952
Chrysene	mg/kg	<0.01	0.01	1902952
Dibenz(a,h)anthracene	mg/kg	<0.01	0.01	1902952
Fluoranthene	mg/kg	<0.01	0.01	1902952
Fluorene	mg/kg	0.06	0.01	1902952
Indeno(1,2,3-cd)pyrene	mg/kg	<0.01	0.01	1902952
Naphthalene	mg/kg	<0.01	0.01	1902952
Perylene	mg/kg	<0.01	0.01	1902952
Phenanthrene	mg/kg	0.05	0.01	1902952
Pyrene	mg/kg	<0.01	0.01	1902952
Surrogate Recovery (%)				
D10-Anthracene	%	103		1902952
D14-Terphenyl (FS)	%	108		1902952
D8-Acenaphthylene	%	115		1902952
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Elevated PAH RDL(s) due to matrix interference.				

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5565	DH5568	DH5575		
Sampling Date		2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	BS48	BS58	BS81	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1902006
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1902006
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1902006
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1902006
C6 - C10 (less BTEX)	mg/kg	<3	<3	9	3	1902006
>C10-C21 Hydrocarbons	mg/kg	62	<15	1900	15	1901476
>C21-<C32 Hydrocarbons	mg/kg	490	<15	260	15	1901476
Modified TPH (Tier1)	mg/kg	550	<20	2200	20	1900115
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	108	100	100		1901476
n-Dotriacontane - Extractable	%	108 (1)	105	104 (2)		1901476
Isobutylbenzene - Volatile	%	97	97	76		1902006

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction. Unidentified compound(s) in lube oil range.
(2) Weathered fuel oil fraction. Possible lube oil fraction.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5580	DH5590	DH5598	DH5601		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS97	BS127	BS137	BS140	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902006
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902006
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902006
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1902006
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1902006
>C10-C21 Hydrocarbons	mg/kg	33	57	<15	<15	15	1902286
>C21-<C32 Hydrocarbons	mg/kg	320	160	37	39	15	1902286
Modified TPH (Tier1)	mg/kg	360	220	37	39	20	1900115
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	101	98	96	95		1902286
n-Dotriacontane - Extractable	%	84 (1)	73 (2)	79 (1)	92 (3)		1902286
Isobutylbenzene - Volatile	%	99	91	76	93		1902006

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.
(2) One product in fuel / lube range.
(3) Possible lube oil fraction.

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Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5604	DH5605	DH5606	DH5607		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS145	TP149-BS1	TP151-BS1	TP152-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902006
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902006
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1902006
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1902006
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1902006
>C10-C21 Hydrocarbons	mg/kg	<15	87	47	510	15	1902286
>C21-<C32 Hydrocarbons	mg/kg	24	550	230	320	15	1902286
Modified TPH (Tier1)	mg/kg	24	640	270	830	20	1900115
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	89	87	94	97		1902286
n-Dotriacontane - Extractable	%	95 (1)	108 (2)	113 (3)	104 (4)		1902286
Isobutylbenzene - Volatile	%	93	77	71	68		1902006

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) No resemblance to petroleum products.

(2) One product in fuel / lube range. Lube oil fraction.

(3) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range.

(4) Weathered fuel oil fraction. Possible lube oil fraction.

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Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5608	DH5611	DH5612		
Sampling Date		2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	TP153-BS1	TP157-BS2	TP160-BS1	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1902353
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1902353
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1902353
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1902353
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1902353
>C10-C21 Hydrocarbons	mg/kg	150	45	<15	15	1902286
>C21-<C32 Hydrocarbons	mg/kg	140	180	41	15	1902286
Modified TPH (Tier1)	mg/kg	290	230	41	20	1900115
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	85	93	90		1902286
n-Dotriacontane - Extractable	%	98 (1)	101 (2)	98 (3)		1902286
Isobutylbenzene - Volatile	%	109	117	110		1902353

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range.

(2) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range.

(3) Lube oil fraction.

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ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5613			DH5614		
Sampling Date		2009/08/04			2009/08/04		
COC Number		N/A			N/A		
Registration #							
	Units	TP161-BS1	RDL	QC Batch	TP161-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.3	0.3	1902353	<0.03	0.03	1902011
Toluene	mg/kg				<0.03	0.03	1902011
Ethylbenzene	mg/kg				<0.03	0.03	1902011
Toluene	mg/kg	<0.3	0.3	1902353		0.03	
Ethylbenzene	mg/kg	<0.3	0.3	1902353		0.03	
Xylene (Total)	mg/kg	<0.5	0.5	1902353	<0.05	0.05	1902011
Aliphatic >C6-C8	mg/kg				6.0 (1)	0.2	1902011
Aliphatic >C8-C10	mg/kg				170	0.4	1902011
C6 - C10 (less BTEX)	mg/kg	1200	30	1902353		3	
>C8-C10 Aromatics (-EX)	mg/kg				<0.1	0.1	1902011
>C10-C21 Hydrocarbons	mg/kg	37000	150	1902286		15	
Aliphatic >C10-C12	mg/kg				290	8.0	1903299
>C21-<C32 Hydrocarbons	mg/kg	81	15	1902286		15	
Aliphatic >C12-C16	mg/kg				660	15	1903299
Modified TPH (Tier1)	mg/kg	39000	200	1900115		20	
Aliphatic >C16-C21	mg/kg				130	15	1903299
Aliphatic >C21-<C32	mg/kg				<15	15	1903299
Aromatic >C10-C12	mg/kg				67 (2)	14	1903299
Aromatic >C12-C16	mg/kg				190	15	1903299
Aromatic >C16-C21	mg/kg				57	15	1903299
Aromatic >C21-<C32	mg/kg				<15	15	1903299
Modified TPH (Tier 2)	mg/kg				1600	20	1900741
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%				105		1903299
n-Dotriacontane - Extractable	%				95 (3)		1903299
Isobutylbenzene - Extractable	%	123		1902286			
n-Dotriacontane - Extractable	%	102 (4)		1902286			
Isobutylbenzene - Volatile	%	105 (5)		1902353	80		1902011

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VPH RDL(s) due to detected levels in the method blank.

(2) Elevated TEH RDL(s) due to detected levels in the method blank.

(3) Fuel oil fraction.

(4) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution.

(5) Elevated VPH RDL(s) due to sample dilution.

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ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5616			DH5618		
Sampling Date		2009/08/04			2009/08/04		
COC Number		N/A			N/A		
Registration #							
	Units	TP162-BS2	RDL	QC Batch	TP164-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	0.03	1902353	<0.03	0.03	1901739
Toluene	mg/kg	<0.03	0.03	1902353	<0.03	0.03	1901739
Ethylbenzene	mg/kg	<0.03	0.03	1902353	<0.03	0.03	1901739
Xylene (Total)	mg/kg	<0.05	0.05	1902353	<0.09 (1)	0.09	1901739
C6 - C10 (less BTEX)	mg/kg	190	3	1902353	180	3	1901739
>C10-C21 Hydrocarbons	mg/kg	2600	15	1902286	19000	75	1902286
>C21-<C32 Hydrocarbons	mg/kg	36	15	1902286	180	15	1902286
Modified TPH (Tier1)	mg/kg	2800	20	1900115	19000	80	1900115
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	86		1902286	80		1902286
n-Dotriacontane - Extractable	%	99 (2)		1902286	97 (3)		1902286
Isobutylbenzene - Volatile	%	115		1902353	66		1901739

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated VPH RDL(s) due to matrix interference.
(2) Fuel oil fraction.
(3) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution.

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ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5620		DH5621		
Sampling Date		2009/08/04		2009/08/04		
COC Number		N/A		N/A		
Registration #						
	Units	TP165-BS2	RDL	TP166-BS1	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	0.03	<0.03	0.03	1901739
Toluene	mg/kg	<0.03	0.03	0.07	0.03	1901739
Ethylbenzene	mg/kg	<0.03	0.03	<0.03	0.03	1901739
Xylene (Total)	mg/kg	<0.05	0.05	0.08	0.05	1901739
C6 - C10 (less BTEX)	mg/kg	81	3	190	3	1901739
>C10-C21 Hydrocarbons	mg/kg	5200	15	10000	75	1902908
>C21-<C32 Hydrocarbons	mg/kg	210	15	48	15	1902908
Modified TPH (Tier1)	mg/kg	5500	20	10000	80	1900115
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	92		74		1902908
n-Dotriacontane - Extractable	%	101 (1)		87 (2)		1902908
Isobutylbenzene - Volatile	%	78		67		1901739

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction.

(2) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution.

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ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5622		DH5623		
Sampling Date		2009/08/04		2009/08/04		
COC Number		N/A		N/A		
Registration #						
	Units	TP167-BS1	RDL	TP169-BS1	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	0.03	<0.03	0.03	1901739
Toluene	mg/kg	<0.03	0.03	0.48	0.03	1901739
Ethylbenzene	mg/kg	<0.03	0.03	<0.03	0.03	1901739
Xylene (Total)	mg/kg	<0.05	0.05	12	0.05	1901739
C6 - C10 (less BTEX)	mg/kg	10	3	470	3	1901739
>C10-C21 Hydrocarbons	mg/kg	760	15	76000	750	1902908
>C21-<C32 Hydrocarbons	mg/kg	39	15	950	75	1902908
Modified TPH (Tier1)	mg/kg	800	20	77000	800	1900115
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	94		357 (1)		1902908
n-Dotriacontane - Extractable	%	98 (2)		120 (3)		1902908
Isobutylbenzene - Volatile	%	96		55 (4)		1901739

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(2) Weathered fuel oil fraction.

(3) Fuel oil fraction. Unidentified compound(s) in lube oil range. Elevated TEH RDL(s) due to sample dilution.

(4) VPH surrogate not within acceptance limits due to matrix interference.

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ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5624	DH5625		DH5626		
Sampling Date		2009/08/04	2009/08/04		2009/08/04		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP169-BS2	TP170-BS2	QC Batch	TP171-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1901739	<0.03	0.03	1901739
Toluene	mg/kg	<0.03	<0.03	1901739	<0.03	0.03	1901739
Ethylbenzene	mg/kg	<0.03	<0.03	1901739	<0.03	0.03	1901739
Xylene (Total)	mg/kg	0.36	<0.05	1901739	<0.05	0.05	1901739
C6 - C10 (less BTEX)	mg/kg	66	<3	1901739	<3	3	1901739
>C10-C21 Hydrocarbons	mg/kg	280	<15	1902908	230	15	1902908
>C21-<C32 Hydrocarbons	mg/kg	<15	<15	1902908	900	15	1902908
Modified TPH (Tier1)	mg/kg	350	<20	1900115	1100	20	1900507
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	94	89	1902908	101		1902908
n-Dotriacontane - Extractable	%	92 (1)	90	1902908	85 (2)		1902908
Isobutylbenzene - Volatile	%	85	93	1901739	66		1901739

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction.

(2) One product in fuel / lube range. Possible lube oil fraction. Unidentified compound(s) in fuel / lube range.

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Jacques Whitford Limited
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Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5627	DH5627		DH5645		
Sampling Date		2009/08/04	2009/08/04		2009/08/04		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP172-BS1	TP172-BS1 Lab-Dup	QC Batch	TP176-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1901739	<0.03	0.03	1904319
Toluene	mg/kg	0.20	0.15	1901739	<0.03	0.03	1904319
Ethylbenzene	mg/kg	<0.03	<0.03	1901739	<0.03	0.03	1904319
Xylene (Total)	mg/kg	0.16	0.27	1901739	<0.05	0.05	1904319
C6 - C10 (less BTEX)	mg/kg	<3	<3	1901739	<3	3	1904319
>C10-C21 Hydrocarbons	mg/kg	120		1902908	56	15	1902908
>C21-<C32 Hydrocarbons	mg/kg	570		1902908	590	15	1902908
Modified TPH (Tier1)	mg/kg	700		1900507	650	20	1900507
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	96		1902908	97		1902908
n-Dotriacontane - Extractable	%	89 (1)		1902908	95 (2)		1902908
Isobutylbenzene - Volatile	%	119	111	1901739	98		1904319

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Lube oil fraction. Unidentified compound(s) in fuel / lube range.

(2) Lube oil fraction.

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ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DH5645		
Sampling Date		2009/08/04		
COC Number		N/A		
Registration #				
	Units	TP176-BS1 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	<0.03	0.03	1904319
Toluene	mg/kg	<0.03	0.03	1904319
Ethylbenzene	mg/kg	<0.03	0.03	1904319
Xylene (Total)	mg/kg	<0.05	0.05	1904319
C6 - C10 (less BTEX)	mg/kg	<3	3	1904319
Surrogate Recovery (%)				
Isobutylbenzene - Volatile	%	101		1904319

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Jacques Whitford Limited
Client Project #: 1044856/Z9100
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Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH5561	DH5562	DH5563	DH5566		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS43	BS44	BS46	BS53	RDL	QC Batch

PCBs							
Total PCB	ug/g	1.7	2.2	0.73	1.3	0.05	1901692
Surrogate Recovery (%)							
Decachlorobiphenyl	%	77 (1)	71 (1)	95 (1)	70 (1)		1901692
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DH5567	DH5570	DH5571	DH5572		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS57	BS61	BS65	BS72	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.77	<0.05	0.38	<0.05	0.05	1901692
Surrogate Recovery (%)							
Decachlorobiphenyl	%	73 (1)	100	100 (2)	82		1901692
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1254, 1260. (2) Aroclor 1260.							

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Jacques Whitford Limited
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POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH5573	DH5574	DH5575	DH5576		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS75	BS78	BS81	BS84	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.30	0.06	1.7	0.81	0.05	1901692
Surrogate Recovery (%)							
Decachlorobiphenyl	%	80 (1)	107 (2)	85 (2)	96 (3)		1901692

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1254, 1260.
(2) Aroclor 1260.
(3) Aroclor 1260. PCB:Unidentified (possibly halogenated) compounds detected.

Maxxam ID		DH5577	DH5579	DH5579		DH5581		
Sampling Date		2009/08/04	2009/08/04	2009/08/04		2009/08/04		
COC Number		N/A	N/A	N/A		N/A		
Registration #								
	Units	BS91	BS95	BS95 Lab-Dup	QC Batch	BS100	RDL	QC Batch

PCBs								
Total PCB	ug/g	1.3	2.3	1.8	1901692	5.5	0.05	1902169
Surrogate Recovery (%)								
Decachlorobiphenyl	%	86 (1)	75 (1)	81	1901692	93 (1)		1902169

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

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Jacques Whitford Limited
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POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH5584	DH5585	DH5586	DH5587		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS121	BS122	BS123	BS124	RDL	QC Batch

PCBs							
Total PCB	ug/g	170	16	13	4.5	0.05	1902169
Surrogate Recovery (%)							
Decachlorobiphenyl	%	93 (1)	91 (1)	87 (1)	88 (1)		1902169
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DH5588	DH5589	DH5590	DH5592		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS125	BS126	BS127	BS129	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	230	<0.05	1.5	0.05	1902169
Surrogate Recovery (%)							
Decachlorobiphenyl	%	97	88 (1)	96	92 (1)		1902169
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
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POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH5593	DH5593	DH5594	DH5595		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS130	BS130 Lab-Dup	BS131	BS132	RDL	QC Batch

PCBs							
Total PCB	ug/g	2.2	2.2	4.7	8.7	0.05	1902169
Surrogate Recovery (%)							
Decachlorobiphenyl	%	85 (1)	82	94 (1)	90 (1)		1902169
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DH5596	DH5598	DH5599	DH5600		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS134	BS137	BS138	BS139	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	0.40	<0.05	0.17	0.05	1902169
Surrogate Recovery (%)							
Decachlorobiphenyl	%	87	85 (1)	88	84 (1)		1902169
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260. PCB:Unidentified (possibly halogenated) compounds detected.							

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH5602	DH5603	DH5605	DH5607		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS142	BS144	TP149-BS1	TP152-BS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.70	0.45	0.69	20	0.05	1902169
Surrogate Recovery (%)							
Decachlorobiphenyl	%	89 (1)	87 (1)	86 (1)	91 (1)		1902169
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DH5608	DH5611	DH5612	DH5615		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP153-BS1	TP157-BS2	TP160-BS1	TP162-BS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	1.1	<0.05	0.28	<0.05	0.05	1902669
Surrogate Recovery (%)							
Decachlorobiphenyl	%	90 (1)	80	80 (1)	82		1902669
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A9A0584
Report Date: 2009/08/17

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Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DH5617	DH5619	DH5622	DH5623		
Sampling Date		2009/08/04	2009/08/04	2009/08/04	2009/08/04		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP163-BS1	TP165-BS1	TP167-BS1	TP169-BS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1902669
Surrogate Recovery (%)							
Decachlorobiphenyl	%	88	85	80	84		1902669

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DH5627	DH5645		
Sampling Date		2009/08/04	2009/08/04		
COC Number		N/A	N/A		
Registration #					
	Units	TP172-BS1	TP176-BS1	RDL	QC Batch

PCBs					
Total PCB	ug/g	0.32	0.08	0.05	1902669
Surrogate Recovery (%)					
Decachlorobiphenyl	%	80 (1)	77 (1)		1902669

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9A0584
Report Date: 2009/08/17

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
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GENERAL COMMENTS

VPH sample preservation not within 72 hours of receipt at the laboratory. VPH samples were preserved within 7 days of sampling date as recommended by the reference method

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
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P.O. #: NSD016400
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Quality Assurance Report

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1901476 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/09		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/09		108	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/09		87	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/09		87	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/08		105	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/08		109	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/08		90	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/08		96	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/08		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/08		103	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/08	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/08	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/09	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/09	NC		%	50
1901692 CMI	Matrix Spike [DH5579-01]	Decachlorobiphenyl	2009/08/11		79	%	30 - 130
		Total PCB	2009/08/11		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/11		82	%	30 - 130
		Total PCB	2009/08/11		108	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/11		79	%	30 - 130
		Total PCB	2009/08/11	<0.05		ug/g	
	RPD [DH5579-01]	Total PCB	2009/08/11	23.9		%	50
1901739 ASL	Matrix Spike [DH5627-01]	Isobutylbenzene - Volatile	2009/08/10		72	%	60 - 140
		Benzene	2009/08/10		77	%	60 - 140
		Toluene	2009/08/10		96	%	60 - 140
		Ethylbenzene	2009/08/10		95	%	60 - 140
		Xylene (Total)	2009/08/10		99	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/10		93	%	60 - 140
		Benzene	2009/08/10		84	%	60 - 140
		Toluene	2009/08/10		88	%	60 - 140
		Ethylbenzene	2009/08/10		86	%	60 - 140
		Xylene (Total)	2009/08/10		90	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/10		104	%	60 - 140
		Benzene	2009/08/10	<0.03		mg/kg	
		Toluene	2009/08/10	<0.03		mg/kg	
		Ethylbenzene	2009/08/10	<0.03		mg/kg	
		Xylene (Total)	2009/08/10	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/10	<3		mg/kg	
	RPD [DH5627-01]	Benzene	2009/08/10	NC		%	50
		Toluene	2009/08/10	27.8		%	50
		Ethylbenzene	2009/08/10	NC		%	50
		Xylene (Total)	2009/08/10	NC		%	50
		C6 - C10 (less BTEX)	2009/08/10	NC		%	50
1902006 ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/08/11		77	%	60 - 140
		Benzene	2009/08/11		78	%	60 - 140
		Toluene	2009/08/11		103	%	60 - 140
		Ethylbenzene	2009/08/11		95	%	60 - 140
		Xylene (Total)	2009/08/11		107	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/10		99	%	60 - 140
		Benzene	2009/08/10		95	%	60 - 140
		Toluene	2009/08/10		99	%	60 - 140
		Ethylbenzene	2009/08/10		97	%	60 - 140
		Xylene (Total)	2009/08/10		103	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/10		100	%	60 - 140

Jacques Whitford Limited
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P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902006 ASL	Method Blank	Benzene	2009/08/10	<0.03		mg/kg	
		Toluene	2009/08/10	<0.03		mg/kg	
		Ethylbenzene	2009/08/10	<0.03		mg/kg	
		Xylene (Total)	2009/08/10	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/10	<3		mg/kg	
	RPD	Benzene	2009/08/11	NC		%	50
		Toluene	2009/08/11	NC		%	50
		Ethylbenzene	2009/08/11	NC		%	50
		Xylene (Total)	2009/08/11	NC		%	50
		C6 - C10 (less BTEX)	2009/08/11	NC		%	50
1902011 ASL	Spiked Blank	Isobutylbenzene - Volatile	2009/08/10		89	%	60 - 140
		Benzene	2009/08/10		85	%	60 - 140
		Toluene	2009/08/10		87	%	60 - 140
		Ethylbenzene	2009/08/10		84	%	60 - 140
		Xylene (Total)	2009/08/10		90	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/10		100	%	60 - 140
		Benzene	2009/08/10	<0.03		mg/kg	
		Toluene	2009/08/10	<0.03		mg/kg	
		Ethylbenzene	2009/08/10	<0.03		mg/kg	
		Xylene (Total)	2009/08/10	<0.05		mg/kg	
		Aliphatic >C6-C8	2009/08/10	<0.2 (1)		mg/kg	
		Aliphatic >C8-C10	2009/08/10	<0.4		mg/kg	
		>C8-C10 Aromatics (-EX)	2009/08/10	<0.1		mg/kg	
1902169 CMI	Matrix Spike [DH5593-01]	Decachlorobiphenyl	2009/08/12		83	%	30 - 130
		Total PCB	2009/08/12		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/12		93	%	30 - 130
		Total PCB	2009/08/12		122	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/12		91	%	30 - 130
		Total PCB	2009/08/12	<0.05		ug/g	
	RPD [DH5593-01]	Total PCB	2009/08/12	2.5		%	50
1902286 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/08/10		92	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/10		106	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/10		92	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/10		103	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/10		92	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/10		98	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/10		91	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/10		104	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/10		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/10		83	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/10	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/10	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/10	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/10	NC		%	50
1902353 ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/08/11		67	%	60 - 140
		Benzene	2009/08/11		83	%	60 - 140
		Toluene	2009/08/11		109	%	60 - 140
		Ethylbenzene	2009/08/11		101	%	60 - 140
		Xylene (Total)	2009/08/11		86	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/11		98	%	60 - 140
		Benzene	2009/08/11		83	%	60 - 140
		Toluene	2009/08/11		83	%	60 - 140
		Ethylbenzene	2009/08/11		86	%	60 - 140
		Xylene (Total)	2009/08/11		83	%	60 - 140

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902353 ASL	Method Blank	Isobutylbenzene - Volatile	2009/08/11		121	%	60 - 140
		Benzene	2009/08/11	<0.03		mg/kg	
		Toluene	2009/08/11	<0.03		mg/kg	
		Ethylbenzene	2009/08/11	<0.03		mg/kg	
		Xylene (Total)	2009/08/11	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/11	<3		mg/kg	
	RPD	Benzene	2009/08/11	NC		%	50
		Toluene	2009/08/11	NC		%	50
		Ethylbenzene	2009/08/11	NC		%	50
		Xylene (Total)	2009/08/11	NC		%	50
		C6 - C10 (less BTEX)	2009/08/11	NC		%	50
1902669 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/13		82	%	30 - 130
		Total PCB	2009/08/13		88	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/13		85	%	30 - 130
		Total PCB	2009/08/13		96	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/13		86	%	30 - 130
		Total PCB	2009/08/13	<0.05		ug/g	
	RPD	Total PCB	2009/08/13	NC		%	50
1902908 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/11		92	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		77	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		80	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/11		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		95	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		85	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		87	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/11		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		98	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/11	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/11	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/11	NC		%	50
1902952 SOD	Matrix Spike	D10-Anthracene	2009/08/14		91	%	30 - 130
		D14-Terphenyl (FS)	2009/08/14		90	%	30 - 130
		D8-Acenaphthylene	2009/08/14		96	%	30 - 130
		1-Methylnaphthalene	2009/08/14		88	%	30 - 130
		2-Methylnaphthalene	2009/08/14		93	%	30 - 130
		Acenaphthene	2009/08/14		92	%	30 - 130
		Acenaphthylene	2009/08/14		90	%	30 - 130
		Anthracene	2009/08/14		102	%	30 - 130
		Benzo(a)anthracene	2009/08/14		91	%	30 - 130
		Benzo(a)pyrene	2009/08/14		84	%	30 - 130
		Benzo(b)fluoranthene	2009/08/14		84	%	30 - 130
		Benzo(g,h,i)perylene	2009/08/14		82	%	30 - 130
		Benzo(k)fluoranthene	2009/08/14		84	%	30 - 130
		Chrysene	2009/08/14		96	%	30 - 130
		Dibenz(a,h)anthracene	2009/08/14		81	%	30 - 130
		Fluoranthene	2009/08/14		94	%	30 - 130
		Fluorene	2009/08/14		89	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/08/14		78	%	30 - 130
		Naphthalene	2009/08/14		88	%	30 - 130
		Perylene	2009/08/14		86	%	30 - 130
		Phenanthrene	2009/08/14		101	%	30 - 130
		Pyrene	2009/08/14		93	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/08/13		99	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
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Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902952	SOD	Spiked Blank	D14-Terphenyl (FS)	2009/08/13	96	%	30 - 130
			D8-Acenaphthylene	2009/08/13	97	%	30 - 130
			1-Methylnaphthalene	2009/08/13	93	%	30 - 130
			2-Methylnaphthalene	2009/08/13	97	%	30 - 130
			Acenaphthene	2009/08/13	97	%	30 - 130
			Acenaphthylene	2009/08/13	93	%	30 - 130
			Anthracene	2009/08/13	110	%	30 - 130
			Benzo(a)anthracene	2009/08/13	97	%	30 - 130
			Benzo(a)pyrene	2009/08/13	97	%	30 - 130
			Benzo(b)fluoranthene	2009/08/13	98	%	30 - 130
			Benzo(g,h,i)perylene	2009/08/13	94	%	30 - 130
			Benzo(k)fluoranthene	2009/08/13	98	%	30 - 130
			Chrysene	2009/08/13	103	%	30 - 130
			Dibenz(a,h)anthracene	2009/08/13	94	%	30 - 130
			Fluoranthene	2009/08/13	100	%	30 - 130
			Fluorene	2009/08/13	93	%	30 - 130
			Indeno(1,2,3-cd)pyrene	2009/08/13	89	%	30 - 130
			Naphthalene	2009/08/13	93	%	30 - 130
			Perylene	2009/08/13	99	%	30 - 130
			Phenanthrene	2009/08/13	107	%	30 - 130
			Pyrene	2009/08/13	100	%	30 - 130
	Method Blank	D10-Anthracene	2009/08/13	109	%	30 - 130	
		D14-Terphenyl (FS)	2009/08/13	108	%	30 - 130	
		D8-Acenaphthylene	2009/08/13	102	%	30 - 130	
		1-Methylnaphthalene	2009/08/13	<0.01		mg/kg	
		2-Methylnaphthalene	2009/08/13	<0.01		mg/kg	
		Acenaphthene	2009/08/13	<0.01		mg/kg	
		Acenaphthylene	2009/08/13	<0.01		mg/kg	
		Anthracene	2009/08/13	<0.01		mg/kg	
		Benzo(a)anthracene	2009/08/13	<0.01		mg/kg	
		Benzo(a)pyrene	2009/08/13	<0.01		mg/kg	
		Benzo(b)fluoranthene	2009/08/13	<0.01		mg/kg	
		Benzo(g,h,i)perylene	2009/08/13	<0.01		mg/kg	
		Benzo(k)fluoranthene	2009/08/13	<0.01		mg/kg	
		Chrysene	2009/08/13	<0.01		mg/kg	
		Dibenz(a,h)anthracene	2009/08/13	<0.01		mg/kg	
		Fluoranthene	2009/08/13	<0.01		mg/kg	
		Fluorene	2009/08/13	<0.01		mg/kg	
		Indeno(1,2,3-cd)pyrene	2009/08/13	<0.01		mg/kg	
		Naphthalene	2009/08/13	<0.01		mg/kg	
		Perylene	2009/08/13	<0.01		mg/kg	
		Phenanthrene	2009/08/13	<0.01		mg/kg	
		Pyrene	2009/08/13	<0.01		mg/kg	
	RPD	1-Methylnaphthalene	2009/08/14	NC		%	50
		2-Methylnaphthalene	2009/08/14	NC		%	50
		Acenaphthene	2009/08/14	NC		%	50
		Acenaphthylene	2009/08/14	NC		%	50
		Anthracene	2009/08/14	NC		%	50
		Benzo(a)anthracene	2009/08/14	NC		%	50
		Benzo(a)pyrene	2009/08/14	NC		%	50
		Benzo(b)fluoranthene	2009/08/14	NC		%	50
		Benzo(g,h,i)perylene	2009/08/14	NC		%	50
		Benzo(k)fluoranthene	2009/08/14	NC		%	50
		Chrysene	2009/08/14	NC		%	50
		Dibenz(a,h)anthracene	2009/08/14	NC		%	50

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902952 SOD	RPD	Fluoranthene	2009/08/14	NC		%	50
		Fluorene	2009/08/14	NC		%	50
		Indeno(1,2,3-cd)pyrene	2009/08/14	NC		%	50
		Naphthalene	2009/08/14	NC		%	50
		Perylene	2009/08/14	NC		%	50
		Phenanthrene	2009/08/14	NC		%	50
		Pyrene	2009/08/14	NC		%	50
1903299 KKE	Matrix Spike	Isobutylbenzene - Extractable			TBA	%	30 - 130
		n-Dotriacontane - Extractable			TBA	%	30 - 130
		Aliphatic >C10-C12			TBA	%	N/A
		Aliphatic >C12-C16			TBA	%	N/A
		Aliphatic >C16-C21			TBA	%	N/A
		Aliphatic >C21-<C32			TBA	%	N/A
		Aromatic >C10-C12			TBA	%	N/A
		Aromatic >C12-C16			TBA	%	N/A
		Aromatic >C16-C21			TBA	%	N/A
		Aromatic >C21-<C32			TBA	%	N/A
	Spiked Blank	Aliphatic >C10-C12	2009/08/13		95	%	30 - 130
		Aliphatic >C12-C16	2009/08/13		94	%	30 - 130
		Aliphatic >C16-C21	2009/08/13		101	%	30 - 130
		Aliphatic >C21-<C32	2009/08/13		105	%	30 - 130
		Aromatic >C10-C12	2009/08/13		110	%	30 - 130
		Aromatic >C12-C16	2009/08/13		103	%	30 - 130
		Aromatic >C16-C21	2009/08/13		106	%	30 - 130
		Aromatic >C21-<C32	2009/08/13		104	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/13		106	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/13		96	%	30 - 130
		Aliphatic >C10-C12	2009/08/13	<8.0		mg/kg	
		Aliphatic >C12-C16	2009/08/13	<15		mg/kg	
		Aliphatic >C16-C21	2009/08/13	<15		mg/kg	
		Aliphatic >C21-<C32	2009/08/13	<15		mg/kg	
		Aromatic >C10-C12	2009/08/13	14, RDL=4.0 (2)		mg/kg	
		Aromatic >C12-C16	2009/08/13	<15		mg/kg	
		Aromatic >C16-C21	2009/08/13	<15		mg/kg	
		Aromatic >C21-<C32	2009/08/13	<15		mg/kg	
	RPD	Aliphatic >C10-C12		TBA		%	50
		Aliphatic >C12-C16		TBA		%	50
		Aliphatic >C16-C21		TBA		%	50
		Aliphatic >C21-<C32		TBA		%	50
		Aromatic >C10-C12		TBA		%	50
		Aromatic >C12-C16		TBA		%	50
		Aromatic >C16-C21		TBA		%	50
		Aromatic >C21-<C32		TBA		%	50
1904319 GTH	Matrix Spike [DH5645-01]	Isobutylbenzene - Volatile	2009/08/12		95	%	60 - 140
		Benzene	2009/08/12		92	%	60 - 140
		Toluene	2009/08/12		110	%	60 - 140
		Ethylbenzene	2009/08/12		107	%	60 - 140
		Xylene (Total)	2009/08/12		111	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/12		96	%	60 - 140
		Benzene	2009/08/12		111	%	60 - 140
		Toluene	2009/08/12		117	%	60 - 140
		Ethylbenzene	2009/08/12		114	%	60 - 140
		Xylene (Total)	2009/08/12		120	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/12		76	%	60 - 140

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904319 GTH	Method Blank	Benzene	2009/08/12	<0.03		mg/kg	
		Toluene	2009/08/12	<0.03		mg/kg	
		Ethylbenzene	2009/08/12	<0.03		mg/kg	
		Xylene (Total)	2009/08/12	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/12	<3		mg/kg	
	RPD [DH5645-01]	Benzene	2009/08/12	NC		%	50
		Toluene	2009/08/12	NC		%	50
		Ethylbenzene	2009/08/12	NC		%	50
		Xylene (Total)	2009/08/12	NC		%	50
		C6 - C10 (less BTEX)	2009/08/12	NC		%	50
1904743 KGU	Matrix Spike [DH5564-01]	Available Aluminum (Al)	2009/08/12		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/12		71 (3)	%	75 - 125
		Available Arsenic (As)	2009/08/12		96	%	75 - 125
		Available Barium (Ba)	2009/08/12		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/12		92	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		90	%	75 - 125
		Available Boron (B)	2009/08/12		NC	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		91	%	75 - 125
		Available Chromium (Cr)	2009/08/12		NC	%	75 - 125
		Available Cobalt (Co)	2009/08/12		92	%	75 - 125
		Available Copper (Cu)	2009/08/12		NC	%	75 - 125
		Available Iron (Fe)	2009/08/12		NC	%	75 - 125
		Available Lead (Pb)	2009/08/12		NC	%	75 - 125
		Available Lithium (Li)	2009/08/12		NC	%	75 - 125
		Available Manganese (Mn)	2009/08/12		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/12		107	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		94	%	75 - 125
		Available Nickel (Ni)	2009/08/12		NC	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		NC	%	75 - 125
		Available Selenium (Se)	2009/08/12		100	%	75 - 125
		Available Silver (Ag)	2009/08/12		97	%	75 - 125
		Available Strontium (Sr)	2009/08/12		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/12		91	%	75 - 125
		Available Tin (Sn)	2009/08/12		91	%	75 - 125
		Available Uranium (U)	2009/08/12		92	%	75 - 125
		Available Vanadium (V)	2009/08/12		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/12		87	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/12		83	%	75 - 125
		Available Arsenic (As)	2009/08/12		112	%	75 - 125
		Available Barium (Ba)	2009/08/12		99	%	75 - 125
		Available Chromium (Cr)	2009/08/12		86	%	75 - 125
		Available Cobalt (Co)	2009/08/12		96	%	75 - 125
		Available Copper (Cu)	2009/08/12		93	%	75 - 125
		Available Iron (Fe)	2009/08/12		90	%	75 - 125
		Available Lead (Pb)	2009/08/12		95	%	75 - 125
		Available Manganese (Mn)	2009/08/12		99	%	75 - 125
		Available Nickel (Ni)	2009/08/12		99	%	75 - 125
		Available Strontium (Sr)	2009/08/12		87	%	75 - 125
		Available Vanadium (V)	2009/08/12		104	%	75 - 125
		Available Zinc (Zn)	2009/08/12		108	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/12		98	%	75 - 125
		Available Antimony (Sb)	2009/08/12		96	%	75 - 125
		Available Arsenic (As)	2009/08/12		95	%	75 - 125
		Available Barium (Ba)	2009/08/12		92	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904743 KGU	Spiked Blank	Available Beryllium (Be)	2009/08/12		95	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		94	%	75 - 125
		Available Boron (B)	2009/08/12		95	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		96	%	75 - 125
		Available Chromium (Cr)	2009/08/12		97	%	75 - 125
		Available Cobalt (Co)	2009/08/12		97	%	75 - 125
		Available Copper (Cu)	2009/08/12		96	%	75 - 125
		Available Iron (Fe)	2009/08/12		94	%	75 - 125
		Available Lead (Pb)	2009/08/12		92	%	75 - 125
		Available Lithium (Li)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		96	%	75 - 125
		Available Mercury (Hg)	2009/08/12		112	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		97	%	75 - 125
		Available Nickel (Ni)	2009/08/12		98	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		102	%	75 - 125
		Available Selenium (Se)	2009/08/12		95	%	75 - 125
		Available Silver (Ag)	2009/08/12		101	%	75 - 125
		Available Strontium (Sr)	2009/08/12		99	%	75 - 125
		Available Thallium (Tl)	2009/08/12		92	%	75 - 125
		Available Tin (Sn)	2009/08/12		95	%	75 - 125
		Available Uranium (U)	2009/08/12		91	%	75 - 125
		Available Vanadium (V)	2009/08/12		103	%	75 - 125
		Available Zinc (Zn)	2009/08/12		96	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/12	<10		mg/kg	
		Available Antimony (Sb)	2009/08/12	<2		mg/kg	
		Available Arsenic (As)	2009/08/12	<2		mg/kg	
		Available Barium (Ba)	2009/08/12	<5		mg/kg	
		Available Beryllium (Be)	2009/08/12	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/12	<2		mg/kg	
		Available Boron (B)	2009/08/12	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/12	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/12	<2		mg/kg	
		Available Cobalt (Co)	2009/08/12	<1		mg/kg	
		Available Copper (Cu)	2009/08/12	<2		mg/kg	
		Available Iron (Fe)	2009/08/12	<50		mg/kg	
		Available Lead (Pb)	2009/08/12	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/12	<2		mg/kg	
		Available Manganese (Mn)	2009/08/12	<2		mg/kg	
		Available Mercury (Hg)	2009/08/12	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/12	<2		mg/kg	
		Available Nickel (Ni)	2009/08/12	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/12	<2		mg/kg	
		Available Selenium (Se)	2009/08/12	<2		mg/kg	
		Available Silver (Ag)	2009/08/12	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/12	<5		mg/kg	
		Available Thallium (Tl)	2009/08/12	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/12	<2		mg/kg	
		Available Uranium (U)	2009/08/12	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/12	<2		mg/kg	
		Available Zinc (Zn)	2009/08/12	<5		mg/kg	
	RPD [DH5564-01]	Available Aluminum (Al)	2009/08/12	3.1		%	35
		Available Antimony (Sb)	2009/08/12	NC		%	35
		Available Arsenic (As)	2009/08/12	NC		%	35
		Available Barium (Ba)	2009/08/12	8.6		%	35
		Available Beryllium (Be)	2009/08/12	NC		%	35

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904743 KGU	RPD [DH5564-01]	Available Bismuth (Bi)	2009/08/12	NC		%	35
		Available Boron (B)	2009/08/12	20.8		%	35
		Available Cadmium (Cd)	2009/08/12	NC		%	35
		Available Chromium (Cr)	2009/08/12	1.4		%	35
		Available Cobalt (Co)	2009/08/12	0.1		%	35
		Available Copper (Cu)	2009/08/12	23.8		%	35
		Available Iron (Fe)	2009/08/12	22.2		%	35
		Available Lead (Pb)	2009/08/12	84.6 (4)		%	35
		Available Lithium (Li)	2009/08/12	2.0		%	35
		Available Manganese (Mn)	2009/08/12	13.6		%	35
		Available Mercury (Hg)	2009/08/12	NC		%	35
		Available Molybdenum (Mo)	2009/08/12	NC		%	35
		Available Nickel (Ni)	2009/08/12	6.5		%	35
		Available Rubidium (Rb)	2009/08/12	1.0		%	35
		Available Selenium (Se)	2009/08/12	NC		%	35
		Available Silver (Ag)	2009/08/12	NC		%	35
		Available Strontium (Sr)	2009/08/12	0.4		%	35
		Available Thallium (Tl)	2009/08/12	NC		%	35
		Available Tin (Sn)	2009/08/12	NC		%	35
		Available Uranium (U)	2009/08/12	4.3		%	35
		Available Vanadium (V)	2009/08/12	2.7		%	35
		Available Zinc (Zn)	2009/08/12	8.4		%	35
1904744 KGU	Matrix Spike [DH5594-01]	Available Aluminum (Al)	2009/08/12		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/12		69 (3)	%	75 - 125
		Available Arsenic (As)	2009/08/12		101	%	75 - 125
		Available Barium (Ba)	2009/08/12		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/12		99	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		94	%	75 - 125
		Available Boron (B)	2009/08/12		96	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		NC	%	75 - 125
		Available Chromium (Cr)	2009/08/12		NC	%	75 - 125
		Available Cobalt (Co)	2009/08/12		NC	%	75 - 125
		Available Copper (Cu)	2009/08/12		NC	%	75 - 125
		Available Iron (Fe)	2009/08/12		NC	%	75 - 125
		Available Lead (Pb)	2009/08/12		NC	%	75 - 125
		Available Lithium (Li)	2009/08/12		NC	%	75 - 125
		Available Manganese (Mn)	2009/08/12		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/12		96	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		93	%	75 - 125
		Available Nickel (Ni)	2009/08/12		NC	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		NC	%	75 - 125
		Available Selenium (Se)	2009/08/12		84	%	75 - 125
		Available Silver (Ag)	2009/08/12		99	%	75 - 125
		Available Strontium (Sr)	2009/08/12		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/12		87	%	75 - 125
		Available Tin (Sn)	2009/08/12		96	%	75 - 125
		Available Uranium (U)	2009/08/12		92	%	75 - 125
		Available Vanadium (V)	2009/08/12		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/12		94	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/12		82	%	75 - 125
		Available Arsenic (As)	2009/08/12		111	%	75 - 125
		Available Barium (Ba)	2009/08/12		98	%	75 - 125
		Available Chromium (Cr)	2009/08/12		83	%	75 - 125
		Available Cobalt (Co)	2009/08/12		95	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904744 KGU	QC Standard	Available Copper (Cu)	2009/08/12		90	%	75 - 125
		Available Iron (Fe)	2009/08/12		91	%	75 - 125
		Available Lead (Pb)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		101	%	75 - 125
		Available Nickel (Ni)	2009/08/12		96	%	75 - 125
		Available Strontium (Sr)	2009/08/12		86	%	75 - 125
		Available Vanadium (V)	2009/08/12		101	%	75 - 125
		Available Zinc (Zn)	2009/08/12		109	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/12		101	%	75 - 125
		Available Antimony (Sb)	2009/08/12		97	%	75 - 125
		Available Arsenic (As)	2009/08/12		94	%	75 - 125
		Available Barium (Ba)	2009/08/12		97	%	75 - 125
		Available Beryllium (Be)	2009/08/12		97	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		96	%	75 - 125
		Available Boron (B)	2009/08/12		98	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		96	%	75 - 125
		Available Chromium (Cr)	2009/08/12		98	%	75 - 125
		Available Cobalt (Co)	2009/08/12		97	%	75 - 125
		Available Copper (Cu)	2009/08/12		95	%	75 - 125
		Available Iron (Fe)	2009/08/12		92	%	75 - 125
		Available Lead (Pb)	2009/08/12		97	%	75 - 125
		Available Lithium (Li)	2009/08/12		101	%	75 - 125
		Available Manganese (Mn)	2009/08/12		100	%	75 - 125
		Available Mercury (Hg)	2009/08/12		103	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		98	%	75 - 125
		Available Nickel (Ni)	2009/08/12		96	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		101	%	75 - 125
		Available Selenium (Se)	2009/08/12		81	%	75 - 125
		Available Silver (Ag)	2009/08/12		98	%	75 - 125
		Available Strontium (Sr)	2009/08/12		97	%	75 - 125
		Available Thallium (Tl)	2009/08/12		93	%	75 - 125
		Available Tin (Sn)	2009/08/12		98	%	75 - 125
		Available Uranium (U)	2009/08/12		94	%	75 - 125
		Available Vanadium (V)	2009/08/12		106	%	75 - 125
		Available Zinc (Zn)	2009/08/12		98	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/12	<10		mg/kg	
		Available Antimony (Sb)	2009/08/12	<2		mg/kg	
		Available Arsenic (As)	2009/08/12	<2		mg/kg	
		Available Barium (Ba)	2009/08/12	<5		mg/kg	
		Available Beryllium (Be)	2009/08/12	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/12	<2		mg/kg	
		Available Boron (B)	2009/08/12	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/12	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/12	<2		mg/kg	
		Available Cobalt (Co)	2009/08/12	<1		mg/kg	
		Available Copper (Cu)	2009/08/12	<2		mg/kg	
		Available Iron (Fe)	2009/08/12	<50		mg/kg	
		Available Lead (Pb)	2009/08/12	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/12	<2		mg/kg	
		Available Manganese (Mn)	2009/08/12	<2		mg/kg	
		Available Mercury (Hg)	2009/08/12	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/12	<2		mg/kg	
		Available Nickel (Ni)	2009/08/12	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/12	<2		mg/kg	
		Available Selenium (Se)	2009/08/12	<2		mg/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904744 KGU	Method Blank	Available Silver (Ag)	2009/08/12	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/12	<5		mg/kg	
		Available Thallium (Tl)	2009/08/12	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/12	<2		mg/kg	
		Available Uranium (U)	2009/08/12	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/12	<2		mg/kg	
		Available Zinc (Zn)	2009/08/12	<5		mg/kg	
	RPD [DH5594-01]	Available Aluminum (Al)	2009/08/12	1.3		%	35
		Available Antimony (Sb)	2009/08/12	NC		%	35
		Available Arsenic (As)	2009/08/12	NC		%	35
		Available Barium (Ba)	2009/08/12	4.7		%	35
		Available Beryllium (Be)	2009/08/12	NC		%	35
		Available Bismuth (Bi)	2009/08/12	NC		%	35
		Available Boron (B)	2009/08/12	NC		%	35
		Available Cadmium (Cd)	2009/08/12	0.5		%	35
		Available Chromium (Cr)	2009/08/12	7.6		%	35
		Available Cobalt (Co)	2009/08/12	1.6		%	35
		Available Copper (Cu)	2009/08/12	21.6		%	35
		Available Iron (Fe)	2009/08/12	4.4		%	35
		Available Lead (Pb)	2009/08/12	60.8 (4)		%	35
		Available Lithium (Li)	2009/08/12	2.6		%	35
		Available Manganese (Mn)	2009/08/12	4.5		%	35
		Available Mercury (Hg)	2009/08/12	NC (5)		%	35
		Available Molybdenum (Mo)	2009/08/12	NC		%	35
		Available Nickel (Ni)	2009/08/12	1.4		%	35
		Available Rubidium (Rb)	2009/08/12	1.9		%	35
		Available Selenium (Se)	2009/08/12	NC		%	35
		Available Silver (Ag)	2009/08/12	NC		%	35
		Available Strontium (Sr)	2009/08/12	NC		%	35
		Available Thallium (Tl)	2009/08/12	NC		%	35
		Available Tin (Sn)	2009/08/12	NC		%	35
		Available Uranium (U)	2009/08/12	NC		%	35
		Available Vanadium (V)	2009/08/12	6.4		%	35
		Available Zinc (Zn)	2009/08/12	2.1		%	35
1904754 KGU	Matrix Spike [DH5624-01]	Available Aluminum (Al)	2009/08/12		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/12		92	%	75 - 125
		Available Arsenic (As)	2009/08/12		103	%	75 - 125
		Available Barium (Ba)	2009/08/12		99	%	75 - 125
		Available Beryllium (Be)	2009/08/12		95	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		101	%	75 - 125
		Available Boron (B)	2009/08/12		96	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		99	%	75 - 125
		Available Chromium (Cr)	2009/08/12		NC	%	75 - 125
		Available Cobalt (Co)	2009/08/12		96	%	75 - 125
		Available Copper (Cu)	2009/08/12		NC	%	75 - 125
		Available Iron (Fe)	2009/08/12		NC	%	75 - 125
		Available Lead (Pb)	2009/08/12		100	%	75 - 125
		Available Lithium (Li)	2009/08/12		101	%	75 - 125
		Available Manganese (Mn)	2009/08/12		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/12		98	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		99	%	75 - 125
		Available Nickel (Ni)	2009/08/12		95	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		102	%	75 - 125
		Available Selenium (Se)	2009/08/12		93	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904754 KGU	Matrix Spike [DH5624-01]	Available Silver (Ag)	2009/08/12		99	%	75 - 125
		Available Strontium (Sr)	2009/08/12		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/12		94	%	75 - 125
		Available Tin (Sn)	2009/08/12		101	%	75 - 125
		Available Uranium (U)	2009/08/12		98	%	75 - 125
		Available Vanadium (V)	2009/08/12		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/12		99	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/12		80	%	75 - 125
		Available Arsenic (As)	2009/08/12		116	%	75 - 125
		Available Barium (Ba)	2009/08/12		104	%	75 - 125
		Available Chromium (Cr)	2009/08/12		87	%	75 - 125
		Available Cobalt (Co)	2009/08/12		98	%	75 - 125
		Available Copper (Cu)	2009/08/12		96	%	75 - 125
		Available Iron (Fe)	2009/08/12		89	%	75 - 125
		Available Lead (Pb)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		99	%	75 - 125
		Available Nickel (Ni)	2009/08/12		104	%	75 - 125
		Available Strontium (Sr)	2009/08/12		88	%	75 - 125
		Available Vanadium (V)	2009/08/12		102	%	75 - 125
		Available Zinc (Zn)	2009/08/12		105	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/12		99	%	75 - 125
		Available Antimony (Sb)	2009/08/12		98	%	75 - 125
		Available Arsenic (As)	2009/08/12		93	%	75 - 125
		Available Barium (Ba)	2009/08/12		100	%	75 - 125
		Available Beryllium (Be)	2009/08/12		98	%	75 - 125
		Available Bismuth (Bi)	2009/08/12		104	%	75 - 125
		Available Boron (B)	2009/08/12		92	%	75 - 125
		Available Cadmium (Cd)	2009/08/12		95	%	75 - 125
		Available Chromium (Cr)	2009/08/12		101	%	75 - 125
		Available Cobalt (Co)	2009/08/12		98	%	75 - 125
		Available Copper (Cu)	2009/08/12		97	%	75 - 125
		Available Iron (Fe)	2009/08/12		104	%	75 - 125
		Available Lead (Pb)	2009/08/12		104	%	75 - 125
		Available Lithium (Li)	2009/08/12		103	%	75 - 125
		Available Manganese (Mn)	2009/08/12		100	%	75 - 125
		Available Mercury (Hg)	2009/08/12		104	%	75 - 125
		Available Molybdenum (Mo)	2009/08/12		96	%	75 - 125
		Available Nickel (Ni)	2009/08/12		96	%	75 - 125
		Available Rubidium (Rb)	2009/08/12		98	%	75 - 125
		Available Selenium (Se)	2009/08/12		91	%	75 - 125
		Available Silver (Ag)	2009/08/12		99	%	75 - 125
		Available Strontium (Sr)	2009/08/12		100	%	75 - 125
		Available Thallium (Tl)	2009/08/12		99	%	75 - 125
		Available Tin (Sn)	2009/08/12		97	%	75 - 125
		Available Uranium (U)	2009/08/12		100	%	75 - 125
		Available Vanadium (V)	2009/08/12		104	%	75 - 125
		Available Zinc (Zn)	2009/08/12		93	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/12	<10		mg/kg	
		Available Antimony (Sb)	2009/08/12	<2		mg/kg	
		Available Arsenic (As)	2009/08/12	<2		mg/kg	
		Available Barium (Ba)	2009/08/12	<5		mg/kg	
		Available Beryllium (Be)	2009/08/12	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/12	<2		mg/kg	
		Available Boron (B)	2009/08/12	<5		mg/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1904754 KGU	Method Blank	Available Cadmium (Cd)	2009/08/12	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/12	<2		mg/kg	
		Available Cobalt (Co)	2009/08/12	<1		mg/kg	
		Available Copper (Cu)	2009/08/12	<2		mg/kg	
		Available Iron (Fe)	2009/08/12	<50		mg/kg	
		Available Lead (Pb)	2009/08/12	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/12	<2		mg/kg	
		Available Manganese (Mn)	2009/08/12	<2		mg/kg	
		Available Mercury (Hg)	2009/08/12	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/12	<2		mg/kg	
		Available Nickel (Ni)	2009/08/12	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/12	<2		mg/kg	
		Available Selenium (Se)	2009/08/12	<2		mg/kg	
		Available Silver (Ag)	2009/08/12	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/12	<5		mg/kg	
		Available Thallium (Tl)	2009/08/12	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/12	<2		mg/kg	
		Available Uranium (U)	2009/08/12	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/12	<2		mg/kg	
		Available Zinc (Zn)	2009/08/12	<5		mg/kg	
	RPD [DH5624-01]	Available Aluminum (Al)	2009/08/12	1.5		%	35
		Available Antimony (Sb)	2009/08/12	NC		%	35
		Available Arsenic (As)	2009/08/12	NC		%	35
		Available Barium (Ba)	2009/08/12	NC		%	35
		Available Beryllium (Be)	2009/08/12	NC		%	35
		Available Bismuth (Bi)	2009/08/12	NC		%	35
		Available Boron (B)	2009/08/12	NC		%	35
		Available Cadmium (Cd)	2009/08/12	NC		%	35
		Available Chromium (Cr)	2009/08/12	7.8		%	35
		Available Cobalt (Co)	2009/08/12	NC		%	35
		Available Copper (Cu)	2009/08/12	1.3		%	35
		Available Iron (Fe)	2009/08/12	0.7		%	35
		Available Lead (Pb)	2009/08/12	NC		%	35
		Available Lithium (Li)	2009/08/12	NC		%	35
		Available Manganese (Mn)	2009/08/12	1		%	35
		Available Mercury (Hg)	2009/08/12	NC		%	35
		Available Molybdenum (Mo)	2009/08/12	NC		%	35
		Available Nickel (Ni)	2009/08/12	NC		%	35
		Available Rubidium (Rb)	2009/08/12	NC		%	35
		Available Selenium (Se)	2009/08/12	NC		%	35
		Available Silver (Ag)	2009/08/12	NC		%	35
		Available Strontium (Sr)	2009/08/12	NC		%	35
		Available Thallium (Tl)	2009/08/12	NC		%	35
		Available Tin (Sn)	2009/08/12	NC		%	35
		Available Uranium (U)	2009/08/12	0.9		%	35
		Available Vanadium (V)	2009/08/12	8.4		%	35
		Available Zinc (Zn)	2009/08/12	NC		%	35
1906463 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/13		NA	%	75 - 125
		Available Antimony (Sb)	2009/08/13		NC	%	75 - 125
		Available Arsenic (As)	2009/08/13		78	%	75 - 125
		Available Barium (Ba)	2009/08/13		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/13		104	%	75 - 125
		Available Bismuth (Bi)	2009/08/13		109	%	75 - 125
		Available Boron (B)	2009/08/13		115	%	75 - 125
		Available Cadmium (Cd)	2009/08/13		108	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1906463 KGU	Matrix Spike	Available Chromium (Cr)	2009/08/13		98	%	75 - 125
		Available Cobalt (Co)	2009/08/13		NC	%	75 - 125
		Available Copper (Cu)	2009/08/13		NC	%	75 - 125
		Available Iron (Fe)	2009/08/13		NC	%	75 - 125
		Available Lead (Pb)	2009/08/13		NC	%	75 - 125
		Available Lithium (Li)	2009/08/13		NC	%	75 - 125
		Available Manganese (Mn)	2009/08/13		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/13		114	%	75 - 125
		Available Molybdenum (Mo)	2009/08/13		84	%	75 - 125
		Available Nickel (Ni)	2009/08/13		NC	%	75 - 125
		Available Rubidium (Rb)	2009/08/13		103	%	75 - 125
		Available Selenium (Se)	2009/08/13		52 (3)	%	75 - 125
		Available Silver (Ag)	2009/08/13		111	%	75 - 125
		Available Strontium (Sr)	2009/08/13		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/13		104	%	75 - 125
		Available Tin (Sn)	2009/08/13		99	%	75 - 125
		Available Uranium (U)	2009/08/13		118	%	75 - 125
		Available Vanadium (V)	2009/08/13		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/13		82	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/13		72 (6)	%	75 - 125
		Available Arsenic (As)	2009/08/13		92	%	75 - 125
		Available Barium (Ba)	2009/08/13		117	%	75 - 125
		Available Chromium (Cr)	2009/08/13		81	%	75 - 125
		Available Cobalt (Co)	2009/08/13		92	%	75 - 125
		Available Copper (Cu)	2009/08/13		96	%	75 - 125
		Available Iron (Fe)	2009/08/13		79	%	75 - 125
		Available Lead (Pb)	2009/08/13		108	%	75 - 125
		Available Manganese (Mn)	2009/08/13		101	%	75 - 125
		Available Nickel (Ni)	2009/08/13		99	%	75 - 125
		Available Strontium (Sr)	2009/08/13		89	%	75 - 125
		Available Vanadium (V)	2009/08/13		94	%	75 - 125
		Available Zinc (Zn)	2009/08/13		78	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/13		96	%	75 - 125
		Available Antimony (Sb)	2009/08/13		103	%	75 - 125
		Available Arsenic (As)	2009/08/13		85	%	75 - 125
		Available Barium (Ba)	2009/08/13		103	%	75 - 125
		Available Beryllium (Be)	2009/08/13		104	%	75 - 125
		Available Bismuth (Bi)	2009/08/13		103	%	75 - 125
		Available Boron (B)	2009/08/13		99	%	75 - 125
		Available Cadmium (Cd)	2009/08/13		95	%	75 - 125
		Available Chromium (Cr)	2009/08/13		102	%	75 - 125
		Available Cobalt (Co)	2009/08/13		96	%	75 - 125
		Available Copper (Cu)	2009/08/13		101	%	75 - 125
		Available Iron (Fe)	2009/08/13		98	%	75 - 125
		Available Lead (Pb)	2009/08/13		102	%	75 - 125
		Available Lithium (Li)	2009/08/13		105	%	75 - 125
		Available Manganese (Mn)	2009/08/13		102	%	75 - 125
		Available Mercury (Hg)	2009/08/13		116	%	75 - 125
		Available Molybdenum (Mo)	2009/08/13		98	%	75 - 125
		Available Nickel (Ni)	2009/08/13		100	%	75 - 125
		Available Rubidium (Rb)	2009/08/13		92	%	75 - 125
		Available Selenium (Se)	2009/08/13		79	%	75 - 125
		Available Silver (Ag)	2009/08/13		100	%	75 - 125
		Available Strontium (Sr)	2009/08/13		99	%	75 - 125
		Available Thallium (Tl)	2009/08/13		103	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1906463 KGU	Spiked Blank	Available Tin (Sn)	2009/08/13		98	%	75 - 125
		Available Uranium (U)	2009/08/13		103	%	75 - 125
		Available Vanadium (V)	2009/08/13		105	%	75 - 125
		Available Zinc (Zn)	2009/08/13		80	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/13	<10		mg/kg	
		Available Antimony (Sb)	2009/08/13	<2		mg/kg	
		Available Arsenic (As)	2009/08/13	<2		mg/kg	
		Available Barium (Ba)	2009/08/13	<5		mg/kg	
		Available Beryllium (Be)	2009/08/13	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/13	<2		mg/kg	
		Available Boron (B)	2009/08/13	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/13	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/13	<2		mg/kg	
		Available Cobalt (Co)	2009/08/13	<1		mg/kg	
		Available Copper (Cu)	2009/08/13	<2		mg/kg	
		Available Iron (Fe)	2009/08/13	<50		mg/kg	
		Available Lead (Pb)	2009/08/13	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/13	<2		mg/kg	
		Available Manganese (Mn)	2009/08/13	<2		mg/kg	
		Available Mercury (Hg)	2009/08/13	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/13	<2		mg/kg	
		Available Nickel (Ni)	2009/08/13	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/13	<2		mg/kg	
		Available Selenium (Se)	2009/08/13	<2		mg/kg	
		Available Silver (Ag)	2009/08/13	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/13	<5		mg/kg	
		Available Thallium (Tl)	2009/08/13	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/13	<2		mg/kg	
		Available Uranium (U)	2009/08/13	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/13	<2		mg/kg	
		Available Zinc (Zn)	2009/08/13	<5		mg/kg	
	RPD	Available Antimony (Sb)	2009/08/13	4.9		%	35
		Available Arsenic (As)	2009/08/13	NC		%	35
		Available Barium (Ba)	2009/08/13	3.4		%	35
		Available Beryllium (Be)	2009/08/13	NC		%	35
		Available Cadmium (Cd)	2009/08/13	NC		%	35
		Available Chromium (Cr)	2009/08/13	NC		%	35
		Available Cobalt (Co)	2009/08/13	1.1		%	35
		Available Copper (Cu)	2009/08/13	4.8		%	35
		Available Manganese (Mn)	2009/08/13	0.1		%	35
		Available Molybdenum (Mo)	2009/08/13	NC		%	35
		Available Nickel (Ni)	2009/08/13	1.5		%	35
		Available Selenium (Se)	2009/08/13	NC		%	35
		Available Silver (Ag)	2009/08/13	NC		%	35
		Available Thallium (Tl)	2009/08/13	NC		%	35
		Available Tin (Sn)	2009/08/13	NC		%	35
		Available Vanadium (V)	2009/08/13	0.8		%	35
		Available Zinc (Zn)	2009/08/13	NC		%	35

TBA = Result to follow

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A0584

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

- (1) Elevated VPH RDL(s) due to detected levels in the method blank.
- (2) Elevated TEH RDL(s) due to detected levels in the method blank.
- (3) Low recovery due to sample matrix.
- (4) Poor duplicate agreement due to sample inhomogeneity.
- (5) Elevated reporting limit due to sample matrix.
- (6) Secondary RM is acceptable.

1044856-L

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

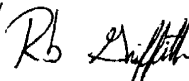
Report Date: 2009/09/21**CERTIFICATE OF ANALYSIS****MAXXAM JOB #: A9C0235****Received: 2009/09/12, 9:56**

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Particle size in solids (pipette&sieve)	6	N/A	2009/09/18	ATL SOP 00012 R3	based on MSAMS-1978

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
21 Sep 2009 17:00:02 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 4

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9C0235
Report Date: 2009/09/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5925	DR5930	DR5933	DR5939	DR5942		
Sampling Date		2009/09/09	2009/09/09	2009/09/09	2009/09/09	2009/09/09		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	SED-25	SED-30	SED-33	SED-39	SED-42	RDL	QC Batch

Inorganics								
< -4 Phi (16 mm)	%	100	100	100	100	100	0.1	1943171
< -3 Phi (8 mm)	%	100	100	100	100	100	0.1	1943171
< -2 Phi (4 mm)	%	100	100	100	100	100	0.1	1943171
< -1 Phi (2 mm)	%	72	99	99	100	96	0.1	1943171
< 0 Phi (1 mm)	%	63	84	92	95	83	0.1	1943171
< +1 Phi (0.5 mm)	%	54	73	86	76	56	0.1	1943171
< +2 Phi (0.25 mm)	%	42	65	80	58	33	0.1	1943171
< +3 Phi (0.12 mm)	%	33	54	74	48	21	0.1	1943171
< +4 Phi (0.062 mm)	%	26	42	61	44	16	0.1	1943171
< +5 Phi (0.031 mm)	%	22	38	54	42	15	0.1	1943171
< +6 Phi (0.016 mm)	%	14	28	41	40	13	0.1	1943171
< +7 Phi (0.0078 mm)	%	9.5	17	25	29	7.5	0.1	1943171
< +8 Phi (0.0039 mm)	%	7.7	15	21	21	5.9	0.1	1943171
< +9 Phi (0.0020 mm)	%	5.5	13	14	14	5.0	0.1	1943171
Gravel	%	28	1.2	0.6	0.2	3.7	0.1	1943171
Sand	%	47	57	38	56	80	0.1	1943171
Silt	%	18	27	40	23	10	0.1	1943171
Clay	%	7.7	15	21	21	5.9	0.1	1943171

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DR5944		
Sampling Date		2009/09/09		
COC Number		N/A		
	Units	SED-44	RDL	QC Batch

Inorganics				
< -4 Phi (16 mm)	%	100	0.1	1943171
< -3 Phi (8 mm)	%	100	0.1	1943171
< -2 Phi (4 mm)	%	100	0.1	1943171
< -1 Phi (2 mm)	%	77	0.1	1943171
< 0 Phi (1 mm)	%	56	0.1	1943171
< +1 Phi (0.5 mm)	%	30	0.1	1943171
< +2 Phi (0.25 mm)	%	9.7	0.1	1943171
< +3 Phi (0.12 mm)	%	1.8	0.1	1943171
< +4 Phi (0.062 mm)	%	1.1	0.1	1943171
< +5 Phi (0.031 mm)	%	0.6	0.1	1943171
< +6 Phi (0.016 mm)	%	0.5	0.1	1943171
< +7 Phi (0.0078 mm)	%	0.5	0.1	1943171
< +8 Phi (0.0039 mm)	%	0.5	0.1	1943171
< +9 Phi (0.0020 mm)	%	0.4	0.1	1943171
Gravel	%	23	0.1	1943171
Sand	%	76	0.1	1943171
Silt	%	0.6	0.1	1943171
Clay	%	0.5	0.1	1943171

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C0235
Report Date: 2009/09/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

1044856-L

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/05

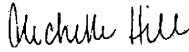
CERTIFICATE OF ANALYSIS**MAXXAM JOB #: A9C4207****Received: 2009/09/18, 9:47**

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (AA PIRI)	1	2009/09/28	2009/10/04	ATL SOP 00116 R3	Based on Atl. PIRI
VPH in Water (PIRI2)	1	2009/09/26	2009/09/28	ATL SOP 00120 R4	Based on Atl. PIRI
ModTPH (T2) Calc. for Water	1	N/A	2009/10/05		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Michelle Hill
05 Oct 2009 12:50:29 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 4

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9C4207
Report Date: 2009/10/05

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DT7138		
Sampling Date				
COC Number		N/A		
	Units	MW13	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/L	<0.001	0.001	1952450
Toluene	mg/L	0.005	0.001	1952450
Ethylbenzene	mg/L	0.001	0.001	1952450
Xylene (Total)	mg/L	0.005	0.002	1952450
Aliphatic >C6-C8	mg/L	<0.01	0.01	1952450
Aliphatic >C8-C10	mg/L	<0.01	0.01	1952450
>C8-C10 Aromatics (-EX)	mg/L	<0.01	0.01	1952450
Aliphatic >C10-C12	mg/L	0.03	0.01	1953318
Aliphatic >C12-C16	mg/L	0.10	0.06	1953318
Aliphatic >C16-C21	mg/L	0.13	0.06	1953318
Aliphatic >C21-<C32	mg/L	1.3	0.1	1953318
Aromatic >C10-C12	mg/L	0.02	0.01	1953318
Aromatic >C12-C16	mg/L	0.09	0.06	1953318
Aromatic >C16-C21	mg/L	0.16	0.06	1953318
Aromatic >C21-<C32	mg/L	0.4	0.1	1953318
Modified TPH (Tier 2)	mg/L	2.2	0.1	1945286
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	75		1953318
n-Dotriacontane - Extractable	%	89 (1)		1953318
Isobutylbenzene - Volatile	%	105		1952450

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel oil range. Lube oil fraction. Elevated TEH
RDL(s) due to insufficient sample.

Maxxam Job #: A9C4207
Report Date: 2009/10/05

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9C4207

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1952450 SHL	Spiked Blank	Isobutylbenzene - Volatile	2009/09/28		123	%	70 - 130
		Benzene	2009/09/28		96	%	70 - 130
		Toluene	2009/09/28		100	%	70 - 130
		Ethylbenzene	2009/09/28		104	%	70 - 130
		Xylene (Total)	2009/09/28		104	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/09/28		120	%	70 - 130
		Benzene	2009/09/28	<0.001		mg/L	
		Toluene	2009/09/28	<0.001		mg/L	
		Ethylbenzene	2009/09/28	<0.001		mg/L	
		Xylene (Total)	2009/09/28	<0.002		mg/L	
		Aliphatic >C6-C8	2009/09/28	<0.01		mg/L	
		Aliphatic >C8-C10	2009/09/28	<0.01		mg/L	
		>C8-C10 Aromatics (-EX)	2009/09/28	<0.01		mg/L	
		Aliphatic >C10-C12	2009/10/04		81	%	30 - 130
		Aliphatic >C12-C16	2009/10/04		81	%	30 - 130
		Aliphatic >C16-C21	2009/10/04		90	%	30 - 130
		Aliphatic >C21-<C32	2009/10/04		90	%	30 - 130
		Aromatic >C10-C12	2009/10/04		103	%	30 - 130
		Aromatic >C12-C16	2009/10/04		103	%	30 - 130
1953318 KKE	Spiked Blank	Aromatic >C16-C21	2009/10/04		103	%	30 - 130
		Aromatic >C21-<C32	2009/10/04		103	%	30 - 130
		Isobutylbenzene - Extractable	2009/10/04		72	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/04		75	%	30 - 130
		Aliphatic >C10-C12	2009/10/04	<0.01		mg/L	
		Aliphatic >C12-C16	2009/10/04	<0.05		mg/L	
		Aliphatic >C16-C21	2009/10/04	<0.05		mg/L	
	Method Blank	Aliphatic >C21-<C32	2009/10/04	<0.1		mg/L	
		Aromatic >C10-C12	2009/10/04	<0.01		mg/L	
		Aromatic >C12-C16	2009/10/04	<0.05		mg/L	
		Aromatic >C16-C21	2009/10/04	<0.05		mg/L	
		Aromatic >C21-<C32	2009/10/04	<0.1		mg/L	
		Aliphatic >C10-C12	2009/10/04	NC		%	40
		Aliphatic >C12-C16	2009/10/04	NC		%	40
		Aliphatic >C16-C21	2009/10/04	NC		%	40
		Aliphatic >C21-<C32	2009/10/04	NC		%	40
		Aromatic >C10-C12	2009/10/04	12.6		%	40
		Aromatic >C12-C16	2009/10/04	NC		%	40
		Aromatic >C16-C21	2009/10/04	NC		%	40
		Aromatic >C21-<C32	2009/10/04	NC		%	40
	RPD	Aliphatic >C10-C12	2009/10/04	NC		%	40
		Aliphatic >C12-C16	2009/10/04	NC		%	40
		Aliphatic >C16-C21	2009/10/04	NC		%	40
		Aliphatic >C21-<C32	2009/10/04	NC		%	40
		Aromatic >C10-C12	2009/10/04	12.6		%	40
		Aromatic >C12-C16	2009/10/04	NC		%	40
		Aromatic >C16-C21	2009/10/04	NC		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9D6669

Received: 2009/10/10, 9:48

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (PIRI)	1	2009/10/16	2009/10/18	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	4	2009/10/17	2009/10/19	ATL SOP 00113 R3	Based on Atl. PIRI
Metals Water Diss. MS - Low Level	4	N/A	2009/10/20	ATL SOP 00024 R4	Based on EPA6020A
Acridine and Quinoline in Water	1	2009/10/16	2009/10/20	ATL SOP 00103 R3	
PAH in Water by GC/MS (SIM)	1	2009/10/16	2009/10/20	ATL SOP 00103 R3	Based on EPA 8270C
PCBs in water by GC/ECD	3	2009/10/15	2009/10/21	ATL SOP 00107 R3	Based on EPA8082
VPH in Water (PIRI)	3	2009/10/19	2009/10/19	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	1	2009/10/19	2009/10/20	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	1	2009/10/19	2009/10/21	ATL SOP 00118 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	4	N/A	2009/10/20		Based on Atl. PIRI
ModTPH (T1) Calc. for Water	1	N/A	2009/10/21		Based on Atl. PIRI
Volatile Organic Compounds in Water	1	2009/10/16	2009/10/17	ATL SOP 00122 R3	Based on EPA624

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Heather West Heather Macumber
21 Oct 2009 18:44:51 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Maxxam Job #: A9D6669
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		EA0710	EA0716	EA0718	EA0728		
Sampling Date							
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-63	MW-65	MW-66	MW-67	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	ug/L	47.0	250	22.8	54.8	5.0	1977646
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	4.5	4.7	2.0	1977646
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1977646
Dissolved Barium (Ba)	ug/L	32.1	22.4	47.6	28.2	5.0	1977646
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1977646
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1977646
Dissolved Boron (B)	ug/L	9.3	22.6	264	427	5.0	1977646
Dissolved Cadmium (Cd)	ug/L	0.070	0.054	0.039	0.292	0.017	1977646
Dissolved Chromium (Cr)	ug/L	<1.0	1.6	<1.0	<1.0	1.0	1977646
Dissolved Cobalt (Co)	ug/L	5.77	0.44	0.51	0.74	0.40	1977646
Dissolved Copper (Cu)	ug/L	23.3	20.8	10.2	19.0	2.0	1977646
Dissolved Iron (Fe)	ug/L	66	147	<50	<50	50	1977646
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	1977646
Dissolved Manganese (Mn)	ug/L	158	88.6	94.4	32.9	2.0	1977646
Dissolved Molybdenum (Mo)	ug/L	3.6	5.2	<2.0	<2.0	2.0	1977646
Dissolved Nickel (Ni)	ug/L	75.9	3.7	5.4	5.6	2.0	1977646
Dissolved Selenium (Se)	ug/L	1.2	1.5	<1.0	<1.0	1.0	1977646
Dissolved Silver (Ag)	ug/L	<0.10	0.13	<0.10	<0.10	0.10	1977646
Dissolved Strontium (Sr)	ug/L	133	162	151	140	5.0	1977646
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1977646
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1977646
Dissolved Titanium (Ti)	ug/L	<2.0	11.9	<2.0	<2.0	2.0	1977646
Dissolved Uranium (U)	ug/L	0.86	2.32	0.82	0.15	0.10	1977646
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1977646
Dissolved Zinc (Zn)	ug/L	198	45.8	32.6	302	5.0	1977646
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D6669
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		EA0728		
Sampling Date				
COC Number		N/A		
	Units	MW-67	RDL	QC Batch

Polyaromatic Hydrocarbons				
1-Methylnaphthalene	ug/L	<0.05	0.05	1974493
2-Methylnaphthalene	ug/L	<0.05	0.05	1974493
Acenaphthene	ug/L	<0.01	0.01	1974493
Acenaphthylene	ug/L	<0.01	0.01	1974493
Acridine	ug/L	<0.05	0.05	1974503
Anthracene	ug/L	<0.01	0.01	1974493
Benzo(a)anthracene	ug/L	<0.01	0.01	1974493
Benzo(a)pyrene	ug/L	<0.01	0.01	1974493
Benzo(b)fluoranthene	ug/L	<0.01	0.01	1974493
Benzo(g,h,i)perylene	ug/L	<0.01	0.01	1974493
Benzo(k)fluoranthene	ug/L	<0.01	0.01	1974493
Chrysene	ug/L	<0.01	0.01	1974493
Dibenz(a,h)anthracene	ug/L	<0.01	0.01	1974493
Fluoranthene	ug/L	<0.01	0.01	1974493
Fluorene	ug/L	<0.01	0.01	1974493
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	0.01	1974493
Naphthalene	ug/L	<0.2	0.2	1974493
Perylene	ug/L	<0.01	0.01	1974493
Phenanthrene	ug/L	<0.01	0.01	1974493
Pyrene	ug/L	<0.01	0.01	1974493
Quinoline	ug/L	<0.05	0.05	1974503
Surrogate Recovery (%)				
D10-Anthracene	%	81		1974493
D14-Terphenyl	%	74 (1)		1974493
D8-Acenaphthylene	%	61		1974493

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PAH sample contained sediment.

Maxxam Job #: A9D6669
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		EA0728		
Sampling Date				
COC Number		N/A		
	Units	MW-67	RDL	QC Batch

Chlorobenzenes				
1,2-Dichlorobenzene	ug/L	<0.5	0.5	1973541
1,3-Dichlorobenzene	ug/L	<1	1	1973541
1,4-Dichlorobenzene	ug/L	<1	1	1973541
Chlorobenzene	ug/L	<1	1	1973541
Volatile Organics				
1,1,1-Trichloroethane	ug/L	<1	1	1973541
1,1,2,2-Tetrachloroethane	ug/L	<1	1	1973541
1,1,2-Trichloroethane	ug/L	<1	1	1973541
1,1-Dichloroethane	ug/L	<2	2	1973541
1,1-Dichloroethylene	ug/L	<0.5	0.5	1973541
1,2-Dichloroethane	ug/L	<1	1	1973541
1,2-Dichloropropane	ug/L	<1	1	1973541
Benzene	ug/L	<1	1	1973541
Bromodichloromethane	ug/L	<1	1	1973541
Bromoform	ug/L	<1	1	1973541
Bromomethane	ug/L	<3	3	1973541
Carbon Tetrachloride	ug/L	<1	1	1973541
Chloroethane	ug/L	<8	8	1973541
Chloroform	ug/L	8	1	1973541
Chloromethane	ug/L	<8	8	1973541
cis-1,2-Dichloroethylene	ug/L	<2	2	1973541
cis-1,3-Dichloropropene	ug/L	<2	2	1973541
Dibromochloromethane	ug/L	<1	1	1973541
Ethylbenzene	ug/L	1	1	1973541
Ethylene Dibromide	ug/L	<1	1	1973541
Methylene Chloride(Dichloromethane)	ug/L	<3	3	1973541
o-Xylene	ug/L	1	1	1973541
p+m-Xylene	ug/L	4	2	1973541
Styrene	ug/L	<1	1	1973541
Tetrachloroethylene	ug/L	<1	1	1973541
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A9D6669
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		EA0728		
Sampling Date				
COC Number		N/A		
	Units	MW-67	RDL	QC Batch
Toluene	ug/L	6	1	1973541
trans-1,2-Dichloroethylene	ug/L	<2	2	1973541
trans-1,3-Dichloropropene	ug/L	<1	1	1973541
Trichloroethylene	ug/L	<1	1	1973541
Trichlorofluoromethane (FREON 11)	ug/L	<8	8	1973541
Vinyl Chloride	ug/L	<0.5	0.5	1973541
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	98		1973541
D4-1,2-Dichloroethane	%	109		1973541
D8-Toluene	%	96		1973541
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A9D6669
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EA0710			EA0713		
Sampling Date							
COC Number		N/A			N/A		
	Units	MW-63	RDL	QC Batch	MW-64	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	0.001	1975669	<0.001	0.001	1975581
Toluene	mg/L	0.006	0.001	1975669	0.006	0.001	1975581
Ethylbenzene	mg/L	0.001	0.001	1975669	0.002	0.001	1975581
Xylene (Total)	mg/L	0.007	0.003	1975669	0.009	0.002	1975581
C6 - C10 (less BTEX)	mg/L	<0.01	0.01	1975669	0.03	0.01	1975581
>C10-C21 Hydrocarbons	mg/L	<0.05	0.05	1974026	0.24	0.05	1974947
>C21-<C32 Hydrocarbons	mg/L	<0.1	0.1	1974026	<0.1	0.1	1974947
Modified TPH (Tier1)	mg/L	<0.1	0.1	1970286	0.3	0.1	1970286
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	85		1974026	105		1974947
n-Dotriacontane - Extractable	%	83		1974026	98 (1)		1974947
Isobutylbenzene - Volatile	%	94 (2)		1975669	100		1975581

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction.
(2) VPH analysis performed on previously opened vial.

Maxxam Job #: A9D6669
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EA0713	EA0716	EA0718	EA0728		
Sampling Date							
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-64 Lab-Dup	MW-65	MW-66	MW-67	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	0.003	<0.001	<0.001	0.001	1975581
Toluene	mg/L	0.005	0.018	0.007	0.007	0.001	1975581
Ethylbenzene	mg/L	0.001	0.010	0.001	0.001	0.001	1975581
Xylene (Total)	mg/L	0.005	0.037	0.006	0.006	0.002	1975581
C6 - C10 (less BTEX)	mg/L	<0.01	0.11	<0.01	<0.01	0.01	1975581
>C10-C21 Hydrocarbons	mg/L	0.25	0.19	0.15	<0.05	0.05	1974947
>C21-<C32 Hydrocarbons	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	1974947
Modified TPH (Tier1)	mg/L		0.3	0.1	<0.1	0.1	1970286
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	100	102	97	103		1974947
n-Dotriacontane - Extractable	%	96	101 (1)	97 (2)	99		1974947
Isobutylbenzene - Volatile	%	109	95	109	108		1975581

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in the gas/fuel oil range.
(2) Weathered fuel oil fraction.

Maxxam Job #: A9D6669
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		EA0710	EA0718	EA0728		
Sampling Date						
COC Number		N/A	N/A	N/A		
	Units	MW-63	MW-66	MW-67	RDL	QC Batch

PCBs						
Total PCB	ug/L	<0.05	<0.05	<0.05	0.05	1972637
Surrogate Recovery (%)						
Decachlorobiphenyl	%	51 (1)	61 (1)	67		1972637

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PCB sample contained sediment.

Maxxam Job #: A9D6669
Report Date: 2009/10/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
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GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9D6669

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1972637 RST	Matrix Spike [EA0728-01]	Decachlorobiphenyl	2009/10/21		61	%	30 - 130
		Total PCB	2009/10/21		97	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/21		32	%	30 - 130
		Total PCB	2009/10/21		119	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/21		32	%	30 - 130
		Total PCB	2009/10/21	<0.05		ug/L	
	RPD	Total PCB	2009/10/21	NC		%	40
	Matrix Spike	1,2-Dichlorobenzene	2009/10/17		105	%	70 - 130
		1,3-Dichlorobenzene	2009/10/17		105	%	70 - 130
1973541 MSK		1,4-Dichlorobenzene	2009/10/17		105	%	70 - 130
		Chlorobenzene	2009/10/17		111	%	70 - 130
		1,1,1-Trichloroethane	2009/10/17		121	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/10/17		116	%	70 - 130
		1,1,2-Trichloroethane	2009/10/17		121	%	70 - 130
		1,1-Dichloroethane	2009/10/17		121	%	70 - 130
		1,1-Dichloroethylene	2009/10/17		121	%	70 - 130
		1,2-Dichloroethane	2009/10/17		121	%	70 - 130
		1,2-Dichloropropane	2009/10/17		116	%	70 - 130
		4-Bromofluorobenzene	2009/10/17		103	%	70 - 130
		Benzene	2009/10/17		116	%	70 - 130
		Bromodichloromethane	2009/10/17		116	%	70 - 130
		Bromoform	2009/10/17		111	%	70 - 130
		Bromomethane	2009/10/17		100	%	70 - 130
		Carbon Tetrachloride	2009/10/17		126	%	70 - 130
		Chloroethane	2009/10/17		116	%	70 - 130
		Chloroform	2009/10/17		126	%	70 - 130
		Chloromethane	2009/10/17		105	%	70 - 130
		cis-1,2-Dichloroethylene	2009/10/17		120	%	70 - 130
		cis-1,3-Dichloropropene	2009/10/17		111	%	70 - 130
		D4-1,2-Dichloroethane	2009/10/17		105	%	70 - 130
		D8-Toluene	2009/10/17		103	%	70 - 130
		Dibromochloromethane	2009/10/17		111	%	70 - 130
		Ethylbenzene	2009/10/17		111	%	70 - 130
		Ethylene Dibromide	2009/10/17		115	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/10/17		121	%	70 - 130
		o-Xylene	2009/10/17		105	%	70 - 130
		p+m-Xylene	2009/10/17		110	%	70 - 130
		Styrene	2009/10/17		105	%	70 - 130
		Tetrachloroethylene	2009/10/17		116	%	70 - 130
		Toluene	2009/10/17		111	%	70 - 130
		trans-1,2-Dichloroethylene	2009/10/17		121	%	70 - 130
		trans-1,3-Dichloropropene	2009/10/17		105	%	70 - 130
		Trichloroethylene	2009/10/17		121	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/10/17		121	%	70 - 130
		Vinyl Chloride	2009/10/17		100	%	70 - 130
	Spiked Blank	1,2-Dichlorobenzene	2009/10/16		103	%	70 - 130
		1,3-Dichlorobenzene	2009/10/16		102	%	70 - 130
		1,4-Dichlorobenzene	2009/10/16		99	%	70 - 130
		Chlorobenzene	2009/10/16		109	%	70 - 130
		1,1,1-Trichloroethane	2009/10/16		119	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/10/16		111	%	70 - 130
		1,1,2-Trichloroethane	2009/10/16		115	%	70 - 130
		1,1-Dichloroethane	2009/10/16		117	%	70 - 130
		1,1-Dichloroethylene	2009/10/16		118	%	70 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6669

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1973541 MSK	Spiked Blank	1,2-Dichloroethane	2009/10/16		115	%	70 - 130	
		1,2-Dichloropropane	2009/10/16		111	%	70 - 130	
		4-Bromofluorobenzene	2009/10/16		101	%	70 - 130	
		Benzene	2009/10/16		110	%	70 - 130	
		Bromodichloromethane	2009/10/16		111	%	70 - 130	
		Bromoform	2009/10/16		103	%	70 - 130	
		Bromomethane	2009/10/16		90	%	70 - 130	
		Carbon Tetrachloride	2009/10/16		118	%	70 - 130	
		Chloroethane	2009/10/16		115	%	70 - 130	
		Chloroform	2009/10/16		120	%	70 - 130	
		Chloromethane	2009/10/16		104	%	70 - 130	
		cis-1,2-Dichloroethylene	2009/10/16		113	%	70 - 130	
		cis-1,3-Dichloropropene	2009/10/16		103	%	70 - 130	
		D4-1,2-Dichloroethane	2009/10/16		104	%	70 - 130	
		D8-Toluene	2009/10/16		103	%	70 - 130	
		Dibromochloromethane	2009/10/16		107	%	70 - 130	
		Ethylbenzene	2009/10/16		106	%	70 - 130	
		Ethylene Dibromide	2009/10/16		110	%	70 - 130	
		Methylene Chloride(Dichloromethane)	2009/10/16		116	%	70 - 130	
		o-Xylene	2009/10/16		104	%	70 - 130	
		p+m-Xylene	2009/10/16		110	%	70 - 130	
		Styrene	2009/10/16		105	%	70 - 130	
		Tetrachloroethylene	2009/10/16		110	%	70 - 130	
		Toluene	2009/10/16		111	%	70 - 130	
		trans-1,2-Dichloroethylene	2009/10/16		114	%	70 - 130	
		trans-1,3-Dichloropropene	2009/10/16		101	%	70 - 130	
		Trichloroethylene	2009/10/16		115	%	70 - 130	
		Trichlorofluoromethane (FREON 11)	2009/10/16		115	%	70 - 130	
		Vinyl Chloride	2009/10/16		99	%	70 - 130	
	Method Blank	1,2-Dichlorobenzene	2009/10/16	<0.5		ug/L		
		1,3-Dichlorobenzene	2009/10/16	<1		ug/L		
		1,4-Dichlorobenzene	2009/10/16	<1		ug/L		
		Chlorobenzene	2009/10/16	<1		ug/L		
		1,1,1-Trichloroethane	2009/10/16	<1		ug/L		
		1,1,2,2-Tetrachloroethane	2009/10/16	<1		ug/L		
		1,1,2-Trichloroethane	2009/10/16	<1		ug/L		
		1,1-Dichloroethane	2009/10/16	<2		ug/L		
		1,1-Dichloroethylene	2009/10/16	<0.5		ug/L		
		1,2-Dichloroethane	2009/10/16	<1		ug/L		
		1,2-Dichloropropane	2009/10/16	<1		ug/L		
		4-Bromofluorobenzene	2009/10/16		99	%	70 - 130	
		Benzene	2009/10/16	<1		ug/L		
		Bromodichloromethane	2009/10/16	<1		ug/L		
		Bromoform	2009/10/16	<1		ug/L		
		Bromomethane	2009/10/16	<3		ug/L		
		Carbon Tetrachloride	2009/10/16	<1		ug/L		
		Chloroethane	2009/10/16	<8		ug/L		
		Chloroform	2009/10/16	<1		ug/L		
		Chloromethane	2009/10/16	<8		ug/L		
		cis-1,2-Dichloroethylene	2009/10/16	<2		ug/L		
		cis-1,3-Dichloropropene	2009/10/16	<2		ug/L		
		D4-1,2-Dichloroethane	2009/10/16		106	%	70 - 130	
		D8-Toluene	2009/10/16		98	%	70 - 130	
		Dibromochloromethane	2009/10/16	<1		ug/L		
		Ethylbenzene	2009/10/16	<1		ug/L		

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6669

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1973541 MSK	Method Blank	Ethylene Dibromide	2009/10/16	<1		ug/L	
		Methylene Chloride(Dichloromethane)	2009/10/16	<3		ug/L	
		o-Xylene	2009/10/16	<1		ug/L	
		p+m-Xylene	2009/10/16	<2		ug/L	
		Styrene	2009/10/16	<1		ug/L	
		Tetrachloroethylene	2009/10/16	<1		ug/L	
		Toluene	2009/10/16	<1		ug/L	
		trans-1,2-Dichloroethylene	2009/10/16	<2		ug/L	
		trans-1,3-Dichloropropene	2009/10/16	<1		ug/L	
		Trichloroethylene	2009/10/16	<1		ug/L	
		Trichlorofluoromethane (FREON 11)	2009/10/16	<8		ug/L	
		Vinyl Chloride	2009/10/16	<0.5		ug/L	
	RPD	1,2-Dichlorobenzene	2009/10/16	NC		%	40
		1,3-Dichlorobenzene	2009/10/16	NC		%	40
		1,4-Dichlorobenzene	2009/10/16	NC		%	40
		Chlorobenzene	2009/10/16	NC		%	40
		1,1,1-Trichloroethane	2009/10/16	NC		%	40
		1,1,2,2-Tetrachloroethane	2009/10/16	NC		%	40
		1,1,2-Trichloroethane	2009/10/16	NC		%	40
		1,1-Dichloroethane	2009/10/16	NC		%	40
		1,1-Dichloroethylene	2009/10/16	NC		%	40
		1,2-Dichloroethane	2009/10/16	NC		%	40
		1,2-Dichloropropane	2009/10/16	NC		%	40
		Benzene	2009/10/16	NC		%	40
		Bromodichloromethane	2009/10/16	NC		%	40
		Bromoform	2009/10/16	NC		%	40
		Bromomethane	2009/10/16	NC		%	40
		Carbon Tetrachloride	2009/10/16	NC		%	40
		Chloroethane	2009/10/16	NC		%	40
		Chloroform	2009/10/16	NC		%	40
		Chloromethane	2009/10/16	NC		%	40
		cis-1,2-Dichloroethylene	2009/10/16	NC		%	40
		cis-1,3-Dichloropropene	2009/10/16	NC		%	40
		Dibromochloromethane	2009/10/16	NC		%	40
		Ethylbenzene	2009/10/16	NC		%	40
		Ethylene Dibromide	2009/10/16	NC		%	40
		Methylene Chloride(Dichloromethane)	2009/10/16	NC		%	40
		o-Xylene	2009/10/16	NC		%	40
		p+m-Xylene	2009/10/16	NC		%	40
		Styrene	2009/10/16	NC		%	40
		Tetrachloroethylene	2009/10/16	NC		%	40
		Toluene	2009/10/16	NC		%	40
		trans-1,2-Dichloroethylene	2009/10/16	NC		%	40
		trans-1,3-Dichloropropene	2009/10/16	NC		%	40
		Trichloroethylene	2009/10/16	NC		%	40
		Trichlorofluoromethane (FREON 11)	2009/10/16	NC		%	40
		Vinyl Chloride	2009/10/16	NC		%	40
1974026 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/18		108	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/18		102	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/18		106	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/18		111	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/20		104	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/20		98	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/20		107	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/20		115	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6669

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1974026 LMU	Method Blank	Isobutylbenzene - Extractable	2009/10/18		104	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/18		109	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/18	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/18	<0.1		mg/L	
		>C10-C21 Hydrocarbons	2009/10/18	NC		%	40
	RPD	>C21-<C32 Hydrocarbons	2009/10/18	NC		%	40
1974493 SOD	Matrix Spike [EA0728-01]	D10-Anthracene	2009/10/20		75	%	30 - 130
		D14-Terphenyl	2009/10/20		72 (1)	%	30 - 130
		D8-Acenaphthylene	2009/10/20		80	%	30 - 130
		1-Methylnaphthalene	2009/10/20		74	%	30 - 130
		2-Methylnaphthalene	2009/10/20		74	%	30 - 130
		Acenaphthene	2009/10/20		84	%	30 - 130
		Acenaphthylene	2009/10/20		72	%	30 - 130
		Anthracene	2009/10/20		80	%	30 - 130
		Benzo(a)anthracene	2009/10/20		79	%	30 - 130
		Benzo(a)pyrene	2009/10/20		73	%	30 - 130
		Benzo(b)fluoranthene	2009/10/20		71	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/20		73	%	30 - 130
		Benzo(k)fluoranthene	2009/10/20		71	%	30 - 130
		Chrysene	2009/10/20		99	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/20		55 (2)	%	30 - 130
		Fluoranthene	2009/10/20		92	%	30 - 130
		Fluorene	2009/10/20		79	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/20		51 (2)	%	30 - 130
		Naphthalene	2009/10/20		80	%	30 - 130
		Perylene	2009/10/20		80	%	30 - 130
		Phenanthrene	2009/10/20		79	%	30 - 130
		Pyrene	2009/10/20		92	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/10/20		71	%	30 - 130
		D14-Terphenyl	2009/10/20		72	%	30 - 130
		D8-Acenaphthylene	2009/10/20		80	%	30 - 130
		1-Methylnaphthalene	2009/10/20		69	%	30 - 130
		2-Methylnaphthalene	2009/10/20		72	%	30 - 130
		Acenaphthene	2009/10/20		80	%	30 - 130
		Acenaphthylene	2009/10/20		66	%	30 - 130
		Anthracene	2009/10/20		71	%	30 - 130
		Benzo(a)anthracene	2009/10/20		71	%	30 - 130
		Benzo(a)pyrene	2009/10/20		69	%	30 - 130
		Benzo(b)fluoranthene	2009/10/20		72	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/20		69	%	30 - 130
		Benzo(k)fluoranthene	2009/10/20		71	%	30 - 130
		Chrysene	2009/10/20		94	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/20		62	%	30 - 130
		Fluoranthene	2009/10/20		81	%	30 - 130
		Fluorene	2009/10/20		77	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/20		61	%	30 - 130
		Naphthalene	2009/10/20		75	%	30 - 130
		Perylene	2009/10/20		74	%	30 - 130
		Phenanthrene	2009/10/20		77	%	30 - 130
		Pyrene	2009/10/20		81	%	30 - 130
	Method Blank	D10-Anthracene	2009/10/20		71	%	30 - 130
		D14-Terphenyl	2009/10/20		80	%	30 - 130
		D8-Acenaphthylene	2009/10/20		75	%	30 - 130
		1-Methylnaphthalene	2009/10/20	<0.05		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6669

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1974493 SOD	Method Blank	2-Methylnaphthalene	2009/10/20	<0.05		ug/L	
		Acenaphthene	2009/10/20	<0.01		ug/L	
		Acenaphthylene	2009/10/20	<0.01		ug/L	
		Anthracene	2009/10/20	<0.01		ug/L	
		Benzo(a)anthracene	2009/10/20	<0.01		ug/L	
		Benzo(a)pyrene	2009/10/20	<0.01		ug/L	
		Benzo(b)fluoranthene	2009/10/20	<0.01		ug/L	
		Benzo(g,h,i)perylene	2009/10/20	<0.01		ug/L	
		Benzo(k)fluoranthene	2009/10/20	<0.01		ug/L	
		Chrysene	2009/10/20	<0.01		ug/L	
		Dibenz(a,h)anthracene	2009/10/20	<0.01		ug/L	
		Fluoranthene	2009/10/20	<0.01		ug/L	
		Fluorene	2009/10/20	<0.01		ug/L	
		Indeno(1,2,3-cd)pyrene	2009/10/20	<0.01		ug/L	
		Naphthalene	2009/10/20	<0.2		ug/L	
		Perylene	2009/10/20	<0.01		ug/L	
		Phenanthrene	2009/10/20	<0.01		ug/L	
		Pyrene	2009/10/20	<0.01		ug/L	
	RPD	1-Methylnaphthalene	2009/10/21	NC		%	40
		2-Methylnaphthalene	2009/10/21	NC		%	40
		Acenaphthene	2009/10/21	NC		%	40
		Acenaphthylene	2009/10/21	NC		%	40
		Anthracene	2009/10/21	NC		%	40
		Benzo(a)anthracene	2009/10/21	NC		%	40
		Benzo(a)pyrene	2009/10/21	NC		%	40
		Benzo(b)fluoranthene	2009/10/21	NC		%	40
		Benzo(g,h,i)perylene	2009/10/21	NC		%	40
		Benzo(k)fluoranthene	2009/10/21	NC		%	40
		Chrysene	2009/10/21	NC		%	40
		Dibenz(a,h)anthracene	2009/10/21	NC		%	40
		Fluoranthene	2009/10/21	NC		%	40
		Fluorene	2009/10/21	NC		%	40
		Indeno(1,2,3-cd)pyrene	2009/10/21	NC		%	40
		Naphthalene	2009/10/21	NC		%	40
		Perylene	2009/10/21	NC		%	40
		Phenanthrene	2009/10/21	NC		%	40
		Pyrene	2009/10/21	NC		%	40
1974503 SOD	Matrix Spike [EA0728-01]	Acridine	2009/10/20		77	%	30 - 130
		Quinoline	2009/10/20		50 (2)	%	30 - 130
	Spiked Blank	Acridine	2009/10/20		77	%	30 - 130
		Quinoline	2009/10/20		71	%	30 - 130
	Method Blank	Acridine	2009/10/20	<0.05		ug/L	
		Quinoline	2009/10/20	<0.05		ug/L	
	RPD	Acridine	2009/10/21	NC		%	40
		Quinoline	2009/10/21	NC		%	40
1974947 LMU	Matrix Spike [EA0716-01]	Isobutylbenzene - Extractable	2009/10/19		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/19		102	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/19		96	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/19		105	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/19		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/19		87	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/19		96	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/19		103	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6669

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1974947 LMU	Method Blank	Isobutylbenzene - Extractable	2009/10/19		100	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/19		76	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/19	<0.05		mg/L	
	RPD [EA0713-01]	>C21-<C32 Hydrocarbons	2009/10/19	<0.1		mg/L	
		>C10-C21 Hydrocarbons	2009/10/19	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/19	NC		%	40
1975581 GTH	Matrix Spike [EA0718-01]	Isobutylbenzene - Volatile	2009/10/19		106	%	70 - 130
		Benzene	2009/10/19		135 (3)	%	70 - 130
		Toluene	2009/10/19		126	%	70 - 130
		Ethylbenzene	2009/10/19		126	%	70 - 130
		Xylene (Total)	2009/10/19		123	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/19		104	%	70 - 130
		Benzene	2009/10/19		99	%	70 - 130
		Toluene	2009/10/19		108	%	70 - 130
		Ethylbenzene	2009/10/19		108	%	70 - 130
		Xylene (Total)	2009/10/19		107	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/19		109	%	70 - 130
		Benzene	2009/10/19	<0.001		mg/L	
		Toluene	2009/10/19	<0.001		mg/L	
		Ethylbenzene	2009/10/19	<0.001		mg/L	
		Xylene (Total)	2009/10/19	<0.002		mg/L	
	RPD [EA0713-01]	C6 - C10 (less BTEX)	2009/10/19	<0.01		mg/L	
		Benzene	2009/10/19	NC		%	40
		Toluene	2009/10/19	16.6		%	40
		Ethylbenzene	2009/10/19	NC		%	40
		Xylene (Total)	2009/10/19	NC		%	40
1975669 SHL	Matrix Spike	Isobutylbenzene - Volatile	2009/10/21		98	%	70 - 130
		Benzene	2009/10/21		117	%	70 - 130
		Toluene	2009/10/21		122	%	70 - 130
		Ethylbenzene	2009/10/21		122	%	70 - 130
		Xylene (Total)	2009/10/21		113	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/21		88	%	70 - 130
		Benzene	2009/10/21		113	%	70 - 130
		Toluene	2009/10/21		108	%	70 - 130
		Ethylbenzene	2009/10/21		104	%	70 - 130
		Xylene (Total)	2009/10/21		100	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/21		105	%	70 - 130
		Benzene	2009/10/21	<0.001		mg/L	
		Toluene	2009/10/21	<0.001		mg/L	
		Ethylbenzene	2009/10/21	<0.001		mg/L	
		Xylene (Total)	2009/10/21	<0.002		mg/L	
	RPD	C6 - C10 (less BTEX)	2009/10/21	<0.01		mg/L	
		Benzene	2009/10/21	NC		%	40
		Toluene	2009/10/21	NC		%	40
		Ethylbenzene	2009/10/21	NC		%	40
		Xylene (Total)	2009/10/21	NC		%	40
1977646 KGU	QC Standard	C6 - C10 (less BTEX)	2009/10/21	NC		%	40
		Dissolved Aluminum (Al)	2009/10/20		103	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/20		107	%	80 - 120
		Dissolved Arsenic (As)	2009/10/20		90	%	80 - 120
		Dissolved Barium (Ba)	2009/10/20		97	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/20		87	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/20		84	%	80 - 120

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6669

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1977646 KGU	QC Standard	Dissolved Boron (B)	2009/10/20		94	%	80 - 120	
		Dissolved Cadmium (Cd)	2009/10/20		95	%	80 - 120	
		Dissolved Chromium (Cr)	2009/10/20		102	%	80 - 120	
		Dissolved Cobalt (Co)	2009/10/20		95	%	80 - 120	
		Dissolved Copper (Cu)	2009/10/20		88	%	80 - 120	
		Dissolved Iron (Fe)	2009/10/20		95	%	80 - 120	
		Dissolved Lead (Pb)	2009/10/20		88	%	80 - 120	
		Dissolved Manganese (Mn)	2009/10/20		94	%	80 - 120	
		Dissolved Molybdenum (Mo)	2009/10/20		102	%	80 - 120	
		Dissolved Nickel (Ni)	2009/10/20		87	%	80 - 120	
		Dissolved Selenium (Se)	2009/10/20		88	%	80 - 120	
		Dissolved Silver (Ag)	2009/10/20		97	%	80 - 120	
		Dissolved Strontium (Sr)	2009/10/20		99	%	80 - 120	
		Dissolved Thallium (Tl)	2009/10/20		82	%	80 - 120	
		Dissolved Vanadium (V)	2009/10/20		98	%	80 - 120	
		Dissolved Zinc (Zn)	2009/10/20		83	%	80 - 120	
	Spiked Blank	Dissolved Aluminum (Al)	2009/10/20		100	%	80 - 120	
		Dissolved Antimony (Sb)	2009/10/20		83	%	80 - 120	
		Dissolved Arsenic (As)	2009/10/20		100	%	80 - 120	
		Dissolved Barium (Ba)	2009/10/20		103	%	80 - 120	
		Dissolved Beryllium (Be)	2009/10/20		98	%	80 - 120	
		Dissolved Bismuth (Bi)	2009/10/20		99	%	80 - 120	
		Dissolved Boron (B)	2009/10/20		99	%	80 - 120	
		Dissolved Cadmium (Cd)	2009/10/20		104	%	80 - 120	
		Dissolved Chromium (Cr)	2009/10/20		94	%	80 - 120	
		Dissolved Cobalt (Co)	2009/10/20		100	%	80 - 120	
		Dissolved Copper (Cu)	2009/10/20		95	%	80 - 120	
		Dissolved Lead (Pb)	2009/10/20		93	%	80 - 120	
		Dissolved Manganese (Mn)	2009/10/20		96	%	80 - 120	
		Dissolved Molybdenum (Mo)	2009/10/20		98	%	80 - 120	
		Dissolved Nickel (Ni)	2009/10/20		97	%	80 - 120	
		Dissolved Selenium (Se)	2009/10/20		99	%	80 - 120	
		Dissolved Silver (Ag)	2009/10/20		108	%	80 - 120	
		Dissolved Strontium (Sr)	2009/10/20		103	%	80 - 120	
		Dissolved Thallium (Tl)	2009/10/20		86	%	80 - 120	
		Dissolved Tin (Sn)	2009/10/20		102	%	80 - 120	
		Dissolved Titanium (Ti)	2009/10/20		97	%	80 - 120	
		Dissolved Uranium (U)	2009/10/20		89	%	80 - 120	
		Dissolved Vanadium (V)	2009/10/20		96	%	80 - 120	
		Dissolved Zinc (Zn)	2009/10/20		110	%	80 - 120	
	Method Blank	Dissolved Aluminum (Al)	2009/10/20	<5.0		ug/L		
		Dissolved Antimony (Sb)	2009/10/20	<2.0		ug/L		
		Dissolved Arsenic (As)	2009/10/20	<2.0		ug/L		
		Dissolved Barium (Ba)	2009/10/20	<5.0		ug/L		
		Dissolved Beryllium (Be)	2009/10/20	<2.0		ug/L		
		Dissolved Bismuth (Bi)	2009/10/20	<2.0		ug/L		
		Dissolved Boron (B)	2009/10/20	<5.0		ug/L		
		Dissolved Cadmium (Cd)	2009/10/20	<0.017		ug/L		
		Dissolved Chromium (Cr)	2009/10/20	<1.0		ug/L		
		Dissolved Cobalt (Co)	2009/10/20	<0.40		ug/L		
		Dissolved Copper (Cu)	2009/10/20	<2.0		ug/L		
		Dissolved Iron (Fe)	2009/10/20	<50		ug/L		
		Dissolved Lead (Pb)	2009/10/20	<0.50		ug/L		
		Dissolved Manganese (Mn)	2009/10/20	<2.0		ug/L		
		Dissolved Molybdenum (Mo)	2009/10/20	<2.0		ug/L		

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D6669

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1977646	KGU	Method Blank						
		Dissolved Nickel (Ni)	2009/10/20	<2.0		ug/L		
		Dissolved Selenium (Se)	2009/10/20	<1.0		ug/L		
		Dissolved Silver (Ag)	2009/10/20	<0.10		ug/L		
		Dissolved Strontium (Sr)	2009/10/20	<5.0		ug/L		
		Dissolved Thallium (Tl)	2009/10/20	<0.10		ug/L		
		Dissolved Tin (Sn)	2009/10/20	<2.0		ug/L		
		Dissolved Titanium (Ti)	2009/10/20	<2.0		ug/L		
		Dissolved Uranium (U)	2009/10/20	<0.10		ug/L		
		Dissolved Vanadium (V)	2009/10/20	<2.0		ug/L		
		Dissolved Zinc (Zn)	2009/10/20	<5.0		ug/L		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) PAH sample contained sediment.

(2) Matrix Spike: < 10 % of compounds in multi-component analysis in violation.

(3) Matrix Spike: results are outside acceptance limit. Analysis was repeated with similar results.

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: N/A

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/09/09

CERTIFICATE OF ANALYSIS

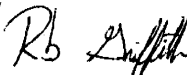
MAXXAM JOB #: A9B4252
Received: 2009/09/01, 10:05

Sample Matrix: Soil
 # Samples Received: 19

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	1	2009/09/03	2009/09/04	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	1	2009/09/03	2009/09/09	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	1	2009/09/04	2009/09/05	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	1	2009/09/04	2009/09/08	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	8	2009/09/04	2009/09/09	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	10	N/A	2009/09/04	ATL SOP 00024 R4	Based on EPA6020A
Moisture	19	N/A	2009/09/08	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	17	2009/09/03	2009/09/08	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	12	2009/09/02	2009/09/03	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	1	2009/09/01	2009/09/04		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	1	2009/09/01	2009/09/08		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	10	2009/09/01	2009/09/09		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
 09 Sep 2009 16:53:46 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 20

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DO4162	DO4163	DO4164	DO4165	DO4166		
Sampling Date		2009/08/31	2009/08/31	2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS152	BS153	BS154	TP214-BS1	BS68	RDL	QC Batch

Inorganics								
Moisture	%	45	63	71	11	5	1	1928172
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DO4167	DO4168	DO4169	DO4170	DO4171		
Sampling Date		2009/08/31	2009/08/31	2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS76	BS113	BS117	BS116	TP218-BS1	RDL	QC Batch

Inorganics								
Moisture	%	10	81	47	70	6	1	1928172
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DO4172	DO4173	DO4174	DO4175	DO4176		
Sampling Date		2009/08/31	2009/08/31	2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP213-BS1	TP195-BS1	TP127-BS2	TP79-BS2	BS19	RDL	QC Batch

Inorganics								
Moisture	%	11	14	23	44	63	1	1928172
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DO4177	DO4178	DO4179	DO4180		
Sampling Date		2009/08/31	2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS32	TP101-BS2	TP96-BS2	BS42	RDL	QC Batch

Inorganics							
Moisture	%	60	20	10	13	1	1928172

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DO4162		DO4163		
Sampling Date		2009/08/31		2009/08/31		
COC Number		N/A		N/A		
Registration #						
	Units	BS152	RDL	BS153	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	6900	10	29000	10	1930428
Available Antimony (Sb)	mg/kg	3	2	<2	2	1930428
Available Arsenic (As)	mg/kg	<2	2	<2	2	1930428
Available Barium (Ba)	mg/kg	110	5	45	5	1930428
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1930428
Available Bismuth (Bi)	mg/kg	2	2	<2	2	1930428
Available Boron (B)	mg/kg	11	5	7	5	1930428
Available Cadmium (Cd)	mg/kg	2.2	0.3	<0.3	0.3	1930428
Available Chromium (Cr)	mg/kg	29	2	42	2	1930428
Available Cobalt (Co)	mg/kg	7	1	47	1	1930428
Available Copper (Cu)	mg/kg	100	2	41	2	1930428
Available Iron (Fe)	mg/kg	12000	50	47000	500	1930428
Available Lead (Pb)	mg/kg	99	0.5	10	0.5	1930428
Available Lithium (Li)	mg/kg	8	2	19	2	1930428
Available Manganese (Mn)	mg/kg	200	2	2800	2	1930428
Available Mercury (Hg)	mg/kg	1.0	0.1	0.2	0.1	1930428
Available Molybdenum (Mo)	mg/kg	<2	2	5	2	1930428
Available Nickel (Ni)	mg/kg	17	2	20	2	1930428
Available Rubidium (Rb)	mg/kg	5	2	3	2	1930428
Available Selenium (Se)	mg/kg	<2	2	<5 (1)	5	1930428
Available Silver (Ag)	mg/kg	3.0	0.5	0.6	0.5	1930428
Available Strontium (Sr)	mg/kg	32	5	<50 (2)	50	1930428
Available Thallium (Tl)	mg/kg	0.1	0.1	0.2	0.1	1930428
Available Tin (Sn)	mg/kg	64	2	4	2	1930428
Available Uranium (U)	mg/kg	0.4	0.1	4.0	0.1	1930428
Available Vanadium (V)	mg/kg	16	2	82	2	1930428
Available Zinc (Zn)	mg/kg	1500	5	110	5	1930428

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated reporting limit due to sample matrix.

(2) Elevated reporting limit due to matrix interferences.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DO4164		DO4169	DO4174		
Sampling Date		2009/08/31		2009/08/31	2009/08/31		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS154	RDL	BS117	TP127-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	1900	10	2700	11000	10	1930428
Available Antimony (Sb)	mg/kg	2	2	<2	<2	2	1930428
Available Arsenic (As)	mg/kg	<2	2	<2	<2	2	1930428
Available Barium (Ba)	mg/kg	47	5	7	8	5	1930428
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1930428
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1930428
Available Boron (B)	mg/kg	18	5	<5	<5	5	1930428
Available Cadmium (Cd)	mg/kg	1.5	0.3	<0.3	<0.3	0.3	1930428
Available Chromium (Cr)	mg/kg	9	2	5	17	2	1930428
Available Cobalt (Co)	mg/kg	2	1	<1	3	1	1930428
Available Copper (Cu)	mg/kg	65	2	6	10	2	1930428
Available Iron (Fe)	mg/kg	3200	50	4500	11000	50	1930428
Available Lead (Pb)	mg/kg	50	0.5	5.3	2.5	0.5	1930428
Available Lithium (Li)	mg/kg	<2	2	<2	4	2	1930428
Available Manganese (Mn)	mg/kg	160	2	19	73	2	1930428
Available Mercury (Hg)	mg/kg	0.8	0.1	<0.1	<0.1	0.1	1930428
Available Molybdenum (Mo)	mg/kg	<2	2	<2	<2	2	1930428
Available Nickel (Ni)	mg/kg	5	2	2	9	2	1930428
Available Rubidium (Rb)	mg/kg	<2	2	3	<2	2	1930428
Available Selenium (Se)	mg/kg	<5 (1)	5	<2	<2	2	1930428
Available Silver (Ag)	mg/kg	3.6	0.5	<0.5	<0.5	0.5	1930428
Available Strontium (Sr)	mg/kg	60	5	<5	8	5	1930428
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1930428
Available Tin (Sn)	mg/kg	32	2	<2	<2	2	1930428
Available Uranium (U)	mg/kg	0.3	0.1	1.4	0.4	0.1	1930428
Available Vanadium (V)	mg/kg	8	2	17	23	2	1930428
Available Zinc (Zn)	mg/kg	540	5	46	13	5	1930428

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DO4175	DO4176		DO4177		
Sampling Date		2009/08/31	2009/08/31		2009/08/31		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP79-BS2	BS19	RDL	BS32	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	12000	8300	10	10000	10	1930428
Available Antimony (Sb)	mg/kg	<2	<2	2	<2	2	1930428
Available Arsenic (As)	mg/kg	<2	<2	2	<2	2	1930428
Available Barium (Ba)	mg/kg	12	37	5	47	5	1930428
Available Beryllium (Be)	mg/kg	<2	<2	2	<2	2	1930428
Available Bismuth (Bi)	mg/kg	<2	<2	2	<2	2	1930428
Available Boron (B)	mg/kg	<5	<5	5	<5	5	1930428
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	0.3	0.3	0.3	1930428
Available Chromium (Cr)	mg/kg	13	13	2	17	2	1930428
Available Cobalt (Co)	mg/kg	2	2	1	2	1	1930428
Available Copper (Cu)	mg/kg	23	14	2	46	2	1930428
Available Iron (Fe)	mg/kg	4300	5100	50	14000	50	1930428
Available Lead (Pb)	mg/kg	2.5	8.8	0.5	13	0.5	1930428
Available Lithium (Li)	mg/kg	3	<2	2	4	2	1930428
Available Manganese (Mn)	mg/kg	49	55	2	55	2	1930428
Available Mercury (Hg)	mg/kg	<0.1	0.2	0.1	0.2	0.1	1930428
Available Molybdenum (Mo)	mg/kg	<2	<2	2	<2	2	1930428
Available Nickel (Ni)	mg/kg	8	5	2	11	2	1930428
Available Rubidium (Rb)	mg/kg	<2	2	2	<2	2	1930428
Available Selenium (Se)	mg/kg	<2	<2	2	<5 (1)	5	1930428
Available Silver (Ag)	mg/kg	<0.5	<0.5	0.5	<0.5	0.5	1930428
Available Strontium (Sr)	mg/kg	8	29	5	28	5	1930428
Available Thallium (Tl)	mg/kg	<0.1	<0.1	0.1	<0.1	0.1	1930428
Available Tin (Sn)	mg/kg	<2	<2	2	7	2	1930428
Available Uranium (U)	mg/kg	1.6	2.5	0.1	2.0	0.1	1930428
Available Vanadium (V)	mg/kg	23	8	2	21	2	1930428
Available Zinc (Zn)	mg/kg	11	13	5	350	5	1930428

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DO4178	DO4179		
Sampling Date		2009/08/31	2009/08/31		
COC Number		N/A	N/A		
Registration #					
	Units	TP101-BS2	TP96-BS2	RDL	QC Batch

Metals					
Available Aluminum (Al)	mg/kg	6200	7800	10	1930428
Available Antimony (Sb)	mg/kg	<2	<2	2	1930428
Available Arsenic (As)	mg/kg	<2	<2	2	1930428
Available Barium (Ba)	mg/kg	13	17	5	1930428
Available Beryllium (Be)	mg/kg	<2	<2	2	1930428
Available Bismuth (Bi)	mg/kg	<2	<2	2	1930428
Available Boron (B)	mg/kg	<5	<5	5	1930428
Available Cadmium (Cd)	mg/kg	0.4	<0.3	0.3	1930428
Available Chromium (Cr)	mg/kg	16	21	2	1930428
Available Cobalt (Co)	mg/kg	4	7	1	1930428
Available Copper (Cu)	mg/kg	22	18	2	1930428
Available Iron (Fe)	mg/kg	8700	10000	50	1930428
Available Lead (Pb)	mg/kg	6.4	9.3	0.5	1930428
Available Lithium (Li)	mg/kg	5	6	2	1930428
Available Manganese (Mn)	mg/kg	80	130	2	1930428
Available Mercury (Hg)	mg/kg	<0.1	<0.1	0.1	1930428
Available Molybdenum (Mo)	mg/kg	<2	<2	2	1930428
Available Nickel (Ni)	mg/kg	11	20	2	1930428
Available Rubidium (Rb)	mg/kg	3	5	2	1930428
Available Selenium (Se)	mg/kg	<2	<2	2	1930428
Available Silver (Ag)	mg/kg	<0.5	<0.5	0.5	1930428
Available Strontium (Sr)	mg/kg	9	13	5	1930428
Available Thallium (Tl)	mg/kg	<0.1	<0.1	0.1	1930428
Available Tin (Sn)	mg/kg	<2	<2	2	1930428
Available Uranium (U)	mg/kg	0.5	0.3	0.1	1930428
Available Vanadium (V)	mg/kg	19	21	2	1930428
Available Zinc (Zn)	mg/kg	560	140	5	1930428

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DO4162		DO4163		
Sampling Date		2009/08/31		2009/08/31		
COC Number		N/A		N/A		
Registration #						
	Units	BS152	RDL	BS153	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.1	0.1	<0.03	0.03	1927991
Toluene	mg/kg	<0.1	0.1	<0.03	0.03	1927991
Ethylbenzene	mg/kg	<0.1	0.1	<0.03	0.03	1927991
Xylene (Total)	mg/kg	<0.3	0.3	0.18	0.05	1927991
C6 - C10 (less BTEX)	mg/kg	<10	10	<3	3	1927991
>C10-C21 Hydrocarbons	mg/kg	170	15	77	15	1929430
>C21-<C32 Hydrocarbons	mg/kg	740	15	210	15	1929430
Modified TPH (Tier1)	mg/kg	910	20	290	20	1926122
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	117		106		1929430
n-Dotriacontane - Extractable	%	109 (1)		104 (1)		1929430
Isobutylbenzene - Volatile	%	96 (2)		102		1927991

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range.
(2) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DO4164		DO4165	DO4165		
Sampling Date		2009/08/31		2009/08/31	2009/08/31		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS154	RDL	TP214-BS1	TP214-BS1 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1927991
Toluene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1927991
Ethylbenzene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1927991
Xylene (Total)	mg/kg	<0.3	0.3	<0.05	<0.05	0.05	1927991
C6 - C10 (less BTEX)	mg/kg	<10	10	<3	<3	3	1927991
>C10-C21 Hydrocarbons	mg/kg	170	15	20		15	1929430
>C21-<C32 Hydrocarbons	mg/kg	830	15	72		15	1929430
Modified TPH (Tier1)	mg/kg	1000	20	92		20	1926122
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	112		110			1929430
n-Dotriacontane - Extractable	%	109 (1)		105 (2)			1929430
Isobutylbenzene - Volatile	%	96 (3)		98	96		1927991

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range.

(2) Weathered fuel oil fraction. Lube oil fraction.

(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DO4170	DO4173	DO4173	DO4174		
Sampling Date		2009/08/31	2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS116	TP195-BS1	TP195-BS1 Lab-Dup	TP127-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03		<0.03	0.03	1927991
Toluene	mg/kg	<0.03	<0.03		<0.03	0.03	1927991
Ethylbenzene	mg/kg	<0.03	<0.03		<0.03	0.03	1927991
Xylene (Total)	mg/kg	<0.05	<0.05		<0.05	0.05	1927991
C6 - C10 (less BTEX)	mg/kg	<3	<3		<3	3	1927991
>C10-C21 Hydrocarbons	mg/kg	450	<15	<15	<15	15	1929430
>C21-<C32 Hydrocarbons	mg/kg	2100	<15	<15	49	15	1929430
Modified TPH (Tier1)	mg/kg	2600	<20		49	20	1926122
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	119	110	106	102		1929430
n-Dotriacontane - Extractable	%	143 (1)	110	107	111 (2)		1929430
Isobutylbenzene - Volatile	%	61	111		107		1927991

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(2) Possible lube oil fraction.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DO4175	DO4176	DO4178		
Sampling Date		2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	TP79-BS2	BS19	TP101-BS2	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1927991
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1927991
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1927991
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1927991
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1927991
>C10-C21 Hydrocarbons	mg/kg	260	110	40	15	1929430
>C21-<C32 Hydrocarbons	mg/kg	2100	280	120	15	1929430
Modified TPH (Tier1)	mg/kg	2400	390	160	20	1926122
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	118	110	105		1929430
n-Dotriacontane - Extractable	%	84 (1)	105 (2)	106 (3)		1929430
Isobutylbenzene - Volatile	%	78	68	98		1927991

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range.

(2) One product in fuel / lube range.

(3) Weathered fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DO4179	DO4180		
Sampling Date		2009/08/31	2009/08/31		
COC Number		N/A	N/A		
Registration #					
	Units	TP96-BS2	BS42	RDL	QC Batch

Petroleum Hydrocarbons					
Benzene	mg/kg	<0.03	<0.03	0.03	1927991
Toluene	mg/kg	0.04	<0.03	0.03	1927991
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	1927991
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	1927991
C6 - C10 (less BTEX)	mg/kg	<3	<3	3	1927991
>C10-C21 Hydrocarbons	mg/kg	20	1700	15	1928244
>C21-<C32 Hydrocarbons	mg/kg	110	10000	15	1928244
Modified TPH (Tier1)	mg/kg	130	12000	20	1926122
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	102	106		1928244
n-Dotriacontane - Extractable	%	102 (1)	148 (2)		1928244
Isobutylbenzene - Volatile	%	105	89		1927991

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Lube oil fraction.

(2) Weathered fuel oil fraction. Lube oil fraction. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DO4162		DO4163		DO4164		
Sampling Date		2009/08/31		2009/08/31		2009/08/31		
COC Number		N/A		N/A		N/A		
Registration #								
	Units	BS152	RDL	BS153	RDL	BS154	RDL	QC Batch

PCBs								
Total PCB	ug/g	3.0	0.05	<0.5 (1)	0.5	0.92	0.05	1928292
Surrogate Recovery (%)								
Decachlorobiphenyl	%	88 (2)		92		81 (2)		1928292

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PCB RDL(s) due to matrix / co-extractive interference.
(2) Aroclor 1260.

Maxxam ID		DO4165	DO4166	DO4166	DO4167		
Sampling Date		2009/08/31	2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP214-BS1	BS68	BS68 Lab-Dup	BS76	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	0.09	0.05	1928292
Surrogate Recovery (%)							
Decachlorobiphenyl	%	78	79	82	86 (1)		1928292

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DO4168	DO4169	DO4171	DO4172		
Sampling Date		2009/08/31	2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS113	BS117	TP218-BS1	TP213-BS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	1.4	<0.05	0.47	0.16	0.05	1928292
Surrogate Recovery (%)							
Decachlorobiphenyl	%	88 (1)	89	80 (1)	78 (1)		1928292
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DO4173	DO4174	DO4175	DO4176		
Sampling Date		2009/08/31	2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP195-BS1	TP127-BS2	TP79-BS2	BS19	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	0.34	<0.05	0.05	1928292
Surrogate Recovery (%)							
Decachlorobiphenyl	%	84	88	83 (1)	104		1928292
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DO4177	DO4178	DO4179		
Sampling Date		2009/08/31	2009/08/31	2009/08/31		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	BS32	TP101-BS2	TP96-BS2	RDL	QC Batch

PCBs						
Total PCB	ug/g	0.46	0.18	0.13	0.05	1928292
Surrogate Recovery (%)						
Decachlorobiphenyl	%	71 (1)	74 (1)	76 (1)		1928292

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9B4252
Report Date: 2009/09/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9B4252

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1927991 ASL	Matrix Spike [DO4165-01]	Isobutylbenzene - Volatile	2009/09/03		93	%	60 - 140
		Benzene	2009/09/03		100	%	60 - 140
		Toluene	2009/09/03		125	%	60 - 140
		Ethylbenzene	2009/09/03		118	%	60 - 140
		Xylene (Total)	2009/09/03		126	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/09/03		77	%	60 - 140
		Benzene	2009/09/03		77	%	60 - 140
		Toluene	2009/09/03		80	%	60 - 140
		Ethylbenzene	2009/09/03		76	%	60 - 140
		Xylene (Total)	2009/09/03		77	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/09/03		80	%	60 - 140
		Benzene	2009/09/03	<0.03		mg/kg	
		Toluene	2009/09/03	<0.03		mg/kg	
		Ethylbenzene	2009/09/03	<0.03		mg/kg	
		Xylene (Total)	2009/09/03	<0.05		mg/kg	
	RPD [DO4165-01]	C6 - C10 (less BTEX)	2009/09/03	<3		mg/kg	
		Benzene	2009/09/03	NC		%	50
		Toluene	2009/09/03	NC		%	50
		Ethylbenzene	2009/09/03	NC		%	50
		Xylene (Total)	2009/09/03	NC		%	50
1928244 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/09/03		96	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/03		105	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/03		88	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/03		77	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/03		99	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/03		102	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/03		92	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/03		102	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/03		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/03		102	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/03	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/03	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/09/04	NC		%	50
		>C21-<C32 Hydrocarbons	2009/09/04	NC		%	50
1928292 CMI	Matrix Spike [DO4166-01]	Decachlorobiphenyl	2009/09/08		84	%	30 - 130
		Total PCB	2009/09/08		100	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/08		87	%	30 - 130
		Total PCB	2009/09/08		100	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/08		86	%	30 - 130
		Total PCB	2009/09/08	<0.05		ug/g	
	RPD [DO4166-01]	Total PCB	2009/09/08	NC		%	50
1929430 DMV	Matrix Spike [DO4173-01]	Isobutylbenzene - Extractable	2009/09/05		109	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/05		105	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/05		109	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/05		92	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/05		108	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/05		103	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/05		110	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/05		98	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/05		104	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/05		109	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9B4252

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1929430 DMV	Method Blank	>C10-C21 Hydrocarbons	2009/09/05	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/05	<15		mg/kg	
	RPD [DO4173-01]	>C10-C21 Hydrocarbons	2009/09/05	NC		%	50
		>C21-<C32 Hydrocarbons	2009/09/05	NC		%	50
1930428 LKE	Matrix Spike	Available Aluminum (Al)	2009/09/04		NC	%	75 - 125
		Available Antimony (Sb)	2009/09/04		83	%	75 - 125
		Available Arsenic (As)	2009/09/04		80	%	75 - 125
		Available Barium (Ba)	2009/09/04		NC	%	75 - 125
		Available Beryllium (Be)	2009/09/04		98	%	75 - 125
		Available Bismuth (Bi)	2009/09/04		102	%	75 - 125
		Available Boron (B)	2009/09/04		75	%	75 - 125
		Available Cadmium (Cd)	2009/09/04		98	%	75 - 125
		Available Chromium (Cr)	2009/09/04		NC	%	75 - 125
		Available Cobalt (Co)	2009/09/04		NC	%	75 - 125
		Available Copper (Cu)	2009/09/04		NC	%	75 - 125
		Available Iron (Fe)	2009/09/04		NC	%	75 - 125
		Available Lead (Pb)	2009/09/04		NC	%	75 - 125
		Available Lithium (Li)	2009/09/04		NC	%	75 - 125
		Available Manganese (Mn)	2009/09/04		NC	%	75 - 125
		Available Mercury (Hg)	2009/09/04		99	%	75 - 125
		Available Molybdenum (Mo)	2009/09/04		90	%	75 - 125
		Available Nickel (Ni)	2009/09/04		NC	%	75 - 125
		Available Rubidium (Rb)	2009/09/04		74 (1)	%	75 - 125
		Available Selenium (Se)	2009/09/04		79	%	75 - 125
		Available Silver (Ag)	2009/09/04		100	%	75 - 125
		Available Strontium (Sr)	2009/09/04		95	%	75 - 125
		Available Thallium (Tl)	2009/09/04		104	%	75 - 125
		Available Tin (Sn)	2009/09/04		96	%	75 - 125
		Available Uranium (U)	2009/09/04		111	%	75 - 125
		Available Vanadium (V)	2009/09/04		NC	%	75 - 125
		Available Zinc (Zn)	2009/09/04		99	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/09/04		91	%	75 - 125
		Available Arsenic (As)	2009/09/04		108	%	75 - 125
		Available Barium (Ba)	2009/09/04		114	%	75 - 125
		Available Chromium (Cr)	2009/09/04		101	%	75 - 125
		Available Cobalt (Co)	2009/09/04		103	%	75 - 125
		Available Copper (Cu)	2009/09/04		110	%	75 - 125
		Available Iron (Fe)	2009/09/04		98	%	75 - 125
		Available Lead (Pb)	2009/09/04		116	%	75 - 125
		Available Manganese (Mn)	2009/09/04		111	%	75 - 125
		Available Nickel (Ni)	2009/09/04		106	%	75 - 125
		Available Strontium (Sr)	2009/09/04		96	%	75 - 125
		Available Vanadium (V)	2009/09/04		119	%	75 - 125
		Available Zinc (Zn)	2009/09/04		110	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/09/04		103	%	75 - 125
		Available Antimony (Sb)	2009/09/04		103	%	75 - 125
		Available Arsenic (As)	2009/09/04		100	%	75 - 125
		Available Barium (Ba)	2009/09/04		104	%	75 - 125
		Available Beryllium (Be)	2009/09/04		100	%	75 - 125
		Available Bismuth (Bi)	2009/09/04		93	%	75 - 125
		Available Boron (B)	2009/09/04		102	%	75 - 125
		Available Cadmium (Cd)	2009/09/04		100	%	75 - 125
		Available Chromium (Cr)	2009/09/04		95	%	75 - 125
		Available Cobalt (Co)	2009/09/04		90	%	75 - 125
		Available Copper (Cu)	2009/09/04		91	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9B4252

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1930428 LKE	Spiked Blank	Available Iron (Fe)	2009/09/04		106	%	75 - 125
		Available Lead (Pb)	2009/09/04		99	%	75 - 125
		Available Lithium (Li)	2009/09/04		94	%	75 - 125
		Available Manganese (Mn)	2009/09/04		110	%	75 - 125
		Available Mercury (Hg)	2009/09/04		107	%	75 - 125
		Available Molybdenum (Mo)	2009/09/04		93	%	75 - 125
		Available Nickel (Ni)	2009/09/04		87	%	75 - 125
		Available Rubidium (Rb)	2009/09/04		102	%	75 - 125
		Available Selenium (Se)	2009/09/04		107	%	75 - 125
		Available Silver (Ag)	2009/09/04		107	%	75 - 125
		Available Strontium (Sr)	2009/09/04		106	%	75 - 125
		Available Thallium (Tl)	2009/09/04		87	%	75 - 125
		Available Tin (Sn)	2009/09/04		92	%	75 - 125
		Available Uranium (U)	2009/09/04		89	%	75 - 125
		Available Vanadium (V)	2009/09/04		91	%	75 - 125
		Available Zinc (Zn)	2009/09/04		104	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/09/04	<10		mg/kg	
		Available Antimony (Sb)	2009/09/04	<2		mg/kg	
		Available Arsenic (As)	2009/09/04	<2		mg/kg	
		Available Barium (Ba)	2009/09/04	<5		mg/kg	
		Available Beryllium (Be)	2009/09/04	<2		mg/kg	
		Available Bismuth (Bi)	2009/09/04	<2		mg/kg	
		Available Boron (B)	2009/09/04	<5		mg/kg	
		Available Cadmium (Cd)	2009/09/04	<0.3		mg/kg	
		Available Chromium (Cr)	2009/09/04	<2		mg/kg	
		Available Cobalt (Co)	2009/09/04	<1		mg/kg	
		Available Copper (Cu)	2009/09/04	<2		mg/kg	
		Available Iron (Fe)	2009/09/04	<50		mg/kg	
		Available Lead (Pb)	2009/09/04	<0.5		mg/kg	
		Available Lithium (Li)	2009/09/04	<2		mg/kg	
		Available Manganese (Mn)	2009/09/04	<2		mg/kg	
		Available Mercury (Hg)	2009/09/04	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/09/04	<2		mg/kg	
		Available Nickel (Ni)	2009/09/04	<2		mg/kg	
		Available Rubidium (Rb)	2009/09/04	<2		mg/kg	
		Available Selenium (Se)	2009/09/04	<2		mg/kg	
		Available Silver (Ag)	2009/09/04	<0.5		mg/kg	
		Available Strontium (Sr)	2009/09/04	<5		mg/kg	
		Available Thallium (Tl)	2009/09/04	<0.1		mg/kg	
		Available Tin (Sn)	2009/09/04	<2		mg/kg	
		Available Uranium (U)	2009/09/04	<0.1		mg/kg	
		Available Vanadium (V)	2009/09/04	<2		mg/kg	
		Available Zinc (Zn)	2009/09/04	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/09/04	0.4		%	35
		Available Antimony (Sb)	2009/09/04	NC		%	35
		Available Arsenic (As)	2009/09/04	NC		%	35
		Available Barium (Ba)	2009/09/04	0.7		%	35
		Available Beryllium (Be)	2009/09/04	NC		%	35
		Available Bismuth (Bi)	2009/09/04	NC		%	35
		Available Boron (B)	2009/09/04	NC		%	35
		Available Cadmium (Cd)	2009/09/04	NC		%	35
		Available Chromium (Cr)	2009/09/04	14.3		%	35
		Available Cobalt (Co)	2009/09/04	1.7		%	35
		Available Copper (Cu)	2009/09/04	13.5		%	35
		Available Iron (Fe)	2009/09/04	1.7		%	35

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9B4252

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1930428 LKE	RPD	Available Lead (Pb)	2009/09/04	2.8		%	35
		Available Lithium (Li)	2009/09/04	9.7		%	35
		Available Manganese (Mn)	2009/09/04	6.0		%	35
		Available Mercury (Hg)	2009/09/04	NC		%	35
		Available Molybdenum (Mo)	2009/09/04	NC		%	35
		Available Nickel (Ni)	2009/09/04	13.3		%	35
		Available Rubidium (Rb)	2009/09/04	NC		%	35
		Available Selenium (Se)	2009/09/04	NC		%	35
		Available Silver (Ag)	2009/09/04	NC		%	35
		Available Strontium (Sr)	2009/09/04	NC		%	35
		Available Thallium (Tl)	2009/09/04	NC		%	35
		Available Tin (Sn)	2009/09/04	NC		%	35
		Available Uranium (U)	2009/09/04	1.4		%	35
		Available Vanadium (V)	2009/09/04	14.5		%	35
		Available Zinc (Zn)	2009/09/04	3.3		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Poor recovery due to sample matrix.

1044856-L

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A998642
Received: 2009/08/04, 10:04

Sample Matrix: Organic Liquid
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Free Product ID	1	2009/08/10	2009/08/10		

Sample Matrix: Soil
Samples Received: 51

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	2	2009/08/06	2009/08/06	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	10	2009/08/07	2009/08/08	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	2	2009/08/07	2009/08/10	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	3	2009/08/07	2009/08/11	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	7	N/A	2009/08/07	ATL SOP 00024 R4	Based on EPA6020A
Metals Solid Avail. Unified MS - Nper	17	N/A	2009/08/10	ATL SOP 00024 R4	Based on EPA6020A
Metals Solid Avail. Unified MS - Nper	2	N/A	2009/08/11	ATL SOP 00024 R4	Based on EPA6020A
Moisture	2	N/A	2009/08/06	ATL SOP 00001 R3	MOE Handbook 1983
Moisture	35	N/A	2009/08/07	ATL SOP 00001 R3	MOE Handbook 1983
PAH in sediment by GC/MS (Low Level)	3	2009/08/10	2009/08/12	ATL SOP 00102 R3	based on EPA8270C
PAH in sediment by GC/MS (Low Level)	1	2009/08/10	2009/08/13	ATL SOP 00102 R3	based on EPA8270C
PCBs in soil by GC/ECD	6	2009/08/07	2009/08/10	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	20	2009/08/07	2009/08/11	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	2	2009/08/10	2009/08/11	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	2	2009/08/06	2009/08/07	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	14	2009/08/07	2009/08/07	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	1	2009/08/07	2009/08/11	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	6	2009/08/04	2009/08/10		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	10	2009/08/04	2009/08/11		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	1	2009/08/04	2009/08/12		Based on Atl. PIRI
Volatile Organic Compounds in Soil	1	2009/08/10	2009/08/13	ATL SOP 00123 R3	Based on USEPA SW-84

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

..1/2

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

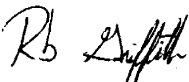
Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/13

CERTIFICATE OF ANALYSIS

-2-

Encryption Key



Rob Griffith

13 Aug 2009 16:16:00 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 2

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF ORGANIC LIQUID

Maxxam ID		DG6957		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	DRUM PRODUCT	RDL	QC Batch

Petroleum Hydrocarbons				
Open Characterization by FID	N/A	COMMENT (1)	N/A	1902072
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Free product resembles a Fuel oil fraction in combination with a Lube oil fraction.				

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DG6928	DG6930	DG6934	DG6935	DG6937		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS3	BS5	BS9	BS10	BS12	RDL	QC Batch

Inorganics								
Moisture	%	28	10	17	21	16	1	1899254

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DG6938	DG6939	DG6941	DG6944	DG6947		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS13	BS14	BS20	BS24	BS27	RDL	QC Batch

Inorganics								
Moisture	%	23	36	58	22	9	1	1899254

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DG6948	DG6949	DG6950		DG6951		
Sampling Date		2009/07/29	2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A	N/A		N/A		
Registration #								
	Units	BS28	BS30	BS34	QC Batch	BS35	RDL	QC Batch

Inorganics								
Moisture	%	12	16	55	1899254	58	1	1898661

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DG6952	DG6953	DG6954	DG6955		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS37	BS38	TP68-BS2	TP69-BS2	RDL	QC Batch

Inorganics							
Moisture	%	76	82	23	17	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DG6956		DG6958	DG6959		
Sampling Date		2009/07/29		2009/07/29	2009/07/29		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	SEPTIC TANK -SEDIMENT	QC Batch	TP75-BS2	TP82-BS1	RDL	QC Batch

Inorganics							
Moisture	%	67	1902100	23	11	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DG6960	DG6962	DG6963	DG6964	DG6965		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP91-BS2	TP102-BS1	TP103-BS2	TP107-BS2	TP109-BS2	RDL	QC Batch

Inorganics								
Moisture	%	15	32	29	18	15	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DG6966	DG6967	DG6968	DG6969		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP111-BS2	TP117-BS2	TP118-BS2	TP123-BS2	RDL	QC Batch

Inorganics							
Moisture	%	19	16	12	27	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DG6971		DG6972	DG6973	DG6974		
Sampling Date		2009/07/29		2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A		N/A	N/A	N/A		
Registration #								
	Units	TP139-BS2	QC Batch	TP141-BS1	TP142-BS1	TP144-BS2	RDL	QC Batch

Inorganics								
Moisture	%	18	1898661	8	29	19	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DG6975	DG6976	DG6977		
Sampling Date		2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	TP147-BS2	BS39	BS41	RDL	QC Batch

Inorganics						
Moisture	%	38	18	30	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6926		DG6927	DG6929		
Sampling Date		2009/07/29		2009/07/29	2009/07/29		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS1	RDL	BS2	BS4	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7300	10	9900	7700	10	1901701
Available Antimony (Sb)	mg/kg	<2	2	<2	<2	2	1901701
Available Arsenic (As)	mg/kg	<2	2	<2	<2	2	1901701
Available Barium (Ba)	mg/kg	62	5	76	47	5	1901701
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1901701
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1901701
Available Boron (B)	mg/kg	<5	5	<5	<5	5	1901701
Available Cadmium (Cd)	mg/kg	15	0.3	<0.3	0.3	0.3	1901701
Available Chromium (Cr)	mg/kg	49	2	46	38	2	1901701
Available Cobalt (Co)	mg/kg	6	1	6	6	1	1901701
Available Copper (Cu)	mg/kg	30	2	21	17	2	1901701
Available Iron (Fe)	mg/kg	11000	50	12000	10000	50	1901701
Available Lead (Pb)	mg/kg	58	0.5	6.8	13	0.5	1901701
Available Lithium (Li)	mg/kg	12	2	14	11	2	1901701
Available Manganese (Mn)	mg/kg	160	2	200	140	2	1901701
Available Mercury (Hg)	mg/kg	<0.2 (1)	0.2	<0.1	<0.1	0.1	1901701
Available Molybdenum (Mo)	mg/kg	<2	2	<2	<2	2	1901701
Available Nickel (Ni)	mg/kg	29	2	19	23	2	1901701
Available Rubidium (Rb)	mg/kg	23	2	26	18	2	1901701
Available Selenium (Se)	mg/kg	<2	2	<2	<2	2	1901701
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	<0.5	0.5	1901701
Available Strontium (Sr)	mg/kg	19	5	45	23	5	1901701
Available Thallium (Tl)	mg/kg	0.1	0.1	0.2	0.1	0.1	1901701
Available Tin (Sn)	mg/kg	17	2	<2	<2	2	1901701
Available Uranium (U)	mg/kg	0.2	0.1	0.5	0.2	0.1	1901701
Available Vanadium (V)	mg/kg	27	2	26	23	2	1901701
Available Zinc (Zn)	mg/kg	4800	5	56	77	5	1901701

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6931		DG6932		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	BS6	RDL	BS7	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	7700	10	11000	10	1901701
Available Antimony (Sb)	mg/kg	<2	2	<2	2	1901701
Available Arsenic (As)	mg/kg	3	2	<2	2	1901701
Available Barium (Ba)	mg/kg	57	5	120	5	1901701
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1901701
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1901701
Available Boron (B)	mg/kg	<5	5	<5	5	1901701
Available Cadmium (Cd)	mg/kg	1.9	0.3	11	0.3	1901701
Available Chromium (Cr)	mg/kg	24	2	43	2	1901701
Available Cobalt (Co)	mg/kg	6	1	6	1	1901701
Available Copper (Cu)	mg/kg	40	2	46	2	1901701
Available Iron (Fe)	mg/kg	11000	50	14000	50	1901701
Available Lead (Pb)	mg/kg	30	0.5	23	0.5	1901701
Available Lithium (Li)	mg/kg	8	2	8	2	1901701
Available Manganese (Mn)	mg/kg	210	2	220	2	1901701
Available Mercury (Hg)	mg/kg	<0.1	0.1	<0.2 (1)	0.2	1901701
Available Molybdenum (Mo)	mg/kg	<2	2	<2	2	1901701
Available Nickel (Ni)	mg/kg	18	2	24	2	1901701
Available Rubidium (Rb)	mg/kg	10	2	19	2	1901701
Available Selenium (Se)	mg/kg	<2	2	<2	2	1901701
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	0.5	1901701
Available Strontium (Sr)	mg/kg	33	5	110	5	1901701
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	0.1	1901701
Available Tin (Sn)	mg/kg	3	2	<2	2	1901701
Available Uranium (U)	mg/kg	0.3	0.1	0.4	0.1	1901701
Available Vanadium (V)	mg/kg	31	2	40	2	1901701
Available Zinc (Zn)	mg/kg	460	5	1100	5	1901701

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6933	DG6936		DG6940		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	BS8	BS11	QC Batch	BS15	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	6900	7800	1901701	6700	10	1902226
Available Antimony (Sb)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Barium (Ba)	mg/kg	15	34	1901701	23	5	1902226
Available Beryllium (Be)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Boron (B)	mg/kg	<5	<5	1901701	<5	5	1902226
Available Cadmium (Cd)	mg/kg	<0.3	1.2	1901701	1.2	0.3	1902226
Available Chromium (Cr)	mg/kg	15	19	1901701	22	2	1902226
Available Cobalt (Co)	mg/kg	5	6	1901701	5	1	1902226
Available Copper (Cu)	mg/kg	13	13	1901701	17	2	1902226
Available Iron (Fe)	mg/kg	8500	11000	1901701	10000	50	1902226
Available Lead (Pb)	mg/kg	2.4	4.1	1901701	15	0.5	1902226
Available Lithium (Li)	mg/kg	5	8	1901701	8	2	1902226
Available Manganese (Mn)	mg/kg	84	170	1901701	130	2	1902226
Available Mercury (Hg)	mg/kg	<0.1	<0.1	1901701	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Nickel (Ni)	mg/kg	12	15	1901701	16	2	1902226
Available Rubidium (Rb)	mg/kg	3	4	1901701	8	2	1902226
Available Selenium (Se)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Silver (Ag)	mg/kg	<0.5	<0.5	1901701	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	12	18	1901701	12	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	<0.1	1901701	0.2	0.1	1902226
Available Tin (Sn)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Uranium (U)	mg/kg	0.2	0.3	1901701	0.3	0.1	1902226
Available Vanadium (V)	mg/kg	19	25	1901701	21	2	1902226
Available Zinc (Zn)	mg/kg	16	140	1901701	260	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6942	DG6943	DG6945	DG6946		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS21	BS22	BS25	BS26	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5100	6500	5800	4900	10	1902226
Available Antimony (Sb)	mg/kg	<2	5	<2	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1902226
Available Barium (Ba)	mg/kg	21	12	7	8	5	1902226
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1902226
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1902226
Available Cadmium (Cd)	mg/kg	0.4	1.1	<0.3	0.7	0.3	1902226
Available Chromium (Cr)	mg/kg	15	27	17	15	2	1902226
Available Cobalt (Co)	mg/kg	4	7	4	5	1	1902226
Available Copper (Cu)	mg/kg	16	57	10	10	2	1902226
Available Iron (Fe)	mg/kg	8700	8900	7900	7700	50	1902226
Available Lead (Pb)	mg/kg	9.2	84	2.6	6.4	0.5	1902226
Available Lithium (Li)	mg/kg	7	5	4	4	2	1902226
Available Manganese (Mn)	mg/kg	120	120	85	110	2	1902226
Available Mercury (Hg)	mg/kg	<0.1	0.4	<0.1	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1902226
Available Nickel (Ni)	mg/kg	11	37	16	12	2	1902226
Available Rubidium (Rb)	mg/kg	6	3	<2	<2	2	1902226
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1902226
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	10	17	10	8	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1902226
Available Uranium (U)	mg/kg	0.1	0.3	0.1	0.2	0.1	1902226
Available Vanadium (V)	mg/kg	15	16	16	14	2	1902226
Available Zinc (Zn)	mg/kg	120	240	64	180	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6950		DG6955		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	BS34	QC Batch	TP69-BS2	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	7100	1902226	5700	10	1903582
Available Antimony (Sb)	mg/kg	<2	1902226	7	2	1903582
Available Arsenic (As)	mg/kg	<2	1902226	<2	2	1903582
Available Barium (Ba)	mg/kg	19	1902226	26	5	1903582
Available Beryllium (Be)	mg/kg	<2	1902226	<2	2	1903582
Available Bismuth (Bi)	mg/kg	<2	1902226	<2	2	1903582
Available Boron (B)	mg/kg	<5	1902226	<5	5	1903582
Available Cadmium (Cd)	mg/kg	<0.3	1902226	0.6	0.3	1903582
Available Chromium (Cr)	mg/kg	16	1902226	17	2	1903582
Available Cobalt (Co)	mg/kg	2	1902226	4	1	1903582
Available Copper (Cu)	mg/kg	19	1902226	35	2	1903582
Available Iron (Fe)	mg/kg	3500	1902226	11000	50	1903582
Available Lead (Pb)	mg/kg	3.6	1902226	23	0.5	1903582
Available Lithium (Li)	mg/kg	4	1902226	4	2	1903582
Available Manganese (Mn)	mg/kg	31	1902226	140	2	1903582
Available Mercury (Hg)	mg/kg	0.1	1902226	0.3	0.1	1903582
Available Molybdenum (Mo)	mg/kg	<2	1902226	<2	2	1903582
Available Nickel (Ni)	mg/kg	7	1902226	12	2	1903582
Available Rubidium (Rb)	mg/kg	<2	1902226	3	2	1903582
Available Selenium (Se)	mg/kg	<2	1902226	<2	2	1903582
Available Silver (Ag)	mg/kg	<0.5	1902226	1.3	0.5	1903582
Available Strontium (Sr)	mg/kg	14	1902226	15	5	1903582
Available Thallium (Tl)	mg/kg	<0.1	1902226	<0.1	0.1	1903582
Available Tin (Sn)	mg/kg	<2	1902226	13	2	1903582
Available Uranium (U)	mg/kg	2.4	1902226	0.2	0.1	1903582
Available Vanadium (V)	mg/kg	15	1902226	15	2	1903582
Available Zinc (Zn)	mg/kg	10	1902226	350	5	1903582

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6956			DG6958		
Sampling Date		2009/07/29			2009/07/29		
COC Number		N/A			N/A		
Registration #							
	Units	SEPTIC TANK -SEDIMENT	RDL	QC Batch	TP75-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5400	10	1903582	7100	10	1902226
Available Antimony (Sb)	mg/kg	25	2	1903582	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	2	1903582	<2	2	1902226
Available Barium (Ba)	mg/kg	37	5	1903582	25	5	1902226
Available Beryllium (Be)	mg/kg	<2	2	1903582	<2	2	1902226
Available Bismuth (Bi)	mg/kg	7	2	1903582	<2	2	1902226
Available Boron (B)	mg/kg	6	5	1903582	<5	5	1902226
Available Cadmium (Cd)	mg/kg	5.0	0.3	1903582	<0.3	0.3	1902226
Available Chromium (Cr)	mg/kg	29	2	1903582	22	2	1902226
Available Cobalt (Co)	mg/kg	3	1	1903582	5	1	1902226
Available Copper (Cu)	mg/kg	87	2	1903582	19	2	1902226
Available Iron (Fe)	mg/kg	6900	50	1903582	9300	50	1902226
Available Lead (Pb)	mg/kg	87	0.5	1903582	9.3	0.5	1902226
Available Lithium (Li)	mg/kg	5	2	1903582	6	2	1902226
Available Manganese (Mn)	mg/kg	80	2	1903582	110	2	1902226
Available Mercury (Hg)	mg/kg	1.8	0.1	1903582	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	2	1903582	<2	2	1902226
Available Nickel (Ni)	mg/kg	15	2	1903582	13	2	1902226
Available Rubidium (Rb)	mg/kg	4	2	1903582	6	2	1902226
Available Selenium (Se)	mg/kg	<2	2	1903582	<2	2	1902226
Available Silver (Ag)	mg/kg	21	5	1903582	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	15	5	1903582	12	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	0.1	1903582	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	250	2	1903582	<2	2	1902226
Available Uranium (U)	mg/kg	0.6	0.1	1903582	0.4	0.1	1902226
Available Vanadium (V)	mg/kg	11	2	1903582	25	2	1902226
Available Zinc (Zn)	mg/kg	1500	5	1903582	210	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6961	DG6964	DG6965	DG6966		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP92-BS1	TP107-BS2	TP109-BS2	TP111-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	3500	7100	7700	8000	10	1902226
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1902226
Available Barium (Ba)	mg/kg	36	26	14	13	5	1902226
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1902226
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1902226
Available Cadmium (Cd)	mg/kg	<0.3	0.6	<0.3	<0.3	0.3	1902226
Available Chromium (Cr)	mg/kg	11	20	18	16	2	1902226
Available Cobalt (Co)	mg/kg	3	4	4	4	1	1902226
Available Copper (Cu)	mg/kg	7	33	12	12	2	1902226
Available Iron (Fe)	mg/kg	7800	8200	9500	9100	50	1902226
Available Lead (Pb)	mg/kg	3.2	20	3.7	3.3	0.5	1902226
Available Lithium (Li)	mg/kg	4	6	6	4	2	1902226
Available Manganese (Mn)	mg/kg	86	94	95	86	2	1902226
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1902226
Available Nickel (Ni)	mg/kg	8	17	12	18	2	1902226
Available Rubidium (Rb)	mg/kg	8	4	3	2	2	1902226
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1902226
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	8	17	14	13	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1902226
Available Uranium (U)	mg/kg	0.2	0.4	0.3	0.3	0.1	1902226
Available Vanadium (V)	mg/kg	14	22	23	21	2	1902226
Available Zinc (Zn)	mg/kg	19	590	27	350	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6970	DG6973	DG6974	DG6975		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP131-BS2	TP142-BS1	TP144-BS2	TP147-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5800	8500	12000	9600	10	1902226
Available Antimony (Sb)	mg/kg	<2	2	<2	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1902226
Available Barium (Ba)	mg/kg	29	150	29	37	5	1902226
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1902226
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1902226
Available Cadmium (Cd)	mg/kg	<0.3	0.8	<0.3	<0.3	0.3	1902226
Available Chromium (Cr)	mg/kg	18	34	21	20	2	1902226
Available Cobalt (Co)	mg/kg	4	5	5	6	1	1902226
Available Copper (Cu)	mg/kg	13	40	11	13	2	1902226
Available Iron (Fe)	mg/kg	8700	10000	14000	11000	50	1902226
Available Lead (Pb)	mg/kg	22	51	5.7	12	0.5	1902226
Available Lithium (Li)	mg/kg	7	7	9	8	2	1902226
Available Manganese (Mn)	mg/kg	120	95	120	150	2	1902226
Available Mercury (Hg)	mg/kg	<0.1	0.4	<0.1	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1902226
Available Nickel (Ni)	mg/kg	12	17	14	13	2	1902226
Available Rubidium (Rb)	mg/kg	8	4	8	8	2	1902226
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1902226
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	19	10	20	27	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	<2	18	<2	<2	2	1902226
Available Uranium (U)	mg/kg	0.2	0.7	0.4	0.9	0.1	1902226
Available Vanadium (V)	mg/kg	19	18	23	23	2	1902226
Available Zinc (Zn)	mg/kg	120	160	26	35	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6976		DG6977		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	BS39	RDL	BS41	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	7300	10	9100	10	1902226
Available Antimony (Sb)	mg/kg	67	2	120	2	1902226
Available Arsenic (As)	mg/kg	15	2	9	2	1902226
Available Barium (Ba)	mg/kg	340	5	300	5	1902226
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1902226
Available Boron (B)	mg/kg	14	5	27	5	1902226
Available Cadmium (Cd)	mg/kg	5.4	0.3	5.6	0.3	1902226
Available Chromium (Cr)	mg/kg	74	2	350	2	1902226
Available Cobalt (Co)	mg/kg	11	1	17	1	1902226
Available Copper (Cu)	mg/kg	320	2	790	2	1902226
Available Iron (Fe)	mg/kg	100000	500	94000	500	1902226
Available Lead (Pb)	mg/kg	2100	0.5	1900	0.5	1902226
Available Lithium (Li)	mg/kg	5	2	6	2	1902226
Available Manganese (Mn)	mg/kg	660	2	470	2	1902226
Available Mercury (Hg)	mg/kg	0.7	0.1	0.3	0.2	1902226
Available Molybdenum (Mo)	mg/kg	10	2	12	2	1902226
Available Nickel (Ni)	mg/kg	63	2	110	2	1902226
Available Rubidium (Rb)	mg/kg	8	2	5	2	1902226
Available Selenium (Se)	mg/kg	<2	2	<2	2	1902226
Available Silver (Ag)	mg/kg	1.3	0.5	0.9	0.5	1902226
Available Strontium (Sr)	mg/kg	22	5	46	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	230	2	550	20	1902226
Available Uranium (U)	mg/kg	0.3	0.1	0.5	0.1	1902226
Available Vanadium (V)	mg/kg	20	2	28	2	1902226
Available Zinc (Zn)	mg/kg	1300	5	1700	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DG6956		DG6967		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	SEPTIC TANK -SEDIMENT	RDL	TP117-BS2	RDL	QC Batch

Polyaromatic Hydrocarbons						
1-Methylnaphthalene	mg/kg	1.7	0.3	43 (1)	0.1	1901718
2-Methylnaphthalene	mg/kg	2.2	0.3	49 (1)	0.1	1901718
Acenaphthene	mg/kg	0.4	0.3	0.17	0.005	1901718
Acenaphthylene	mg/kg	<0.3	0.3	<0.1 (1)	0.1	1901718
Anthracene	mg/kg	1.3	0.3	0.034	0.005	1901718
Benzo(a)anthracene	mg/kg	2.0	0.3	0.009	0.005	1901718
Benzo(a)pyrene	mg/kg	0.9	0.3	0.007	0.005	1901718
Benzo(b)fluoranthene	mg/kg	0.7	0.3	0.007	0.005	1901718
Benzo(g,h,i)perylene	mg/kg	0.5	0.3	0.007	0.005	1901718
Benzo(k)fluoranthene	mg/kg	0.8	0.3	0.006	0.005	1901718
Chrysene	mg/kg	1.9	0.3	0.020	0.005	1901718
Dibenz(a,h)anthracene	mg/kg	<0.3	0.3	<0.005	0.005	1901718
Fluoranthene	mg/kg	8.6	0.3	0.064	0.005	1901718
Fluorene	mg/kg	0.5	0.3	1.3	0.005	1901718
Indeno(1,2,3-cd)pyrene	mg/kg	0.4	0.3	0.007	0.005	1901718
Naphthalene	mg/kg	2.0	0.3	5.4 (1)	0.1	1901718
Perylene	mg/kg	<0.3	0.3	0.007	0.005	1901718
Phenanthrene	mg/kg	2.9	0.3	0.66	0.005	1901718
Pyrene	mg/kg	5.0	0.3	0.057	0.005	1901718
Surrogate Recovery (%)						
D10-Anthracene	%	277 (2)		83		1901718
D14-Terphenyl	%	363 (3)		80		1901718
D8-Acenaphthylene	%	148 (2)		125		1901718

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated PAH RDL(s) due to sample dilution.

(2) PAH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(3) Elevated PAH RDL(s) due to sample dilution. PAH surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DG6972		DG6974	DG6974		
Sampling Date		2009/07/29		2009/07/29	2009/07/29		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	TP141-BS1	RDL	TP144-BS2	TP144-BS2 Lab-Dup	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	1.7	0.1	<0.005	<0.005	0.005	1901718
2-Methylnaphthalene	mg/kg	1.1	0.1	<0.005	<0.005	0.005	1901718
Acenaphthene	mg/kg	0.2	0.1	<0.005	0.007	0.005	1901718
Acenaphthylene	mg/kg	0.3	0.1	<0.005	0.11 (1)	0.005	1901718
Anthracene	mg/kg	<0.1	0.1	<0.005	<0.005	0.005	1901718
Benzo(a)anthracene	mg/kg	0.2	0.1	<0.005	<0.005	0.005	1901718
Benzo(a)pyrene	mg/kg	0.5	0.1	<0.005	0.007	0.005	1901718
Benzo(b)fluoranthene	mg/kg	<0.1	0.1	<0.005	<0.005	0.005	1901718
Benzo(g,h,i)perylene	mg/kg	0.3	0.1	<0.005	<0.005	0.005	1901718
Benzo(k)fluoranthene	mg/kg	<0.1	0.1	<0.005	<0.005	0.005	1901718
Chrysene	mg/kg	0.9	0.1	<0.005	0.036 (1)	0.005	1901718
Dibenz(a,h)anthracene	mg/kg	<0.1	0.1	<0.005	<0.005	0.005	1901718
Fluoranthene	mg/kg	0.2	0.1	<0.005	<0.005	0.005	1901718
Fluorene	mg/kg	0.5	0.1	<0.005	<0.005	0.005	1901718
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.1	<0.005	<0.005	0.005	1901718
Naphthalene	mg/kg	0.1	0.1	<0.005	<0.005	0.005	1901718
Perylene	mg/kg	0.1	0.1	<0.005	<0.005	0.005	1901718
Phenanthrene	mg/kg	0.2	0.1	<0.005	<0.005	0.005	1901718
Pyrene	mg/kg	0.4	0.1	<0.005	0.044 (1)	0.005	1901718
Surrogate Recovery (%)							
D10-Anthracene	%	139 (2)		112	104		1901718
D14-Terphenyl	%	149 (3)		111	103		1901718
D8-Acenaphthylene	%	117		101	95		1901718

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Duplicate: results are outside acceptance limit. Sample was past recommended hold time for repeat analysis.

(2) PAH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(3) Elevated PAH RDL(s) due to sample dilution. PAH surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DG6956		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	SEPTIC TANK -SEDIMENT	RDL	QC Batch

Volatile Organics				
1,1,1-Trichloroethane	ug/kg	<30	30	1902927
1,1,2,2-Tetrachloroethane	ug/kg	<60 (1)	60	1902927
1,1,2-Trichloroethane	ug/kg	<30	30	1902927
1,1-Dichloroethane	ug/kg	<30	30	1902927
1,1-Dichloroethylene	ug/kg	<30	30	1902927
1,2-Dichlorobenzene	ug/kg	<30	30	1902927
1,2-Dichloroethane	ug/kg	<30	30	1902927
1,2-Dichloropropane	ug/kg	<30	30	1902927
1,3-Dichlorobenzene	ug/kg	<30	30	1902927
1,4-Dichlorobenzene	ug/kg	6400	30	1902927
Benzene	ug/kg	<30	30	1902927
Bromodichloromethane	ug/kg	<30	30	1902927
Bromoform	ug/kg	<30	30	1902927
Bromomethane	ug/kg	<200	200	1902927
Carbon Tetrachloride	ug/kg	<30	30	1902927
Chlorobenzene	ug/kg	<30	30	1902927
Chloroform	ug/kg	<30	30	1902927
Chloromethane	ug/kg	<30	30	1902927
cis-1,2-Dichloroethylene	ug/kg	<30	30	1902927
cis-1,3-Dichloropropene	ug/kg	<30	30	1902927
Dibromochloromethane	ug/kg	<30	30	1902927
Ethylbenzene	ug/kg	<30	30	1902927
Ethylene Dibromide	ug/kg	<30	30	1902927
Methylene Chloride(Dichloromethane)	ug/kg	<30	30	1902927
o-Xylene	ug/kg	200	30	1902927
p+m-Xylene	ug/kg	340	30	1902927
Styrene	ug/kg	<30	30	1902927
Tetrachloroethylene	ug/kg	500	30	1902927

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated VOC RDL(s) due to matrix interference.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DG6956		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	SEPTIC TANK -SEDIMENT	RDL	QC Batch

Toluene	ug/kg	25000	300	1902927
trans-1,2-Dichloroethylene	ug/kg	<30	30	1902927
trans-1,3-Dichloropropene	ug/kg	<30	30	1902927
Trichloroethylene	ug/kg	<30	30	1902927
Trichlorofluoromethane (FREON 11)	ug/kg	<30	30	1902927
Vinyl Chloride	ug/kg	<30	30	1902927
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	95		1902927
D4-1,2-Dichloroethane	%	116		1902927
D8-Toluene	%	101		1902927

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6941	DG6941		DG6949		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	BS20	BS20 Lab-Dup	RDL	BS30	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.1		0.1	<0.03	0.03	1900053
Toluene	mg/kg	<0.1		0.1	<0.03	0.03	1900053
Ethylbenzene	mg/kg	<0.1		0.1	<0.03	0.03	1900053
Xylene (Total)	mg/kg	<0.3		0.3	<0.05	0.05	1900053
C6 - C10 (less BTEX)	mg/kg	<10		10	<3	3	1900053
>C10-C21 Hydrocarbons	mg/kg	93000	95000	150	<15	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	1300	1500	15	<15	15	1900518
Modified TPH (Tier1)	mg/kg	94000		200	<20	20	1897622
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	95	95		87		1900518
n-Dotriacontane - Extractable	%	92 (1)	85 (2)		115 (3)		1900518
Isobutylbenzene - Volatile	%	56 (4)			108		1900053

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution. Silica gel clean-up performed prior to analysis as per client request.

(2) Elevated TEH RDL(s) due to sample dilution. Silica gel clean-up performed prior to analysis as per client request.

(3) Silica gel clean-up performed prior to analysis as per client request.

(4) Elevated VPH RDL(s) due to sample dilution. VPH surrogate not within acceptance limits due to matrix interference.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6951		DG6954		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	BS35	QC Batch	TP68-BS2	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1900053	<0.03	0.03	1900053
Toluene	mg/kg	<0.03	1900053	<0.03	0.03	1900053
Ethylbenzene	mg/kg	<0.03	1900053	<0.03	0.03	1900053
Xylene (Total)	mg/kg	<0.05	1900053	<0.05	0.05	1900053
C6 - C10 (less BTEX)	mg/kg	<3	1900053	<3	3	1900053
>C10-C21 Hydrocarbons	mg/kg	33	1899201	<15	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	88	1899201	44	15	1900518
Modified TPH (Tier1)	mg/kg	120	1897622	44	20	1897622
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	90	1899201	88		1900518
n-Dotriacontane - Extractable	%	111 (1)	1899201	115 (2)		1900518
Isobutylbenzene - Volatile	%	68	1900053	112		1900053

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Possible lube oil fraction. Unidentified compound(s) in lube oil range. Silica gel clean-up performed prior to analysis as per client request.

(2) No resemblance to petroleum products.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6955		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	TP69-BS2	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	<0.03	0.03	1900307
Toluene	mg/kg	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	0.03	1900307
Xylene (Total)	mg/kg	<0.05	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	<3	3	1900307
>C10-C21 Hydrocarbons	mg/kg	<15	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	50	15	1900518
Modified TPH (Tier1)	mg/kg	50	20	1897622
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	84		1900518
n-Dotriacontane - Extractable	%	110 (1)		1900518
Isobutylbenzene - Volatile	%	105		1900307

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Possible lube oil fraction.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6956		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	SEPTIC TANK -SEDIMENT	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	<0.03	0.03	1902006
Toluene	mg/kg	15	0.03	1902006
Ethylbenzene	mg/kg	<0.03	0.03	1902006
Xylene (Total)	mg/kg	0.34	0.05	1902006
C6 - C10 (less BTEX)	mg/kg	21	3	1902006
>C10-C21 Hydrocarbons	mg/kg	3700	75	1903162
>C21-<C32 Hydrocarbons	mg/kg	6700	15	1903162
Modified TPH (Tier1)	mg/kg	10000	80	1897622
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	88		1903162
n-Dotriacontane - Extractable	%	113 (1)		1903162
Isobutylbenzene - Volatile	%	29 (2)		1902006

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Elevated TEH RDL(s) due to sample dilution.
(2) VPH surrogate not within acceptance limits due to matrix interference.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6959	DG6960		DG6962		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP82-BS1	TP91-BS2	RDL	TP102-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	0.03	<0.03	0.03	1900307
Toluene	mg/kg	<0.03	<0.03	0.03	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	<0.03	0.03	1900307
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	0.20	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	89	<3	3	57	3	1900307
>C10-C21 Hydrocarbons	mg/kg	5600	55	15	27000	75	1900518
>C21-<C32 Hydrocarbons	mg/kg	50	59	15	300	15	1900518
Modified TPH (Tier1)	mg/kg	5800	110	20	28000	80	1897622
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	102	88		92		1900518
n-Dotriacontane - Extractable	%	100 (1)	111 (2)		99 (3)		1900518
Isobutylbenzene - Volatile	%	62	110		60		1900307

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction.
(2) One product in fuel oil range. Possible lube oil fraction.
(3) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6963	DG6964	DG6968	DG6969		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP103-BS2	TP107-BS2	TP118-BS2	TP123-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1900307
Toluene	mg/kg	0.06	<0.03	<0.03	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1900307
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	40	<3	130	<3	3	1900307
>C10-C21 Hydrocarbons	mg/kg	7200	120	5700	80	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	360	210	32	230	15	1900518
Modified TPH (Tier1)	mg/kg	7600	320	5800	310	20	1897622
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	95	85	76	96		1900518
n-Dotriacontane - Extractable	%	66 (1)	115 (2)	89 (1)	82 (3)		1900518
Isobutylbenzene - Volatile	%	87	80	55 (4)	96		1900307

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction.

(2) One product in fuel oil range. One product in fuel / lube range.

(3) One product in fuel / lube range.

(4) VPH surrogate not within acceptance limits. Analysis was repeated with similar results.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6971			DG6973		
Sampling Date		2009/07/29			2009/07/29		
COC Number		N/A			N/A		
Registration #							
	Units	TP139-BS2	RDL	QC Batch	TP142-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	0.03	1900053	<0.03	0.03	1900307
Toluene	mg/kg	<0.03	0.03	1900053	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	0.03	1900053	<0.03	0.03	1900307
Xylene (Total)	mg/kg	<0.05	0.05	1900053	0.50	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	280	3	1900053	67	3	1900307
>C10-C21 Hydrocarbons	mg/kg	9100	75	1899201	2600	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	<15	15	1899201	10000	15	1900518
Modified TPH (Tier1)	mg/kg	9400	80	1897622	13000	20	1897622
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	86		1899201	88		1900518
n-Dotriacontane - Extractable	%	97 (1)		1899201	175 (2)		1900518
Isobutylbenzene - Volatile	%	67		1900053	71		1900307

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in the gas/fuel oil range. Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution. Silica gel clean-up performed prior to analysis as per client request.

(2) Fuel oil fraction. Lube oil fraction. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6974	DG6975		
Sampling Date		2009/07/29	2009/07/29		
COC Number		N/A	N/A		
Registration #					
	Units	TP144-BS2	TP147-BS2	RDL	QC Batch

Petroleum Hydrocarbons					
Benzene	mg/kg	<0.03	<0.03	0.03	1900307
Toluene	mg/kg	<0.03	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	1900307
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	<3	<3	3	1900307
>C10-C21 Hydrocarbons	mg/kg	110	990	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	91	600	15	1900518
Modified TPH (Tier1)	mg/kg	200	1600	20	1897622
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	94	93		1900518
n-Dotriacontane - Extractable	%	89 (1)	85 (2)		1900518
Isobutylbenzene - Volatile	%	96	91		1900307

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Possible lube oil fraction.

(2) One product in fuel / lube range. Lube oil fraction.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DG6928	DG6930	DG6934	DG6935		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS3	BS5	BS9	BS10	RDL	QC Batch

PCBs							
Total PCB	ug/g	1.6	24	21	<0.05	0.05	1900031
Surrogate Recovery (%)							
Decachlorobiphenyl	%	86 (1)	86 (2)	88 (2)	80		1900031

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1254, 1260.
(2) Aroclor 1254.

Maxxam ID		DG6937	DG6938		DG6939	DG6941		
Sampling Date		2009/07/29	2009/07/29		2009/07/29	2009/07/29		
COC Number		N/A	N/A		N/A	N/A		
Registration #								
	Units	BS12	BS13	QC Batch	BS14	BS20	RDL	QC Batch

PCBs								
Total PCB	ug/g	2.7	3.1	1900031	100	<0.05	0.05	1900574
Surrogate Recovery (%)								
Decachlorobiphenyl	%	86 (1)	86 (2)	1900031	108 (3)	96		1900574

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.
(2) Aroclor 1254, 1260.
(3) Aroclor 1254.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DG6944	DG6947	DG6948	DG6948		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS24	BS27	BS28	BS28 Lab-Dup	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.66	0.97	0.36	0.28	0.05	1900574
Surrogate Recovery (%)							
Decachlorobiphenyl	%	103 (1)	109 (1)	99 (1)	100		1900574
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DG6949	DG6950	DG6952	DG6953		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS30	BS34	BS37	BS38	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.41	<0.05	<0.05	<0.05	0.05	1900574
Surrogate Recovery (%)							
Decachlorobiphenyl	%	103 (1)	96	99	98		1900574
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1254.							

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DG6954	DG6955		DG6956		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP68-BS2	TP69-BS2	QC Batch	SEPTIC TANK -SEDIMENT	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	0.51	1900574	72	0.05	1901692
Surrogate Recovery (%)							
Decachlorobiphenyl	%	100	109 (1)	1900574	80 (1)		1901692

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DG6958	DG6963	DG6964	DG6965		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP75-BS2	TP103-BS2	TP107-BS2	TP109-BS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.42	<0.05	3.4	<0.05	0.05	1900574
Surrogate Recovery (%)							
Decachlorobiphenyl	%	96 (1)	101	101 (1)	95		1900574

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A998642
Report Date: 2009/08/13

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POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DG6966	DG6967	DG6969	DG6972		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP111-BS2	TP117-BS2	TP123-BS2	TP141-BS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	2.4	0.05	1900574
Surrogate Recovery (%)							
Decachlorobiphenyl	%	101	100	96	81 (1)		1900574

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DG6973			DG6976		
Sampling Date		2009/07/29			2009/07/29		
COC Number		N/A			N/A		
Registration #							
	Units	TP142-BS1	RDL	QC Batch	BS39	RDL	QC Batch

PCBs							
Total PCB	ug/g	<1	1	1900574	1.0	0.05	1901692
Surrogate Recovery (%)							
Decachlorobiphenyl	%	87 (1)		1900574	81 (2)		1901692

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PCB:Unidentified (possibly halogenated) compounds detected. Elevated PCB RDL due to matrix / co-extractive interference.
(2) Aroclor 1254, 1260.

Maxxam Job #: A998642
Report Date: 2009/08/13

Jacques Whitford Limited
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GENERAL COMMENTS

VPH and VOC sample preservation not within 72 hours of receipt at the laboratory. VPH sample was preserved within 7 days of sampling date as recommended by the reference method.

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: Chloroethane unavailable due to calibration non-conformance.

Results relate only to the items tested.

Jacques Whitford Limited
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Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA998642

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1899201 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/06		82	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/06		72	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/06		NC	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/06		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/06		83	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/06		78	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/06		85	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/06		89	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/06		88	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/06		87	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/06	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/06	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/06	16.7		%	50
		>C21-<C32 Hydrocarbons	2009/08/06	28.6		%	50
1900031 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/07		91	%	30 - 130
		Total PCB	2009/08/07		112	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/07		93	%	30 - 130
		Total PCB	2009/08/07		112	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/07		90	%	30 - 130
		Total PCB	2009/08/07	<0.05		ug/g	
	RPD	Total PCB	2009/08/07	NC		%	50
	Matrix Spike	Isobutylbenzene - Volatile	2009/08/07		93	%	60 - 140
		Benzene	2009/08/07		100	%	60 - 140
		Toluene	2009/08/07		124	%	60 - 140
		Ethylbenzene	2009/08/07		119	%	60 - 140
		Xylene (Total)	2009/08/07		133	%	60 - 140
		Isobutylbenzene - Volatile	2009/08/07		97	%	60 - 140
1900053 ASL	Spiked Blank	Benzene	2009/08/07		92	%	60 - 140
		Toluene	2009/08/07		95	%	60 - 140
		Ethylbenzene	2009/08/07		92	%	60 - 140
		Xylene (Total)	2009/08/07		97	%	60 - 140
		Isobutylbenzene - Volatile	2009/08/07		102	%	60 - 140
		Benzene	2009/08/07	<0.03		mg/kg	
	Method Blank	Toluene	2009/08/07	<0.03		mg/kg	
		Ethylbenzene	2009/08/07	<0.03		mg/kg	
		Xylene (Total)	2009/08/07	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/07	<3		mg/kg	
		Benzene	2009/08/07	NC		%	50
		Toluene	2009/08/07	NC		%	50
	RPD	Ethylbenzene	2009/08/07	0.3		%	50
		Xylene (Total)	2009/08/07	3.3		%	50
		C6 - C10 (less BTEX)	2009/08/07	0.8		%	50
	Matrix Spike	Isobutylbenzene - Volatile	2009/08/07		73	%	60 - 140
		Benzene	2009/08/07		NC	%	60 - 140
		Toluene	2009/08/07		105	%	60 - 140
		Ethylbenzene	2009/08/07		NC	%	60 - 140
		Xylene (Total)	2009/08/07		NC	%	60 - 140
		Isobutylbenzene - Volatile	2009/08/07		76	%	60 - 140
1900307 ASL	Spiked Blank	Benzene	2009/08/07		71	%	60 - 140
		Toluene	2009/08/07		74	%	60 - 140
		Ethylbenzene	2009/08/07		70	%	60 - 140
		Xylene (Total)	2009/08/07		77	%	60 - 140
		Isobutylbenzene - Volatile	2009/08/07		101	%	60 - 140
		Benzene	2009/08/07	<0.03		mg/kg	
	Method Blank	Toluene	2009/08/07	<0.03		mg/kg	

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Quality Assurance Report (Continued)

Maxxam Job Number: DA998642

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1900307 ASL	Method Blank	Ethylbenzene	2009/08/07	<0.03		mg/kg	
		Xylene (Total)	2009/08/07	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/07	<3		mg/kg	
	RPD	Benzene	2009/08/07	101 (1)		%	50
		Toluene	2009/08/07	NC (1)		%	50
		Ethylbenzene	2009/08/07	19.5		%	50
		Xylene (Total)	2009/08/07	172 (1)		%	50
		C6 - C10 (less BTEX)	2009/08/07	6.5		%	50
1900518 LMU	Matrix Spike [DG6941-01]	Isobutylbenzene - Extractable	2009/08/11		94	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		78	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		NC	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/08		89	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/08		95	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/08		95	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/08		105	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/08		87	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/08		91	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/08	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/08	<15		mg/kg	
	RPD [DG6941-01]	>C10-C21 Hydrocarbons	2009/08/11	3.1		%	50
		>C21-<C32 Hydrocarbons	2009/08/11	14.1		%	50
1900574 CMI	Matrix Spike [DG6948-01]	Decachlorobiphenyl	2009/08/11		100	%	30 - 130
		Total PCB	2009/08/11		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/11		77	%	30 - 130
		Total PCB	2009/08/11		128	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/11		100	%	30 - 130
		Total PCB	2009/08/11	<0.05		ug/g	
	RPD [DG6948-01]	Total PCB	2009/08/11	25.7		%	50
1901692 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/11		79	%	30 - 130
		Total PCB	2009/08/11		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/11		82	%	30 - 130
		Total PCB	2009/08/11		108	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/11		79	%	30 - 130
		Total PCB	2009/08/11	<0.05		ug/g	
	RPD	Total PCB	2009/08/11	23.9		%	50
1901701 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/07		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/07		NC	%	75 - 125
		Available Arsenic (As)	2009/08/07		NC	%	75 - 125
		Available Barium (Ba)	2009/08/07		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/07		95	%	75 - 125
		Available Bismuth (Bi)	2009/08/07		95	%	75 - 125
		Available Boron (B)	2009/08/07		91	%	75 - 125
		Available Cadmium (Cd)	2009/08/07		NC	%	75 - 125
		Available Chromium (Cr)	2009/08/07		97	%	75 - 125
		Available Cobalt (Co)	2009/08/07		101	%	75 - 125
		Available Copper (Cu)	2009/08/07		NC	%	75 - 125
		Available Iron (Fe)	2009/08/07		NC	%	75 - 125
		Available Lithium (Li)	2009/08/07		93	%	75 - 125
		Available Manganese (Mn)	2009/08/07		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/07		90	%	75 - 125
		Available Molybdenum (Mo)	2009/08/07		100	%	75 - 125
		Available Nickel (Ni)	2009/08/07		103	%	75 - 125

Jacques Whitford Limited
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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1901701 KGU	Matrix Spike	Available Rubidium (Rb)	2009/08/07		96	%	75 - 125
		Available Selenium (Se)	2009/08/07		104	%	75 - 125
		Available Strontium (Sr)	2009/08/07		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/07		101	%	75 - 125
		Available Tin (Sn)	2009/08/07		99	%	75 - 125
		Available Uranium (U)	2009/08/07		97	%	75 - 125
		Available Vanadium (V)	2009/08/07		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/07		NC	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/07		88	%	75 - 125
		Available Arsenic (As)	2009/08/07		119	%	75 - 125
		Available Barium (Ba)	2009/08/07		111	%	75 - 125
		Available Chromium (Cr)	2009/08/07		91	%	75 - 125
		Available Cobalt (Co)	2009/08/07		104	%	75 - 125
		Available Copper (Cu)	2009/08/07		100	%	75 - 125
		Available Iron (Fe)	2009/08/07		96	%	75 - 125
		Available Lead (Pb)	2009/08/07		105	%	75 - 125
		Available Manganese (Mn)	2009/08/07		102	%	75 - 125
		Available Nickel (Ni)	2009/08/07		107	%	75 - 125
		Available Strontium (Sr)	2009/08/07		97	%	75 - 125
		Available Vanadium (V)	2009/08/07		112	%	75 - 125
		Available Zinc (Zn)	2009/08/07		111	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/07		95	%	75 - 125
		Available Antimony (Sb)	2009/08/07		100	%	75 - 125
		Available Arsenic (As)	2009/08/07		95	%	75 - 125
		Available Barium (Ba)	2009/08/07		95	%	75 - 125
		Available Beryllium (Be)	2009/08/07		96	%	75 - 125
		Available Bismuth (Bi)	2009/08/07		97	%	75 - 125
		Available Boron (B)	2009/08/07		88	%	75 - 125
		Available Cadmium (Cd)	2009/08/07		95	%	75 - 125
		Available Chromium (Cr)	2009/08/07		96	%	75 - 125
		Available Cobalt (Co)	2009/08/07		100	%	75 - 125
		Available Copper (Cu)	2009/08/07		97	%	75 - 125
		Available Iron (Fe)	2009/08/07		94	%	75 - 125
		Available Lead (Pb)	2009/08/07		95	%	75 - 125
		Available Lithium (Li)	2009/08/07		96	%	75 - 125
		Available Manganese (Mn)	2009/08/07		94	%	75 - 125
		Available Mercury (Hg)	2009/08/07		93	%	75 - 125
		Available Molybdenum (Mo)	2009/08/07		100	%	75 - 125
		Available Nickel (Ni)	2009/08/07		100	%	75 - 125
		Available Rubidium (Rb)	2009/08/07		99	%	75 - 125
		Available Selenium (Se)	2009/08/07		85	%	75 - 125
		Available Silver (Ag)	2009/08/07		99	%	75 - 125
		Available Strontium (Sr)	2009/08/07		97	%	75 - 125
		Available Thallium (Tl)	2009/08/07		93	%	75 - 125
		Available Tin (Sn)	2009/08/07		101	%	75 - 125
		Available Uranium (U)	2009/08/07		96	%	75 - 125
		Available Vanadium (V)	2009/08/07		104	%	75 - 125
		Available Zinc (Zn)	2009/08/07		93	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/07	<10		mg/kg	
		Available Antimony (Sb)	2009/08/07	<2		mg/kg	
		Available Arsenic (As)	2009/08/07	<2		mg/kg	
		Available Barium (Ba)	2009/08/07	<5		mg/kg	
		Available Beryllium (Be)	2009/08/07	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/07	<2		mg/kg	
		Available Boron (B)	2009/08/07	<5		mg/kg	

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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1901701 KGU	Method Blank	Available Cadmium (Cd)	2009/08/07	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/07	<2		mg/kg	
		Available Cobalt (Co)	2009/08/07	<1		mg/kg	
		Available Copper (Cu)	2009/08/07	<2		mg/kg	
		Available Iron (Fe)	2009/08/07	<50		mg/kg	
		Available Lead (Pb)	2009/08/07	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/07	<2		mg/kg	
		Available Manganese (Mn)	2009/08/07	<2		mg/kg	
		Available Mercury (Hg)	2009/08/07	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/07	<2		mg/kg	
		Available Nickel (Ni)	2009/08/07	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/07	<2		mg/kg	
		Available Selenium (Se)	2009/08/07	<2		mg/kg	
		Available Silver (Ag)	2009/08/07	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/07	<5		mg/kg	
		Available Thallium (Tl)	2009/08/07	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/07	<2		mg/kg	
		Available Uranium (U)	2009/08/07	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/07	<2		mg/kg	
		Available Zinc (Zn)	2009/08/07	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/07	2.3		%	35
		Available Antimony (Sb)	2009/08/07	2.9		%	35
		Available Arsenic (As)	2009/08/07	14.8		%	35
		Available Barium (Ba)	2009/08/07	14.2		%	35
		Available Beryllium (Be)	2009/08/07	NC		%	35
		Available Bismuth (Bi)	2009/08/07	NC		%	35
		Available Boron (B)	2009/08/07	NC		%	35
		Available Cadmium (Cd)	2009/08/07	2.3		%	35
		Available Chromium (Cr)	2009/08/07	NC		%	35
		Available Cobalt (Co)	2009/08/07	NC		%	35
		Available Copper (Cu)	2009/08/07	13.6		%	35
		Available Iron (Fe)	2009/08/07	2.5		%	35
		Available Lead (Pb)	2009/08/07	7.6		%	35
		Available Lithium (Li)	2009/08/07	NC		%	35
		Available Manganese (Mn)	2009/08/07	3.6		%	35
		Available Mercury (Hg)	2009/08/07	NC		%	35
		Available Molybdenum (Mo)	2009/08/07	NC		%	35
		Available Nickel (Ni)	2009/08/07	NC		%	35
		Available Rubidium (Rb)	2009/08/07	NC		%	35
		Available Selenium (Se)	2009/08/07	NC		%	35
		Available Silver (Ag)	2009/08/07	NC		%	35
		Available Strontium (Sr)	2009/08/07	4.1		%	35
		Available Thallium (Tl)	2009/08/07	NC		%	35
		Available Tin (Sn)	2009/08/07	NC		%	35
		Available Uranium (U)	2009/08/07	0.9		%	35
		Available Vanadium (V)	2009/08/07	3.6		%	35
		Available Zinc (Zn)	2009/08/07	1.9		%	35
1901718 SOD	Matrix Spike [DG6974-01]	D10-Anthracene	2009/08/12		79	%	30 - 130
		D14-Terphenyl	2009/08/12		84	%	30 - 130
		D8-Acenaphthylene	2009/08/12		78	%	30 - 130
		1-Methylnaphthalene	2009/08/12		79	%	30 - 130
		2-Methylnaphthalene	2009/08/12		80	%	30 - 130
		Acenaphthene	2009/08/12		68 (2)	%	30 - 130
		Acenaphthylene	2009/08/12		85	%	30 - 130

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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1901718 SOD	Matrix Spike [DG6974-01]	Anthracene	2009/08/12		70	%	30 - 130
		Benzo(a)anthracene	2009/08/12		92	%	30 - 130
		Benzo(a)pyrene	2009/08/12		66 (2)	%	30 - 130
		Benzo(b)fluoranthene	2009/08/12		72	%	30 - 130
		Benzo(g,h,i)perylene	2009/08/12		52 (2)	%	30 - 130
		Benzo(k)fluoranthene	2009/08/12		72	%	30 - 130
		Chrysene	2009/08/12		119	%	30 - 130
		Dibenz(a,h)anthracene	2009/08/12		64 (2)	%	30 - 130
		Fluoranthene	2009/08/12		103	%	30 - 130
		Fluorene	2009/08/12		86	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/08/12		54 (2)	%	30 - 130
		Naphthalene	2009/08/12		74	%	30 - 130
		Perylene	2009/08/12		69 (2)	%	30 - 130
		Phenanthrene	2009/08/12		170 (2)	%	30 - 130
		Pyrene	2009/08/12		140 (2)	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/08/12		89	%	30 - 130
		D14-Terphenyl	2009/08/12		90	%	30 - 130
		D8-Acenaphthylene	2009/08/12		81	%	30 - 130
		1-Methylnaphthalene	2009/08/12		83	%	30 - 130
		2-Methylnaphthalene	2009/08/12		88	%	30 - 130
		Acenaphthene	2009/08/12		88	%	30 - 130
		Acenaphthylene	2009/08/12		83	%	30 - 130
		Anthracene	2009/08/12		106	%	30 - 130
		Benzo(a)anthracene	2009/08/12		99	%	30 - 130
		Benzo(a)pyrene	2009/08/12		84	%	30 - 130
		Benzo(b)fluoranthene	2009/08/12		90	%	30 - 130
		Benzo(g,h,i)perylene	2009/08/12		80	%	30 - 130
		Benzo(k)fluoranthene	2009/08/12		90	%	30 - 130
		Chrysene	2009/08/12		109	%	30 - 130
		Dibenz(a,h)anthracene	2009/08/12		77	%	30 - 130
		Fluoranthene	2009/08/12		105	%	30 - 130
		Fluorene	2009/08/12		88	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/08/12		72	%	30 - 130
		Naphthalene	2009/08/12		86	%	30 - 130
		Perylene	2009/08/12		95	%	30 - 130
		Phenanthrene	2009/08/12		104	%	30 - 130
		Pyrene	2009/08/12		106	%	30 - 130
	Method Blank	D10-Anthracene	2009/08/12		109	%	30 - 130
		D14-Terphenyl	2009/08/12		117	%	30 - 130
		D8-Acenaphthylene	2009/08/12		87	%	30 - 130
		1-Methylnaphthalene	2009/08/12	<0.005		mg/kg	
		2-Methylnaphthalene	2009/08/12	<0.005		mg/kg	
		Acenaphthene	2009/08/12	<0.005		mg/kg	
		Acenaphthylene	2009/08/12	<0.005		mg/kg	
		Anthracene	2009/08/12	<0.005		mg/kg	
		Benzo(a)anthracene	2009/08/12	<0.005		mg/kg	
		Benzo(a)pyrene	2009/08/12	<0.005		mg/kg	
		Benzo(b)fluoranthene	2009/08/12	<0.005		mg/kg	
		Benzo(g,h,i)perylene	2009/08/12	<0.005		mg/kg	
		Benzo(k)fluoranthene	2009/08/12	<0.005		mg/kg	
		Chrysene	2009/08/12	<0.005		mg/kg	
		Dibenz(a,h)anthracene	2009/08/12	<0.005		mg/kg	
		Fluoranthene	2009/08/12	<0.005		mg/kg	
		Fluorene	2009/08/12	<0.005		mg/kg	

Jacques Whitford Limited
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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1901718 SOD	Method Blank	Indeno(1,2,3-cd)pyrene	2009/08/12	<0.005		mg/kg	
		Naphthalene	2009/08/12	<0.005		mg/kg	
		Perylene	2009/08/12	<0.005		mg/kg	
		Phenanthrene	2009/08/12	<0.005		mg/kg	
		Pyrene	2009/08/12	<0.005		mg/kg	
	RPD [DG6974-01]	1-Methylnaphthalene	2009/08/12	NC		%	50
		2-Methylnaphthalene	2009/08/12	NC		%	50
		Acenaphthene	2009/08/12	NC		%	50
		Acenaphthylene	2009/08/12	NC (3)		%	50
		Anthracene	2009/08/12	NC		%	50
		Benzo(a)anthracene	2009/08/12	NC		%	50
		Benzo(a)pyrene	2009/08/12	NC		%	50
		Benzo(b)fluoranthene	2009/08/12	NC		%	50
		Benzo(g,h,i)perylene	2009/08/12	NC		%	50
		Benzo(k)fluoranthene	2009/08/12	NC		%	50
		Chrysene	2009/08/12	NC (3)		%	50
		Dibenz(a,h)anthracene	2009/08/12	NC		%	50
		Fluoranthene	2009/08/12	NC		%	50
		Fluorene	2009/08/12	NC		%	50
		Indeno(1,2,3-cd)pyrene	2009/08/12	NC		%	50
		Naphthalene	2009/08/12	NC		%	50
		Perylene	2009/08/12	NC		%	50
		Phenanthrene	2009/08/12	NC		%	50
		Pyrene	2009/08/12	NC (3)		%	50
1902006 ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/08/11		77	%	60 - 140
		Benzene	2009/08/11		78	%	60 - 140
		Toluene	2009/08/11		103	%	60 - 140
		Ethylbenzene	2009/08/11		95	%	60 - 140
		Xylene (Total)	2009/08/11		107	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/10		99	%	60 - 140
		Benzene	2009/08/10		95	%	60 - 140
		Toluene	2009/08/10		99	%	60 - 140
		Ethylbenzene	2009/08/10		97	%	60 - 140
		Xylene (Total)	2009/08/10		103	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/10		100	%	60 - 140
		Benzene	2009/08/10	<0.03		mg/kg	
		Toluene	2009/08/10	<0.03		mg/kg	
		Ethylbenzene	2009/08/10	<0.03		mg/kg	
		Xylene (Total)	2009/08/10	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/10	<3		mg/kg	
	RPD	Benzene	2009/08/11	NC		%	50
		Toluene	2009/08/11	NC		%	50
		Ethylbenzene	2009/08/11	NC		%	50
		Xylene (Total)	2009/08/11	NC		%	50
		C6 - C10 (less BTEX)	2009/08/11	NC		%	50
1902226 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/10		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/10		85	%	75 - 125
		Available Arsenic (As)	2009/08/10		NC	%	75 - 125
		Available Barium (Ba)	2009/08/10		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/10		102	%	75 - 125
		Available Bismuth (Bi)	2009/08/10		100	%	75 - 125
		Available Boron (B)	2009/08/10		88	%	75 - 125
		Available Cadmium (Cd)	2009/08/10		91	%	75 - 125
		Available Chromium (Cr)	2009/08/10		99	%	75 - 125
		Available Cobalt (Co)	2009/08/10		99	%	75 - 125

Jacques Whitford Limited
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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902226 KGU	Matrix Spike	Available Copper (Cu)	2009/08/10		NC	%	75 - 125
		Available Iron (Fe)	2009/08/10		NC	%	75 - 125
		Available Lithium (Li)	2009/08/10		90	%	75 - 125
		Available Manganese (Mn)	2009/08/10		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/10		106	%	75 - 125
		Available Molybdenum (Mo)	2009/08/10		NC	%	75 - 125
		Available Nickel (Ni)	2009/08/10		98	%	75 - 125
		Available Rubidium (Rb)	2009/08/10		90	%	75 - 125
		Available Selenium (Se)	2009/08/10		82	%	75 - 125
		Available Silver (Ag)	2009/08/10		NC	%	75 - 125
		Available Strontium (Sr)	2009/08/10		91	%	75 - 125
		Available Thallium (Tl)	2009/08/10		99	%	75 - 125
		Available Tin (Sn)	2009/08/10		96	%	75 - 125
		Available Uranium (U)	2009/08/10		101	%	75 - 125
		Available Vanadium (V)	2009/08/10		NC	%	75 - 125
	QC Standard	Available Zinc (Zn)	2009/08/10		NC	%	75 - 125
		Available Aluminum (Al)	2009/08/10		74 (4)	%	75 - 125
		Available Arsenic (As)	2009/08/10		96	%	75 - 125
		Available Barium (Ba)	2009/08/10		93	%	75 - 125
		Available Chromium (Cr)	2009/08/10		79	%	75 - 125
		Available Cobalt (Co)	2009/08/10		86	%	75 - 125
		Available Copper (Cu)	2009/08/10		85	%	75 - 125
		Available Iron (Fe)	2009/08/10		84	%	75 - 125
		Available Lead (Pb)	2009/08/10		92	%	75 - 125
		Available Manganese (Mn)	2009/08/10		92	%	75 - 125
		Available Nickel (Ni)	2009/08/10		88	%	75 - 125
		Available Strontium (Sr)	2009/08/10		81	%	75 - 125
		Available Vanadium (V)	2009/08/10		92	%	75 - 125
	Spiked Blank	Available Zinc (Zn)	2009/08/10		93	%	75 - 125
		Available Aluminum (Al)	2009/08/10		103	%	75 - 125
		Available Antimony (Sb)	2009/08/10		96	%	75 - 125
		Available Arsenic (As)	2009/08/10		96	%	75 - 125
		Available Barium (Ba)	2009/08/10		98	%	75 - 125
		Available Beryllium (Be)	2009/08/10		98	%	75 - 125
		Available Bismuth (Bi)	2009/08/10		105	%	75 - 125
		Available Boron (B)	2009/08/10		94	%	75 - 125
		Available Cadmium (Cd)	2009/08/10		91	%	75 - 125
		Available Chromium (Cr)	2009/08/10		106	%	75 - 125
		Available Cobalt (Co)	2009/08/10		101	%	75 - 125
		Available Copper (Cu)	2009/08/10		101	%	75 - 125
		Available Iron (Fe)	2009/08/10		107	%	75 - 125
		Available Lead (Pb)	2009/08/10		103	%	75 - 125
		Available Lithium (Li)	2009/08/10		93	%	75 - 125
		Available Manganese (Mn)	2009/08/10		104	%	75 - 125
		Available Mercury (Hg)	2009/08/10		117	%	75 - 125
		Available Molybdenum (Mo)	2009/08/10		93	%	75 - 125
		Available Nickel (Ni)	2009/08/10		100	%	75 - 125
		Available Rubidium (Rb)	2009/08/10		92	%	75 - 125
		Available Selenium (Se)	2009/08/10		92	%	75 - 125
		Available Silver (Ag)	2009/08/10		99	%	75 - 125
		Available Strontium (Sr)	2009/08/10		100	%	75 - 125
		Available Thallium (Tl)	2009/08/10		99	%	75 - 125
		Available Tin (Sn)	2009/08/10		96	%	75 - 125
		Available Uranium (U)	2009/08/10		102	%	75 - 125
		Available Vanadium (V)	2009/08/10		114	%	75 - 125

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902226 KGU	Spiked Blank	Available Zinc (Zn)	2009/08/10		91	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/10	<10		mg/kg	
		Available Antimony (Sb)	2009/08/10	<2		mg/kg	
		Available Arsenic (As)	2009/08/10	<2		mg/kg	
		Available Barium (Ba)	2009/08/10	<5		mg/kg	
		Available Beryllium (Be)	2009/08/10	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/10	<2		mg/kg	
		Available Boron (B)	2009/08/10	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/10	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/10	<2		mg/kg	
		Available Cobalt (Co)	2009/08/10	<1		mg/kg	
		Available Copper (Cu)	2009/08/10	<2		mg/kg	
		Available Iron (Fe)	2009/08/10	<50		mg/kg	
		Available Lead (Pb)	2009/08/10	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/10	<2		mg/kg	
		Available Manganese (Mn)	2009/08/10	<2		mg/kg	
		Available Mercury (Hg)	2009/08/10	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/10	<2		mg/kg	
		Available Nickel (Ni)	2009/08/10	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/10	<2		mg/kg	
		Available Selenium (Se)	2009/08/10	<2		mg/kg	
		Available Silver (Ag)	2009/08/10	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/10	<5		mg/kg	
		Available Thallium (Tl)	2009/08/10	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/10	<2		mg/kg	
		Available Uranium (U)	2009/08/10	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/10	<2		mg/kg	
		Available Zinc (Zn)	2009/08/10	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/10	9.0		%	35
		Available Antimony (Sb)	2009/08/10	NC		%	35
		Available Arsenic (As)	2009/08/10	5.1		%	35
		Available Barium (Ba)	2009/08/10	8.7		%	35
		Available Beryllium (Be)	2009/08/10	NC		%	35
		Available Bismuth (Bi)	2009/08/10	NC		%	35
		Available Boron (B)	2009/08/10	NC		%	35
		Available Cadmium (Cd)	2009/08/10	52.0 (5)		%	35
		Available Chromium (Cr)	2009/08/10	NC		%	35
		Available Cobalt (Co)	2009/08/10	NC		%	35
		Available Copper (Cu)	2009/08/10	7.7		%	35
		Available Iron (Fe)	2009/08/10	4.7		%	35
		Available Lead (Pb)	2009/08/10	24.3		%	35
		Available Lithium (Li)	2009/08/10	NC		%	35
		Available Manganese (Mn)	2009/08/10	3.0		%	35
		Available Mercury (Hg)	2009/08/10	NC (5)		%	35
		Available Molybdenum (Mo)	2009/08/10	27.1		%	35
		Available Nickel (Ni)	2009/08/10	NC		%	35
		Available Rubidium (Rb)	2009/08/10	NC		%	35
		Available Selenium (Se)	2009/08/10	NC		%	35
		Available Silver (Ag)	2009/08/10	NC		%	35
		Available Strontium (Sr)	2009/08/10	NC		%	35
		Available Thallium (Tl)	2009/08/10	15.9		%	35
		Available Tin (Sn)	2009/08/10	NC		%	35
		Available Uranium (U)	2009/08/10	23.5		%	35
		Available Vanadium (V)	2009/08/10	10.4		%	35
		Available Zinc (Zn)	2009/08/10	46.9 (5)		%	35

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Project name: HOPEDALE

Quality Assurance Report (Continued)

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QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1902927 MSK	Matrix Spike	4-Bromofluorobenzene	2009/08/13		128	%	60 - 140	
		D4-1,2-Dichloroethane	2009/08/13		110	%	60 - 140	
		D8-Toluene	2009/08/13		114	%	60 - 140	
		1,1,1-Trichloroethane	2009/08/13		89	%	60 - 140	
		1,1,2,2-Tetrachloroethane	2009/08/13		NC	%	60 - 140	
		1,1,2-Trichloroethane	2009/08/13		67	%	60 - 140	
		1,1-Dichloroethane	2009/08/13		91	%	60 - 140	
		1,1-Dichloroethylene	2009/08/13		91	%	60 - 140	
		1,2-Dichlorobenzene	2009/08/13		85	%	60 - 140	
		1,2-Dichloroethane	2009/08/13		89	%	60 - 140	
		1,2-Dichloropropane	2009/08/13		89	%	60 - 140	
		1,3-Dichlorobenzene	2009/08/13		65	%	60 - 140	
		1,4-Dichlorobenzene	2009/08/13		81	%	60 - 140	
		Benzene	2009/08/13		88	%	60 - 140	
		Bromodichloromethane	2009/08/13		75	%	60 - 140	
		Bromoform	2009/08/13		53 (6)	%	60 - 140	
		Bromomethane	2009/08/13		81	%	60 - 140	
		Carbon Tetrachloride	2009/08/13		83	%	60 - 140	
		Chlorobenzene	2009/08/13		89	%	60 - 140	
		Chloroform	2009/08/13		95	%	60 - 140	
		Chloromethane	2009/08/13		75	%	60 - 140	
		cis-1,2-Dichloroethylene	2009/08/13		92	%	60 - 140	
		cis-1,3-Dichloropropene	2009/08/13		71	%	60 - 140	
		Dibromochloromethane	2009/08/13		65	%	60 - 140	
		Ethylbenzene	2009/08/13		87	%	60 - 140	
		Ethylene Dibromide	2009/08/13		84	%	60 - 140	
		Methylene Chloride(Dichloromethane)	2009/08/13		99	%	60 - 140	
		o-Xylene	2009/08/13		90	%	60 - 140	
		p+m-Xylene	2009/08/13		94	%	60 - 140	
		Styrene	2009/08/13		82	%	60 - 140	
		Tetrachloroethylene	2009/08/13		91	%	60 - 140	
		Toluene	2009/08/13		87	%	60 - 140	
		trans-1,2-Dichloroethylene	2009/08/13		91	%	60 - 140	
		trans-1,3-Dichloropropene	2009/08/13		59 (6)	%	60 - 140	
		Trichloroethylene	2009/08/13		91	%	60 - 140	
		Trichlorofluoromethane (FREON 11)	2009/08/13		91	%	60 - 140	
		Vinyl Chloride	2009/08/13		71	%	60 - 140	
	Spiked Blank	4-Bromofluorobenzene	2009/08/13		122	%	60 - 140	
		D4-1,2-Dichloroethane	2009/08/13		118	%	60 - 140	
		D8-Toluene	2009/08/13		120	%	60 - 140	
		1,1,1-Trichloroethane	2009/08/13		95	%	60 - 140	
		1,1,2,2-Tetrachloroethane	2009/08/13		84	%	60 - 140	
		1,1,2-Trichloroethane	2009/08/13		97	%	60 - 140	
		1,1-Dichloroethane	2009/08/13		97	%	60 - 140	
		1,1-Dichloroethylene	2009/08/13		96	%	60 - 140	
		1,2-Dichlorobenzene	2009/08/13		90	%	60 - 140	
		1,2-Dichloroethane	2009/08/13		96	%	60 - 140	
		1,2-Dichloropropane	2009/08/13		95	%	60 - 140	
		1,3-Dichlorobenzene	2009/08/13		90	%	60 - 140	
		1,4-Dichlorobenzene	2009/08/13		88	%	60 - 140	
		Benzene	2009/08/13		95	%	60 - 140	
		Bromodichloromethane	2009/08/13		84	%	60 - 140	
		Bromoform	2009/08/13		66	%	60 - 140	
		Bromomethane	2009/08/13		99	%	60 - 140	
		Carbon Tetrachloride	2009/08/13		89	%	60 - 140	

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Quality Assurance Report (Continued)

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902927 MSK	Spiked Blank	Chlorobenzene	2009/08/13		95	%	60 - 140
		Chloroform	2009/08/13		98	%	60 - 140
		Chloromethane	2009/08/13		83	%	60 - 140
		cis-1,2-Dichloroethylene	2009/08/13		98	%	60 - 140
		cis-1,3-Dichloropropene	2009/08/13		77	%	60 - 140
		Dibromochloromethane	2009/08/13		76	%	60 - 140
		Ethylbenzene	2009/08/13		90	%	60 - 140
		Ethylene Dibromide	2009/08/13		92	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/08/13		106	%	60 - 140
		o-Xylene	2009/08/13		94	%	60 - 140
		p+m-Xylene	2009/08/13		97	%	60 - 140
		Styrene	2009/08/13		96	%	60 - 140
		Tetrachloroethylene	2009/08/13		95	%	60 - 140
		Toluene	2009/08/13		95	%	60 - 140
		trans-1,2-Dichloroethylene	2009/08/13		95	%	60 - 140
		trans-1,3-Dichloropropene	2009/08/13		64	%	60 - 140
		Trichloroethylene	2009/08/13		98	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/08/13		97	%	60 - 140
		Vinyl Chloride	2009/08/13		76	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/08/12		118	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/12		118	%	60 - 140
		D8-Toluene	2009/08/12		115	%	60 - 140
		1,1,1-Trichloroethane	2009/08/12	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/08/12	<30		ug/kg	
		1,1,2-Trichloroethane	2009/08/12	<30		ug/kg	
		1,1-Dichloroethane	2009/08/12	<30		ug/kg	
		1,1-Dichloroethylene	2009/08/12	<30		ug/kg	
		1,2-Dichlorobenzene	2009/08/12	<30		ug/kg	
		1,2-Dichloroethane	2009/08/12	<30		ug/kg	
		1,2-Dichloropropane	2009/08/12	<30		ug/kg	
		1,3-Dichlorobenzene	2009/08/12	<30		ug/kg	
		1,4-Dichlorobenzene	2009/08/12	<30		ug/kg	
		Benzene	2009/08/12	<30		ug/kg	
		Bromodichloromethane	2009/08/12	<30		ug/kg	
		Bromoform	2009/08/12	<30		ug/kg	
		Bromomethane	2009/08/12	<200		ug/kg	
		Carbon Tetrachloride	2009/08/12	<30		ug/kg	
		Chlorobenzene	2009/08/12	<30		ug/kg	
		Chloroform	2009/08/12	<30		ug/kg	
		Chloromethane	2009/08/12	<30		ug/kg	
		cis-1,2-Dichloroethylene	2009/08/12	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/08/12	<30		ug/kg	
		Dibromochloromethane	2009/08/12	<30		ug/kg	
		Ethylbenzene	2009/08/12	<30		ug/kg	
		Ethylene Dibromide	2009/08/12	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/08/12	<30		ug/kg	
		o-Xylene	2009/08/12	<30		ug/kg	
		p+m-Xylene	2009/08/12	<30		ug/kg	
		Styrene	2009/08/12	<30		ug/kg	
		Tetrachloroethylene	2009/08/12	<30		ug/kg	
		Toluene	2009/08/12	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/08/12	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/08/12	<30		ug/kg	
		Trichloroethylene	2009/08/12	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/08/12	<30		ug/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA998642

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902927 MSK	Method Blank RPD	Vinyl Chloride	2009/08/12	<30		ug/kg	
		1,1,1-Trichloroethane	2009/08/13	NC		%	50
		1,1,2,2-Tetrachloroethane	2009/08/13	NC (7)		%	50
		1,1,2-Trichloroethane	2009/08/13	NC (7)		%	50
		1,1-Dichloroethane	2009/08/13	NC		%	50
		1,1-Dichloroethylene	2009/08/13	NC		%	50
		1,2-Dichlorobenzene	2009/08/13	NC		%	50
		1,2-Dichloroethane	2009/08/13	NC		%	50
		1,2-Dichloropropane	2009/08/13	NC		%	50
		1,3-Dichlorobenzene	2009/08/13	NC		%	50
		1,4-Dichlorobenzene	2009/08/13	NC		%	50
		Benzene	2009/08/13	NC		%	50
		Bromodichloromethane	2009/08/13	NC		%	50
		Bromoform	2009/08/13	NC		%	50
		Bromomethane	2009/08/13	NC		%	50
		Carbon Tetrachloride	2009/08/13	NC		%	50
		Chlorobenzene	2009/08/13	NC		%	50
		Chloroform	2009/08/13	NC		%	50
		Chloromethane	2009/08/13	NC		%	50
		cis-1,2-Dichloroethylene	2009/08/13	NC		%	50
		cis-1,3-Dichloropropene	2009/08/13	NC		%	50
		Dibromochloromethane	2009/08/13	NC		%	50
		Ethylbenzene	2009/08/13	NC		%	50
		Ethylene Dibromide	2009/08/13	NC		%	50
		Methylene Chloride(Dichloromethane)	2009/08/13	NC		%	50
		o-Xylene	2009/08/13	NC		%	50
		p+m-Xylene	2009/08/13	NC		%	50
		Styrene	2009/08/13	NC		%	50
		Tetrachloroethylene	2009/08/13	NC		%	50
		Toluene	2009/08/13	NC		%	50
		trans-1,2-Dichloroethylene	2009/08/13	NC		%	50
		trans-1,3-Dichloropropene	2009/08/13	NC		%	50
		Trichloroethylene	2009/08/13	NC		%	50
		Trichlorofluoromethane (FREON 11)	2009/08/13	NC		%	50
		Vinyl Chloride	2009/08/13	NC		%	50
1903162 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/11		99	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		92	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		89	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		95	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/11		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		88	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		99	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		107	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/11		93	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/11	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/11	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/11	NC		%	50
1903582 MPT	Matrix Spike	Available Aluminum (Al)	2009/08/11		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/11		92	%	75 - 125
		Available Arsenic (As)	2009/08/11		99	%	75 - 125
		Available Barium (Ba)	2009/08/11		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/11		100	%	75 - 125
		Available Bismuth (Bi)	2009/08/11		103	%	75 - 125

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA998642

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903582 MPT	Matrix Spike	Available Boron (B)	2009/08/11		106	%	75 - 125
		Available Cadmium (Cd)	2009/08/11		97	%	75 - 125
		Available Chromium (Cr)	2009/08/11		105	%	75 - 125
		Available Cobalt (Co)	2009/08/11		104	%	75 - 125
		Available Copper (Cu)	2009/08/11		NC	%	75 - 125
		Available Iron (Fe)	2009/08/11		NC	%	75 - 125
		Available Lead (Pb)	2009/08/11		NC	%	75 - 125
		Available Lithium (Li)	2009/08/11		101	%	75 - 125
		Available Manganese (Mn)	2009/08/11		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/11		107	%	75 - 125
		Available Molybdenum (Mo)	2009/08/11		99	%	75 - 125
		Available Nickel (Ni)	2009/08/11		101	%	75 - 125
		Available Rubidium (Rb)	2009/08/11		102	%	75 - 125
		Available Selenium (Se)	2009/08/11		89	%	75 - 125
		Available Silver (Ag)	2009/08/11		104	%	75 - 125
		Available Strontium (Sr)	2009/08/11		92	%	75 - 125
		Available Thallium (Tl)	2009/08/11		102	%	75 - 125
		Available Tin (Sn)	2009/08/11		98	%	75 - 125
		Available Uranium (U)	2009/08/11		104	%	75 - 125
		Available Vanadium (V)	2009/08/11		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/11		94	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/11		85	%	75 - 125
		Available Arsenic (As)	2009/08/11		109	%	75 - 125
		Available Barium (Ba)	2009/08/11		104	%	75 - 125
		Available Chromium (Cr)	2009/08/11		90	%	75 - 125
		Available Cobalt (Co)	2009/08/11		100	%	75 - 125
		Available Copper (Cu)	2009/08/11		97	%	75 - 125
		Available Iron (Fe)	2009/08/11		92	%	75 - 125
		Available Lead (Pb)	2009/08/11		105	%	75 - 125
		Available Manganese (Mn)	2009/08/11		100	%	75 - 125
		Available Nickel (Ni)	2009/08/11		103	%	75 - 125
		Available Strontium (Sr)	2009/08/11		91	%	75 - 125
		Available Vanadium (V)	2009/08/11		105	%	75 - 125
	Spiked Blank	Available Zinc (Zn)	2009/08/11		104	%	75 - 125
		Available Aluminum (Al)	2009/08/11		107	%	75 - 125
		Available Antimony (Sb)	2009/08/11		103	%	75 - 125
		Available Arsenic (As)	2009/08/11		98	%	75 - 125
		Available Barium (Ba)	2009/08/11		101	%	75 - 125
		Available Beryllium (Be)	2009/08/11		106	%	75 - 125
		Available Bismuth (Bi)	2009/08/11		109	%	75 - 125
		Available Boron (B)	2009/08/11		105	%	75 - 125
		Available Cadmium (Cd)	2009/08/11		96	%	75 - 125
		Available Chromium (Cr)	2009/08/11		114	%	75 - 125
		Available Cobalt (Co)	2009/08/11		110	%	75 - 125
		Available Copper (Cu)	2009/08/11		111	%	75 - 125
		Available Iron (Fe)	2009/08/11		107	%	75 - 125
		Available Lead (Pb)	2009/08/11		111	%	75 - 125
		Available Lithium (Li)	2009/08/11		103	%	75 - 125
		Available Manganese (Mn)	2009/08/11		106	%	75 - 125
		Available Mercury (Hg)	2009/08/11		110	%	75 - 125
		Available Molybdenum (Mo)	2009/08/11		100	%	75 - 125
		Available Nickel (Ni)	2009/08/11		109	%	75 - 125
		Available Rubidium (Rb)	2009/08/11		102	%	75 - 125
		Available Selenium (Se)	2009/08/11		100	%	75 - 125
		Available Silver (Ag)	2009/08/11		107	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA998642

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903582 MPT	Spiked Blank	Available Strontium (Sr)	2009/08/11		108	%	75 - 125
		Available Thallium (Tl)	2009/08/11		110	%	75 - 125
		Available Tin (Sn)	2009/08/11		103	%	75 - 125
		Available Uranium (U)	2009/08/11		108	%	75 - 125
		Available Vanadium (V)	2009/08/11		118	%	75 - 125
		Available Zinc (Zn)	2009/08/11		96	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/11	<10		mg/kg	
		Available Antimony (Sb)	2009/08/11	<2		mg/kg	
		Available Arsenic (As)	2009/08/11	<2		mg/kg	
		Available Barium (Ba)	2009/08/11	<5		mg/kg	
		Available Beryllium (Be)	2009/08/11	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/11	<2		mg/kg	
		Available Boron (B)	2009/08/11	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/11	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/11	<2		mg/kg	
		Available Cobalt (Co)	2009/08/11	<1		mg/kg	
		Available Copper (Cu)	2009/08/11	<2		mg/kg	
		Available Iron (Fe)	2009/08/11	<50		mg/kg	
		Available Lead (Pb)	2009/08/11	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/11	<2		mg/kg	
		Available Manganese (Mn)	2009/08/11	<2		mg/kg	
		Available Mercury (Hg)	2009/08/11	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/11	<2		mg/kg	
		Available Nickel (Ni)	2009/08/11	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/11	<2		mg/kg	
		Available Selenium (Se)	2009/08/11	<2		mg/kg	
		Available Silver (Ag)	2009/08/11	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/11	<5		mg/kg	
		Available Thallium (Tl)	2009/08/11	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/11	<2		mg/kg	
		Available Uranium (U)	2009/08/11	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/11	<2		mg/kg	
		Available Zinc (Zn)	2009/08/11	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/11	10.1		%	35
		Available Antimony (Sb)	2009/08/11	NC		%	35
		Available Arsenic (As)	2009/08/11	NC		%	35
		Available Barium (Ba)	2009/08/11	26.3 (5)		%	35
		Available Beryllium (Be)	2009/08/11	NC		%	35
		Available Bismuth (Bi)	2009/08/11	NC		%	35
		Available Boron (B)	2009/08/11	NC		%	35
		Available Cadmium (Cd)	2009/08/11	NC		%	35
		Available Chromium (Cr)	2009/08/11	NC		%	35
		Available Cobalt (Co)	2009/08/11	NC		%	35
		Available Copper (Cu)	2009/08/11	6.8		%	35
		Available Iron (Fe)	2009/08/11	8.8		%	35
		Available Lead (Pb)	2009/08/11	13.4		%	35
		Available Lithium (Li)	2009/08/11	NC		%	35
		Available Manganese (Mn)	2009/08/11	1.6		%	35
		Available Mercury (Hg)	2009/08/11	NC		%	35
		Available Molybdenum (Mo)	2009/08/11	NC		%	35
		Available Nickel (Ni)	2009/08/11	NC		%	35
		Available Rubidium (Rb)	2009/08/11	NC		%	35
		Available Selenium (Se)	2009/08/11	NC		%	35
		Available Silver (Ag)	2009/08/11	NC		%	35
		Available Strontium (Sr)	2009/08/11	NC		%	35

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA998642

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903582 MPT	RPD	Available Thallium (Tl)	2009/08/11	NC		%	35
		Available Tin (Sn)	2009/08/11	NC		%	35
		Available Uranium (U)	2009/08/11	10.1		%	35
		Available Vanadium (V)	2009/08/11	1.0		%	35
		Available Zinc (Zn)	2009/08/11	8.2		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
 QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
 NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
 NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Duplicate: results are outside acceptance limit due to possible sample in-homogeneity. Analysis was repeated with similar results.
 (2) Matrix Spike: results are outside acceptance limit. Analysis was not repeated, sample was past recommended hold time for repeat analysis.
 (3) Duplicate: results are outside acceptance limit. Sample was past recommended hold time for repeat analysis.
 (4) Secondary RM is acceptable.
 (5) Poor duplicate agreement due to sample inhomogeneity.
 (6) Matrix Spike: < 10 % of compounds in multi-component analysis in violation.
 (7) Elevated VOC RDL(s) due to matrix interference.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/18

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A998642
Received: 2009/08/04, 10:04

Sample Matrix: Organic Liquid
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PCBs in oil by GC/ECD	1	2009/08/10	2009/08/13	ATL SOP 00105 R3	Based on EPA8082
Free Product ID	1	2009/08/10	2009/08/10		

Sample Matrix: Soil
Samples Received: 52

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (AA PIRI)	2	N/A	2009/08/17	ATL SOP 00116 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	2	2009/08/06	2009/08/06	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	10	2009/08/07	2009/08/08	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	2	2009/08/07	2009/08/10	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	3	2009/08/07	2009/08/11	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	7	N/A	2009/08/07	ATL SOP 00024 R4	Based on EPA6020A
Metals Solid Avail. Unified MS - Nper	17	N/A	2009/08/10	ATL SOP 00024 R4	Based on EPA6020A
Metals Solid Avail. Unified MS - Nper	2	N/A	2009/08/11	ATL SOP 00024 R4	Based on EPA6020A
Moisture	2	N/A	2009/08/06	ATL SOP 00001 R3	MOE Handbook 1983
Moisture	36	N/A	2009/08/07	ATL SOP 00001 R3	MOE Handbook 1983
PAH in sediment by GC/MS (Low Level)	3	2009/08/10	2009/08/12	ATL SOP 00102 R3	based on EPA8270C
PAH in sediment by GC/MS (Low Level)	1	2009/08/10	2009/08/13	ATL SOP 00102 R3	based on EPA8270C
PCBs in soil by GC/ECD	6	2009/08/07	2009/08/10	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	20	2009/08/07	2009/08/11	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	3	2009/08/10	2009/08/11	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI2)	2	N/A	2009/08/10	ATL SOP 00120 R4	Based on Atl. PIRI
VPH in Soil (PIRI)	2	2009/08/06	2009/08/07	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	14	2009/08/07	2009/08/07	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	1	2009/08/07	2009/08/11	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	6	2009/08/04	2009/08/10		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	10	2009/08/04	2009/08/11		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	1	2009/08/04	2009/08/12		Based on Atl. PIRI
ModTPH (T2) Calc. for Soil	2	N/A	2009/08/18	n/a	Based on Atl. PIRI
Volatile Organic Compounds in Soil	1	2009/08/10	2009/08/13	ATL SOP 00123 R3	Based on USEPA SW-84

./2

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

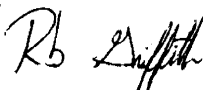
Report Date: 2009/08/18

CERTIFICATE OF ANALYSIS

-2-

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
18 Aug 2009 13:40:19 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 2

Page 2 of 49

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF ORGANIC LIQUID

Maxxam ID		DG6957		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	DRUM PRODUCT	RDL	QC Batch

Petroleum Hydrocarbons				
Open Characterization by FID	N/A	COMMENT (1)	N/A	1902072
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Free product resembles a Fuel oil fraction in combination with a Lube oil fraction.				

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (ORGANIC LIQUID)

Maxxam ID		DG6957		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	DRUM PRODUCT	RDL	QC Batch

PCBs				
Total PCB	mg/kg	<1	1	1901991
Surrogate Recovery (%)				
Decachlorobiphenyl	%	79		1901991
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DG6928	DG6930	DG6934	DG6935	DG6937		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS3	BS5	BS9	BS10	BS12	RDL	QC Batch

Inorganics								
Moisture	%	28	10	17	21	16	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DG6938	DG6939	DG6941	DG6944	DG6947		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	BS13	BS14	BS20	BS24	BS27	RDL	QC Batch

Inorganics								
Moisture	%	23	36	58	22	9	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DG6948	DG6949	DG6950		DG6951		
Sampling Date		2009/07/29	2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A	N/A		N/A		
Registration #								
	Units	BS28	BS30	BS34	QC Batch	BS35	RDL	QC Batch

Inorganics								
Moisture	%	12	16	55	1899254	58	1	1898661
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DG6952	DG6953	DG6954	DG6955		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS37	BS38	TP68-BS2	TP69-BS2	RDL	QC Batch

Inorganics							
Moisture	%	76	82	23	17	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DG6956		DG6958	DG6959		
Sampling Date		2009/07/29		2009/07/29	2009/07/29		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	SEPTIC TANK -SEDIMENT	QC Batch	TP75-BS2	TP82-BS1	RDL	QC Batch

Inorganics							
Moisture	%	67	1902100	23	11	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DG6960	DG6962	DG6963	DG6964	DG6965		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A	N/A		
Registration #								
	Units	TP91-BS2	TP102-BS1	TP103-BS2	TP107-BS2	TP109-BS2	RDL	QC Batch

Inorganics								
Moisture	%	15	32	29	18	15	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A998642
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Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DG6966	DG6967	DG6968	DG6969		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP111-BS2	TP117-BS2	TP118-BS2	TP123-BS2	RDL	QC Batch

Inorganics							
Moisture	%	19	16	12	27	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DG6971		DG6972	DG6973	DG6974		
Sampling Date		2009/07/29		2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A		N/A	N/A	N/A		
Registration #								
	Units	TP139-BS2	QC Batch	TP141-BS1	TP142-BS1	TP144-BS2	RDL	QC Batch

Inorganics								
Moisture	%	18	1898661	8	29	19	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DG6975	DG6976	DG6977	DG7014		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP147-BS2	BS39	BS41	BS29	RDL	QC Batch

Inorganics							
Moisture	%	38	18	30	17	1	1899254
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A998642
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Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6926		DG6927	DG6929		
Sampling Date		2009/07/29		2009/07/29	2009/07/29		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	BS1	RDL	BS2	BS4	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7300	10	9900	7700	10	1901701
Available Antimony (Sb)	mg/kg	<2	2	<2	<2	2	1901701
Available Arsenic (As)	mg/kg	<2	2	<2	<2	2	1901701
Available Barium (Ba)	mg/kg	62	5	76	47	5	1901701
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1901701
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1901701
Available Boron (B)	mg/kg	<5	5	<5	<5	5	1901701
Available Cadmium (Cd)	mg/kg	15	0.3	<0.3	0.3	0.3	1901701
Available Chromium (Cr)	mg/kg	49	2	46	38	2	1901701
Available Cobalt (Co)	mg/kg	6	1	6	6	1	1901701
Available Copper (Cu)	mg/kg	30	2	21	17	2	1901701
Available Iron (Fe)	mg/kg	11000	50	12000	10000	50	1901701
Available Lead (Pb)	mg/kg	58	0.5	6.8	13	0.5	1901701
Available Lithium (Li)	mg/kg	12	2	14	11	2	1901701
Available Manganese (Mn)	mg/kg	160	2	200	140	2	1901701
Available Mercury (Hg)	mg/kg	<0.2 (1)	0.2	<0.1	<0.1	0.1	1901701
Available Molybdenum (Mo)	mg/kg	<2	2	<2	<2	2	1901701
Available Nickel (Ni)	mg/kg	29	2	19	23	2	1901701
Available Rubidium (Rb)	mg/kg	23	2	26	18	2	1901701
Available Selenium (Se)	mg/kg	<2	2	<2	<2	2	1901701
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	<0.5	0.5	1901701
Available Strontium (Sr)	mg/kg	19	5	45	23	5	1901701
Available Thallium (Tl)	mg/kg	0.1	0.1	0.2	0.1	0.1	1901701
Available Tin (Sn)	mg/kg	17	2	<2	<2	2	1901701
Available Uranium (U)	mg/kg	0.2	0.1	0.5	0.2	0.1	1901701
Available Vanadium (V)	mg/kg	27	2	26	23	2	1901701
Available Zinc (Zn)	mg/kg	4800	5	56	77	5	1901701

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6931		DG6932		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	BS6	RDL	BS7	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	7700	10	11000	10	1901701
Available Antimony (Sb)	mg/kg	<2	2	<2	2	1901701
Available Arsenic (As)	mg/kg	3	2	<2	2	1901701
Available Barium (Ba)	mg/kg	57	5	120	5	1901701
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1901701
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1901701
Available Boron (B)	mg/kg	<5	5	<5	5	1901701
Available Cadmium (Cd)	mg/kg	1.9	0.3	11	0.3	1901701
Available Chromium (Cr)	mg/kg	24	2	43	2	1901701
Available Cobalt (Co)	mg/kg	6	1	6	1	1901701
Available Copper (Cu)	mg/kg	40	2	46	2	1901701
Available Iron (Fe)	mg/kg	11000	50	14000	50	1901701
Available Lead (Pb)	mg/kg	30	0.5	23	0.5	1901701
Available Lithium (Li)	mg/kg	8	2	8	2	1901701
Available Manganese (Mn)	mg/kg	210	2	220	2	1901701
Available Mercury (Hg)	mg/kg	<0.1	0.1	<0.2 (1)	0.2	1901701
Available Molybdenum (Mo)	mg/kg	<2	2	<2	2	1901701
Available Nickel (Ni)	mg/kg	18	2	24	2	1901701
Available Rubidium (Rb)	mg/kg	10	2	19	2	1901701
Available Selenium (Se)	mg/kg	<2	2	<2	2	1901701
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	0.5	1901701
Available Strontium (Sr)	mg/kg	33	5	110	5	1901701
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	0.1	1901701
Available Tin (Sn)	mg/kg	3	2	<2	2	1901701
Available Uranium (U)	mg/kg	0.3	0.1	0.4	0.1	1901701
Available Vanadium (V)	mg/kg	31	2	40	2	1901701
Available Zinc (Zn)	mg/kg	460	5	1100	5	1901701

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6933	DG6936		DG6940		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	BS8	BS11	QC Batch	BS15	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	6900	7800	1901701	6700	10	1902226
Available Antimony (Sb)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Barium (Ba)	mg/kg	15	34	1901701	23	5	1902226
Available Beryllium (Be)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Boron (B)	mg/kg	<5	<5	1901701	<5	5	1902226
Available Cadmium (Cd)	mg/kg	<0.3	1.2	1901701	1.2	0.3	1902226
Available Chromium (Cr)	mg/kg	15	19	1901701	22	2	1902226
Available Cobalt (Co)	mg/kg	5	6	1901701	5	1	1902226
Available Copper (Cu)	mg/kg	13	13	1901701	17	2	1902226
Available Iron (Fe)	mg/kg	8500	11000	1901701	10000	50	1902226
Available Lead (Pb)	mg/kg	2.4	4.1	1901701	15	0.5	1902226
Available Lithium (Li)	mg/kg	5	8	1901701	8	2	1902226
Available Manganese (Mn)	mg/kg	84	170	1901701	130	2	1902226
Available Mercury (Hg)	mg/kg	<0.1	<0.1	1901701	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Nickel (Ni)	mg/kg	12	15	1901701	16	2	1902226
Available Rubidium (Rb)	mg/kg	3	4	1901701	8	2	1902226
Available Selenium (Se)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Silver (Ag)	mg/kg	<0.5	<0.5	1901701	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	12	18	1901701	12	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	<0.1	1901701	0.2	0.1	1902226
Available Tin (Sn)	mg/kg	<2	<2	1901701	<2	2	1902226
Available Uranium (U)	mg/kg	0.2	0.3	1901701	0.3	0.1	1902226
Available Vanadium (V)	mg/kg	19	25	1901701	21	2	1902226
Available Zinc (Zn)	mg/kg	16	140	1901701	260	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6942	DG6943	DG6945	DG6946		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS21	BS22	BS25	BS26	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5100	6500	5800	4900	10	1902226
Available Antimony (Sb)	mg/kg	<2	5	<2	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1902226
Available Barium (Ba)	mg/kg	21	12	7	8	5	1902226
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1902226
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1902226
Available Cadmium (Cd)	mg/kg	0.4	1.1	<0.3	0.7	0.3	1902226
Available Chromium (Cr)	mg/kg	15	27	17	15	2	1902226
Available Cobalt (Co)	mg/kg	4	7	4	5	1	1902226
Available Copper (Cu)	mg/kg	16	57	10	10	2	1902226
Available Iron (Fe)	mg/kg	8700	8900	7900	7700	50	1902226
Available Lead (Pb)	mg/kg	9.2	84	2.6	6.4	0.5	1902226
Available Lithium (Li)	mg/kg	7	5	4	4	2	1902226
Available Manganese (Mn)	mg/kg	120	120	85	110	2	1902226
Available Mercury (Hg)	mg/kg	<0.1	0.4	<0.1	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1902226
Available Nickel (Ni)	mg/kg	11	37	16	12	2	1902226
Available Rubidium (Rb)	mg/kg	6	3	<2	<2	2	1902226
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1902226
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	10	17	10	8	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1902226
Available Uranium (U)	mg/kg	0.1	0.3	0.1	0.2	0.1	1902226
Available Vanadium (V)	mg/kg	15	16	16	14	2	1902226
Available Zinc (Zn)	mg/kg	120	240	64	180	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6950		DG6955		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	BS34	QC Batch	TP69-BS2	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	7100	1902226	5700	10	1903582
Available Antimony (Sb)	mg/kg	<2	1902226	7	2	1903582
Available Arsenic (As)	mg/kg	<2	1902226	<2	2	1903582
Available Barium (Ba)	mg/kg	19	1902226	26	5	1903582
Available Beryllium (Be)	mg/kg	<2	1902226	<2	2	1903582
Available Bismuth (Bi)	mg/kg	<2	1902226	<2	2	1903582
Available Boron (B)	mg/kg	<5	1902226	<5	5	1903582
Available Cadmium (Cd)	mg/kg	<0.3	1902226	0.6	0.3	1903582
Available Chromium (Cr)	mg/kg	16	1902226	17	2	1903582
Available Cobalt (Co)	mg/kg	2	1902226	4	1	1903582
Available Copper (Cu)	mg/kg	19	1902226	35	2	1903582
Available Iron (Fe)	mg/kg	3500	1902226	11000	50	1903582
Available Lead (Pb)	mg/kg	3.6	1902226	23	0.5	1903582
Available Lithium (Li)	mg/kg	4	1902226	4	2	1903582
Available Manganese (Mn)	mg/kg	31	1902226	140	2	1903582
Available Mercury (Hg)	mg/kg	0.1	1902226	0.3	0.1	1903582
Available Molybdenum (Mo)	mg/kg	<2	1902226	<2	2	1903582
Available Nickel (Ni)	mg/kg	7	1902226	12	2	1903582
Available Rubidium (Rb)	mg/kg	<2	1902226	3	2	1903582
Available Selenium (Se)	mg/kg	<2	1902226	<2	2	1903582
Available Silver (Ag)	mg/kg	<0.5	1902226	1.3	0.5	1903582
Available Strontium (Sr)	mg/kg	14	1902226	15	5	1903582
Available Thallium (Tl)	mg/kg	<0.1	1902226	<0.1	0.1	1903582
Available Tin (Sn)	mg/kg	<2	1902226	13	2	1903582
Available Uranium (U)	mg/kg	2.4	1902226	0.2	0.1	1903582
Available Vanadium (V)	mg/kg	15	1902226	15	2	1903582
Available Zinc (Zn)	mg/kg	10	1902226	350	5	1903582

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6956			DG6958		
Sampling Date		2009/07/29			2009/07/29		
COC Number		N/A			N/A		
Registration #							
	Units	SEPTIC TANK -SEDIMENT	RDL	QC Batch	TP75-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5400	10	1903582	7100	10	1902226
Available Antimony (Sb)	mg/kg	25	2	1903582	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	2	1903582	<2	2	1902226
Available Barium (Ba)	mg/kg	37	5	1903582	25	5	1902226
Available Beryllium (Be)	mg/kg	<2	2	1903582	<2	2	1902226
Available Bismuth (Bi)	mg/kg	7	2	1903582	<2	2	1902226
Available Boron (B)	mg/kg	6	5	1903582	<5	5	1902226
Available Cadmium (Cd)	mg/kg	5.0	0.3	1903582	<0.3	0.3	1902226
Available Chromium (Cr)	mg/kg	29	2	1903582	22	2	1902226
Available Cobalt (Co)	mg/kg	3	1	1903582	5	1	1902226
Available Copper (Cu)	mg/kg	87	2	1903582	19	2	1902226
Available Iron (Fe)	mg/kg	6900	50	1903582	9300	50	1902226
Available Lead (Pb)	mg/kg	87	0.5	1903582	9.3	0.5	1902226
Available Lithium (Li)	mg/kg	5	2	1903582	6	2	1902226
Available Manganese (Mn)	mg/kg	80	2	1903582	110	2	1902226
Available Mercury (Hg)	mg/kg	1.8	0.1	1903582	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	2	1903582	<2	2	1902226
Available Nickel (Ni)	mg/kg	15	2	1903582	13	2	1902226
Available Rubidium (Rb)	mg/kg	4	2	1903582	6	2	1902226
Available Selenium (Se)	mg/kg	<2	2	1903582	<2	2	1902226
Available Silver (Ag)	mg/kg	21	5	1903582	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	15	5	1903582	12	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	0.1	1903582	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	250	2	1903582	<2	2	1902226
Available Uranium (U)	mg/kg	0.6	0.1	1903582	0.4	0.1	1902226
Available Vanadium (V)	mg/kg	11	2	1903582	25	2	1902226
Available Zinc (Zn)	mg/kg	1500	5	1903582	210	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6961	DG6964	DG6965	DG6966		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP92-BS1	TP107-BS2	TP109-BS2	TP111-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	3500	7100	7700	8000	10	1902226
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1902226
Available Barium (Ba)	mg/kg	36	26	14	13	5	1902226
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1902226
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1902226
Available Cadmium (Cd)	mg/kg	<0.3	0.6	<0.3	<0.3	0.3	1902226
Available Chromium (Cr)	mg/kg	11	20	18	16	2	1902226
Available Cobalt (Co)	mg/kg	3	4	4	4	1	1902226
Available Copper (Cu)	mg/kg	7	33	12	12	2	1902226
Available Iron (Fe)	mg/kg	7800	8200	9500	9100	50	1902226
Available Lead (Pb)	mg/kg	3.2	20	3.7	3.3	0.5	1902226
Available Lithium (Li)	mg/kg	4	6	6	4	2	1902226
Available Manganese (Mn)	mg/kg	86	94	95	86	2	1902226
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1902226
Available Nickel (Ni)	mg/kg	8	17	12	18	2	1902226
Available Rubidium (Rb)	mg/kg	8	4	3	2	2	1902226
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1902226
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	8	17	14	13	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1902226
Available Uranium (U)	mg/kg	0.2	0.4	0.3	0.3	0.1	1902226
Available Vanadium (V)	mg/kg	14	22	23	21	2	1902226
Available Zinc (Zn)	mg/kg	19	590	27	350	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6970	DG6973	DG6974	DG6975		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP131-BS2	TP142-BS1	TP144-BS2	TP147-BS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5800	8500	12000	9600	10	1902226
Available Antimony (Sb)	mg/kg	<2	2	<2	<2	2	1902226
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1902226
Available Barium (Ba)	mg/kg	29	150	29	37	5	1902226
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1902226
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1902226
Available Cadmium (Cd)	mg/kg	<0.3	0.8	<0.3	<0.3	0.3	1902226
Available Chromium (Cr)	mg/kg	18	34	21	20	2	1902226
Available Cobalt (Co)	mg/kg	4	5	5	6	1	1902226
Available Copper (Cu)	mg/kg	13	40	11	13	2	1902226
Available Iron (Fe)	mg/kg	8700	10000	14000	11000	50	1902226
Available Lead (Pb)	mg/kg	22	51	5.7	12	0.5	1902226
Available Lithium (Li)	mg/kg	7	7	9	8	2	1902226
Available Manganese (Mn)	mg/kg	120	95	120	150	2	1902226
Available Mercury (Hg)	mg/kg	<0.1	0.4	<0.1	<0.1	0.1	1902226
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1902226
Available Nickel (Ni)	mg/kg	12	17	14	13	2	1902226
Available Rubidium (Rb)	mg/kg	8	4	8	8	2	1902226
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1902226
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1902226
Available Strontium (Sr)	mg/kg	19	10	20	27	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	<2	18	<2	<2	2	1902226
Available Uranium (U)	mg/kg	0.2	0.7	0.4	0.9	0.1	1902226
Available Vanadium (V)	mg/kg	19	18	23	23	2	1902226
Available Zinc (Zn)	mg/kg	120	160	26	35	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DG6976		DG6977		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	BS39	RDL	BS41	RDL	QC Batch

Metals						
Available Aluminum (Al)	mg/kg	7300	10	9100	10	1902226
Available Antimony (Sb)	mg/kg	67	2	120	2	1902226
Available Arsenic (As)	mg/kg	15	2	9	2	1902226
Available Barium (Ba)	mg/kg	340	5	300	5	1902226
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1902226
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1902226
Available Boron (B)	mg/kg	14	5	27	5	1902226
Available Cadmium (Cd)	mg/kg	5.4	0.3	5.6	0.3	1902226
Available Chromium (Cr)	mg/kg	74	2	350	2	1902226
Available Cobalt (Co)	mg/kg	11	1	17	1	1902226
Available Copper (Cu)	mg/kg	320	2	790	2	1902226
Available Iron (Fe)	mg/kg	100000	500	94000	500	1902226
Available Lead (Pb)	mg/kg	2100	0.5	1900	0.5	1902226
Available Lithium (Li)	mg/kg	5	2	6	2	1902226
Available Manganese (Mn)	mg/kg	660	2	470	2	1902226
Available Mercury (Hg)	mg/kg	0.7	0.1	0.3	0.2	1902226
Available Molybdenum (Mo)	mg/kg	10	2	12	2	1902226
Available Nickel (Ni)	mg/kg	63	2	110	2	1902226
Available Rubidium (Rb)	mg/kg	8	2	5	2	1902226
Available Selenium (Se)	mg/kg	<2	2	<2	2	1902226
Available Silver (Ag)	mg/kg	1.3	0.5	0.9	0.5	1902226
Available Strontium (Sr)	mg/kg	22	5	46	5	1902226
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	0.1	1902226
Available Tin (Sn)	mg/kg	230	2	550	20	1902226
Available Uranium (U)	mg/kg	0.3	0.1	0.5	0.1	1902226
Available Vanadium (V)	mg/kg	20	2	28	2	1902226
Available Zinc (Zn)	mg/kg	1300	5	1700	5	1902226

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DG6956		DG6967		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	SEPTIC TANK -SEDIMENT	RDL	TP117-BS2	RDL	QC Batch

Polyaromatic Hydrocarbons						
1-Methylnaphthalene	mg/kg	1.7	0.3	43 (1)	0.1	1901718
2-Methylnaphthalene	mg/kg	2.2	0.3	49 (1)	0.1	1901718
Acenaphthene	mg/kg	0.4	0.3	0.17	0.005	1901718
Acenaphthylene	mg/kg	<0.3	0.3	<0.1 (1)	0.1	1901718
Anthracene	mg/kg	1.3	0.3	0.034	0.005	1901718
Benzo(a)anthracene	mg/kg	2.0	0.3	0.009	0.005	1901718
Benzo(a)pyrene	mg/kg	0.9	0.3	0.007	0.005	1901718
Benzo(b)fluoranthene	mg/kg	0.7	0.3	0.007	0.005	1901718
Benzo(g,h,i)perylene	mg/kg	0.5	0.3	0.007	0.005	1901718
Benzo(k)fluoranthene	mg/kg	0.8	0.3	0.006	0.005	1901718
Chrysene	mg/kg	1.9	0.3	0.020	0.005	1901718
Dibenz(a,h)anthracene	mg/kg	<0.3	0.3	<0.005	0.005	1901718
Fluoranthene	mg/kg	8.6	0.3	0.064	0.005	1901718
Fluorene	mg/kg	0.5	0.3	1.3	0.005	1901718
Indeno(1,2,3-cd)pyrene	mg/kg	0.4	0.3	0.007	0.005	1901718
Naphthalene	mg/kg	2.0	0.3	5.4 (1)	0.1	1901718
Perylene	mg/kg	<0.3	0.3	0.007	0.005	1901718
Phenanthrene	mg/kg	2.9	0.3	0.66	0.005	1901718
Pyrene	mg/kg	5.0	0.3	0.057	0.005	1901718
Surrogate Recovery (%)						
D10-Anthracene	%	277 (2)		83		1901718
D14-Terphenyl	%	363 (3)		80		1901718
D8-Acenaphthylene	%	148 (2)		125		1901718

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated PAH RDL(s) due to sample dilution.

(2) PAH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(3) Elevated PAH RDL(s) due to sample dilution. PAH surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DG6972		DG6974	DG6974		
Sampling Date		2009/07/29		2009/07/29	2009/07/29		
COC Number		N/A		N/A	N/A		
Registration #							
	Units	TP141-BS1	RDL	TP144-BS2	TP144-BS2 Lab-Dup	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	1.7	0.1	<0.005	<0.005	0.005	1901718
2-Methylnaphthalene	mg/kg	1.1	0.1	<0.005	<0.005	0.005	1901718
Acenaphthene	mg/kg	0.2	0.1	<0.005	0.007	0.005	1901718
Acenaphthylene	mg/kg	0.3	0.1	<0.005	0.11 (1)	0.005	1901718
Anthracene	mg/kg	<0.1	0.1	<0.005	<0.005	0.005	1901718
Benzo(a)anthracene	mg/kg	0.2	0.1	<0.005	<0.005	0.005	1901718
Benzo(a)pyrene	mg/kg	0.5	0.1	<0.005	0.007	0.005	1901718
Benzo(b)fluoranthene	mg/kg	<0.1	0.1	<0.005	<0.005	0.005	1901718
Benzo(g,h,i)perylene	mg/kg	0.3	0.1	<0.005	<0.005	0.005	1901718
Benzo(k)fluoranthene	mg/kg	<0.1	0.1	<0.005	<0.005	0.005	1901718
Chrysene	mg/kg	0.9	0.1	<0.005	0.036 (1)	0.005	1901718
Dibenz(a,h)anthracene	mg/kg	<0.1	0.1	<0.005	<0.005	0.005	1901718
Fluoranthene	mg/kg	0.2	0.1	<0.005	<0.005	0.005	1901718
Fluorene	mg/kg	0.5	0.1	<0.005	<0.005	0.005	1901718
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.1	<0.005	<0.005	0.005	1901718
Naphthalene	mg/kg	0.1	0.1	<0.005	<0.005	0.005	1901718
Perylene	mg/kg	0.1	0.1	<0.005	<0.005	0.005	1901718
Phenanthrene	mg/kg	0.2	0.1	<0.005	<0.005	0.005	1901718
Pyrene	mg/kg	0.4	0.1	<0.005	0.044 (1)	0.005	1901718
Surrogate Recovery (%)							
D10-Anthracene	%	139 (2)		112	104		1901718
D14-Terphenyl	%	149 (3)		111	103		1901718
D8-Acenaphthylene	%	117		101	95		1901718

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Duplicate: results are outside acceptance limit. Sample was past recommended hold time for repeat analysis.

(2) PAH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(3) Elevated PAH RDL(s) due to sample dilution. PAH surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DG6956		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	SEPTIC TANK -SEDIMENT	RDL	QC Batch

Volatile Organics				
1,1,1-Trichloroethane	ug/kg	<30	30	1902927
1,1,2,2-Tetrachloroethane	ug/kg	<60 (1)	60	1902927
1,1,2-Trichloroethane	ug/kg	<30	30	1902927
1,1-Dichloroethane	ug/kg	<30	30	1902927
1,1-Dichloroethylene	ug/kg	<30	30	1902927
1,2-Dichlorobenzene	ug/kg	<30	30	1902927
1,2-Dichloroethane	ug/kg	<30	30	1902927
1,2-Dichloropropane	ug/kg	<30	30	1902927
1,3-Dichlorobenzene	ug/kg	<30	30	1902927
1,4-Dichlorobenzene	ug/kg	6400	30	1902927
Benzene	ug/kg	<30	30	1902927
Bromodichloromethane	ug/kg	<30	30	1902927
Bromoform	ug/kg	<30	30	1902927
Bromomethane	ug/kg	<200	200	1902927
Carbon Tetrachloride	ug/kg	<30	30	1902927
Chlorobenzene	ug/kg	<30	30	1902927
Chloroform	ug/kg	<30	30	1902927
Chloromethane	ug/kg	<30	30	1902927
cis-1,2-Dichloroethylene	ug/kg	<30	30	1902927
cis-1,3-Dichloropropene	ug/kg	<30	30	1902927
Dibromochloromethane	ug/kg	<30	30	1902927
Ethylbenzene	ug/kg	<30	30	1902927
Ethylene Dibromide	ug/kg	<30	30	1902927
Methylene Chloride(Dichloromethane)	ug/kg	<30	30	1902927
o-Xylene	ug/kg	200	30	1902927
p+m-Xylene	ug/kg	340	30	1902927
Styrene	ug/kg	<30	30	1902927
Tetrachloroethylene	ug/kg	500	30	1902927

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated VOC RDL(s) due to matrix interference.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DG6956		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	SEPTIC TANK -SEDIMENT	RDL	QC Batch
Toluene	ug/kg	25000	300	1902927
trans-1,2-Dichloroethylene	ug/kg	<30	30	1902927
trans-1,3-Dichloropropene	ug/kg	<30	30	1902927
Trichloroethylene	ug/kg	<30	30	1902927
Trichlorofluoromethane (FREON 11)	ug/kg	<30	30	1902927
Vinyl Chloride	ug/kg	<30	30	1902927
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	95		1902927
D4-1,2-Dichloroethane	%	116		1902927
D8-Toluene	%	101		1902927
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6941	DG6941		DG6949		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	BS20	BS20 Lab-Dup	RDL	BS30	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.1		0.1	<0.03	0.03	1900053
Toluene	mg/kg	<0.1		0.1	<0.03	0.03	1900053
Ethylbenzene	mg/kg	<0.1		0.1	<0.03	0.03	1900053
Xylene (Total)	mg/kg	<0.3		0.3	<0.05	0.05	1900053
C6 - C10 (less BTEX)	mg/kg	<10		10	<3	3	1900053
>C10-C21 Hydrocarbons	mg/kg	93000	95000	150	<15	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	1300	1500	15	<15	15	1900518
Modified TPH (Tier1)	mg/kg	94000		200	<20	20	1897622
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	95	95		87		1900518
n-Dotriacontane - Extractable	%	92 (1)	85 (2)		115 (3)		1900518
Isobutylbenzene - Volatile	%	56 (4)			108		1900053

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution. Silica gel clean-up performed prior to analysis as per client request.

(2) Elevated TEH RDL(s) due to sample dilution. Silica gel clean-up performed prior to analysis as per client request.

(3) Silica gel clean-up performed prior to analysis as per client request.

(4) Elevated VPH RDL(s) due to sample dilution. VPH surrogate not within acceptance limits due to matrix interference.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6951		DG6954		
Sampling Date		2009/07/29		2009/07/29		
COC Number		N/A		N/A		
Registration #						
	Units	BS35	QC Batch	TP68-BS2	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1900053	<0.03	0.03	1900053
Toluene	mg/kg	<0.03	1900053	<0.03	0.03	1900053
Ethylbenzene	mg/kg	<0.03	1900053	<0.03	0.03	1900053
Xylene (Total)	mg/kg	<0.05	1900053	<0.05	0.05	1900053
C6 - C10 (less BTEX)	mg/kg	<3	1900053	<3	3	1900053
>C10-C21 Hydrocarbons	mg/kg	33	1899201	<15	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	88	1899201	44	15	1900518
Modified TPH (Tier1)	mg/kg	120	1897622	44	20	1897622
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	90	1899201	88		1900518
n-Dotriacontane - Extractable	%	111 (1)	1899201	115 (2)		1900518
Isobutylbenzene - Volatile	%	68	1900053	112		1900053

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Possible lube oil fraction. Unidentified compound(s) in lube oil range. Silica gel clean-up performed prior to analysis as per client request.

(2) No resemblance to petroleum products.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6955		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	TP69-BS2	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	<0.03	0.03	1900307
Toluene	mg/kg	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	0.03	1900307
Xylene (Total)	mg/kg	<0.05	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	<3	3	1900307
>C10-C21 Hydrocarbons	mg/kg	<15	15	1900518
>C21-C32 Hydrocarbons	mg/kg	50	15	1900518
Modified TPH (Tier1)	mg/kg	50	20	1897622
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	84		1900518
n-Dotriacontane - Extractable	%	110 (1)		1900518
Isobutylbenzene - Volatile	%	105		1900307

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Possible lube oil fraction.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6956		
Sampling Date		2009/07/29		
COC Number		N/A		
Registration #				
	Units	SEPTIC TANK -SEDIMENT	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	<0.03	0.03	1902006
Toluene	mg/kg	15	0.03	1902006
Ethylbenzene	mg/kg	<0.03	0.03	1902006
Xylene (Total)	mg/kg	0.34	0.05	1902006
C6 - C10 (less BTEX)	mg/kg	21	3	1902006
>C10-C21 Hydrocarbons	mg/kg	3700	75	1903162
>C21-<C32 Hydrocarbons	mg/kg	6700	15	1903162
Modified TPH (Tier1)	mg/kg	10000	80	1897622
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	88		1903162
n-Dotriacontane - Extractable	%	113 (1)		1903162
Isobutylbenzene - Volatile	%	29 (2)		1902006

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Elevated TEH RDL(s) due to sample dilution.

(2) VPH surrogate not within acceptance limits due to matrix interference.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6959	DG6960		DG6962		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP82-BS1	TP91-BS2	RDL	TP102-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	0.03	<0.03	0.03	1900307
Toluene	mg/kg	<0.03	<0.03	0.03	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	<0.03	0.03	1900307
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	0.20	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	89	<3	3	57	3	1900307
>C10-C21 Hydrocarbons	mg/kg	5600	55	15	27000	75	1900518
>C21-<C32 Hydrocarbons	mg/kg	50	59	15	300	15	1900518
Modified TPH (Tier1)	mg/kg	5800	110	20	28000	80	1897622
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	102	88		92		1900518
n-Dotriacontane - Extractable	%	100 (1)	111 (2)		99 (3)		1900518
Isobutylbenzene - Volatile	%	62	110		60		1900307

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction.
(2) One product in fuel oil range. Possible lube oil fraction.
(3) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6963	DG6964		DG6967		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP103-BS2	TP107-BS2	QC Batch	TP117-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1900307	<0.03	0.03	1902011
Toluene	mg/kg				0.11	0.03	1902011
Ethylbenzene	mg/kg				0.40	0.03	1902011
Toluene	mg/kg	0.06	<0.03	1900307		0.03	
Ethylbenzene	mg/kg	<0.03	<0.03	1900307		0.03	
Xylene (Total)	mg/kg	<0.05	<0.05	1900307	12	0.05	1902011
Aliphatic >C6-C8	mg/kg				45 (1)	2	1902011
Aliphatic >C8-C10	mg/kg				990	4	1902011
C6 - C10 (less BTEX)	mg/kg	40	<3	1900307		3	
>C8-C10 Aromatics (-EX)	mg/kg				170	1	1902011
>C10-C21 Hydrocarbons	mg/kg	7200	120	1900518		15	
Aliphatic >C10-C12	mg/kg				5500 (2)	80	1903299
>C21-<C32 Hydrocarbons	mg/kg	360	210	1900518		15	
Aliphatic >C12-C16	mg/kg				10000 (2)	150	1903299
Modified TPH (Tier1)	mg/kg	7600	320	1897622		20	
Aliphatic >C16-C21	mg/kg				630	15	1903299
Aliphatic >C21-<C32	mg/kg				420	15	1903299
Aromatic >C10-C12	mg/kg				1500 (3)	14	1903299
Aromatic >C12-C16	mg/kg				2200	15	1903299
Aromatic >C16-C21	mg/kg				260	15	1903299
Aromatic >C21-<C32	mg/kg				130	15	1903299
Modified TPH (Tier 2)	mg/kg				22000	200	1896947
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%				125		1903299
n-Dotriacontane - Extractable	%				101 (4)		1903299
Isobutylbenzene - Extractable	%	95	85	1900518			
n-Dotriacontane - Extractable	%	66 (5)	115 (6)	1900518			

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VPH RDL(s) due to detected levels in the method blank.

(2) Elevated TEH RDL(s) due to sample dilution.

(3) Elevated TEH RDL(s) due to detected levels in the method blank.

(4) Fuel oil fraction. Lube oil fraction.

(5) Fuel oil fraction.

(6) One product in fuel oil range. One product in fuel / lube range.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6963	DG6964		DG6967		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP103-BS2	TP107-BS2	QC Batch	TP117-BS2	RDL	QC Batch

Isobutylbenzene - Volatile	%	87	80	1900307	60		1902011

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DG6968	DG6969		
Sampling Date		2009/07/29	2009/07/29		
COC Number		N/A	N/A		
Registration #					
	Units	TP118-BS2	TP123-BS2	RDL	QC Batch

Petroleum Hydrocarbons					
Benzene	mg/kg	<0.03	<0.03	0.03	1900307
Toluene	mg/kg	<0.03	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	1900307
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	130	<3	3	1900307
>C10-C21 Hydrocarbons	mg/kg	5700	80	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	32	230	15	1900518
Modified TPH (Tier1)	mg/kg	5800	310	20	1897622
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	76	96		1900518
n-Dotriacontane - Extractable	%	89 (1)	82 (2)		1900518
Isobutylbenzene - Volatile	%	55 (3)	96		1900307

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction.
(2) One product in fuel / lube range.
(3) VPH surrogate not within acceptance limits. Analysis was repeated with similar results.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6971			DG6972		
Sampling Date		2009/07/29			2009/07/29		
COC Number		N/A			N/A		
Registration #							
	Units	TP139-BS2	RDL	QC Batch	TP141-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	0.03	1900053	<0.04 (1)	0.04	1902011
Toluene	mg/kg		0.03		1.2	0.03	1902011
Ethylbenzene	mg/kg		0.03		<0.03	0.03	1902011
Toluene	mg/kg	<0.03	0.03	1900053			
Ethylbenzene	mg/kg	<0.03	0.03	1900053			
Xylene (Total)	mg/kg	<0.05	0.05	1900053	0.15	0.05	1902011
Aliphatic >C6-C8	mg/kg		2		120 (2)	0.2	1902011
Aliphatic >C8-C10	mg/kg		4		39	0.4	1902011
C6 - C10 (less BTEX)	mg/kg	280	3	1900053			
>C8-C10 Aromatics (-EX)	mg/kg		1		<0.1	0.1	1902011
>C10-C21 Hydrocarbons	mg/kg	9100	75	1899201			
Aliphatic >C10-C12	mg/kg				410	8.0	1903299
>C21-<C32 Hydrocarbons	mg/kg	<15	15	1899201			
Aliphatic >C12-C16	mg/kg				2400	15	1903299
Modified TPH (Tier1)	mg/kg	9400	80	1897622			
Aliphatic >C16-C21	mg/kg				730	15	1903299
Aliphatic >C21-<C32	mg/kg				14000 (3)	150	1903299
Aromatic >C10-C12	mg/kg				81 (4)	14	1903299
Aromatic >C12-C16	mg/kg				550	15	1903299
Aromatic >C16-C21	mg/kg				440	15	1903299
Aromatic >C21-<C32	mg/kg				5700	15	1903299
Modified TPH (Tier 2)	mg/kg				25000	200	1896947
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%				80		1903299
n-Dotriacontane - Extractable	%				270 (5)		1903299
Isobutylbenzene - Extractable	%	86		1899201			

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VPH RDL(s) due to matrix interference.

(2) Elevated VPH RDL(s) due to detected levels in the method blank.

(3) Elevated TEH RDL(s) due to sample dilution.

(4) Elevated TEH RDL(s) due to detected levels in the method blank.

(5) Weathered fuel oil fraction. Lube oil fraction. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DG6971			DG6972		
Sampling Date		2009/07/29			2009/07/29		
COC Number		N/A			N/A		
Registration #							
	Units	TP139-BS2	RDL	QC Batch	TP141-BS1	RDL	QC Batch

n-Dotriacontane - Extractable	%	97 (1)		1899201			
Isobutylbenzene - Volatile	%	67		1900053	54 (2)		1902011

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in the gas/fuel oil range. Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution. Silica gel clean-up performed prior to analysis as per client request.
(2) VPH surrogate not within acceptance limits. Analysis was repeated with similar results.

Maxxam ID		DG6973	DG6974	DG6975		
Sampling Date		2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A		
Registration #						
	Units	TP142-BS1	TP144-BS2	TP147-BS2	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1900307
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1900307
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1900307
Xylene (Total)	mg/kg	0.50	<0.05	<0.05	0.05	1900307
C6 - C10 (less BTEX)	mg/kg	67	<3	<3	3	1900307
>C10-C21 Hydrocarbons	mg/kg	2600	110	990	15	1900518
>C21-<C32 Hydrocarbons	mg/kg	10000	91	600	15	1900518
Modified TPH (Tier1)	mg/kg	13000	200	1600	20	1897622
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	88	94	93		1900518
n-Dotriacontane - Extractable	%	175 (1)	89 (2)	85 (3)		1900518
Isobutylbenzene - Volatile	%	71	96	91		1900307

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction. Lube oil fraction. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.
(2) Weathered fuel oil fraction. Possible lube oil fraction.
(3) One product in fuel / lube range. Lube oil fraction.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DG6928	DG6930	DG6934	DG6935		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS3	BS5	BS9	BS10	RDL	QC Batch

PCBs							
Total PCB	ug/g	1.6	24	21	<0.05	0.05	1900031
Surrogate Recovery (%)							
Decachlorobiphenyl	%	86 (1)	86 (2)	88 (2)	80		1900031

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1254, 1260.
(2) Aroclor 1254.

Maxxam ID		DG6937	DG6938		DG6939	DG6941		
Sampling Date		2009/07/29	2009/07/29		2009/07/29	2009/07/29		
COC Number		N/A	N/A		N/A	N/A		
Registration #								
	Units	BS12	BS13	QC Batch	BS14	BS20	RDL	QC Batch

PCBs								
Total PCB	ug/g	2.7	3.1	1900031	100	<0.05	0.05	1900574
Surrogate Recovery (%)								
Decachlorobiphenyl	%	86 (1)	86 (2)	1900031	108 (3)	96		1900574

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.
(2) Aroclor 1254, 1260.
(3) Aroclor 1254.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DG6944	DG6947	DG6948	DG6948		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS24	BS27	BS28	BS28 Lab-Dup	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.66	0.97	0.36	0.28	0.05	1900574
Surrogate Recovery (%)							
Decachlorobiphenyl	%	103 (1)	109 (1)	99 (1)	100		1900574
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DG6949	DG6950	DG6952	DG6953		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	BS30	BS34	BS37	BS38	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.41	<0.05	<0.05	<0.05	0.05	1900574
Surrogate Recovery (%)							
Decachlorobiphenyl	%	103 (1)	96	99	98		1900574
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1254.							

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DG6954	DG6955		DG6956		
Sampling Date		2009/07/29	2009/07/29		2009/07/29		
COC Number		N/A	N/A		N/A		
Registration #							
	Units	TP68-BS2	TP69-BS2	QC Batch	SEPTIC TANK -SEDIMENT	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	0.51	1900574	72	0.05	1901692
Surrogate Recovery (%)							
Decachlorobiphenyl	%	100	109 (1)	1900574	80 (1)		1901692

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DG6958	DG6963	DG6964	DG6965		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP75-BS2	TP103-BS2	TP107-BS2	TP109-BS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.42	<0.05	3.4	<0.05	0.05	1900574
Surrogate Recovery (%)							
Decachlorobiphenyl	%	96 (1)	101	101 (1)	95		1900574

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DG6966	DG6967	DG6969	DG6972		
Sampling Date		2009/07/29	2009/07/29	2009/07/29	2009/07/29		
COC Number		N/A	N/A	N/A	N/A		
Registration #							
	Units	TP111-BS2	TP117-BS2	TP123-BS2	TP141-BS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	2.4	0.05	1900574
Surrogate Recovery (%)							
Decachlorobiphenyl	%	101	100	96	81 (1)		1900574

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DG6973			DG6976	DG7014		
Sampling Date		2009/07/29			2009/07/29	2009/07/29		
COC Number		N/A			N/A	N/A		
Registration #								
	Units	TP142-BS1	RDL	QC Batch	BS39	BS29	RDL	QC Batch

PCBs								
Total PCB	ug/g	<1	1	1900574	1.0	1.7	0.05	1901692
Surrogate Recovery (%)								
Decachlorobiphenyl	%	87 (1)		1900574	81 (2)	82 (2)		1901692

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PCB: Unidentified (possibly halogenated) compounds detected. Elevated PCB RDL due to matrix / co-extractive interference.
(2) Aroclor 1254, 1260.

Maxxam Job #: A998642
Report Date: 2009/08/18

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

VPH and VOC sample preservation not within 72 hours of receipt at the laboratory. VPH samples were preserved within 7 days of sampling date as recommended by the reference method.

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: Chloroethane unavailable due to calibration non-conformance.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA998642

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1899201 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/06		82	%	30 - 130	
		n-Dotriacontane - Extractable	2009/08/06		72	%	30 - 130	
		>C10-C21 Hydrocarbons	2009/08/06		NC	%	30 - 130	
		>C21-<C32 Hydrocarbons	2009/08/06		NC	%	30 - 130	
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/06		83	%	30 - 130	
		n-Dotriacontane - Extractable	2009/08/06		78	%	30 - 130	
		>C10-C21 Hydrocarbons	2009/08/06		85	%	30 - 130	
		>C21-<C32 Hydrocarbons	2009/08/06		89	%	30 - 130	
	Method Blank	Isobutylbenzene - Extractable	2009/08/06		88	%	30 - 130	
		n-Dotriacontane - Extractable	2009/08/06		87	%	30 - 130	
		>C10-C21 Hydrocarbons	2009/08/06	<15		mg/kg		
		>C21-<C32 Hydrocarbons	2009/08/06	<15		mg/kg		
	RPD	>C10-C21 Hydrocarbons	2009/08/06	16.7		%	50	
		>C21-<C32 Hydrocarbons	2009/08/06	28.6		%	50	
1900031 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/07		91	%	30 - 130	
		Total PCB	2009/08/07		112	%	70 - 130	
	Spiked Blank	Decachlorobiphenyl	2009/08/07		93	%	30 - 130	
		Total PCB	2009/08/07		112	%	70 - 130	
	Method Blank	Decachlorobiphenyl	2009/08/07		90	%	30 - 130	
		Total PCB	2009/08/07	<0.05		ug/g		
	RPD	Total PCB	2009/08/07	NC		%	50	
	Matrix Spike	Isobutylbenzene - Volatile	2009/08/07		93	%	60 - 140	
		Benzene	2009/08/07		100	%	60 - 140	
		Toluene	2009/08/07		124	%	60 - 140	
		Ethylbenzene	2009/08/07		119	%	60 - 140	
		Xylene (Total)	2009/08/07		133	%	60 - 140	
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/07		97	%	60 - 140	
		Benzene	2009/08/07		92	%	60 - 140	
		Toluene	2009/08/07		95	%	60 - 140	
		Ethylbenzene	2009/08/07		92	%	60 - 140	
1900053 ASL	Method Blank	Xylene (Total)	2009/08/07		97	%	60 - 140	
		Isobutylbenzene - Volatile	2009/08/07		102	%	60 - 140	
		Benzene	2009/08/07	<0.03		mg/kg		
		Toluene	2009/08/07	<0.03		mg/kg		
		Ethylbenzene	2009/08/07	<0.03		mg/kg		
		Xylene (Total)	2009/08/07	<0.05		mg/kg		
		C6 - C10 (less BTEX)	2009/08/07	<3		mg/kg		
	RPD	Benzene	2009/08/07	NC		%	50	
		Toluene	2009/08/07	NC		%	50	
		Ethylbenzene	2009/08/07	0.3		%	50	
		Xylene (Total)	2009/08/07	3.3		%	50	
		C6 - C10 (less BTEX)	2009/08/07	0.8		%	50	
		Isobutylbenzene - Volatile	2009/08/07		73	%	60 - 140	
		Benzene	2009/08/07		NC	%	60 - 140	
		Toluene	2009/08/07		105	%	60 - 140	
		Ethylbenzene	2009/08/07		NC	%	60 - 140	
	Spiked Blank	Xylene (Total)	2009/08/07		NC	%	60 - 140	
		Isobutylbenzene - Volatile	2009/08/07		76	%	60 - 140	
		Benzene	2009/08/07		71	%	60 - 140	
		Toluene	2009/08/07		74	%	60 - 140	
	Method Blank	Ethylbenzene	2009/08/07		70	%	60 - 140	
		Xylene (Total)	2009/08/07		77	%	60 - 140	
		Isobutylbenzene - Volatile	2009/08/07		101	%	60 - 140	
		Benzene	2009/08/07	<0.03		mg/kg		
		Toluene	2009/08/07	<0.03		mg/kg		
1900307 ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/08/07		73	%	60 - 140	
		Benzene	2009/08/07		NC	%	60 - 140	
		Toluene	2009/08/07		105	%	60 - 140	
		Ethylbenzene	2009/08/07		NC	%	60 - 140	
	Spiked Blank	Xylene (Total)	2009/08/07		NC	%	60 - 140	
		Isobutylbenzene - Volatile	2009/08/07		76	%	60 - 140	
		Benzene	2009/08/07		71	%	60 - 140	
		Toluene	2009/08/07		74	%	60 - 140	
	Method Blank	Ethylbenzene	2009/08/07		70	%	60 - 140	
		Xylene (Total)	2009/08/07		77	%	60 - 140	
		Isobutylbenzene - Volatile	2009/08/07		101	%	60 - 140	
		Benzene	2009/08/07	<0.03		mg/kg		
		Toluene	2009/08/07	<0.03		mg/kg		

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1900307 ASL	Method Blank	Ethylbenzene	2009/08/07	<0.03		mg/kg	
		Xylene (Total)	2009/08/07	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/07	<3		mg/kg	
	RPD	Benzene	2009/08/07	101 (1)		%	50
		Toluene	2009/08/07	NC (1)		%	50
		Ethylbenzene	2009/08/07	19.5		%	50
		Xylene (Total)	2009/08/07	172 (1)		%	50
		C6 - C10 (less BTEX)	2009/08/07	6.5		%	50
1900518 LMU	Matrix Spike [DG6941-01]	Isobutylbenzene - Extractable	2009/08/11		94	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		78	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		NC	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/08		89	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/08		95	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/08		95	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/08		105	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/08		87	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/08		91	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/08	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/08	<15		mg/kg	
	RPD [DG6941-01]	>C10-C21 Hydrocarbons	2009/08/11	3.1		%	50
		>C21-<C32 Hydrocarbons	2009/08/11	14.1		%	50
1900574 CMI	Matrix Spike [DG6948-01]	Decachlorobiphenyl	2009/08/11		100	%	30 - 130
		Total PCB	2009/08/11		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/11		77	%	30 - 130
		Total PCB	2009/08/11		128	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/11		100	%	30 - 130
		Total PCB	2009/08/11	<0.05		ug/g	
	RPD [DG6948-01]	Total PCB	2009/08/11	25.7		%	50
1901692 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/11		79	%	30 - 130
		Total PCB	2009/08/11		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/11		82	%	30 - 130
		Total PCB	2009/08/11		108	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/11		79	%	30 - 130
		Total PCB	2009/08/11	<0.05		ug/g	
	RPD	Total PCB	2009/08/11	23.9		%	50
1901701 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/07		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/07		NC	%	75 - 125
		Available Arsenic (As)	2009/08/07		NC	%	75 - 125
		Available Barium (Ba)	2009/08/07		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/07		95	%	75 - 125
		Available Bismuth (Bi)	2009/08/07		95	%	75 - 125
		Available Boron (B)	2009/08/07		91	%	75 - 125
		Available Cadmium (Cd)	2009/08/07		NC	%	75 - 125
		Available Chromium (Cr)	2009/08/07		97	%	75 - 125
		Available Cobalt (Co)	2009/08/07		101	%	75 - 125
		Available Copper (Cu)	2009/08/07		NC	%	75 - 125
		Available Iron (Fe)	2009/08/07		NC	%	75 - 125
		Available Lithium (Li)	2009/08/07		93	%	75 - 125
		Available Manganese (Mn)	2009/08/07		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/07		90	%	75 - 125
		Available Molybdenum (Mo)	2009/08/07		100	%	75 - 125
		Available Nickel (Ni)	2009/08/07		103	%	75 - 125

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QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1901701 KGU	Matrix Spike	Available Rubidium (Rb)	2009/08/07		96	%	75 - 125
		Available Selenium (Se)	2009/08/07		104	%	75 - 125
		Available Strontium (Sr)	2009/08/07		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/07		101	%	75 - 125
		Available Tin (Sn)	2009/08/07		99	%	75 - 125
		Available Uranium (U)	2009/08/07		97	%	75 - 125
	QC Standard	Available Vanadium (V)	2009/08/07		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/07		NC	%	75 - 125
		Available Aluminum (Al)	2009/08/07		88	%	75 - 125
		Available Arsenic (As)	2009/08/07		119	%	75 - 125
		Available Barium (Ba)	2009/08/07		111	%	75 - 125
		Available Chromium (Cr)	2009/08/07		91	%	75 - 125
		Available Cobalt (Co)	2009/08/07		104	%	75 - 125
		Available Copper (Cu)	2009/08/07		100	%	75 - 125
		Available Iron (Fe)	2009/08/07		96	%	75 - 125
		Available Lead (Pb)	2009/08/07		105	%	75 - 125
		Available Manganese (Mn)	2009/08/07		102	%	75 - 125
		Available Nickel (Ni)	2009/08/07		107	%	75 - 125
		Available Strontium (Sr)	2009/08/07		97	%	75 - 125
		Available Vanadium (V)	2009/08/07		112	%	75 - 125
	Spiked Blank	Available Zinc (Zn)	2009/08/07		111	%	75 - 125
		Available Aluminum (Al)	2009/08/07		95	%	75 - 125
		Available Antimony (Sb)	2009/08/07		100	%	75 - 125
		Available Arsenic (As)	2009/08/07		95	%	75 - 125
		Available Barium (Ba)	2009/08/07		95	%	75 - 125
		Available Beryllium (Be)	2009/08/07		96	%	75 - 125
		Available Bismuth (Bi)	2009/08/07		97	%	75 - 125
		Available Boron (B)	2009/08/07		88	%	75 - 125
		Available Cadmium (Cd)	2009/08/07		95	%	75 - 125
		Available Chromium (Cr)	2009/08/07		96	%	75 - 125
		Available Cobalt (Co)	2009/08/07		100	%	75 - 125
		Available Copper (Cu)	2009/08/07		97	%	75 - 125
		Available Iron (Fe)	2009/08/07		94	%	75 - 125
		Available Lead (Pb)	2009/08/07		95	%	75 - 125
	Method Blank	Available Lithium (Li)	2009/08/07		96	%	75 - 125
		Available Manganese (Mn)	2009/08/07		94	%	75 - 125
		Available Mercury (Hg)	2009/08/07		93	%	75 - 125
		Available Molybdenum (Mo)	2009/08/07		100	%	75 - 125
		Available Nickel (Ni)	2009/08/07		100	%	75 - 125
		Available Rubidium (Rb)	2009/08/07		99	%	75 - 125
		Available Selenium (Se)	2009/08/07		85	%	75 - 125
		Available Silver (Ag)	2009/08/07		99	%	75 - 125
		Available Strontium (Sr)	2009/08/07		97	%	75 - 125
		Available Thallium (Tl)	2009/08/07		93	%	75 - 125
		Available Tin (Sn)	2009/08/07		101	%	75 - 125
		Available Uranium (U)	2009/08/07		96	%	75 - 125
		Available Vanadium (V)	2009/08/07		104	%	75 - 125
		Available Zinc (Zn)	2009/08/07		93	%	75 - 125
		Available Aluminum (Al)	2009/08/07	<10		mg/kg	
		Available Antimony (Sb)	2009/08/07	<2		mg/kg	
		Available Arsenic (As)	2009/08/07	<2		mg/kg	
		Available Barium (Ba)	2009/08/07	<5		mg/kg	
		Available Beryllium (Be)	2009/08/07	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/07	<2		mg/kg	
		Available Boron (B)	2009/08/07	<5		mg/kg	

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1901701 KGU	Method Blank	Available Cadmium (Cd)	2009/08/07	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/07	<2		mg/kg	
		Available Cobalt (Co)	2009/08/07	<1		mg/kg	
		Available Copper (Cu)	2009/08/07	<2		mg/kg	
		Available Iron (Fe)	2009/08/07	<50		mg/kg	
		Available Lead (Pb)	2009/08/07	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/07	<2		mg/kg	
		Available Manganese (Mn)	2009/08/07	<2		mg/kg	
		Available Mercury (Hg)	2009/08/07	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/07	<2		mg/kg	
		Available Nickel (Ni)	2009/08/07	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/07	<2		mg/kg	
		Available Selenium (Se)	2009/08/07	<2		mg/kg	
		Available Silver (Ag)	2009/08/07	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/07	<5		mg/kg	
		Available Thallium (Tl)	2009/08/07	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/07	<2		mg/kg	
		Available Uranium (U)	2009/08/07	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/07	<2		mg/kg	
		Available Zinc (Zn)	2009/08/07	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/07	2.3		%	35
		Available Antimony (Sb)	2009/08/07	2.9		%	35
		Available Arsenic (As)	2009/08/07	14.8		%	35
		Available Barium (Ba)	2009/08/07	14.2		%	35
		Available Beryllium (Be)	2009/08/07	NC		%	35
		Available Bismuth (Bi)	2009/08/07	NC		%	35
		Available Boron (B)	2009/08/07	NC		%	35
		Available Cadmium (Cd)	2009/08/07	2.3		%	35
		Available Chromium (Cr)	2009/08/07	NC		%	35
		Available Cobalt (Co)	2009/08/07	NC		%	35
		Available Copper (Cu)	2009/08/07	13.6		%	35
		Available Iron (Fe)	2009/08/07	2.5		%	35
		Available Lead (Pb)	2009/08/07	7.6		%	35
		Available Lithium (Li)	2009/08/07	NC		%	35
		Available Manganese (Mn)	2009/08/07	3.6		%	35
		Available Mercury (Hg)	2009/08/07	NC		%	35
1901718 SOD	Matrix Spike [DG6974-01]	Available Molybdenum (Mo)	2009/08/07	NC		%	35
		Available Nickel (Ni)	2009/08/07	NC		%	35
		Available Rubidium (Rb)	2009/08/07	NC		%	35
		Available Selenium (Se)	2009/08/07	NC		%	35
		Available Silver (Ag)	2009/08/07	NC		%	35
		Available Strontium (Sr)	2009/08/07	4.1		%	35
		Available Thallium (Tl)	2009/08/07	NC		%	35
		Available Tin (Sn)	2009/08/07	NC		%	35
		Available Uranium (U)	2009/08/07	0.9		%	35
		Available Vanadium (V)	2009/08/07	3.6		%	35
		Available Zinc (Zn)	2009/08/07	1.9		%	35
		D10-Anthracene	2009/08/12		79	%	30 - 130
		D14-Terphenyl	2009/08/12		84	%	30 - 130
		D8-Acenaphthylene	2009/08/12		78	%	30 - 130
		1-Methylnaphthalene	2009/08/12		79	%	30 - 130
		2-Methylnaphthalene	2009/08/12		80	%	30 - 130
		Acenaphthene	2009/08/12		68 (2)	%	30 - 130
		Acenaphthylene	2009/08/12		85	%	30 - 130

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1901718 SOD	Matrix Spike [DG6974-01]	Anthracene	2009/08/12		70	%	30 - 130
		Benzo(a)anthracene	2009/08/12		92	%	30 - 130
		Benzo(a)pyrene	2009/08/12		66 (2)	%	30 - 130
		Benzo(b)fluoranthene	2009/08/12		72	%	30 - 130
		Benzo(g,h,i)perylene	2009/08/12		52 (2)	%	30 - 130
		Benzo(k)fluoranthene	2009/08/12		72	%	30 - 130
		Chrysene	2009/08/12		119	%	30 - 130
		Dibenz(a,h)anthracene	2009/08/12		64 (2)	%	30 - 130
		Fluoranthene	2009/08/12		103	%	30 - 130
		Fluorene	2009/08/12		86	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/08/12		54 (2)	%	30 - 130
		Naphthalene	2009/08/12		74	%	30 - 130
		Perylene	2009/08/12		69 (2)	%	30 - 130
		Phenanthrene	2009/08/12		170 (2)	%	30 - 130
		Pyrene	2009/08/12		140 (2)	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/08/12		89	%	30 - 130
		D14-Terphenyl	2009/08/12		90	%	30 - 130
		D8-Acenaphthylene	2009/08/12		81	%	30 - 130
		1-Methylnaphthalene	2009/08/12		83	%	30 - 130
		2-Methylnaphthalene	2009/08/12		88	%	30 - 130
		Acenaphthene	2009/08/12		88	%	30 - 130
		Acenaphthylene	2009/08/12		83	%	30 - 130
		Anthracene	2009/08/12		106	%	30 - 130
		Benzo(a)anthracene	2009/08/12		99	%	30 - 130
		Benzo(a)pyrene	2009/08/12		84	%	30 - 130
		Benzo(b)fluoranthene	2009/08/12		90	%	30 - 130
		Benzo(g,h,i)perylene	2009/08/12		80	%	30 - 130
		Benzo(k)fluoranthene	2009/08/12		90	%	30 - 130
		Chrysene	2009/08/12		109	%	30 - 130
		Dibenz(a,h)anthracene	2009/08/12		77	%	30 - 130
		Fluoranthene	2009/08/12		105	%	30 - 130
		Fluorene	2009/08/12		88	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/08/12		72	%	30 - 130
		Naphthalene	2009/08/12		86	%	30 - 130
		Perylene	2009/08/12		95	%	30 - 130
		Phenanthrene	2009/08/12		104	%	30 - 130
		Pyrene	2009/08/12		106	%	30 - 130
	Method Blank	D10-Anthracene	2009/08/12		109	%	30 - 130
		D14-Terphenyl	2009/08/12		117	%	30 - 130
		D8-Acenaphthylene	2009/08/12		87	%	30 - 130
		1-Methylnaphthalene	2009/08/12	<0.005		mg/kg	
		2-Methylnaphthalene	2009/08/12	<0.005		mg/kg	
		Acenaphthene	2009/08/12	<0.005		mg/kg	
		Acenaphthylene	2009/08/12	<0.005		mg/kg	
		Anthracene	2009/08/12	<0.005		mg/kg	
		Benzo(a)anthracene	2009/08/12	<0.005		mg/kg	
		Benzo(a)pyrene	2009/08/12	<0.005		mg/kg	
		Benzo(b)fluoranthene	2009/08/12	<0.005		mg/kg	
		Benzo(g,h,i)perylene	2009/08/12	<0.005		mg/kg	
		Benzo(k)fluoranthene	2009/08/12	<0.005		mg/kg	
		Chrysene	2009/08/12	<0.005		mg/kg	
		Dibenz(a,h)anthracene	2009/08/12	<0.005		mg/kg	
		Fluoranthene	2009/08/12	<0.005		mg/kg	
		Fluorene	2009/08/12	<0.005		mg/kg	

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QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1901718	SOD	Method Blank	Indeno(1,2,3-cd)pyrene	2009/08/12	<0.005	mg/kg		
			Naphthalene	2009/08/12	<0.005	mg/kg		
			Perylene	2009/08/12	<0.005	mg/kg		
			Phenanthrene	2009/08/12	<0.005	mg/kg		
			Pyrene	2009/08/12	<0.005	mg/kg		
		RPD [DG6974-01]	1-Methylnaphthalene	2009/08/12	NC	%		50
			2-Methylnaphthalene	2009/08/12	NC	%		50
			Acenaphthene	2009/08/12	NC	%		50
			Acenaphthylene	2009/08/12	NC (3)	%		50
			Anthracene	2009/08/12	NC	%		50
			Benzo(a)anthracene	2009/08/12	NC	%		50
			Benzo(a)pyrene	2009/08/12	NC	%		50
			Benzo(b)fluoranthene	2009/08/12	NC	%		50
			Benzo(g,h,i)perylene	2009/08/12	NC	%		50
			Benzo(k)fluoranthene	2009/08/12	NC	%		50
			Chrysene	2009/08/12	NC (3)	%		50
			Dibenz(a,h)anthracene	2009/08/12	NC	%		50
			Fluoranthene	2009/08/12	NC	%		50
			Fluorene	2009/08/12	NC	%		50
			Indeno(1,2,3-cd)pyrene	2009/08/12	NC	%		50
			Naphthalene	2009/08/12	NC	%		50
			Perylene	2009/08/12	NC	%		50
			Phenanthrene	2009/08/12	NC	%		50
			Pyrene	2009/08/12	NC (3)	%		50
1901991	CMI	Matrix Spike	Decachlorobiphenyl	2009/08/12		95	%	30 - 130
			Total PCB	2009/08/12		85	%	30 - 130
		Spiked Blank	Decachlorobiphenyl	2009/08/12		92	%	30 - 130
			Total PCB	2009/08/12		112	%	30 - 130
		Method Blank	Decachlorobiphenyl	2009/08/12		93	%	30 - 130
			Total PCB	2009/08/12	<1		mg/kg	
		RPD	Total PCB	2009/08/12	NC		%	50
1902006	ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/08/11		77	%	60 - 140
			Benzene	2009/08/11		78	%	60 - 140
			Toluene	2009/08/11		103	%	60 - 140
			Ethylbenzene	2009/08/11		95	%	60 - 140
			Xylene (Total)	2009/08/11		107	%	60 - 140
		Spiked Blank	Isobutylbenzene - Volatile	2009/08/10		99	%	60 - 140
			Benzene	2009/08/10		95	%	60 - 140
			Toluene	2009/08/10		99	%	60 - 140
			Ethylbenzene	2009/08/10		97	%	60 - 140
			Xylene (Total)	2009/08/10		103	%	60 - 140
		Method Blank	Isobutylbenzene - Volatile	2009/08/10		100	%	60 - 140
			Benzene	2009/08/10	<0.03		mg/kg	
			Toluene	2009/08/10	<0.03		mg/kg	
			Ethylbenzene	2009/08/10	<0.03		mg/kg	
			Xylene (Total)	2009/08/10	<0.05		mg/kg	
			C6 - C10 (less BTEX)	2009/08/10	<3		mg/kg	
		RPD	Benzene	2009/08/11	NC		%	50
			Toluene	2009/08/11	NC		%	50
			Ethylbenzene	2009/08/11	NC		%	50
			Xylene (Total)	2009/08/11	NC		%	50
			C6 - C10 (less BTEX)	2009/08/11	NC		%	50
1902011	ASL	Spiked Blank	Isobutylbenzene - Volatile	2009/08/10		89	%	60 - 140
			Benzene	2009/08/10		85	%	60 - 140
			Toluene	2009/08/10		87	%	60 - 140

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Quality Assurance Report (Continued)

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902011 ASL	Spiked Blank	Ethylbenzene	2009/08/10		84	%	60 - 140
		Xylene (Total)	2009/08/10		90	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/10		100	%	60 - 140
		Benzene	2009/08/10	<0.03		mg/kg	
		Toluene	2009/08/10	<0.03		mg/kg	
		Ethylbenzene	2009/08/10	<0.03		mg/kg	
		Xylene (Total)	2009/08/10	<0.05		mg/kg	
		Aliphatic >C6-C8	2009/08/10	<0.2 (4)		mg/kg	
		Aliphatic >C8-C10	2009/08/10	<0.4		mg/kg	
		>C8-C10 Aromatics (-EX)	2009/08/10	<0.1		mg/kg	
1902226 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/10		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/10		85	%	75 - 125
		Available Arsenic (As)	2009/08/10		NC	%	75 - 125
		Available Barium (Ba)	2009/08/10		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/10		102	%	75 - 125
		Available Bismuth (Bi)	2009/08/10		100	%	75 - 125
		Available Boron (B)	2009/08/10		88	%	75 - 125
		Available Cadmium (Cd)	2009/08/10		91	%	75 - 125
		Available Chromium (Cr)	2009/08/10		99	%	75 - 125
		Available Cobalt (Co)	2009/08/10		99	%	75 - 125
		Available Copper (Cu)	2009/08/10		NC	%	75 - 125
		Available Iron (Fe)	2009/08/10		NC	%	75 - 125
		Available Lithium (Li)	2009/08/10		90	%	75 - 125
		Available Manganese (Mn)	2009/08/10		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/10		106	%	75 - 125
		Available Molybdenum (Mo)	2009/08/10		NC	%	75 - 125
		Available Nickel (Ni)	2009/08/10		98	%	75 - 125
		Available Rubidium (Rb)	2009/08/10		90	%	75 - 125
		Available Selenium (Se)	2009/08/10		82	%	75 - 125
		Available Silver (Ag)	2009/08/10		NC	%	75 - 125
		Available Strontium (Sr)	2009/08/10		91	%	75 - 125
		Available Thallium (Tl)	2009/08/10		99	%	75 - 125
		Available Tin (Sn)	2009/08/10		96	%	75 - 125
		Available Uranium (U)	2009/08/10		101	%	75 - 125
		Available Vanadium (V)	2009/08/10		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/10		NC	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/10		74 (5)	%	75 - 125
		Available Arsenic (As)	2009/08/10		96	%	75 - 125
		Available Barium (Ba)	2009/08/10		93	%	75 - 125
		Available Chromium (Cr)	2009/08/10		79	%	75 - 125
		Available Cobalt (Co)	2009/08/10		86	%	75 - 125
		Available Copper (Cu)	2009/08/10		85	%	75 - 125
		Available Iron (Fe)	2009/08/10		84	%	75 - 125
		Available Lead (Pb)	2009/08/10		92	%	75 - 125
		Available Manganese (Mn)	2009/08/10		92	%	75 - 125
		Available Nickel (Ni)	2009/08/10		88	%	75 - 125
	Spiked Blank	Available Strontium (Sr)	2009/08/10		81	%	75 - 125
		Available Vanadium (V)	2009/08/10		92	%	75 - 125
		Available Zinc (Zn)	2009/08/10		93	%	75 - 125
		Available Aluminum (Al)	2009/08/10		103	%	75 - 125
		Available Antimony (Sb)	2009/08/10		96	%	75 - 125
		Available Arsenic (As)	2009/08/10		96	%	75 - 125
		Available Barium (Ba)	2009/08/10		98	%	75 - 125
		Available Beryllium (Be)	2009/08/10		98	%	75 - 125
		Available Bismuth (Bi)	2009/08/10		105	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
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P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

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QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1902226 KGU	Spiked Blank	Available Boron (B)	2009/08/10		94	%	75 - 125	
		Available Cadmium (Cd)	2009/08/10		91	%	75 - 125	
		Available Chromium (Cr)	2009/08/10		106	%	75 - 125	
		Available Cobalt (Co)	2009/08/10		101	%	75 - 125	
		Available Copper (Cu)	2009/08/10		101	%	75 - 125	
		Available Iron (Fe)	2009/08/10		107	%	75 - 125	
		Available Lead (Pb)	2009/08/10		103	%	75 - 125	
		Available Lithium (Li)	2009/08/10		93	%	75 - 125	
		Available Manganese (Mn)	2009/08/10		104	%	75 - 125	
		Available Mercury (Hg)	2009/08/10		117	%	75 - 125	
		Available Molybdenum (Mo)	2009/08/10		93	%	75 - 125	
		Available Nickel (Ni)	2009/08/10		100	%	75 - 125	
		Available Rubidium (Rb)	2009/08/10		92	%	75 - 125	
		Available Selenium (Se)	2009/08/10		92	%	75 - 125	
		Available Silver (Ag)	2009/08/10		99	%	75 - 125	
		Available Strontium (Sr)	2009/08/10		100	%	75 - 125	
		Available Thallium (Tl)	2009/08/10		99	%	75 - 125	
		Available Tin (Sn)	2009/08/10		96	%	75 - 125	
		Available Uranium (U)	2009/08/10		102	%	75 - 125	
		Available Vanadium (V)	2009/08/10		114	%	75 - 125	
		Available Zinc (Zn)	2009/08/10		91	%	75 - 125	
	Method Blank	Available Aluminum (Al)	2009/08/10	<10			mg/kg	
		Available Antimony (Sb)	2009/08/10	<2			mg/kg	
		Available Arsenic (As)	2009/08/10	<2			mg/kg	
		Available Barium (Ba)	2009/08/10	<5			mg/kg	
		Available Beryllium (Be)	2009/08/10	<2			mg/kg	
		Available Bismuth (Bi)	2009/08/10	<2			mg/kg	
		Available Boron (B)	2009/08/10	<5			mg/kg	
		Available Cadmium (Cd)	2009/08/10	<0.3			mg/kg	
		Available Chromium (Cr)	2009/08/10	<2			mg/kg	
		Available Cobalt (Co)	2009/08/10	<1			mg/kg	
		Available Copper (Cu)	2009/08/10	<2			mg/kg	
		Available Iron (Fe)	2009/08/10	<50			mg/kg	
		Available Lead (Pb)	2009/08/10	<0.5			mg/kg	
		Available Lithium (Li)	2009/08/10	<2			mg/kg	
		Available Manganese (Mn)	2009/08/10	<2			mg/kg	
		Available Mercury (Hg)	2009/08/10	<0.1			mg/kg	
		Available Molybdenum (Mo)	2009/08/10	<2			mg/kg	
		Available Nickel (Ni)	2009/08/10	<2			mg/kg	
		Available Rubidium (Rb)	2009/08/10	<2			mg/kg	
		Available Selenium (Se)	2009/08/10	<2			mg/kg	
		Available Silver (Ag)	2009/08/10	<0.5			mg/kg	
		Available Strontium (Sr)	2009/08/10	<5			mg/kg	
		Available Thallium (Tl)	2009/08/10	<0.1			mg/kg	
		Available Tin (Sn)	2009/08/10	<2			mg/kg	
		Available Uranium (U)	2009/08/10	<0.1			mg/kg	
		Available Vanadium (V)	2009/08/10	<2			mg/kg	
		Available Zinc (Zn)	2009/08/10	<5			mg/kg	
RPD		Available Aluminum (Al)	2009/08/10	9.0			%	35
		Available Antimony (Sb)	2009/08/10	NC			%	35
		Available Arsenic (As)	2009/08/10	5.1			%	35
		Available Barium (Ba)	2009/08/10	8.7			%	35
		Available Beryllium (Be)	2009/08/10	NC			%	35
		Available Bismuth (Bi)	2009/08/10	NC			%	35
		Available Boron (B)	2009/08/10	NC			%	35

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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902226 KGU	RPD	Available Cadmium (Cd)	2009/08/10	52.0 (6)		%	35
		Available Chromium (Cr)	2009/08/10	NC		%	35
		Available Cobalt (Co)	2009/08/10	NC		%	35
		Available Copper (Cu)	2009/08/10	7.7		%	35
		Available Iron (Fe)	2009/08/10	4.7		%	35
		Available Lead (Pb)	2009/08/10	24.3		%	35
		Available Lithium (Li)	2009/08/10	NC		%	35
		Available Manganese (Mn)	2009/08/10	3.0		%	35
		Available Mercury (Hg)	2009/08/10	NC (6)		%	35
		Available Molybdenum (Mo)	2009/08/10	27.1		%	35
		Available Nickel (Ni)	2009/08/10	NC		%	35
		Available Rubidium (Rb)	2009/08/10	NC		%	35
		Available Selenium (Se)	2009/08/10	NC		%	35
		Available Silver (Ag)	2009/08/10	NC		%	35
		Available Strontium (Sr)	2009/08/10	NC		%	35
		Available Thallium (Tl)	2009/08/10	15.9		%	35
		Available Tin (Sn)	2009/08/10	NC		%	35
		Available Uranium (U)	2009/08/10	23.5		%	35
		Available Vanadium (V)	2009/08/10	10.4		%	35
		Available Zinc (Zn)	2009/08/10	46.9 (6)		%	35
1902927 MSK	Matrix Spike	4-Bromofluorobenzene	2009/08/13		128	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/13		110	%	60 - 140
		D8-Toluene	2009/08/13		114	%	60 - 140
		1,1,1-Trichloroethane	2009/08/13		89	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/08/13		NC	%	60 - 140
		1,1,2-Trichloroethane	2009/08/13		67	%	60 - 140
		1,1-Dichloroethane	2009/08/13		91	%	60 - 140
		1,1-Dichloroethylene	2009/08/13		91	%	60 - 140
		1,2-Dichlorobenzene	2009/08/13		85	%	60 - 140
		1,2-Dichloroethane	2009/08/13		89	%	60 - 140
		1,2-Dichloropropane	2009/08/13		89	%	60 - 140
		1,3-Dichlorobenzene	2009/08/13		65	%	60 - 140
		1,4-Dichlorobenzene	2009/08/13		81	%	60 - 140
		Benzene	2009/08/13		88	%	60 - 140
		Bromodichloromethane	2009/08/13		75	%	60 - 140
		Bromoform	2009/08/13		53 (7)	%	60 - 140
		Bromomethane	2009/08/13		81	%	60 - 140
		Carbon Tetrachloride	2009/08/13		83	%	60 - 140
		Chlorobenzene	2009/08/13		89	%	60 - 140
		Chloroform	2009/08/13		95	%	60 - 140
		Chloromethane	2009/08/13		75	%	60 - 140
		cis-1,2-Dichloroethylene	2009/08/13		92	%	60 - 140
		cis-1,3-Dichloropropene	2009/08/13		71	%	60 - 140
		Dibromochloromethane	2009/08/13		65	%	60 - 140
		Ethylbenzene	2009/08/13		87	%	60 - 140
		Ethylene Dibromide	2009/08/13		84	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/08/13		99	%	60 - 140
		o-Xylene	2009/08/13		90	%	60 - 140
		p+m-Xylene	2009/08/13		94	%	60 - 140
		Styrene	2009/08/13		82	%	60 - 140
		Tetrachloroethylene	2009/08/13		91	%	60 - 140
		Toluene	2009/08/13		87	%	60 - 140
		trans-1,2-Dichloroethylene	2009/08/13		91	%	60 - 140
		trans-1,3-Dichloropropene	2009/08/13		59 (7)	%	60 - 140
		Trichloroethylene	2009/08/13		91	%	60 - 140

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902927 MSK	Matrix Spike	Trichlorofluoromethane (FREON 11)	2009/08/13		91	%	60 - 140
		Vinyl Chloride	2009/08/13		71	%	60 - 140
	Spiked Blank	4-Bromofluorobenzene	2009/08/13		122	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/13		118	%	60 - 140
		D8-Toluene	2009/08/13		120	%	60 - 140
		1,1,1-Trichloroethane	2009/08/13		95	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/08/13		84	%	60 - 140
		1,1,2-Trichloroethane	2009/08/13		97	%	60 - 140
		1,1-Dichloroethane	2009/08/13		97	%	60 - 140
		1,1-Dichloroethylene	2009/08/13		96	%	60 - 140
		1,2-Dichlorobenzene	2009/08/13		90	%	60 - 140
		1,2-Dichloroethane	2009/08/13		96	%	60 - 140
		1,2-Dichloropropane	2009/08/13		95	%	60 - 140
		1,3-Dichlorobenzene	2009/08/13		90	%	60 - 140
		1,4-Dichlorobenzene	2009/08/13		88	%	60 - 140
		Benzene	2009/08/13		95	%	60 - 140
		Bromodichloromethane	2009/08/13		84	%	60 - 140
		Bromoform	2009/08/13		66	%	60 - 140
		Bromomethane	2009/08/13		99	%	60 - 140
		Carbon Tetrachloride	2009/08/13		89	%	60 - 140
		Chlorobenzene	2009/08/13		95	%	60 - 140
		Chloroform	2009/08/13		98	%	60 - 140
		Chloromethane	2009/08/13		83	%	60 - 140
		cis-1,2-Dichloroethylene	2009/08/13		98	%	60 - 140
		cis-1,3-Dichloropropene	2009/08/13		77	%	60 - 140
		Dibromochloromethane	2009/08/13		76	%	60 - 140
		Ethylbenzene	2009/08/13		90	%	60 - 140
		Ethylene Dibromide	2009/08/13		92	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/08/13		106	%	60 - 140
		o-Xylene	2009/08/13		94	%	60 - 140
		p+m-Xylene	2009/08/13		97	%	60 - 140
		Styrene	2009/08/13		96	%	60 - 140
		Tetrachloroethylene	2009/08/13		95	%	60 - 140
		Toluene	2009/08/13		95	%	60 - 140
		trans-1,2-Dichloroethylene	2009/08/13		95	%	60 - 140
		trans-1,3-Dichloropropene	2009/08/13		64	%	60 - 140
		Trichloroethylene	2009/08/13		98	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/08/13		97	%	60 - 140
		Vinyl Chloride	2009/08/13		76	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/08/12		118	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/12		118	%	60 - 140
		D8-Toluene	2009/08/12		115	%	60 - 140
		1,1,1-Trichloroethane	2009/08/12	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/08/12	<30		ug/kg	
		1,1,2-Trichloroethane	2009/08/12	<30		ug/kg	
		1,1-Dichloroethane	2009/08/12	<30		ug/kg	
		1,1-Dichloroethylene	2009/08/12	<30		ug/kg	
		1,2-Dichlorobenzene	2009/08/12	<30		ug/kg	
		1,2-Dichloroethane	2009/08/12	<30		ug/kg	
		1,2-Dichloropropane	2009/08/12	<30		ug/kg	
		1,3-Dichlorobenzene	2009/08/12	<30		ug/kg	
		1,4-Dichlorobenzene	2009/08/12	<30		ug/kg	
		Benzene	2009/08/12	<30		ug/kg	
		Bromodichloromethane	2009/08/12	<30		ug/kg	
		Bromoform	2009/08/12	<30		ug/kg	

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Quality Assurance Report (Continued)

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1902927 MSK	Method Blank	Bromomethane	2009/08/12	<200		ug/kg	
		Carbon Tetrachloride	2009/08/12	<30		ug/kg	
		Chlorobenzene	2009/08/12	<30		ug/kg	
		Chloroform	2009/08/12	<30		ug/kg	
		Chloromethane	2009/08/12	<30		ug/kg	
		cis-1,2-Dichloroethylene	2009/08/12	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/08/12	<30		ug/kg	
		Dibromochloromethane	2009/08/12	<30		ug/kg	
		Ethylbenzene	2009/08/12	<30		ug/kg	
		Ethylene Dibromide	2009/08/12	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/08/12	<30		ug/kg	
		o-Xylene	2009/08/12	<30		ug/kg	
		p+m-Xylene	2009/08/12	<30		ug/kg	
		Styrene	2009/08/12	<30		ug/kg	
		Tetrachloroethylene	2009/08/12	<30		ug/kg	
		Toluene	2009/08/12	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/08/12	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/08/12	<30		ug/kg	
		Trichloroethylene	2009/08/12	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/08/12	<30		ug/kg	
		Vinyl Chloride	2009/08/12	<30		ug/kg	
	RPD	1,1,1-Trichloroethane	2009/08/13	NC		%	50
		1,1,2,2-Tetrachloroethane	2009/08/13	NC (B)		%	50
		1,1,2-Trichloroethane	2009/08/13	NC (B)		%	50
		1,1-Dichloroethane	2009/08/13	NC		%	50
		1,1-Dichloroethylene	2009/08/13	NC		%	50
		1,2-Dichlorobenzene	2009/08/13	NC		%	50
		1,2-Dichloroethane	2009/08/13	NC		%	50
		1,2-Dichloropropane	2009/08/13	NC		%	50
		1,3-Dichlorobenzene	2009/08/13	NC		%	50
		1,4-Dichlorobenzene	2009/08/13	NC		%	50
		Benzene	2009/08/13	NC		%	50
		Bromodichloromethane	2009/08/13	NC		%	50
		Bromoform	2009/08/13	NC		%	50
		Bromomethane	2009/08/13	NC		%	50
		Carbon Tetrachloride	2009/08/13	NC		%	50
		Chlorobenzene	2009/08/13	NC		%	50
		Chloroform	2009/08/13	NC		%	50
		Chloromethane	2009/08/13	NC		%	50
		cis-1,2-Dichloroethylene	2009/08/13	NC		%	50
		cis-1,3-Dichloropropene	2009/08/13	NC		%	50
		Dibromochloromethane	2009/08/13	NC		%	50
		Ethylbenzene	2009/08/13	NC		%	50
		Ethylene Dibromide	2009/08/13	NC		%	50
		Methylene Chloride(Dichloromethane)	2009/08/13	NC		%	50
		o-Xylene	2009/08/13	NC		%	50
		p+m-Xylene	2009/08/13	NC		%	50
		Styrene	2009/08/13	NC		%	50
		Tetrachloroethylene	2009/08/13	NC		%	50
		Toluene	2009/08/13	NC		%	50
		trans-1,2-Dichloroethylene	2009/08/13	NC		%	50
		trans-1,3-Dichloropropene	2009/08/13	NC		%	50
		Trichloroethylene	2009/08/13	NC		%	50
		Trichlorofluoromethane (FREON 11)	2009/08/13	NC		%	50
		Vinyl Chloride	2009/08/13	NC		%	50

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903162 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/11		99	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		92	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		89	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		95	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/11		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		88	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11		99	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/11		107	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/11		93	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/11		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/11	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/11	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/11	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/11	NC		%	50
1903299 KKE	Spiked Blank	Aliphatic >C10-C12	2009/08/13		95	%	30 - 130
		Aliphatic >C12-C16	2009/08/13		94	%	30 - 130
		Aliphatic >C16-C21	2009/08/13		101	%	30 - 130
		Aliphatic >C21-<C32	2009/08/13		105	%	30 - 130
		Aromatic >C10-C12	2009/08/13		110	%	30 - 130
		Aromatic >C12-C16	2009/08/13		103	%	30 - 130
		Aromatic >C16-C21	2009/08/13		106	%	30 - 130
		Aromatic >C21-<C32	2009/08/13		104	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/13		106	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/13		96	%	30 - 130
		Aliphatic >C10-C12	2009/08/13	<8.0		mg/kg	
		Aliphatic >C12-C16	2009/08/13	<15		mg/kg	
		Aliphatic >C16-C21	2009/08/13	<15		mg/kg	
		Aliphatic >C21-<C32	2009/08/13	<15		mg/kg	
		Aromatic >C10-C12	2009/08/13	14, RDL=4.0 (9)		mg/kg	
		Aromatic >C12-C16	2009/08/13	<15		mg/kg	
		Aromatic >C16-C21	2009/08/13	<15		mg/kg	
		Aromatic >C21-<C32	2009/08/13	<15		mg/kg	
	RPD	Aliphatic >C10-C12	2009/08/13	14.4		%	50
		Aliphatic >C12-C16	2009/08/13	14.5		%	50
		Aliphatic >C16-C21	2009/08/13	15.5		%	50
		Aliphatic >C21-<C32	2009/08/13	13.4		%	50
		Aromatic >C10-C12	2009/08/13	16.0		%	50
		Aromatic >C12-C16	2009/08/13	13.8		%	50
		Aromatic >C16-C21	2009/08/13	3.9		%	50
		Aromatic >C21-<C32	2009/08/13	0.5		%	50
	Matrix Spike	Available Aluminum (Al)	2009/08/11		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/11		92	%	75 - 125
		Available Arsenic (As)	2009/08/11		99	%	75 - 125
		Available Barium (Ba)	2009/08/11		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/11		100	%	75 - 125
		Available Bismuth (Bi)	2009/08/11		103	%	75 - 125
		Available Boron (B)	2009/08/11		106	%	75 - 125
		Available Cadmium (Cd)	2009/08/11		97	%	75 - 125
		Available Chromium (Cr)	2009/08/11		105	%	75 - 125
		Available Cobalt (Co)	2009/08/11		104	%	75 - 125
1903582 MPT	Matrix Spike	Available Copper (Cu)	2009/08/11		NC	%	75 - 125
		Available Iron (Fe)	2009/08/11		NC	%	75 - 125
		Available Lead (Pb)	2009/08/11		NC	%	75 - 125
		Available Lithium (Li)	2009/08/11		101	%	75 - 125
		Available Manganese (Mn)	2009/08/11		NC	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA998642

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903582 MPT	Matrix Spike	Available Mercury (Hg)	2009/08/11		107	%	75 - 125
		Available Molybdenum (Mo)	2009/08/11		99	%	75 - 125
		Available Nickel (Ni)	2009/08/11		101	%	75 - 125
		Available Rubidium (Rb)	2009/08/11		102	%	75 - 125
		Available Selenium (Se)	2009/08/11		89	%	75 - 125
		Available Silver (Ag)	2009/08/11		104	%	75 - 125
		Available Strontium (Sr)	2009/08/11		92	%	75 - 125
		Available Thallium (Tl)	2009/08/11		102	%	75 - 125
		Available Tin (Sn)	2009/08/11		98	%	75 - 125
		Available Uranium (U)	2009/08/11		104	%	75 - 125
	QC Standard	Available Vanadium (V)	2009/08/11		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/11		94	%	75 - 125
		Available Aluminum (Al)	2009/08/11		85	%	75 - 125
		Available Arsenic (As)	2009/08/11		109	%	75 - 125
		Available Barium (Ba)	2009/08/11		104	%	75 - 125
		Available Chromium (Cr)	2009/08/11		90	%	75 - 125
		Available Cobalt (Co)	2009/08/11		100	%	75 - 125
		Available Copper (Cu)	2009/08/11		97	%	75 - 125
		Available Iron (Fe)	2009/08/11		92	%	75 - 125
		Available Lead (Pb)	2009/08/11		105	%	75 - 125
	Spiked Blank	Available Manganese (Mn)	2009/08/11		100	%	75 - 125
		Available Nickel (Ni)	2009/08/11		103	%	75 - 125
		Available Strontium (Sr)	2009/08/11		91	%	75 - 125
		Available Vanadium (V)	2009/08/11		105	%	75 - 125
		Available Zinc (Zn)	2009/08/11		104	%	75 - 125
		Available Aluminum (Al)	2009/08/11		107	%	75 - 125
		Available Antimony (Sb)	2009/08/11		103	%	75 - 125
		Available Arsenic (As)	2009/08/11		98	%	75 - 125
		Available Barium (Ba)	2009/08/11		101	%	75 - 125
		Available Beryllium (Be)	2009/08/11		106	%	75 - 125
	Method Blank	Available Bismuth (Bi)	2009/08/11		109	%	75 - 125
		Available Boron (B)	2009/08/11		105	%	75 - 125
		Available Cadmium (Cd)	2009/08/11		96	%	75 - 125
		Available Chromium (Cr)	2009/08/11		114	%	75 - 125
		Available Cobalt (Co)	2009/08/11		110	%	75 - 125
		Available Copper (Cu)	2009/08/11		111	%	75 - 125
		Available Iron (Fe)	2009/08/11		107	%	75 - 125
		Available Lead (Pb)	2009/08/11		111	%	75 - 125
		Available Lithium (Li)	2009/08/11		103	%	75 - 125
		Available Manganese (Mn)	2009/08/11		106	%	75 - 125
		Available Mercury (Hg)	2009/08/11		110	%	75 - 125
		Available Molybdenum (Mo)	2009/08/11		100	%	75 - 125
		Available Nickel (Ni)	2009/08/11		109	%	75 - 125
		Available Rubidium (Rb)	2009/08/11		102	%	75 - 125
		Available Selenium (Se)	2009/08/11		100	%	75 - 125
		Available Silver (Ag)	2009/08/11		107	%	75 - 125
		Available Strontium (Sr)	2009/08/11		108	%	75 - 125
		Available Thallium (Tl)	2009/08/11		110	%	75 - 125
		Available Tin (Sn)	2009/08/11		103	%	75 - 125
		Available Uranium (U)	2009/08/11		108	%	75 - 125
	Method Blank	Available Vanadium (V)	2009/08/11		118	%	75 - 125
		Available Zinc (Zn)	2009/08/11		96	%	75 - 125
		Available Aluminum (Al)	2009/08/11	<10		mg/kg	
		Available Antimony (Sb)	2009/08/11	<2		mg/kg	
		Available Arsenic (As)	2009/08/11	<2		mg/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA998642

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1903582 MPT	Method Blank	Available Barium (Ba)	2009/08/11	<5		mg/kg	
		Available Beryllium (Be)	2009/08/11	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/11	<2		mg/kg	
		Available Boron (B)	2009/08/11	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/11	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/11	<2		mg/kg	
		Available Cobalt (Co)	2009/08/11	<1		mg/kg	
		Available Copper (Cu)	2009/08/11	<2		mg/kg	
		Available Iron (Fe)	2009/08/11	<50		mg/kg	
		Available Lead (Pb)	2009/08/11	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/11	<2		mg/kg	
		Available Manganese (Mn)	2009/08/11	<2		mg/kg	
		Available Mercury (Hg)	2009/08/11	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/11	<2		mg/kg	
		Available Nickel (Ni)	2009/08/11	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/11	<2		mg/kg	
		Available Selenium (Se)	2009/08/11	<2		mg/kg	
		Available Silver (Ag)	2009/08/11	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/11	<5		mg/kg	
		Available Thallium (Tl)	2009/08/11	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/11	<2		mg/kg	
		Available Uranium (U)	2009/08/11	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/11	<2		mg/kg	
		Available Zinc (Zn)	2009/08/11	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/11	10.1		%	35
		Available Antimony (Sb)	2009/08/11	NC		%	35
		Available Arsenic (As)	2009/08/11	NC		%	35
		Available Barium (Ba)	2009/08/11	26.3 (6)		%	35
		Available Beryllium (Be)	2009/08/11	NC		%	35
		Available Bismuth (Bi)	2009/08/11	NC		%	35
		Available Boron (B)	2009/08/11	NC		%	35
		Available Cadmium (Cd)	2009/08/11	NC		%	35
		Available Chromium (Cr)	2009/08/11	NC		%	35
		Available Cobalt (Co)	2009/08/11	NC		%	35
		Available Copper (Cu)	2009/08/11	6.8		%	35
		Available Iron (Fe)	2009/08/11	8.8		%	35
		Available Lead (Pb)	2009/08/11	13.4		%	35
		Available Lithium (Li)	2009/08/11	NC		%	35
		Available Manganese (Mn)	2009/08/11	1.6		%	35
		Available Mercury (Hg)	2009/08/11	NC		%	35
		Available Molybdenum (Mo)	2009/08/11	NC		%	35
		Available Nickel (Ni)	2009/08/11	NC		%	35
		Available Rubidium (Rb)	2009/08/11	NC		%	35
		Available Selenium (Se)	2009/08/11	NC		%	35
		Available Silver (Ag)	2009/08/11	NC		%	35
		Available Strontium (Sr)	2009/08/11	NC		%	35
		Available Thallium (Tl)	2009/08/11	NC		%	35
		Available Tin (Sn)	2009/08/11	NC		%	35
		Available Uranium (U)	2009/08/11	10.1		%	35
		Available Vanadium (V)	2009/08/11	1.0		%	35
		Available Zinc (Zn)	2009/08/11	8.2		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA998642

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

- (1) Duplicate: results are outside acceptance limit due to possible sample in-homogeneity. Analysis was repeated with similar results.
- (2) Matrix Spike: results are outside acceptance limit. Analysis was not repeated, sample was past recommended hold time for repeat analysis.
- (3) Duplicate: results are outside acceptance limit. Sample was past recommended hold time for repeat analysis.
- (4) Elevated VPH RDL(s) due to detected levels in the method blank.
- (5) Secondary RM is acceptable.
- (6) Poor duplicate agreement due to sample inhomogeneity.
- (7) Matrix Spike: < 10 % of compounds in multi-component analysis in violation.
- (8) Elevated VOC RDL(s) due to matrix interference.
- (9) Elevated TEH RDL(s) due to detected levels in the method blank.

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: N/A

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/19

CERTIFICATE OF ANALYSIS**MAXXAM JOB #: A9D1803****Received: 2009/10/02, 9:45**

Sample Matrix: Water
 # Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (PIRI)	5	2009/10/07	2009/10/08	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	1	2009/10/07	2009/10/09	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	1	2009/10/08	2009/10/09	ATL SOP 00113 R3	Based on Atl. PIRI
Metals Water Diss. MS - Low Level	7	N/A	2009/10/09	ATL SOP 00024 R4	Based on EPA6020A
Acridine and Quinoline in Water	7	2009/10/07	2009/10/15	ATL SOP 00103 R3	
PAH in Water by GC/MS (SIM)	7	2009/10/07	2009/10/15	ATL SOP 00103 R3	Based on EPA 8270C
PCBs in water by GC/ECD	7	2009/10/06	2009/10/09	ATL SOP 00107 R3	Based on EPA8082
VPH in Water (PIRI)	6	2009/10/07	2009/10/08	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	1	2009/10/07	2009/10/09	ATL SOP 00118 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	7	N/A	2009/10/09		Based on Atl. PIRI
Volatile Organic Compounds in Water	7	2009/10/08	2009/10/08	ATL SOP 00122 R3	Based on EPA624

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Rob Griffith
 Rob Griffith
 19 Oct 2009 15:23:27 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DX6385	DX6386	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-14	SW-14 Lab-Dup	SW-15	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	131	107	113	126	5.0	1967138
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Barium (Ba)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	1967138
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Boron (B)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	1967138
Dissolved Cadmium (Cd)	ug/L	0.027	<0.017	<0.017	0.039	0.017	1967138
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1967138
Dissolved Cobalt (Co)	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	1967138
Dissolved Copper (Cu)	ug/L	<2.0	<2.0	<2.0	2.9	2.0	1967138
Dissolved Iron (Fe)	ug/L	109	80	97	273	50	1967138
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	1967138
Dissolved Manganese (Mn)	ug/L	3.8	<2.0	<2.0	7.8	2.0	1967138
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Nickel (Ni)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1967138
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1967138
Dissolved Strontium (Sr)	ug/L	19.3	18.0	18.3	20.8	5.0	1967138
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1967138
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Titanium (Ti)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Uranium (U)	ug/L	0.10	0.12	0.12	0.14	0.10	1967138
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Zinc (Zn)	ug/L	16.0	10.3	9.9	35.8	5.0	1967138

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DX6388	DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	SW-118	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	114	128	124	130	5.0	1967138
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Barium (Ba)	ug/L	5.8	<5.0	5.2	5.2	5.0	1967138
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Boron (B)	ug/L	<5.0	5.1	5.1	5.1	5.0	1967138
Dissolved Cadmium (Cd)	ug/L	0.028	0.033	0.029	0.017	0.017	1967138
Dissolved Chromium (Cr)	ug/L	1.0	<1.0	<1.0	<1.0	1.0	1967138
Dissolved Cobalt (Co)	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	1967138
Dissolved Copper (Cu)	ug/L	6.2	2.1	2.7	2.3	2.0	1967138
Dissolved Iron (Fe)	ug/L	290	469	415	431	50	1967138
Dissolved Lead (Pb)	ug/L	<0.50	0.80	0.84	0.79	0.50	1967138
Dissolved Manganese (Mn)	ug/L	6.8	3.9	3.1	3.0	2.0	1967138
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Nickel (Ni)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1967138
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1967138
Dissolved Strontium (Sr)	ug/L	20.5	17.5	18.0	17.9	5.0	1967138
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1967138
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Titanium (Ti)	ug/L	<2.0	2.2	2.7	3.1	2.0	1967138
Dissolved Uranium (U)	ug/L	0.23	0.16	0.17	0.17	0.10	1967138
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1967138
Dissolved Zinc (Zn)	ug/L	14.3	9.3	11.1	13.3	5.0	1967138

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		DX6385	DX6386	DX6387	DX6388		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-14	SW-15	SW-16	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1963701
2-Methylnaphthalene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1963701
Acenaphthene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Acenaphthylene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Acridine	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1963687
Anthracene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Benzo(a)anthracene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Benzo(b)fluoranthene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Benzo(g,h,i)perylene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Benzo(k)fluoranthene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Chrysene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Dibenz(a,h)anthracene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Fluoranthene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Fluorene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	1963701
Perylene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Phenanthrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1963701
Quinoline	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1963687
Surrogate Recovery (%)							
D10-Anthracene	%	81	86	45	84		1963687
D8-Acenaphthylene	%	74	75	58	75		1963687
D10-Anthracene	%	80	89	42 (1)	84		1963701
D14-Terphenyl	%	81 (2)	90	85	89 (2)		1963701
D8-Acenaphthylene	%	75	77	60	76		1963701

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) PAH surrogate(s) not within acceptance limits. Sample past recommended hold time for repeat analysis.

(2) PAH sample contained sediment.

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A		
	Units	SW-17	SW-18	SW-118	RDL	QC Batch

Polyaromatic Hydrocarbons						
1-Methylnaphthalene	ug/L	<0.05	<0.05	<0.05	0.05	1963701
2-Methylnaphthalene	ug/L	<0.05	<0.05	<0.05	0.05	1963701
Acenaphthene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Acenaphthylene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Acridine	ug/L	<0.05	<0.05	<0.05	0.05	1963687
Anthracene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Benzo(a)anthracene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Benzo(b)fluoranthene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Benzo(g,h,i)perylene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Benzo(k)fluoranthene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Chrysene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Dibenz(a,h)anthracene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Fluoranthene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Fluorene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Naphthalene	ug/L	<0.2	<0.2	<0.2	0.2	1963701
Perylene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Phenanthrene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Pyrene	ug/L	<0.01	<0.01	<0.01	0.01	1963701
Quinoline	ug/L	<0.05	<0.05	<0.05	0.05	1963687
Surrogate Recovery (%)						
D10-Anthracene	%	80	78	85		1963687
D8-Acenaphthylene	%	65	65	62		1963687
D10-Anthracene	%	91	80	85		1963701
D14-Terphenyl	%	81 (1)	80 (1)	86 (1)		1963701
D8-Acenaphthylene	%	72	65	69		1963701

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PAH sample contained sediment.

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DX6385	DX6385	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-13 Lab-Dup	SW-14	SW-15	RDL	QC Batch

Chlorobenzenes							
1,2-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
Chlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
Volatile Organics							
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1,2,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1-Dichloroethane	ug/L	<2	<2	<2	<2	2	1965301
1,1-Dichloroethylene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	1	1965301
Benzene	ug/L	<1	<1	<1	<1	1	1965301
Bromodichloromethane	ug/L	<1	<1	<1	<1	1	1965301
Bromoform	ug/L	<1	<1	<1	<1	1	1965301
Bromomethane	ug/L	<3	<3	<3	<3	3	1965301
Carbon Tetrachloride	ug/L	<1	<1	<1	<1	1	1965301
Chloroethane	ug/L	<8	<8	<8	<8	8	1965301
Chloroform	ug/L	<1	<1	<1	<1	1	1965301
Chloromethane	ug/L	<8	<8	<8	<8	8	1965301
cis-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1965301
cis-1,3-Dichloropropene	ug/L	<2	<2	<2	<2	2	1965301
Dibromochloromethane	ug/L	<1	<1	<1	<1	1	1965301
Ethylbenzene	ug/L	<1	<1	<1	<1	1	1965301
Ethylene Dibromide	ug/L	<1	<1	<1	<1	1	1965301
Methylene Chloride(Dichloromethane)	ug/L	<3	<3	<3	<3	3	1965301
o-Xylene	ug/L	<1	<1	<1	<1	1	1965301
p+m-Xylene	ug/L	2	<2	<2	2	2	1965301
Styrene	ug/L	<1	<1	<1	<1	1	1965301
Tetrachloroethylene	ug/L	<1	<1	<1	<1	1	1965301

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DX6385	DX6385	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-13 Lab-Dup	SW-14	SW-15	RDL	QC Batch

Toluene	ug/L	3	2	2	3	1	1965301
trans-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1965301
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	1	1965301
Trichloroethylene	ug/L	<1	<1	<1	<1	1	1965301
Trichlorofluoromethane (FREON 11)	ug/L	<8	<8	<8	<8	8	1965301
Vinyl Chloride	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	98	97	96	98		1965301
D4-1,2-Dichloroethane	%	102	100	103	102		1965301
D8-Toluene	%	97	97	97	95		1965301

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DX6388	DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	SW-118	RDL	QC Batch
Chlorobenzenes							
1,2-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
1,3-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
1,4-Dichlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
Chlorobenzene	ug/L	<1	<1	<1	<1	1	1965301
Volatile Organics							
1,1,1-Trichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1,1,2-Tetrachloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,1-Dichloroethane	ug/L	<2	<2	<2	<2	2	1965301
1,1-Dichloroethylene	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
1,2-Dichloroethane	ug/L	<1	<1	<1	<1	1	1965301
1,2-Dichloropropane	ug/L	<1	<1	<1	<1	1	1965301
Benzene	ug/L	<1	<1	<1	<1	1	1965301
Bromodichloromethane	ug/L	<1	<1	<1	<1	1	1965301
Bromoform	ug/L	<1	<1	<1	<1	1	1965301
Bromomethane	ug/L	<3	<3	<3	<3	3	1965301
Carbon Tetrachloride	ug/L	<1	<1	<1	<1	1	1965301
Chloroethane	ug/L	<8	<8	<8	<8	8	1965301
Chloroform	ug/L	4	<1	<1	<1	1	1965301
Chloromethane	ug/L	<8	<8	<8	<8	8	1965301
cis-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1965301
cis-1,3-Dichloropropene	ug/L	<2	<2	<2	<2	2	1965301
Dibromochloromethane	ug/L	<1	<1	<1	<1	1	1965301
Ethylbenzene	ug/L	<1	<1	<1	<1	1	1965301
Ethylene Dibromide	ug/L	<1	<1	<1	<1	1	1965301
Methylene Chloride(Dichloromethane)	ug/L	<3	<3	<3	<3	3	1965301
o-Xylene	ug/L	<1	<1	<1	<1	1	1965301
p+m-Xylene	ug/L	3	3	3	3	2	1965301
Styrene	ug/L	<1	<1	<1	<1	1	1965301
Tetrachloroethylene	ug/L	<1	<1	<1	<1	1	1965301
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		DX6388	DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	SW-118	RDL	QC Batch
Toluene	ug/L	4	4	4	4	1	1965301
trans-1,2-Dichloroethylene	ug/L	<2	<2	<2	<2	2	1965301
trans-1,3-Dichloropropene	ug/L	<1	<1	<1	<1	1	1965301
Trichloroethylene	ug/L	<1	<1	<1	<1	1	1965301
Trichlorofluoromethane (FREON 11)	ug/L	<8	<8	<8	<8	8	1965301
Vinyl Chloride	ug/L	<0.5	<0.5	<0.5	<0.5	0.5	1965301
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	98	99	98	98		1965301
D4-1,2-Dichloroethane	%	99	104	100	102		1965301
D8-Toluene	%	96	97	97	97		1965301
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DX6385	DX6385	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-13 Lab-Dup	SW-14	SW-15	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001		<0.001	<0.001	0.001	1964043
Toluene	mg/L	0.004		0.004	0.002	0.001	1964043
Ethylbenzene	mg/L	<0.001		<0.001	<0.001	0.001	1964043
Xylene (Total)	mg/L	0.003		0.005	0.002	0.002	1964043
C6 - C10 (less BTEX)	mg/L	<0.01		<0.01	<0.01	0.01	1964043
>C10-C21 Hydrocarbons	mg/L	<0.05	<0.05	<0.05	<0.05	0.05	1964017
>C21-<C32 Hydrocarbons	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	1964017
Modified TPH (Tier1)	mg/L	<0.1		<0.1	<0.1	0.1	1961151
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	101	97	98	109		1964017
n-Dotriacontane - Extractable	%	107	102	98	112		1964017
Isobutylbenzene - Volatile	%	102		112	87		1964043
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DX6388	DX6389	DX6390		
Sampling Date		2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	RDL	QC Batch
Petroleum Hydrocarbons						
Benzene	mg/L	<0.001	<0.001	<0.001	0.001	1964043
Toluene	mg/L	0.004	0.003	0.001	0.001	1964043
Ethylbenzene	mg/L	<0.001	<0.001	<0.001	0.001	1964043
Xylene (Total)	mg/L	0.002	0.002	<0.002	0.002	1964043
C6 - C10 (less BTEX)	mg/L	<0.01	<0.01	<0.01	0.01	1964043
>C10-C21 Hydrocarbons	mg/L	<0.05	<0.05	<0.05	0.05	1964017
>C21-<C32 Hydrocarbons	mg/L	<0.1	<0.1	<0.1	0.1	1964017
Modified TPH (Tier1)	mg/L	<0.1	<0.1	<0.1	0.1	1961151
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	118	111	124		1964017
n-Dotriacontane - Extractable	%	129	115	127		1964017
Isobutylbenzene - Volatile	%	91	79	85		1964043
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DX6391		
Sampling Date		2009/09/27		
COC Number		N/A		
	Units	SW-118	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/L	<0.001	0.001	1964043
Toluene	mg/L	0.005	0.001	1964043
Ethylbenzene	mg/L	<0.001	0.001	1964043
Xylene (Total)	mg/L	0.003	0.002	1964043
C6 - C10 (less BTEX)	mg/L	<0.01	0.01	1964043
>C10-C21 Hydrocarbons	mg/L	<0.05	0.05	1965248
>C21-<C32 Hydrocarbons	mg/L	<0.1	0.1	1965248
Modified TPH (Tier1)	mg/L	<0.1	0.1	1961151
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	103		1965248
n-Dotriacontane - Extractable	%	94		1965248
Isobutylbenzene - Volatile	%	110		1964043

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DX6385	DX6385	DX6386	DX6387		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-13	SW-13 Lab-Dup	SW-14	SW-15	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1962812
Surrogate Recovery (%)							
Decachlorobiphenyl	%	105	95	118	102		1962812
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DX6388	DX6389	DX6390	DX6391		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SW-16	SW-17	SW-18	SW-118	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1962812
Surrogate Recovery (%)							
Decachlorobiphenyl	%	102	103	92	100		1962812
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D1803
Report Date: 2009/10/19

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9D1803

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1962812 CMI	Matrix Spike [DX6387-01]	Decachlorobiphenyl	2009/10/09		107	%	30 - 130	
		Total PCB	2009/10/09		100	%	70 - 130	
	Spiked Blank	Decachlorobiphenyl	2009/10/09		61	%	30 - 130	
		Total PCB	2009/10/09		93	%	70 - 130	
	Method Blank	Decachlorobiphenyl	2009/10/09		52	%	30 - 130	
		Total PCB	2009/10/09	<0.05		ug/L		
	RPD [DX6385-01]	Total PCB	2009/10/09	NC		%	40	
1963687 SOD	Matrix Spike	D10-Anthracene	2009/10/14		80	%	30 - 130	
		D8-Acenaphthylene	2009/10/14		86	%	30 - 130	
		Acridine	2009/10/14		61 (1)	%	30 - 130	
		Quinoline	2009/10/14		36 (1)	%	30 - 130	
	Spiked Blank	D10-Anthracene	2009/10/14		75	%	30 - 130	
		D8-Acenaphthylene	2009/10/14		81	%	30 - 130	
		Acridine	2009/10/14		74	%	30 - 130	
		Quinoline	2009/10/14		47 (2)	%	30 - 130	
	Method Blank	D10-Anthracene	2009/10/14		85	%	30 - 130	
		D8-Acenaphthylene	2009/10/14		76	%	30 - 130	
		Acridine	2009/10/14	<0.05		ug/L		
		Quinoline	2009/10/14	<0.05		ug/L		
	RPD	Acridine	2009/10/14	NC		%	40	
		Quinoline	2009/10/14	NC		%	40	
	1963701 SOD	Matrix Spike	D10-Anthracene	2009/10/14		92	%	30 - 130
			D14-Terphenyl	2009/10/14		77	%	30 - 130
			D8-Acenaphthylene	2009/10/14		78	%	30 - 130
			1-Methylnaphthalene	2009/10/14		73	%	30 - 130
2-Methylnaphthalene			2009/10/14		74	%	30 - 130	
Acenaphthene			2009/10/14		77	%	30 - 130	
Acenaphthylene			2009/10/14		67 (1)	%	30 - 130	
Anthracene			2009/10/14		85	%	30 - 130	
Benzo(a)anthracene			2009/10/14		73	%	30 - 130	
Benzo(a)pyrene			2009/10/14		71	%	30 - 130	
Benzo(b)fluoranthene			2009/10/14		78	%	30 - 130	
Benzo(g,h,i)perylene			2009/10/14		78	%	30 - 130	
Benzo(k)fluoranthene			2009/10/14		78	%	30 - 130	
Chrysene			2009/10/14		96	%	30 - 130	
Dibenz(a,h)anthracene			2009/10/14		73	%	30 - 130	
Fluoranthene			2009/10/14		97	%	30 - 130	
Fluorene			2009/10/14		74	%	30 - 130	
Indeno(1,2,3-cd)pyrene			2009/10/14		61 (1)	%	30 - 130	
Naphthalene			2009/10/14		76	%	30 - 130	
Perylene			2009/10/14		78	%	30 - 130	
Phenanthrene			2009/10/14		82	%	30 - 130	
Pyrene			2009/10/14		96	%	30 - 130	
Spiked Blank		D10-Anthracene	2009/10/14		77	%	30 - 130	
		D14-Terphenyl	2009/10/14		83	%	30 - 130	
		D8-Acenaphthylene	2009/10/14		81	%	30 - 130	
		1-Methylnaphthalene	2009/10/14		73	%	30 - 130	
		2-Methylnaphthalene	2009/10/14		70	%	30 - 130	
		Acenaphthene	2009/10/14		76	%	30 - 130	
		Acenaphthylene	2009/10/14		61	%	30 - 130	
		Anthracene	2009/10/14		73	%	30 - 130	
		Benzo(a)anthracene	2009/10/14		68	%	30 - 130	
		Benzo(a)pyrene	2009/10/14		70	%	30 - 130	
		Benzo(b)fluoranthene	2009/10/14		83	%	30 - 130	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1963701 SOD	Spiked Blank	Benzo(g,h,i)perylene	2009/10/14		74	%	30 - 130
		Benzo(k)fluoranthene	2009/10/14		82	%	30 - 130
		Chrysene	2009/10/14		100	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/14		61	%	30 - 130
		Fluoranthene	2009/10/14		94	%	30 - 130
		Fluorene	2009/10/14		72	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/14		61	%	30 - 130
		Naphthalene	2009/10/14		72	%	30 - 130
		Perylene	2009/10/14		85	%	30 - 130
		Phenanthrene	2009/10/14		81	%	30 - 130
		Pyrene	2009/10/14		95	%	30 - 130
	Method Blank	D10-Anthracene	2009/10/14		81	%	30 - 130
		D14-Terphenyl	2009/10/14		85	%	30 - 130
		D8-Acenaphthylene	2009/10/14		77	%	30 - 130
		1-Methylnaphthalene	2009/10/14	<0.05		ug/L	
		2-Methylnaphthalene	2009/10/14	<0.05		ug/L	
		Acenaphthene	2009/10/14	<0.01		ug/L	
		Acenaphthylene	2009/10/14	<0.01		ug/L	
		Anthracene	2009/10/14	<0.01		ug/L	
		Benzo(a)anthracene	2009/10/14	<0.01		ug/L	
		Benzo(a)pyrene	2009/10/14	<0.01		ug/L	
		Benzo(b)fluoranthene	2009/10/14	<0.01		ug/L	
		Benzo(g,h,i)perylene	2009/10/14	<0.01		ug/L	
		Benzo(k)fluoranthene	2009/10/14	<0.01		ug/L	
		Chrysene	2009/10/14	<0.01		ug/L	
		Dibenz(a,h)anthracene	2009/10/14	<0.01		ug/L	
		Fluoranthene	2009/10/14	<0.01		ug/L	
		Fluorene	2009/10/14	<0.01		ug/L	
		Indeno(1,2,3-cd)pyrene	2009/10/14	<0.01		ug/L	
		Naphthalene	2009/10/14	<0.2		ug/L	
		Perylene	2009/10/14	<0.01		ug/L	
		Phenanthrene	2009/10/14	<0.01		ug/L	
		Pyrene	2009/10/14	<0.01		ug/L	
	RPD	1-Methylnaphthalene	2009/10/14	NC		%	40
		2-Methylnaphthalene	2009/10/14	NC		%	40
		Acenaphthene	2009/10/14	NC		%	40
		Acenaphthylene	2009/10/14	NC		%	40
		Anthracene	2009/10/14	NC		%	40
		Benzo(a)anthracene	2009/10/14	NC		%	40
		Benzo(a)pyrene	2009/10/14	NC		%	40
		Benzo(b)fluoranthene	2009/10/14	NC		%	40
		Benzo(g,h,i)perylene	2009/10/14	NC		%	40
		Benzo(k)fluoranthene	2009/10/14	NC		%	40
		Chrysene	2009/10/14	NC		%	40
		Dibenz(a,h)anthracene	2009/10/14	NC		%	40
		Fluoranthene	2009/10/14	NC		%	40
		Fluorene	2009/10/14	NC		%	40
		Indeno(1,2,3-cd)pyrene	2009/10/14	NC		%	40
		Naphthalene	2009/10/14	NC		%	40
		Perylene	2009/10/14	NC		%	40
		Phenanthrene	2009/10/14	NC		%	40
		Pyrene	2009/10/14	NC		%	40
1964017 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/08		113	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/08		117	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/08		100	%	30 - 130

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1964017 LMU	Matrix Spike	>C21-<C32 Hydrocarbons	2009/10/08		97	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/08		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/08		118	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/08		99	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/08		99	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/08		107	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/08		108	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/08	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/08	<0.1		mg/L	
	RPD [DX6385-01]	>C10-C21 Hydrocarbons	2009/10/09	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/09	NC		%	40
1964043 SHL	Matrix Spike	Isobutylbenzene - Volatile	2009/10/09		91	%	70 - 130
		Benzene	2009/10/09		96	%	70 - 130
		Toluene	2009/10/09		96	%	70 - 130
		Ethylbenzene	2009/10/09		100	%	70 - 130
		Xylene (Total)	2009/10/09		103	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/09		110	%	70 - 130
		Benzene	2009/10/09		88	%	70 - 130
		Toluene	2009/10/09		96	%	70 - 130
		Ethylbenzene	2009/10/09		100	%	70 - 130
		Xylene (Total)	2009/10/09		103	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/08		97	%	70 - 130
		Benzene	2009/10/08	<0.001		mg/L	
		Toluene	2009/10/08	<0.001		mg/L	
		Ethylbenzene	2009/10/08	<0.001		mg/L	
		Xylene (Total)	2009/10/08	<0.002		mg/L	
		C6 - C10 (less BTEX)	2009/10/08	<0.01		mg/L	
	RPD	Benzene	2009/10/08	NC		%	40
		Toluene	2009/10/08	NC		%	40
		Ethylbenzene	2009/10/08	NC		%	40
		Xylene (Total)	2009/10/08	NC		%	40
		C6 - C10 (less BTEX)	2009/10/08	NC		%	40
1965248 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/09		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/09		96	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/09		109	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/09		109	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/09		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/09		109	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/09		103	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/09		97	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/09		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/09		100	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/09	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/09	<0.1		mg/L	
	RPD	>C10-C21 Hydrocarbons	2009/10/09	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/09	NC		%	40
1965301 MSK	Matrix Spike [DX6386-01]	1,2-Dichlorobenzene	2009/10/08		100	%	70 - 130
		1,3-Dichlorobenzene	2009/10/08		95	%	70 - 130
		1,4-Dichlorobenzene	2009/10/08		95	%	70 - 130
		Chlorobenzene	2009/10/08		105	%	70 - 130
		1,1,1-Trichloroethane	2009/10/08		105	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/10/08		111	%	70 - 130
		1,1,2-Trichloroethane	2009/10/08		116	%	70 - 130
		1,1-Dichloroethane	2009/10/08		105	%	70 - 130

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965301 MSK	Matrix Spike [DX6386-01]	1,1-Dichloroethylene	2009/10/08		95	%	70 - 130
		1,2-Dichloroethane	2009/10/08		105	%	70 - 130
		1,2-Dichloropropane	2009/10/08		105	%	70 - 130
		4-Bromofluorobenzene	2009/10/08		102	%	70 - 130
		Benzene	2009/10/08		100	%	70 - 130
		Bromodichloromethane	2009/10/08		105	%	70 - 130
		Bromoform	2009/10/08		105	%	70 - 130
		Bromomethane	2009/10/08		89	%	70 - 130
		Carbon Tetrachloride	2009/10/08		100	%	70 - 130
		Chloroethane	2009/10/08		95	%	70 - 130
		Chloroform	2009/10/08		105	%	70 - 130
		Chloromethane	2009/10/08		84	%	70 - 130
		cis-1,2-Dichloroethylene	2009/10/08		100	%	70 - 130
		cis-1,3-Dichloropropene	2009/10/08		100	%	70 - 130
		D4-1,2-Dichloroethane	2009/10/08		104	%	70 - 130
		D8-Toluene	2009/10/08		100	%	70 - 130
		Dibromochloromethane	2009/10/08		105	%	70 - 130
		Ethylbenzene	2009/10/08		100	%	70 - 130
		Ethylene Dibromide	2009/10/08		105	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/10/08		105	%	70 - 130
		o-Xylene	2009/10/08		100	%	70 - 130
		p+m-Xylene	2009/10/08		101	%	70 - 130
		Styrene	2009/10/08		100	%	70 - 130
		Tetrachloroethylene	2009/10/08		100	%	70 - 130
		Toluene	2009/10/08		104	%	70 - 130
		trans-1,2-Dichloroethylene	2009/10/08		100	%	70 - 130
		trans-1,3-Dichloropropene	2009/10/08		100	%	70 - 130
		Trichloroethylene	2009/10/08		100	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/10/08		89	%	70 - 130
		Vinyl Chloride	2009/10/08		79	%	70 - 130
	Spiked Blank	1,2-Dichlorobenzene	2009/10/08		98	%	70 - 130
		1,3-Dichlorobenzene	2009/10/08		95	%	70 - 130
		1,4-Dichlorobenzene	2009/10/08		93	%	70 - 130
		Chlorobenzene	2009/10/08		103	%	70 - 130
		1,1,1-Trichloroethane	2009/10/08		107	%	70 - 130
		1,1,2,2-Tetrachloroethane	2009/10/08		104	%	70 - 130
		1,1,2-Trichloroethane	2009/10/08		107	%	70 - 130
		1,1-Dichloroethane	2009/10/08		105	%	70 - 130
		1,1-Dichloroethylene	2009/10/08		101	%	70 - 130
		1,2-Dichloroethane	2009/10/08		104	%	70 - 130
		1,2-Dichloropropane	2009/10/08		101	%	70 - 130
		4-Bromofluorobenzene	2009/10/08		100	%	70 - 130
		Benzene	2009/10/08		99	%	70 - 130
		Bromodichloromethane	2009/10/08		102	%	70 - 130
		Bromoform	2009/10/08		99	%	70 - 130
		Bromomethane	2009/10/08		89	%	70 - 130
		Carbon Tetrachloride	2009/10/08		108	%	70 - 130
		Chloroethane	2009/10/08		99	%	70 - 130
		Chloroform	2009/10/08		107	%	70 - 130
		Chloromethane	2009/10/08		82	%	70 - 130
		cis-1,2-Dichloroethylene	2009/10/08		100	%	70 - 130
		cis-1,3-Dichloropropene	2009/10/08		98	%	70 - 130
		D4-1,2-Dichloroethane	2009/10/08		103	%	70 - 130
		D8-Toluene	2009/10/08		102	%	70 - 130

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965301 MSK	Spiked Blank	Dibromochloromethane	2009/10/08		101	%	70 - 130
		Ethylbenzene	2009/10/08		99	%	70 - 130
		Ethylene Dibromide	2009/10/08		101	%	70 - 130
		Methylene Chloride(Dichloromethane)	2009/10/08		105	%	70 - 130
		o-Xylene	2009/10/08		97	%	70 - 130
		p+m-Xylene	2009/10/08		102	%	70 - 130
		Styrene	2009/10/08		99	%	70 - 130
		Tetrachloroethylene	2009/10/08		103	%	70 - 130
		Toluene	2009/10/08		100	%	70 - 130
		trans-1,2-Dichloroethylene	2009/10/08		103	%	70 - 130
		trans-1,3-Dichloropropene	2009/10/08		95	%	70 - 130
		Trichloroethylene	2009/10/08		104	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2009/10/08		97	%	70 - 130
		Vinyl Chloride	2009/10/08		79	%	70 - 130
	Method Blank	1,2-Dichlorobenzene	2009/10/08	<0.5		ug/L	
		1,3-Dichlorobenzene	2009/10/08	<1		ug/L	
		1,4-Dichlorobenzene	2009/10/08	<1		ug/L	
		Chlorobenzene	2009/10/08	<1		ug/L	
		1,1,1-Trichloroethane	2009/10/08	<1		ug/L	
		1,1,2,2-Tetrachloroethane	2009/10/08	<1		ug/L	
		1,1,2-Trichloroethane	2009/10/08	<1		ug/L	
		1,1-Dichloroethane	2009/10/08	<2		ug/L	
		1,1-Dichloroethylene	2009/10/08	<0.5		ug/L	
		1,2-Dichloroethane	2009/10/08	<1		ug/L	
		1,2-Dichloropropane	2009/10/08	<1		ug/L	
		4-Bromofluorobenzene	2009/10/08		98	%	70 - 130
		Benzene	2009/10/08	<1		ug/L	
		Bromodichloromethane	2009/10/08	<1		ug/L	
		Bromoform	2009/10/08	<1		ug/L	
		Bromomethane	2009/10/08	<3		ug/L	
		Carbon Tetrachloride	2009/10/08	<1		ug/L	
		Chloroethane	2009/10/08	<8		ug/L	
		Chloroform	2009/10/08	<1		ug/L	
		Chloromethane	2009/10/08	<8		ug/L	
		cis-1,2-Dichloroethylene	2009/10/08	<2		ug/L	
		cis-1,3-Dichloropropene	2009/10/08	<2		ug/L	
		D4-1,2-Dichloroethane	2009/10/08		102	%	70 - 130
		D8-Toluene	2009/10/08		96	%	70 - 130
		Dibromochloromethane	2009/10/08	<1		ug/L	
		Ethylbenzene	2009/10/08	<1		ug/L	
		Ethylene Dibromide	2009/10/08	<1		ug/L	
		Methylene Chloride(Dichloromethane)	2009/10/08	<3		ug/L	
		o-Xylene	2009/10/08	<1		ug/L	
		p+m-Xylene	2009/10/08	<2		ug/L	
		Styrene	2009/10/08	<1		ug/L	
		Tetrachloroethylene	2009/10/08	<1		ug/L	
		Toluene	2009/10/08	<1		ug/L	
		trans-1,2-Dichloroethylene	2009/10/08	<2		ug/L	
		trans-1,3-Dichloropropene	2009/10/08	<1		ug/L	
		Trichloroethylene	2009/10/08	<1		ug/L	
		Trichlorofluoromethane (FREON 11)	2009/10/08	<8		ug/L	
		Vinyl Chloride	2009/10/08	<0.5		ug/L	
	RPD [DX6385-01]	1,2-Dichlorobenzene	2009/10/08	NC		%	40
		1,3-Dichlorobenzene	2009/10/08	NC		%	40
		1,4-Dichlorobenzene	2009/10/08	NC		%	40

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965301 MSK	RPD [DX6385-01]	Chlorobenzene	2009/10/08	NC		%	40
		1,1,1-Trichloroethane	2009/10/08	NC		%	40
		1,1,2,2-Tetrachloroethane	2009/10/08	NC		%	40
		1,1,2-Trichloroethane	2009/10/08	NC		%	40
		1,1-Dichloroethane	2009/10/08	NC		%	40
		1,1-Dichloroethylene	2009/10/08	NC		%	40
		1,2-Dichloroethane	2009/10/08	NC		%	40
		1,2-Dichloropropane	2009/10/08	NC		%	40
		Benzene	2009/10/08	NC		%	40
		Bromodichloromethane	2009/10/08	NC		%	40
		Bromoform	2009/10/08	NC		%	40
		Bromomethane	2009/10/08	NC		%	40
		Carbon Tetrachloride	2009/10/08	NC		%	40
		Chloroethane	2009/10/08	NC		%	40
		Chloroform	2009/10/08	NC		%	40
		Chloromethane	2009/10/08	NC		%	40
		cis-1,2-Dichloroethylene	2009/10/08	NC		%	40
		cis-1,3-Dichloropropene	2009/10/08	NC		%	40
		Dibromochloromethane	2009/10/08	NC		%	40
		Ethylbenzene	2009/10/08	NC		%	40
		Ethylene Dibromide	2009/10/08	NC		%	40
		Methylene Chloride(Dichloromethane)	2009/10/08	NC		%	40
		o-Xylene	2009/10/08	NC		%	40
		p+m-Xylene	2009/10/08	NC		%	40
		Styrene	2009/10/08	NC		%	40
		Tetrachloroethylene	2009/10/08	NC		%	40
		Toluene	2009/10/08	NC		%	40
		trans-1,2-Dichloroethylene	2009/10/08	NC		%	40
		trans-1,3-Dichloropropene	2009/10/08	NC		%	40
		Trichloroethylene	2009/10/08	NC		%	40
		Trichlorofluoromethane (FREON 11)	2009/10/08	NC		%	40
		Vinyl Chloride	2009/10/08	NC		%	40
1967138 DLB	Matrix Spike	Dissolved Aluminum (Al)	2009/10/09		86	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/09		100	%	80 - 120
		Dissolved Arsenic (As)	2009/10/09		104	%	80 - 120
		Dissolved Barium (Ba)	2009/10/09		NC	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/09		100	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/09		91	%	80 - 120
		Dissolved Boron (B)	2009/10/09		95	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/09		102	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/09		100	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/09		98	%	80 - 120
		Dissolved Copper (Cu)	2009/10/09		96	%	80 - 120
		Dissolved Lead (Pb)	2009/10/09		99	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/09		NC	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/09		99	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/09		NC	%	80 - 120
		Dissolved Selenium (Se)	2009/10/09		111	%	80 - 120
		Dissolved Silver (Ag)	2009/10/09		77 (3)	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/09		NC	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/09		96	%	80 - 120
		Dissolved Tin (Sn)	2009/10/09		93	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/09		98	%	80 - 120
		Dissolved Uranium (U)	2009/10/09		100	%	80 - 120
		Dissolved Vanadium (V)	2009/10/09		101	%	80 - 120

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1803

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1967138 DLB	Matrix Spike	Dissolved Zinc (Zn)	2009/10/09		NC	%	80 - 120
		Dissolved Aluminum (Al)	2009/10/09		100	%	80 - 120
	QC Standard	Dissolved Antimony (Sb)	2009/10/09		111	%	80 - 120
		Dissolved Arsenic (As)	2009/10/09		82	%	80 - 120
		Dissolved Barium (Ba)	2009/10/09		97	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/09		78 (4)	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/09		90	%	80 - 120
		Dissolved Boron (B)	2009/10/09		87	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/09		97	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/09		102	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/09		100	%	80 - 120
		Dissolved Copper (Cu)	2009/10/09		92	%	80 - 120
		Dissolved Iron (Fe)	2009/10/09		98	%	80 - 120
		Dissolved Lead (Pb)	2009/10/09		94	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/09		95	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/09		103	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/09		94	%	80 - 120
		Dissolved Selenium (Se)	2009/10/09		78 (4)	%	80 - 120
		Dissolved Silver (Ag)	2009/10/09		89	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/09		106	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/09		94	%	80 - 120
		Dissolved Vanadium (V)	2009/10/09		101	%	80 - 120
	Spiked Blank	Dissolved Zinc (Zn)	2009/10/09		96	%	80 - 120
		Dissolved Aluminum (Al)	2009/10/09		97	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/09		97	%	80 - 120
		Dissolved Arsenic (As)	2009/10/09		97	%	80 - 120
		Dissolved Barium (Ba)	2009/10/09		95	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/09		96	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/09		99	%	80 - 120
		Dissolved Boron (B)	2009/10/09		89	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/09		100	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/09		96	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/09		100	%	80 - 120
		Dissolved Copper (Cu)	2009/10/09		98	%	80 - 120
		Dissolved Lead (Pb)	2009/10/09		97	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/09		89	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/09		99	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/09		98	%	80 - 120
		Dissolved Selenium (Se)	2009/10/09		93	%	80 - 120
		Dissolved Silver (Ag)	2009/10/09		92	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/09		97	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/09		91	%	80 - 120
		Dissolved Tin (Sn)	2009/10/09		105	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/09		97	%	80 - 120
		Dissolved Uranium (U)	2009/10/09		99	%	80 - 120
		Dissolved Vanadium (V)	2009/10/09		96	%	80 - 120
	Method Blank	Dissolved Zinc (Zn)	2009/10/09		105	%	80 - 120
		Dissolved Aluminum (Al)	2009/10/09	<5.0		ug/L	
		Dissolved Antimony (Sb)	2009/10/09	<2.0		ug/L	
		Dissolved Arsenic (As)	2009/10/09	<2.0		ug/L	
		Dissolved Barium (Ba)	2009/10/09	<5.0		ug/L	
		Dissolved Beryllium (Be)	2009/10/09	<2.0		ug/L	
		Dissolved Bismuth (Bi)	2009/10/09	<2.0		ug/L	
		Dissolved Boron (B)	2009/10/09	<5.0		ug/L	
		Dissolved Cadmium (Cd)	2009/10/09	<0.017		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1803

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1967138 DLB	Method Blank	Dissolved Chromium (Cr)	2009/10/09	<1.0		ug/L	
		Dissolved Cobalt (Co)	2009/10/09	<0.40		ug/L	
		Dissolved Copper (Cu)	2009/10/09	<2.0		ug/L	
		Dissolved Iron (Fe)	2009/10/09	<50		ug/L	
		Dissolved Lead (Pb)	2009/10/09	<0.50		ug/L	
		Dissolved Manganese (Mn)	2009/10/09	<2.0		ug/L	
		Dissolved Molybdenum (Mo)	2009/10/09	<2.0		ug/L	
		Dissolved Nickel (Ni)	2009/10/09	<2.0		ug/L	
		Dissolved Selenium (Se)	2009/10/09	<1.0		ug/L	
		Dissolved Silver (Ag)	2009/10/09	<0.10		ug/L	
		Dissolved Strontium (Sr)	2009/10/09	<5.0		ug/L	
		Dissolved Thallium (Tl)	2009/10/09	<0.10		ug/L	
		Dissolved Tin (Sn)	2009/10/09	<2.0		ug/L	
		Dissolved Titanium (Ti)	2009/10/09	<2.0		ug/L	
		Dissolved Uranium (U)	2009/10/09	<0.10		ug/L	
		Dissolved Vanadium (V)	2009/10/09	<2.0		ug/L	
		Dissolved Zinc (Zn)	2009/10/09	<5.0		ug/L	
	RPD [DX6386-01]	Dissolved Aluminum (Al)	2009/10/09	5.5		%	35
		Dissolved Antimony (Sb)	2009/10/09	NC		%	25
		Dissolved Arsenic (As)	2009/10/09	NC		%	25
		Dissolved Barium (Ba)	2009/10/09	NC		%	25
		Dissolved Beryllium (Be)	2009/10/09	NC		%	25
		Dissolved Bismuth (Bi)	2009/10/09	NC		%	25
		Dissolved Boron (B)	2009/10/09	NC		%	25
		Dissolved Cadmium (Cd)	2009/10/09	NC		%	25
		Dissolved Chromium (Cr)	2009/10/09	NC		%	25
		Dissolved Cobalt (Co)	2009/10/09	NC		%	25
		Dissolved Copper (Cu)	2009/10/09	NC		%	25
		Dissolved Iron (Fe)	2009/10/09	NC		%	25
		Dissolved Lead (Pb)	2009/10/09	NC		%	25
		Dissolved Manganese (Mn)	2009/10/09	NC		%	25
		Dissolved Molybdenum (Mo)	2009/10/09	NC		%	25
		Dissolved Nickel (Ni)	2009/10/09	NC		%	25
		Dissolved Selenium (Se)	2009/10/09	NC		%	25
		Dissolved Silver (Ag)	2009/10/09	NC		%	25
		Dissolved Strontium (Sr)	2009/10/09	NC		%	25
		Dissolved Thallium (Tl)	2009/10/09	NC		%	25
		Dissolved Tin (Sn)	2009/10/09	NC		%	25
		Dissolved Titanium (Ti)	2009/10/09	NC		%	25
		Dissolved Uranium (U)	2009/10/09	NC		%	25
		Dissolved Vanadium (V)	2009/10/09	NC		%	25
		Dissolved Zinc (Zn)	2009/10/09	NC		%	25

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: results are outside acceptance limit. Analysis was not repeated, sample was past recommended hold time for repeat analysis.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D1803

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
(2)	Spike:	< 10 % of compounds in multi-component analysis in violation.					
(3)	Recovery	within acceptance limits.					
(4)	Violation	not applicable. Recovery within 3 SD limits.					

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: 23588

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/08/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9A4026
Received: 2009/08/13, 10:03

Sample Matrix: Soil
 # Samples Received: 51

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	15	2009/08/17	2009/08/17	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	25	2009/08/17	2009/08/18	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	1	2009/08/18	2009/08/18	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	35	N/A	2009/08/18	ATL SOP 00024 R4	Based on EPA6020A
Moisture	41	N/A	2009/08/17	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	19	2009/08/17	2009/08/20	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	1	2009/08/19	2009/08/20	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	6	2009/08/15	2009/08/17	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	35	2009/08/15	2009/08/19	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	6	2009/08/13	2009/08/18		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	20	2009/08/13	2009/08/19		Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	15	2009/08/13	2009/08/20		Based on Atl. PIRI
Volatile Organic Compounds in Soil	5	2009/08/15	2009/08/20	ATL SOP 00123 R3	Based on USEPA SW-84
Volatile Organic Compounds in Soil	2	2009/08/15	2009/08/21	ATL SOP 00123 R3	Based on USEPA SW-84

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Rob Griffith
 Rob Griffith
 21 Aug 2009 11:29:26 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DJ2987	DJ2995	DJ2996	DJ2997	DJ2998		
Sampling Date								
COC Number		23588	23588	23588	23588	23588		
Registration #								
	Units	TP 227-BS1	TP 228-BS2	TP 229-BS1	TP 230-BS2	TP 231-BS2	RDL	QC Batch

Inorganics								
Moisture	%	17	15	33	20	35	1	1908770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DJ2999	DJ3000	DJ3002	DJ3018	DJ3019		
Sampling Date								
COC Number		23588	23588	23588	23588	23588		
Registration #								
	Units	TP 233-BS2	TP 235-BS1	TP 238-BS2	TP 241-BS1	TP 243-BS1	RDL	QC Batch

Inorganics								
Moisture	%	41	20	23	20	19	1	1908770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DJ3020	DJ3022	DJ3024	DJ3025		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 244-BS1	TP 245-BS2	TP 247-BS1	TP 248-BS1	RDL	QC Batch

Inorganics							
Moisture	%	26	10	39	47	1	1908770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DJ3026		DJ3027	DJ3045	DJ3046		
Sampling Date								
COC Number		23588		23588	23588	23588		
Registration #								
	Units	TP 249-BS2	QC Batch	BS 194	BS 198	BS 201	RDL	QC Batch

Inorganics								
Moisture	%	46	1910151	17	10	16	1	1908770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DJ3047	DJ3051	DJ3052	DJ3066	DJ3068		
Sampling Date								
COC Number		23588	23588	23588	23588	23588		
Registration #								
	Units	BS 203	BS 211	BS 218	BS 222	BS 223	RDL	QC Batch

Inorganics								
Moisture	%	40	81	77	22	20	1	1908770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DJ3069	DJ3071	DJ3072	DJ3073	DJ3074		
Sampling Date								
COC Number		23588	23588	23588	23588	23588		
Registration #								
	Units	BS 224	BS 226	BS 228	BS 230	BS 234	RDL	QC Batch

Inorganics								
Moisture	%	37	79	70	61	12	1	1908770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DJ3075	DJ3076	DJ3090	DJ3091	DJ3092		
Sampling Date								
COC Number		23588	23588	23588	23588	23588		
Registration #								
	Units	BS 237	BS 238	BS 239	BS 240	BS 241	RDL	QC Batch

Inorganics								
Moisture	%	44	19	23	29	28	1	1908770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DJ3093	DJ3094	DJ3095	DJ3096	DJ3097		
Sampling Date								
COC Number		23588	23588	23588	23588	23588		
Registration #								
	Units	BS 242	SED-12	SED-13	SED-14	SED-15	RDL	QC Batch

Inorganics								
Moisture	%	21	28	59	18	18	1	1908770
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DJ3098	DJ3099	DJ3128		
Sampling Date						
COC Number		23588	23588	23588		
Registration #						
	Units	SED-16	SED-17	SED 18	RDL	QC Batch

Inorganics						
Moisture	%	14	25	21	1	1909268
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ2987	DJ2995		DJ2996		
Sampling Date							
COC Number		23588	23588		23588		
Registration #							
	Units	TP 227-BS1	TP 228-BS2	RDL	TP 229-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	1600	7100	10	12000	10	1910244
Available Antimony (Sb)	mg/kg	<2	<2	2	99	2	1910244
Available Arsenic (As)	mg/kg	<2	<2	2	10	2	1910244
Available Barium (Ba)	mg/kg	11	34	5	240	5	1910244
Available Beryllium (Be)	mg/kg	<2	<2	2	<2	2	1910244
Available Bismuth (Bi)	mg/kg	<2	<2	2	18	2	1910244
Available Boron (B)	mg/kg	<5	<5	5	31	5	1910244
Available Cadmium (Cd)	mg/kg	<0.3	0.4	0.3	15	0.3	1910244
Available Chromium (Cr)	mg/kg	15	14	2	68	2	1910244
Available Cobalt (Co)	mg/kg	<1	2	1	20	1	1910244
Available Copper (Cu)	mg/kg	<2	5	2	3500	2	1910244
Available Iron (Fe)	mg/kg	2900	7600	50	96000	500	1910244
Available Lead (Pb)	mg/kg	0.9	4.3	0.5	8100	5	1910244
Available Lithium (Li)	mg/kg	<2	3	2	4	2	1910244
Available Manganese (Mn)	mg/kg	30	71	2	860	2	1910244
Available Mercury (Hg)	mg/kg	<0.1	<0.1	0.1	67	1	1910244
Available Molybdenum (Mo)	mg/kg	<2	<2	2	23	2	1910244
Available Nickel (Ni)	mg/kg	6	6	2	110	2	1910244
Available Rubidium (Rb)	mg/kg	5	<2	2	5	2	1910244
Available Selenium (Se)	mg/kg	<2	<2	2	7	2	1910244
Available Silver (Ag)	mg/kg	<0.5	<0.5	0.5	9.5	0.5	1910244
Available Strontium (Sr)	mg/kg	<5	14	5	22	5	1910244
Available Thallium (Tl)	mg/kg	<0.1	<0.1	0.1	<0.1	0.1	1910244
Available Tin (Sn)	mg/kg	<2	2	2	420	20	1910244
Available Uranium (U)	mg/kg	<0.1	0.2	0.1	0.4	0.1	1910244
Available Vanadium (V)	mg/kg	6	14	2	42	2	1910244
Available Zinc (Zn)	mg/kg	7	17	5	3400	5	1910244

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ2997		DJ2998		
Sampling Date						
COC Number		23588		23588		
Registration #						
	Units	TP 230-BS2	RDL	TP 231-BS2	RDL	QC Batch
Metals						
Available Aluminum (Al)	mg/kg	9800	10	7100	10	1910244
Available Antimony (Sb)	mg/kg	<2	2	16	2	1910244
Available Arsenic (As)	mg/kg	<2	2	5	2	1910244
Available Barium (Ba)	mg/kg	52	5	51	5	1910244
Available Beryllium (Be)	mg/kg	<2	2	<2	2	1910244
Available Bismuth (Bi)	mg/kg	<2	2	<2	2	1910244
Available Boron (B)	mg/kg	<5	5	9	5	1910244
Available Cadmium (Cd)	mg/kg	0.9	0.3	7.2	0.3	1910244
Available Chromium (Cr)	mg/kg	28	2	33	2	1910244
Available Cobalt (Co)	mg/kg	4	1	8	1	1910244
Available Copper (Cu)	mg/kg	56	2	160	2	1910244
Available Iron (Fe)	mg/kg	11000	50	61000	500	1910244
Available Lead (Pb)	mg/kg	22	0.5	250	0.5	1910244
Available Lithium (Li)	mg/kg	3	2	4	2	1910244
Available Manganese (Mn)	mg/kg	93	2	270	2	1910244
Available Mercury (Hg)	mg/kg	0.4	0.1	0.5	0.1	1910244
Available Molybdenum (Mo)	mg/kg	<2	2	4	2	1910244
Available Nickel (Ni)	mg/kg	10	2	51	2	1910244
Available Rubidium (Rb)	mg/kg	2	2	4	2	1910244
Available Selenium (Se)	mg/kg	<2	2	<2	2	1910244
Available Silver (Ag)	mg/kg	<0.5	0.5	0.9	0.5	1910244
Available Strontium (Sr)	mg/kg	16	5	15	5	1910244
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	0.1	1910244
Available Tin (Sn)	mg/kg	4	2	320	2	1910244
Available Uranium (U)	mg/kg	0.4	0.1	0.5	0.1	1910244
Available Vanadium (V)	mg/kg	15	2	32	2	1910244
Available Zinc (Zn)	mg/kg	400	5	1300	5	1910244
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ2999		DJ3000	DJ3001		
Sampling Date							
COC Number		23588		23588	23588		
Registration #							
	Units	TP 233-BS2	RDL	TP 235-BS1	TP 237-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	9100	10	4300	7100	10	1910244
Available Antimony (Sb)	mg/kg	42	2	<2	<2	2	1910244
Available Arsenic (As)	mg/kg	6	2	<2	<2	2	1910244
Available Barium (Ba)	mg/kg	120	5	13	42	5	1910244
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1910244
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1910244
Available Boron (B)	mg/kg	21	5	<5	<5	5	1910244
Available Cadmium (Cd)	mg/kg	11	0.3	<0.3	<0.3	0.3	1910244
Available Chromium (Cr)	mg/kg	100	2	16	13	2	1910244
Available Cobalt (Co)	mg/kg	13	1	3	5	1	1910244
Available Copper (Cu)	mg/kg	380	2	18	17	2	1910244
Available Iron (Fe)	mg/kg	77000	500	5800	10000	50	1910244
Available Lead (Pb)	mg/kg	590	0.5	15	4.9	0.5	1910244
Available Lithium (Li)	mg/kg	5	2	5	10	2	1910244
Available Manganese (Mn)	mg/kg	380	2	76	200	2	1910244
Available Mercury (Hg)	mg/kg	1.9	0.2	<0.1	<0.1	0.1	1910244
Available Molybdenum (Mo)	mg/kg	9	2	<2	<2	2	1910244
Available Nickel (Ni)	mg/kg	87	2	9	10	2	1910244
Available Rubidium (Rb)	mg/kg	7	2	3	17	2	1910244
Available Selenium (Se)	mg/kg	<2	2	<2	<2	2	1910244
Available Silver (Ag)	mg/kg	2.9	0.5	<0.5	<0.5	0.5	1910244
Available Strontium (Sr)	mg/kg	<50 (1)	50	6	11	5	1910244
Available Thallium (Tl)	mg/kg	<0.1	0.1	0.1	0.2	0.1	1910244
Available Tin (Sn)	mg/kg	180	2	3	<2	2	1910244
Available Uranium (U)	mg/kg	0.6	0.1	0.4	0.6	0.1	1910244
Available Vanadium (V)	mg/kg	43	2	11	19	2	1910244
Available Zinc (Zn)	mg/kg	2700	5	63	42	5	1910244

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to matrix interferences.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ3002	DJ3003	DJ3019	DJ3021		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 238-BS2	TP 240-BS1	TP 243-BS1	TP 245-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	4500	4700	8100	7500	10	1910244
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1910244
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1910244
Available Barium (Ba)	mg/kg	23	13	21	42	5	1910244
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1910244
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1910244
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1910244
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1910244
Available Chromium (Cr)	mg/kg	39	13	15	12	2	1910244
Available Cobalt (Co)	mg/kg	4	5	4	5	1	1910244
Available Copper (Cu)	mg/kg	13	12	8	16	2	1910244
Available Iron (Fe)	mg/kg	7700	7000	8300	11000	50	1910244
Available Lead (Pb)	mg/kg	12	2.4	5.3	7.2	0.5	1910244
Available Lithium (Li)	mg/kg	5	5	6	14	2	1910244
Available Manganese (Mn)	mg/kg	96	110	98	160	2	1910244
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1910244
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1910244
Available Nickel (Ni)	mg/kg	40	12	10	9	2	1910244
Available Rubidium (Rb)	mg/kg	8	3	6	21	2	1910244
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1910244
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1910244
Available Strontium (Sr)	mg/kg	8	8	16	8	5	1910244
Available Thallium (Tl)	mg/kg	0.1	<0.1	<0.1	0.2	0.1	1910244
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1910244
Available Uranium (U)	mg/kg	0.7	0.3	0.4	0.8	0.1	1910244
Available Vanadium (V)	mg/kg	16	14	16	21	2	1910244
Available Zinc (Zn)	mg/kg	45	23	22	32	5	1910244

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ3022	DJ3022	DJ3023	DJ3024		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 245-BS2	TP 245-BS2 Lab-Dup	TP 246-BS1	TP 247-BS1	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7800	8000	5200	12000	10	1910244
Available Antimony (Sb)	mg/kg	<2	<2	<2	2	2	1910244
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1910244
Available Barium (Ba)	mg/kg	42	41	41	39	5	1910244
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1910244
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1910244
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1910244
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1910244
Available Chromium (Cr)	mg/kg	11	11	8	26	2	1910244
Available Cobalt (Co)	mg/kg	5	5	5	7	1	1910244
Available Copper (Cu)	mg/kg	19	16	18	14	2	1910244
Available Iron (Fe)	mg/kg	10000	11000	9300	14000	50	1910244
Available Lead (Pb)	mg/kg	8.0	8.4	13	170	0.5	1910244
Available Lithium (Li)	mg/kg	13	13	14	8	2	1910244
Available Manganese (Mn)	mg/kg	150	160	120	210	2	1910244
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1910244
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1910244
Available Nickel (Ni)	mg/kg	10	9	6	17	2	1910244
Available Rubidium (Rb)	mg/kg	21	21	22	10	2	1910244
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1910244
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1910244
Available Strontium (Sr)	mg/kg	9	9	6	31	5	1910244
Available Thallium (Tl)	mg/kg	0.2	0.2	0.1	<0.1	0.1	1910244
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1910244
Available Uranium (U)	mg/kg	0.9	0.9	0.3	0.9	0.1	1910244
Available Vanadium (V)	mg/kg	21	20	17	24	2	1910244
Available Zinc (Zn)	mg/kg	34	32	30	56	5	1910244
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ3025	DJ3026	DJ3044	DJ3048		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 248-BS1	TP 249-BS2	BS 195	BS 204	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	12000	12000	3500	3200	10	1910244
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1910244
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1910244
Available Barium (Ba)	mg/kg	44	46	20	11	5	1910244
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1910244
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1910244
Available Boron (B)	mg/kg	<5	5	<5	<5	5	1910244
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1910244
Available Chromium (Cr)	mg/kg	30	25	14	5	2	1910244
Available Cobalt (Co)	mg/kg	6	7	3	3	1	1910244
Available Copper (Cu)	mg/kg	19	15	11	6	2	1910244
Available Iron (Fe)	mg/kg	13000	13000	5700	5500	50	1910244
Available Lead (Pb)	mg/kg	45	18	4.8	1.8	0.5	1910244
Available Lithium (Li)	mg/kg	10	10	5	5	2	1910244
Available Manganese (Mn)	mg/kg	120	150	86	88	2	1910244
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1910244
Available Molybdenum (Mo)	mg/kg	<2	2	<2	<2	2	1910244
Available Nickel (Ni)	mg/kg	20	17	11	4	2	1910244
Available Rubidium (Rb)	mg/kg	9	10	6	4	2	1910244
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1910244
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1910244
Available Strontium (Sr)	mg/kg	26	34	8	6	5	1910244
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1910244
Available Tin (Sn)	mg/kg	13	2	<2	<2	2	1910244
Available Uranium (U)	mg/kg	1.3	2.2	0.5	0.2	0.1	1910244
Available Vanadium (V)	mg/kg	24	29	10	8	2	1910244
Available Zinc (Zn)	mg/kg	51	42	25	21	5	1910244
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ3049	DJ3050		DJ3053		
Sampling Date							
COC Number		23588	23588		23588		
Registration #							
	Units	BS 207	BS 210	QC Batch	BS 220	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5100	12000	1910244	6900	10	1910247
Available Antimony (Sb)	mg/kg	<2	<2	1910244	<2	2	1910247
Available Arsenic (As)	mg/kg	<2	<2	1910244	5	2	1910247
Available Barium (Ba)	mg/kg	36	40	1910244	26	5	1910247
Available Beryllium (Be)	mg/kg	<2	<2	1910244	<2	2	1910247
Available Bismuth (Bi)	mg/kg	<2	<2	1910244	<2	2	1910247
Available Boron (B)	mg/kg	<5	<5	1910244	<5	5	1910247
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	1910244	<0.3	0.3	1910247
Available Chromium (Cr)	mg/kg	9	21	1910244	16	2	1910247
Available Cobalt (Co)	mg/kg	4	8	1910244	4	1	1910247
Available Copper (Cu)	mg/kg	14	17	1910244	30	2	1910247
Available Iron (Fe)	mg/kg	8800	14000	1910244	8800	50	1910247
Available Lead (Pb)	mg/kg	3.4	4.6	1910244	13	0.5	1910247
Available Lithium (Li)	mg/kg	13	12	1910244	7	2	1910247
Available Manganese (Mn)	mg/kg	130	210	1910244	130	2	1910247
Available Mercury (Hg)	mg/kg	<0.1	<0.1	1910244	<0.1	0.1	1910247
Available Molybdenum (Mo)	mg/kg	<2	<2	1910244	<2	2	1910247
Available Nickel (Ni)	mg/kg	7	18	1910244	11	2	1910247
Available Rubidium (Rb)	mg/kg	18	13	1910244	7	2	1910247
Available Selenium (Se)	mg/kg	<2	<2	1910244	<2	2	1910247
Available Silver (Ag)	mg/kg	<0.5	<0.5	1910244	<0.5	0.5	1910247
Available Strontium (Sr)	mg/kg	<5	26	1910244	14	5	1910247
Available Thallium (Tl)	mg/kg	0.1	<0.1	1910244	<0.1	0.1	1910247
Available Tin (Sn)	mg/kg	<2	<2	1910244	<2	2	1910247
Available Uranium (U)	mg/kg	0.4	0.5	1910244	0.4	0.1	1910247
Available Vanadium (V)	mg/kg	17	25	1910244	15	2	1910247
Available Zinc (Zn)	mg/kg	34	89	1910244	60	5	1910247
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ3070	DJ3073	DJ3076	DJ3090		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	BS 225	BS 230	BS 238	BS 239	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5100	7100	5500	5300	10	1910247
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1910247
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1910247
Available Barium (Ba)	mg/kg	36	190	9	8	5	1910247
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1910247
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1910247
Available Boron (B)	mg/kg	<5	5	<5	<5	5	1910247
Available Cadmium (Cd)	mg/kg	<0.3	0.3	<0.3	<0.3	0.3	1910247
Available Chromium (Cr)	mg/kg	16	110	11	11	2	1910247
Available Cobalt (Co)	mg/kg	3	6	3	3	1	1910247
Available Copper (Cu)	mg/kg	15	70	8	7	2	1910247
Available Iron (Fe)	mg/kg	7900	9700	5900	4600	50	1910247
Available Lead (Pb)	mg/kg	6.9	65	2.2	1.7	0.5	1910247
Available Lithium (Li)	mg/kg	9	9	3	3	2	1910247
Available Manganese (Mn)	mg/kg	96	160	73	52	2	1910247
Available Mercury (Hg)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1910247
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1910247
Available Nickel (Ni)	mg/kg	10	47	7	7	2	1910247
Available Rubidium (Rb)	mg/kg	10	14	<2	<2	2	1910247
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1910247
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1910247
Available Strontium (Sr)	mg/kg	8	26	10	10	5	1910247
Available Thallium (Tl)	mg/kg	<0.1	0.2	<0.1	<0.1	0.1	1910247
Available Tin (Sn)	mg/kg	<2	2	<2	<2	2	1910247
Available Uranium (U)	mg/kg	0.4	0.9	0.8	0.7	0.1	1910247
Available Vanadium (V)	mg/kg	13	18	14	12	2	1910247
Available Zinc (Zn)	mg/kg	40	510	12	11	5	1910247
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ3091	DJ3092	DJ3094	DJ3095		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	BS 240	BS 241	SED-12	SED-13	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	7900	340	3600	5700	10	1910247
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1910247
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1910247
Available Barium (Ba)	mg/kg	15	<5	11	13	5	1910247
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1910247
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1910247
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1910247
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1910247
Available Chromium (Cr)	mg/kg	14	2	10	14	2	1910247
Available Cobalt (Co)	mg/kg	4	<1	4	2	1	1910247
Available Copper (Cu)	mg/kg	12	<2	4	10	2	1910247
Available Iron (Fe)	mg/kg	7500	400	12000	14000	50	1910247
Available Lead (Pb)	mg/kg	4.7	0.9	5.6	8.3	0.5	1910247
Available Lithium (Li)	mg/kg	5	<2	4	4	2	1910247
Available Manganese (Mn)	mg/kg	75	5	170	65	2	1910247
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1910247
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1910247
Available Nickel (Ni)	mg/kg	11	<2	7	7	2	1910247
Available Rubidium (Rb)	mg/kg	3	<2	4	3	2	1910247
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1910247
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1910247
Available Strontium (Sr)	mg/kg	11	<5	<5	6	5	1910247
Available Thallium (Tl)	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	1910247
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1910247
Available Uranium (U)	mg/kg	1.5	<0.1	0.4	1.2	0.1	1910247
Available Vanadium (V)	mg/kg	20	2	25	24	2	1910247
Available Zinc (Zn)	mg/kg	15	<5	14	14	5	1910247

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ3096	DJ3097	DJ3098	DJ3099		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	SED-14	SED-15	SED-16	SED-17	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	2300	2900	2300	1500	10	1910247
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1910247
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1910247
Available Barium (Ba)	mg/kg	<5	7	<5	<5	5	1910247
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1910247
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1910247
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1910247
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1910247
Available Chromium (Cr)	mg/kg	6	7	6	3	2	1910247
Available Cobalt (Co)	mg/kg	2	3	2	<1	1	1910247
Available Copper (Cu)	mg/kg	4	4	<2	2	2	1910247
Available Iron (Fe)	mg/kg	5000	7400	6600	1600	50	1910247
Available Lead (Pb)	mg/kg	2.3	1.9	3.0	1.8	0.5	1910247
Available Lithium (Li)	mg/kg	3	3	4	<2	2	1910247
Available Manganese (Mn)	mg/kg	51	51	58	16	2	1910247
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1910247
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1910247
Available Nickel (Ni)	mg/kg	5	6	4	2	2	1910247
Available Rubidium (Rb)	mg/kg	<2	<2	<2	<2	2	1910247
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1910247
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1910247
Available Strontium (Sr)	mg/kg	5	8	7	<5	5	1910247
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1910247
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1910247
Available Uranium (U)	mg/kg	0.3	0.2	0.2	0.4	0.1	1910247
Available Vanadium (V)	mg/kg	11	11	11	4	2	1910247
Available Zinc (Zn)	mg/kg	9	11	10	5	5	1910247

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DJ3128		
Sampling Date				
COC Number		23588		
Registration #				
	Units	SED 18	RDL	QC Batch

Metals				
Available Aluminum (Al)	mg/kg	1400	10	1910247
Available Antimony (Sb)	mg/kg	<2	2	1910247
Available Arsenic (As)	mg/kg	<2	2	1910247
Available Barium (Ba)	mg/kg	<5	5	1910247
Available Beryllium (Be)	mg/kg	<2	2	1910247
Available Bismuth (Bi)	mg/kg	<2	2	1910247
Available Boron (B)	mg/kg	<5	5	1910247
Available Cadmium (Cd)	mg/kg	<0.3	0.3	1910247
Available Chromium (Cr)	mg/kg	2	2	1910247
Available Cobalt (Co)	mg/kg	<1	1	1910247
Available Copper (Cu)	mg/kg	<2	2	1910247
Available Iron (Fe)	mg/kg	2900	50	1910247
Available Lead (Pb)	mg/kg	1.1	0.5	1910247
Available Lithium (Li)	mg/kg	2	2	1910247
Available Manganese (Mn)	mg/kg	20	2	1910247
Available Mercury (Hg)	mg/kg	<0.1	0.1	1910247
Available Molybdenum (Mo)	mg/kg	<2	2	1910247
Available Nickel (Ni)	mg/kg	<2	2	1910247
Available Rubidium (Rb)	mg/kg	<2	2	1910247
Available Selenium (Se)	mg/kg	<2	2	1910247
Available Silver (Ag)	mg/kg	<0.5	0.5	1910247
Available Strontium (Sr)	mg/kg	<5	5	1910247
Available Thallium (Tl)	mg/kg	<0.1	0.1	1910247
Available Tin (Sn)	mg/kg	<2	2	1910247
Available Uranium (U)	mg/kg	<0.1	0.1	1910247
Available Vanadium (V)	mg/kg	8	2	1910247
Available Zinc (Zn)	mg/kg	5	5	1910247

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DJ3094	DJ3095	DJ3095	DJ3096		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	SED-12	SED-13	SED-13 Lab-Dup	SED-14	RDL	QC Batch

Volatile Organics							
1,1,1-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1909717
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	<30	<30	30	1909717
1,1,2-Trichloroethane	ug/kg	<30	<30	<30	<30	30	1909717
1,1-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1909717
1,1-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1909717
1,2-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1909717
1,2-Dichloroethane	ug/kg	<30	<30	<30	<30	30	1909717
1,2-Dichloropropane	ug/kg	<30	<30	<30	<30	30	1909717
1,3-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1909717
1,4-Dichlorobenzene	ug/kg	<30	<30	<30	<30	30	1909717
Benzene	ug/kg	<30	<30	<30	<30	30	1909717
Bromodichloromethane	ug/kg	<30	<30	<30	<30	30	1909717
Bromoform	ug/kg	<30	<30	<30	<30	30	1909717
Bromomethane	ug/kg	<200	<200	<200	<200	200	1909717
Carbon Tetrachloride	ug/kg	<30	<30	<30	<30	30	1909717
Chlorobenzene	ug/kg	<30	<30	<30	<30	30	1909717
Chloroform	ug/kg	<30	<30	<30	<30	30	1909717
Chloromethane	ug/kg	<30	<30	<30	<30	30	1909717
cis-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1909717
cis-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1909717
Dibromochloromethane	ug/kg	<30	<30	<30	<30	30	1909717
Ethylbenzene	ug/kg	<30	<30	<30	<30	30	1909717
Ethylene Dibromide	ug/kg	<30	<30	<30	<30	30	1909717
Methylene Chloride(Dichloromethane)	ug/kg	<30	<30	<30	<30	30	1909717
o-Xylene	ug/kg	<30	<30	<30	<30	30	1909717
p+m-Xylene	ug/kg	<30	<30	<30	<30	30	1909717
Styrene	ug/kg	<30	<30	<30	<30	30	1909717
Tetrachloroethylene	ug/kg	<30	<30	<30	<30	30	1909717
Toluene	ug/kg	<30	<30	<30	<30	30	1909717
trans-1,2-Dichloroethylene	ug/kg	<30	<30	<30	<30	30	1909717

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DJ3094	DJ3095	DJ3095	DJ3096		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	SED-12	SED-13	SED-13 Lab-Dup	SED-14	RDL	QC Batch
trans-1,3-Dichloropropene	ug/kg	<30	<30	<30	<30	30	1909717
Trichloroethylene	ug/kg	<30	<30	<30	<30	30	1909717
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	<30	<30	30	1909717
Vinyl Chloride	ug/kg	<30	<30	<30	<30	30	1909717
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	108	103	102	117		1909717
D4-1,2-Dichloroethane	%	115	117	118	122		1909717
D8-Toluene	%	110	104	108	115		1909717
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DJ3097	DJ3098		DJ3099		
Sampling Date							
COC Number		23588	23588		23588		
Registration #							
	Units	SED-15	SED-16	QC Batch	SED-17	RDL	QC Batch

Volatile Organics							
1,1,1-Trichloroethane	ug/kg	<30	<30	1909717	<30	30	1912928
1,1,2,2-Tetrachloroethane	ug/kg	<30	<30	1909717	<30	30	1912928
1,1,2-Trichloroethane	ug/kg	<30	<30	1909717	<30	30	1912928
1,1-Dichloroethane	ug/kg	<30	<30	1909717	<30	30	1912928
1,1-Dichloroethylene	ug/kg	<30	<30	1909717	<30	30	1912928
1,2-Dichlorobenzene	ug/kg	<30	<30	1909717	<30	30	1912928
1,2-Dichloroethane	ug/kg	<30	<30	1909717	<30	30	1912928
1,2-Dichloropropane	ug/kg	<30	<30	1909717	<30	30	1912928
1,3-Dichlorobenzene	ug/kg	<30	<30	1909717	<30	30	1912928
1,4-Dichlorobenzene	ug/kg	<30	<30	1909717	<30	30	1912928
Benzene	ug/kg	<30	<30	1909717	<30	30	1912928
Bromodichloromethane	ug/kg	<30	<30	1909717	<30	30	1912928
Bromoform	ug/kg	<30	<30	1909717	<30	30	1912928
Bromomethane	ug/kg	<200	<200	1909717	<200	200	1912928
Carbon Tetrachloride	ug/kg	<30	<30	1909717	<30	30	1912928
Chlorobenzene	ug/kg	<30	<30	1909717	<30	30	1912928
Chloroform	ug/kg	<30	<30	1909717	<30	30	1912928
Chloromethane	ug/kg	<30	<30	1909717	<30	30	1912928
cis-1,2-Dichloroethylene	ug/kg	<30	<30	1909717	<30	30	1912928
cis-1,3-Dichloropropene	ug/kg	<30	<30	1909717	<30	30	1912928
Dibromochloromethane	ug/kg	<30	<30	1909717	<30	30	1912928
Ethylbenzene	ug/kg	<30	<30	1909717	<30	30	1912928
Ethylene Dibromide	ug/kg	<30	<30	1909717	<30	30	1912928
Methylene Chloride(Dichloromethane)	ug/kg	<30	<30	1909717	<30	30	1912928
o-Xylene	ug/kg	<30	<30	1909717	<30	30	1912928
p+m-Xylene	ug/kg	<30	<30	1909717	<30	30	1912928
Styrene	ug/kg	<30	<30	1909717	<30	30	1912928
Tetrachloroethylene	ug/kg	<30	<30	1909717	<30	30	1912928
Toluene	ug/kg	<30	<30	1909717	<30	30	1912928
trans-1,2-Dichloroethylene	ug/kg	<30	<30	1909717	<30	30	1912928
trans-1,3-Dichloropropene	ug/kg	<30	<30	1909717	<30	30	1912928
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DJ3097	DJ3098		DJ3099		
Sampling Date							
COC Number		23588	23588		23588		
Registration #							
	Units	SED-15	SED-16	QC Batch	SED-17	RDL	QC Batch
Trichloroethylene	ug/kg	<30	<30	1909717	<30	30	1912928
Trichlorofluoromethane (FREON 11)	ug/kg	<30	<30	1909717	<30	30	1912928
Vinyl Chloride	ug/kg	<30	<30	1909717	<30	30	1912928
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	116	125	1909717	101		1912928
D4-1,2-Dichloroethane	%	120	130	1909717	116		1912928
D8-Toluene	%	108	121	1909717	102		1912928
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DJ3128		
Sampling Date				
COC Number		23588		
Registration #				
	Units	SED 18	RDL	QC Batch

Volatile Organics				
1,1,1-Trichloroethane	ug/kg	<30	30	1912928
1,1,2,2-Tetrachloroethane	ug/kg	<30	30	1912928
1,1,2-Trichloroethane	ug/kg	<30	30	1912928
1,1-Dichloroethane	ug/kg	<30	30	1912928
1,1-Dichloroethylene	ug/kg	<30	30	1912928
1,2-Dichlorobenzene	ug/kg	<30	30	1912928
1,2-Dichloroethane	ug/kg	<30	30	1912928
1,2-Dichloropropane	ug/kg	<30	30	1912928
1,3-Dichlorobenzene	ug/kg	<30	30	1912928
1,4-Dichlorobenzene	ug/kg	<30	30	1912928
Benzene	ug/kg	<30	30	1912928
Bromodichloromethane	ug/kg	<30	30	1912928
Bromoform	ug/kg	<30	30	1912928
Bromomethane	ug/kg	<200	200	1912928
Carbon Tetrachloride	ug/kg	<30	30	1912928
Chlorobenzene	ug/kg	<30	30	1912928
Chloroform	ug/kg	<30	30	1912928
Chloromethane	ug/kg	<30	30	1912928
cis-1,2-Dichloroethylene	ug/kg	<30	30	1912928
cis-1,3-Dichloropropene	ug/kg	<30	30	1912928
Dibromochloromethane	ug/kg	<30	30	1912928
Ethylbenzene	ug/kg	<30	30	1912928
Ethylene Dibromide	ug/kg	<30	30	1912928
Methylene Chloride(Dichloromethane)	ug/kg	<30	30	1912928
o-Xylene	ug/kg	<30	30	1912928
p+m-Xylene	ug/kg	<30	30	1912928
Styrene	ug/kg	<30	30	1912928
Tetrachloroethylene	ug/kg	<30	30	1912928
Toluene	ug/kg	<30	30	1912928
trans-1,2-Dichloroethylene	ug/kg	<30	30	1912928
trans-1,3-Dichloropropene	ug/kg	<30	30	1912928
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DJ3128		
Sampling Date				
COC Number		23588		
Registration #				
	Units	SED 18	RDL	QC Batch

Trichloroethylene	ug/kg	<30	30	1912928
Trichlorofluoromethane (FREON 11)	ug/kg	<30	30	1912928
Vinyl Chloride	ug/kg	<30	30	1912928
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	113		1912928
D4-1,2-Dichloroethane	%	122		1912928
D8-Toluene	%	113		1912928

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ2987	DJ2995	DJ2996	DJ2997		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 227-BS1	TP 228-BS2	TP 229-BS1	TP 230-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908830
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908830
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908830
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.07	0.05	1908830
C6 - C10 (less BTEX)	mg/kg	6	<3	<3	17	3	1908830
>C10-C21 Hydrocarbons	mg/kg	23	28	100	280	15	1909128
>C21-<C32 Hydrocarbons	mg/kg	38	20	390	390	15	1909128
Modified TPH (Tier1)	mg/kg	67	48	500	690	20	1906732
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	99	104	104	101		1909128
n-Dotriacontane - Extractable	%	105 (1)	105 (2)	107 (3)	95 (4)		1909128
Isobutylbenzene - Volatile	%	100	109	102	102		1908830

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) No resemblance to petroleum products.
(2) Weathered fuel oil fraction. Lube oil fraction.
(3) One product in fuel / lube range. Lube oil fraction.
(4) Fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ2997	DJ2998	DJ2999		
Sampling Date						
COC Number		23588	23588	23588		
Registration #						
	Units	TP 230-BS2 Lab-Dup	TP 231-BS2	TP 233-BS2	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1908830
Toluene	mg/kg	<0.03	0.39	0.17	0.03	1908830
Ethylbenzene	mg/kg	<0.03	0.05	<0.03	0.03	1908830
Xylene (Total)	mg/kg	<0.05	0.25	<0.05	0.05	1908830
C6 - C10 (less BTEX)	mg/kg	20	12	10	3	1908830
>C10-C21 Hydrocarbons	mg/kg		780	1100	15	1909128
>C21-<C32 Hydrocarbons	mg/kg		520	1700	15	1909128
Modified TPH (Tier1)	mg/kg		1300	2800	20	1906732
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%		100	106		1909128
n-Dotriacontane - Extractable	%		90 (1)	95 (2)		1909128
Isobutylbenzene - Volatile	%	100	112	81		1908830
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. (2) Weathered fuel oil fraction. Lube oil fraction.						

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3000	DJ3002	DJ3018	DJ3019		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 235-BS1	TP 238-BS2	TP 241-BS1	TP 243-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908951
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908951
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908951
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1908951
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1908951
>C10-C21 Hydrocarbons	mg/kg	520	79	73	260	15	1909128
>C21-<C32 Hydrocarbons	mg/kg	260	370	160	180	15	1909128
Modified TPH (Tier1)	mg/kg	780	450	240	440	20	1906732
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	98	95	102	101		1909128
n-Dotriacontane - Extractable	%	95 (1)	93 (2)	101 (3)	95 (4)		1909128
Isobutylbenzene - Volatile	%	101	104	107	111		1908951

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

- (1) Weathered fuel oil fraction. Possible lube oil fraction.
- (2) One product in fuel / lube range. Lube oil fraction.
- (3) One product in fuel / lube range. Possible lube oil fraction.
- (4) Weathered fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3020	DJ3022	DJ3024	DJ3025		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 244-BS1	TP 245-BS2	TP 247-BS1	TP 248-BS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908951
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908951
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908951
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1908951
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1908951
>C10-C21 Hydrocarbons	mg/kg	52	22	780	4700	15	1909128
>C21-<C32 Hydrocarbons	mg/kg	110	46	410	720	15	1909128
Modified TPH (Tier1)	mg/kg	160	68	1200	5400	20	1906732
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	94	96	96	87		1909128
n-Dotriacontane - Extractable	%	98 (1)	96 (2)	89 (3)	87 (4)		1909128
Isobutylbenzene - Volatile	%	109	105	109	86		1908951

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

- (1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range.
- (2) One product in fuel / lube range.
- (3) Weathered fuel oil fraction. Lube oil fraction.
- (4) Fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3026	DJ3027		DJ3045		
Sampling Date							
COC Number		23588	23588		23588		
Registration #							
	Units	TP 249-BS2	BS 194	QC Batch	BS 198	RDL	QC Batch
Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1908951	<0.03	0.03	1908951
Toluene	mg/kg	<0.03	<0.03	1908951	<0.03	0.03	1908951
Ethylbenzene	mg/kg	<0.03	<0.03	1908951	<0.03	0.03	1908951
Xylene (Total)	mg/kg	<0.05	<0.05	1908951	<0.05	0.05	1908951
C6 - C10 (less BTEX)	mg/kg	<3	<3	1908951	<3	3	1908951
>C10-C21 Hydrocarbons	mg/kg	960	63	1909128	58	15	1909260
>C21-<C32 Hydrocarbons	mg/kg	350	54	1909128	32	15	1909260
Modified TPH (Tier1)	mg/kg	1300	120	1906732	90	20	1906732
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	97	94	1909128	96		1909260
n-Dotriacontane - Extractable	%	97 (1)	95 (1)	1909128	99 (1)		1909260
Isobutylbenzene - Volatile	%	100	103	1908951	101		1908951
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Weathered fuel oil fraction. Possible lube oil fraction.							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3046	DJ3047		DJ3051		
Sampling Date							
COC Number		23588	23588		23588		
Registration #							
	Units	BS 201	BS 203	RDL	BS 211	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1908951
Toluene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1908951
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	<0.1	0.1	1908951
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	<0.3	0.3	1908951
C6 - C10 (less BTEX)	mg/kg	<3	<3	3	<10	10	1908951
>C10-C21 Hydrocarbons	mg/kg	26	170	15	200	15	1909260
>C21-<C32 Hydrocarbons	mg/kg	98	460	15	1100	15	1909260
Modified TPH (Tier1)	mg/kg	120	630	20	1300	20	1906732
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	95	95		99		1909260
n-Dotriacontane - Extractable	%	102 (1)	90 (2)		104 (3)		1909260
Isobutylbenzene - Volatile	%	96	98		103 (4)		1908951

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

- (1) Possible lube oil fraction. Unidentified compound(s) in lube oil range.
- (2) One product in fuel / lube range. Lube oil fraction.
- (3) One product in fuel / lube range. Unidentified compound(s) in lube oil range.
- (4) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3052		DJ3066	DJ3066		
Sampling Date							
COC Number		23588		23588	23588		
Registration #							
	Units	BS 218	RDL	BS 222	BS 222 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1908951
Toluene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1908951
Ethylbenzene	mg/kg	<0.1	0.1	<0.03	<0.03	0.03	1908951
Xylene (Total)	mg/kg	<0.3	0.3	<0.05	<0.05	0.05	1908951
C6 - C10 (less BTEX)	mg/kg	<10	10	<3	<3	3	1908951
>C10-C21 Hydrocarbons	mg/kg	250	15	34		15	1909260
>C21-<C32 Hydrocarbons	mg/kg	1000	15	66		15	1909260
Modified TPH (Tier1)	mg/kg	1300	20	100		20	1906732
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	98		95			1909260
n-Dotriacontane - Extractable	%	92 (1)		99 (2)			1909260
Isobutylbenzene - Volatile	%	99 (3)		100	102		1908951

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Possible lube oil fraction. Unidentified compound(s) in lube oil range.

(2) One product in fuel / lube range. Lube oil fraction.

(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3068	DJ3068	DJ3069		
Sampling Date						
COC Number		23588	23588	23588		
Registration #						
	Units	BS 223	BS 223 Lab-Dup	BS 224	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03		<0.03	0.03	1908951
Toluene	mg/kg	<0.03		<0.03	0.03	1908951
Ethylbenzene	mg/kg	<0.03		<0.03	0.03	1908951
Xylene (Total)	mg/kg	<0.05		<0.05	0.05	1908951
C6 - C10 (less BTEX)	mg/kg	<3		<3	3	1908951
>C10-C21 Hydrocarbons	mg/kg	77	67	44	15	1909260
>C21-<C32 Hydrocarbons	mg/kg	36	28	220	15	1909260
Modified TPH (Tier1)	mg/kg	110		260	20	1906732
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	96	102	95		1909260
n-Dotriacontane - Extractable	%	97 (1)	97	91 (2)		1909260
Isobutylbenzene - Volatile	%	107		104		1908951

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. Possible lube oil fraction.
(2) One product in fuel / lube range. Lube oil fraction.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3071	DJ3072		
Sampling Date					
COC Number		23588	23588		
Registration #					
	Units	BS 226	BS 228	RDL	QC Batch

Petroleum Hydrocarbons					
Benzene	mg/kg	<0.1	<0.1	0.1	1908951
Toluene	mg/kg	<0.1	<0.1	0.1	1908951
Ethylbenzene	mg/kg	<0.1	<0.1	0.1	1908951
Xylene (Total)	mg/kg	<0.3	<0.3	0.3	1908951
C6 - C10 (less BTEX)	mg/kg	<10	<10	10	1908951
>C10-C21 Hydrocarbons	mg/kg	480	210	15	1909260
>C21-<C32 Hydrocarbons	mg/kg	1500	1100	15	1909260
Modified TPH (Tier1)	mg/kg	2000	1300	20	1906732
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	103	101		1909260
n-Dotriacontane - Extractable	%	84 (1)	93 (2)		1909260
Isobutylbenzene - Volatile	%	103 (3)	103 (3)		1908951

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range. Possible lube oil fraction. Unidentified compound(s) in fuel / lube range.
(2) One product in fuel / lube range. Possible lube oil fraction. Unidentified compound(s) in lube oil range.
(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3073		DJ3074		
Sampling Date						
COC Number		23588		23588		
Registration #						
	Units	BS 230	RDL	BS 234	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	0.03	<0.03	0.03	1908956
Toluene	mg/kg	<0.03	0.03	<0.03	0.03	1908956
Ethylbenzene	mg/kg	<0.03	0.03	<0.03	0.03	1908956
Xylene (Total)	mg/kg	<0.05	0.05	<0.05	0.05	1908956
C6 - C10 (less BTEX)	mg/kg	130	3	<3	3	1908956
>C10-C21 Hydrocarbons	mg/kg	50000	75	1500	15	1909260
>C21-<C32 Hydrocarbons	mg/kg	2300	15	42	15	1909260
Modified TPH (Tier1)	mg/kg	52000	80	1600	20	1906732
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	78		100		1909260
n-Dotriacontane - Extractable	%	90 (1)		99 (2)		1909260
Isobutylbenzene - Volatile	%	109		90		1908956

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction. Elevated TEH RDL(s) due to sample dilution.

(2) Fuel oil fraction. Possible lube oil fraction.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3075		DJ3076		
Sampling Date						
COC Number		23588		23588		
Registration #						
	Units	BS 237	RDL	BS 238	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	0.03	<0.03	0.03	1908956
Toluene	mg/kg	<0.03	0.03	<0.03	0.03	1908956
Ethylbenzene	mg/kg	<0.03	0.03	<0.03	0.03	1908956
Xylene (Total)	mg/kg	<0.05	0.05	<0.05	0.05	1908956
C6 - C10 (less BTEX)	mg/kg	<3	3	45	3	1908956
>C10-C21 Hydrocarbons	mg/kg	24000	75	910	15	1909260
>C21-<C32 Hydrocarbons	mg/kg	740	15	45	15	1909260
Modified TPH (Tier1)	mg/kg	24000	80	1000	20	1906732
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	124		109		1909260
n-Dotriacontane - Extractable	%	91 (1)		92 (2)		1909260
Isobutylbenzene - Volatile	%	92		87		1908956

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. Elevated TEH RDL(s) due to sample dilution.
(2) Weathered fuel oil fraction.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3090	DJ3091	DJ3092	DJ3093		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	BS 239	BS 240	BS 241	BS 242	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908956
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908956
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1908956
Xylene (Total)	mg/kg	<0.05	0.09	<0.05	<0.05	0.05	1908956
C6 - C10 (less BTEX)	mg/kg	69	110	<3	<3	3	1908956
>C10-C21 Hydrocarbons	mg/kg	6900	4600	4300	88	15	1909675
>C21-<C32 Hydrocarbons	mg/kg	130	85	140	35	15	1909675
Modified TPH (Tier1)	mg/kg	7100	4800	4400	120	20	1906732
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	91	83	83	95		1909675
n-Dotriacontane - Extractable	%	80 (1)	82 (1)	86 (1)	91 (2)		1909675
Isobutylbenzene - Volatile	%	78	96	100	87		1908956

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction.
(2) Weathered fuel oil fraction.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3094		DJ3095	DJ3095		
Sampling Date							
COC Number		23588		23588	23588		
Registration #							
	Units	SED-12	QC Batch	SED-13	SED-13 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1908956	<0.03		0.03	1908956
Toluene	mg/kg	<0.03	1908956	<0.03		0.03	1908956
Ethylbenzene	mg/kg	<0.03	1908956	<0.03		0.03	1908956
Xylene (Total)	mg/kg	<0.05	1908956	<0.05		0.05	1908956
C6 - C10 (less BTEX)	mg/kg	4	1908956	<3		3	1908956
>C10-C21 Hydrocarbons	mg/kg	31	1910434	74	77	15	1909675
>C21-<C32 Hydrocarbons	mg/kg	71	1910434	290	330	15	1909675
Modified TPH (Tier1)	mg/kg	110	1906732	360		20	1906732
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	94	1910434	96	84		1909675
n-Dotriacontane - Extractable	%	108 (1)	1910434	91 (2)	95		1909675
Isobutylbenzene - Volatile	%	101	1908956	91			1908956

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) No resemblance to petroleum products.
(2) One product in fuel / lube range.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3096	DJ3097	DJ3098		
Sampling Date						
COC Number		23588	23588	23588		
Registration #						
	Units	SED-14	SED-15	SED-16	RDL	QC Batch
Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1908956
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1908956
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1908956
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1908956
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1908956
>C10-C21 Hydrocarbons	mg/kg	<15	<15	<15	15	1909675
>C21-<C32 Hydrocarbons	mg/kg	<15	<15	<15	15	1909675
Modified TPH (Tier1)	mg/kg	<20	<20	<20	20	1906732
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	99	96	93		1909675
n-Dotriacontane - Extractable	%	107	109	103		1909675
Isobutylbenzene - Volatile	%	104	109	102		1908956
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DJ3099		DJ3128		
Sampling Date						
COC Number		23588		23588		
Registration #						
	Units	SED-17	QC Batch	SED 18	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1908956	<0.03	0.03	1908956
Toluene	mg/kg	<0.03	1908956	<0.03	0.03	1908956
Ethylbenzene	mg/kg	<0.03	1908956	<0.03	0.03	1908956
Xylene (Total)	mg/kg	<0.05	1908956	<0.05	0.05	1908956
C6 - C10 (less BTEX)	mg/kg	<3	1908956	<3	3	1908956
>C10-C21 Hydrocarbons	mg/kg	31	1909675	<15	15	1910434
>C21-<C32 Hydrocarbons	mg/kg	67	1909675	<15	15	1910434
Modified TPH (Tier1)	mg/kg	98	1906764	<20	20	1906764
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	102	1909675	95		1910434
n-Dotriacontane - Extractable	%	106 (1)	1909675	98		1910434
Isobutylbenzene - Volatile	%	97	1908956	101		1908956

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel / lube range.

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DJ2995	DJ2997	DJ2998	DJ2999		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 228-BS2	TP 230-BS2	TP 231-BS2	TP 233-BS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	2.0	35	28	0.05	1909473
Surrogate Recovery (%)							
Decachlorobiphenyl	%	87	90 (1)	87 (2)	84 (2)		1909473
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1254, 1260. (2) Aroclor 1260.							

Maxxam ID		DJ3002	DJ3024	DJ3025	DJ3026		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	TP 238-BS2	TP 247-BS1	TP 248-BS1	TP 249-BS2	RDL	QC Batch

PCBs							
Total PCB	ug/g	2.6	0.34	2.6	1.7	0.05	1909473
Surrogate Recovery (%)							
Decachlorobiphenyl	%	82 (1)	84 (1)	83 (1)	83 (1)		1909473
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DJ3073	DJ3076	DJ3090	DJ3091		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	BS 230	BS 238	BS 239	BS 240	RDL	QC Batch

PCBs							
Total PCB	ug/g	24	<0.05	<0.05	<0.05	0.05	1909473
Surrogate Recovery (%)							
Decachlorobiphenyl	%	82 (1)	87	84	79		1909473
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DJ3092	DJ3094	DJ3095	DJ3096		
Sampling Date							
COC Number		23588	23588	23588	23588		
Registration #							
	Units	BS 241	SED-12	SED-13	SED-14	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1909473
Surrogate Recovery (%)							
Decachlorobiphenyl	%	83	82	81	82		1909473
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam ID		DJ3097	DJ3098	DJ3099		DJ3128		
Sampling Date								
COC Number		23588	23588	23588		23588		
Registration #								
	Units	SED-15	SED-16	SED-17	QC Batch	SED 18	RDL	QC Batch

PCBs								
Total PCB	ug/g	<0.05	<0.05	<0.05	1909473	<0.05	0.05	1911368
Surrogate Recovery (%)								
Decachlorobiphenyl	%	84	84	86	1909473	82		1911368
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9A4026
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: WS#1909717 - Chloroethane unavailable due to calibration non-conformance.

Volatile Organic Compounds in Soil: WS#1912928 - Chloroethane unavailable due to calibration non-conformance.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9A4026

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1908830 ASL	Matrix Spike [DJ2997-01]	Isobutylbenzene - Volatile	2009/08/17		79	%	60 - 140
		Benzene	2009/08/17		81	%	60 - 140
		Toluene	2009/08/17		121	%	60 - 140
		Ethylbenzene	2009/08/17		107	%	60 - 140
		Xylene (Total)	2009/08/17		120	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/17		97	%	60 - 140
		Benzene	2009/08/17		97	%	60 - 140
		Toluene	2009/08/17		100	%	60 - 140
		Ethylbenzene	2009/08/17		93	%	60 - 140
		Xylene (Total)	2009/08/17		100	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/17		98	%	60 - 140
		Benzene	2009/08/17	<0.03		mg/kg	
		Toluene	2009/08/17	<0.03		mg/kg	
		Ethylbenzene	2009/08/17	<0.03		mg/kg	
		Xylene (Total)	2009/08/17	<0.05		mg/kg	
	RPD [DJ2997-01]	C6 - C10 (less BTEX)	2009/08/17	<3		mg/kg	
		Benzene	2009/08/17	NC		%	50
		Toluene	2009/08/17	NC		%	50
		Ethylbenzene	2009/08/17	NC		%	50
		Xylene (Total)	2009/08/17	NC		%	50
1908951 ASL	Matrix Spike [DJ3066-01]	Isobutylbenzene - Volatile	2009/08/19		85	%	60 - 140
		Benzene	2009/08/19		79	%	60 - 140
		Toluene	2009/08/19		116	%	60 - 140
		Ethylbenzene	2009/08/19		101	%	60 - 140
		Xylene (Total)	2009/08/19		114	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/19		96	%	60 - 140
		Benzene	2009/08/19		92	%	60 - 140
		Toluene	2009/08/19		95	%	60 - 140
		Ethylbenzene	2009/08/19		89	%	60 - 140
		Xylene (Total)	2009/08/19		93	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/19		104	%	60 - 140
		Benzene	2009/08/19	<0.03		mg/kg	
		Toluene	2009/08/19	<0.03		mg/kg	
		Ethylbenzene	2009/08/19	<0.03		mg/kg	
		Xylene (Total)	2009/08/19	<0.05		mg/kg	
	RPD [DJ3066-01]	C6 - C10 (less BTEX)	2009/08/19	<3		mg/kg	
		Benzene	2009/08/19	NC		%	50
		Toluene	2009/08/19	NC		%	50
		Ethylbenzene	2009/08/19	NC		%	50
		Xylene (Total)	2009/08/19	NC		%	50
1908956 ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/08/19		79	%	60 - 140
		Benzene	2009/08/19		NC	%	60 - 140
		Toluene	2009/08/19		NC	%	60 - 140
		Ethylbenzene	2009/08/19		NC	%	60 - 140
		Xylene (Total)	2009/08/19		134	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/19		94	%	60 - 140
		Benzene	2009/08/19		93	%	60 - 140
		Toluene	2009/08/19		96	%	60 - 140
		Ethylbenzene	2009/08/19		92	%	60 - 140
		Xylene (Total)	2009/08/19		93	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/19		102	%	60 - 140

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A4026

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1908956 ASL	Method Blank	Benzene	2009/08/19	<0.03		mg/kg	
		Toluene	2009/08/19	<0.03		mg/kg	
		Ethylbenzene	2009/08/19	<0.03		mg/kg	
		Xylene (Total)	2009/08/19	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/08/19	<3		mg/kg	
	RPD	Benzene	2009/08/20	1.1		%	50
		Toluene	2009/08/20	5.6		%	50
		Ethylbenzene	2009/08/20	21.5		%	50
		Xylene (Total)	2009/08/20	1.5		%	50
		C6 - C10 (less BTEX)	2009/08/20	0.5		%	50
1909128 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/17		100	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/17		107	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17		83	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/17		88	%	30 - 130
		Isobutylbenzene - Extractable	2009/08/17		94	%	30 - 130
	Spiked Blank	n-Dotriacontane - Extractable	2009/08/17		90	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17		85	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/17		85	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/17		95	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/17		103	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17	<15		mg/kg	
	RPD	>C21-<C32 Hydrocarbons	2009/08/17	<15		mg/kg	
		>C10-C21 Hydrocarbons	2009/08/17	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/17	NC		%	50
1909260 SHR	Matrix Spike [DJ3068-01]	Isobutylbenzene - Extractable	2009/08/18		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/18		94	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/18		83	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/18		84	%	30 - 130
		Isobutylbenzene - Extractable	2009/08/18		105	%	30 - 130
	Spiked Blank	n-Dotriacontane - Extractable	2009/08/18		107	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/18		88	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/18		93	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/18		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/18		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/18	<15		mg/kg	
	RPD [DJ3068-01]	>C21-<C32 Hydrocarbons	2009/08/18	<15		mg/kg	
		>C10-C21 Hydrocarbons	2009/08/18	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/18	NC		%	50
1909473 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/20		86	%	30 - 130
		Total PCB	2009/08/20		94	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/20		89	%	30 - 130
		Total PCB	2009/08/20		101	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/20		89	%	30 - 130
		Total PCB	2009/08/20	<0.05		ug/g	
	RPD	Total PCB	2009/08/20	NC		%	50
1909675 LMU	Matrix Spike [DJ3095-01]	Isobutylbenzene - Extractable	2009/08/17		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/17		79	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17		81	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/17		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/17		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/17		88	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17		83	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/17		86	%	30 - 130

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1909675 LMU	Method Blank	Isobutylbenzene - Extractable	2009/08/17		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/17		109	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/17	<15		mg/kg	
	RPD [DJ3095-01]	>C10-C21 Hydrocarbons	2009/08/17	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/17	13.3		%	50
1909717 MSK	Matrix Spike [DJ3095-01]	4-Bromofluorobenzene	2009/08/20		103	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/20		119	%	60 - 140
		D8-Toluene	2009/08/20		107	%	60 - 140
		1,1,1-Trichloroethane	2009/08/20		93	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/08/20		87	%	60 - 140
		1,1,2-Trichloroethane	2009/08/20		95	%	60 - 140
		1,1-Dichloroethane	2009/08/20		95	%	60 - 140
		1,1-Dichloroethylene	2009/08/20		87	%	60 - 140
		1,2-Dichlorobenzene	2009/08/20		85	%	60 - 140
		1,2-Dichloroethane	2009/08/20		95	%	60 - 140
		1,2-Dichloropropane	2009/08/20		95	%	60 - 140
		1,3-Dichlorobenzene	2009/08/20		81	%	60 - 140
		1,4-Dichlorobenzene	2009/08/20		79	%	60 - 140
		Benzene	2009/08/20		92	%	60 - 140
		Bromodichloromethane	2009/08/20		79	%	60 - 140
		Bromoform	2009/08/20		63	%	60 - 140
		Bromomethane	2009/08/20		91	%	60 - 140
		Carbon Tetrachloride	2009/08/20		81	%	60 - 140
		Chlorobenzene	2009/08/20		93	%	60 - 140
		Chloroform	2009/08/20		101	%	60 - 140
		Chloromethane	2009/08/20		83	%	60 - 140
		cis-1,2-Dichloroethylene	2009/08/20		98	%	60 - 140
		cis-1,3-Dichloropropene	2009/08/20		75	%	60 - 140
		Dibromochloromethane	2009/08/20		71	%	60 - 140
		Ethylbenzene	2009/08/20		87	%	60 - 140
		Ethylene Dibromide	2009/08/20		90	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/08/20		107	%	60 - 140
		o-Xylene	2009/08/20		88	%	60 - 140
		p+m-Xylene	2009/08/20		90	%	60 - 140
		Styrene	2009/08/20		88	%	60 - 140
		Tetrachloroethylene	2009/08/20		87	%	60 - 140
		Toluene	2009/08/20		91	%	60 - 140
		trans-1,2-Dichloroethylene	2009/08/20		91	%	60 - 140
		trans-1,3-Dichloropropene	2009/08/20		67	%	60 - 140
		Trichloroethylene	2009/08/20		94	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/08/20		71	%	60 - 140
		Vinyl Chloride	2009/08/20		69	%	60 - 140
	Spiked Blank	4-Bromofluorobenzene	2009/08/20		115	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/20		117	%	60 - 140
		D8-Toluene	2009/08/20		113	%	60 - 140
		1,1,1-Trichloroethane	2009/08/20		105	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/08/20		91	%	60 - 140
		1,1,2-Trichloroethane	2009/08/20		102	%	60 - 140
		1,1-Dichloroethane	2009/08/20		106	%	60 - 140
		1,1-Dichloroethylene	2009/08/20		106	%	60 - 140
		1,2-Dichlorobenzene	2009/08/20		95	%	60 - 140
		1,2-Dichloroethane	2009/08/20		103	%	60 - 140
		1,2-Dichloropropane	2009/08/20		102	%	60 - 140

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1909717 MSK	Spiked Blank	1,3-Dichlorobenzene	2009/08/20		95	%	60 - 140
		1,4-Dichlorobenzene	2009/08/20		93	%	60 - 140
		Benzene	2009/08/20		101	%	60 - 140
		Bromodichloromethane	2009/08/20		88	%	60 - 140
		Bromoform	2009/08/20		69	%	60 - 140
		Bromomethane	2009/08/20		105	%	60 - 140
		Carbon Tetrachloride	2009/08/20		98	%	60 - 140
		Chlorobenzene	2009/08/20		102	%	60 - 140
		Chloroform	2009/08/20		109	%	60 - 140
		Chloromethane	2009/08/20		96	%	60 - 140
		cis-1,2-Dichloroethylene	2009/08/20		105	%	60 - 140
		cis-1,3-Dichloropropene	2009/08/20		87	%	60 - 140
		Dibromochloromethane	2009/08/20		78	%	60 - 140
		Ethylbenzene	2009/08/20		96	%	60 - 140
		Ethylene Dibromide	2009/08/20		96	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/08/20		111	%	60 - 140
		o-Xylene	2009/08/20		100	%	60 - 140
		p+m-Xylene	2009/08/20		102	%	60 - 140
		Styrene	2009/08/20		100	%	60 - 140
		Tetrachloroethylene	2009/08/20		103	%	60 - 140
		Toluene	2009/08/20		100	%	60 - 140
		trans-1,2-Dichloroethylene	2009/08/20		105	%	60 - 140
		trans-1,3-Dichloropropene	2009/08/20		75	%	60 - 140
		Trichloroethylene	2009/08/20		104	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/08/20		108	%	60 - 140
		Vinyl Chloride	2009/08/20		87	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/08/19		114	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/19		122	%	60 - 140
		D8-Toluene	2009/08/19		116	%	60 - 140
		1,1,1-Trichloroethane	2009/08/19	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/08/19	<30		ug/kg	
		1,1,2-Trichloroethane	2009/08/19	<30		ug/kg	
		1,1-Dichloroethane	2009/08/19	<30		ug/kg	
		1,1-Dichloroethylene	2009/08/19	<30		ug/kg	
		1,2-Dichlorobenzene	2009/08/19	<30		ug/kg	
		1,2-Dichloroethane	2009/08/19	<30		ug/kg	
		1,2-Dichloropropane	2009/08/19	<30		ug/kg	
		1,3-Dichlorobenzene	2009/08/19	<30		ug/kg	
		1,4-Dichlorobenzene	2009/08/19	<30		ug/kg	
		Benzene	2009/08/19	<30		ug/kg	
		Bromodichloromethane	2009/08/19	<30		ug/kg	
		Bromoform	2009/08/19	<30		ug/kg	
		Bromomethane	2009/08/19	<200		ug/kg	
		Carbon Tetrachloride	2009/08/19	<30		ug/kg	
		Chlorobenzene	2009/08/19	<30		ug/kg	
		Chloroform	2009/08/19	<30		ug/kg	
		Chloromethane	2009/08/19	<30		ug/kg	
		cis-1,2-Dichloroethylene	2009/08/19	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/08/19	<30		ug/kg	
		Dibromochloromethane	2009/08/19	<30		ug/kg	
		Ethylbenzene	2009/08/19	<30		ug/kg	
		Ethylene Dibromide	2009/08/19	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/08/19	<30		ug/kg	
		o-Xylene	2009/08/19	<30		ug/kg	
		p+m-Xylene	2009/08/19	<30		ug/kg	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1909717 MSK	Method Blank	Styrene	2009/08/19	<30		ug/kg	
		Tetrachloroethylene	2009/08/19	<30		ug/kg	
		Toluene	2009/08/19	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/08/19	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/08/19	<30		ug/kg	
		Trichloroethylene	2009/08/19	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/08/19	<30		ug/kg	
		Vinyl Chloride	2009/08/19	<30		ug/kg	
	RPD [DJ3095-01]	1,1,1-Trichloroethane	2009/08/20	NC		%	50
		1,1,2,2-Tetrachloroethane	2009/08/20	NC		%	50
		1,1,2-Trichloroethane	2009/08/20	NC		%	50
		1,1-Dichloroethane	2009/08/20	NC		%	50
		1,1-Dichloroethylene	2009/08/20	NC		%	50
		1,2-Dichlorobenzene	2009/08/20	NC		%	50
		1,2-Dichloroethane	2009/08/20	NC		%	50
		1,2-Dichloropropane	2009/08/20	NC		%	50
		1,3-Dichlorobenzene	2009/08/20	NC		%	50
		1,4-Dichlorobenzene	2009/08/20	NC		%	50
		Benzene	2009/08/20	NC		%	50
		Bromodichloromethane	2009/08/20	NC		%	50
		Bromoform	2009/08/20	NC		%	50
		Bromomethane	2009/08/20	NC		%	50
		Carbon Tetrachloride	2009/08/20	NC		%	50
		Chlorobenzene	2009/08/20	NC		%	50
		Chloroform	2009/08/20	NC		%	50
		Chloromethane	2009/08/20	NC		%	50
		cis-1,2-Dichloroethylene	2009/08/20	NC		%	50
		cis-1,3-Dichloropropene	2009/08/20	NC		%	50
		Dibromochloromethane	2009/08/20	NC		%	50
		Ethylbenzene	2009/08/20	NC		%	50
		Ethylene Dibromide	2009/08/20	NC		%	50
		Methylene Chloride(Dichloromethane)	2009/08/20	NC		%	50
		o-Xylene	2009/08/20	NC		%	50
		p+m-Xylene	2009/08/20	NC		%	50
		Styrene	2009/08/20	NC		%	50
		Tetrachloroethylene	2009/08/20	NC		%	50
		Toluene	2009/08/20	NC		%	50
		trans-1,2-Dichloroethylene	2009/08/20	NC		%	50
		trans-1,3-Dichloropropene	2009/08/20	NC		%	50
		Trichloroethylene	2009/08/20	NC		%	50
		Trichlorofluoromethane (FREON 11)	2009/08/20	NC		%	50
		Vinyl Chloride	2009/08/20	NC		%	50
1910244 KGU	Matrix Spike [DJ3022-01]	Available Aluminum (Al)	2009/08/18		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/18		95	%	75 - 125
		Available Arsenic (As)	2009/08/18		90	%	75 - 125
		Available Barium (Ba)	2009/08/18		NC	%	75 - 125
		Available Beryllium (Be)	2009/08/18		91	%	75 - 125
		Available Bismuth (Bi)	2009/08/18		97	%	75 - 125
		Available Boron (B)	2009/08/18		92	%	75 - 125
		Available Cadmium (Cd)	2009/08/18		92	%	75 - 125
		Available Chromium (Cr)	2009/08/18		NC	%	75 - 125
		Available Cobalt (Co)	2009/08/18		93	%	75 - 125
		Available Copper (Cu)	2009/08/18		NC	%	75 - 125
		Available Iron (Fe)	2009/08/18		NC	%	75 - 125

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1910244 KGU	Matrix Spike [DJ3022-01]	Available Lead (Pb)	2009/08/18		91	%	75 - 125
		Available Lithium (Li)	2009/08/18		NC	%	75 - 125
		Available Manganese (Mn)	2009/08/18		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/18		98	%	75 - 125
		Available Molybdenum (Mo)	2009/08/18		89	%	75 - 125
		Available Nickel (Ni)	2009/08/18		92	%	75 - 125
		Available Rubidium (Rb)	2009/08/18		NC	%	75 - 125
		Available Selenium (Se)	2009/08/18		95	%	75 - 125
		Available Silver (Ag)	2009/08/18		95	%	75 - 125
		Available Strontium (Sr)	2009/08/18		82	%	75 - 125
		Available Thallium (Tl)	2009/08/18		98	%	75 - 125
		Available Tin (Sn)	2009/08/18		92	%	75 - 125
		Available Uranium (U)	2009/08/18		94	%	75 - 125
		Available Vanadium (V)	2009/08/18		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/18		89	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/18		83	%	75 - 125
		Available Arsenic (As)	2009/08/18		103	%	75 - 125
		Available Barium (Ba)	2009/08/18		103	%	75 - 125
		Available Chromium (Cr)	2009/08/18		83	%	75 - 125
		Available Cobalt (Co)	2009/08/18		91	%	75 - 125
		Available Copper (Cu)	2009/08/18		90	%	75 - 125
		Available Iron (Fe)	2009/08/18		85	%	75 - 125
		Available Lead (Pb)	2009/08/18		101	%	75 - 125
		Available Manganese (Mn)	2009/08/18		100	%	75 - 125
		Available Nickel (Ni)	2009/08/18		96	%	75 - 125
		Available Strontium (Sr)	2009/08/18		82	%	75 - 125
		Available Vanadium (V)	2009/08/18		99	%	75 - 125
		Available Zinc (Zn)	2009/08/18		97	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/18		99	%	75 - 125
		Available Antimony (Sb)	2009/08/18		105	%	75 - 125
		Available Arsenic (As)	2009/08/18		82	%	75 - 125
		Available Barium (Ba)	2009/08/18		96	%	75 - 125
		Available Beryllium (Be)	2009/08/18		98	%	75 - 125
		Available Bismuth (Bi)	2009/08/18		103	%	75 - 125
		Available Boron (B)	2009/08/18		102	%	75 - 125
		Available Cadmium (Cd)	2009/08/18		92	%	75 - 125
		Available Chromium (Cr)	2009/08/18		96	%	75 - 125
		Available Cobalt (Co)	2009/08/18		96	%	75 - 125
		Available Copper (Cu)	2009/08/18		97	%	75 - 125
		Available Iron (Fe)	2009/08/18		92	%	75 - 125
		Available Lead (Pb)	2009/08/18		102	%	75 - 125
		Available Lithium (Li)	2009/08/18		90	%	75 - 125
		Available Manganese (Mn)	2009/08/18		100	%	75 - 125
		Available Mercury (Hg)	2009/08/18		107	%	75 - 125
		Available Molybdenum (Mo)	2009/08/18		93	%	75 - 125
		Available Nickel (Ni)	2009/08/18		96	%	75 - 125
		Available Rubidium (Rb)	2009/08/18		93	%	75 - 125
		Available Selenium (Se)	2009/08/18		94	%	75 - 125
		Available Silver (Ag)	2009/08/18		100	%	75 - 125
		Available Strontium (Sr)	2009/08/18		95	%	75 - 125
		Available Thallium (Tl)	2009/08/18		102	%	75 - 125
		Available Tin (Sn)	2009/08/18		92	%	75 - 125
		Available Uranium (U)	2009/08/18		99	%	75 - 125
		Available Vanadium (V)	2009/08/18		100	%	75 - 125

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1910244 KGU	Spiked Blank	Available Zinc (Zn)	2009/08/18		89	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/18	<10		mg/kg	
		Available Antimony (Sb)	2009/08/18	<2		mg/kg	
		Available Arsenic (As)	2009/08/18	<2		mg/kg	
		Available Barium (Ba)	2009/08/18	<5		mg/kg	
		Available Beryllium (Be)	2009/08/18	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/18	<2		mg/kg	
		Available Boron (B)	2009/08/18	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/18	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/18	<2		mg/kg	
		Available Cobalt (Co)	2009/08/18	<1		mg/kg	
		Available Copper (Cu)	2009/08/18	<2		mg/kg	
		Available Iron (Fe)	2009/08/18	<50		mg/kg	
		Available Lead (Pb)	2009/08/18	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/18	<2		mg/kg	
		Available Manganese (Mn)	2009/08/18	<2		mg/kg	
		Available Mercury (Hg)	2009/08/18	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/18	<2		mg/kg	
		Available Nickel (Ni)	2009/08/18	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/18	<2		mg/kg	
		Available Selenium (Se)	2009/08/18	<2		mg/kg	
		Available Silver (Ag)	2009/08/18	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/18	<5		mg/kg	
		Available Thallium (Tl)	2009/08/18	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/18	<2		mg/kg	
		Available Uranium (U)	2009/08/18	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/18	<2		mg/kg	
		Available Zinc (Zn)	2009/08/18	<5		mg/kg	
	RPD [DJ3022-01]	Available Aluminum (Al)	2009/08/18	2.8		%	35
		Available Antimony (Sb)	2009/08/18	NC		%	35
		Available Arsenic (As)	2009/08/18	NC		%	35
		Available Barium (Ba)	2009/08/18	0.4		%	35
		Available Beryllium (Be)	2009/08/18	NC		%	35
		Available Bismuth (Bi)	2009/08/18	NC		%	35
		Available Boron (B)	2009/08/18	NC		%	35
		Available Cadmium (Cd)	2009/08/18	NC		%	35
		Available Chromium (Cr)	2009/08/18	0.5		%	35
		Available Cobalt (Co)	2009/08/18	NC		%	35
		Available Copper (Cu)	2009/08/18	17.8		%	35
		Available Iron (Fe)	2009/08/18	4.4		%	35
		Available Lead (Pb)	2009/08/18	3.9		%	35
		Available Lithium (Li)	2009/08/18	5.9		%	35
		Available Manganese (Mn)	2009/08/18	9.7		%	35
		Available Mercury (Hg)	2009/08/18	NC		%	35
		Available Molybdenum (Mo)	2009/08/18	NC		%	35
		Available Nickel (Ni)	2009/08/18	NC		%	35
		Available Rubidium (Rb)	2009/08/18	3.6		%	35
		Available Selenium (Se)	2009/08/18	NC		%	35
		Available Silver (Ag)	2009/08/18	NC		%	35
		Available Strontium (Sr)	2009/08/18	NC		%	35
		Available Thallium (Tl)	2009/08/18	NC		%	35
		Available Tin (Sn)	2009/08/18	NC		%	35
		Available Uranium (U)	2009/08/18	2.5		%	35
		Available Vanadium (V)	2009/08/18	4.1		%	35
		Available Zinc (Zn)	2009/08/18	5.1		%	35

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A4026

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1910247 KGU	Matrix Spike	Available Aluminum (Al)	2009/08/18		NC	%	75 - 125
		Available Antimony (Sb)	2009/08/18		106	%	75 - 125
		Available Arsenic (As)	2009/08/18		99	%	75 - 125
		Available Barium (Ba)	2009/08/18		107	%	75 - 125
		Available Beryllium (Be)	2009/08/18		96	%	75 - 125
		Available Bismuth (Bi)	2009/08/18		103	%	75 - 125
		Available Boron (B)	2009/08/18		97	%	75 - 125
		Available Cadmium (Cd)	2009/08/18		96	%	75 - 125
		Available Chromium (Cr)	2009/08/18		99	%	75 - 125
		Available Cobalt (Co)	2009/08/18		102	%	75 - 125
		Available Copper (Cu)	2009/08/18		101	%	75 - 125
		Available Iron (Fe)	2009/08/18		NC	%	75 - 125
		Available Lead (Pb)	2009/08/18		NC	%	75 - 125
		Available Lithium (Li)	2009/08/18		NC	%	75 - 125
		Available Manganese (Mn)	2009/08/18		NC	%	75 - 125
		Available Mercury (Hg)	2009/08/18		108	%	75 - 125
		Available Molybdenum (Mo)	2009/08/18		102	%	75 - 125
		Available Nickel (Ni)	2009/08/18		103	%	75 - 125
		Available Rubidium (Rb)	2009/08/18		97	%	75 - 125
		Available Selenium (Se)	2009/08/18		105	%	75 - 125
		Available Silver (Ag)	2009/08/18		102	%	75 - 125
		Available Strontium (Sr)	2009/08/18		NC	%	75 - 125
		Available Thallium (Tl)	2009/08/18		97	%	75 - 125
		Available Tin (Sn)	2009/08/18		103	%	75 - 125
		Available Uranium (U)	2009/08/18		100	%	75 - 125
		Available Vanadium (V)	2009/08/18		NC	%	75 - 125
		Available Zinc (Zn)	2009/08/18		92	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/08/18		83	%	75 - 125
		Available Arsenic (As)	2009/08/18		110	%	75 - 125
		Available Barium (Ba)	2009/08/18		113	%	75 - 125
		Available Chromium (Cr)	2009/08/18		89	%	75 - 125
		Available Cobalt (Co)	2009/08/18		100	%	75 - 125
		Available Copper (Cu)	2009/08/18		97	%	75 - 125
		Available Iron (Fe)	2009/08/18		88	%	75 - 125
		Available Lead (Pb)	2009/08/18		100	%	75 - 125
		Available Manganese (Mn)	2009/08/18		103	%	75 - 125
		Available Nickel (Ni)	2009/08/18		107	%	75 - 125
		Available Strontium (Sr)	2009/08/18		89	%	75 - 125
		Available Vanadium (V)	2009/08/18		108	%	75 - 125
		Available Zinc (Zn)	2009/08/18		102	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/08/18		97	%	75 - 125
		Available Antimony (Sb)	2009/08/18		111	%	75 - 125
		Available Arsenic (As)	2009/08/18		94	%	75 - 125
		Available Barium (Ba)	2009/08/18		101	%	75 - 125
		Available Beryllium (Be)	2009/08/18		96	%	75 - 125
		Available Bismuth (Bi)	2009/08/18		101	%	75 - 125
		Available Boron (B)	2009/08/18		98	%	75 - 125
		Available Cadmium (Cd)	2009/08/18		97	%	75 - 125
		Available Chromium (Cr)	2009/08/18		96	%	75 - 125
		Available Cobalt (Co)	2009/08/18		97	%	75 - 125
		Available Copper (Cu)	2009/08/18		96	%	75 - 125
		Available Iron (Fe)	2009/08/18		93	%	75 - 125
		Available Lead (Pb)	2009/08/18		98	%	75 - 125
		Available Lithium (Li)	2009/08/18		93	%	75 - 125
		Available Manganese (Mn)	2009/08/18		98	%	75 - 125

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
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 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A4026

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1910247 KGU	Spiked Blank	Available Mercury (Hg)	2009/08/18		105	%	75 - 125
		Available Molybdenum (Mo)	2009/08/18		99	%	75 - 125
		Available Nickel (Ni)	2009/08/18		97	%	75 - 125
		Available Rubidium (Rb)	2009/08/18		101	%	75 - 125
		Available Selenium (Se)	2009/08/18		77	%	75 - 125
		Available Silver (Ag)	2009/08/18		99	%	75 - 125
		Available Strontium (Sr)	2009/08/18		99	%	75 - 125
		Available Thallium (Tl)	2009/08/18		96	%	75 - 125
		Available Tin (Sn)	2009/08/18		100	%	75 - 125
		Available Uranium (U)	2009/08/18		99	%	75 - 125
		Available Vanadium (V)	2009/08/18		100	%	75 - 125
		Available Zinc (Zn)	2009/08/18		92	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/08/18	<10		mg/kg	
		Available Antimony (Sb)	2009/08/18	<2		mg/kg	
		Available Arsenic (As)	2009/08/18	<2		mg/kg	
		Available Barium (Ba)	2009/08/18	<5		mg/kg	
		Available Beryllium (Be)	2009/08/18	<2		mg/kg	
		Available Bismuth (Bi)	2009/08/18	<2		mg/kg	
		Available Boron (B)	2009/08/18	<5		mg/kg	
		Available Cadmium (Cd)	2009/08/18	<0.3		mg/kg	
		Available Chromium (Cr)	2009/08/18	<2		mg/kg	
		Available Cobalt (Co)	2009/08/18	<1		mg/kg	
		Available Copper (Cu)	2009/08/18	<2		mg/kg	
		Available Iron (Fe)	2009/08/18	<50		mg/kg	
		Available Lead (Pb)	2009/08/18	<0.5		mg/kg	
		Available Lithium (Li)	2009/08/18	<2		mg/kg	
		Available Manganese (Mn)	2009/08/18	<2		mg/kg	
		Available Mercury (Hg)	2009/08/18	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/08/18	<2		mg/kg	
		Available Nickel (Ni)	2009/08/18	<2		mg/kg	
		Available Rubidium (Rb)	2009/08/18	<2		mg/kg	
		Available Selenium (Se)	2009/08/18	<2		mg/kg	
		Available Silver (Ag)	2009/08/18	<0.5		mg/kg	
		Available Strontium (Sr)	2009/08/18	<5		mg/kg	
		Available Thallium (Tl)	2009/08/18	<0.1		mg/kg	
		Available Tin (Sn)	2009/08/18	<2		mg/kg	
		Available Uranium (U)	2009/08/18	<0.1		mg/kg	
		Available Vanadium (V)	2009/08/18	<2		mg/kg	
		Available Zinc (Zn)	2009/08/18	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/08/18	0.3		%	35
		Available Antimony (Sb)	2009/08/18	NC		%	35
		Available Arsenic (As)	2009/08/18	NC		%	35
		Available Barium (Ba)	2009/08/18	NC		%	35
		Available Beryllium (Be)	2009/08/18	NC		%	35
		Available Boron (B)	2009/08/18	NC		%	35
		Available Cadmium (Cd)	2009/08/18	NC		%	35
		Available Chromium (Cr)	2009/08/18	NC		%	35
		Available Cobalt (Co)	2009/08/18	NC		%	35
		Available Copper (Cu)	2009/08/18	NC		%	35
		Available Iron (Fe)	2009/08/18	1.6		%	35
		Available Lead (Pb)	2009/08/18	22.6		%	35
		Available Manganese (Mn)	2009/08/18	1.2		%	35
		Available Molybdenum (Mo)	2009/08/18	NC		%	35
		Available Nickel (Ni)	2009/08/18	NC		%	35
		Available Selenium (Se)	2009/08/18	NC		%	35

Jacques Whitford Limited
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Client Project #: 1044856/Z9100
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Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A4026

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1910247 KGU	RPD	Available Silver (Ag)	2009/08/18	NC		%	35
		Available Strontium (Sr)	2009/08/18	NC		%	35
		Available Thallium (Tl)	2009/08/18	NC		%	35
		Available Tin (Sn)	2009/08/18	NC		%	35
		Available Uranium (U)	2009/08/18	7.1		%	35
		Available Vanadium (V)	2009/08/18	9.9		%	35
		Available Zinc (Zn)	2009/08/18	9.4		%	35
1910434 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/08/18		94	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/18		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/18		80	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/18		78	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/18		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/18		94	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/18		82	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/18		83	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/18		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/18		94	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/18	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/18	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/18	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/18	NC		%	50
1911368 CMI	Matrix Spike	Decachlorobiphenyl	2009/08/20		82	%	30 - 130
		Total PCB	2009/08/20		102	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/08/20		78	%	30 - 130
		Total PCB	2009/08/20		81	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/08/20		81	%	30 - 130
		Total PCB	2009/08/20	<0.05		ug/g	
	RPD	Total PCB	2009/08/20	NC		%	50
	Matrix Spike	4-Bromofluorobenzene	2009/08/20		97	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/20		102	%	60 - 140
		D8-Toluene	2009/08/20		96	%	60 - 140
		1,1,1-Trichloroethane	2009/08/20		95	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/08/20		83	%	60 - 140
		1,1,2-Trichloroethane	2009/08/20		93	%	60 - 140
		1,1-Dichloroethane	2009/08/20		97	%	60 - 140
		1,1-Dichloroethylene	2009/08/20		91	%	60 - 140
		1,2-Dichlorobenzene	2009/08/20		87	%	60 - 140
		1,2-Dichloroethane	2009/08/20		93	%	60 - 140
		1,2-Dichloropropane	2009/08/20		89	%	60 - 140
		1,3-Dichlorobenzene	2009/08/20		87	%	60 - 140
		1,4-Dichlorobenzene	2009/08/20		85	%	60 - 140
		Benzene	2009/08/20		91	%	60 - 140
		Bromodichloromethane	2009/08/20		81	%	60 - 140
		Bromoform	2009/08/20		65	%	60 - 140
		Bromomethane	2009/08/20		95	%	60 - 140
		Carbon Tetrachloride	2009/08/20		89	%	60 - 140
		Chlorobenzene	2009/08/20		93	%	60 - 140
		Chloroform	2009/08/20		95	%	60 - 140
		Chloromethane	2009/08/20		85	%	60 - 140
		cis-1,2-Dichloroethylene	2009/08/20		96	%	60 - 140
		cis-1,3-Dichloropropene	2009/08/20		81	%	60 - 140
		Dibromochloromethane	2009/08/20		73	%	60 - 140
		Ethylbenzene	2009/08/20		89	%	60 - 140
		Ethylene Dibromide	2009/08/20		86	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/08/20		103	%	60 - 140

Jacques Whitford Limited
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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1912928 MSK	Matrix Spike	o-Xylene	2009/08/20		92	%	60 - 140
		p+m-Xylene	2009/08/20		96	%	60 - 140
		Styrene	2009/08/20		90	%	60 - 140
		Tetrachloroethylene	2009/08/20		95	%	60 - 140
		Toluene	2009/08/20		91	%	60 - 140
		trans-1,2-Dichloroethylene	2009/08/20		97	%	60 - 140
		trans-1,3-Dichloropropene	2009/08/20		73	%	60 - 140
		Trichloroethylene	2009/08/20		97	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/08/20		93	%	60 - 140
		Vinyl Chloride	2009/08/20		77	%	60 - 140
	Spiked Blank	4-Bromofluorobenzene	2009/08/20		107	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/20		115	%	60 - 140
		D8-Toluene	2009/08/20		110	%	60 - 140
		1,1,1-Trichloroethane	2009/08/20		103	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/08/20		86	%	60 - 140
		1,1,2-Trichloroethane	2009/08/20		98	%	60 - 140
		1,1-Dichloroethane	2009/08/20		102	%	60 - 140
		1,1-Dichloroethylene	2009/08/20		100	%	60 - 140
		1,2-Dichlorobenzene	2009/08/20		92	%	60 - 140
		1,2-Dichloroethane	2009/08/20		100	%	60 - 140
		1,2-Dichloropropane	2009/08/20		96	%	60 - 140
		1,3-Dichlorobenzene	2009/08/20		95	%	60 - 140
		1,4-Dichlorobenzene	2009/08/20		91	%	60 - 140
		Benzene	2009/08/20		97	%	60 - 140
		Bromodichloromethane	2009/08/20		86	%	60 - 140
		Bromoform	2009/08/20		72	%	60 - 140
		Bromomethane	2009/08/20		103	%	60 - 140
		Carbon Tetrachloride	2009/08/20		96	%	60 - 140
		Chlorobenzene	2009/08/20		97	%	60 - 140
		Chloroform	2009/08/20		106	%	60 - 140
		Chloromethane	2009/08/20		95	%	60 - 140
		cis-1,2-Dichloroethylene	2009/08/20		103	%	60 - 140
		cis-1,3-Dichloropropene	2009/08/20		88	%	60 - 140
		Dibromochloromethane	2009/08/20		79	%	60 - 140
		Ethylbenzene	2009/08/20		93	%	60 - 140
		Ethylene Dibromide	2009/08/20		95	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/08/20		107	%	60 - 140
		o-Xylene	2009/08/20		96	%	60 - 140
		p+m-Xylene	2009/08/20		99	%	60 - 140
		Styrene	2009/08/20		96	%	60 - 140
		Tetrachloroethylene	2009/08/20		99	%	60 - 140
		Toluene	2009/08/20		98	%	60 - 140
		trans-1,2-Dichloroethylene	2009/08/20		101	%	60 - 140
		trans-1,3-Dichloropropene	2009/08/20		77	%	60 - 140
		Trichloroethylene	2009/08/20		101	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/08/20		103	%	60 - 140
		Vinyl Chloride	2009/08/20		84	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/08/20		101	%	60 - 140
		D4-1,2-Dichloroethane	2009/08/20		110	%	60 - 140
		D8-Toluene	2009/08/20		102	%	60 - 140
		1,1,1-Trichloroethane	2009/08/20	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/08/20	<30		ug/kg	
		1,1,2-Trichloroethane	2009/08/20	<30		ug/kg	
		1,1-Dichloroethane	2009/08/20	<30		ug/kg	
		1,1-Dichloroethylene	2009/08/20	<30		ug/kg	

Jacques Whitford Limited
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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1912928 MSK	Method Blank	1,2-Dichlorobenzene	2009/08/20	<30		ug/kg	
		1,2-Dichloroethane	2009/08/20	<30		ug/kg	
		1,2-Dichloropropane	2009/08/20	<30		ug/kg	
		1,3-Dichlorobenzene	2009/08/20	<30		ug/kg	
		1,4-Dichlorobenzene	2009/08/20	<30		ug/kg	
		Benzene	2009/08/20	<30		ug/kg	
		Bromodichloromethane	2009/08/20	<30		ug/kg	
		Bromoform	2009/08/20	<30		ug/kg	
		Bromomethane	2009/08/20	<200		ug/kg	
		Carbon Tetrachloride	2009/08/20	<30		ug/kg	
		Chlorobenzene	2009/08/20	<30		ug/kg	
		Chloroform	2009/08/20	<30		ug/kg	
		Chloromethane	2009/08/20	<30		ug/kg	
		cis-1,2-Dichloroethylene	2009/08/20	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/08/20	<30		ug/kg	
		Dibromochloromethane	2009/08/20	<30		ug/kg	
		Ethylbenzene	2009/08/20	<30		ug/kg	
		Ethylene Dibromide	2009/08/20	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/08/20	<30		ug/kg	
		o-Xylene	2009/08/20	<30		ug/kg	
		p+m-Xylene	2009/08/20	<30		ug/kg	
		Styrene	2009/08/20	<30		ug/kg	
		Tetrachloroethylene	2009/08/20	<30		ug/kg	
		Toluene	2009/08/20	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/08/20	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/08/20	<30		ug/kg	
		Trichloroethylene	2009/08/20	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/08/20	<30		ug/kg	
		Vinyl Chloride	2009/08/20	<30		ug/kg	
	RPD	1,1,1-Trichloroethane	2009/08/20	NC		%	50
		1,1,2,2-Tetrachloroethane	2009/08/20	NC		%	50
		1,1,2-Trichloroethane	2009/08/20	NC		%	50
		1,1-Dichloroethane	2009/08/20	NC		%	50
		1,1-Dichloroethylene	2009/08/20	NC		%	50
		1,2-Dichlorobenzene	2009/08/20	NC		%	50
		1,2-Dichloroethane	2009/08/20	NC		%	50
		1,2-Dichloropropane	2009/08/20	NC		%	50
		1,3-Dichlorobenzene	2009/08/20	NC		%	50
		1,4-Dichlorobenzene	2009/08/20	NC		%	50
		Benzene	2009/08/20	NC		%	50
		Bromodichloromethane	2009/08/20	NC		%	50
		Bromoform	2009/08/20	NC		%	50
		Bromomethane	2009/08/20	NC		%	50
		Carbon Tetrachloride	2009/08/20	NC		%	50
		Chlorobenzene	2009/08/20	NC		%	50
		Chloroform	2009/08/20	NC		%	50
		Chloromethane	2009/08/20	NC		%	50
		cis-1,2-Dichloroethylene	2009/08/20	NC		%	50
		cis-1,3-Dichloropropene	2009/08/20	NC		%	50
		Dibromochloromethane	2009/08/20	NC		%	50
		Ethylbenzene	2009/08/20	NC		%	50
		Ethylene Dibromide	2009/08/20	NC		%	50
		Methylene Chloride(Dichloromethane)	2009/08/20	NC		%	50
		o-Xylene	2009/08/20	NC		%	50
		p+m-Xylene	2009/08/20	NC		%	50

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9A4026

QA/QC Batch				Date Analyzed				
Num	Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1912928	MSK	RPD	Styrene	2009/08/20	NC		%	50
			Tetrachloroethylene	2009/08/20	NC		%	50
			Toluene	2009/08/20	NC		%	50
			trans-1,2-Dichloroethylene	2009/08/20	NC		%	50
			trans-1,3-Dichloropropene	2009/08/20	NC		%	50
			Trichloroethylene	2009/08/20	NC		%	50
			Trichlorofluoromethane (FREON 11)	2009/08/20	NC		%	50
			Vinyl Chloride	2009/08/20	NC		%	50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: N/A

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/09

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9D2375

Received: 2009/09/29, 9:45

Sample Matrix: Soil
 # Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	10	2009/10/06	2009/10/07	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	4	N/A	2009/10/07	ATL SOP 00024 R4	Based on EPA6020A
Moisture	10	N/A	2009/10/06	ATL SOP 00001 R3	MOE Handbook 1983
PCBs in soil by GC/ECD	9	2009/10/07	2009/10/09	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI)	10	2009/10/06	2009/10/07	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	10	2009/10/05	2009/10/07		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Michelle Hill

09 Oct 2009 14:55:36 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D2375
Report Date: 2009/10/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DX7881	DX7883	DX7884	DX7885	DX7886		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	TP-140 BS1	TP-158 BS1	SED-62	SED-63	SED-64	RDL	QC Batch

Inorganics								
Moisture	%	8	21	80	34	43	1	1962388
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DX7887	DX7888	DX7889	DX7890	DX7891		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	BS-256	MW54-SS2	MW55-SS3	MW56-SS3	MW57-SS3	RDL	QC Batch

Inorganics								
Moisture	%	77	12	14	15	14	1	1962388
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9D2375
Report Date: 2009/10/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DX7884	DX7885	DX7886	DX7887		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	SED-62	SED-63	SED-64	BS-256	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5300	3600	8200	8700	10	1965163
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1965163
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1965163
Available Barium (Ba)	mg/kg	22	9	35	22	5	1965163
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1965163
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1965163
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1965163
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1965163
Available Chromium (Cr)	mg/kg	10	7	23	13	2	1965163
Available Cobalt (Co)	mg/kg	1	4	7	<1	1	1965163
Available Copper (Cu)	mg/kg	14	5	57	13	2	1965163
Available Iron (Fe)	mg/kg	4200	7000	32000	4200	50	1965163
Available Lead (Pb)	mg/kg	4.5	2.1	42	10	0.5	1965163
Available Lithium (Li)	mg/kg	<2	4	9	<2	2	1965163
Available Manganese (Mn)	mg/kg	24	110	240	13	2	1965163
Available Mercury (Hg)	mg/kg	<0.1	<0.1	0.2	0.2	0.1	1965163
Available Molybdenum (Mo)	mg/kg	<2	<2	6	<2	2	1965163
Available Nickel (Ni)	mg/kg	6	7	26	4	2	1965163
Available Rubidium (Rb)	mg/kg	3	<2	9	<2	2	1965163
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1965163
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1965163
Available Strontium (Sr)	mg/kg	15	7	17	16	5	1965163
Available Thallium (Tl)	mg/kg	<0.1	<0.1	0.1	<0.1	0.1	1965163
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1965163
Available Uranium (U)	mg/kg	1.4	0.2	6.0	3.1	0.1	1965163
Available Vanadium (V)	mg/kg	6	10	20	4	2	1965163
Available Zinc (Zn)	mg/kg	19	15	46	14	5	1965163

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D2375
Report Date: 2009/10/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX7881	DX7883	DX7884	DX7885		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	TP-140 BS1	TP-158 BS1	SED-62	SED-63	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1963686
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1963686
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1963686
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1963686
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1963686
>C10-C21 Hydrocarbons	mg/kg	650	<15	<15	<15	15	1962624
>C21-<C32 Hydrocarbons	mg/kg	1800	<15	80	<15	15	1962624
Modified TPH (Tier1)	mg/kg	2400	<20	80	<20	20	1962012
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	94	105	101	104		1962624
n-Dotriacontane - Extractable	%	93 (1)	108 (2)	104 (3)	100 (2)		1962624
Isobutylbenzene - Volatile	%	94	104	79	112		1963686

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel oil range. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) Silica gel clean-up performed prior to analysis as per client request.

(3) No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9D2375
Report Date: 2009/10/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX7886	DX7887		DX7888		
Sampling Date		2009/09/27	2009/09/27		2009/09/27		
COC Number		N/A	N/A		N/A		
	Units	SED-64	BS-256	RDL	MW54-SS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.1	<0.1	0.1	<0.03	0.03	1963686
Toluene	mg/kg	<0.1	<0.1	0.1	<0.03	0.03	1963686
Ethylbenzene	mg/kg	<0.1	<0.1	0.1	<0.03	0.03	1963686
Xylene (Total)	mg/kg	<0.3	<0.3	0.3	<0.05	0.05	1963686
C6 - C10 (less BTEX)	mg/kg	58	<10	10	25	3	1963686
>C10-C21 Hydrocarbons	mg/kg	<15	6900	15	580	15	1962624
>C21-<C32 Hydrocarbons	mg/kg	190	570	15	36	15	1962624
Modified TPH (Tier1)	mg/kg	240	7500	20	640	20	1962012
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	102	101		102		1962624
n-Dotriacontane - Extractable	%	96 (1)	102 (2)		99 (3)		1962624
Isobutylbenzene - Volatile	%	98 (4)	99 (4)		100		1963686

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) Weathered fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(3) Fuel oil fraction.

(4) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9D2375
Report Date: 2009/10/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DX7889	DX7890	DX7891		
Sampling Date		2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A		
	Units	MW55-SS3	MW56-SS3	MW57-SS3	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1963686
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1963686
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1963686
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1963686
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	3	1963686
>C10-C21 Hydrocarbons	mg/kg	24	40	<15	15	1962624
>C21-<C32 Hydrocarbons	mg/kg	33	<15	<15	15	1962624
Modified TPH (Tier1)	mg/kg	56	40	<20	20	1962012
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	96	99	101		1962624
n-Dotriacontane - Extractable	%	95 (1)	96 (2)	96		1962624
Isobutylbenzene - Volatile	%	98	98	104		1963686

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. No resemblance to petroleum products in lube oil range.

(2) Weathered fuel oil fraction.

Maxxam Job #: A9D2375
Report Date: 2009/10/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DX7881	DX7884	DX7885	DX7886		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	TP-140 BS1	SED-62	SED-63	SED-64	RDL	QC Batch

PCBs							
Total PCB	ug/g	0.07	<0.05	<0.05	0.40	0.05	1963665
Surrogate Recovery (%)							
Decachlorobiphenyl	%	71 (1)	73	73	77 (1)		1963665
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1260.							

Maxxam ID		DX7887	DX7888	DX7889	DX7890		
Sampling Date		2009/09/27	2009/09/27	2009/09/27	2009/09/27		
COC Number		N/A	N/A	N/A	N/A		
	Units	BS-256	MW54-SS2	MW55-SS3	MW56-SS3	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1963665
Surrogate Recovery (%)							
Decachlorobiphenyl	%	77	73	75	77		1963665
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9D2375
Report Date: 2009/10/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DX7891	DX7891		
Sampling Date		2009/09/27	2009/09/27		
COC Number		N/A	N/A		
	Units	MW57-SS3	MW57-SS3 Lab-Dup	RDL	QC Batch

PCBs					
Total PCB	ug/g	<0.05	<0.05	0.05	1963665
Surrogate Recovery (%)					
Decachlorobiphenyl	%	77	74		1963665

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D2375
Report Date: 2009/10/09

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

VPH sample preservation not within 72 hours of receipt at the laboratory. VPH sample preservation not within 7 days of sampling date as recommended by the reference method.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9D2375

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1962624 MSK	Matrix Spike	Isobutylbenzene - Extractable	2009/10/07		91	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/07		95	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/07		97	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/07		126	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/06		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/06		108	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/06		100	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/06		148 (1)	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/06		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/06		101	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/06	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/10/06	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/10/06	NC		%	50
		>C21-<C32 Hydrocarbons	2009/10/06	NC		%	50
1963665 CMI	Matrix Spike [DX7891-01]	Decachlorobiphenyl	2009/10/09		76	%	30 - 130
		Total PCB	2009/10/09		100	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/09		78	%	30 - 130
		Total PCB	2009/10/09		96	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/09		78	%	30 - 130
		Total PCB	2009/10/09	<0.05		ug/g	
	RPD [DX7891-01]	Total PCB	2009/10/09	NC		%	50
	Matrix Spike	Isobutylbenzene - Volatile	2009/10/07		88	%	60 - 140
		Benzene	2009/10/07		80	%	60 - 140
		Toluene	2009/10/07		104	%	60 - 140
		Ethylbenzene	2009/10/07		101	%	60 - 140
		Xylene (Total)	2009/10/07		106	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/07		93	%	60 - 140
		Benzene	2009/10/07		87	%	60 - 140
		Toluene	2009/10/07		92	%	60 - 140
		Ethylbenzene	2009/10/07		88	%	60 - 140
	Method Blank	Xylene (Total)	2009/10/07		90	%	60 - 140
		Isobutylbenzene - Volatile	2009/10/07		93	%	60 - 140
		Benzene	2009/10/07	<0.03		mg/kg	
		Toluene	2009/10/07	<0.03		mg/kg	
	RPD	Ethylbenzene	2009/10/07	<0.03		mg/kg	
		Xylene (Total)	2009/10/07	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/10/07	<3		mg/kg	
		Benzene	2009/10/07	NC		%	50
		Toluene	2009/10/07	NC		%	50
		Ethylbenzene	2009/10/07	NC		%	50
		Xylene (Total)	2009/10/07	NC		%	50
		C6 - C10 (less BTEX)	2009/10/07	NC		%	50
1965163 KGU	Matrix Spike	Available Aluminum (Al)	2009/10/07		NC	%	75 - 125
		Available Antimony (Sb)	2009/10/07		72 (2)	%	75 - 125
		Available Arsenic (As)	2009/10/07		92	%	75 - 125
		Available Barium (Ba)	2009/10/07		NC	%	75 - 125
		Available Beryllium (Be)	2009/10/07		94	%	75 - 125
		Available Bismuth (Bi)	2009/10/07		96	%	75 - 125
		Available Boron (B)	2009/10/07		87	%	75 - 125
		Available Cadmium (Cd)	2009/10/07		100	%	75 - 125
		Available Chromium (Cr)	2009/10/07		NC	%	75 - 125
		Available Cobalt (Co)	2009/10/07		96	%	75 - 125
		Available Copper (Cu)	2009/10/07		NC	%	75 - 125
		Available Iron (Fe)	2009/10/07		NC	%	75 - 125

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D2375

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965163 KGU	Matrix Spike	Available Lead (Pb)	2009/10/07		NC	%	75 - 125
		Available Lithium (Li)	2009/10/07		NC	%	75 - 125
		Available Manganese (Mn)	2009/10/07		NC	%	75 - 125
		Available Mercury (Hg)	2009/10/07		106	%	75 - 125
		Available Molybdenum (Mo)	2009/10/07		96	%	75 - 125
		Available Nickel (Ni)	2009/10/07		NC	%	75 - 125
		Available Rubidium (Rb)	2009/10/07		NC	%	75 - 125
		Available Selenium (Se)	2009/10/07		83	%	75 - 125
		Available Silver (Ag)	2009/10/07		98	%	75 - 125
		Available Strontium (Sr)	2009/10/07		NC	%	75 - 125
		Available Thallium (Tl)	2009/10/07		97	%	75 - 125
		Available Tin (Sn)	2009/10/07		102	%	75 - 125
		Available Uranium (U)	2009/10/07		98	%	75 - 125
		Available Vanadium (V)	2009/10/07		NC	%	75 - 125
		Available Zinc (Zn)	2009/10/07		93	%	75 - 125
	QC Standard	Available Aluminum (Al)	2009/10/07		90	%	75 - 125
		Available Arsenic (As)	2009/10/07		96	%	75 - 125
		Available Barium (Ba)	2009/10/07		109	%	75 - 125
		Available Chromium (Cr)	2009/10/07		76	%	75 - 125
		Available Cobalt (Co)	2009/10/07		90	%	75 - 125
		Available Copper (Cu)	2009/10/07		83	%	75 - 125
		Available Iron (Fe)	2009/10/07		100	%	75 - 125
		Available Lead (Pb)	2009/10/07		98	%	75 - 125
		Available Manganese (Mn)	2009/10/07		105	%	75 - 125
		Available Nickel (Ni)	2009/10/07		89	%	75 - 125
		Available Strontium (Sr)	2009/10/07		96	%	75 - 125
		Available Vanadium (V)	2009/10/07		100	%	75 - 125
		Available Zinc (Zn)	2009/10/07		95	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/10/07		97	%	75 - 125
		Available Antimony (Sb)	2009/10/07		86	%	75 - 125
		Available Arsenic (As)	2009/10/07		83	%	75 - 125
		Available Barium (Ba)	2009/10/07		93	%	75 - 125
		Available Beryllium (Be)	2009/10/07		93	%	75 - 125
		Available Bismuth (Bi)	2009/10/07		99	%	75 - 125
		Available Boron (B)	2009/10/07		95	%	75 - 125
		Available Cadmium (Cd)	2009/10/07		92	%	75 - 125
		Available Chromium (Cr)	2009/10/07		92	%	75 - 125
		Available Cobalt (Co)	2009/10/07		98	%	75 - 125
		Available Copper (Cu)	2009/10/07		97	%	75 - 125
		Available Iron (Fe)	2009/10/07		95	%	75 - 125
		Available Lead (Pb)	2009/10/07		97	%	75 - 125
		Available Lithium (Li)	2009/10/07		102	%	75 - 125
		Available Manganese (Mn)	2009/10/07		101	%	75 - 125
		Available Mercury (Hg)	2009/10/07		102	%	75 - 125
		Available Molybdenum (Mo)	2009/10/07		95	%	75 - 125
		Available Nickel (Ni)	2009/10/07		96	%	75 - 125
		Available Rubidium (Rb)	2009/10/07		96	%	75 - 125
		Available Selenium (Se)	2009/10/07		95	%	75 - 125
		Available Silver (Ag)	2009/10/07		96	%	75 - 125
		Available Strontium (Sr)	2009/10/07		99	%	75 - 125
		Available Thallium (Tl)	2009/10/07		98	%	75 - 125
		Available Tin (Sn)	2009/10/07		99	%	75 - 125
		Available Uranium (U)	2009/10/07		99	%	75 - 125
		Available Vanadium (V)	2009/10/07		95	%	75 - 125
		Available Zinc (Zn)	2009/10/07		92	%	75 - 125

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D2375

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1965163 KGU	Method Blank	Available Aluminum (Al)	2009/10/07	<10		mg/kg	
		Available Antimony (Sb)	2009/10/07	<2		mg/kg	
		Available Arsenic (As)	2009/10/07	<2		mg/kg	
		Available Barium (Ba)	2009/10/07	<5		mg/kg	
		Available Beryllium (Be)	2009/10/07	<2		mg/kg	
		Available Bismuth (Bi)	2009/10/07	<2		mg/kg	
		Available Boron (B)	2009/10/07	<5		mg/kg	
		Available Cadmium (Cd)	2009/10/07	<0.3		mg/kg	
		Available Chromium (Cr)	2009/10/07	<2		mg/kg	
		Available Cobalt (Co)	2009/10/07	<1		mg/kg	
		Available Copper (Cu)	2009/10/07	<2		mg/kg	
		Available Iron (Fe)	2009/10/07	<50		mg/kg	
		Available Lead (Pb)	2009/10/07	<0.5		mg/kg	
		Available Lithium (Li)	2009/10/07	<2		mg/kg	
		Available Manganese (Mn)	2009/10/07	<2		mg/kg	
		Available Mercury (Hg)	2009/10/07	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/10/07	<2		mg/kg	
		Available Nickel (Ni)	2009/10/07	<2		mg/kg	
		Available Rubidium (Rb)	2009/10/07	<2		mg/kg	
		Available Selenium (Se)	2009/10/07	<2		mg/kg	
		Available Silver (Ag)	2009/10/07	<0.5		mg/kg	
		Available Strontium (Sr)	2009/10/07	<5		mg/kg	
		Available Thallium (Tl)	2009/10/07	<0.1		mg/kg	
		Available Tin (Sn)	2009/10/07	<2		mg/kg	
		Available Uranium (U)	2009/10/07	<0.1		mg/kg	
		Available Vanadium (V)	2009/10/07	<2		mg/kg	
		Available Zinc (Zn)	2009/10/07	<5		mg/kg	
	RPD	Available Aluminum (Al)	2009/10/07	5.3		%	35
		Available Antimony (Sb)	2009/10/07	NC		%	35
		Available Arsenic (As)	2009/10/07	NC		%	35
		Available Barium (Ba)	2009/10/07	17.8		%	35
		Available Beryllium (Be)	2009/10/07	NC		%	35
		Available Bismuth (Bi)	2009/10/07	NC		%	35
		Available Boron (B)	2009/10/07	NC		%	35
		Available Cadmium (Cd)	2009/10/07	NC		%	35
		Available Chromium (Cr)	2009/10/07	6.8		%	35
		Available Cobalt (Co)	2009/10/07	15.0		%	35
		Available Copper (Cu)	2009/10/07	6.4		%	35
		Available Iron (Fe)	2009/10/07	2.1		%	35
		Available Lead (Pb)	2009/10/07	7.0		%	35
		Available Lithium (Li)	2009/10/07	8.1		%	35
		Available Manganese (Mn)	2009/10/07	3.8		%	35
		Available Mercury (Hg)	2009/10/07	NC		%	35
		Available Molybdenum (Mo)	2009/10/07	NC		%	35
		Available Nickel (Ni)	2009/10/07	7.2		%	35
		Available Rubidium (Rb)	2009/10/07	NC		%	35
		Available Selenium (Se)	2009/10/07	NC		%	35
		Available Silver (Ag)	2009/10/07	NC		%	35
		Available Strontium (Sr)	2009/10/07	NC		%	35
		Available Thallium (Tl)	2009/10/07	NC		%	35
		Available Tin (Sn)	2009/10/07	NC		%	35
		Available Uranium (U)	2009/10/07	1.3		%	35
		Available Vanadium (V)	2009/10/07	3.2		%	35
		Available Zinc (Zn)	2009/10/07	6.4		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D2375

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Spike: within in-house acceptance limits.

(2) Low recovery due to sample matrix.

1044856-L

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: 25981

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/28

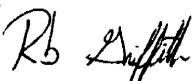
CERTIFICATE OF ANALYSIS**MAXXAM JOB #: A9D9841****Received: 2009/10/20, 9:31**

Sample Matrix: Water
 # Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (PIRI)	6	2009/10/22	2009/10/23	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	3	2009/10/23	2009/10/24	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	1	2009/10/27	2009/10/28	ATL SOP 00113 R3	Based on Atl. PIRI
Metals Water Diss. MS - Low Level	7	N/A	2009/10/23	ATL SOP 00024 R4	Based on EPA6020A
Acridine and Quinoline in Water	4	2009/10/22	2009/10/26	ATL SOP 00103 R3	
PAH in Water by GC/MS (SIM)	4	2009/10/22	2009/10/26	ATL SOP 00103 R3	Based on EPA 8270C
PAH in Water by GC/MS (SIM)	2	2009/10/22	2009/10/27	ATL SOP 00103 R3	Based on EPA 8270C
PCBs in water by GC/ECD	4	2009/10/23	2009/10/27	ATL SOP 00107 R3	Based on EPA8082
VPH in Water (PIRI)	4	2009/10/23	2009/10/24	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	2	2009/10/23	2009/10/25	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	2	2009/10/23	2009/10/27	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	1	2009/10/24	2009/10/26	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	1	2009/10/26	2009/10/27	ATL SOP 00118 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	6	N/A	2009/10/26		Based on Atl. PIRI
ModTPH (T1) Calc. for Water	3	N/A	2009/10/27		Based on Atl. PIRI
ModTPH (T1) Calc. for Water	1	N/A	2009/10/28		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key


 Rob Griffith
 28 Oct 2009 17:10:49 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
 Email: Michelle.Hill.Reports@maxxamanalytics.com
 Phone# (902) 420-0203

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 21

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		EB7562		EB7567	EB7570		
Sampling Date		2009/10/16		2009/10/16	2009/10/16		
COC Number		25981		25981	25981		
	Units	MW-35	RDL	MW-39	MW-47	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	<50	50	159	1630	5.0	1982474
Dissolved Antimony (Sb)	ug/L	<20	20	<2.0	<2.0	2.0	1982474
Dissolved Arsenic (As)	ug/L	<20	20	<2.0	3.5	2.0	1982474
Dissolved Barium (Ba)	ug/L	<50	50	<5.0	21.3	5.0	1982474
Dissolved Beryllium (Be)	ug/L	<20	20	<2.0	<2.0	2.0	1982474
Dissolved Bismuth (Bi)	ug/L	<20	20	<2.0	<2.0	2.0	1982474
Dissolved Boron (B)	ug/L	<50	50	10.5	13.9	5.0	1982474
Dissolved Cadmium (Cd)	ug/L	<0.17	0.17	0.031	0.076	0.017	1982474
Dissolved Chromium (Cr)	ug/L	<10	10	<1.0	4.9	1.0	1982474
Dissolved Cobalt (Co)	ug/L	<4.0	4.0	<0.40	4.65	0.40	1982474
Dissolved Copper (Cu)	ug/L	<20	20	11.2	6.3	2.0	1982474
Dissolved Iron (Fe)	ug/L	1200	500	54	7980	50	1982474
Dissolved Lead (Pb)	ug/L	<5.0	5.0	<0.50	2.05	0.50	1982474
Dissolved Manganese (Mn)	ug/L	334	20	7.2	377	2.0	1982474
Dissolved Molybdenum (Mo)	ug/L	<20	20	<2.0	<2.0	2.0	1982474
Dissolved Nickel (Ni)	ug/L	<20	20	<2.0	8.8	2.0	1982474
Dissolved Selenium (Se)	ug/L	<10	10	<1.0	<1.0	1.0	1982474
Dissolved Silver (Ag)	ug/L	<1.0	1.0	<0.10	<0.10	0.10	1982474
Dissolved Strontium (Sr)	ug/L	593	50	22.8	76.4	5.0	1982474
Dissolved Thallium (Tl)	ug/L	<1.0	1.0	<0.10	<0.10	0.10	1982474
Dissolved Tin (Sn)	ug/L	<20	20	<2.0	<2.0	2.0	1982474
Dissolved Titanium (Ti)	ug/L	<20	20	2.9	44.3	2.0	1982474
Dissolved Uranium (U)	ug/L	2.7	1.0	1.04	0.78	0.10	1982474
Dissolved Vanadium (V)	ug/L	<20	20	<2.0	9.9	2.0	1982474
Dissolved Zinc (Zn)	ug/L	<50	50	8.7	46.9	5.0	1982474

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		EB7571	EB7572		EB7573		
Sampling Date		2009/10/16	2009/10/16		2009/10/16		
COC Number		25981	25981		25981		
	Units	MW-49	MW-135	RDL	MW-139	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	572	50	50	173	5.0	1982474
Dissolved Antimony (Sb)	ug/L	<20	<20	20	<2.0	2.0	1982474
Dissolved Arsenic (As)	ug/L	<20	<20	20	<2.0	2.0	1982474
Dissolved Barium (Ba)	ug/L	<50	<50	50	<5.0	5.0	1982474
Dissolved Beryllium (Be)	ug/L	<20	<20	20	<2.0	2.0	1982474
Dissolved Bismuth (Bi)	ug/L	<20	<20	20	<2.0	2.0	1982474
Dissolved Boron (B)	ug/L	<50	<50	50	13.0	5.0	1982474
Dissolved Cadmium (Cd)	ug/L	<0.17	<0.17	0.17	0.026	0.017	1982474
Dissolved Chromium (Cr)	ug/L	<10	<10	10	<1.0	1.0	1982474
Dissolved Cobalt (Co)	ug/L	7.0	<4.0	4.0	<0.40	0.40	1982474
Dissolved Copper (Cu)	ug/L	<20	<20	20	13.2	2.0	1982474
Dissolved Iron (Fe)	ug/L	26300	1240	500	62	50	1982474
Dissolved Lead (Pb)	ug/L	<5.0	<5.0	5.0	<0.50	0.50	1982474
Dissolved Manganese (Mn)	ug/L	709	343	20	7.9	2.0	1982474
Dissolved Molybdenum (Mo)	ug/L	<20	<20	20	<2.0	2.0	1982474
Dissolved Nickel (Ni)	ug/L	<20	<20	20	<2.0	2.0	1982474
Dissolved Selenium (Se)	ug/L	<10	<10	10	<1.0	1.0	1982474
Dissolved Silver (Ag)	ug/L	<1.0	<1.0	1.0	<0.10	0.10	1982474
Dissolved Strontium (Sr)	ug/L	109	579	50	23.3	5.0	1982474
Dissolved Thallium (Tl)	ug/L	<1.0	<1.0	1.0	<0.10	0.10	1982474
Dissolved Tin (Sn)	ug/L	<20	<20	20	<2.0	2.0	1982474
Dissolved Titanium (Ti)	ug/L	<20	<20	20	2.9	2.0	1982474
Dissolved Uranium (U)	ug/L	<1.0	2.8	1.0	0.94	0.10	1982474
Dissolved Vanadium (V)	ug/L	<20	<20	20	<2.0	2.0	1982474
Dissolved Zinc (Zn)	ug/L	<50	<50	50	8.6	5.0	1982474

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		EB7575		
Sampling Date		2009/10/16		
COC Number		25981		
	Units	MW-147	RDL	QC Batch

Metals				
Dissolved Aluminum (Al)	ug/L	1690	5.0	1982474
Dissolved Antimony (Sb)	ug/L	<2.0	2.0	1982474
Dissolved Arsenic (As)	ug/L	3.6	2.0	1982474
Dissolved Barium (Ba)	ug/L	23.9	5.0	1982474
Dissolved Beryllium (Be)	ug/L	<2.0	2.0	1982474
Dissolved Bismuth (Bi)	ug/L	<2.0	2.0	1982474
Dissolved Boron (B)	ug/L	15.4	5.0	1982474
Dissolved Cadmium (Cd)	ug/L	0.071	0.017	1982474
Dissolved Chromium (Cr)	ug/L	4.8	1.0	1982474
Dissolved Cobalt (Co)	ug/L	5.11	0.40	1982474
Dissolved Copper (Cu)	ug/L	5.4	2.0	1982474
Dissolved Iron (Fe)	ug/L	8450	50	1982474
Dissolved Lead (Pb)	ug/L	1.93	0.50	1982474
Dissolved Manganese (Mn)	ug/L	427	2.0	1982474
Dissolved Molybdenum (Mo)	ug/L	<2.0	2.0	1982474
Dissolved Nickel (Ni)	ug/L	8.7	2.0	1982474
Dissolved Selenium (Se)	ug/L	1.0	1.0	1982474
Dissolved Silver (Ag)	ug/L	<0.10	0.10	1982474
Dissolved Strontium (Sr)	ug/L	89.9	5.0	1982474
Dissolved Thallium (Tl)	ug/L	<0.10	0.10	1982474
Dissolved Tin (Sn)	ug/L	<2.0	2.0	1982474
Dissolved Titanium (Ti)	ug/L	42.5	2.0	1982474
Dissolved Uranium (U)	ug/L	0.84	0.10	1982474
Dissolved Vanadium (V)	ug/L	9.9	2.0	1982474
Dissolved Zinc (Zn)	ug/L	43.3	5.0	1982474

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		EB7562			EB7568		
Sampling Date		2009/10/16			2009/10/16		
COC Number		25981			25981		
	Units	MW-35	RDL	QC Batch	MW-44	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	ug/L	<0.05	0.05	1981024	0.66	0.05	1983898
2-Methylnaphthalene	ug/L	<0.05	0.05	1981024	<0.05	0.05	1983898
Acenaphthene	ug/L	<0.01	0.01	1981024	<0.04 (1)	0.04	1983898
Acenaphthylene	ug/L	<0.01	0.01	1981024	0.03	0.01	1983898
Acridine	ug/L	<0.05	0.05	1981031			
Anthracene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Benzo(a)anthracene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Benzo(a)pyrene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Benzo(b)fluoranthene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Benzo(g,h,i)perylene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Benzo(k)fluoranthene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Chrysene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Dibenz(a,h)anthracene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Fluoranthene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Fluorene	ug/L	<0.01	0.01	1981024	0.11	0.01	1983898
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Naphthalene	ug/L	<0.2	0.2	1981024	<0.2	0.2	1983898
Perylene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Phenanthrene	ug/L	<0.01	0.01	1981024	0.09	0.01	1983898
Pyrene	ug/L	<0.01	0.01	1981024	<0.01	0.01	1983898
Quinoline	ug/L	<0.05	0.05	1981031			
Surrogate Recovery (%)							
D10-Anthracene	%	74		1981024	120		1983898
D14-Terphenyl	%	80 (2)		1981024	178 (3)		1983898
D8-Acenaphthylene	%	124		1981024	127		1983898

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated PAH RDL(s) due to matrix interference.

(2) PAH sample contained sediment.

(3) PAH surrogate(s) not within acceptance limits. Sample past recommended hold time for repeat analysis.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		EB7570	EB7572		
Sampling Date		2009/10/16	2009/10/16		
COC Number		25981	25981		
	Units	MW-47	MW-135	RDL	QC Batch

Polyaromatic Hydrocarbons					
1-Methylnaphthalene	ug/L	<0.05	<0.05	0.05	1981024
2-Methylnaphthalene	ug/L	<0.05	<0.05	0.05	1981024
Acenaphthene	ug/L	<0.01	<0.01	0.01	1981024
Acenaphthylene	ug/L	<0.01	<0.01	0.01	1981024
Acridine	ug/L	<0.05	<0.05	0.05	1981031
Anthracene	ug/L	0.01	<0.01	0.01	1981024
Benzo(a)anthracene	ug/L	<0.01	<0.01	0.01	1981024
Benzo(a)pyrene	ug/L	<0.01	<0.01	0.01	1981024
Benzo(b)fluoranthene	ug/L	<0.01	<0.01	0.01	1981024
Benzo(g,h,i)perylene	ug/L	<0.01	<0.01	0.01	1981024
Benzo(k)fluoranthene	ug/L	<0.01	<0.01	0.01	1981024
Chrysene	ug/L	<0.01	<0.01	0.01	1981024
Dibenz(a,h)anthracene	ug/L	<0.01	<0.01	0.01	1981024
Fluoranthene	ug/L	<0.01	<0.01	0.01	1981024
Fluorene	ug/L	<0.01	<0.01	0.01	1981024
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	<0.01	0.01	1981024
Naphthalene	ug/L	<0.2	<0.2	0.2	1981024
Perylene	ug/L	<0.01	<0.01	0.01	1981024
Phenanthrene	ug/L	0.01	0.02	0.01	1981024
Pyrene	ug/L	<0.01	<0.01	0.01	1981024
Quinoline	ug/L	<0.05	<0.05	0.05	1981031
Surrogate Recovery (%)					
D10-Anthracene	%	61	78		1981024
D14-Terphenyl	%	61 (1)	60 (1)		1981024
D8-Acenaphthylene	%	129	124		1981024

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PAH sample contained sediment.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		EB7574			EB7575		
Sampling Date		2009/10/16			2009/10/16		
COC Number		25981			25981		
	Units	MW-144	RDL	QC Batch	MW-147	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	ug/L	0.64	0.05	1983898	<0.05	0.05	1981024
2-Methylnaphthalene	ug/L	<0.05	0.05	1983898	<0.05	0.05	1981024
Acenaphthene	ug/L	<0.04 (1)	0.04	1983898	<0.01	0.01	1981024
Acenaphthylene	ug/L	0.03	0.01	1983898	<0.01	0.01	1981024
Acridine	ug/L				<0.05	0.05	1981031
Anthracene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Benzo(a)anthracene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Benzo(a)pyrene	ug/L	<0.01	0.01	1983898	0.01	0.01	1981024
Benzo(b)fluoranthene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Benzo(g,h,i)perylene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Benzo(k)fluoranthene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Chrysene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Dibenz(a,h)anthracene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Fluoranthene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Fluorene	ug/L	0.10	0.01	1983898	<0.01	0.01	1981024
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Naphthalene	ug/L	<0.2	0.2	1983898	<0.2	0.2	1981024
Perylene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Phenanthrene	ug/L	0.08	0.01	1983898	0.02	0.01	1981024
Pyrene	ug/L	<0.01	0.01	1983898	<0.01	0.01	1981024
Quinoline	ug/L				<0.05	0.05	1981031
Surrogate Recovery (%)							
D10-Anthracene	%	123		1983898	68		1981024
D14-Terphenyl	%	157 (2)		1983898	62 (3)		1981024
D8-Acenaphthylene	%	109		1983898	118		1981024

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated PAH RDL(s) due to matrix interference.

(2) PAH surrogate(s) not within acceptance limits. Sample past recommended hold time for repeat analysis.

(3) PAH sample contained sediment.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EB7562	EB7567		EB7568		
Sampling Date		2009/10/16	2009/10/16		2009/10/16		
COC Number		25981	25981		25981		
	Units	MW-35	MW-39	QC Batch	MW-44	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	<0.001	1982251	<0.001	0.001	1982770
Toluene	mg/L	<0.001	<0.001	1982251	0.003	0.001	1982770
Ethylbenzene	mg/L	<0.001	<0.001	1982251	<0.001	0.001	1982770
Xylene (Total)	mg/L	<0.002	<0.002	1982251	<0.002	0.002	1982770
C6 - C10 (less BTEX)	mg/L	<0.01	<0.01	1982251	<0.01	0.01	1982770
>C10-C21 Hydrocarbons	mg/L	0.11	<0.05	1981365	0.12	0.05	1981365
>C21-<C32 Hydrocarbons	mg/L	<0.1	<0.1	1981365	<0.1	0.1	1981365
Modified TPH (Tier1)	mg/L	0.1	<0.1	1977000	0.1	0.1	1977000
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	98	98	1981365	98		1981365
n-Dotriacontane - Extractable	%	89 (1)	86	1981365	90 (1)		1981365
Isobutylbenzene - Volatile	%	96	98	1982251	101		1982770

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EB7569			EB7570		
Sampling Date		2009/10/16			2009/10/16		
COC Number		25981			25981		
	Units	MW-45	RDL	QC Batch	MW-47	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	0.002	0.001	1982251	<0.01	0.01	1982770
Toluene	mg/L	<0.001	0.001	1982251	0.47	0.01	1982770
Ethylbenzene	mg/L	<0.001	0.001	1982251	<0.01	0.01	1982770
Xylene (Total)	mg/L	<0.002	0.002	1982251	<0.02	0.02	1982770
C6 - C10 (less BTEX)	mg/L	<0.01	0.01	1982251	<0.1	0.1	1982770
>C10-C21 Hydrocarbons	mg/L	0.19	0.05	1981365	0.19	0.05	1981365
>C21-<C32 Hydrocarbons	mg/L	<0.1	0.1	1981365	<0.1	0.1	1981365
Modified TPH (Tier1)	mg/L	0.2	0.1	1977000	<0.1	0.1	1977000
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	101		1981365	97		1981365
n-Dotriacontane - Extractable	%	94 (1)		1981365	96 (2)		1981365
Isobutylbenzene - Volatile	%	97		1982251	91 (3)		1982770

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in fuel oil range.
(2) Weathered fuel oil fraction.
(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EB7571			EB7572		
Sampling Date		2009/10/16			2009/10/16		
COC Number		25981			25981		
	Units	MW-49	RDL	QC Batch	MW-135	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.01	0.01	1982770	<0.001	0.001	1982770
Toluene	mg/L	0.24	0.01	1982770	<0.001	0.001	1982770
Ethylbenzene	mg/L	0.02	0.01	1982770	<0.001	0.001	1982770
Xylene (Total)	mg/L	0.08	0.02	1982770	<0.002	0.002	1982770
C6 - C10 (less BTEX)	mg/L	<0.1	0.1	1982770	<0.01	0.01	1982770
>C10-C21 Hydrocarbons	mg/L	1.5	0.1	1985411	<0.05	0.05	1981365
>C21-<C32 Hydrocarbons	mg/L	0.3	0.2	1985411	<0.1	0.1	1981365
Modified TPH (Tier1)	mg/L	1.7	0.2	1983946	<0.1	0.1	1977000
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	115		1985411	94		1981365
n-Dotriacontane - Extractable	%	117 (1)		1985411	93 (2)		1981365
Isobutylbenzene - Volatile	%	94 (3)		1982770	89		1982770

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Elevated TEH RDL(s) due to insufficient sample.

(2) TEH sample contained sediment.

(3) Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EB7573		EB7574		
Sampling Date		2009/10/16		2009/10/16		
COC Number		25981		25981		
	Units	MW-139	QC Batch	MW-144	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/L	<0.001	1982251	<0.001	0.001	1983466
Toluene	mg/L	<0.001	1982251	0.002	0.001	1983466
Ethylbenzene	mg/L	<0.001	1982251	<0.001	0.001	1983466
Xylene (Total)	mg/L	<0.002	1982251	<0.002	0.002	1983466
C6 - C10 (less BTEX)	mg/L	<0.01	1982251	<0.01	0.01	1983466
>C10-C21 Hydrocarbons	mg/L	<0.05	1981757	0.13	0.05	1981757
>C21-<C32 Hydrocarbons	mg/L	<0.1	1981757	<0.1	0.1	1981757
Modified TPH (Tier1)	mg/L	<0.1	1977000	0.1	0.1	1977000
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	93	1981757	97		1981757
n-Dotriacontane - Extractable	%	83	1981757	88 (1)		1981757
Isobutylbenzene - Volatile	%	100	1982251	114		1983466

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		EB7575		
Sampling Date		2009/10/16		
COC Number		25981		
	Units	MW-147	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/L	<0.01	0.01	1982251
Toluene	mg/L	0.43	0.01	1982251
Ethylbenzene	mg/L	<0.01	0.01	1982251
Xylene (Total)	mg/L	<0.02	0.02	1982251
C6 - C10 (less BTEX)	mg/L	<0.1	0.1	1982251
>C10-C21 Hydrocarbons	mg/L	0.18	0.05	1981757
>C21-<C32 Hydrocarbons	mg/L	0.1	0.1	1981757
Modified TPH (Tier1)	mg/L	0.1	0.1	1977000
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	94		1981757
n-Dotriacontane - Extractable	%	88 (1)		1981757
Isobutylbenzene - Volatile	%	86 (2)		1982251

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. TEH sample contained sediment.
(2) VPH analysis performed on previously opened vial. Elevated VPH RDL(s) due to sample dilution.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		EB7567	EB7570	EB7570	EB7573		
Sampling Date		2009/10/16	2009/10/16	2009/10/16	2009/10/16		
COC Number		25981	25981	25981	25981		
	Units	MW-39	MW-47	MW-47 Lab-Dup	MW-139	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	0.32	0.15 (1)	<0.05	0.05	1982575
Surrogate Recovery (%)							
Decachlorobiphenyl	%	62 (2)	32 (3)	41 (2)	60 (2)		1982575

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Duplicate: results are outside acceptance limit. Insufficient sample for repeat analysis.

(2) PCB sample contained sediment.

(3) PCB sample contained sediment. Aroclor 1260.

Maxxam ID		EB7575		
Sampling Date		2009/10/16		
COC Number		25981		
	Units	MW-147	RDL	QC Batch

PCBs				
Total PCB	ug/L	0.19	0.05	1982575
Surrogate Recovery (%)				
Decachlorobiphenyl	%	39 (1)		1982575

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) PCB sample contained sediment. Aroclor 1260.

Maxxam Job #: A9D9841
Report Date: 2009/10/28

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Sample EB7562-01: Elevated reporting limits for trace metals due to a high calcium content.

Sample EB7571-01: Elevated reporting limits for trace metals due to sample matrix.

Sample EB7572-01: Elevated reporting limits for trace metals due to a high calcium content.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9D9841

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1981024 SOD	Matrix Spike	D10-Anthracene	2009/10/27		71	%	30 - 130
		D14-Terphenyl	2009/10/27		93	%	30 - 130
		D8-Acenaphthylene	2009/10/27		116	%	30 - 130
		1-Methylnaphthalene	2009/10/27		78	%	30 - 130
		2-Methylnaphthalene	2009/10/27		81	%	30 - 130
		Acenaphthene	2009/10/27		88	%	30 - 130
		Acenaphthylene	2009/10/27		112	%	30 - 130
		Anthracene	2009/10/27		103	%	30 - 130
		Benzo(a)anthracene	2009/10/27		94	%	30 - 130
		Benzo(a)pyrene	2009/10/27		79	%	30 - 130
		Benzo(b)fluoranthene	2009/10/27		86	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/27		72	%	30 - 130
		Benzo(k)fluoranthene	2009/10/27		86	%	30 - 130
		Chrysene	2009/10/27		114	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/27		71	%	30 - 130
		Fluoranthene	2009/10/27		112	%	30 - 130
		Fluorene	2009/10/27		88	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/27		59 (1)	%	30 - 130
		Naphthalene	2009/10/27		83	%	30 - 130
		Perylene	2009/10/27		73	%	30 - 130
		Phenanthrene	2009/10/27		104	%	30 - 130
		Pyrene	2009/10/27		111	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/10/26		72	%	30 - 130
		D14-Terphenyl	2009/10/26		91	%	30 - 130
		D8-Acenaphthylene	2009/10/26		116	%	30 - 130
		1-Methylnaphthalene	2009/10/26		75	%	30 - 130
		2-Methylnaphthalene	2009/10/26		81	%	30 - 130
		Acenaphthene	2009/10/26		92	%	30 - 130
		Acenaphthylene	2009/10/26		106	%	30 - 130
		Anthracene	2009/10/26		92	%	30 - 130
		Benzo(a)anthracene	2009/10/26		79	%	30 - 130
		Benzo(a)pyrene	2009/10/26		79	%	30 - 130
		Benzo(b)fluoranthene	2009/10/26		106	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/26		71	%	30 - 130
		Benzo(k)fluoranthene	2009/10/26		105	%	30 - 130
		Chrysene	2009/10/26		117	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/26		65	%	30 - 130
		Fluoranthene	2009/10/26		104	%	30 - 130
		Fluorene	2009/10/26		91	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/26		53	%	30 - 130
		Naphthalene	2009/10/26		88	%	30 - 130
		Perylene	2009/10/26		90	%	30 - 130
		Phenanthrene	2009/10/26		104	%	30 - 130
		Pyrene	2009/10/26		104	%	30 - 130
	Method Blank	D10-Anthracene	2009/10/26		81	%	30 - 130
		D14-Terphenyl	2009/10/26		115	%	30 - 130
		D8-Acenaphthylene	2009/10/26		97	%	30 - 130
		1-Methylnaphthalene	2009/10/26	<0.05		ug/L	
		2-Methylnaphthalene	2009/10/26	<0.05		ug/L	
		Acenaphthene	2009/10/26	<0.01		ug/L	
		Acenaphthylene	2009/10/26	<0.01		ug/L	
		Anthracene	2009/10/26	<0.01		ug/L	
		Benzo(a)anthracene	2009/10/26	<0.01		ug/L	
		Benzo(a)pyrene	2009/10/26	<0.01		ug/L	
		Benzo(b)fluoranthene	2009/10/26	<0.01		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D9841

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1981024 SOD	Method Blank	Benzo(g,h,i)perylene	2009/10/26	<0.01		ug/L	
		Benzo(k)fluoranthene	2009/10/26	<0.01		ug/L	
		Chrysene	2009/10/26	<0.01		ug/L	
		Dibenz(a,h)anthracene	2009/10/26	<0.01		ug/L	
		Fluoranthene	2009/10/26	<0.01		ug/L	
		Fluorene	2009/10/26	<0.01		ug/L	
		Indeno(1,2,3-cd)pyrene	2009/10/26	<0.01		ug/L	
		Naphthalene	2009/10/26	<0.2		ug/L	
		Perylene	2009/10/26	<0.01		ug/L	
		Phenanthrene	2009/10/26	<0.01		ug/L	
		Pyrene	2009/10/26	<0.01		ug/L	
	RPD	1-Methylnaphthalene	2009/10/27	NC		%	40
		2-Methylnaphthalene	2009/10/27	NC		%	40
		Acenaphthene	2009/10/27	NC		%	40
		Acenaphthylene	2009/10/27	NC		%	40
		Anthracene	2009/10/27	NC		%	40
		Benzo(a)anthracene	2009/10/27	NC		%	40
		Benzo(a)pyrene	2009/10/27	NC		%	40
		Benzo(b)fluoranthene	2009/10/27	NC		%	40
		Benzo(g,h,i)perylene	2009/10/27	NC		%	40
		Benzo(k)fluoranthene	2009/10/27	NC		%	40
		Chrysene	2009/10/27	NC		%	40
		Dibenz(a,h)anthracene	2009/10/27	NC		%	40
		Fluoranthene	2009/10/27	NC		%	40
		Fluorene	2009/10/27	NC		%	40
		Indeno(1,2,3-cd)pyrene	2009/10/27	NC		%	40
		Naphthalene	2009/10/27	NC		%	40
		Perylene	2009/10/27	NC		%	40
		Phenanthrene	2009/10/27	NC		%	40
		Pyrene	2009/10/27	NC		%	40
1981031 SOD	Matrix Spike	Acridine	2009/10/27		10 (1)	%	30 - 130
		Quinoline	2009/10/27		31 (1)	%	30 - 130
	Spiked Blank	Acridine	2009/10/26		75	%	30 - 130
		Quinoline	2009/10/26		79	%	30 - 130
	Method Blank	Acridine	2009/10/26	<0.05		ug/L	
		Quinoline	2009/10/26	<0.05		ug/L	
	RPD	Acridine	2009/10/27	NC		%	40
		Quinoline	2009/10/27	NC		%	40
1981365 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/23		106	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/23		106	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/23		104	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/23		110	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/23		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/23		90	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/23		94	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/23		97	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/23		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/23		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/23	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/23	<0.1		mg/L	
	RPD	>C10-C21 Hydrocarbons	2009/10/23	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/23	NC		%	40
1981757 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/24		108	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/24		105	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/24		100	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D9841

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1981757 LMU	Matrix Spike	>C21-<C32 Hydrocarbons	2009/10/24		107	%	30 - 130
		Isobutylbenzene - Extractable	2009/10/24		99	%	30 - 130
	Spiked Blank	n-Dotriacontane - Extractable	2009/10/24		85	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/24		83	%	30 - 130
	Method Blank	>C21-<C32 Hydrocarbons	2009/10/24		85	%	30 - 130
		Isobutylbenzene - Extractable	2009/10/24		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/24		88	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/24	<0.05		mg/L	
	RPD	>C21-<C32 Hydrocarbons	2009/10/24	<0.1		mg/L	
		>C10-C21 Hydrocarbons	2009/10/24	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/24	NC		%	40
1982251 GTH	Matrix Spike	Isobutylbenzene - Volatile	2009/10/24		96	%	70 - 130
		Benzene	2009/10/24		100	%	70 - 130
		Toluene	2009/10/24		100	%	70 - 130
		Ethylbenzene	2009/10/24		100	%	70 - 130
		Xylene (Total)	2009/10/24		104	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/24		103	%	70 - 130
		Benzene	2009/10/24		101	%	70 - 130
		Toluene	2009/10/24		104	%	70 - 130
		Ethylbenzene	2009/10/24		106	%	70 - 130
		Xylene (Total)	2009/10/24		109	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/24		103	%	70 - 130
		Benzene	2009/10/24	<0.001		mg/L	
		Toluene	2009/10/24	<0.001		mg/L	
		Ethylbenzene	2009/10/24	<0.001		mg/L	
		Xylene (Total)	2009/10/24	<0.002		mg/L	
	RPD	C6 - C10 (less BTEX)	2009/10/24	<0.01		mg/L	
		Benzene	2009/10/24	NC		%	40
		Toluene	2009/10/24	NC		%	40
		Ethylbenzene	2009/10/24	NC		%	40
		Xylene (Total)	2009/10/24	NC		%	40
1982474 KGU	QC Standard	Dissolved Aluminum (Al)	2009/10/23		102	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/23		110	%	80 - 120
		Dissolved Arsenic (As)	2009/10/23		92	%	80 - 120
		Dissolved Barium (Ba)	2009/10/23		105	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/23		84	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/23		96	%	80 - 120
		Dissolved Boron (B)	2009/10/23		91	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/23		104	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/23		100	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/23		96	%	80 - 120
		Dissolved Copper (Cu)	2009/10/23		89	%	80 - 120
		Dissolved Iron (Fe)	2009/10/23		106	%	80 - 120
		Dissolved Lead (Pb)	2009/10/23		92	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/23		94	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/23		109	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/23		92	%	80 - 120
		Dissolved Selenium (Se)	2009/10/23		80	%	80 - 120
		Dissolved Silver (Ag)	2009/10/23		96	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/23		100	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/23		87	%	80 - 120
		Dissolved Vanadium (V)	2009/10/23		99	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/23		84	%	80 - 120
	Spiked Blank	Dissolved Aluminum (Al)	2009/10/23		103	%	80 - 120

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D9841

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1982474 KGU	Spiked Blank	Dissolved Antimony (Sb)	2009/10/23		88	%	80 - 120
		Dissolved Arsenic (As)	2009/10/23		99	%	80 - 120
		Dissolved Barium (Ba)	2009/10/23		99	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/23		102	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/23		105	%	80 - 120
		Dissolved Boron (B)	2009/10/23		100	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/23		100	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/23		101	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/23		100	%	80 - 120
		Dissolved Copper (Cu)	2009/10/23		100	%	80 - 120
		Dissolved Lead (Pb)	2009/10/23		105	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/23		97	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/23		99	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/23		101	%	80 - 120
		Dissolved Selenium (Se)	2009/10/23		101	%	80 - 120
		Dissolved Silver (Ag)	2009/10/23		92	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/23		101	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/23		102	%	80 - 120
		Dissolved Tin (Sn)	2009/10/23		101	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/23		104	%	80 - 120
		Dissolved Uranium (U)	2009/10/23		99	%	80 - 120
		Dissolved Vanadium (V)	2009/10/23		100	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/23		108	%	80 - 120
	Method Blank	Dissolved Aluminum (Al)	2009/10/23	<5.0		ug/L	
		Dissolved Antimony (Sb)	2009/10/23	<2.0		ug/L	
		Dissolved Arsenic (As)	2009/10/23	<2.0		ug/L	
		Dissolved Barium (Ba)	2009/10/23	<5.0		ug/L	
		Dissolved Beryllium (Be)	2009/10/23	<2.0		ug/L	
		Dissolved Bismuth (Bi)	2009/10/23	<2.0		ug/L	
		Dissolved Boron (B)	2009/10/23	<5.0		ug/L	
		Dissolved Cadmium (Cd)	2009/10/23	<0.017		ug/L	
		Dissolved Chromium (Cr)	2009/10/23	<1.0		ug/L	
		Dissolved Cobalt (Co)	2009/10/23	<0.40		ug/L	
		Dissolved Copper (Cu)	2009/10/23	<2.0		ug/L	
		Dissolved Iron (Fe)	2009/10/23	<50		ug/L	
		Dissolved Lead (Pb)	2009/10/23	<0.50		ug/L	
		Dissolved Manganese (Mn)	2009/10/23	<2.0		ug/L	
		Dissolved Molybdenum (Mo)	2009/10/23	<2.0		ug/L	
		Dissolved Nickel (Ni)	2009/10/23	<2.0		ug/L	
		Dissolved Selenium (Se)	2009/10/23	<1.0		ug/L	
		Dissolved Silver (Ag)	2009/10/23	<0.10		ug/L	
		Dissolved Strontium (Sr)	2009/10/23	<5.0		ug/L	
		Dissolved Thallium (Tl)	2009/10/23	<0.10		ug/L	
		Dissolved Tin (Sn)	2009/10/23	<2.0		ug/L	
		Dissolved Titanium (Ti)	2009/10/23	<2.0		ug/L	
		Dissolved Uranium (U)	2009/10/23	<0.10		ug/L	
		Dissolved Vanadium (V)	2009/10/23	<2.0		ug/L	
		Dissolved Zinc (Zn)	2009/10/23	<5.0		ug/L	
1982575 CMI	Matrix Spike [EB7573-01]	Decachlorobiphenyl	2009/10/27		64	%	30 - 130
		Total PCB	2009/10/27		83	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/27		40	%	30 - 130
		Total PCB	2009/10/27		89	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/27		39	%	30 - 130
		Total PCB	2009/10/27	<0.05		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D9841

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1982575 CMI	RPD [EB7570-01]	Total PCB	2009/10/27	NC (2)		%	40
1982770 GTH	Matrix Spike	Isobutylbenzene - Volatile	2009/10/25		95	%	70 - 130
		Benzene	2009/10/25		100	%	70 - 130
		Toluene	2009/10/25		104	%	70 - 130
		Ethylbenzene	2009/10/25		104	%	70 - 130
		Xylene (Total)	2009/10/25		106	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/25		99	%	70 - 130
		Benzene	2009/10/25		103	%	70 - 130
		Toluene	2009/10/25		105	%	70 - 130
		Ethylbenzene	2009/10/25		106	%	70 - 130
		Xylene (Total)	2009/10/25		109	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/24		103	%	70 - 130
		Benzene	2009/10/24	<0.001		mg/L	
		Toluene	2009/10/24	<0.001		mg/L	
		Ethylbenzene	2009/10/24	<0.001		mg/L	
		Xylene (Total)	2009/10/24	<0.002		mg/L	
		C6 - C10 (less BTEX)	2009/10/24	<0.01		mg/L	
	RPD	Benzene	2009/10/24	NC		%	40
		Toluene	2009/10/24	NC		%	40
		Ethylbenzene	2009/10/24	NC		%	40
		Xylene (Total)	2009/10/24	NC		%	40
		C6 - C10 (less BTEX)	2009/10/24	NC		%	40
1983466 SHL	Matrix Spike	Isobutylbenzene - Volatile	2009/10/27		115	%	70 - 130
		Benzene	2009/10/27		100	%	70 - 130
		Toluene	2009/10/27		104	%	70 - 130
		Ethylbenzene	2009/10/27		109	%	70 - 130
		Xylene (Total)	2009/10/27		113	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/26		107	%	70 - 130
		Benzene	2009/10/26		92	%	70 - 130
		Toluene	2009/10/26		97	%	70 - 130
		Ethylbenzene	2009/10/26		99	%	70 - 130
		Xylene (Total)	2009/10/26		106	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/26		106	%	70 - 130
		Benzene	2009/10/26	<0.001		mg/L	
		Toluene	2009/10/26	<0.001		mg/L	
		Ethylbenzene	2009/10/26	<0.001		mg/L	
		Xylene (Total)	2009/10/26	<0.002		mg/L	
		C6 - C10 (less BTEX)	2009/10/26	<0.01		mg/L	
	RPD	Benzene	2009/10/26	NC		%	40
		Toluene	2009/10/26	NC		%	40
		Ethylbenzene	2009/10/26	NC		%	40
		Xylene (Total)	2009/10/26	NC		%	40
		C6 - C10 (less BTEX)	2009/10/26	NC		%	40
1983898 SOD	Matrix Spike	D10-Anthracene	2009/10/27		85	%	30 - 130
		D14-Terphenyl	2009/10/27		84	%	30 - 130
		D8-Acenaphthylene	2009/10/27		73	%	30 - 130
		1-Methylnaphthalene	2009/10/27		71	%	30 - 130
		2-Methylnaphthalene	2009/10/27		76	%	30 - 130
		Acenaphthene	2009/10/27		90	%	30 - 130
		Acenaphthylene	2009/10/27		94	%	30 - 130
		Anthracene	2009/10/27		84	%	30 - 130
		Benzo(a)anthracene	2009/10/27		89	%	30 - 130
		Benzo(a)pyrene	2009/10/27		81	%	30 - 130
		Benzo(b)fluoranthene	2009/10/27		92	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/27		75	%	30 - 130

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D9841

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1983898 SOD	Matrix Spike	Benzo(k)fluoranthene	2009/10/27		92	%	30 - 130
		Chrysene	2009/10/27		103	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/27		72	%	30 - 130
		Fluoranthene	2009/10/27		89	%	30 - 130
		Fluorene	2009/10/27		86	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/27		68 (3)	%	30 - 130
		Naphthalene	2009/10/27		84	%	30 - 130
		Perylene	2009/10/27		91	%	30 - 130
		Phenanthrene	2009/10/27		97	%	30 - 130
		Pyrene	2009/10/27		92	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/10/27		95	%	30 - 130
		D14-Terphenyl	2009/10/27		98	%	30 - 130
		D8-Acenaphthylene	2009/10/27		90	%	30 - 130
		1-Methylnaphthalene	2009/10/27		87	%	30 - 130
		2-Methylnaphthalene	2009/10/27		93	%	30 - 130
		Acenaphthene	2009/10/27		101	%	30 - 130
		Acenaphthylene	2009/10/27		115	%	30 - 130
		Anthracene	2009/10/27		95	%	30 - 130
		Benzo(a)anthracene	2009/10/27		90	%	30 - 130
		Benzo(a)pyrene	2009/10/27		92	%	30 - 130
	Method Blank	Benzo(b)fluoranthene	2009/10/27		100	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/27		106	%	30 - 130
		Benzo(k)fluoranthene	2009/10/27		100	%	30 - 130
		Chrysene	2009/10/27		116	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/27		101	%	30 - 130
		Fluoranthene	2009/10/27		135 (4)	%	30 - 130
		Fluorene	2009/10/27		101	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/27		87	%	30 - 130
		Naphthalene	2009/10/27		94	%	30 - 130
		Perylene	2009/10/27		104	%	30 - 130
	RPD	Phenanthrene	2009/10/27		113	%	30 - 130
		Pyrene	2009/10/27		130	%	30 - 130
		D10-Anthracene	2009/10/27		92	%	30 - 130
		D14-Terphenyl	2009/10/27		100	%	30 - 130
		D8-Acenaphthylene	2009/10/27		69	%	30 - 130
		1-Methylnaphthalene	2009/10/27	<0.05		ug/L	
		2-Methylnaphthalene	2009/10/27	<0.05		ug/L	
		Acenaphthene	2009/10/27	<0.01		ug/L	
		Acenaphthylene	2009/10/27	<0.01		ug/L	
		Anthracene	2009/10/27	<0.01		ug/L	
		Benzo(a)anthracene	2009/10/27	<0.01		ug/L	
		Benzo(a)pyrene	2009/10/27	<0.01		ug/L	
		Benzo(b)fluoranthene	2009/10/27	<0.01		ug/L	
		Benzo(g,h,i)perylene	2009/10/27	<0.01		ug/L	
		Benzo(k)fluoranthene	2009/10/27	<0.01		ug/L	
		Chrysene	2009/10/27	<0.01		ug/L	
		Dibenz(a,h)anthracene	2009/10/27	<0.01		ug/L	
		Fluoranthene	2009/10/27	<0.01		ug/L	
		Fluorene	2009/10/27	<0.01		ug/L	
		Indeno(1,2,3-cd)pyrene	2009/10/27	<0.01		ug/L	
		Naphthalene	2009/10/27	<0.2		ug/L	
		Perylene	2009/10/27	<0.01		ug/L	
		Phenanthrene	2009/10/27	<0.01		ug/L	
		Pyrene	2009/10/27	<0.01		ug/L	
		1-Methylnaphthalene	2009/10/27	NC		%	40

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9D9841

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1983898 SOD	RPD	2-Methylnaphthalene	2009/10/27	NC		%	40
		Acenaphthene	2009/10/27	NC		%	40
		Acenaphthylene	2009/10/27	NC		%	40
		Anthracene	2009/10/27	NC		%	40
		Benzo(a)anthracene	2009/10/27	NC		%	40
		Benzo(a)pyrene	2009/10/27	NC		%	40
		Benzo(b)fluoranthene	2009/10/27	NC		%	40
		Benzo(g,h,i)perylene	2009/10/27	NC		%	40
		Benzo(k)fluoranthene	2009/10/27	NC		%	40
		Chrysene	2009/10/27	NC		%	40
		Dibenz(a,h)anthracene	2009/10/27	NC		%	40
		Fluoranthene	2009/10/27	NC		%	40
		Fluorene	2009/10/27	NC		%	40
		Indeno(1,2,3-cd)pyrene	2009/10/27	NC		%	40
		Naphthalene	2009/10/27	NC		%	40
		Perylene	2009/10/27	NC		%	40
		Phenanthrene	2009/10/27	NC		%	40
		Pyrene	2009/10/27	NC		%	40
1985411 SHR	Matrix Spike	Isobutylbenzene - Extractable	2009/10/28		108	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/28		113	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/28		91	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/28		103	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/28		104	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/28		110	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/28		89	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/28		103	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/28		99	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/28		107	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/28	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/28	<0.1		mg/L	
	RPD	>C10-C21 Hydrocarbons	2009/10/28	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/28	NC		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: results are outside acceptance limit. Analysis was not repeated, sample was past recommended hold time for repeat analysis.

(2) Duplicate: results are outside acceptance limit. Insufficient sample for repeat analysis.

(3) Matrix Spike: < 10 % of compounds in multi-component analysis in violation.

(4) Spike: within in-house acceptance limits.

Your P.O. #: NSD016400
 Your Project #: 1044856/Z9100
 Site: HOPEDALE
 Your C.O.C. #: N/A

Attention: JIM SLADE
 Jacques Whitford Limited
 607 Torbay Rd
 St. John's, NL
 A1A 4Y6

Report Date: 2009/10/13

CERTIFICATE OF ANALYSIS**MAXXAM JOB #: A9C8550****Received: 2009/09/23, 9:38**

Sample Matrix: Water
 # Samples Received: 43

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Water (AA PIRI)	1	2009/10/01	2009/10/08	ATL SOP 00116 R3	Based on Atl. PIRI
TEH in Water (AA PIRI)	4	2009/10/01	2009/10/09	ATL SOP 00116 R3	Based on Atl. PIRI
TEH in Water (PIRI)	27	2009/10/02	2009/10/04	ATL SOP 00113 R3	Based on Atl. PIRI
TEH in Water (PIRI)	6	2009/10/02	2009/10/05	ATL SOP 00113 R3	Based on Atl. PIRI
Metals Water Diss. MS - Low Level	18	N/A	2009/10/05	ATL SOP 00024 R4	Based on EPA6020A
Acridine and Quinoline in Water	6	2009/09/28	2009/10/06	ATL SOP 00103 R3	
Acridine and Quinoline in Water	1	2009/10/01	2009/10/06	ATL SOP 00103 R3	
PAH in Water by GC/MS (SIM)	7	2009/10/01	2009/10/06	ATL SOP 00103 R3	Based on EPA 8270C
PCBs in water by GC/ECD ¶	21	2009/10/02	2009/10/08	ATL SOP-00153 R1	Based on EPA8082
PCBs in water by GC/ECD ¶	1	2009/10/06	2009/10/13	ATL SOP-00153 R1	Based on EPA8082
VPH in Water (PIRI2)	3	2009/10/02	2009/10/03	ATL SOP 00120 R4	Based on Atl. PIRI
VPH in Water (PIRI2)	2	2009/10/02	2009/10/05	ATL SOP 00120 R4	Based on Atl. PIRI
VPH in Water (PIRI)	2	2009/10/01	2009/10/01	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	20	2009/10/01	2009/10/02	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	10	2009/10/02	2009/10/03	ATL SOP 00118 R4	Based on Atl. PIRI
VPH in Water (PIRI)	1	2009/10/02	2009/10/06	ATL SOP 00118 R4	Based on Atl. PIRI
ModTPH (T1) Calc. for Water	31	N/A	2009/10/05		Based on Atl. PIRI
ModTPH (T1) Calc. for Water	2	N/A	2009/10/06		Based on Atl. PIRI
ModTPH (T2) Calc. for Water	5	N/A	2009/10/09		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Maxxam Sydney

..12

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/13

CERTIFICATE OF ANALYSIS

-2-

Encryption Key



Michelle Hill

13 Oct 2009 15:04:22 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 2

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Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DV8539	DV8539	DV8540	DV8541		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-21	MW-21 Lab-Dup	MW-22	MW-23	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	155	154	101	83.3	5.0	1961990
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1961990
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1961990
Dissolved Barium (Ba)	ug/L	22.5	22.3	67.9	22.0	5.0	1961990
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1961990
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1961990
Dissolved Boron (B)	ug/L	<5.0	<5.0	14.4	7.1	5.0	1961990
Dissolved Cadmium (Cd)	ug/L	2.07	1.86	0.063	0.043	0.017	1961990
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	3.2	<1.0	1.0	1961990
Dissolved Cobalt (Co)	ug/L	2.32	2.25	0.55	1.42	0.40	1961990
Dissolved Copper (Cu)	ug/L	12.3	12.4	4.4	<2.0	2.0	1961990
Dissolved Iron (Fe)	ug/L	87	88	866	3780	50	1961990
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	1.16	<0.50	0.50	1961990
Dissolved Manganese (Mn)	ug/L	240	240	161	114	2.0	1961990
Dissolved Molybdenum (Mo)	ug/L	570	552	9.2	2.1	2.0	1961990
Dissolved Nickel (Ni)	ug/L	7.1	6.8	<2.0	2.3	2.0	1961990
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1961990
Dissolved Silver (Ag)	ug/L	0.13	0.12	<0.10	<0.10	0.10	1961990
Dissolved Strontium (Sr)	ug/L	62.6	61.1	41.6	27.2	5.0	1961990
Dissolved Thallium (Tl)	ug/L	0.23	0.22	<0.10	<0.10	0.10	1961990
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1961990
Dissolved Titanium (Ti)	ug/L	8.1	7.6	3.6	<2.0	2.0	1961990
Dissolved Uranium (U)	ug/L	2.46	2.35	<0.10	0.13	0.10	1961990
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1961990
Dissolved Zinc (Zn)	ug/L	12.5	12.4	9.3	10.4	5.0	1961990

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DV8542	DV8543		DV8545		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW-24	MW-15	QC Batch	MW-17	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	289	381	1961990	46.6	5.0	1962000
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	1961990	<2.0	2.0	1962000
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	1961990	<2.0	2.0	1962000
Dissolved Barium (Ba)	ug/L	65.8	21.9	1961990	<5.0	5.0	1962000
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	1961990	<2.0	2.0	1962000
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	1961990	<2.0	2.0	1962000
Dissolved Boron (B)	ug/L	10.2	21.7	1961990	<5.0	5.0	1962000
Dissolved Cadmium (Cd)	ug/L	0.079	0.065	1961990	0.032	0.017	1962000
Dissolved Chromium (Cr)	ug/L	1.1	2.0	1961990	<1.0	1.0	1962000
Dissolved Cobalt (Co)	ug/L	4.06	2.94	1961990	0.78	0.40	1962000
Dissolved Copper (Cu)	ug/L	4.3	7.7	1961990	2.0	2.0	1962000
Dissolved Iron (Fe)	ug/L	4920	2990	1961990	<50	50	1962000
Dissolved Lead (Pb)	ug/L	1.78	<0.50	1961990	1.33	0.50	1962000
Dissolved Manganese (Mn)	ug/L	321	121	1961990	43.3	2.0	1962000
Dissolved Molybdenum (Mo)	ug/L	3.5	<2.0	1961990	2.7	2.0	1962000
Dissolved Nickel (Ni)	ug/L	3.9	6.9	1961990	19.1	2.0	1962000
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	1961990	<1.0	1.0	1962000
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	1961990	<0.10	0.10	1962000
Dissolved Strontium (Sr)	ug/L	30.9	45.3	1961990	28.5	5.0	1962000
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	1961990	<0.10	0.10	1962000
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	1961990	<2.0	2.0	1962000
Dissolved Titanium (Ti)	ug/L	3.2	5.0	1961990	<2.0	2.0	1962000
Dissolved Uranium (U)	ug/L	0.36	0.26	1961990	<0.10	0.10	1962000
Dissolved Vanadium (V)	ug/L	2.1	2.7	1961990	<2.0	2.0	1962000
Dissolved Zinc (Zn)	ug/L	69.3	18.1	1961990	16.4	5.0	1962000

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DV8546	DV8548	DV8549	DV8565		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-31	MW-33	MW-34	MW-26	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	ug/L	164	198	269	197	5.0	1962000
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Barium (Ba)	ug/L	20.5	16.5	44.6	8.1	5.0	1962000
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Boron (B)	ug/L	86.2	44.5	59.6	5.3	5.0	1962000
Dissolved Cadmium (Cd)	ug/L	0.018	<0.017	0.037	0.022	0.017	1962000
Dissolved Chromium (Cr)	ug/L	1.7	1.6	1.2	<1.0	1.0	1962000
Dissolved Cobalt (Co)	ug/L	2.30	<0.40	0.97	2.76	0.40	1962000
Dissolved Copper (Cu)	ug/L	<2.0	3.0	13.3	<2.0	2.0	1962000
Dissolved Iron (Fe)	ug/L	14700	10900	18100	7000	50	1962000
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.85	<0.50	0.50	1962000
Dissolved Manganese (Mn)	ug/L	617	319	608	120	2.0	1962000
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Nickel (Ni)	ug/L	5.3	2.4	6.3	<2.0	2.0	1962000
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1962000
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1962000
Dissolved Strontium (Sr)	ug/L	95.9	51.4	85.8	43.0	5.0	1962000
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1962000
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Titanium (Ti)	ug/L	5.3	5.2	9.0	2.7	2.0	1962000
Dissolved Uranium (U)	ug/L	1.15	1.62	0.12	0.28	0.10	1962000
Dissolved Vanadium (V)	ug/L	5.1	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Zinc (Zn)	ug/L	20.9	14.4	64.7	11.6	5.0	1962000
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C8650
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DV8567	DV8569	DV8570	DV8571		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-28	MW-30	MW-104	MW-117	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	157	242	45.4	41.5	5.0	1962000
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	4.3	<2.0	2.0	1962000
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Barium (Ba)	ug/L	7.6	5.9	70.9	<5.0	5.0	1962000
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Boron (B)	ug/L	5.3	<5.0	153	<5.0	5.0	1962000
Dissolved Cadmium (Cd)	ug/L	<0.017	<0.017	0.020	0.036	0.017	1962000
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1962000
Dissolved Cobalt (Co)	ug/L	1.32	4.12	2.19	0.78	0.40	1962000
Dissolved Copper (Cu)	ug/L	5.3	<2.0	5.3	<2.0	2.0	1962000
Dissolved Iron (Fe)	ug/L	1970	5860	1060	<50	50	1962000
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	1962000
Dissolved Manganese (Mn)	ug/L	234	186	862	52.7	2.0	1962000
Dissolved Molybdenum (Mo)	ug/L	<2.0	<2.0	<2.0	2.8	2.0	1962000
Dissolved Nickel (Ni)	ug/L	2.4	<2.0	8.0	16.8	2.0	1962000
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	1962000
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1962000
Dissolved Strontium (Sr)	ug/L	22.5	19.3	185	31.4	5.0	1962000
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	1962000
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	1962000
Dissolved Titanium (Ti)	ug/L	5.7	4.7	<2.0	<2.0	2.0	1962000
Dissolved Uranium (U)	ug/L	0.23	0.31	1.63	<0.10	0.10	1962000
Dissolved Vanadium (V)	ug/L	<2.0	3.6	<2.0	<2.0	2.0	1962000
Dissolved Zinc (Zn)	ug/L	<5.0	6.5	9.7	14.7	5.0	1962000

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DV8572	DV8573		DV8575		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW-124	MW-134	RDL	MW-9	RDL	QC Batch

Metals							
Dissolved Aluminum (Al)	ug/L	289	382	5.0	53.5	5.0	1962001
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	2.0	<2.0	2.0	1962001
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	2.0	<2.0	2.0	1962001
Dissolved Barium (Ba)	ug/L	67.1	49.4	5.0	47.8	5.0	1962001
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	2.0	<2.0	2.0	1962001
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	2.0	<2.0	2.0	1962001
Dissolved Boron (B)	ug/L	12.8	65.7	5.0	13.6	5.0	1962001
Dissolved Cadmium (Cd)	ug/L	0.066	0.047	0.017	0.239	0.017	1962001
Dissolved Chromium (Cr)	ug/L	<1.0	1.4	1.0	<1.0	1.0	1962001
Dissolved Cobalt (Co)	ug/L	4.06	1.09	0.40	0.52	0.40	1962001
Dissolved Copper (Cu)	ug/L	4.4	15.5	2.0	15.9	2.0	1962001
Dissolved Iron (Fe)	ug/L	4650	18900	50	<100 (1)	100	1962001
Dissolved Lead (Pb)	ug/L	1.80	1.11	0.50	<0.50	0.50	1962001
Dissolved Manganese (Mn)	ug/L	315	622	2.0	41.8	2.0	1962001
Dissolved Molybdenum (Mo)	ug/L	3.7	2.0	2.0	57.1	2.0	1962001
Dissolved Nickel (Ni)	ug/L	4.0	7.0	2.0	7.2	2.0	1962001
Dissolved Selenium (Se)	ug/L	<1.0	<1.0	1.0	<1.0	1.0	1962001
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	0.10	<0.10	0.10	1962001
Dissolved Strontium (Sr)	ug/L	30.1	96.1	5.0	92.8	5.0	1962001
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	0.10	<0.10	0.10	1962001
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	2.0	<2.0	2.0	1962001
Dissolved Titanium (Ti)	ug/L	3.4	11.0	2.0	<2.0	2.0	1962001
Dissolved Uranium (U)	ug/L	0.36	0.10	0.10	0.80	0.10	1962001
Dissolved Vanadium (V)	ug/L	2.1	2.0	2.0	<2.0	2.0	1962001
Dissolved Zinc (Zn)	ug/L	65.3	86.0	5.0	9.0	5.0	1962001

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to poor isotope agreement.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ICP/MS (WATER)

Maxxam ID		DV8578	DV8578		
Sampling Date		2009/09/21	2009/09/21		
COC Number		N/A	N/A		
	Units	MW-12	MW-12 Lab-Dup	RDL	QC Batch

Metals					
Dissolved Aluminum (Al)	ug/L	109	111	5.0	1962001
Dissolved Antimony (Sb)	ug/L	<2.0	<2.0	2.0	1962001
Dissolved Arsenic (As)	ug/L	<2.0	<2.0	2.0	1962001
Dissolved Barium (Ba)	ug/L	36.7	36.1	5.0	1962001
Dissolved Beryllium (Be)	ug/L	<2.0	<2.0	2.0	1962001
Dissolved Bismuth (Bi)	ug/L	<2.0	<2.0	2.0	1962001
Dissolved Boron (B)	ug/L	16.8	15.4	5.0	1962001
Dissolved Cadmium (Cd)	ug/L	3.72	3.84	0.017	1962001
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	1.0	1962001
Dissolved Cobalt (Co)	ug/L	6.95	7.06	0.40	1962001
Dissolved Copper (Cu)	ug/L	27.5	27.8	2.0	1962001
Dissolved Iron (Fe)	ug/L	<200 (1)	<200 (1)	200	1962001
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	1962001
Dissolved Manganese (Mn)	ug/L	312	320	2.0	1962001
Dissolved Molybdenum (Mo)	ug/L	1120	1160	2.0	1962001
Dissolved Nickel (Ni)	ug/L	32.8	33.4	2.0	1962001
Dissolved Selenium (Se)	ug/L	2.0	1.0	1.0	1962001
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	0.10	1962001
Dissolved Strontium (Sr)	ug/L	94.1	93.9	5.0	1962001
Dissolved Thallium (Tl)	ug/L	<0.10	<0.10	0.10	1962001
Dissolved Tin (Sn)	ug/L	<2.0	<2.0	2.0	1962001
Dissolved Titanium (Ti)	ug/L	3.4	3.4	2.0	1962001
Dissolved Uranium (U)	ug/L	0.22	0.20	0.10	1962001
Dissolved Vanadium (V)	ug/L	<2.0	<2.0	2.0	1962001
Dissolved Zinc (Zn)	ug/L	404	416	5.0	1962001

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit for iron due to poor isotope agreement.

Maxxam Job #: A9C8550
 Report Date: 2009/10/13

 Jacques Whitford Limited
 Client Project #: 1044856/Z9100
 Project name: HOPEDALE
 Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		DV8543	DV8550	DV8552	DV8552		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-15	MW-35	MW-37	MW-37 Lab-Dup	RDL	QC Batch

Polyaromatic Hydrocarbons			↓	↓			
1-Methylnaphthalene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1957449
2-Methylnaphthalene	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1957449
Acenaphthene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Acenaphthylene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
→ Acridine	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1957439
Anthracene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Benzo(a)anthracene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Benzo(a)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Benzo(b)fluoranthene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Benzo(g,h,i)perylene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Benzo(k)fluoranthene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Chrysene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Dibenz(a,h)anthracene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Fluoranthene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Fluorene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Naphthalene	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	1957449
Perylene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Phenanthrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
Pyrene	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	1957449
→ Quinoline	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1957439
Surrogate Recovery (%)							
D10-Anthracene	%	111	129	125	118		1957449
D14-Terphenyl	%	112	128 (1)	127	127		1957449
D8-Acenaphthylene	%	100	121	104	105		1957449
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) PAH sample contained sediment.							

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		DV8558		DV8561		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW-47	RDL	MW-50	RDL	QC Batch
Polyaromatic Hydrocarbons		↓		↓		
1-Methylnaphthalene	ug/L	<0.05	0.05	<0.05	0.05	1957449
2-Methylnaphthalene	ug/L	<0.05	0.05	0.09	0.05	1957449
Acenaphthene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Acenaphthylene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Acridine	ug/L	<0.05	0.05	<0.05	0.05	1957439
Anthracene	ug/L	<0.01	0.01	<0.07 (1)	0.07	1957449
Benzo(a)anthracene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Benzo(a)pyrene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Benzo(b)fluoranthene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Benzo(g,h,i)perylene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Benzo(k)fluoranthene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Chrysene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Dibenz(a,h)anthracene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Fluoranthene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Fluorene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Naphthalene	ug/L	<0.2	0.2	0.2	0.2	1957449
Perylene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Phenanthrene	ug/L	<0.01	0.01	<0.2 (1)	0.2	1957449
Pyrene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Quinoline	ug/L	<0.05	0.05	<0.05	0.05	1957439
Surrogate Recovery (%)						
D10-Anthracene	%	71		118		1957449
D14-Terphenyl	%	58		110 (2)		1957449
D8-Acenaphthylene	%	71		110		1957449
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Elevated PAH RDL(s) due to matrix / co-extractive interference. (2) PAH sample contained sediment.						

Maxxam Job #: A9C8550
 Report Date: 2009/10/13

 Jacques Whitford Limited
 Client Project #: 1044856/Z9100
 Project name: HOPEDALE
 Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		DV8564		DW2942		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW-25	RDL	MW-44	RDL	QC Batch

Polyaromatic Hydrocarbons						
1-Methylnaphthalene	ug/L	0.07	0.05	<0.05	0.05	1957449
2-Methylnaphthalene	ug/L	<0.05	0.05	<0.05	0.05	1957449
Acenaphthene	ug/L	0.12	0.01	<0.01	0.01	1957449
Acenaphthylene	ug/L	<0.04 (1)	0.04	<0.01	0.01	1957449
Acridine	ug/L	0.34	0.05	<0.05	0.05	1957439
Anthracene	ug/L	0.03	0.01	<0.01	0.01	1957449
Benzo(a)anthracene	ug/L	0.05	0.01	<0.01	0.01	1957449
Benzo(a)pyrene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Benzo(b)fluoranthene	ug/L	0.03	0.01	<0.01	0.01	1957449
Benzo(g,h,i)perylene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Benzo(k)fluoranthene	ug/L	0.02	0.01	<0.01	0.01	1957449
Chrysene	ug/L	0.07	0.01	<0.01	0.01	1957449
Dibenz(a,h)anthracene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Fluoranthene	ug/L	0.03	0.01	<0.01	0.01	1957449
Fluorene	ug/L	0.42	0.01	<0.01	0.01	1957449
Indeno(1,2,3-cd)pyrene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Naphthalene	ug/L	<0.2	0.2	<0.2	0.2	1957449
Perylene	ug/L	<0.01	0.01	<0.01	0.01	1957449
Phenanthrene	ug/L	0.13	0.01	<0.01	0.01	1957449
Pyrene	ug/L	0.09	0.01	<0.01	0.01	1957449
Quinoline	ug/L	<0.05	0.05	<0.05	0.05	1957439
Surrogate Recovery (%)						
D10-Anthracene	%	79		115		1957449
D14-Terphenyl	%	83 (2)		109 (3)		1957449
D8-Acenaphthylene	%	86		108		1957449

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated PAH RDL(s) due to matrix / co-extractive interference.

(2) PAH sample contained sediment.

(3) PAH sample analysed past recommended hold time as per client request.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8527	DV8538		DV8539		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW-18	MW-20	QC Batch	MW-21	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	<0.001	1957795	<0.001	0.001	1957933
Toluene	mg/L	0.002	0.006	1957795	0.002	0.001	1957933
Ethylbenzene	mg/L	<0.001	<0.001	1957795	<0.001	0.001	1957933
Xylene (Total)	mg/L	<0.002	0.003	1957795	0.002	0.002	1957933
C6 - C10 (less BTEX)	mg/L	0.20	<0.01	1957795	<0.01	0.01	1957933
>C10-C21 Hydrocarbons	mg/L	0.05	0.06	1959216	0.06	0.05	1959216
>C21-<C32 Hydrocarbons	mg/L	0.1	0.1	1959216	<0.1	0.1	1959216
Modified TPH (Tier1)	mg/L	0.4	0.2	1953901	<0.1	0.1	1953901
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	101	96	1959216	102		1959216
n-Dotriacontane - Extractable	%	93 (1)	86 (1)	1959216	93 (2)		1959216
Isobutylbenzene - Volatile	%	98	101	1957795	80		1957933

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Possible lube oil fraction.
(2) No resemblance to petroleum products.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8539		DV8540		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW-21 Lab-Dup	QC Batch	MW-22	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/L	<0.001	1957933	<0.001	0.001	1959215
Toluene	mg/L			0.005	0.001	1959215
Ethylbenzene	mg/L			0.001	0.001	1959215
Toluene	mg/L	0.005	1957933		0.001	
Ethylbenzene	mg/L	<0.001	1957933		0.001	
Xylene (Total)	mg/L	0.005	1957933	0.005	0.002	1959215
Aliphatic >C6-C8	mg/L			<0.01	0.01	1959215
Aliphatic >C8-C10	mg/L			0.03	0.01	1959215
C6 - C10 (less BTEX)	mg/L	<0.01	1957933		0.01	
>C8-C10 Aromatics (-EX)	mg/L			<0.01	0.01	1959215
Aliphatic >C10-C12	mg/L			3.8	0.01	1957314
Aliphatic >C12-C16	mg/L			12	0.06	1957314
Aliphatic >C16-C21	mg/L			1.6	0.06	1957314
Aliphatic >C21-<C32	mg/L			21	0.1	1957314
Aromatic >C10-C12	mg/L			1.1	0.01	1957314
Aromatic >C12-C16	mg/L			4.5	0.05	1957314
Aromatic >C16-C21	mg/L			1.1	0.05	1957314
Aromatic >C21-<C32	mg/L			13	0.1	1957314
Modified TPH (Tier 2)	mg/L			59	0.1	1953902
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%			36		1957314
n-Dotriacontane - Extractable	%			405 (1)		1957314
Isobutylbenzene - Volatile	%	115	1957933	88		1959215

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction. Lube oil fraction. Elevated TEH RDL(s) due to matrix interference. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8541	DV8542	DV8543	DV8544		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-23	MW-24	MW-15	MW-16	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	1957933
Toluene	mg/L	0.005	0.004	0.017	0.005	0.001	1957933
Ethylbenzene	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	1957933
Xylene (Total)	mg/L	0.005	0.003	<0.002	0.004	0.002	1957933
C6 - C10 (less BTEX)	mg/L	<0.01	0.19	<0.01	<0.01	0.01	1957933
>C10-C21 Hydrocarbons	mg/L	0.18	0.47	<0.05	0.07	0.05	1959216
>C21-<C32 Hydrocarbons	mg/L	0.4	0.5	<0.1	0.2	0.1	1959216
Modified TPH (Tier1)	mg/L	0.6	1.1	<0.1	0.3	0.1	1953901
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	97	101	97	99		1959216
n-Dotriacontane - Extractable	%	104 (1)	110 (2)	97	103 (2)		1959216
Isobutylbenzene - Volatile	%	109	111	114	112		1957933

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) One product in the fuel oil range. Lube oil fraction.
(2) Weathered fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8545	DV8546	DV8548	DV8549		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-17	MW-31	MW-33	MW-34	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	0.002	<0.001	<0.001	0.001	1957933
Toluene	mg/L	0.002	0.005	0.001	0.001	0.001	1957933
Ethylbenzene	mg/L	<0.001	0.010	<0.001	<0.001	0.001	1957933
Xylene (Total)	mg/L	<0.002	0.035	<0.002	0.002	0.002	1957933
C6 - C10 (less BTEX)	mg/L	<0.01	0.32	<0.01	<0.01	0.01	1957933
>C10-C21 Hydrocarbons	mg/L	<0.05	0.30	0.09	0.74	0.05	1959216
>C21-<C32 Hydrocarbons	mg/L	<0.1	0.2	0.1	0.7	0.1	1959216
Modified TPH (Tier1)	mg/L	<0.1	0.8	0.2	1.4	0.1	1953901
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	105	113	106	108		1959216
n-Dotriacontane - Extractable	%	105 (1)	100 (2)	103 (3)	118 (4)		1959216
Isobutylbenzene - Volatile	%	103	111	112	109		1957933

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) TEH sample contained sediment.

(2) One product in the gas/fuel oil range. Possible lube oil fraction. TEH sample contained sediment.

(3) No resemblance to petroleum products in fuel oil range. Possible lube oil fraction. TEH sample contained sediment.

(4) Weathered fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8550	DV8551	DV8552	DV8553		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
		↓	↓	↓	↓		
	Units	MW-35	MW-36	MW-37	MW-38	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	1959720
Toluene	mg/L	<0.001	0.003	0.001	<0.001	0.001	1959720
Ethylbenzene	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	1959720
Xylene (Total)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	1959720
C6 - C10 (less BTEX)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	1959720
>C10-C21 Hydrocarbons	mg/L	<0.05	<0.05	<0.05	0.08	0.05	1959237
>C21-<C32 Hydrocarbons	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	1959237
Modified TPH (Tier1)	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	1953901
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	102	103	103	106		1959237
n-Dotriacontane - Extractable	%	108	109 (1)	110	112 (2)		1959237
Isobutylbenzene - Volatile	%	105	102	101	100		1959720

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) TEH sample contained sediment.
(2) No resemblance to petroleum products.

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Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8554			DV8556		
Sampling Date		2009/09/21			2009/09/21		
COC Number		N/A			N/A		
		↓			↓		
	Units	MW-39	RDL	QC Batch	MW-43	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	0.001	0.001	1959720	0.002	0.001	1959215
Toluene	mg/L		0.001		0.018	0.001	1959215
Ethylbenzene	mg/L		0.001		0.003	0.001	1959215
Toluene	mg/L	0.019	0.001	1959720		0.001	
Ethylbenzene	mg/L	0.004	0.001	1959720		0.001	
Xylene (Total)	mg/L	0.019	0.002	1959720	0.015	0.002	1959215
Aliphatic >C6-C8	mg/L		0.01		0.06	0.01	1959215
Aliphatic >C8-C10	mg/L		0.01		0.04	0.01	1959215
C6 - C10 (less BTEX)	mg/L	0.02	0.01	1959720		0.01	
>C10-C21 Hydrocarbons	mg/L	0.13	0.05	1959237		0.05	
>C8-C10 Aromatics (-EX)	mg/L		0.01		<0.01	0.01	1959215
>C21-<C32 Hydrocarbons	mg/L	0.2	0.1	1959237		0.1	
Aliphatic >C10-C12	mg/L		0.01		0.03	0.01	1957314
Aliphatic >C12-C16	mg/L		0.06		0.07	0.05	1957314
Modified TPH (Tier1)	mg/L	0.4	0.1	1953901		0.1	
Aliphatic >C16-C21	mg/L		0.06		<0.05	0.05	1957314
Aliphatic >C21-<C32	mg/L		0.1		0.1	0.1	1957314
Aromatic >C10-C12	mg/L		0.01		0.08	0.01	1957314
Aromatic >C12-C16	mg/L		0.05		0.17	0.05	1957314
Aromatic >C16-C21	mg/L		0.05		0.13	0.05	1957314
Aromatic >C21-<C32	mg/L		0.1		<0.1	0.1	1957314
Modified TPH (Tier 2)	mg/L		0.1		0.7	0.1	1953902
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%				62		1957314
n-Dotriacontane - Extractable	%				63 (1)		1957314
Isobutylbenzene - Extractable	%	108		1959237			
n-Dotriacontane - Extractable	%	111 (2)		1959237			
Isobutylbenzene - Volatile	%	99		1959720	116		1959215

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction. Lube oil fraction.
(2) Lube oil fraction. TEH sample contained sediment.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8557		DV8558		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
		↓		↓		
	Units	MW-46	QC Batch	MW-47	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/L	0.014	1959720	<0.001	0.001	1959720
Toluene	mg/L	0.006	1959720	<0.001	0.001	1959720
Ethylbenzene	mg/L	<0.001	1959720	<0.001	0.001	1959720
Xylene (Total)	mg/L	0.002	1959720	<0.002	0.002	1959720
C6 - C10 (less BTEX)	mg/L	<0.01	1959720	<0.01	0.01	1959720
>C10-C21 Hydrocarbons	mg/L	0.14	1959237	0.24	0.05	1959237
>C21-<C32 Hydrocarbons	mg/L	<0.1	1959237	0.1	0.1	1959237
Modified TPH (Tier1)	mg/L	0.1	1953901	0.3	0.1	1955706
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	100	1959237	98		1959237
n-Dotriacontane - Extractable	%	105 (1)	1959237	100 (1)		1959237
Isobutylbenzene - Volatile	%	95	1959720	117 (2)		1959720

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. TEH sample contained sediment.
(2) VPH sample analysed past recommended hold time.

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Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8559		DV8564		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW-48	QC Batch	MW-25	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/L	0.002	1959215	<0.001	0.001	1957933
Toluene	mg/L	0.012	1959215		0.001	
Ethylbenzene	mg/L	0.003	1959215		0.001	
Toluene	mg/L			0.006	0.001	1957933
Ethylbenzene	mg/L			<0.001	0.001	1957933
Xylene (Total)	mg/L	0.012	1959215	0.005	0.002	1957933
Aliphatic >C6-C8	mg/L	<0.01	1959215		0.01	
Aliphatic >C8-C10	mg/L	0.01	1959215		0.01	
C6 - C10 (less BTEX)	mg/L			0.03	0.01	1957933
>C10-C21 Hydrocarbons	mg/L			8.5	0.05	1959237
>C8-C10 Aromatics (-EX)	mg/L	0.02	1959215		0.01	
>C21-<C32 Hydrocarbons	mg/L			0.3	0.1	1959237
Aliphatic >C10-C12	mg/L	0.34	1957314		0.01	
Aliphatic >C12-C16	mg/L	1.6	1957314		0.06	
Modified TPH (Tier1)	mg/L			8.9	0.1	1953901
Aliphatic >C16-C21	mg/L	0.99	1957314		0.06	
Aliphatic >C21-<C32	mg/L	0.5	1957314		0.1	
Aromatic >C10-C12	mg/L	0.07	1957314		0.01	
Aromatic >C12-C16	mg/L	0.36	1957314		0.06	
Aromatic >C16-C21	mg/L	0.42	1957314		0.06	
Aromatic >C21-<C32	mg/L	0.3	1957314		0.1	
Modified TPH (Tier 2)	mg/L	4.5	1953902		0.1	
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	66	1957314			
n-Dotriacontane - Extractable	%	69 (1)	1957314			
Isobutylbenzene - Extractable	%			101		1959237
n-Dotriacontane - Extractable	%			103 (2)		1959237
Isobutylbenzene - Volatile	%	129	1959215	87		1957933

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Fuel oil fraction. Lube oil fraction. Elevated TEH RDL(s) due to matrix interference. TEH sample contained sediment.
(2) Fuel oil fraction.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8565		DV8566		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW-26	QC Batch	MW-27	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/L	<0.001	1959215	<0.001	0.001	1957795
Toluene	mg/L	0.005	1959215		0.001	
Ethylbenzene	mg/L	0.001	1959215		0.001	
Toluene	mg/L			0.006	0.001	1957795
Ethylbenzene	mg/L			0.001	0.001	1957795
Xylene (Total)	mg/L	0.006	1959215	0.007	0.002	1957795
Aliphatic >C6-C8	mg/L	0.02	1959215		0.01	
Aliphatic >C8-C10	mg/L	0.06	1959215		0.01	
C6 - C10 (less BTEX)	mg/L			0.07	0.01	1957795
>C10-C21 Hydrocarbons	mg/L			2.6	0.05	1959237
>C8-C10 Aromatics (-EX)	mg/L	0.02	1959215		0.01	
>C21-<C32 Hydrocarbons	mg/L			0.4	0.1	1959237
Aliphatic >C10-C12	mg/L	3.3	1957314		0.01	
Aliphatic >C12-C16	mg/L	9.5	1957314		0.05	
Modified TPH (Tier1)	mg/L			3.0	0.1	1953901
Aliphatic >C16-C21	mg/L	2.2	1957314		0.05	
Aliphatic >C21-<C32	mg/L	0.2	1957314		0.1	
Aromatic >C10-C12	mg/L	0.78	1957314		0.01	
Aromatic >C12-C16	mg/L	2.8	1957314		0.05	
Aromatic >C16-C21	mg/L	1.0	1957314		0.05	
Aromatic >C21-<C32	mg/L	0.1	1957314		0.1	
Modified TPH (Tier 2)	mg/L	20	1953902		0.1	
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	47 (1)	1957314			
n-Dotriacontane - Extractable	%	71 (2)	1957314			
Isobutylbenzene - Extractable	%			110		1959237
n-Dotriacontane - Extractable	%			110 (3)		1959237
Isobutylbenzene - Volatile	%	106	1959215	87		1957795

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) TEH surrogate(s) not within acceptance limits due to sample dilution / product interference.

(2) Fuel oil fraction. Lube oil fraction. TEH sample contained sediment.

(3) Weathered fuel oil fraction. Possible lube oil fraction.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8567	DV8568	DV8569		
Sampling Date		2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A		
	Units	MW-28	MW-29	MW-30	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/L	<0.001	<0.001	<0.001	0.001	1957933
Toluene	mg/L	0.006	0.006	0.008	0.001	1957933
Ethylbenzene	mg/L	<0.001	0.001	0.005	0.001	1957933
Xylene (Total)	mg/L	0.003	0.007	0.039	0.002	1957933
C6 - C10 (less BTEX)	mg/L	0.01	0.20	0.19	0.01	1957933
>C10-C21 Hydrocarbons	mg/L	0.40	3.2	1.8	0.05	1959237
>C21-<C32 Hydrocarbons	mg/L	<0.1	0.1	<0.1	0.1	1959237
Modified TPH (Tier1)	mg/L	0.4	3.5	2.0	0.1	1953901
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	104	108	103		1959237
n-Dotriacontane - Extractable	%	107 (1)	106 (1)	102 (1)		1959237
Isobutylbenzene - Volatile	%	120	103	114		1957933

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction.

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Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8570		DV8571	DV8572		
Sampling Date		2009/09/21		2009/09/21	2009/09/21		
COC Number		N/A		N/A	N/A		
	Units	MW-104	QC Batch	MW-117	MW-124	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	1957795	<0.001	<0.001	0.001	1957795
Toluene	mg/L	0.005	1957795	0.004	0.008	0.001	1957795
Ethylbenzene	mg/L	0.002	1957795	<0.001	0.001	0.001	1957795
Xylene (Total)	mg/L	0.012	1957795	0.003	0.007	0.002	1957795
C6 - C10 (less BTEX)	mg/L	0.35	1957795	<0.01	0.18	0.01	1957795
>C10-C21 Hydrocarbons	mg/L	3.0	1959237	<0.05	0.73	0.05	1959237
>C21-<C32 Hydrocarbons	mg/L	0.2	1959237	<0.1	0.9	0.1	1959237
Modified TPH (Tier1)	mg/L	3.5	1956383	<0.1	1.8	0.1	1953901
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	101	1959237	106	98		1959237
n-Dotriacontane - Extractable	%	106 (1)	1959237	106 (2)	104 (3)		1959237
Isobutylbenzene - Volatile	%	94	1957795	101	99		1957795

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Unidentified compound(s) in fuel oil range.

(2) TEH sample contained sediment.

(3) Weathered fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8573			DV8574		
Sampling Date		2009/09/21			2009/09/21		
COC Number		N/A			N/A		
	Units	MW-134	RDL	QC Batch	MW-8	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	0.001	1957795	<0.001	0.001	1957795
Toluene	mg/L	0.001	0.001	1957795	0.003	0.001	1957795
Ethylbenzene	mg/L	<0.001	0.001	1957795	<0.001	0.001	1957795
Xylene (Total)	mg/L	<0.002	0.002	1957795	0.005	0.002	1957795
C6 - C10 (less BTEX)	mg/L	<0.01	0.01	1957795	0.18	0.01	1957795
>C10-C21 Hydrocarbons	mg/L	0.64	0.05	1959237	1.8	0.06	1959744
>C21-<C32 Hydrocarbons	mg/L	0.6	0.1	1959237	<0.1	0.1	1959744
Modified TPH (Tier1)	mg/L	1.2	0.1	1953901	2.0	0.1	1953901
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	105		1959237	119		1959744
n-Dotriacontane - Extractable	%	118 (1)		1959237	107 (2)		1959744
Isobutylbenzene - Volatile	%	83		1957795	76		1957795

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Lube oil fraction. TEH sample contained sediment.

(2) Weathered fuel oil fraction. TEH sample decanted due to sediment. Elevated TEH RDL(s) due to insufficient sample.

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DV8576		DV8577		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW-10	QC Batch	MW-11	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/L	<0.001	1957795	<0.001	0.001	1959215
Toluene	mg/L			0.004	0.001	1959215
Ethylbenzene	mg/L			<0.001	0.001	1959215
Toluene	mg/L	0.002	1957795		0.001	
Ethylbenzene	mg/L	<0.001	1957795		0.001	
Xylene (Total)	mg/L	<0.002	1957795	0.002	0.002	1959215
Aliphatic >C6-C8	mg/L			<0.01	0.01	1959215
Aliphatic >C8-C10	mg/L			<0.01	0.01	1959215
C6 - C10 (less BTEX)	mg/L	<0.01	1957795		0.01	
>C10-C21 Hydrocarbons	mg/L	<0.05	1959744		0.05	
>C8-C10 Aromatics (-EX)	mg/L			<0.01	0.01	1959215
>C21-<C32 Hydrocarbons	mg/L	<0.1	1959744		0.1	
Aliphatic >C10-C12	mg/L			<0.01	0.01	1957314
Aliphatic >C12-C16	mg/L			<0.05	0.05	1957314
Modified TPH (Tier1)	mg/L	<0.1	1953901		0.1	
Aliphatic >C16-C21	mg/L			<0.05	0.05	1957314
Aliphatic >C21-<C32	mg/L			0.2	0.1	1957314
Aromatic >C10-C12	mg/L			<0.01	0.01	1957314
Aromatic >C12-C16	mg/L			<0.05	0.05	1957314
Aromatic >C16-C21	mg/L			<0.05	0.05	1957314
Aromatic >C21-<C32	mg/L			<0.1	0.1	1957314
Modified TPH (Tier 2)	mg/L			0.2	0.1	1953902
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%			65		1957314
n-Dotriacontane - Extractable	%			74 (1)		1957314
Isobutylbenzene - Extractable	%	105	1959744			
n-Dotriacontane - Extractable	%	112	1959744			
Isobutylbenzene - Volatile	%	91	1957795	120		1959215

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Lube oil fraction.

Maxxam Job #: A9C8550
 Report Date: 2009/10/13

 Jacques Whitford Limited
 Client Project #: 1044856/Z9100
 Project name: HOPEDALE
 Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (WATER)

Maxxam ID		DW2940	DW2941	DW2942	DW2943		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
							
	Units	MW-40	MW-42	MW-44	MW-45	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/L	<0.001	0.001	<0.001	<0.001	0.001	1959720
Toluene	mg/L	0.004	0.008	<0.001	0.002	0.001	1959720
Ethylbenzene	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	1959720
Xylene (Total)	mg/L	0.004	0.002	<0.002	<0.002	0.002	1959720
C6 - C10 (less BTEX)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	1959720
>C10-C21 Hydrocarbons	mg/L	<0.05	0.06	0.17	0.08	0.05	1959744
>C21-<C32 Hydrocarbons	mg/L	0.1	0.5	<0.1	<0.1	0.1	1959744
Modified TPH (Tier1)	mg/L	0.1	0.5	0.2	<0.1	0.1	1955706
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	109	98	108	106		1959744
n-Dotriacontane - Extractable	%	116 (1)	124 (2)	112 (3)	111 (4)		1959744
Isobutylbenzene - Volatile	%	108	106	91	111		1959720

N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch
 (1) Possible lube oil fraction.
 (2) Lube oil fraction.
 (3) Weathered fuel oil fraction.
 (4) One product in fuel oil range.

pf

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DV8538	DV8538	DV8539	DV8540		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-20	MW-20 Lab-Dup	MW-21	MW-22	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	0.50	0.05	1959315
Surrogate Recovery (%)							
Decachlorobiphenyl	%	97	124	125	71 (1)		1959315
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) ar 1254							

Maxxam ID		DV8541	DV8542	DV8543	DV8546		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-23	MW-24	MW-15	MW-31	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1959315
Surrogate Recovery (%)							
Decachlorobiphenyl	%	74	82	76	82		1959315
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C8550
 Report Date: 2009/10/13

 Jacques Whitford Limited
 Client Project #: 1044856/Z9100
 Project name: HOPEDALE
 Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DV8547	DV8548	DV8549	DV8553		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-32	MW-33	MW-34	MW-38	RDL	QC Batch

PCBs							
Total PCB	ug/L	1.6	4.1	2.3	<0.05	0.05	1959315
Surrogate Recovery (%)							
Decachlorobiphenyl	%	110 (1)	117 (2)	118 (1)	84		1959315

N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch
 (1) Ar 1254 Ar1260
 (2) Ar 1254 Ar1260

Maxxam ID		DV8554		DV8556		DV8557		
Sampling Date		2009/09/21		2009/09/21		2009/09/21		
COC Number		N/A		N/A		N/A		
	Units	MW-39	QC Batch	MW-43	QC Batch	MW-46	RDL	QC Batch

PCBs								
Total PCB	ug/L	0.13	1959321	<0.05	1959315	<0.05	0.05	1959321
Surrogate Recovery (%)								
Decachlorobiphenyl	%	93	1959321	73	1959315	88		1959321

N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

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Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DV8557	DV8563	DV8569	DV8572		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-46 Lab-Dup	MW-52	MW-30	MW-124	RDL	QC Batch

PCBs							
Total PCB	ug/L	<0.05	<0.05	<0.05	<0.05	0.05	1959321
Surrogate Recovery (%)							
Decachlorobiphenyl	%	119	82	134 (1)	110		1959321
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Surrogate is outside acceptance limits. Sample is past hold time to reanalyze.							

Maxxam ID		DV8573	DV8574	DV8575	DV8578		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW-134	MW-8	MW-9	MW-12	RDL	QC Batch

PCBs							
Total PCB	ug/L	0.19	<0.05	<0.05	<0.05	0.05	1959321
Surrogate Recovery (%)							
Decachlorobiphenyl	%	109	114	114	111		1959321
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

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Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		DW2940		
Sampling Date		2009/09/21		
COC Number		N/A		
	Units	MW-40	RDL	QC Batch

PCBs				
Total PCB	ug/L	<0.05	0.05	1965697
Surrogate Recovery (%)				
Decachlorobiphenyl	%	78		1965697

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C8550
Report Date: 2009/10/13

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Sample DV8554-01: Aroclor 1242

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9C8550

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1957314 RDE	Spiked Blank	Isobutylbenzene - Extractable	2009/10/08		77	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/08		82	%	30 - 130
		Aliphatic >C10-C12	2009/10/08		81	%	30 - 130
		Aliphatic >C12-C16	2009/10/08		88	%	30 - 130
		Aliphatic >C16-C21	2009/10/08		94	%	30 - 130
		Aliphatic >C21-<C32	2009/10/08		97	%	30 - 130
		Aromatic >C10-C12	2009/10/08		120	%	30 - 130
		Aromatic >C12-C16	2009/10/08		112	%	30 - 130
		Aromatic >C16-C21	2009/10/08		113	%	30 - 130
		Aromatic >C21-<C32	2009/10/08		105	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/08		61	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/08		81	%	30 - 130
		Aliphatic >C10-C12	2009/10/08	<0.01		mg/L	
		Aliphatic >C12-C16	2009/10/08	<0.05		mg/L	
		Aliphatic >C16-C21	2009/10/08	<0.05		mg/L	
		Aliphatic >C21-<C32	2009/10/08	<0.1		mg/L	
		Aromatic >C10-C12	2009/10/08	<0.01		mg/L	
		Aromatic >C12-C16	2009/10/08	<0.05		mg/L	
		Aromatic >C16-C21	2009/10/08	<0.05		mg/L	
		Aromatic >C21-<C32	2009/10/08	<0.1		mg/L	
	RPD	Aliphatic >C10-C12	2009/10/08	NC		%	40
		Aliphatic >C12-C16	2009/10/08	NC		%	40
		Aliphatic >C16-C21	2009/10/08	NC		%	40
		Aliphatic >C21-<C32	2009/10/08	NC		%	40
		Aromatic >C10-C12	2009/10/08	11.9		%	40
		Aromatic >C12-C16	2009/10/08	NC		%	40
		Aromatic >C16-C21	2009/10/08	NC		%	40
		Aromatic >C21-<C32	2009/10/08	NC		%	40
1957439 RST	Matrix Spike	Acridine	2009/10/06		77	%	30 - 130
		Quinoline	2009/10/06		84	%	30 - 130
	Spiked Blank	Acridine	2009/10/06		85	%	30 - 130
		Quinoline	2009/10/06		76	%	30 - 130
	Method Blank	Acridine	2009/10/06	<0.05		ug/L	
		Quinoline	2009/10/06	<0.05		ug/L	
	RPD [DV8552-01]	Acridine	2009/10/06	NC		%	40
		Quinoline	2009/10/06	NC		%	40
1957449 RST	Matrix Spike	D10-Anthracene	2009/10/06		121	%	30 - 130
		D14-Terphenyl	2009/10/06		120	%	30 - 130
		D8-Acenaphthylene	2009/10/06		115	%	30 - 130
		1-Methylnaphthalene	2009/10/06		82	%	30 - 130
		2-Methylnaphthalene	2009/10/06		85	%	30 - 130
		Acenaphthene	2009/10/06		90	%	30 - 130
		Acenaphthylene	2009/10/06		77	%	30 - 130
		Anthracene	2009/10/06		96	%	30 - 130
		Benzo(a)anthracene	2009/10/06		79	%	30 - 130
		Benzo(a)pyrene	2009/10/06		85	%	30 - 130
		Benzo(b)fluoranthene	2009/10/06		91	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/06		78	%	30 - 130
		Benzo(k)fluoranthene	2009/10/06		91	%	30 - 130
		Chrysene	2009/10/06		106	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/06		80	%	30 - 130
		Fluoranthene	2009/10/06		97	%	30 - 130
		Fluorene	2009/10/06		86	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/06		71	%	30 - 130
		Naphthalene	2009/10/06		86	%	30 - 130

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1957449 RST	Matrix Spike	Perylene	2009/10/06		85	%	30 - 130
		Phenanthrene	2009/10/06		92	%	30 - 130
		Pyrene	2009/10/06		97	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/10/06		121	%	30 - 130
		D14-Terphenyl	2009/10/06		127	%	30 - 130
		D8-Acenaphthylene	2009/10/06		121	%	30 - 130
		1-Methylnaphthalene	2009/10/06		86	%	30 - 130
		2-Methylnaphthalene	2009/10/06		89	%	30 - 130
		Acenaphthene	2009/10/06		96	%	30 - 130
		Acenaphthylene	2009/10/06		82	%	30 - 130
		Anthracene	2009/10/06		94	%	30 - 130
		Benzo(a)anthracene	2009/10/06		78	%	30 - 130
		Benzo(a)pyrene	2009/10/06		78	%	30 - 130
		Benzo(b)fluoranthene	2009/10/06		87	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/06		77	%	30 - 130
		Benzo(k)fluoranthene	2009/10/06		87	%	30 - 130
		Chrysene	2009/10/06		110	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/06		78	%	30 - 130
		Fluoranthene	2009/10/06		98	%	30 - 130
		Fluorene	2009/10/06		92	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/06		70	%	30 - 130
		Naphthalene	2009/10/06		91	%	30 - 130
		Perylene	2009/10/06		84	%	30 - 130
		Phenanthrene	2009/10/06		103	%	30 - 130
		Pyrene	2009/10/06		99	%	30 - 130
	Method Blank	D10-Anthracene	2009/10/06		87	%	30 - 130
		D14-Terphenyl	2009/10/06		100	%	30 - 130
		D8-Acenaphthylene	2009/10/06		93	%	30 - 130
		1-Methylnaphthalene	2009/10/06	<0.05		ug/L	
		2-Methylnaphthalene	2009/10/06	<0.05		ug/L	
		Acenaphthene	2009/10/06	<0.01		ug/L	
		Acenaphthylene	2009/10/06	<0.01		ug/L	
		Anthracene	2009/10/06	<0.01		ug/L	
		Benzo(a)anthracene	2009/10/06	<0.01		ug/L	
		Benzo(a)pyrene	2009/10/06	<0.01		ug/L	
		Benzo(b)fluoranthene	2009/10/06	<0.01		ug/L	
		Benzo(g,h,i)perylene	2009/10/06	<0.01		ug/L	
		Benzo(k)fluoranthene	2009/10/06	<0.01		ug/L	
		Chrysene	2009/10/06	<0.01		ug/L	
		Dibenz(a,h)anthracene	2009/10/06	<0.01		ug/L	
		Fluoranthene	2009/10/06	<0.01		ug/L	
		Fluorene	2009/10/06	<0.01		ug/L	
		Indeno(1,2,3-cd)pyrene	2009/10/06	<0.01		ug/L	
		Naphthalene	2009/10/06	<0.2		ug/L	
		Perylene	2009/10/06	<0.01		ug/L	
		Phenanthrene	2009/10/06	<0.01		ug/L	
		Pyrene	2009/10/06	<0.01		ug/L	
	RPD [DV8552-01]	1-Methylnaphthalene	2009/10/06	NC		%	40
		2-Methylnaphthalene	2009/10/06	NC		%	40
		Acenaphthene	2009/10/06	NC		%	40
		Acenaphthylene	2009/10/06	NC		%	40
		Anthracene	2009/10/06	NC		%	40
		Benzo(a)anthracene	2009/10/06	NC		%	40
		Benzo(a)pyrene	2009/10/06	NC		%	40
		Benzo(b)fluoranthene	2009/10/06	NC		%	40

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1957449 RST	RPD [DV8552-01]	Benzo(g,h,i)perylene	2009/10/06	NC		%	40
		Benzo(k)fluoranthene	2009/10/06	NC		%	40
		Chrysene	2009/10/06	NC		%	40
		Dibenz(a,h)anthracene	2009/10/06	NC		%	40
		Fluoranthene	2009/10/06	NC		%	40
		Fluorene	2009/10/06	NC		%	40
		Indeno(1,2,3-cd)pyrene	2009/10/06	NC		%	40
		Naphthalene	2009/10/06	NC		%	40
		Perylene	2009/10/06	NC		%	40
		Phenanthrene	2009/10/06	NC		%	40
		Pyrene	2009/10/06	NC		%	40
		Isobutylbenzene - Volatile	2009/10/02		106	%	70 - 130
		Benzene	2009/10/02		100	%	70 - 130
1957795 SHL	Matrix Spike	Toluene	2009/10/02		104	%	70 - 130
		Ethylbenzene	2009/10/02		104	%	70 - 130
		Xylene (Total)	2009/10/02		109	%	70 - 130
		Isobutylbenzene - Volatile	2009/10/02		101	%	70 - 130
		Benzene	2009/10/02		89	%	70 - 130
	Spiked Blank	Toluene	2009/10/02		96	%	70 - 130
		Ethylbenzene	2009/10/02		98	%	70 - 130
		Xylene (Total)	2009/10/02		101	%	70 - 130
		Isobutylbenzene - Volatile	2009/10/01		92	%	70 - 130
	Method Blank	Benzene	2009/10/01	<0.001		mg/L	
		Toluene	2009/10/01	<0.001		mg/L	
		Ethylbenzene	2009/10/01	<0.001		mg/L	
		Xylene (Total)	2009/10/01	<0.002		mg/L	
		C6 - C10 (less BTEX)	2009/10/01	<0.01		mg/L	
	RPD	Benzene	2009/10/01	NC		%	40
		Toluene	2009/10/01	NC		%	40
		Ethylbenzene	2009/10/01	NC		%	40
		Xylene (Total)	2009/10/01	NC		%	40
		C6 - C10 (less BTEX)	2009/10/01	NC		%	40
1957933 GTH	Matrix Spike [DV8543-01]	Isobutylbenzene - Volatile	2009/10/02		112	%	70 - 130
		Benzene	2009/10/02		96	%	70 - 130
		Toluene	2009/10/02		NC	%	70 - 130
		Ethylbenzene	2009/10/02		100	%	70 - 130
		Xylene (Total)	2009/10/02		106	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/02		109	%	70 - 130
		Benzene	2009/10/02		92	%	70 - 130
		Toluene	2009/10/02		97	%	70 - 130
		Ethylbenzene	2009/10/02		99	%	70 - 130
	Method Blank	Xylene (Total)	2009/10/02		101	%	70 - 130
		Isobutylbenzene - Volatile	2009/10/01		94	%	70 - 130
		Benzene	2009/10/01	<0.001		mg/L	
		Toluene	2009/10/01	<0.001		mg/L	
		Ethylbenzene	2009/10/01	<0.001		mg/L	
	RPD [DV8539-01]	Xylene (Total)	2009/10/01	<0.002		mg/L	
		C6 - C10 (less BTEX)	2009/10/01	<0.01		mg/L	
		Benzene	2009/10/01	NC		%	40
		Toluene	2009/10/01	NC		%	40
		Ethylbenzene	2009/10/01	NC		%	40
1959215 SHL	Spiked Blank	Xylene (Total)	2009/10/01	NC		%	40
		C6 - C10 (less BTEX)	2009/10/01	NC		%	40
		Isobutylbenzene - Volatile	2009/10/02		115	%	70 - 130

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1959215 SHL	Spiked Blank	Benzene	2009/10/02		79	%	70 - 130
		Toluene	2009/10/02		83	%	70 - 130
		Ethylbenzene	2009/10/02		86	%	70 - 130
		Xylene (Total)	2009/10/02		90	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/02		128	%	70 - 130
		Benzene	2009/10/02	<0.001		mg/L	
		Toluene	2009/10/02	<0.001		mg/L	
		Ethylbenzene	2009/10/02	<0.001		mg/L	
		Xylene (Total)	2009/10/02	<0.002		mg/L	
		Aliphatic >C6-C8	2009/10/02	<0.01		mg/L	
		Aliphatic >C8-C10	2009/10/02	<0.01		mg/L	
		>C8-C10 Aromatics (-EX)	2009/10/02	<0.01		mg/L	
1959216 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/04		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/04		95	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/04		96	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/04		103	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/04		103	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/04		108	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/04		104	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/04		112	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/04		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/04		108	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/04	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/04	<0.1		mg/L	
	RPD	>C10-C21 Hydrocarbons	2009/10/04	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/04	NC		%	40
1959237 SHR	Matrix Spike [DV8562-01]	Isobutylbenzene - Extractable	2009/10/04		107	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/04		105	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/04		94	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/04		92	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/10/04		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/04		101	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/04		93	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/04		95	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/05		105	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/05		111	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/05	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/05	<0.1		mg/L	
1959315 AHL	Matrix Spike [DV8539-01]	Decachlorobiphenyl	2009/10/08		96	%	30 - 130
		Total PCB	2009/10/08		89	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/08		113	%	30 - 130
		Total PCB	2009/10/08		116	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/08		100	%	30 - 130
		Total PCB	2009/10/08	<0.05		ug/L	
	RPD [DV8538-01]	Total PCB	2009/10/08	NC		%	40
1959321 AHL	Matrix Spike [DV8554-01]	Decachlorobiphenyl	2009/10/08		137 (1)	%	30 - 130
		Total PCB	2009/10/08		90	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/10/08		93	%	30 - 130
		Total PCB	2009/10/08		104	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/10/08		100	%	30 - 130
		Total PCB	2009/10/08	<0.05		ug/L	
	RPD [DV8557-01]	Total PCB	2009/10/08	NC		%	40

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1959720 SHL	Matrix Spike	Isobutylbenzene - Volatile	2009/10/03		125	%	70 - 130
		Benzene	2009/10/03		100	%	70 - 130
		Toluene	2009/10/03		100	%	70 - 130
		Ethylbenzene	2009/10/03		100	%	70 - 130
		Xylene (Total)	2009/10/03		104	%	70 - 130
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/03		109	%	70 - 130
		Benzene	2009/10/03		101	%	70 - 130
		Toluene	2009/10/03		100	%	70 - 130
		Ethylbenzene	2009/10/03		101	%	70 - 130
		Xylene (Total)	2009/10/03		104	%	70 - 130
	Method Blank	Isobutylbenzene - Volatile	2009/10/03		108	%	70 - 130
		Benzene	2009/10/03	<0.001		mg/L	
		Toluene	2009/10/03	<0.001		mg/L	
		Ethylbenzene	2009/10/03	<0.001		mg/L	
		Xylene (Total)	2009/10/03	<0.002		mg/L	
	RPD	C6 - C10 (less BTEX)	2009/10/03	<0.01		mg/L	
		Benzene	2009/10/03	NC		%	40
		Toluene	2009/10/03	NC		%	40
		Ethylbenzene	2009/10/03	NC		%	40
		Xylene (Total)	2009/10/03	NC		%	40
1959744 LMU	Matrix Spike	Isobutylbenzene - Extractable	2009/10/05		121	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/05		110	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/05		97	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/05		92	%	30 - 130
		Isobutylbenzene - Extractable	2009/10/05		109	%	30 - 130
	Spiked Blank	n-Dotriacontane - Extractable	2009/10/05		123	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/05		107	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/05		116	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/05		114	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/05		107	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/05	<0.05		mg/L	
		>C21-<C32 Hydrocarbons	2009/10/05	<0.1		mg/L	
	RPD	>C10-C21 Hydrocarbons	2009/10/05	NC		%	40
		>C21-<C32 Hydrocarbons	2009/10/05	NC		%	40
1961990 KGU	Matrix Spike	Dissolved Aluminum (Al)	2009/10/05		NC	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/05		87	%	80 - 120
		Dissolved Arsenic (As)	2009/10/05		109	%	80 - 120
		Dissolved Barium (Ba)	2009/10/05		101	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/05		114	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/05		76 (2)	%	80 - 120
		Dissolved Boron (B)	2009/10/05		106	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/05		105	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/05		100	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/05		100	%	80 - 120
		Dissolved Copper (Cu)	2009/10/05		99	%	80 - 120
		Dissolved Lead (Pb)	2009/10/05		98	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/05		NC	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/05		101	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/05		101	%	80 - 120
		Dissolved Selenium (Se)	2009/10/05		113	%	80 - 120
		Dissolved Silver (Ag)	2009/10/05		91	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/05		NC	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/05		105	%	80 - 120
		Dissolved Tin (Sn)	2009/10/05		98	%	80 - 120

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1961990 KGU	Matrix Spike	Dissolved Titanium (Ti)	2009/10/05		100	%	80 - 120
		Dissolved Uranium (U)	2009/10/05		109	%	80 - 120
		Dissolved Vanadium (V)	2009/10/05		102	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/05		NC	%	80 - 120
	QC Standard	Dissolved Aluminum (Al)	2009/10/05		90	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/05		119	%	80 - 120
		Dissolved Arsenic (As)	2009/10/05		87	%	80 - 120
		Dissolved Barium (Ba)	2009/10/05		91	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/05		87	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/05		99	%	80 - 120
		Dissolved Boron (B)	2009/10/05		81	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/05		89	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/05		108	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/05		105	%	80 - 120
		Dissolved Copper (Cu)	2009/10/05		95	%	80 - 120
		Dissolved Iron (Fe)	2009/10/05		79 (3)	%	80 - 120
		Dissolved Lead (Pb)	2009/10/05		100	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/05		92	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/05		107	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/05		103	%	80 - 120
		Dissolved Selenium (Se)	2009/10/05		81	%	80 - 120
		Dissolved Silver (Ag)	2009/10/05		85	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/05		100	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/05		105	%	80 - 120
		Dissolved Vanadium (V)	2009/10/05		111	%	80 - 120
	Spiked Blank	Dissolved Zinc (Zn)	2009/10/05		82	%	80 - 120
		Dissolved Aluminum (Al)	2009/10/05		91	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/05		84	%	80 - 120
		Dissolved Arsenic (As)	2009/10/05		99	%	80 - 120
		Dissolved Barium (Ba)	2009/10/05		99	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/05		106	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/05		98	%	80 - 120
		Dissolved Boron (B)	2009/10/05		105	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/05		98	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/05		100	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/05		102	%	80 - 120
		Dissolved Copper (Cu)	2009/10/05		103	%	80 - 120
		Dissolved Lead (Pb)	2009/10/05		100	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/05		91	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/05		100	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/05		103	%	80 - 120
		Dissolved Selenium (Se)	2009/10/05		93	%	80 - 120
		Dissolved Silver (Ag)	2009/10/05		103	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/05		101	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/05		103	%	80 - 120
		Dissolved Tin (Sn)	2009/10/05		103	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/05		98	%	80 - 120
		Dissolved Uranium (U)	2009/10/05		99	%	80 - 120
		Dissolved Vanadium (V)	2009/10/05		99	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/05		105	%	80 - 120
	Method Blank	Dissolved Aluminum (Al)	2009/10/05	<5.0		ug/L	
		Dissolved Antimony (Sb)	2009/10/05	<2.0		ug/L	
		Dissolved Arsenic (As)	2009/10/05	<2.0		ug/L	
		Dissolved Barium (Ba)	2009/10/05	<5.0		ug/L	
		Dissolved Beryllium (Be)	2009/10/05	<2.0		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C8550

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1961990 KGU	Method Blank	Dissolved Bismuth (Bi)	2009/10/05	<2.0		ug/L	
		Dissolved Boron (B)	2009/10/05	<5.0		ug/L	
		Dissolved Cadmium (Cd)	2009/10/05	<0.017		ug/L	
		Dissolved Chromium (Cr)	2009/10/05	<1.0		ug/L	
		Dissolved Cobalt (Co)	2009/10/05	<0.40		ug/L	
		Dissolved Copper (Cu)	2009/10/05	<2.0		ug/L	
		Dissolved Iron (Fe)	2009/10/05	<50		ug/L	
		Dissolved Lead (Pb)	2009/10/05	<0.50		ug/L	
		Dissolved Manganese (Mn)	2009/10/05	<2.0		ug/L	
		Dissolved Molybdenum (Mo)	2009/10/05	<2.0		ug/L	
		Dissolved Nickel (Ni)	2009/10/05	<2.0		ug/L	
		Dissolved Selenium (Se)	2009/10/05	<1.0		ug/L	
		Dissolved Silver (Ag)	2009/10/05	<0.10		ug/L	
		Dissolved Strontium (Sr)	2009/10/05	<5.0		ug/L	
		Dissolved Thallium (Tl)	2009/10/05	<0.10		ug/L	
		Dissolved Tin (Sn)	2009/10/05	<2.0		ug/L	
		Dissolved Titanium (Ti)	2009/10/05	<2.0		ug/L	
		Dissolved Uranium (U)	2009/10/05	<0.10		ug/L	
		Dissolved Vanadium (V)	2009/10/05	<2.0		ug/L	
		Dissolved Zinc (Zn)	2009/10/05	<5.0		ug/L	
	RPD [DV8539-01]	Dissolved Aluminum (Al)	2009/10/05	0.3		%	35
		Dissolved Antimony (Sb)	2009/10/05	NC		%	25
		Dissolved Arsenic (As)	2009/10/05	NC		%	25
		Dissolved Barium (Ba)	2009/10/05	NC		%	25
		Dissolved Beryllium (Be)	2009/10/05	NC		%	25
		Dissolved Bismuth (Bi)	2009/10/05	NC		%	25
		Dissolved Boron (B)	2009/10/05	NC		%	25
		Dissolved Cadmium (Cd)	2009/10/05	11.1		%	25
		Dissolved Chromium (Cr)	2009/10/05	NC		%	25
		Dissolved Cobalt (Co)	2009/10/05	3.2		%	25
		Dissolved Copper (Cu)	2009/10/05	0.6		%	25
		Dissolved Iron (Fe)	2009/10/05	NC		%	25
		Dissolved Lead (Pb)	2009/10/05	NC		%	25
		Dissolved Manganese (Mn)	2009/10/05	0.3		%	25
		Dissolved Molybdenum (Mo)	2009/10/05	3.2		%	25
		Dissolved Nickel (Ni)	2009/10/05	NC		%	25
		Dissolved Selenium (Se)	2009/10/05	NC		%	25
		Dissolved Silver (Ag)	2009/10/05	NC		%	25
		Dissolved Strontium (Sr)	2009/10/05	2.4		%	25
		Dissolved Thallium (Tl)	2009/10/05	NC		%	25
		Dissolved Tin (Sn)	2009/10/05	NC		%	25
		Dissolved Titanium (Ti)	2009/10/05	NC		%	25
		Dissolved Uranium (U)	2009/10/05	4.4		%	25
		Dissolved Vanadium (V)	2009/10/05	NC		%	25
		Dissolved Zinc (Zn)	2009/10/05	NC		%	25
1962000 KGU	QC Standard	Dissolved Aluminum (Al)	2009/10/05		98	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/05		111	%	80 - 120
		Dissolved Arsenic (As)	2009/10/05		79 (4)	%	80 - 120
		Dissolved Barium (Ba)	2009/10/05		96	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/05		93	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/05		98	%	80 - 120
		Dissolved Boron (B)	2009/10/05		93	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/05		85	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/05		106	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/05		98	%	80 - 120

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C8550

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1962000 KGU	QC Standard	Dissolved Copper (Cu)	2009/10/05		96	%	80 - 120
		Dissolved Iron (Fe)	2009/10/05		78 (5)	%	80 - 120
		Dissolved Lead (Pb)	2009/10/05		101	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/05		96	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/05		98	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/05		99	%	80 - 120
		Dissolved Selenium (Se)	2009/10/05		74 (4)	%	80 - 120
		Dissolved Silver (Ag)	2009/10/05		85	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/05		101	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/05		106	%	80 - 120
		Dissolved Vanadium (V)	2009/10/05		109	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/05		91	%	80 - 120
	Spiked Blank	Dissolved Aluminum (Al)	2009/10/05		113	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/05		86	%	80 - 120
		Dissolved Arsenic (As)	2009/10/05		94	%	80 - 120
		Dissolved Barium (Ba)	2009/10/05		100	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/05		103	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/05		88	%	80 - 120
		Dissolved Boron (B)	2009/10/05		107	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/05		96	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/05		109	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/05		107	%	80 - 120
		Dissolved Copper (Cu)	2009/10/05		105	%	80 - 120
		Dissolved Lead (Pb)	2009/10/05		89	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/05		88	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/05		98	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/05		105	%	80 - 120
		Dissolved Selenium (Se)	2009/10/05		94	%	80 - 120
		Dissolved Silver (Ag)	2009/10/05		99	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/05		91	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/05		88	%	80 - 120
		Dissolved Tin (Sn)	2009/10/05		100	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/05		111	%	80 - 120
		Dissolved Uranium (U)	2009/10/05		105	%	80 - 120
		Dissolved Vanadium (V)	2009/10/05		109	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/05		107	%	80 - 120
	Method Blank	Dissolved Aluminum (Al)	2009/10/05	<5.0		ug/L	
		Dissolved Antimony (Sb)	2009/10/05	<2.0		ug/L	
		Dissolved Arsenic (As)	2009/10/05	<2.0		ug/L	
		Dissolved Barium (Ba)	2009/10/05	<5.0		ug/L	
		Dissolved Beryllium (Be)	2009/10/05	<2.0		ug/L	
		Dissolved Bismuth (Bi)	2009/10/05	<2.0		ug/L	
		Dissolved Boron (B)	2009/10/05	<5.0		ug/L	
		Dissolved Cadmium (Cd)	2009/10/05	<0.017		ug/L	
		Dissolved Chromium (Cr)	2009/10/05	<1.0		ug/L	
		Dissolved Cobalt (Co)	2009/10/05	<0.40		ug/L	
		Dissolved Copper (Cu)	2009/10/05	<2.0		ug/L	
		Dissolved Iron (Fe)	2009/10/05	<50		ug/L	
		Dissolved Lead (Pb)	2009/10/05	<0.50		ug/L	
		Dissolved Manganese (Mn)	2009/10/05	<2.0		ug/L	
		Dissolved Molybdenum (Mo)	2009/10/05	<2.0		ug/L	
		Dissolved Nickel (Ni)	2009/10/05	<2.0		ug/L	
		Dissolved Selenium (Se)	2009/10/05	<1.0		ug/L	
		Dissolved Silver (Ag)	2009/10/05	<0.10		ug/L	
		Dissolved Strontium (Sr)	2009/10/05	<5.0		ug/L	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C8550

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1962000 KGU	Method Blank	Dissolved Thallium (Tl)	2009/10/05	<0.10		ug/L	
		Dissolved Tin (Sn)	2009/10/05	<2.0		ug/L	
		Dissolved Titanium (Ti)	2009/10/05	<2.0		ug/L	
		Dissolved Uranium (U)	2009/10/05	<0.10		ug/L	
		Dissolved Vanadium (V)	2009/10/05	<2.0		ug/L	
		Dissolved Zinc (Zn)	2009/10/05	<5.0		ug/L	
1962001 KGU	Matrix Spike [DV8575-01]	Dissolved Aluminum (Al)	2009/10/05		NC	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/05		87	%	80 - 120
		Dissolved Arsenic (As)	2009/10/05		100	%	80 - 120
		Dissolved Barium (Ba)	2009/10/05		NC	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/05		108	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/05		67 (6)	%	80 - 120
		Dissolved Boron (B)	2009/10/05		111	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/05		102	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/05		97	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/05		94	%	80 - 120
		Dissolved Copper (Cu)	2009/10/05		89	%	80 - 120
		Dissolved Lead (Pb)	2009/10/05		81	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/05		NC	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/05		NC	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/05		92	%	80 - 120
		Dissolved Selenium (Se)	2009/10/05		113	%	80 - 120
		Dissolved Silver (Ag)	2009/10/05		94	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/05		NC	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/05		83	%	80 - 120
		Dissolved Tin (Sn)	2009/10/05		88	%	80 - 120
		Dissolved Titanium (Ti)	2009/10/05		97	%	80 - 120
		Dissolved Uranium (U)	2009/10/05		94	%	80 - 120
		Dissolved Vanadium (V)	2009/10/05		101	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/05		112	%	80 - 120
	QC Standard	Dissolved Aluminum (Al)	2009/10/05		103	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/05		114	%	80 - 120
		Dissolved Arsenic (As)	2009/10/05		87	%	80 - 120
		Dissolved Barium (Ba)	2009/10/05		97	%	80 - 120
		Dissolved Beryllium (Be)	2009/10/05		95	%	80 - 120
		Dissolved Bismuth (Bi)	2009/10/05		93	%	80 - 120
		Dissolved Boron (B)	2009/10/05		100	%	80 - 120
		Dissolved Cadmium (Cd)	2009/10/05		95	%	80 - 120
		Dissolved Chromium (Cr)	2009/10/05		110	%	80 - 120
		Dissolved Cobalt (Co)	2009/10/05		101	%	80 - 120
		Dissolved Copper (Cu)	2009/10/05		95	%	80 - 120
		Dissolved Iron (Fe)	2009/10/05		94	%	80 - 120
		Dissolved Lead (Pb)	2009/10/05		95	%	80 - 120
		Dissolved Manganese (Mn)	2009/10/05		96	%	80 - 120
		Dissolved Molybdenum (Mo)	2009/10/05		100	%	80 - 120
		Dissolved Nickel (Ni)	2009/10/05		97	%	80 - 120
		Dissolved Selenium (Se)	2009/10/05		82	%	80 - 120
		Dissolved Silver (Ag)	2009/10/05		88	%	80 - 120
		Dissolved Strontium (Sr)	2009/10/05		105	%	80 - 120
		Dissolved Thallium (Tl)	2009/10/05		90	%	80 - 120
		Dissolved Vanadium (V)	2009/10/05		104	%	80 - 120
		Dissolved Zinc (Zn)	2009/10/05		80	%	80 - 120
	Spiked Blank	Dissolved Aluminum (Al)	2009/10/05		91	%	80 - 120
		Dissolved Antimony (Sb)	2009/10/05		83	%	80 - 120

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C8550

QA/QC Batch				Date Analyzed				
Num	Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1962001	KGU	Spiked Blank	Dissolved Arsenic (As)	2009/10/05		90	%	80 - 120
			Dissolved Barium (Ba)	2009/10/05		94	%	80 - 120
			Dissolved Beryllium (Be)	2009/10/05		102	%	80 - 120
			Dissolved Bismuth (Bi)	2009/10/05		81	%	80 - 120
			Dissolved Boron (B)	2009/10/05		101	%	80 - 120
			Dissolved Cadmium (Cd)	2009/10/05		91	%	80 - 120
			Dissolved Chromium (Cr)	2009/10/05		99	%	80 - 120
			Dissolved Cobalt (Co)	2009/10/05		96	%	80 - 120
			Dissolved Copper (Cu)	2009/10/05		96	%	80 - 120
			Dissolved Lead (Pb)	2009/10/05		82	%	80 - 120
			Dissolved Manganese (Mn)	2009/10/05		80	%	80 - 120
			Dissolved Molybdenum (Mo)	2009/10/05		90	%	80 - 120
			Dissolved Nickel (Ni)	2009/10/05		98	%	80 - 120
			Dissolved Selenium (Se)	2009/10/05		91	%	80 - 120
			Dissolved Silver (Ag)	2009/10/05		90	%	80 - 120
			Dissolved Strontium (Sr)	2009/10/05		85	%	80 - 120
			Dissolved Thallium (Tl)	2009/10/05		85	%	80 - 120
			Dissolved Tin (Sn)	2009/10/05		93	%	80 - 120
			Dissolved Titanium (Ti)	2009/10/05		101	%	80 - 120
			Dissolved Uranium (U)	2009/10/05		97	%	80 - 120
			Dissolved Vanadium (V)	2009/10/05		102	%	80 - 120
			Dissolved Zinc (Zn)	2009/10/05		101	%	80 - 120
		Method Blank	Dissolved Aluminum (Al)	2009/10/05	<5.0		ug/L	
			Dissolved Antimony (Sb)	2009/10/05	<2.0		ug/L	
			Dissolved Arsenic (As)	2009/10/05	<2.0		ug/L	
			Dissolved Barium (Ba)	2009/10/05	<5.0		ug/L	
			Dissolved Beryllium (Be)	2009/10/05	<2.0		ug/L	
			Dissolved Bismuth (Bi)	2009/10/05	<2.0		ug/L	
			Dissolved Boron (B)	2009/10/05	<5.0		ug/L	
			Dissolved Cadmium (Cd)	2009/10/05	<0.017		ug/L	
			Dissolved Chromium (Cr)	2009/10/05	<1.0		ug/L	
			Dissolved Cobalt (Co)	2009/10/05	<0.40		ug/L	
			Dissolved Copper (Cu)	2009/10/05	<2.0		ug/L	
			Dissolved Iron (Fe)	2009/10/05	<50		ug/L	
			Dissolved Lead (Pb)	2009/10/05	<0.50		ug/L	
			Dissolved Manganese (Mn)	2009/10/05	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2009/10/05	<2.0		ug/L	
			Dissolved Nickel (Ni)	2009/10/05	<2.0		ug/L	
			Dissolved Selenium (Se)	2009/10/05	<1.0		ug/L	
			Dissolved Silver (Ag)	2009/10/05	<0.10		ug/L	
			Dissolved Strontium (Sr)	2009/10/05	<5.0		ug/L	
			Dissolved Thallium (Tl)	2009/10/05	<0.10		ug/L	
			Dissolved Tin (Sn)	2009/10/05	<2.0		ug/L	
			Dissolved Titanium (Ti)	2009/10/05	<2.0		ug/L	
			Dissolved Uranium (U)	2009/10/05	<0.10		ug/L	
			Dissolved Vanadium (V)	2009/10/05	<2.0		ug/L	
			Dissolved Zinc (Zn)	2009/10/05	<5.0		ug/L	
RPD [DV8578-01]	Dissolved Aluminum (Al)	2009/10/05	2.0		%	35		
	Dissolved Antimony (Sb)	2009/10/05	NC		%	25		
	Dissolved Arsenic (As)	2009/10/05	NC		%	25		
	Dissolved Barium (Ba)	2009/10/05	1.7		%	25		
	Dissolved Beryllium (Be)	2009/10/05	NC		%	25		
	Dissolved Bismuth (Bi)	2009/10/05	NC		%	25		
	Dissolved Boron (B)	2009/10/05	NC		%	25		
	Dissolved Cadmium (Cd)	2009/10/05	3.1		%	25		

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C8550

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1962001 KGU	RPD [DV8578-01]	Dissolved Chromium (Cr)	2009/10/05	NC		%	25
		Dissolved Cobalt (Co)	2009/10/05	1.6		%	25
		Dissolved Copper (Cu)	2009/10/05	1.0		%	25
		Dissolved Iron (Fe)	2009/10/05	NC (7)		%	25
		Dissolved Lead (Pb)	2009/10/05	NC		%	25
		Dissolved Manganese (Mn)	2009/10/05	2.4		%	25
		Dissolved Molybdenum (Mo)	2009/10/05	4.1		%	25
		Dissolved Nickel (Ni)	2009/10/05	1.8		%	25
		Dissolved Selenium (Se)	2009/10/05	NC		%	25
		Dissolved Silver (Ag)	2009/10/05	NC		%	25
		Dissolved Strontium (Sr)	2009/10/05	0.2		%	25
		Dissolved Thallium (Tl)	2009/10/05	NC		%	25
		Dissolved Tin (Sn)	2009/10/05	NC		%	25
		Dissolved Titanium (Ti)	2009/10/05	NC		%	25
		Dissolved Uranium (U)	2009/10/05	NC		%	25
		Dissolved Vanadium (V)	2009/10/05	NC		%	25
		Dissolved Zinc (Zn)	2009/10/05	3.0		%	25
1965697 AHL	Spiked Blank	Decachlorobiphenyl	2009/10/13		126	%	30 - 130
		Total PCB	2009/10/13		106	%	70 - 130
	RPD	Total PCB	2009/10/13	4.2		%	40
		Decachlorobiphenyl	2009/10/13		100	%	30 - 130
	Method Blank	Total PCB	2009/10/13	<0.05		ug/L	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Surrogate is outside acceptance limits. Sample is past hold time to reanalyze.

(2) Recovery within acceptance limits.

(3) CRM target < 2x RDL. OQCA. Minimal impact on data quality.

(4) Violation not applicable. Within 3 SD limits.

(5) CRM target < 2 x RDL. OQCA. Minimal impact on data quality.

(6) Low recovery due to sample matrix.

(7) Elevated reporting limit for iron due to poor isotope agreement.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/06

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9C6121

Received: 2009/09/21, 9:11

Sample Matrix: Soil
Samples Received: 70

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (AA PIRI)	2	2009/09/25	2009/10/04	ATL SOP 00116 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	38	2009/09/30	2009/09/30	ATL SOP 00111 R3	Based on Atl. PIRI
TEH in Soil (PIRI)	14	2009/09/30	2009/10/01	ATL SOP 00111 R3	Based on Atl. PIRI
Metals Solid Avail. Unified MS - Nper	21	N/A	2009/09/27	ATL SOP 00024 R4	Based on EPA6020A
Moisture	62	N/A	2009/09/25	ATL SOP 00001 R3	MOE Handbook 1983
PAH in sediment by GC/MS (Low Level)	1	2009/09/25	2009/09/27	ATL SOP 00102 R3	based on EPA8270C
PAH in sediment by GC/MS (Low Level)	2	2009/09/29	2009/09/30	ATL SOP 00102 R3	based on EPA8270C
PAH in sediment by GC/MS (Low Level)	2	2009/09/29	2009/10/01	ATL SOP 00102 R3	based on EPA8270C
PAH in sediment by GC/MS (Low Level)	1	2009/09/29	2009/10/02	ATL SOP 00102 R3	based on EPA8270C
PCBs in soil by GC/ECD	20	2009/09/25	2009/09/28	ATL SOP 00106 R3	Based on EPA8082
PCBs in soil by GC/ECD	8	2009/09/28	2009/09/29	ATL SOP 00106 R3	Based on EPA8082
VPH in Soil (PIRI2)	2	2009/09/25	2009/10/02	ATL SOP 00120 R4	Based on Atl. PIRI
VPH in Soil (PIRI)	2	2009/09/25	2009/09/25	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	6	2009/09/25	2009/09/26	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	32	2009/09/25	2009/09/28	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
VPH in Soil (PIRI)	12	2009/09/25	2009/09/29	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	52	2009/09/23	2009/10/01		Based on Atl. PIRI
ModTPH (T2) Calc. for Soil	2	N/A	2009/10/05	n/a	Based on Atl. PIRI
Volatile Organic Compounds in Soil	2	2009/09/25	2009/09/28	ATL SOP 00123 R3	Based on USEPA SW-84

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

..12

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: N/A

Attention: JIM SLADE

Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/06

CERTIFICATE OF ANALYSIS

-2-

Encryption Key



Michelle Hill

06 Oct 2009 10:49:05 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 2

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This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9C6121
 Report Date: 2009/10/06

 Jacques Whitford Limited
 Client Project #: 1044856/Z9100
 Project name: HOPEDALE
 Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DU6352	DU6353	DU6354	DU6355	DU6356		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW1-SS1	MW2-SS1	MW3-SS1	MW4-SS1	MW5-SS1	RDL	QC Batch

Inorganics								
Moisture	%	7	6	9	10	18	1	1950847
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DU6357	DU6358	DU6359	DU6360	DU6361		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW6-SS1	MW7-SS1	MW8-SS1	MW9-SS1	MW9-SS3	RDL	QC Batch

Inorganics								
Moisture	%	27	10	11	9	14	1	1950847
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DU6362	DU6363	DU6364	DU6365	DU6366		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW10-SS1	MW11-SS1	MW12-SS2	MW14-SS3	MW15-SS4	RDL	QC Batch

Inorganics								
Moisture	%	16	21	11	9	15	1	1950847
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DU6368	DU6370	DU6372	DU6373	DU6374		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW17-SS2	MW18-SS4	MW20-SS4	MW21-SS1	MW24-SS1	RDL	QC Batch

Inorganics								
Moisture	%	14	57	16	25	10	1	1950847
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DU6375	DU6376	DU6377	DU6378	DU6379		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW25-SS2	MW26-SS4	MW27-SS1	MW27-SS3	MW28-SS1	RDL	QC Batch

Inorganics								
Moisture	%	19	11	24	14	48	1	1950847
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DU6380	DU6381		DU6382	DU6383		
Sampling Date		2009/09/21	2009/09/21		2009/09/21	2009/09/21		
COC Number		N/A	N/A		N/A	N/A		
	Units	MW29-SS2	MW30-SS2	QC Batch	MW31-SS2	MW31-SS3	RDL	QC Batch

Inorganics								
Moisture	%	25	17	1950847	20	17	1	1951750
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DU6384	DU6385	DU6386	DU6387	DU6388		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW32-SS2	MW32-SS4	MW33-SS2	MW33-SS4	MW34-SS1	RDL	QC Batch

Inorganics								
Moisture	%	22	18	32	29	14	1	1951750
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DU6389	DU6390	DU6391	DU6393	DU6394		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW35-SS3	MW36-SS3	MW37-SS1	MW39-SS1	MW40-SS1	RDL	QC Batch

Inorganics								
Moisture	%	16	14	11	11	61	1	1951750
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DU6395	DU6396	DU6397	DU6398	DU6400		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW44-SS1	MW44-SS2	MW45-SS3	MW46-SS1	MW47-SS4	RDL	QC Batch

Inorganics								
Moisture	%	20	5	15	18	20	1	1951750
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DU6402	DU6403	DU6404	DU6406	DU6407		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW48-SS3	MW49-SS2	MW50-SS1	MW51-SS5	MW52-SS3	RDL	QC Batch

Inorganics								
Moisture	%	14	16	13	12	24	1	1951750
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DU6409	DU6410	DU6411	DU6412	DU6413		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	MW53-SS4	MW53-SS5	TP3-BS2	TP6-BS2	TP53-BS1	RDL	QC Batch

Inorganics								
Moisture	%	13	25	23	15	14	1	1951750
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam ID		DU6414	DU6415	DU6416	DU6417	DU6418		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A	N/A		
	Units	TP20-BS2	TP223-BS1	TP224-BS1	TP225-BS2	TP143-BS2	RDL	QC Batch

Inorganics								
Moisture	%	14	24	16	14	64	1	1951750
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DU6419	DU6420	DU6421		
Sampling Date		2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A		
	Units	BS104	BS110	BS112	RDL	QC Batch

Inorganics						
Moisture	%	7	72	74	1	1951750

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DU6353	DU6355	DU6358	DU6359		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW2-SS1	MW4-SS1	MW7-SS1	MW8-SS1	RDL	QC Batch
Metals							
Available Aluminum (Al)	mg/kg	7400	9100	10000	5500	10	1952816
Available Antimony (Sb)	mg/kg	3	<2	<2	<2	2	1952816
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1952816
Available Barium (Ba)	mg/kg	240	24	110	7	5	1952816
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1952816
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1952816
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1952816
Available Cadmium (Cd)	mg/kg	0.4	<0.3	<0.3	<0.3	0.3	1952816
Available Chromium (Cr)	mg/kg	19	24	51	11	2	1952816
Available Cobalt (Co)	mg/kg	5	7	12	4	1	1952816
Available Copper (Cu)	mg/kg	15	20	33	14	2	1952816
Available Iron (Fe)	mg/kg	13000	14000	18000	6300	50	1952816
Available Lead (Pb)	mg/kg	86	11	14	1.4	0.5	1952816
Available Lithium (Li)	mg/kg	14	9	20	3	2	1952816
Available Manganese (Mn)	mg/kg	190	200	250	66	2	1952816
Available Mercury (Hg)	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	1952816
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1952816
Available Nickel (Ni)	mg/kg	10	25	39	10	2	1952816
Available Rubidium (Rb)	mg/kg	28	4	47	<2	2	1952816
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1952816
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1952816
Available Strontium (Sr)	mg/kg	14	15	6	9	5	1952816
Available Thallium (Tl)	mg/kg	0.2	<0.1	0.3	<0.1	0.1	1952816
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1952816
Available Uranium (U)	mg/kg	0.2	0.2	0.2	0.1	0.1	1952816
Available Vanadium (V)	mg/kg	25	24	36	14	2	1952816
Available Zinc (Zn)	mg/kg	71	42	53	9	5	1952816
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DU6361	DU6362	DU6363	DU6364		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW9-SS3	MW10-SS1	MW11-SS1	MW12-SS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	4400	3700	8100	5800	10	1952816
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1952816
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1952816
Available Barium (Ba)	mg/kg	8	10	31	11	5	1952816
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1952816
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1952816
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1952816
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1952816
Available Chromium (Cr)	mg/kg	10	17	23	14	2	1952816
Available Cobalt (Co)	mg/kg	4	3	5	5	1	1952816
Available Copper (Cu)	mg/kg	7	5	21	19	2	1952816
Available Iron (Fe)	mg/kg	6900	9400	10000	7800	50	1952816
Available Lead (Pb)	mg/kg	1.4	2.0	34	1.8	0.5	1952816
Available Lithium (Li)	mg/kg	4	4	7	4	2	1952816
Available Manganese (Mn)	mg/kg	73	110	140	78	2	1952816
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1952816
Available Molybdenum (Mo)	mg/kg	<2	2	<2	<2	2	1952816
Available Nickel (Ni)	mg/kg	11	4	15	13	2	1952816
Available Rubidium (Rb)	mg/kg	<2	3	6	<2	2	1952816
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1952816
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1952816
Available Strontium (Sr)	mg/kg	9	6	22	12	5	1952816
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1952816
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1952816
Available Uranium (U)	mg/kg	0.1	0.2	0.4	0.2	0.1	1952816
Available Vanadium (V)	mg/kg	14	12	25	19	2	1952816
Available Zinc (Zn)	mg/kg	13	250	79	17	5	1952816

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DU6367	DU6369	DU6371	DU6380		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW16-SS2	MW17-SS4	MW19-SS1	MW29-SS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	5800	5100	9300	3200	10	1952816
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1952816
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1952816
Available Barium (Ba)	mg/kg	16	14	34	6	5	1952816
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1952816
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1952816
Available Boron (B)	mg/kg	<5	<5	6	<5	5	1952816
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1952816
Available Chromium (Cr)	mg/kg	17	11	23	10	2	1952816
Available Cobalt (Co)	mg/kg	4	4	7	1	1	1952816
Available Copper (Cu)	mg/kg	14	9	19	4	2	1952816
Available Iron (Fe)	mg/kg	7000	6900	13000	3000	50	1952816
Available Lead (Pb)	mg/kg	2.5	1.5	9.7	1.6	0.5	1952816
Available Lithium (Li)	mg/kg	5	4	9	2	2	1952816
Available Manganese (Mn)	mg/kg	69	93	150	27	2	1952816
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1952816
Available Molybdenum (Mo)	mg/kg	<2	<2	2	<2	2	1952816
Available Nickel (Ni)	mg/kg	11	10	17	4	2	1952816
Available Rubidium (Rb)	mg/kg	4	4	10	<2	2	1952816
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1952816
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1952816
Available Strontium (Sr)	mg/kg	9	12	24	6	5	1952816
Available Thallium (Tl)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1952816
Available Tin (Sn)	mg/kg	<2	<2	3	<2	2	1952816
Available Uranium (U)	mg/kg	0.2	0.5	1.3	0.5	0.1	1952816
Available Vanadium (V)	mg/kg	18	13	22	11	2	1952816
Available Zinc (Zn)	mg/kg	18	16	62	7	5	1952816

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DU6381	DU6383	DU6388	DU6390		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW30-SS2	MW31-SS3	MW34-SS1	MW36-SS3	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	3900	18000	5600	8000	10	1952820
Available Antimony (Sb)	mg/kg	<2	<2	<2	<2	2	1952820
Available Arsenic (As)	mg/kg	<2	<2	<2	<2	2	1952820
Available Barium (Ba)	mg/kg	6	55	45	20	5	1952820
Available Beryllium (Be)	mg/kg	<2	<2	<2	<2	2	1952820
Available Bismuth (Bi)	mg/kg	<2	<2	<2	<2	2	1952820
Available Boron (B)	mg/kg	<5	<5	<5	<5	5	1952820
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	<0.3	<0.3	0.3	1952820
Available Chromium (Cr)	mg/kg	9	31	12	20	2	1952820
Available Cobalt (Co)	mg/kg	2	9	4	4	1	1952820
Available Copper (Cu)	mg/kg	4	28	16	8	2	1952820
Available Iron (Fe)	mg/kg	3200	19000	8900	10000	50	1952820
Available Lead (Pb)	mg/kg	1.9	5.1	22	3.2	0.5	1952820
Available Lithium (Li)	mg/kg	3	16	6	8	2	1952820
Available Manganese (Mn)	mg/kg	40	180	140	100	2	1952820
Available Mercury (Hg)	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1	1952820
Available Molybdenum (Mo)	mg/kg	<2	<2	<2	<2	2	1952820
Available Nickel (Ni)	mg/kg	5	27	12	12	2	1952820
Available Rubidium (Rb)	mg/kg	<2	16	4	6	2	1952820
Available Selenium (Se)	mg/kg	<2	<2	<2	<2	2	1952820
Available Silver (Ag)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	1952820
Available Strontium (Sr)	mg/kg	9	35	8	16	5	1952820
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1952820
Available Tin (Sn)	mg/kg	<2	<2	<2	<2	2	1952820
Available Uranium (U)	mg/kg	0.7	1.2	0.3	1.4	0.1	1952820
Available Vanadium (V)	mg/kg	7	36	13	20	2	1952820
Available Zinc (Zn)	mg/kg	11	50	120	24	5	1952820

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DU6392		DU6399	DU6401		
Sampling Date		2009/09/21		2009/09/21	2009/09/21		
COC Number		N/A		N/A	N/A		
	Units	MW37-SS3	RDL	MW47-SS2	MW48-SS2	RDL	QC Batch

Metals							
Available Aluminum (Al)	mg/kg	6500	10	3200	6400	10	1952820
Available Antimony (Sb)	mg/kg	<2	2	<2	<2	2	1952820
Available Arsenic (As)	mg/kg	<2	2	<2	<2	2	1952820
Available Barium (Ba)	mg/kg	15	5	13	18	5	1952820
Available Beryllium (Be)	mg/kg	<2	2	<2	<2	2	1952820
Available Bismuth (Bi)	mg/kg	<2	2	<2	<2	2	1952820
Available Boron (B)	mg/kg	<5	5	<5	<5	5	1952820
Available Cadmium (Cd)	mg/kg	<0.3	0.3	<0.3	<0.3	0.3	1952820
Available Chromium (Cr)	mg/kg	11	2	6	16	2	1952820
Available Cobalt (Co)	mg/kg	4	1	1	4	1	1952820
Available Copper (Cu)	mg/kg	17	2	2	15	2	1952820
Available Iron (Fe)	mg/kg	12000	50	3900	12000	50	1952820
Available Lead (Pb)	mg/kg	11	0.5	12	6.4	0.5	1952820
Available Lithium (Li)	mg/kg	6	2	2	6	2	1952820
Available Manganese (Mn)	mg/kg	100	2	46	97	2	1952820
Available Mercury (Hg)	mg/kg	<0.2 (1)	0.2	<0.1	<0.1	0.1	1952820
Available Molybdenum (Mo)	mg/kg	<2	2	<2	<2	2	1952820
Available Nickel (Ni)	mg/kg	11	2	3	14	2	1952820
Available Rubidium (Rb)	mg/kg	4	2	2	5	2	1952820
Available Selenium (Se)	mg/kg	<2	2	<2	<2	2	1952820
Available Silver (Ag)	mg/kg	<0.5	0.5	<0.5	<0.5	0.5	1952820
Available Strontium (Sr)	mg/kg	10	5	13	11	5	1952820
Available Thallium (Tl)	mg/kg	<0.1	0.1	<0.1	<0.1	0.1	1952820
Available Tin (Sn)	mg/kg	80	2	<2	<2	2	1952820
Available Uranium (U)	mg/kg	1.1	0.1	0.2	0.4	0.1	1952820
Available Vanadium (V)	mg/kg	14	2	8	15	2	1952820
Available Zinc (Zn)	mg/kg	300	5	13	25	5	1952820

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated reporting limit due to sample matrix.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		DU6405	DU6408		
Sampling Date		2009/09/21	2009/09/21		
COC Number		N/A	N/A		
	Units	MW51-SS2	MW53-SS3	RDL	QC Batch

Metals					
Available Aluminum (Al)	mg/kg	20000	7000	10	1952820
Available Antimony (Sb)	mg/kg	<2	<2	2	1952820
Available Arsenic (As)	mg/kg	<2	<2	2	1952820
Available Barium (Ba)	mg/kg	70	21	5	1952820
Available Beryllium (Be)	mg/kg	<2	<2	2	1952820
Available Bismuth (Bi)	mg/kg	<2	<2	2	1952820
Available Boron (B)	mg/kg	5	<5	5	1952820
Available Cadmium (Cd)	mg/kg	<0.3	<0.3	0.3	1952820
Available Chromium (Cr)	mg/kg	34	20	2	1952820
Available Cobalt (Co)	mg/kg	12	4	1	1952820
Available Copper (Cu)	mg/kg	23	10	2	1952820
Available Iron (Fe)	mg/kg	24000	8500	50	1952820
Available Lead (Pb)	mg/kg	7.0	3.4	0.5	1952820
Available Lithium (Li)	mg/kg	19	9	2	1952820
Available Manganese (Mn)	mg/kg	320	97	2	1952820
Available Mercury (Hg)	mg/kg	<0.1	<0.1	0.1	1952820
Available Molybdenum (Mo)	mg/kg	<2	<2	2	1952820
Available Nickel (Ni)	mg/kg	28	12	2	1952820
Available Rubidium (Rb)	mg/kg	20	7	2	1952820
Available Selenium (Se)	mg/kg	<2	<2	2	1952820
Available Silver (Ag)	mg/kg	<0.5	<0.5	0.5	1952820
Available Strontium (Sr)	mg/kg	53	11	5	1952820
Available Thallium (Tl)	mg/kg	0.1	<0.1	0.1	1952820
Available Tin (Sn)	mg/kg	<2	<2	2	1952820
Available Uranium (U)	mg/kg	0.8	0.6	0.1	1952820
Available Vanadium (V)	mg/kg	42	17	2	1952820
Available Zinc (Zn)	mg/kg	60	23	5	1952820

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DU6365	DU6365		
Sampling Date		2009/09/21	2009/09/21		
COC Number		N/A	N/A		
	Units	MW14-SS3	MW14-SS3 Lab-Dup	RDL	QC Batch

Polyaromatic Hydrocarbons					
1-Methylnaphthalene	mg/kg	2.6	2.9	0.005	1951298
2-Methylnaphthalene	mg/kg	1.8	2.0	0.005	1951298
Acenaphthene	mg/kg	0.15	0.16	0.005	1951298
Acenaphthylene	mg/kg	<0.005	<0.005	0.005	1951298
Anthracene	mg/kg	<0.005	<0.005	0.005	1951298
Benzo(a)anthracene	mg/kg	<0.005	<0.005	0.005	1951298
Benzo(a)pyrene	mg/kg	<0.005	<0.005	0.005	1951298
Benzo(b)fluoranthene	mg/kg	<0.005	<0.005	0.005	1951298
Benzo(g,h,i)perylene	mg/kg	<0.005	<0.005	0.005	1951298
Benzo(k)fluoranthene	mg/kg	<0.005	<0.005	0.005	1951298
Chrysene	mg/kg	<0.005	<0.005	0.005	1951298
Dibenz(a,h)anthracene	mg/kg	<0.005	<0.005	0.005	1951298
Fluoranthene	mg/kg	<0.005	<0.005	0.005	1951298
Fluorene	mg/kg	0.13	0.14	0.005	1951298
Indeno(1,2,3-cd)pyrene	mg/kg	<0.005	<0.005	0.005	1951298
Naphthalene	mg/kg	0.89	1.1	0.005	1951298
Perylene	mg/kg	<0.005	<0.005	0.005	1951298
Phenanthrene	mg/kg	0.068	0.077	0.005	1951298
Pyrene	mg/kg	<0.005	<0.005	0.005	1951298
Surrogate Recovery (%)					
D10-Anthracene	%	102	97		1951298
D14-Terphenyl	%	107	103		1951298
D8-Acenaphthylene	%	100	102		1951298

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DU6373		DU6374		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW21-SS1	RDL	MW24-SS1	RDL	QC Batch

Polyaromatic Hydrocarbons						
1-Methylnaphthalene	mg/kg	0.017	0.005	<0.3 (1)	0.3	1955340
2-Methylnaphthalene	mg/kg	0.035	0.005	<0.3 (1)	0.3	1955340
Acenaphthene	mg/kg	<0.005	0.005	0.4	0.1	1955340
Acenaphthylene	mg/kg	0.009	0.005	<0.1	0.1	1955340
Anthracene	mg/kg	0.010	0.005	<0.1	0.1	1955340
Benzo(a)anthracene	mg/kg	<0.02 (1)	0.02	0.1	0.1	1955340
Benzo(a)pyrene	mg/kg	<0.03 (1)	0.03	0.4	0.1	1955340
Benzo(b)fluoranthene	mg/kg	<0.04 (1)	0.04	<0.1	0.1	1955340
Benzo(g,h,i)perylene	mg/kg	0.066	0.005	<0.1	0.1	1955340
Benzo(k)fluoranthene	mg/kg	<0.03 (1)	0.03	<0.1	0.1	1955340
Chrysene	mg/kg	0.046	0.005	0.4	0.1	1955340
Dibenz(a,h)anthracene	mg/kg	0.010	0.005	<0.1	0.1	1955340
Fluoranthene	mg/kg	0.040	0.005	<0.1	0.1	1955340
Fluorene	mg/kg	<0.005	0.005	0.3	0.1	1955340
Indeno(1,2,3-cd)pyrene	mg/kg	0.037	0.005	<0.1	0.1	1955340
Naphthalene	mg/kg	0.021	0.005	0.2	0.1	1955340
Perylene	mg/kg	<0.02 (1)	0.02	0.2	0.1	1955340
Phenanthrene	mg/kg	0.032	0.005	0.3	0.1	1955340
Pyrene	mg/kg	0.052	0.005	0.1	0.1	1955340
Surrogate Recovery (%)						
D10-Anthracene	%	96		90		1955340
D14-Terphenyl	%	93		82 (2)		1955340
D8-Acenaphthylene	%	78		113		1955340

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated PAH RDL(s) due to matrix interference.
(2) Elevated PAH RDL(s) due to sample dilution.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		DU6383	DU6391	DU6391	DU6400		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW31-SS3	MW37-SS1	MW37-SS1 Lab-Dup	MW47-SS4	RDL	QC Batch

Polyaromatic Hydrocarbons							
1-Methylnaphthalene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
2-Methylnaphthalene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Acenaphthene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Acenaphthylene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Anthracene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Benzo(a)anthracene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Benzo(a)pyrene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Benzo(b)fluoranthene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Benzo(g,h,i)perylene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Benzo(k)fluoranthene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Chrysene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Dibenz(a,h)anthracene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Fluoranthene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Fluorene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Indeno(1,2,3-cd)pyrene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Naphthalene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Perylene	mg/kg	<0.005	<0.005	<0.005	0.007	0.005	1955340
Phenanthrene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Pyrene	mg/kg	<0.005	<0.005	<0.005	<0.005	0.005	1955340
Surrogate Recovery (%)							
D10-Anthracene	%	129	126	107	93		1955340
D14-Terphenyl	%	84	88	79	92		1955340
D8-Acenaphthylene	%	80	83	85	83		1955340

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DU6374		DU6403		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW24-SS1	RDL	MW49-SS2	RDL	QC Batch

Volatiles Organics						
1,1,1-Trichloroethane	ug/kg	<30	30	<30	30	1951358
1,1,2,2-Tetrachloroethane	ug/kg	<400 (1)	400	<30	30	1951358
1,1,2-Trichloroethane	ug/kg	<200 (1)	200	<30	30	1951358
1,1-Dichloroethane	ug/kg	<30	30	<30	30	1951358
1,1-Dichloroethylene	ug/kg	<30	30	<30	30	1951358
1,2-Dichlorobenzene	ug/kg	<30	30	<30	30	1951358
1,2-Dichloroethane	ug/kg	<30	30	<30	30	1951358
1,2-Dichloropropane	ug/kg	<30	30	<30	30	1951358
1,3-Dichlorobenzene	ug/kg	<30	30	<30	30	1951358
1,4-Dichlorobenzene	ug/kg	<30	30	<30	30	1951358
Benzene	ug/kg	<30	30	<30	30	1951358
Bromodichloromethane	ug/kg	<30	30	<30	30	1951358
Bromoform	ug/kg	<30	30	<30	30	1951358
Bromomethane	ug/kg	<200	200	<200	200	1951358
Carbon Tetrachloride	ug/kg	<30	30	<30	30	1951358
Chlorobenzene	ug/kg	<30	30	<30	30	1951358
Chloroform	ug/kg	<30	30	<30	30	1951358
Chloromethane	ug/kg	<30	30	<30	30	1951358
cis-1,2-Dichloroethylene	ug/kg	<30	30	<30	30	1951358
cis-1,3-Dichloropropene	ug/kg	<30	30	<30	30	1951358
Dibromochloromethane	ug/kg	<30	30	<30	30	1951358
Ethylbenzene	ug/kg	<30	30	<30	30	1951358
Ethylene Dibromide	ug/kg	<30	30	<30	30	1951358
Methylene Chloride(Dichloromethane)	ug/kg	<30	30	<30	30	1951358
o-Xylene	ug/kg	<30	30	<30	30	1951358
p+m-Xylene	ug/kg	<30	30	<30	30	1951358
Styrene	ug/kg	<30	30	<30	30	1951358
Tetrachloroethylene	ug/kg	<30	30	<30	30	1951358
Toluene	ug/kg	43	30	<30	30	1951358
trans-1,2-Dichloroethylene	ug/kg	<30	30	<30	30	1951358

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Elevated VOC RDL(s) due to matrix interference.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		DU6374		DU6403		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW24-SS1	RDL	MW49-SS2	RDL	QC Batch
trans-1,3-Dichloropropene	ug/kg	<30	30	<30	30	1951358
Trichloroethylene	ug/kg	<30	30	<30	30	1951358
Trichlorofluoromethane (FREON 11)	ug/kg	<30	30	<30	30	1951358
Vinyl Chloride	ug/kg	<30	30	<30	30	1951358
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	90		109		1951358
D4-1,2-Dichloroethane	%	102		115		1951358
D8-Toluene	%	97		108		1951358
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6352		DU6353		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW1-SS1	QC Batch	MW2-SS1	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	1951398	<0.03	0.03	1951398
Toluene	mg/kg	<0.03	1951398	<0.03	0.03	1951398
Ethylbenzene	mg/kg	<0.03	1951398	<0.03	0.03	1951398
Xylene (Total)	mg/kg	<0.05	1951398	<0.05	0.05	1951398
C6 - C10 (less BTEX)	mg/kg	<3	1951398	<3	3	1951398
>C10-C21 Hydrocarbons	mg/kg	270	1955666	180	15	1955612
>C21-<C32 Hydrocarbons	mg/kg	290	1955666	500	15	1955612
Modified TPH (Tier1)	mg/kg	560	1948816	680	20	1948816
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	98	1955666	104		1955612
n-Dotriacontane - Extractable	%	100 (1)	1955666	109 (2)		1955612
Isobutylbenzene - Volatile	%	100	1951398	94		1951398

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Lube oil fraction.

(2) One product in fuel / lube range. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6354		DU6355	DU6356		
Sampling Date		2009/09/21		2009/09/21	2009/09/21		
COC Number		N/A		N/A	N/A		
	Units	MW3-SS1	QC Batch	MW4-SS1	MW5-SS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1951398	<0.03	<0.03	0.03	1951398
Toluene	mg/kg	<0.03	1951398	<0.03	<0.03	0.03	1951398
Ethylbenzene	mg/kg	<0.03	1951398	<0.03	<0.03	0.03	1951398
Xylene (Total)	mg/kg	<0.05	1951398	<0.05	<0.05	0.05	1951398
C6 - C10 (less BTEX)	mg/kg	<3	1951398	5	4	3	1951398
>C10-C21 Hydrocarbons	mg/kg	400	1955666	1400	4400	15	1955666
>C21-<C32 Hydrocarbons	mg/kg	590	1955666	51	330	15	1955666
Modified TPH (Tier1)	mg/kg	990	1948816	1500	4700	20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	111	1955666	103	102		1955666
n-Dotriacontane - Extractable	%	100 (1)	1955666	107 (2)	89 (1)		1955666
Isobutylbenzene - Volatile	%	99	1951398	108	90		1951398

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) Weathered fuel oil fraction. Possible lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6357	DU6358	DU6361		
Sampling Date		2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A		
	Units	MW6-SS1	MW7-SS1	MW9-SS3	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	<0.03	<0.03	0.03	1951398
Toluene	mg/kg	<0.03	<0.03	<0.03	0.03	1951398
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.03	1951398
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.05	1951398
C6 - C10 (less BTEX)	mg/kg	40	<3	<3	3	1951398
>C10-C21 Hydrocarbons	mg/kg	12000	110	<15	15	1955666
>C21-<C32 Hydrocarbons	mg/kg	460	45	<15	15	1955666
Modified TPH (Tier1)	mg/kg	12000	160	<20	20	1948975
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	100	104	109		1955666
n-Dotriacontane - Extractable	%	112 (1)	128 (2)	123 (3)		1955666
Isobutylbenzene - Volatile	%	86	99	104		1951398

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) Weathered fuel oil fraction. Possible lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(3) Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6362	DU6363		DU6365		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW10-SS1	MW11-SS1	QC Batch	MW14-SS3	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1952775	<0.03	0.03	1957565
Toluene	mg/kg				<0.03	0.03	1957565
Ethylbenzene	mg/kg				0.09	0.03	1957565
Toluene	mg/kg	<0.03	<0.03	1952775		0.03	
Ethylbenzene	mg/kg	<0.03	<0.03	1952775		0.03	
Xylene (Total)	mg/kg	<0.05	<0.05	1952775	0.18	0.05	1957565
Aliphatic >C6-C8	mg/kg				18	0.1	1957565
Aliphatic >C8-C10	mg/kg				250 (1)	0.9	1957565
C6 - C10 (less BTEX)	mg/kg	<3	<3	1952775		3	
>C8-C10 Aromatics (-EX)	mg/kg				9.3	0.1	1957565
>C10-C21 Hydrocarbons	mg/kg	20	110	1955612		15	
Aliphatic >C10-C12	mg/kg				420	8.0	1957524
>C21-<C32 Hydrocarbons	mg/kg	52	380	1955612		15	
Aliphatic >C12-C16	mg/kg				790	15	1957524
Modified TPH (Tier1)	mg/kg	72	490	1948975		20	
Aliphatic >C16-C21	mg/kg				72	15	1957524
Aliphatic >C21-<C32	mg/kg				17	15	1957524
Aromatic >C10-C12	mg/kg				89	4.0	1957524
Aromatic >C12-C16	mg/kg				230	15	1957524
Aromatic >C16-C21	mg/kg				38	15	1957524
Aromatic >C21-<C32	mg/kg				24	15	1957524
Modified TPH (Tier 2)	mg/kg				2000	20	1948977
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%				83		1957524
n-Dotriacontane - Extractable	%				85 (2)		1957524
Isobutylbenzene - Extractable	%	96	100	1955612			
n-Dotriacontane - Extractable	%	100 (3)	107 (4)	1955612			

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VPH RDL(s) due to detected levels in the method blank.

(2) One product in the gas/fuel oil range.

(3) No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

(4) Weathered fuel oil fraction. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6362	DU6363		DU6365		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW10-SS1	MW11-SS1	QC Batch	MW14-SS3	RDL	QC Batch

Isobutylbenzene - Volatile	%	112	111	1952775	101		1957565

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6365		DU6366	DU6366		
Sampling Date		2009/09/21		2009/09/21	2009/09/21		
COC Number		N/A		N/A	N/A		
	Units	MW14-SS3 Lab-Dup	QC Batch	MW15-SS4	MW15-SS4 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg		1957565	<0.03	<0.03	0.03	1952775
Toluene	mg/kg			<0.03	<0.03	0.03	1952775
Ethylbenzene	mg/kg			<0.03	<0.03	0.03	1952775
Xylene (Total)	mg/kg		1957565	<0.05	<0.05	0.05	1952775
C6 - C10 (less BTEX)	mg/kg			<3	<3	3	1952775
>C10-C21 Hydrocarbons	mg/kg			<15		15	1955612
Aliphatic >C10-C12	mg/kg	470	1957524			8.0	
>C21-<C32 Hydrocarbons	mg/kg			<15		15	1955612
Aliphatic >C12-C16	mg/kg	870	1957524			15	
Modified TPH (Tier1)	mg/kg			<20		20	1948975
Aliphatic >C16-C21	mg/kg	77	1957524			15	
Aliphatic >C21-<C32	mg/kg	22	1957524			15	
Aromatic >C10-C12	mg/kg	110	1957524			4.0	
Aromatic >C12-C16	mg/kg	260	1957524			15	
Aromatic >C16-C21	mg/kg	43	1957524			15	
Aromatic >C21-<C32	mg/kg	29	1957524			15	
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	85	1957524				
n-Dotriacontane - Extractable	%	86 (1)	1957524				
Isobutylbenzene - Extractable	%			99			1955612
n-Dotriacontane - Extractable	%			107 (2)			1955612
Isobutylbenzene - Volatile	%		1957565	114	111		1952775

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in the gas/fuel oil range.

(2) Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6368	DU6370	DU6372	DU6372		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW17-SS2	MW18-SS4	MW20-SS4	MW20-SS4 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03		0.03	1952775
Toluene	mg/kg	<0.03	<0.03	<0.03		0.03	1952775
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03		0.03	1952775
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05		0.05	1952775
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3		3	1952775
>C10-C21 Hydrocarbons	mg/kg	<15	1300	48	59	15	1955612
>C21-<C32 Hydrocarbons	mg/kg	<15	1000	160	140	15	1955612
Modified TPH (Tier1)	mg/kg	<20	2300	210		20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	90	107	93	92		1955612
n-Dotriacontane - Extractable	%	98 (1)	130 (2)	98 (2)	90 (1)		1955612
Isobutylbenzene - Volatile	%	110	98	113			1952775

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Silica gel clean-up performed prior to analysis as per client request.

(2) Weathered fuel oil fraction. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6373		DU6374		
Sampling Date		2009/09/21		2009/09/21		
COC Number		N/A		N/A		
	Units	MW21-SS1	RDL	MW24-SS1	RDL	QC Batch

Petroleum Hydrocarbons						
Benzene	mg/kg	<0.03	0.03	<0.03	0.03	1952775
Toluene	mg/kg	<0.03	0.03	<0.03	0.03	1952775
Ethylbenzene	mg/kg	<0.03	0.03	<0.03	0.03	1952775
Xylene (Total)	mg/kg	<0.05	0.05	<0.05	0.05	1952775
C6 - C10 (less BTEX)	mg/kg	<3	3	36	3	1952775
>C10-C21 Hydrocarbons	mg/kg	250	15	5500	15	1955666
>C21-<C32 Hydrocarbons	mg/kg	1100	15	15000	150	1955666
Modified TPH (Tier1)	mg/kg	1300	20	21000	200	1948975
Surrogate Recovery (%)						
Isobutylbenzene - Extractable	%	111		103		1955666
n-Dotriacontane - Extractable	%	111 (1)		541 (2)		1955666
Isobutylbenzene - Volatile	%	106		85		1952775

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) Weathered fuel oil fraction. Lube oil fraction. TEH surrogate(s) not within acceptance limits due to sample dilution / product interference. Elevated TEH RDL(s) due to sample dilution. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6375			DU6376		
Sampling Date		2009/09/21			2009/09/21		
COC Number		N/A			N/A		
	Units	MW25-SS2	RDL	QC Batch	MW26-SS4	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	0.03	1957565	<0.03	0.03	1952775
Toluene	mg/kg	<0.03	0.03	1957565		0.03	
Ethylbenzene	mg/kg	<0.03	0.03	1957565		0.03	
Toluene	mg/kg		0.03		<0.03	0.03	1952775
Ethylbenzene	mg/kg		0.03		<0.03	0.03	1952775
Xylene (Total)	mg/kg	0.07	0.05	1957565	<0.05	0.05	1952775
Aliphatic >C6-C8	mg/kg	11	0.1	1957565		0.1	
Aliphatic >C8-C10	mg/kg	290 (1)	0.9	1957565		0.9	
C6 - C10 (less BTEX)	mg/kg		3		<3	3	1952775
>C8-C10 Aromatics (-EX)	mg/kg	<0.1	0.1	1957565		0.1	
>C10-C21 Hydrocarbons	mg/kg		15		19	15	1955612
Aliphatic >C10-C12	mg/kg	1900	8.0	1957524		8.0	
>C21-<C32 Hydrocarbons	mg/kg		150		<15	15	1955612
Aliphatic >C12-C16	mg/kg	4800	15	1957524			
Modified TPH (Tier1)	mg/kg		200		<20	20	1948975
Aliphatic >C16-C21	mg/kg	1000	15	1957524			
Aliphatic >C21-<C32	mg/kg	84	15	1957524			
Aromatic >C10-C12	mg/kg	220	4.0	1957524			
Aromatic >C12-C16	mg/kg	1100	15	1957524			
Aromatic >C16-C21	mg/kg	430	15	1957524			
Aromatic >C21-<C32	mg/kg	64	15	1957524			
Modified TPH (Tier 2)	mg/kg	10000	20	1948977			
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	82		1957524			
n-Dotriacontane - Extractable	%	82 (2)		1957524			
Isobutylbenzene - Extractable	%				94		1955612
n-Dotriacontane - Extractable	%				107 (3)		1955612
Isobutylbenzene - Volatile	%	98		1957565	104		1952775

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VPH RDL(s) due to detected levels in the method blank.

(2) Fuel oil fraction.

(3) Weathered fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6377		DU6378	DU6379		
Sampling Date		2009/09/21		2009/09/21	2009/09/21		
COC Number		N/A		N/A	N/A		
	Units	MW27-SS1	RDL	MW27-SS3	MW28-SS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	0.03	<0.03	<0.03	0.03	1952775
Toluene	mg/kg	<0.03	0.03	<0.03	<0.03	0.03	1952775
Ethylbenzene	mg/kg	<0.03	0.03	<0.03	<0.03	0.03	1952775
Xylene (Total)	mg/kg	<0.06 (1)	0.06	<0.05	<0.05	0.05	1952775
C6 - C10 (less BTEX)	mg/kg	270	3	50	9	3	1952775
>C10-C21 Hydrocarbons	mg/kg	8700	15	790	2400	15	1955612
>C21-<C32 Hydrocarbons	mg/kg	140	15	42	500	15	1955612
Modified TPH (Tier1)	mg/kg	9100	20	880	2900	20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	86		76	107		1955612
n-Dotriacontane - Extractable	%	105 (2)		109 (3)	118 (4)		1955612
Isobutylbenzene - Volatile	%	102		105	87		1952775

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated VPH RDL(s) due to matrix interference.

(2) Fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(3) Fuel oil fraction.

(4) Weathered fuel oil fraction. Possible lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6380		DU6381	DU6381		
Sampling Date		2009/09/21		2009/09/21	2009/09/21		
COC Number		N/A		N/A	N/A		
	Units	MW29-SS2	QC Batch	MW30-SS2	MW30-SS2 Lab-Dup	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1952776	<0.03	<0.03	0.03	1952776
Toluene	mg/kg	0.09	1952776	0.05	0.04	0.03	1952776
Ethylbenzene	mg/kg	<0.03	1952776	<0.03	<0.03	0.03	1952776
Xylene (Total)	mg/kg	0.16	1952776	0.46	0.46	0.05	1952776
C6 - C10 (less BTEX)	mg/kg	130	1952776	230	200	3	1952776
>C10-C21 Hydrocarbons	mg/kg	8700	1955612	6700		15	1955666
>C21-<C32 Hydrocarbons	mg/kg	190	1955612	87		15	1955666
Modified TPH (Tier1)	mg/kg	9000	1948975	7000		20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	94	1955612	71			1955666
n-Dotriacontane - Extractable	%	111 (1)	1955612	119 (2)			1955666
Isobutylbenzene - Volatile	%	118	1952776	120	113		1952776

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) Weathered fuel oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6382		DU6385	DU6387		
Sampling Date		2009/09/21		2009/09/21	2009/09/21		
COC Number		N/A		N/A	N/A		
	Units	MW31-SS2	QC Batch	MW32-SS4	MW33-SS4	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	1952776	<0.03	<0.03	0.03	1952776
Toluene	mg/kg	<0.03	1952776	<0.03	0.27	0.03	1952776
Ethylbenzene	mg/kg	<0.03	1952776	<0.03	<0.03	0.03	1952776
Xylene (Total)	mg/kg	<0.05	1952776	<0.05	0.07	0.05	1952776
C6 - C10 (less BTEX)	mg/kg	<3	1952776	<3	6	3	1952776
>C10-C21 Hydrocarbons	mg/kg	<15	1955853	<15	58	15	1955666
>C21-<C32 Hydrocarbons	mg/kg	<15	1955853	<15	180	15	1955666
Modified TPH (Tier1)	mg/kg	<20	1948975	<20	240	20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	107	1955853	110	113		1955666
n-Dotriacontane - Extractable	%	113 (1)	1955853	127 (1)	116 (2)		1955666
Isobutylbenzene - Volatile	%	117	1952776	117	114		1952776

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Silica gel clean-up performed prior to analysis as per client request.

(2) One product in fuel oil range. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6388	DU6389	DU6390	DU6391		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW34-SS1	MW35-SS3	MW36-SS3	MW37-SS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1952776
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1952776
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1952776
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1952776
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	<3	3	1952776
>C10-C21 Hydrocarbons	mg/kg	<15	<15	<15	21	15	1955666
>C21-<C32 Hydrocarbons	mg/kg	39	<15	43	74	15	1955666
Modified TPH (Tier1)	mg/kg	39	<20	43	94	20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	105	108	108	113		1955666
n-Dotriacontane - Extractable	%	117 (1)	138 (2)	123 (1)	100 (3)		1955666
Isobutylbenzene - Volatile	%	117	109	115	115		1952776

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Possible lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) Silica gel clean-up performed prior to analysis as per client request. TEH Surrogate(s): results are within acceptance limits.

(3) No resemblance to petroleum products in fuel oil range. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6393	DU6394		DU6396		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW39-SS1	MW40-SS1	QC Batch	MW44-SS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1952776	<0.03	0.03	1952776
Toluene	mg/kg	<0.03	0.15	1952776	<0.03	0.03	1952776
Ethylbenzene	mg/kg	<0.03	0.10	1952776	<0.03	0.03	1952776
Xylene (Total)	mg/kg	<0.05	0.65	1952776	<0.05	0.05	1952776
C6 - C10 (less BTEX)	mg/kg	<3	<3	1952776	<3	3	1952776
>C10-C21 Hydrocarbons	mg/kg	40	46	1955666	24	15	1955612
>C21-<C32 Hydrocarbons	mg/kg	350	320	1955666	42	15	1955612
Modified TPH (Tier1)	mg/kg	390	360	1948975	66	20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	110	110	1955666	99		1955612
n-Dotriacontane - Extractable	%	93 (1)	111 (2)	1955666	112 (3)		1955612
Isobutylbenzene - Volatile	%	115	99	1952776	108		1952776

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) One product in fuel / lube range. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(2) No resemblance to petroleum products in fuel oil range. Possible lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(3) Weathered fuel oil fraction. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6397	DU6397		DU6398		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW45-SS3	MW45-SS3 Lab-Dup	QC Batch	MW46-SS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03		1952776	<0.03	0.03	1952776
Toluene	mg/kg	<0.03		1952776	<0.03	0.03	1952776
Ethylbenzene	mg/kg	<0.03		1952776	<0.03	0.03	1952776
Xylene (Total)	mg/kg	<0.05		1952776	<0.05	0.05	1952776
C6 - C10 (less BTEX)	mg/kg	<3		1952776	<3	3	1952776
>C10-C21 Hydrocarbons	mg/kg	<15	<15	1955666	60	15	1955612
>C21-<C32 Hydrocarbons	mg/kg	<15	<15	1955666	440	15	1955612
Modified TPH (Tier1)	mg/kg	<20		1948975	500	20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	105	110	1955666	93		1955612
n-Dotriacontane - Extractable	%	117 (1)	123 (1)	1955666	94 (2)		1955612
Isobutylbenzene - Volatile	%	109		1952776	111		1952776

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Silica gel clean-up performed prior to analysis as per client request.

(2) Lube oil fraction.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6400	DU6402	DU6403	DU6404		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW47-SS4	MW48-SS3	MW49-SS2	MW50-SS1	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1952776
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1952776
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1952776
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	1952776
C6 - C10 (less BTEX)	mg/kg	<3	21	<3	<3	3	1952776
>C10-C21 Hydrocarbons	mg/kg	<15	3300	44	40	15	1955612
>C21-<C32 Hydrocarbons	mg/kg	<15	650	30	30	15	1955612
Modified TPH (Tier1)	mg/kg	<20	4000	75	69	20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	93	100	100	97		1955612
n-Dotriacontane - Extractable	%	98	95 (1)	107 (2)	96 (3)		1955612
Isobutylbenzene - Volatile	%	112	115	110	112		1952776

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Fuel oil fraction. Possible lube oil fraction.

(2) Weathered fuel oil fraction. Lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(3) Fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6406	DU6407		DU6409		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW51-SS5	MW52-SS3	QC Batch	MW53-SS4	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1952776	<0.03	0.03	1952777
Toluene	mg/kg	<0.03	<0.03	1952776	<0.03	0.03	1952777
Ethylbenzene	mg/kg	<0.03	<0.03	1952776	<0.03	0.03	1952777
Xylene (Total)	mg/kg	<0.05	<0.05	1952776	<0.05	0.05	1952777
C6 - C10 (less BTEX)	mg/kg	<3	<3	1952776	65	3	1952777
>C10-C21 Hydrocarbons	mg/kg	<15	110	1955853	4600	15	1955853
>C21-<C32 Hydrocarbons	mg/kg	<15	58	1955853	850	15	1955853
Modified TPH (Tier1)	mg/kg	<20	170	1948975	5600	20	1948975
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	106	109	1955853	106		1955853
n-Dotriacontane - Extractable	%	110 (1)	117 (2)	1955853	88 (3)		1955853
Isobutylbenzene - Volatile	%	108	120	1952776	116		1952777

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Silica gel clean-up performed prior to analysis as per client request.

(2) Weathered fuel oil fraction. Possible lube oil fraction. Silica gel clean-up performed prior to analysis as per client request.

(3) Weathered fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6410	DU6411		DU6412		
Sampling Date		2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A		N/A		
	Units	MW53-SS5	TP3-BS2	QC Batch	TP6-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	1952777	<0.03	0.03	1952777
Toluene	mg/kg	<0.03	<0.03	1952777	<0.03	0.03	1952777
Ethylbenzene	mg/kg	<0.03	<0.03	1952777	<0.03	0.03	1952777
Xylene (Total)	mg/kg	<0.05	<0.05	1952777	<0.05	0.05	1952777
C6 - C10 (less BTEX)	mg/kg	<3	<3	1952777	<3	3	1952777
>C10-C21 Hydrocarbons	mg/kg	<15	320	1955853	3900	15	1955853
>C21-<C32 Hydrocarbons	mg/kg	<15	290	1955853	270	15	1955853
Modified TPH (Tier1)	mg/kg	<20	600	1948975	4200	20	1948976
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	106	103	1955853	92		1955853
n-Dotriacontane - Extractable	%	116	91 (1)	1955853	80 (1)		1955853
Isobutylbenzene - Volatile	%	112	112	1952777	104		1952777

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. Lube oil fraction.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6413	DU6415	DU6416	DU6417		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	TP53-BS1	TP223-BS1	TP224-BS1	TP225-BS2	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	1952777
Toluene	mg/kg	<0.03	<0.03	<0.03	0.17	0.03	1952777
Ethylbenzene	mg/kg	<0.03	<0.03	<0.03	0.04	0.03	1952777
Xylene (Total)	mg/kg	<0.05	<0.05	<0.05	0.23	0.05	1952777
C6 - C10 (less BTEX)	mg/kg	<3	<3	<3	230	3	1952777
>C10-C21 Hydrocarbons	mg/kg	390	<15	160	8300	15	1955853
>C21-<C32 Hydrocarbons	mg/kg	410	49	32	180	15	1955853
Modified TPH (Tier1)	mg/kg	800	49	200	8700	20	1948976
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	105	102	104	92		1955853
n-Dotriacontane - Extractable	%	96 (1)	101 (2)	113 (3)	100 (4)		1955853
Isobutylbenzene - Volatile	%	115	115	112	85		1952777

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Lube oil fraction.

(2) No resemblance to petroleum products.

(3) Weathered fuel oil fraction. No resemblance to petroleum products in lube oil range.

(4) Weathered fuel oil fraction.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6418	DU6419		
Sampling Date		2009/09/21	2009/09/21		
COC Number		N/A	N/A		
	Units	TP143-BS2	BS104	RDL	QC Batch

Petroleum Hydrocarbons					
Benzene	mg/kg	<0.03	0.04	0.03	1952777
Toluene	mg/kg	<0.03	0.14	0.03	1952777
Ethylbenzene	mg/kg	<0.03	<0.03	0.03	1952777
Xylene (Total)	mg/kg	<0.05	<0.05	0.05	1952777
C6 - C10 (less BTEX)	mg/kg	<3	<3	3	1952777
>C10-C21 Hydrocarbons	mg/kg	1200	60	15	1955853
>C21-<C32 Hydrocarbons	mg/kg	1600	290	15	1955853
Modified TPH (Tier1)	mg/kg	2800	350	20	1948976
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	112	103		1955853
n-Dotriacontane - Extractable	%	89 (1)	83 (2)		1955853
Isobutylbenzene - Volatile	%	78	105		1952777

N/A = Not Applicable

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Weathered fuel oil fraction. Possible lube oil fraction. Unidentified compound(s) in fuel / lube range.

(2) One product in fuel / lube range. Lube oil fraction.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU6420			DU6421		
Sampling Date		2009/09/21			2009/09/21		
COC Number		N/A			N/A		
	Units	BS110	RDL	QC Batch	BS112	RDL	QC Batch

Petroleum Hydrocarbons							
Benzene	mg/kg	<0.03	0.03	1952777	<0.03	0.03	1952777
Toluene	mg/kg	<0.03	0.03	1952777	<0.03	0.03	1952777
Ethylbenzene	mg/kg	<0.03	0.03	1952777	<0.03	0.03	1952777
Xylene (Total)	mg/kg	<0.05	0.05	1952777	<0.05	0.05	1952777
C6 - C10 (less BTEX)	mg/kg	<3	3	1952777	<3	3	1952777
>C10-C21 Hydrocarbons	mg/kg	67000	75	1955666	9900	15	1955853
>C21-<C32 Hydrocarbons	mg/kg	3700	15	1955666	2100	15	1955853
Modified TPH (Tier1)	mg/kg	71000	80	1948976	12000	20	1948976
Surrogate Recovery (%)							
Isobutylbenzene - Extractable	%	97		1955666	109		1955853
n-Dotriacontane - Extractable	%	98 (1)		1955666	90 (2)		1955853
Isobutylbenzene - Volatile	%	43 (3)		1952777	79		1952777

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Weathered fuel oil fraction. Possible lube oil fraction. Elevated TEH RDL(s) due to sample dilution.
(2) Weathered fuel oil fraction.
(3) VPH surrogate not within acceptance limits due to matrix interference.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DU6352	DU6358	DU6359	DU6360		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW1-SS1	MW7-SS1	MW8-SS1	MW9-SS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	0.29	<0.05	<0.05	0.05	1951595
Surrogate Recovery (%)							
Decachlorobiphenyl	%	75	73 (1)	70	70		1951595

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DU6364	DU6364	DU6365	DU6366		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW12-SS2	MW12-SS2 Lab-Dup	MW14-SS3	MW15-SS4	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	<0.05	<0.05	0.05	1951595
Surrogate Recovery (%)							
Decachlorobiphenyl	%	93	96	87	82		1951595

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DU6368	DU6370	DU6373		DU6374		
Sampling Date		2009/09/21	2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A	N/A		N/A		
	Units	MW17-SS2	MW18-SS4	MW21-SS1	QC Batch	MW24-SS1	RDL	QC Batch

PCBs								
Total PCB	ug/g	<0.05	11	1.1	1951595	0.87	0.05	1953267
Surrogate Recovery (%)								
Decachlorobiphenyl	%	79	76 (1)	75 (1)	1951595	95 (1)		1953267

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam ID		DU6374		DU6377	DU6380	DU6382		
Sampling Date		2009/09/21		2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A		N/A	N/A	N/A		
	Units	MW24-SS1 Lab-Dup	QC Batch	MW27-SS1	MW29-SS2	MW31-SS2	RDL	QC Batch

PCBs								
Total PCB	ug/g	0.65	1953267	<0.05	<0.05	<0.05	0.05	1951595
Surrogate Recovery (%)								
Decachlorobiphenyl	%	95	1953267	80	110	86		1951595

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DU6384	DU6386	DU6389	DU6391		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW32-SS2	MW33-SS2	MW35-SS3	MW37-SS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	25	4.0	<0.05	<0.05	0.05	1951595
Surrogate Recovery (%)							
Decachlorobiphenyl	%	81 (1)	76 (1)	74	75		1951595
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Aroclor 1254, 1260.							

Maxxam ID		DU6394	DU6395	DU6398		DU6400		
Sampling Date		2009/09/21	2009/09/21	2009/09/21		2009/09/21		
COC Number		N/A	N/A	N/A		N/A		
	Units	MW40-SS1	MW44-SS1	MW46-SS1	QC Batch	MW47-SS4	RDL	QC Batch

PCBs								
Total PCB	ug/g	<0.05	<0.05	<0.05	1951595	<0.05	0.05	1953267
Surrogate Recovery (%)								
Decachlorobiphenyl	%	115	102	92	1951595	99		1953267
N/A = Not Applicable RDL = Reportable Detection Limit QC Batch = Quality Control Batch								

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DU6402	DU6404	DU6414	DU6415		
Sampling Date		2009/09/21	2009/09/21	2009/09/21	2009/09/21		
COC Number		N/A	N/A	N/A	N/A		
	Units	MW48-SS3	MW50-SS1	TP20-BS2	TP223-BS1	RDL	QC Batch

PCBs							
Total PCB	ug/g	<0.05	<0.05	6.2	<0.05	0.05	1953267
Surrogate Recovery (%)							
Decachlorobiphenyl	%	97 (1)	96	99 (1)	98		1953267

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) PCB:Unidentified (possibly halogenated) compounds detected.

Maxxam ID		DU6416	DU6420		
Sampling Date		2009/09/21	2009/09/21		
COC Number		N/A	N/A		
	Units	TP224-BS1	BS110	RDL	QC Batch

PCBs					
Total PCB	ug/g	<0.05	53	0.05	1953267
Surrogate Recovery (%)					
Decachlorobiphenyl	%	96	94 (1)		1953267

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Aroclor 1260.

Maxxam Job #: A9C6121
Report Date: 2009/10/06

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

VPH sample preservation not within 72 hours of receipt at the laboratory. VPH sample was preserve within 7 days of sampling date as recommended by the reference method.

VOLATILE ORGANICS BY GC/MS (SOIL)

Volatile Organic Compounds in Soil: WS#1951358 - Chloroethane unavailable due to calibration non-conformance.

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report
Maxxam Job Number: DA9C6121

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951298 SOD	Matrix Spike [DU6365-01]	D10-Anthracene	2009/09/27		91	%	30 - 130
		D14-Terphenyl	2009/09/27		100	%	30 - 130
		D8-Acenaphthylene	2009/09/27		96	%	30 - 130
		1-Methylnaphthalene	2009/09/27		NC	%	30 - 130
		2-Methylnaphthalene	2009/09/27		NC	%	30 - 130
		Acenaphthene	2009/09/27		NC	%	30 - 130
		Acenaphthylene	2009/09/27		87	%	30 - 130
		Anthracene	2009/09/27		97	%	30 - 130
		Benzo(a)anthracene	2009/09/27		86	%	30 - 130
		Benzo(a)pyrene	2009/09/27		86	%	30 - 130
		Benzo(b)fluoranthene	2009/09/27		85	%	30 - 130
		Benzo(g,h,i)perylene	2009/09/27		73	%	30 - 130
		Benzo(k)fluoranthene	2009/09/27		85	%	30 - 130
		Chrysene	2009/09/27		103	%	30 - 130
		Dibenz(a,h)anthracene	2009/09/27		71	%	30 - 130
		Fluoranthene	2009/09/27		108	%	30 - 130
		Fluorene	2009/09/27		NC	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/09/27		68 (1)	%	30 - 130
		Naphthalene	2009/09/27		NC	%	30 - 130
		Perylene	2009/09/27		94	%	30 - 130
		Phenanthrene	2009/09/27		94	%	30 - 130
		Pyrene	2009/09/27		105	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/09/27		92	%	30 - 130
		D14-Terphenyl	2009/09/27		97	%	30 - 130
		D8-Acenaphthylene	2009/09/27		80	%	30 - 130
		1-Methylnaphthalene	2009/09/27		76	%	30 - 130
		2-Methylnaphthalene	2009/09/27		79	%	30 - 130
		Acenaphthene	2009/09/27		78	%	30 - 130
		Acenaphthylene	2009/09/27		73	%	30 - 130
		Anthracene	2009/09/27		93	%	30 - 130
		Benzo(a)anthracene	2009/09/27		92	%	30 - 130
		Benzo(a)pyrene	2009/09/27		83	%	30 - 130
		Benzo(b)fluoranthene	2009/09/27		84	%	30 - 130
		Benzo(g,h,i)perylene	2009/09/27		78	%	30 - 130
		Benzo(k)fluoranthene	2009/09/27		84	%	30 - 130
		Chrysene	2009/09/27		101	%	30 - 130
		Dibenz(a,h)anthracene	2009/09/27		67 (2)	%	30 - 130
		Fluoranthene	2009/09/27		102	%	30 - 130
		Fluorene	2009/09/27		78	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/09/27		68 (2)	%	30 - 130
		Naphthalene	2009/09/27		80	%	30 - 130
		Perylene	2009/09/27		87	%	30 - 130
		Phenanthrene	2009/09/27		101	%	30 - 130
		Pyrene	2009/09/27		100	%	30 - 130
	Method Blank	D10-Anthracene	2009/09/27		102	%	30 - 130
		D14-Terphenyl	2009/09/27		106	%	30 - 130
		D8-Acenaphthylene	2009/09/27		92	%	30 - 130
		1-Methylnaphthalene	2009/09/27	<0.005		mg/kg	
		2-Methylnaphthalene	2009/09/27	<0.005		mg/kg	
		Acenaphthene	2009/09/27	<0.005		mg/kg	
		Acenaphthylene	2009/09/27	<0.005		mg/kg	
		Anthracene	2009/09/27	<0.005		mg/kg	
		Benzo(a)anthracene	2009/09/27	<0.005		mg/kg	
		Benzo(a)pyrene	2009/09/27	<0.005		mg/kg	

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C6121

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951298 SOD	Method Blank	Benzo(b)fluoranthene	2009/09/27	<0.005		mg/kg	
		Benzo(g,h,i)perylene	2009/09/27	<0.005		mg/kg	
		Benzo(k)fluoranthene	2009/09/27	<0.005		mg/kg	
		Chrysene	2009/09/27	<0.005		mg/kg	
		Dibenz(a,h)anthracene	2009/09/27	<0.005		mg/kg	
		Fluoranthene	2009/09/27	<0.005		mg/kg	
		Fluorene	2009/09/27	<0.005		mg/kg	
		Indeno(1,2,3-cd)pyrene	2009/09/27	<0.005		mg/kg	
		Naphthalene	2009/09/27	<0.005		mg/kg	
		Perylene	2009/09/27	<0.005		mg/kg	
		Phenanthrene	2009/09/27	<0.005		mg/kg	
		Pyrene	2009/09/27	<0.005		mg/kg	
	RPD [DU6365-01]	1-Methylnaphthalene	2009/09/27	10.7		%	50
		2-Methylnaphthalene	2009/09/27	11.2		%	50
		Acenaphthene	2009/09/27	3.3		%	50
		Acenaphthylene	2009/09/27	NC		%	50
		Anthracene	2009/09/27	NC		%	50
		Benzo(a)anthracene	2009/09/27	NC		%	50
		Benzo(a)pyrene	2009/09/27	NC		%	50
		Benzo(b)fluoranthene	2009/09/27	NC		%	50
		Benzo(g,h,i)perylene	2009/09/27	NC		%	50
		Benzo(k)fluoranthene	2009/09/27	NC		%	50
		Chrysene	2009/09/27	NC		%	50
		Dibenz(a,h)anthracene	2009/09/27	NC		%	50
		Fluoranthene	2009/09/27	NC		%	50
		Fluorene	2009/09/27	11.1		%	50
		Indeno(1,2,3-cd)pyrene	2009/09/27	NC		%	50
		Naphthalene	2009/09/27	17.3		%	50
		Perylene	2009/09/27	NC		%	50
		Phenanthrene	2009/09/27	12.0		%	50
		Pyrene	2009/09/27	NC		%	50
1951358 MSK	Matrix Spike	4-Bromofluorobenzene	2009/09/27		99	%	60 - 140
		D4-1,2-Dichloroethane	2009/09/27		103	%	60 - 140
		D8-Toluene	2009/09/27		100	%	60 - 140
		1,1,1-Trichloroethane	2009/09/27		91	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/09/27		87	%	60 - 140
		1,1,2-Trichloroethane	2009/09/27		89	%	60 - 140
		1,1-Dichloroethane	2009/09/27		97	%	60 - 140
		1,1-Dichloroethylene	2009/09/27		93	%	60 - 140
		1,2-Dichlorobenzene	2009/09/27		95	%	60 - 140
		1,2-Dichloroethane	2009/09/27		89	%	60 - 140
		1,2-Dichloropropane	2009/09/27		85	%	60 - 140
		1,3-Dichlorobenzene	2009/09/27		93	%	60 - 140
		1,4-Dichlorobenzene	2009/09/27		93	%	60 - 140
		Benzene	2009/09/27		91	%	60 - 140
		Bromodichloromethane	2009/09/27		79	%	60 - 140
		Bromoform	2009/09/27		65	%	60 - 140
		Bromomethane	2009/09/27		77	%	60 - 140
		Carbon Tetrachloride	2009/09/27		85	%	60 - 140
		Chlorobenzene	2009/09/27		93	%	60 - 140
		Chloroform	2009/09/27		99	%	60 - 140
		Chloromethane	2009/09/27		71	%	60 - 140
		cis-1,2-Dichloroethylene	2009/09/27		96	%	60 - 140
		cis-1,3-Dichloropropene	2009/09/27		77	%	60 - 140
		Dibromochloromethane	2009/09/27		69	%	60 - 140

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951358 MSK	Matrix Spike	Ethylbenzene	2009/09/27		90	%	60 - 140
		Ethylene Dibromide	2009/09/27		86	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/09/27		97	%	60 - 140
		o-Xylene	2009/09/27		93	%	60 - 140
		p+m-Xylene	2009/09/27		96	%	60 - 140
		Styrene	2009/09/27		92	%	60 - 140
		Tetrachloroethylene	2009/09/27		93	%	60 - 140
		Toluene	2009/09/27		88	%	60 - 140
		trans-1,2-Dichloroethylene	2009/09/27		93	%	60 - 140
		trans-1,3-Dichloropropene	2009/09/27		69	%	60 - 140
		Trichloroethylene	2009/09/27		89	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/09/27		87	%	60 - 140
		Vinyl Chloride	2009/09/27		67	%	60 - 140
	Spiked Blank	4-Bromofluorobenzene	2009/09/27		103	%	60 - 140
		D4-1,2-Dichloroethane	2009/09/27		101	%	60 - 140
		D8-Toluene	2009/09/27		101	%	60 - 140
		1,1,1-Trichloroethane	2009/09/27		95	%	60 - 140
		1,1,2,2-Tetrachloroethane	2009/09/27		91	%	60 - 140
		1,1,2-Trichloroethane	2009/09/27		94	%	60 - 140
		1,1-Dichloroethane	2009/09/27		98	%	60 - 140
		1,1-Dichloroethylene	2009/09/27		93	%	60 - 140
		1,2-Dichlorobenzene	2009/09/27		100	%	60 - 140
		1,2-Dichloroethane	2009/09/27		97	%	60 - 140
		1,2-Dichloropropane	2009/09/27		93	%	60 - 140
		1,3-Dichlorobenzene	2009/09/27		100	%	60 - 140
		1,4-Dichlorobenzene	2009/09/27		97	%	60 - 140
		Benzene	2009/09/27		93	%	60 - 140
		Bromodichloromethane	2009/09/27		84	%	60 - 140
		Bromoform	2009/09/27		72	%	60 - 140
		Bromomethane	2009/09/27		88	%	60 - 140
		Carbon Tetrachloride	2009/09/27		89	%	60 - 140
		Chlorobenzene	2009/09/27		99	%	60 - 140
		Chloroform	2009/09/27		99	%	60 - 140
		Chloromethane	2009/09/27		73	%	60 - 140
		cis-1,2-Dichloroethylene	2009/09/27		98	%	60 - 140
		cis-1,3-Dichloropropene	2009/09/27		84	%	60 - 140
		Dibromochloromethane	2009/09/27		76	%	60 - 140
		Ethylbenzene	2009/09/27		97	%	60 - 140
		Ethylene Dibromide	2009/09/27		96	%	60 - 140
		Methylene Chloride(Dichloromethane)	2009/09/27		100	%	60 - 140
		o-Xylene	2009/09/27		99	%	60 - 140
		p+m-Xylene	2009/09/27		103	%	60 - 140
		Styrene	2009/09/27		100	%	60 - 140
		Tetrachloroethylene	2009/09/27		101	%	60 - 140
		Toluene	2009/09/27		95	%	60 - 140
		trans-1,2-Dichloroethylene	2009/09/27		94	%	60 - 140
		trans-1,3-Dichloropropene	2009/09/27		74	%	60 - 140
		Trichloroethylene	2009/09/27		100	%	60 - 140
		Trichlorofluoromethane (FREON 11)	2009/09/27		91	%	60 - 140
		Vinyl Chloride	2009/09/27		68	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2009/09/27		94	%	60 - 140
		D4-1,2-Dichloroethane	2009/09/27		101	%	60 - 140
		D8-Toluene	2009/09/27		99	%	60 - 140
		1,1,1-Trichloroethane	2009/09/27	<30		ug/kg	
		1,1,2,2-Tetrachloroethane	2009/09/27	<30		ug/kg	

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951358 MSK	Method Blank	1,1,2-Trichloroethane	2009/09/27	<30		ug/kg	
		1,1-Dichloroethane	2009/09/27	<30		ug/kg	
		1,1-Dichloroethylene	2009/09/27	<30		ug/kg	
		1,2-Dichlorobenzene	2009/09/27	<30		ug/kg	
		1,2-Dichloroethane	2009/09/27	<30		ug/kg	
		1,2-Dichloropropane	2009/09/27	<30		ug/kg	
		1,3-Dichlorobenzene	2009/09/27	<30		ug/kg	
		1,4-Dichlorobenzene	2009/09/27	<30		ug/kg	
		Benzene	2009/09/27	<30		ug/kg	
		Bromodichloromethane	2009/09/27	<30		ug/kg	
		Bromoform	2009/09/27	<30		ug/kg	
		Bromomethane	2009/09/27	<200		ug/kg	
		Carbon Tetrachloride	2009/09/27	<30		ug/kg	
		Chlorobenzene	2009/09/27	<30		ug/kg	
		Chloroform	2009/09/27	<30		ug/kg	
		Chloromethane	2009/09/27	<30		ug/kg	
		cis-1,2-Dichloroethylene	2009/09/27	<30		ug/kg	
		cis-1,3-Dichloropropene	2009/09/27	<30		ug/kg	
		Dibromochloromethane	2009/09/27	<30		ug/kg	
		Ethylbenzene	2009/09/27	<30		ug/kg	
		Ethylene Dibromide	2009/09/27	<30		ug/kg	
		Methylene Chloride(Dichloromethane)	2009/09/27	<30		ug/kg	
		o-Xylene	2009/09/27	<30		ug/kg	
		p+m-Xylene	2009/09/27	<30		ug/kg	
		Styrene	2009/09/27	<30		ug/kg	
		Tetrachloroethylene	2009/09/27	<30		ug/kg	
		Toluene	2009/09/27	<30		ug/kg	
		trans-1,2-Dichloroethylene	2009/09/27	<30		ug/kg	
		trans-1,3-Dichloropropene	2009/09/27	<30		ug/kg	
		Trichloroethylene	2009/09/27	<30		ug/kg	
		Trichlorofluoromethane (FREON 11)	2009/09/27	<30		ug/kg	
		Vinyl Chloride	2009/09/27	<30		ug/kg	
	RPD	1,1,1-Trichloroethane	2009/09/27	NC		%	50
		1,1,2,2-Tetrachloroethane	2009/09/27	NC		%	50
		1,1,2-Trichloroethane	2009/09/27	NC		%	50
		1,1-Dichloroethane	2009/09/27	NC		%	50
		1,1-Dichloroethylene	2009/09/27	NC		%	50
		1,2-Dichlorobenzene	2009/09/27	NC		%	50
		1,2-Dichloroethane	2009/09/27	NC		%	50
		1,2-Dichloropropane	2009/09/27	NC		%	50
		1,3-Dichlorobenzene	2009/09/27	NC		%	50
		1,4-Dichlorobenzene	2009/09/27	NC		%	50
		Benzene	2009/09/27	NC		%	50
		Bromodichloromethane	2009/09/27	NC		%	50
		Bromoform	2009/09/27	NC		%	50
		Bromomethane	2009/09/27	NC		%	50
		Carbon Tetrachloride	2009/09/27	NC		%	50
		Chlorobenzene	2009/09/27	NC		%	50
		Chloroform	2009/09/27	NC		%	50
		Chloromethane	2009/09/27	NC		%	50
		cis-1,2-Dichloroethylene	2009/09/27	NC		%	50
		cis-1,3-Dichloropropene	2009/09/27	NC		%	50
		Dibromochloromethane	2009/09/27	NC		%	50
		Ethylbenzene	2009/09/27	NC		%	50
		Ethylene Dibromide	2009/09/27	NC		%	50

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1951358 MSK	RPD	Methylene Chloride(Dichloromethane)	2009/09/27	NC		%	50
		o-Xylene	2009/09/27	NC		%	50
		p+m-Xylene	2009/09/27	NC		%	50
		Styrene	2009/09/27	NC		%	50
		Tetrachloroethylene	2009/09/27	NC		%	50
		Toluene	2009/09/27	NC		%	50
		trans-1,2-Dichloroethylene	2009/09/27	NC		%	50
		trans-1,3-Dichloropropene	2009/09/27	NC		%	50
		Trichloroethylene	2009/09/27	NC		%	50
		Trichlorofluoromethane (FREON 11)	2009/09/27	NC		%	50
		Vinyl Chloride	2009/09/27	NC		%	50
1951398 DCF	Matrix Spike	Isobutylbenzene - Volatile	2009/09/26		90	%	60 - 140
		Benzene	2009/09/26		92	%	60 - 140
		Toluene	2009/09/26		116	%	60 - 140
		Ethylbenzene	2009/09/26		112	%	60 - 140
		Xylene (Total)	2009/09/26		120	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/09/25		101	%	60 - 140
		Benzene	2009/09/25		94	%	60 - 140
		Toluene	2009/09/25		99	%	60 - 140
		Ethylbenzene	2009/09/25		97	%	60 - 140
		Xylene (Total)	2009/09/25		100	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/09/25		98	%	60 - 140
		Benzene	2009/09/25	<0.03		mg/kg	
		Toluene	2009/09/25	<0.03		mg/kg	
		Ethylbenzene	2009/09/25	<0.03		mg/kg	
		Xylene (Total)	2009/09/25	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/09/25	<3		mg/kg	
	RPD	Benzene	2009/09/26	NC		%	50
		Toluene	2009/09/26	NC		%	50
		Ethylbenzene	2009/09/26	NC		%	50
		Xylene (Total)	2009/09/26	NC		%	50
		C6 - C10 (less BTEX)	2009/09/26	NC		%	50
1951595 CMI	Matrix Spike [DU6364-01]	Decachlorobiphenyl	2009/09/28		92	%	30 - 130
		Total PCB	2009/09/28		114	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/28		70	%	30 - 130
		Total PCB	2009/09/28		100	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/28		78	%	30 - 130
		Total PCB	2009/09/28	<0.05		ug/g	
	RPD [DU6364-01]	Total PCB	2009/09/28	NC		%	50
1952775 ASL	Matrix Spike [DU6366-01]	Isobutylbenzene - Volatile	2009/09/28		93	%	60 - 140
		Benzene	2009/09/28		83	%	60 - 140
		Toluene	2009/09/28		106	%	60 - 140
		Ethylbenzene	2009/09/28		101	%	60 - 140
		Xylene (Total)	2009/09/28		109	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/09/28		115	%	60 - 140
		Benzene	2009/09/28		95	%	60 - 140
		Toluene	2009/09/28		78	%	60 - 140
		Ethylbenzene	2009/09/28		75	%	60 - 140
		Xylene (Total)	2009/09/28		80	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/09/28		101	%	60 - 140
		Benzene	2009/09/28	<0.03		mg/kg	
		Toluene	2009/09/28	<0.03		mg/kg	
		Ethylbenzene	2009/09/28	<0.03		mg/kg	

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QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1952775 ASL	Method Blank	Xylene (Total)	2009/09/28	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/09/28	<3		mg/kg	
	RPD [DU6366-01]	Benzene	2009/09/28	NC		%	50
		Toluene	2009/09/28	NC		%	50
		Ethylbenzene	2009/09/28	NC		%	50
		Xylene (Total)	2009/09/28	NC		%	50
		C6 - C10 (less BTEX)	2009/09/28	NC		%	50
1952776 ASL	Matrix Spike [DU6381-01]	Isobutylbenzene - Volatile	2009/09/28		94	%	60 - 140
		Benzene	2009/09/28		92	%	60 - 140
		Toluene	2009/09/28		122	%	60 - 140
		Ethylbenzene	2009/09/28		130	%	60 - 140
		Xylene (Total)	2009/09/28		136	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/09/28		108	%	60 - 140
		Benzene	2009/09/28		101	%	60 - 140
		Toluene	2009/09/28		106	%	60 - 140
		Ethylbenzene	2009/09/28		105	%	60 - 140
		Xylene (Total)	2009/09/28		107	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/09/28		99	%	60 - 140
		Benzene	2009/09/28	<0.03		mg/kg	
		Toluene	2009/09/28	<0.03		mg/kg	
		Ethylbenzene	2009/09/28	<0.03		mg/kg	
		Xylene (Total)	2009/09/28	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/09/28	<3		mg/kg	
	RPD [DU6381-01]	Benzene	2009/09/28	NC		%	50
		Toluene	2009/09/28	NC		%	50
		Ethylbenzene	2009/09/28	NC		%	50
		Xylene (Total)	2009/09/28	1.0		%	50
		C6 - C10 (less BTEX)	2009/09/28	13.7		%	50
1952777 GTH	Matrix Spike	Isobutylbenzene - Volatile	2009/09/28		100	%	60 - 140
		Benzene	2009/09/28		92	%	60 - 140
		Toluene	2009/09/28		107	%	60 - 140
		Ethylbenzene	2009/09/28		101	%	60 - 140
		Xylene (Total)	2009/09/28		106	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/09/28		108	%	60 - 140
		Benzene	2009/09/28		83	%	60 - 140
		Toluene	2009/09/28		78	%	60 - 140
		Ethylbenzene	2009/09/28		84	%	60 - 140
		Xylene (Total)	2009/09/28		80	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/09/28		103	%	60 - 140
		Benzene	2009/09/28	<0.03		mg/kg	
		Toluene	2009/09/28	<0.03		mg/kg	
		Ethylbenzene	2009/09/28	<0.03		mg/kg	
		Xylene (Total)	2009/09/28	<0.05		mg/kg	
		C6 - C10 (less BTEX)	2009/09/28	<3		mg/kg	
	RPD	Benzene	2009/09/28	NC		%	50
		Toluene	2009/09/28	NC		%	50
		Ethylbenzene	2009/09/28	NC		%	50
		Xylene (Total)	2009/09/28	NC		%	50
		C6 - C10 (less BTEX)	2009/09/28	NC		%	50
1952816 JRH	QC Standard	Available Aluminum (Al)	2009/09/27		83	%	75 - 125
		Available Arsenic (As)	2009/09/27		106	%	75 - 125
		Available Barium (Ba)	2009/09/27		114	%	75 - 125
		Available Chromium (Cr)	2009/09/27		81	%	75 - 125
		Available Cobalt (Co)	2009/09/27		93	%	75 - 125

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1952816 JRH	QC Standard	Available Copper (Cu)	2009/09/27		85	%	75 - 125
		Available Iron (Fe)	2009/09/27		90	%	75 - 125
		Available Lead (Pb)	2009/09/27		102	%	75 - 125
		Available Manganese (Mn)	2009/09/27		102	%	75 - 125
		Available Nickel (Ni)	2009/09/27		89	%	75 - 125
		Available Strontium (Sr)	2009/09/27		93	%	75 - 125
		Available Vanadium (V)	2009/09/27		98	%	75 - 125
		Available Zinc (Zn)	2009/09/27		105	%	75 - 125
	Spiked Blank	Available Aluminum (Al)	2009/09/27		95	%	75 - 125
		Available Antimony (Sb)	2009/09/27		87	%	75 - 125
		Available Arsenic (As)	2009/09/27		92	%	75 - 125
		Available Barium (Ba)	2009/09/27		100	%	75 - 125
		Available Beryllium (Be)	2009/09/27		99	%	75 - 125
		Available Bismuth (Bi)	2009/09/27		95	%	75 - 125
		Available Boron (B)	2009/09/27		104	%	75 - 125
		Available Cadmium (Cd)	2009/09/27		96	%	75 - 125
		Available Chromium (Cr)	2009/09/27		98	%	75 - 125
		Available Cobalt (Co)	2009/09/27		93	%	75 - 125
		Available Copper (Cu)	2009/09/27		92	%	75 - 125
		Available Iron (Fe)	2009/09/27		96	%	75 - 125
		Available Lead (Pb)	2009/09/27		98	%	75 - 125
		Available Lithium (Li)	2009/09/27		98	%	75 - 125
		Available Manganese (Mn)	2009/09/27		97	%	75 - 125
		Available Mercury (Hg)	2009/09/27		98	%	75 - 125
		Available Molybdenum (Mo)	2009/09/27		91	%	75 - 125
		Available Nickel (Ni)	2009/09/27		90	%	75 - 125
		Available Rubidium (Rb)	2009/09/27		103	%	75 - 125
		Available Selenium (Se)	2009/09/27		102	%	75 - 125
		Available Silver (Ag)	2009/09/27		98	%	75 - 125
		Available Strontium (Sr)	2009/09/27		100	%	75 - 125
		Available Thallium (Tl)	2009/09/27		84	%	75 - 125
		Available Tin (Sn)	2009/09/27		89	%	75 - 125
		Available Uranium (U)	2009/09/27		88	%	75 - 125
		Available Vanadium (V)	2009/09/27		99	%	75 - 125
		Available Zinc (Zn)	2009/09/27		98	%	75 - 125
	Method Blank	Available Aluminum (Al)	2009/09/27	<10		mg/kg	
		Available Antimony (Sb)	2009/09/27	<2		mg/kg	
		Available Arsenic (As)	2009/09/27	<2		mg/kg	
		Available Barium (Ba)	2009/09/27	<5		mg/kg	
		Available Beryllium (Be)	2009/09/27	<2		mg/kg	
		Available Bismuth (Bi)	2009/09/27	<2		mg/kg	
		Available Boron (B)	2009/09/27	<5		mg/kg	
		Available Cadmium (Cd)	2009/09/27	<0.3		mg/kg	
		Available Chromium (Cr)	2009/09/27	<2		mg/kg	
		Available Cobalt (Co)	2009/09/27	<1		mg/kg	
		Available Copper (Cu)	2009/09/27	<2		mg/kg	
		Available Iron (Fe)	2009/09/27	<50		mg/kg	
		Available Lead (Pb)	2009/09/27	<0.5		mg/kg	
		Available Lithium (Li)	2009/09/27	<2		mg/kg	
		Available Manganese (Mn)	2009/09/27	<2		mg/kg	
		Available Mercury (Hg)	2009/09/27	<0.1		mg/kg	
		Available Molybdenum (Mo)	2009/09/27	<2		mg/kg	
		Available Nickel (Ni)	2009/09/27	<2		mg/kg	
		Available Rubidium (Rb)	2009/09/27	<2		mg/kg	
		Available Selenium (Se)	2009/09/27	<2		mg/kg	

Jacques Whitford Limited
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Quality Assurance Report (Continued)

Maxxam Job Number: DA9C6121

QA/QC Batch			Date Analyzed					
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1952816 JRH	Method Blank	Available Silver (Ag)	2009/09/27	<0.5		mg/kg		
		Available Strontium (Sr)	2009/09/27	<5		mg/kg		
		Available Thallium (Tl)	2009/09/27	<0.1		mg/kg		
		Available Tin (Sn)	2009/09/27	<2		mg/kg		
		Available Uranium (U)	2009/09/27	<0.1		mg/kg		
		Available Vanadium (V)	2009/09/27	<2		mg/kg		
1952820 JRH	Matrix Spike	Available Zinc (Zn)	2009/09/27	<5		mg/kg		
		Available Aluminum (Al)	2009/09/27		NC	%		75 - 125
		Available Antimony (Sb)	2009/09/27		80	%		75 - 125
		Available Arsenic (As)	2009/09/27		105	%		75 - 125
		Available Barium (Ba)	2009/09/27		NC	%		75 - 125
		Available Beryllium (Be)	2009/09/27		107	%		75 - 125
		Available Bismuth (Bi)	2009/09/27		99	%		75 - 125
		Available Boron (B)	2009/09/27		96	%		75 - 125
		Available Cadmium (Cd)	2009/09/27		108	%		75 - 125
		Available Chromium (Cr)	2009/09/27		NC	%		75 - 125
		Available Cobalt (Co)	2009/09/27		89	%		75 - 125
		Available Copper (Cu)	2009/09/27		82	%		75 - 125
		Available Iron (Fe)	2009/09/27		NC	%		75 - 125
		Available Lead (Pb)	2009/09/27		NC	%		75 - 125
		Available Lithium (Li)	2009/09/27		NC	%		75 - 125
		Available Manganese (Mn)	2009/09/27		NC	%		75 - 125
		Available Mercury (Hg)	2009/09/27		101	%		75 - 125
		Available Molybdenum (Mo)	2009/09/27		96	%		75 - 125
		Available Nickel (Ni)	2009/09/27		NC	%		75 - 125
		Available Rubidium (Rb)	2009/09/27		90	%		75 - 125
		Available Selenium (Se)	2009/09/27		86	%		75 - 125
		Available Silver (Ag)	2009/09/27		105	%		75 - 125
		Available Strontium (Sr)	2009/09/27		103	%		75 - 125
		Available Thallium (Tl)	2009/09/27		92	%		75 - 125
		Available Tin (Sn)	2009/09/27		97	%		75 - 125
		Available Uranium (U)	2009/09/27		93	%		75 - 125
		Available Vanadium (V)	2009/09/27		NC	%		75 - 125
	QC Standard	Available Zinc (Zn)	2009/09/27		110	%		75 - 125
		Available Aluminum (Al)	2009/09/27		80	%		75 - 125
		Available Arsenic (As)	2009/09/27		115	%		75 - 125
		Available Barium (Ba)	2009/09/27		105	%		75 - 125
		Available Chromium (Cr)	2009/09/27		79	%		75 - 125
		Available Cobalt (Co)	2009/09/27		94	%		75 - 125
		Available Copper (Cu)	2009/09/27		86	%		75 - 125
		Available Iron (Fe)	2009/09/27		93	%		75 - 125
		Available Lead (Pb)	2009/09/27		96	%		75 - 125
		Available Manganese (Mn)	2009/09/27		100	%		75 - 125
		Available Nickel (Ni)	2009/09/27		89	%		75 - 125
		Available Strontium (Sr)	2009/09/27		93	%		75 - 125
		Available Vanadium (V)	2009/09/27		96	%		75 - 125
	Spiked Blank	Available Zinc (Zn)	2009/09/27		105	%		75 - 125
		Available Aluminum (Al)	2009/09/27		91	%		75 - 125
		Available Antimony (Sb)	2009/09/27		91	%		75 - 125
		Available Arsenic (As)	2009/09/27		93	%		75 - 125
		Available Barium (Ba)	2009/09/27		92	%		75 - 125
		Available Beryllium (Be)	2009/09/27		95	%		75 - 125
		Available Bismuth (Bi)	2009/09/27		92	%		75 - 125
		Available Boron (B)	2009/09/27		93	%		75 - 125
		Available Cadmium (Cd)	2009/09/27		95	%		75 - 125

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1952820 JRH	Spiked Blank	Available Chromium (Cr)	2009/09/27		97	%	75 - 125	
		Available Cobalt (Co)	2009/09/27		96	%	75 - 125	
		Available Copper (Cu)	2009/09/27		94	%	75 - 125	
		Available Iron (Fe)	2009/09/27		98	%	75 - 125	
		Available Lead (Pb)	2009/09/27		98	%	75 - 125	
		Available Lithium (Li)	2009/09/27		102	%	75 - 125	
		Available Manganese (Mn)	2009/09/27		93	%	75 - 125	
		Available Mercury (Hg)	2009/09/27		111	%	75 - 125	
		Available Molybdenum (Mo)	2009/09/27		95	%	75 - 125	
		Available Nickel (Ni)	2009/09/27		95	%	75 - 125	
		Available Rubidium (Rb)	2009/09/27		97	%	75 - 125	
		Available Selenium (Se)	2009/09/27		104	%	75 - 125	
		Available Silver (Ag)	2009/09/27		100	%	75 - 125	
		Available Strontium (Sr)	2009/09/27		96	%	75 - 125	
		Available Thallium (Tl)	2009/09/27		96	%	75 - 125	
		Available Tin (Sn)	2009/09/27		94	%	75 - 125	
		Available Uranium (U)	2009/09/27		92	%	75 - 125	
		Available Vanadium (V)	2009/09/27		100	%	75 - 125	
		Available Zinc (Zn)	2009/09/27		96	%	75 - 125	
		Method Blank	Available Aluminum (Al)	2009/09/27	<10		mg/kg	
			Available Antimony (Sb)	2009/09/27	<2		mg/kg	
			Available Arsenic (As)	2009/09/27	<2		mg/kg	
			Available Barium (Ba)	2009/09/27	<5		mg/kg	
			Available Beryllium (Be)	2009/09/27	<2		mg/kg	
			Available Bismuth (Bi)	2009/09/27	<2		mg/kg	
			Available Boron (B)	2009/09/27	<5		mg/kg	
			Available Cadmium (Cd)	2009/09/27	<0.3		mg/kg	
			Available Chromium (Cr)	2009/09/27	<2		mg/kg	
			Available Cobalt (Co)	2009/09/27	<1		mg/kg	
			Available Copper (Cu)	2009/09/27	<2		mg/kg	
			Available Iron (Fe)	2009/09/27	<50		mg/kg	
			Available Lead (Pb)	2009/09/27	<0.5		mg/kg	
		RPD	Available Lithium (Li)	2009/09/27	<2		mg/kg	
	Available Manganese (Mn)		2009/09/27	<2		mg/kg		
	Available Mercury (Hg)		2009/09/27	<0.1		mg/kg		
	Available Molybdenum (Mo)		2009/09/27	<2		mg/kg		
	Available Nickel (Ni)		2009/09/27	<2		mg/kg		
	Available Rubidium (Rb)		2009/09/27	<2		mg/kg		
	Available Selenium (Se)		2009/09/27	<2		mg/kg		
	Available Silver (Ag)		2009/09/27	<0.5		mg/kg		
	Available Strontium (Sr)		2009/09/27	<5		mg/kg		
	Available Thallium (Tl)		2009/09/27	<0.1		mg/kg		
	Available Tin (Sn)		2009/09/27	<2		mg/kg		
	Available Uranium (U)		2009/09/27	<0.1		mg/kg		
	Available Vanadium (V)		2009/09/27	<2		mg/kg		
	Available Zinc (Zn)		2009/09/27	<5		mg/kg		
Available Aluminum (Al)	2009/09/27		13.5		%	35		
Available Antimony (Sb)	2009/09/27		NC		%	35		
Available Arsenic (As)	2009/09/27		NC		%	35		
Available Barium (Ba)	2009/09/27		NC		%	35		
Available Beryllium (Be)	2009/09/27		NC		%	35		
Available Bismuth (Bi)	2009/09/27	NC		%	35			
Available Boron (B)	2009/09/27	NC		%	35			
Available Cadmium (Cd)	2009/09/27	NC		%	35			
Available Chromium (Cr)	2009/09/27	18.3		%	35			

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1952820 JRH	RPD	Available Cobalt (Co)	2009/09/27	25.0		%	35
		Available Copper (Cu)	2009/09/27	NC		%	35
		Available Iron (Fe)	2009/09/27	17.9		%	35
		Available Lead (Pb)	2009/09/27	12.4		%	35
		Available Lithium (Li)	2009/09/27	22.4		%	35
		Available Manganese (Mn)	2009/09/27	10.7		%	35
		Available Mercury (Hg)	2009/09/27	NC		%	35
		Available Molybdenum (Mo)	2009/09/27	NC		%	35
		Available Nickel (Ni)	2009/09/27	21.4		%	35
		Available Rubidium (Rb)	2009/09/27	NC		%	35
		Available Selenium (Se)	2009/09/27	NC		%	35
		Available Silver (Ag)	2009/09/27	NC		%	35
		Available Strontium (Sr)	2009/09/27	NC		%	35
		Available Thallium (Tl)	2009/09/27	NC		%	35
		Available Tin (Sn)	2009/09/27	NC		%	35
		Available Uranium (U)	2009/09/27	26.0		%	35
		Available Vanadium (V)	2009/09/27	28.8 (3)		%	35
		Available Zinc (Zn)	2009/09/27	4.6		%	35
1953267 CMI	Matrix Spike [DU6374-01]	Decachlorobiphenyl	2009/09/29		96	%	30 - 130
		Total PCB	2009/09/29		NC	%	70 - 130
	Spiked Blank	Decachlorobiphenyl	2009/09/29		96	%	30 - 130
		Total PCB	2009/09/29		128	%	70 - 130
	Method Blank	Decachlorobiphenyl	2009/09/29		96	%	30 - 130
		Total PCB	2009/09/29	<0.05		ug/g	
	RPD [DU6374-01]	Total PCB	2009/09/29	28.6		%	50
1955340 SOD	Matrix Spike [DU6391-01]	D10-Anthracene	2009/10/01		126	%	30 - 130
		D14-Terphenyl	2009/10/01		85	%	30 - 130
		D8-Acenaphthylene	2009/10/01		89	%	30 - 130
		1-Methylnaphthalene	2009/10/01		74	%	30 - 130
		2-Methylnaphthalene	2009/10/01		76	%	30 - 130
		Acenaphthene	2009/10/01		75	%	30 - 130
		Acenaphthylene	2009/10/01		76	%	30 - 130
		Anthracene	2009/10/01		108	%	30 - 130
		Benzo(a)anthracene	2009/10/01		81	%	30 - 130
		Benzo(a)pyrene	2009/10/01		76	%	30 - 130
		Benzo(b)fluoranthene	2009/10/01		77	%	30 - 130
		Benzo(g,h,i)perylene	2009/10/01		71	%	30 - 130
		Benzo(k)fluoranthene	2009/10/01		76	%	30 - 130
		Chrysene	2009/10/01		82	%	30 - 130
		Dibenz(a,h)anthracene	2009/10/01		68 (1)	%	30 - 130
		Fluoranthene	2009/10/01		86	%	30 - 130
		Fluorene	2009/10/01		76	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/10/01		68 (1)	%	30 - 130
		Naphthalene	2009/10/01		72	%	30 - 130
		Perylene	2009/10/01		84	%	30 - 130
		Phenanthrene	2009/10/01		114	%	30 - 130
		Pyrene	2009/10/01		87	%	30 - 130
	Spiked Blank	D10-Anthracene	2009/09/30		85	%	30 - 130
		D14-Terphenyl	2009/09/30		81	%	30 - 130
		D8-Acenaphthylene	2009/09/30		74	%	30 - 130
		1-Methylnaphthalene	2009/09/30		73	%	30 - 130
		2-Methylnaphthalene	2009/09/30		76	%	30 - 130
		Acenaphthene	2009/09/30		74	%	30 - 130

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Quality Assurance Report (Continued)

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1955340 SOD	Spiked Blank	Acenaphthylene	2009/09/30		70	%	30 - 130
		Anthracene	2009/09/30		97	%	30 - 130
		Benzo(a)anthracene	2009/09/30		89	%	30 - 130
		Benzo(a)pyrene	2009/09/30		89	%	30 - 130
		Benzo(b)fluoranthene	2009/09/30		89	%	30 - 130
		Benzo(g,h,i)perylene	2009/09/30		85	%	30 - 130
		Benzo(k)fluoranthene	2009/09/30		87	%	30 - 130
		Chrysene	2009/09/30		97	%	30 - 130
		Dibenz(a,h)anthracene	2009/09/30		79	%	30 - 130
		Fluoranthene	2009/09/30		105	%	30 - 130
		Fluorene	2009/09/30		74	%	30 - 130
		Indeno(1,2,3-cd)pyrene	2009/09/30		78	%	30 - 130
		Naphthalene	2009/09/30		74	%	30 - 130
		Perylene	2009/09/30		80	%	30 - 130
		Phenanthrene	2009/09/30		97	%	30 - 130
		Pyrene	2009/09/30		103	%	30 - 130
	Method Blank	D10-Anthracene	2009/09/30		93	%	30 - 130
		D14-Terphenyl	2009/09/30		100	%	30 - 130
		D8-Acenaphthylene	2009/09/30		82	%	30 - 130
		1-Methylnaphthalene	2009/09/30	<0.005		mg/kg	
		2-Methylnaphthalene	2009/09/30	<0.005		mg/kg	
		Acenaphthene	2009/09/30	<0.005		mg/kg	
		Acenaphthylene	2009/09/30	<0.005		mg/kg	
		Anthracene	2009/09/30	<0.005		mg/kg	
		Benzo(a)anthracene	2009/09/30	<0.005		mg/kg	
		Benzo(a)pyrene	2009/09/30	<0.005		mg/kg	
		Benzo(b)fluoranthene	2009/09/30	<0.005		mg/kg	
		Benzo(g,h,i)perylene	2009/09/30	<0.005		mg/kg	
		Benzo(k)fluoranthene	2009/09/30	<0.005		mg/kg	
		Chrysene	2009/09/30	<0.005		mg/kg	
		Dibenz(a,h)anthracene	2009/09/30	<0.005		mg/kg	
		Fluoranthene	2009/09/30	<0.005		mg/kg	
		Fluorene	2009/09/30	<0.005		mg/kg	
		Indeno(1,2,3-cd)pyrene	2009/09/30	<0.005		mg/kg	
		Naphthalene	2009/09/30	<0.005		mg/kg	
		Perylene	2009/09/30	<0.005		mg/kg	
		Phenanthrene	2009/09/30	<0.005		mg/kg	
		Pyrene	2009/09/30	<0.005		mg/kg	
	RPD [DU6391-01]	1-Methylnaphthalene	2009/10/01	NC		%	50
		2-Methylnaphthalene	2009/10/01	NC		%	50
		Acenaphthene	2009/10/01	NC		%	50
		Acenaphthylene	2009/10/01	NC		%	50
		Anthracene	2009/10/01	NC		%	50
		Benzo(a)anthracene	2009/10/01	NC		%	50
		Benzo(a)pyrene	2009/10/01	NC		%	50
		Benzo(b)fluoranthene	2009/10/01	NC		%	50
		Benzo(g,h,i)perylene	2009/10/01	NC		%	50
		Benzo(k)fluoranthene	2009/10/01	NC		%	50
		Chrysene	2009/10/01	NC		%	50
		Dibenz(a,h)anthracene	2009/10/01	NC		%	50
		Fluoranthene	2009/10/01	NC		%	50
		Fluorene	2009/10/01	NC		%	50
		Indeno(1,2,3-cd)pyrene	2009/10/01	NC		%	50
		Naphthalene	2009/10/01	NC		%	50
		Perylene	2009/10/01	NC		%	50

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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1955340 SOD	RPD [DU6391-01]	Phenanthrene	2009/10/01	NC		%	50
		Pyrene	2009/10/01	NC		%	50
1955612 SHR	Matrix Spike [DU6372-01]	Isobutylbenzene - Extractable	2009/10/01		106	%	30 - 130
		n-Dotriacontane - Extractable	2009/10/01		117	%	30 - 130
		>C10-C21 Hydrocarbons	2009/10/01		92	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/10/01		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/30		96	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/30		91	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/30		80	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/30		92	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/30		101	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/30		100	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/30	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/30	<15		mg/kg	
	RPD [DU6372-01]	>C10-C21 Hydrocarbons	2009/10/01	NC		%	50
		>C21-<C32 Hydrocarbons	2009/10/01	10.5		%	50
1955666 LMU	Matrix Spike [DU6397-01]	Isobutylbenzene - Extractable	2009/09/30		109	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/30		118	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/30		91	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/30		114	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/30		106	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/30		106	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/30		91	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/30		105	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/30		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/30		97	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/30	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/30	<15		mg/kg	
	RPD [DU6397-01]	>C10-C21 Hydrocarbons	2009/09/30	NC		%	50
		>C21-<C32 Hydrocarbons	2009/09/30	NC		%	50
1955853 RDE	Matrix Spike	Isobutylbenzene - Extractable	2009/09/30		95	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/30		98	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/30		78	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/30		115	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/09/30		102	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/30		93	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/30		76	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/09/30		101	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/09/30		103	%	30 - 130
		n-Dotriacontane - Extractable	2009/09/30		103	%	30 - 130
		>C10-C21 Hydrocarbons	2009/09/30	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/09/30	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/09/30	NC		%	50
		>C21-<C32 Hydrocarbons	2009/09/30	NC		%	50
1957524 KKE	Spiked Blank	Aliphatic >C10-C12	2009/10/04		85	%	30 - 130
		Aliphatic >C12-C16	2009/10/04		91	%	30 - 130
		Aliphatic >C16-C21	2009/10/04		101	%	30 - 130
		Aliphatic >C21-<C32	2009/10/04		100	%	30 - 130
		Aromatic >C10-C12	2009/10/04		102	%	30 - 130
		Aromatic >C12-C16	2009/10/04		90	%	30 - 130
		Aromatic >C16-C21	2009/10/04		90	%	30 - 130
		Aromatic >C21-<C32	2009/10/04		91	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/10/04		88	%	30 - 130

Jacques Whitford Limited
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Quality Assurance Report (Continued)

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1957524 KKE	Method Blank	n-Dotriacontane - Extractable	2009/10/04		91	%	30 - 130
		Aliphatic >C10-C12	2009/10/04	<8.0		mg/kg	
		Aliphatic >C12-C16	2009/10/04	<15		mg/kg	
		Aliphatic >C16-C21	2009/10/04	<15		mg/kg	
		Aliphatic >C21-<C32	2009/10/04	<15		mg/kg	
		Aromatic >C10-C12	2009/10/04	<4.0		mg/kg	
		Aromatic >C12-C16	2009/10/04	<15		mg/kg	
		Aromatic >C16-C21	2009/10/04	<15		mg/kg	
		Aromatic >C21-<C32	2009/10/04	<15		mg/kg	
	RPD [DU6365-01]	Aliphatic >C10-C12	2009/10/04	11.9		%	50
		Aliphatic >C12-C16	2009/10/04	8.8		%	50
		Aliphatic >C16-C21	2009/10/04	NC		%	50
		Aliphatic >C21-<C32	2009/10/04	NC		%	50
		Aromatic >C10-C12	2009/10/04	21.7		%	50
		Aromatic >C12-C16	2009/10/04	14.0		%	50
		Aromatic >C16-C21	2009/10/04	NC		%	50
		Aromatic >C21-<C32	2009/10/04	NC		%	50
1957565 ASL	Matrix Spike	Isobutylbenzene - Volatile	2009/10/02		67	%	60 - 140
		Benzene	2009/10/02		64	%	60 - 140
		Toluene	2009/10/02		82	%	60 - 140
		Ethylbenzene	2009/10/02		77	%	60 - 140
		Xylene (Total)	2009/10/02		82	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/10/02		98	%	60 - 140
		Benzene	2009/10/02		92	%	60 - 140
		Toluene	2009/10/02		94	%	60 - 140
		Ethylbenzene	2009/10/02		91	%	60 - 140
		Xylene (Total)	2009/10/02		93	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/10/02		99	%	60 - 140
		Benzene	2009/10/02	<0.03		mg/kg	
		Toluene	2009/10/02	<0.03		mg/kg	
		Ethylbenzene	2009/10/02	<0.03		mg/kg	
		Xylene (Total)	2009/10/02	<0.05		mg/kg	
		Aliphatic >C6-C8	2009/10/02	<0.1		mg/kg	
		Aliphatic >C8-C10	2009/10/02	<0.9 (4)		mg/kg	
		>C8-C10 Aromatics (-EX)	2009/10/02	<0.1		mg/kg	
	RPD	Benzene	2009/10/02	NC		%	50
		Toluene	2009/10/02	NC		%	50
		Ethylbenzene	2009/10/02	NC		%	50
		Xylene (Total)	2009/10/02	NC		%	50
		Aliphatic >C6-C8	2009/10/02	23.4		%	50
		Aliphatic >C8-C10	2009/10/02	21.5 (4)		%	50
		>C8-C10 Aromatics (-EX)	2009/10/02	30.2		%	50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) Matrix Spike: < 10 % of compounds in multi-component analysis in violation.

(2) Duplicate: < 10 % of compounds in multi-component analysis in violation.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report (Continued)

Maxxam Job Number: DA9C6121

QA/QC Batch				Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
Num Init	QC Type	Parameter						
(3)		Poor RPD due to sample inhomogeneity.						
(4)		Elevated VPH RDL(s) due to detected levels in the method blank.						

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: B 118019

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/10/01

CERTIFICATE OF ANALYSIS

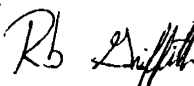
MAXXAM JOB #: A9C6868
Received: 2009/09/23, 12:18

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
TEH in Soil (PIRI)	1	2009/10/01	2009/10/01	ATL SOP 00111 R3	Based on Atl. PIRI
Moisture	1	N/A	2009/09/30	ATL SOP 00001 R3	MOE Handbook 1983
VPH in Soil (PIRI)	1	2009/09/30	2009/08/19	ATL SOP 00117 R4/00119 R6	Based on Atl. PIRI
ModTPH (T1) Calc. for Soil	1	2009/09/25	2009/10/01		Based on Atl. PIRI

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
01 Oct 2009 16:37:46 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 5

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9C6868
Report Date: 2009/10/01

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DU9837		
Sampling Date		2009/08/13		
COC Number		B 118019		
	Units	SED-13 (P#DJ3095)	RDL	QC Batch

Inorganics				
Moisture	%	59	1	1955663
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A9C6868
Report Date: 2009/10/01

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

ATLANTIC RBCA HYDROCARBONS (SOIL)

Maxxam ID		DU9837		
Sampling Date		2009/08/13		
COC Number		B 118019		
	Units	SED-13 (P#DJ3095)	RDL	QC Batch

Petroleum Hydrocarbons				
Benzene	mg/kg	<0.03	0.03	1908956
Toluene	mg/kg	<0.03	0.03	1908956
Ethylbenzene	mg/kg	<0.03	0.03	1908956
Xylene (Total)	mg/kg	<0.05	0.05	1908956
C6 - C10 (less BTEX)	mg/kg	<3	3	1908956
>C10-C21 Hydrocarbons	mg/kg	<15	15	1909675
>C21-<C32 Hydrocarbons	mg/kg	150	15	1909675
Modified TPH (Tier1)	mg/kg	150	20	1950600
Surrogate Recovery (%)				
Isobutylbenzene - Extractable	%	100		1909675
n-Dotriacontane - Extractable	%	118 (1)		1909675
Isobutylbenzene - Volatile	%	91		1908956

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) No resemblance to petroleum products. Silica gel clean-up performed prior to analysis as per client request.

Maxxam Job #: A9C6868
Report Date: 2009/10/01

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
Attention: JIM SLADE
Client Project #: 1044856/Z9100
P.O. #: NSD016400
Project name: HOPEDALE

Quality Assurance Report

Maxxam Job Number: DA9C6868

QA/QC Batch			Date Analyzed				
Num Init	QC Type	Parameter	yyyy/mm/dd	Value	Recovery	Units	QC Limits
1908956	ASL	Isobutylbenzene - Volatile	2009/08/19		79	%	60 - 140
		Benzene	2009/08/19		NC	%	60 - 140
		Toluene	2009/08/19		NC	%	60 - 140
		Ethylbenzene	2009/08/19		NC	%	60 - 140
		Xylene (Total)	2009/08/19		134	%	60 - 140
	Spiked Blank	Isobutylbenzene - Volatile	2009/08/19		94	%	60 - 140
		Benzene	2009/08/19		93	%	60 - 140
		Toluene	2009/08/19		96	%	60 - 140
		Ethylbenzene	2009/08/19		92	%	60 - 140
		Xylene (Total)	2009/08/19		93	%	60 - 140
	Method Blank	Isobutylbenzene - Volatile	2009/08/19		102	%	60 - 140
		Benzene	2009/08/19	<0.03		mg/kg	
		Toluene	2009/08/19	<0.03		mg/kg	
		Ethylbenzene	2009/08/19	<0.03		mg/kg	
		Xylene (Total)	2009/08/19	<0.05		mg/kg	
	RPD	C6 - C10 (less BTEX)	2009/08/19	<3		mg/kg	
		Benzene	2009/08/20	1.1		%	50
		Toluene	2009/08/20	5.6		%	50
		Ethylbenzene	2009/08/20	21.5		%	50
		Xylene (Total)	2009/08/20	1.5		%	50
1909675	LMU	C6 - C10 (less BTEX)	2009/08/20	0.5		%	50
		Isobutylbenzene - Extractable	2009/08/17		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/17		79	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17		81	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/17		NC	%	30 - 130
	Spiked Blank	Isobutylbenzene - Extractable	2009/08/17		97	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/17		88	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17		83	%	30 - 130
		>C21-<C32 Hydrocarbons	2009/08/17		86	%	30 - 130
	Method Blank	Isobutylbenzene - Extractable	2009/08/17		98	%	30 - 130
		n-Dotriacontane - Extractable	2009/08/17		109	%	30 - 130
		>C10-C21 Hydrocarbons	2009/08/17	<15		mg/kg	
		>C21-<C32 Hydrocarbons	2009/08/17	<15		mg/kg	
	RPD	>C10-C21 Hydrocarbons	2009/08/17	NC		%	50
		>C21-<C32 Hydrocarbons	2009/08/17	13.3		%	50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Your P.O. #: NSD016400
Your Project #: 1044856/Z9100
Site: HOPEDALE
Your C.O.C. #: 25978

Attention: JIM SLADE
Jacques Whitford Limited
607 Torbay Rd
St. John's, NL
A1A 4Y6

Report Date: 2009/08/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9A6555

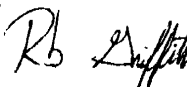
Received: 2009/08/18, 9:52

Sample Matrix: Swab
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PCBs on swabs by GC/ECD	6	2009/08/20	2009/08/21	ATL SOP 00109	Based on EPA8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

 Rob Griffith
21 Aug 2009 12:15:58 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MICHELLE HILL, Project Manager
Email: Michelle.Hill.Reports@maxxamanalytics.com
Phone# (902) 420-0203

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Page 1 of 4

This document is in electronic format, hard copy is available on request.

Maxxam Job #: A9A6555
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

POLYCHLORINATED BIPHENYLS BY GC-ECD (SWAB)

Maxxam ID		DK5546	DK5547	DK5548	DK5549		
Sampling Date		2009/08/17	2009/08/17	2009/08/17	2009/08/17		
COC Number		25978	25978	25978	25978		
Registration #							
	Units	PCB SWAB-1	PCB SWAB-2	PCB SWAB-3	PCB SWAB-4	RDL	QC Batch

PCBs							
Total PCB	ug	<5	<5	<5	<5	5	1912933
Surrogate Recovery (%)							
Decachlorobiphenyl	%	76	80	80	80		1912933

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DK5550	DK5551		
Sampling Date		2009/08/17	2009/08/17		
COC Number		25978	25978		
Registration #					
	Units	PCB SWAB-5	PCB SWAB-6	RDL	QC Batch

PCBs					
Total PCB	ug	<5	<5	5	1912933
Surrogate Recovery (%)					
Decachlorobiphenyl	%	80	74		1912933

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9A6555
Report Date: 2009/08/21

Jacques Whitford Limited
Client Project #: 1044856/Z9100
Project name: HOPEDALE
Your P.O. #: NSD016400

GENERAL COMMENTS

Results relate only to the items tested.

Jacques Whitford Limited
 Attention: JIM SLADE
 Client Project #: 1044856/Z9100
 P.O. #: NSD016400
 Project name: HOPEDALE

Quality Assurance Report
 Maxxam Job Number: DA9A6555

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1912933 CMI	Spiked Blank	Decachlorobiphenyl	2009/08/21		82	%	30 - 130
		Total PCB	2009/08/21		102	%	30 - 130
	Method Blank	Decachlorobiphenyl	2009/08/21		82	%	30 - 130
		Total PCB	2009/08/21	<5		ug	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.