WELLMASTERS
ENGINEERING
TECHNOLOGY
CORP.

"From Flag to Flare"

SUITE 1510
700 - 4th AVENUE S.W.,
CALGARY, ALBERTA
T2P 3J4
Bus: (403) 232-6334
Fax: (403) 232-6338

(2.1) Final Well Report

Delpet Vinland Big Spring #1

Wellmasters Engineering Technology Corp.

97-12-12

WELLMASTERS
ENGINEERING
TECHNOLOGY
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"From Flag to Flare"

wellco
ENGINEERING

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DELPET VINLAND BIG SPRING #1

FINAL WELL REPORT ITEMS 2.0 TO 6.0

2.2. Introduction:

The nature of this well, due to no offset well information and the lack of reasonably close seismic data, would have to be considered highly exploratory and speculative.

Delpet Resources Ltd, a Vancouver based company, contracted East Coast Drilling Co. Ltd. of Stephenville Newfoundland, who utilized their Rig #2, an HS - 150 top drive hydraulic coring rig, to continuously core the well to a depth of 1396mKB.

A summary of operations is as follows:

- Spud 114.3mm hole @ 10:00am, May 25, 1997
- KB (top of rotary head) to ground 4.15m
- Run and cement 139.7mm casing to 145m KB
- WOC & test.
- Install & test Crown, type FJ, 179mm X 14mpa X 139.7mm SOW casing head.
- Install & test 179mm X 21mpa double ram BOP c/w annular preventor.
- Pressure test all BOP components, including standpipe, manifold & flow line.
- Continue coring & reaming to 352m KB.
- Run and cement 114mm intermediate casing to 352Mkb, install casing slips & WOC.
- Install & test intermediate casing head Crown, type SF, 179mm X 14mpa.
- Primary & secondary seals tested OK to 12mpa.
- Continue coring to 1396Mkb
- Condition hole for logs.
- Run following electric logs 1390m to 352mKB, Induction, SP, GR, Sonic and Compensated Neutron.
- Abandon well bore with cement plugs as follows;
    - Plug #1. — 1283 - 1390m, felt @ 1285mKB
    - Plug#2 — 1109 - 1215m, felt @ 1115mKB
    - Plug#3 — 330 - 390m, felt @ 330mKB
    - Plug#4. — 1 - 15m, felt @ surface.
- Recover casing bowl, cap casing with steel plate 2m below ground level. (Well name welded on plate)
- Rig released @ 97-08-18 @ 08:00 Hrs.

Formations Penetrated:

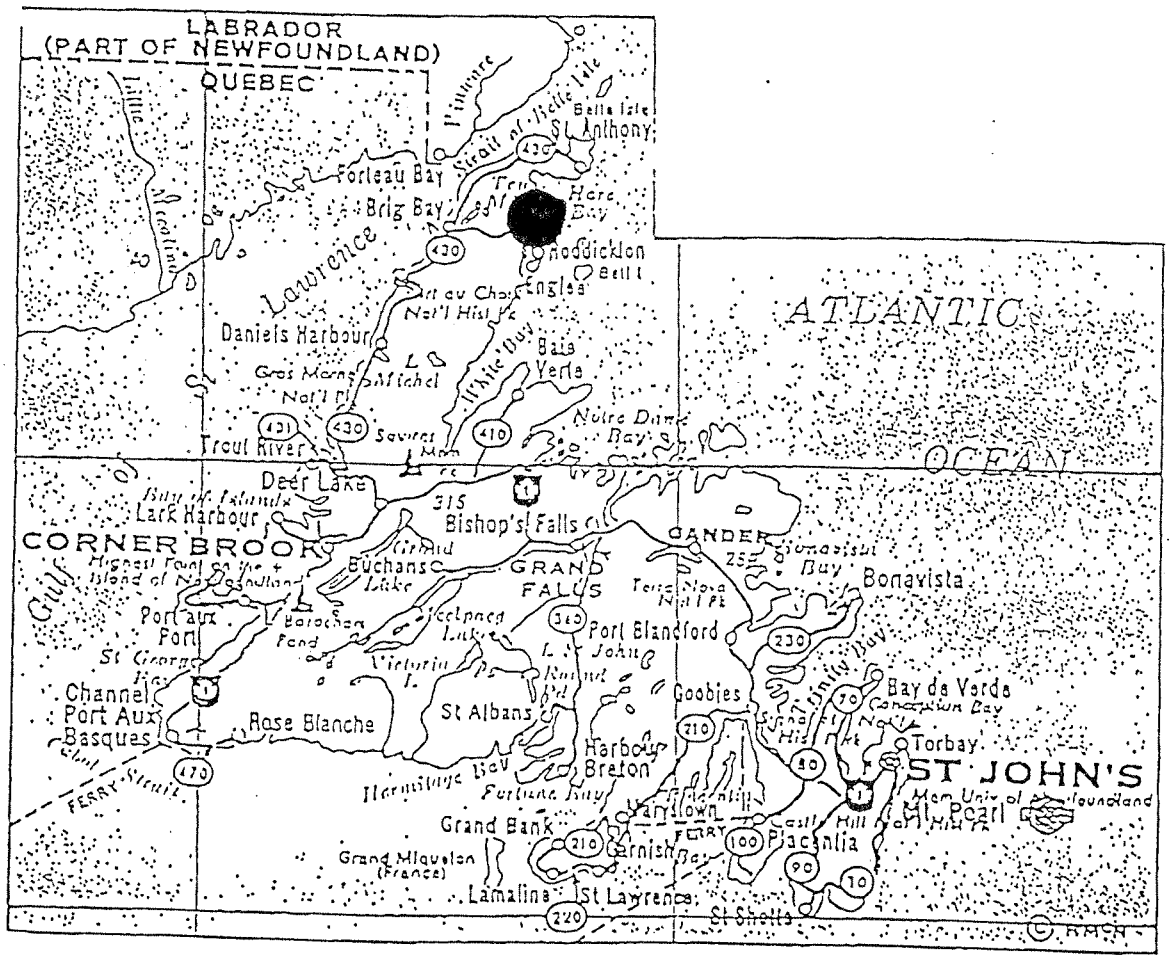
0.00m - 272.10m	Petit Jordin Formation.
272.10m - 1396.00m	March Point Formation

No formation flow tests were performed and the well is currently abandoned and capped with steel plating.

Rec'd SEP 14 1998

Delpet Vinland Big Spring # 1

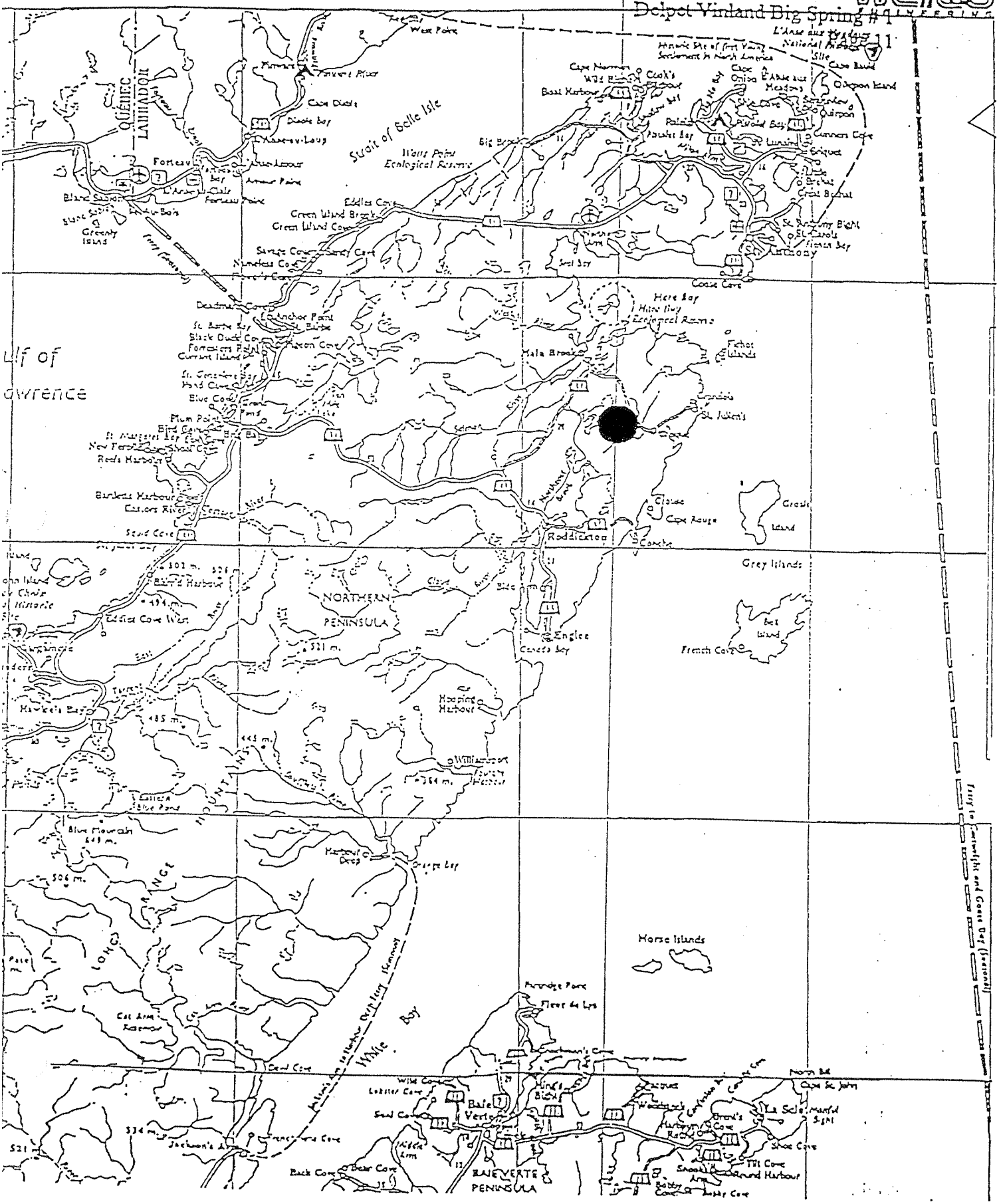
2.3 MAP

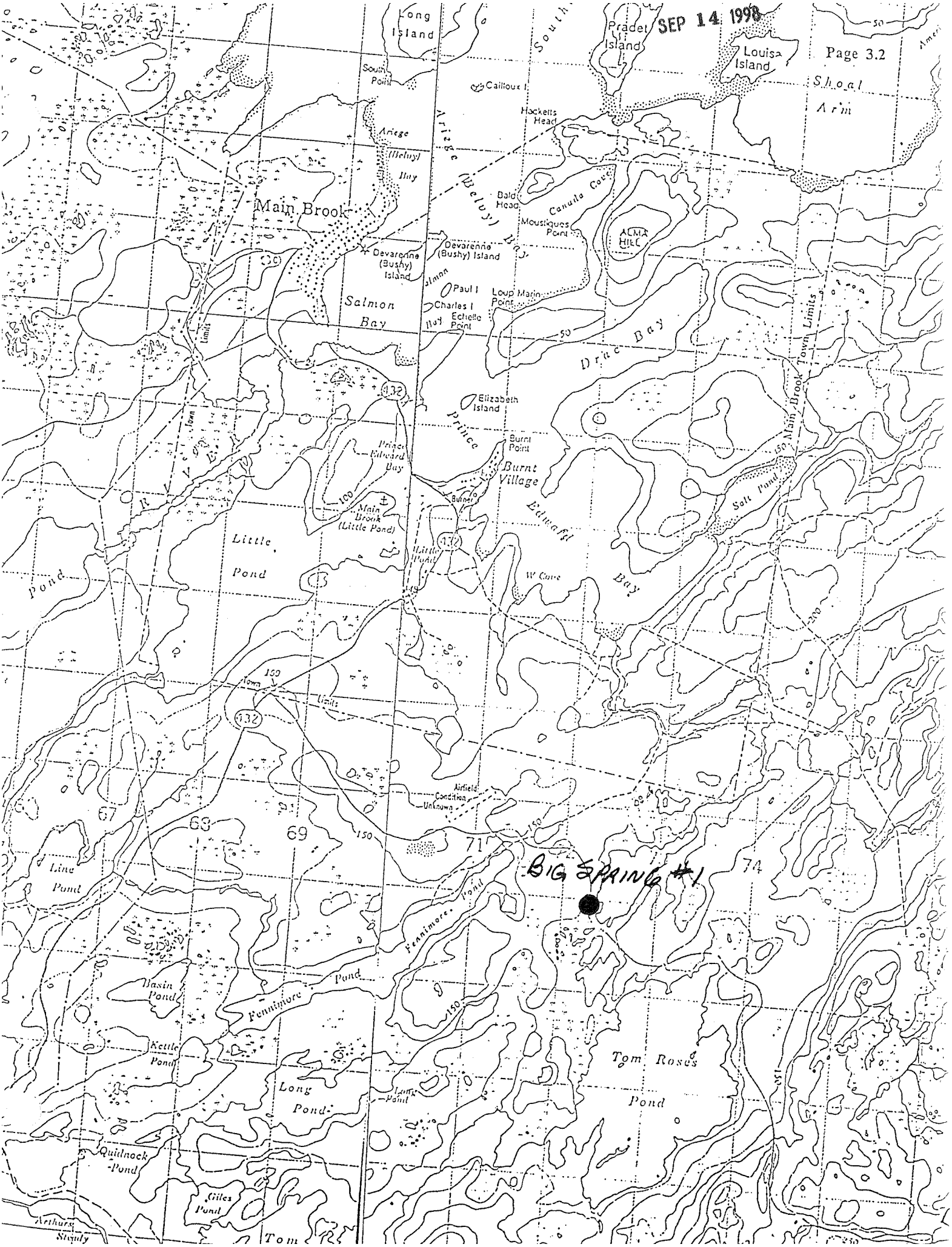


rec'd SEP 14 1998

12 13 14

Delpot Vinland Big Spring #1




Long Island
South Point
Ariege
(Belvy) Bay
Main Brook
Salmon Bay
Devarenne (Bushy) Island
Paul I
Charles I
Echelle Point
Loup Marin Point
Hackett's Head
Caillioux I
Pradet Island
Louisa Island
Shoal Arm
Baldhead
Canada Cove
Moustiques Point
ALMA HILL
Drie Bay
Main Brook Town Limits
Elizabeth Island
Prince Edward Bay
Burnt Point
Burnt Village
Salt Pond
Edwards Bay
W Cove
Main Brook (Little Pond)
Little Pond
Airfield Condition Unknown
BIG SPRING #1
Tom Roses Pond
Pennimore Pond
Basin Pond
Kettle Pond
Long Pond
Quidnock Pond
Giles Pond
Arthurs Steady
Tom
Line Pond
67
68
69
71
74
132
150
200

2.4. General Information:

Well Name: Delpet Vinland big Springs#1
Exploration Permit: 92 - 102
Drilling Program Approval: #97 - 115 - 01
Authority to Drill: #97 - 115- 01 - 01
Well Coordinates: (NAD 27) (Established using LEICA 399 Dual Frequency GPS Station #89F340)
5663980.693 N, 572180.216 E.
Wellsite elevations established by a double run differential Level Logs from Geodetic survey division vertical control monument #89F337.

2.5. Difficulties & Delays:

Mechanical rig repairs accounted for 136.75 hours or 5.7 days. As one can appreciate, this particular rig was refitted for oil and gas drilling which accounted for some down time, but the equipment has seen considerable usage and required repairs and parts replacement. The last half of the well, the rig ran basically problem free.

Our drilling time was considerably longer than anticipated due in part to the time required to ream the surface and intermediate holes to accommodate the respective casings.

3.0. Drilling Operations:

3.1. Elevation:

Ground	39.98m
KB	44.13m (top of rotary head)
Casing Flange	39.02m

3.2. Total Depth:

Drilled Depth	1396mKB
Logged Depth	1390mKB

3.3. Spud Date:

97 - 05 - 25 @ 10:00AM

3.4. Date Drilling Completed:

97 - 08 - 13 @ 12:45PM

3.5. Rig Release Date:

97 - 08 - 18 @ 08:00 Hrs.

3.6. Well Status:

Abandoned (See item #3.18, page 10)

3.7. Hole Sizes & Depths:

139.7mm to 145m
114.3mm to 352m
96mm to 1312m
76mm to 1396m

3.8. Bit Records:

See attached Bit Record sheet.

WELLCO BIT RECORD

WELL NAME: Delpet Vinland Big Spring #1

Contractor	East Coast Drilling	**Drill Pipe:**		12.53		**Type T.J.**	
Rig No.	2	**Size O.D.**	90mm Kg/m	17.30		**Type T.J.**	
Date Spudded	97-05-25	**Size O.D.**	114 Kg/m				
Time Spudded	10:00 AM	**Drill Collars:**					
Date Rig Released	97-08-18	**No.**	**O.D.**		**I.D.**	**Type T.J.**	
Time Rig Released	08:00 AM	**No.**	**O.D.**		**I.D.**	**Type T.J.**	

Bit No.	Size	Make	Type	Serial No.	Nozzle Size	Depth Out m	Meters	Cum. Hrs.	Wt. on Bit DaN	RPM	Cond. T	Cond. B	Cond. G	Remarks
1	96mm	JKS	52	3352	Open	62	62	22	3000	800				-100%
2	96mm	JKS	52	3355	Open	115	53	19	3000	800				-100%
3	96mm	JKS	52	3350	Open	154	39	24.75	3000	800				Scrubbed
4	96mm	JKS	52	3351	Open	154			3000	800	TOM			Scrubbed
5	96mm	JKS	52	722403	Open	95	41	12	3000	800				
6	96mm	JKS	52	HQ-Z4-420	Open	147	42	14	3000	800				-50%
1-148	148mm	Pilot	24	2V8394	Ported	30	30.4	49.25	3000	400				-60%
1-120	120mm	Pilot	24	2V8866	Ported	49	19.4	14.5	3000	600				-75%
2-148	148mm	Pilot	24	2W0437	Ported	121	71	27	3000	800				N/R
2-120	120mm	Pilot	24	2V8867	Ported	207	62	30	3000	500				-25%
3-120	120mm	Pilot	24	2V8869	Ported	352	144	107	3000	500				-50%
7	96mm	Boart	7	19660-1	Open	152	5	2	2000	300	TOM			Broken
8	96mm	Boart	7	19660-2	Open	204	52	17	2000	700				Broken
9	96mm	JKS	5	3409	Open	319	115	46.5	3000	500				N/R
10	96mm	JKS	6	3799	Open	353	34	12.8	3000	500	TOM			N/R
11	96mm	JKS	7	3353	Open	624	115	36.5	1500	500	TOM			N/R
12	96mm	JKS	8	3354	Open	513	148	51.75	1500	550				N/R
13	96mm	Boart	8	201093-2	Open	796	172	73	1800	500				N/R
14	96mm	Boart	2	20305-2	Open	988	192	51.5	1500	500				N/R
15	96mm	Boart	2	20305-3	Open	1312	324	87.5	1500	600				-90%
16	96mm	Boart	6	16941-24	Open	1396	84	26.5	1500	600				-15%

3.9. Casing and Cementing Record:

Surface Casing (See: page 8.1, 8.2 & 8.3))

Ran 52 joints, 139.7mm, 25 KG/M, Buttress (3 threads per inch), flush joint N -80, new JKS casing, cemented to surface with 0.68m3 0-1-0A plus 3% CaCl2 mixed @ 1800 KG/m3.

Intermediate Casing (See: pages 8.3, 8.4 & 8.5)

Ran 116 joints (348m) 114mm, 17KG/m, N - 80, Rge 1,Buttress (3 thread per inch), flush joint, new JKS Casing. Cemented to surface w/0.85m3 0-1-0A, plus 2% CaCl2 plus 5.0% Nacl mixed @ 1850KG/m3.

3.10. Sidetracked Hole:

N/A

3.11. Drilling Fluid:

A biodegradable Polymer/Fresh water system was utilized thruout the wellbore w/average density of 1010 kg/m3 and viscosity of 38-39cp/sec.

3.12. Fluid Disposal:

All fluid and fluid additions were totally biodegradable, disposed of by mix and bury on location.

3.13. Fishing Operations:

N/A

3.14. Well Kicks:

N/A

3.15. Formation Leak-off Tests:

Intermediate casing set @ 352.5mKB, leak off test performed @ 358m, leak off gradient 23.77 Kpa/m.

3.16. Time Distribution:

See Appendix #1

WELLCO CASING SUMMARY

WELL NAME: Delpet Vinland Big Spring #1

Surface Casing O.D. 140.00 mm Date 97-06-17

Jts. on Location	m on Location	Csg. Wt. kg/m	Gr.	Rge.	Thd.	T&C	Make	Jts. Run	Depth Landed m	m Run in Well
50	152.5	25	N-80	1	BUT	FLUSH	JKS	46		140.15
2	3.0	25	N-80	1	BUT	FLUSH	JKS	1	145.00m	1.50
2	1.5	25	N-80	1	BUT	FLUSH	JKS	0		

Shoe:	Make	Nil		Type			Length, m			0.00
Collar:	Make	Nil		Type			Length, m			0.00
Landing Joint (when used) Length, m			3.35m							3.35
Overall Length of Casing String, m										145.0
Meters up from K.B. (Subtract)			N/A							0.00
Setting Depth:	Log		m	Driller	145.0mKB	m	Tally			145.0
Shoe Joint:	Overall				Subtract					
Float Collar:	Landed at		m		Tally					
K.B. to Casing Flg.		5.11	m		Cut Off	1.3	m			

CENTRALIZERS

Make Nil No.

Positions

SCRATCHERS

Make Nil No.

Positions

No. of Joints Welded Joints 1,2,3.

Remarks

Casing head is a Crown FJ - 139.7 X 177.8m X 14mpa

Operator **Delpet Resources Ltd.**

Agent of Operator **Ronald Ranger**

wellco

WELLCO PIPE TALLY SHEET

WELL NAME: Delpet Vinland Big Spring #1

Page 1 of 1
Date 97-06-17

Size	140 mm	**Wt.**	25 kg/m	**Grade**	E (N-80 Equivalent)
Coupling	Internal Flush	**Thread**	Buttress	**Type of String**	Surface Casing
Tallied By	Ron Ranger and Crew				(Thds Off)

Jt.	Length	Jt.	Length	Jt.	Length	Jt.	Length	Jt.	Length
1	2 . 90	21	3 . 05	41	3 . 05	61	.	81	.
2	3 . 05	22	3 . 05	42	3 . 05	62	.	82	.
3	3 . 05	23	3 . 05	43	3 . 05	63	.	83	.
4	3 . 05	24	3 . 05	44	3 . 05	64	.	84	.
5	3 . 05	25	3 . 05	45	3 . 05	65	.	85	.
6	3 . 05	26	3 . 05	46	3 . 05	66	.	86	.
7	3 . 05	27	3 . 05	47	1 . 50	67	.	87	.
8	3 . 05	28	3 . 05	48	.	68	.	88	.
9	3 . 05	29	3 . 05	49	.	69	.	89	.
10	3 . 05	30	3 . 05	50	.	70	.	90	.
A	30 . 35	C	30 . 50	E	19 . 80	G	.	I	.
11	3 . 05	31	3 . 05	51	.	71	.	91	.
12	3 . 05	32	3 . 05	52	.	72	.	92	.
13	3 . 05	33	3 . 05	53	.	73	.	93	.
14	3 . 05	34	3 . 05	54	.	74	.	94	.
15	3 . 05	35	3 . 05	55	.	75	.	95	.
16	3 . 05	36	3 . 05	56	.	76	.	96	.
17	3 . 05	37	3 . 05	57	.	77	.	97	.
18	3 . 05	38	3 . 05	58	.	78	.	98	.
19	3 . 05	39	3 . 05	59	.	79	.	99	.
20	3 . 05	40	3 . 05	60	.	80	.	100	.
B	30 . 50	D	30 . 50	F	.	H	.	J	.

Page Total	141 . 65
Brought Forward	.
Grand Total	141 . 65

Remarks 4 Joints Damaged
1 X 1.5m, Pup Joint OK
2 X 0.75m, Pup Joint OK

Supervisor Ronald Ranger

wellco

WELLCO RUNNING AND CEMENTING

WELL NAME: Delpet Vinland Big Springs #1

Surface Casing O.D. 140mm Date 97-06-17

K.B. Elevations 44.5mKB K.B. Csg. Flge.
Total Depth 145.0mKB

Hole Size, mm	148mm			Casing in Hole, mm	140mm	
Depth, m	145mKB			Depth Set, m	145mKB	

Mud: Type Water/Polmer Wt. 1000kg/m3 Visc 34s/l W.L.
B.O.P.'s None

RUNNING:

Power Tongs Rig Tongs
Torque Max. 1500 FT LBS kg/m Nom kg/m Minute
Time Pipe started 1030 HRS Time on Bottom 1200 HRS Time Circulated 40 min.
Fill-up Points Btm. By Casing 145mKB Up from K.B. -3.65m
Remarks

CEMENTING:

Cmt. Co. Rig Pump Operator Crew Time on Location
Types & Quantities of Cmt. 680 kg., Type A, c/w 3% CaCl2

Flush ahead 1.0m3 of Water Mixing: Start / Finish 14:00 to 14:35 hrs.
Slurry Wt. Calc. Disp. Measured Disp. 1.7m3
Disp.: Start/Finish hrs Displacing Fluid Water
Max. Pump Press. kPa Bumped Pressure 1000 kPa Times Bumped
Cement Returns: Yes, 100 litres Float Held No float
Work Casing Rotate While Circulating and Cementing Yes
Remarks
Ht. to be Cemented Surface m

LANDING:
Landed @ 145 mKB Date 97-06-17
Cement String Initial Weight (less blocks) 3600 daN
Weight Landed in Slips 3600 daN Make of Bowl Crown FJ
Nom. Size 5 1/2 X 7 X 2000 Series
Slip and Seal Assembly Manual slips and primary packoff
Remarks

Operator Delpet Resources Ltd.
Agent of Operator Wellco (Ron Ranger)

wellco

WELLCO CASING SUMMARY

WELL NAME: **Delpet Vinland Big Spring 1**

Surface Casing O.D. 114 mm Date 97-07-07

Jts. on Location	m on Location	Csg. Wt. kg/m	Gr.	Rge.	Thd.	T&C	Make	Jts. Run	Depth Landed m	m Run in Well
123	369	17	N-80	1	But	Flush	JKS	116	351.8	348

Shoe:	Make Nil		Type		Length, m	0.00
Collar:	Make Nil		Type		Length, m	0.00
Landing Joint (when used) Length, m						3.80
Overall Length of Casing String, m						351.80
Meters up from K.B. (Subtract)	N/A					0.00
Setting Depth:	Log	m	Driller	m	Tally	351.80
Shoe Joint:	Overall		Subtract			
Float Collar:	Landed at	m	Tally			
K.B. to Casing Flg.	4.18	m	Cut Off	1.0	m	

CENTRALIZERS

Make Nil No.

Positions

SCRATCHERS

Make Nil No.

Positions

No. of Joints Welded Joints 1,2,3.

Remarks

This is a W flush joint casing, all joints are 3.0m long

Operator **Delpet Resources Ltd.**

Agent of Operator **Ronald Ranger**

wellco

WELLCO RUNNING AND CEMENTING

WELL NAME: Delpet Vinland Big Spring #1

Surface Casing O.D. 114mm Date 97-07-07

K.B. Elevations 44.5mKB K.B. Csg. Flge. 4.1
Total Depth 145.0mKB

Hole Size, mm	120mKB			Casing in Hole, mm	114mKB	
Depth, m	352mKB			Depth Set, m	351.8mKB	

Mud: Type Water/Polmer Wt. 1000kg/m3 Visc 31s/l W.L.
B.O.P.'s 1 - Hydril, 1 - Blind Ram, 1 - 114mm Pipe Ram

RUNNING:

Power Tongs Rig Tongs
Torque Max. 1500 FT kg/m Nom kg/m Minute
Time Pipe started 1500 Hours Time on Bottom 1730 Hours Time Circulated 30min.
Fill-up Points Btm. By Casing 351.8mKB Up from K.B. -3.8m
Remarks

CEMENTING:

Cmt. Co. Rig Pump Operator Crew Time on Location
Types & Quantities of Cmt. 1080kg, Type A, Portland, c/w 2% CaCl2, 5% Nacl

Flush ahead 1.0m3 of Water Mixing: Start / Finish 17:30 to 18:00 hrs
Slurry Wt. Calc. Disp. Measured Disp. 2.75m3
Disp.: Start/Finish hrs Displacing Fluid Water
Max. Pump Press. kPa Bumped Pressure 2500kPA Times Bumped
Cement Returns: Yes, 100 litres Float Held No float
Work Casing Rotate While Circulating and Cementing Yes
Remarks SICHP at 2500kPA at 19:00 hrs 08-07-97 SICHP @ 150kPA
Ht. to be Cemented m

LANDING:

Landed @ 351.8mKB Date 97-07-07
Cement String Initial Weight (less blocks) 4800 daN
Weight Landed in Slips 6300 daN Make of Bowl Crown FJ
Nom. Size 5 1/2 X 7 X 2000 Series
Slip and Seal Assembly Manual slips and primary packoff
Remarks

Operator Delpet Resources Ltd.
Agent of Operator Wellco (Ron Ranger)

wellco

3.17. Deviation Summary:

Depth (mKB)	Deviation (Deg.)
54	0.75
83	0.50
95	0.50
121	0.25
141	0.25
154	0.50
193	0.25
353	0.25
414	1.00
495	0.50
591	1.50
615	0.75
724	1.50
862	2.00
946	3.50
976	3.50
1027	3.50

3.18

WELLCO PLUG BACK & ABANDONMENT REPORT

WELL NAME: Delpet Vinland Big Spring #1

Hole Size mm	96	76			K.B. Elev.	44.5 m
Depth mKB	1312	1396			T.D.	1396 mKB

Casing in Hole	Size mm	Set at m	Top of Cement mKB
Surface Casing	139.7	150	Surface
Production Casing	114.1	352	Surface

Fluid in Hole: Water
Plug Back String: 90mm pipe
Service Company: East Coast Drilling
AEUB:

	Plug 1	Plug 2	Plug 3	Plug 4
Date	97-08-15	97-08-15	97-08-16	97-08-17
Interval - Top mKB	1283	1109	330	0
- Bottom mKB	1390	1215	390	15
Formation - Name	March Point	March Point	March Point	Petit Jardin
- Depth, mKB	272 mKB	272 mKB	272 mKB	Surface
Calipered Hole Size, mm (Average)	96mm / 76mm	96mm / 76mm	96mm	100mm
Type of Cement	Portland H	Portland H	Portland H	Portalnd
Amount of Cement	380 kg	380 kg	380 kg	380 kg
Additives	none	none	2% CaCl2	3% CaCl2
m3 of Water Ahead	1	1	1	0.5
Displacement - m3 water	5.5 m3	4.8 m3	1.5m3	none
- m3 mud				
Slurry Density	1830 kg/m3	1830 kg/m3	1830 kg/m3	1830 kg/m3
Mixing Time - Start	930 hrs	1830 hrs	1800 hrs	0730 hrs
- Finish	1000 hrs	1900 hrs	1830 hrs	0745 hrs
Displacing Time - Start	1000 hrs	1900 hrs	1830 hrs	0745 hrs
- Finish	1045 hrs	1945 hrs	1845 hrs	0800 hrs
Felt Plug Time	1800 hrs	0500 hrs	0500 hrs	1600 hrs
Felt Plug Depth, mKB	1285mKB	1115 mKB	330 mkB	Surface

Surface Casing Cut 2.0 m **Below Grd.** **Surface Plug** none **Sacks**

CASING SALVAGE: **Shot off at** m **No. of Jts. Recovered** none

Remarks: 250m pipe on top of plug #2, 1109mKB.
Salvage casing bowl, intermediated head, all in excellent condition (visual).

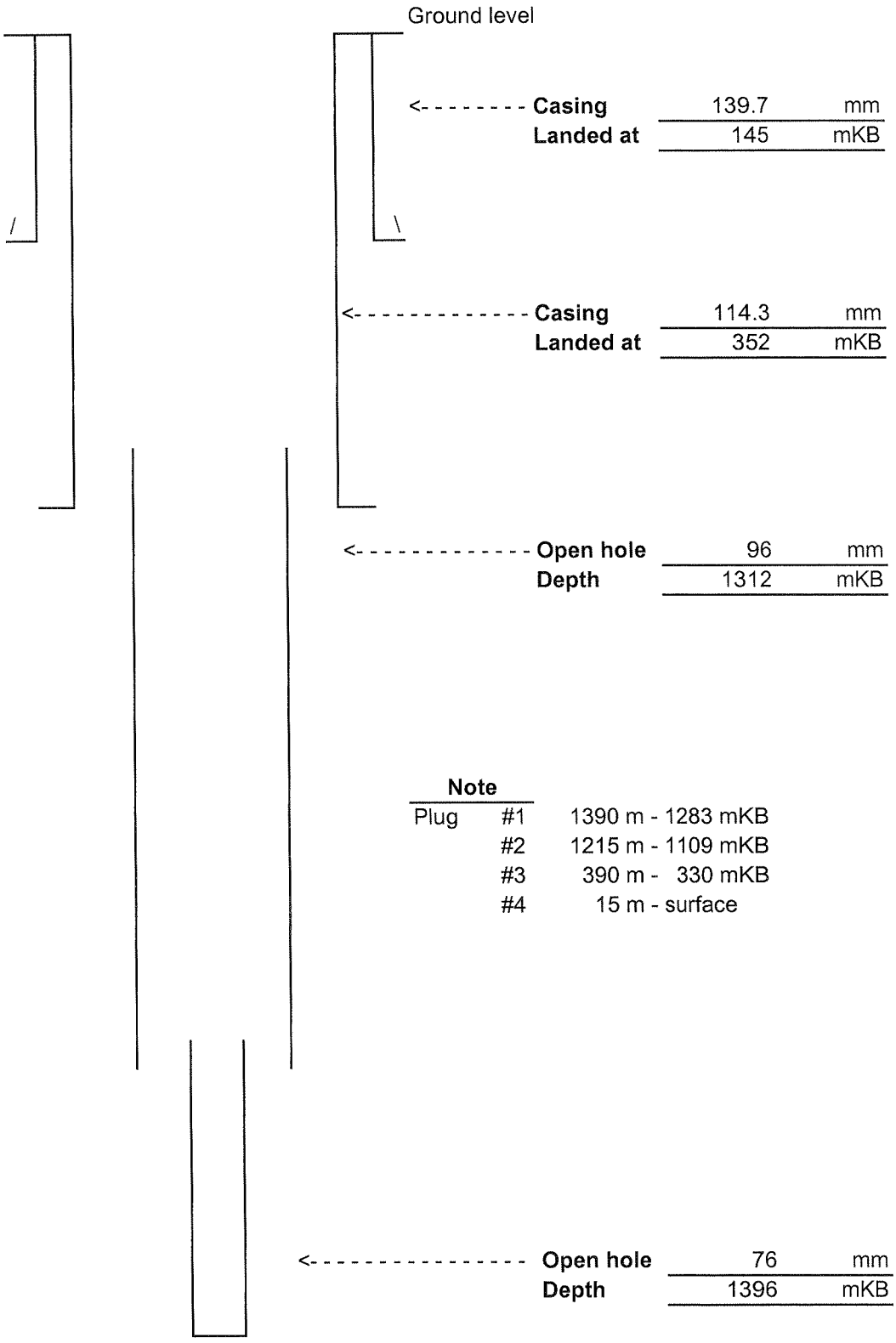
Surface & Intermediate casing cut 2m below
ground level & capped w/steel plate

Operator: Delpet Resources Ltd.
Agent of Operator: Wellco (Ron Ranger)

wellco

Delpet Big Springs # 1

3.19 Well Schematic



3.20. Fluid Samples:

N/A

3.21. Composite Well Record:

See Appendix #2

4.0. Geology:

Items 4.1 to 4.5, see Appendix #2
Note: Item 4.2, Core - currently in storage at Jamie Meyers, Pasadena, Nfld.
709-686-2874 (as per report #86)
Item 4.4, see tab Appendix B of Appendix #2.

5.0. Well Evaluation:

5.1. Downhole Logs Run 97-08-14, Western Atlas Services Ltd:

Induction Electric/Gamma Ray
1387.7m to 352mKB

Compensated Neutron/Gamma Ray
1390.0m to 352mKB

BHC Acoustilog/Gamma Ray
1388.6m to 352mKB

5.2 Other Logs:

Only indication of any hydrocarbon shows in entire wellbore was 287 total units of gas at 1184.39m KB, otherwise remainder of entire well had less than 100 units of background gas.

No actual log is available.

5.3 Synthelic Susmograms

BHC Acoustilog provided with final well report, no additional processing was performed pertaining to seismic coorelation.

5.4 to 5.7.

Not Applicable

6.0. Other:

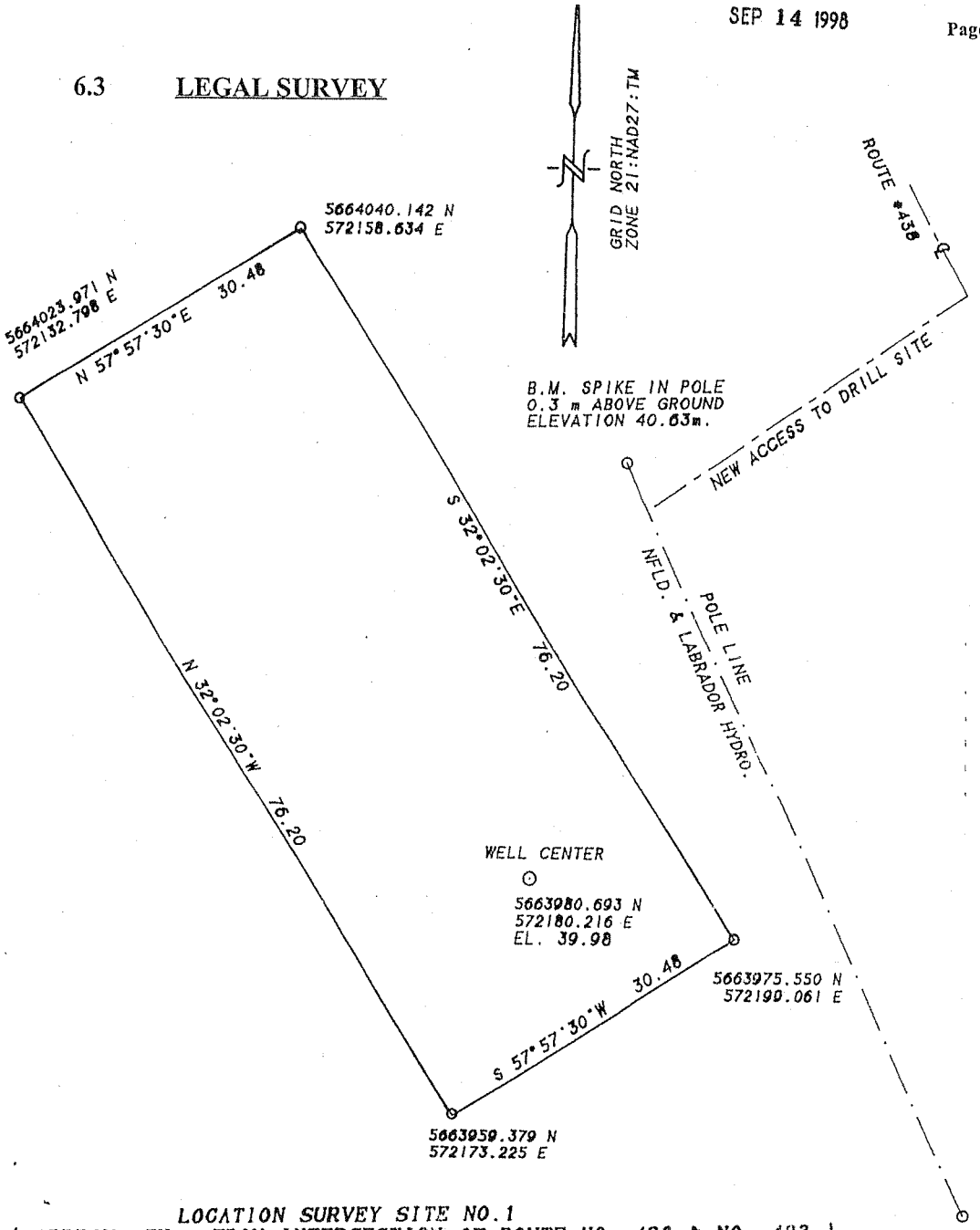
6.1. Mud Logger Report:

No actual mud logging was carried out.

6.2. Deviation Survey:

(See item: 3.17, page 9)

6.3 LEGAL SURVEY



LOCATION SURVEY SITE NO. 1
(APPROX. 5Km. FROM INTERSECTION OF ROUTE NO. 438 & NO. 432)

NOTE:
THIS WELL IS AT LEAST 150 m. FROM A WATER BODY

COORDINATES & BEARINGS: REFERRED TO NORTH AMERICAN DATUM 27
TRANSVERSE MERCATOR PROJECTION: ESTABLISHED USING LEICA 399
DUAL FREQUENCY GPS RECEIVERS: FROM 1st ORDER GEODETIC GPS
STATION NO. 89F340

ELEVATIONS ESTABLISHED BY A DOUBLE RUN DIFFERENTIAL LEVEL LOOP
FROM GEODETIC SURVEY DIVISION VERTICAL CONTROL MONUMENT NUMBER 89F337

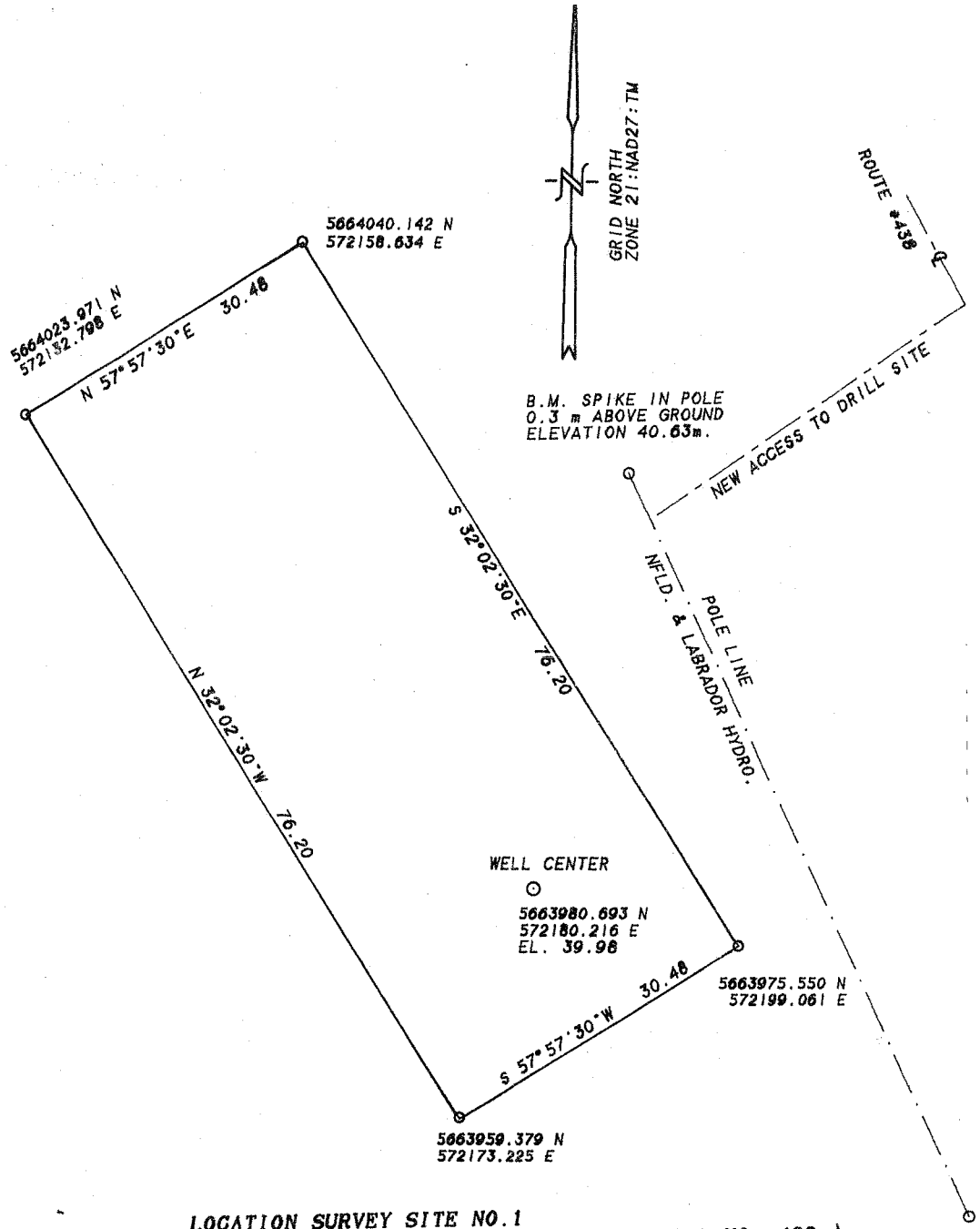
GERARD BUTLER NEWFOUNDLAND LAND SURVEYOR PROVINCE OF NEWFOUNDLAND

C.I.B. CAPPED IRON BAR
..... TREE LINE
— - — CENTER LINE
ALL DISTANCES ARE IN METERS
ALL DISTANCES HORIZONTAL GROUND

DATES OF FIELDWORK — DIFF. LEVEL RUN MAY 6th - MAY 8th: 1997
WELL CENTER COORDINATES SEPTEMBER 5: 1997

GERARD BUTLER N.L.S.
MEMBER OF : ASSOCIATION OF NEWFOUNDLAND LAND SURVEYORS

SCALE 1 : 500
DATE SEPTEMBER 6: 1997
DRG. NO. 97-99107



LOCATION SURVEY SITE NO.1
(APPROX. 5Km. FROM INTERSECTION OF ROUTE NO. 438 & NO. 432)

NOTE:
THIS WELL IS AT LEAST 150 m. FROM A WATER BODY

COORDINATES & BEARINGS: REFERRED TO NORTH AMERICAN DATUM 27
TRANSVERSE MERCATOR PROJECTION: ESTABLISHED USING LEICA 399
DUAL FREQUENCY GPS RECEIVERS: FROM 1st ORDER GEODETIC GPS
STATION NO. 89F340

ELEVATIONS ESTABLISHED BY A DOUBLE RUN DIFFERENTIAL LEVEL LOOP
FROM GEODETIC SURVEY DIVISION VERTICAL CONTROL MONUMENT NUMBER 89F337

GERARD BUTLER NEWFOUNDLAND SURVEYOR SEPTEMBER 9 1997 PROVINCE OF NEWFOUNDLAND

C.I.B. CAPPED IRON BAR
..... TREE LINE
— - — CENTER LINE
ALL DISTANCES ARE IN METERS
ALL DISTANCES HORIZONTAL GROUND

DATES OF FIELDWORK
DIFF. LEVEL RUN MAY 6th - MAY 8th: 1997
WELL CENTER COORDINATES SEPTEMBER 5: 1997

SCALE 1 : 500
DATE SEPTEMBER 6: 1997
DRG. NO. 97-99107

GERARD BUTLER N.L.S.
MEMBER OF : ASSOCIATION OF NEWFOUNDLAND LAND SURVEYORS

6.4. Core Photos:

N/A

6.5. Core Analysis:

See Appendix #2

6.6. to 6.7

Not Applicable.

6.8. Geochemical Report:

No geochemical report is available.

6.9. Biostratigraphical Report:

See Appendix A of Appendix 2.

6.10. Petrological Report:

No petrological analysis was performed on core sections.

6.11. Palynological Report:

See Appendix A of Appendix 2.

6.12. Paleontological Report:

See Appendix A of Appendix 2.

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring #1**				
Date	97-05-26		**Day No.**	01	
Depth (0800 hrs)	8 mKB		**24 Hr. Progress**	8 mKB	
Activity at Report Time	Drilling with 139.7mm casing				
Rig & Rig No.	East Coast Rig #2	**Grd. Elev.**	0	**K.B. Elev.**	0
Directions					

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	1A		1	Drilling (114.3mm	10.0
WT	1000		Size	96		2	Trips	
VIS	28		Type	JKS-7		3	Deviation Survey	
WL			Serial No.	3352		4	Rig Service	0.25
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	8		6	Repair Rig	
GELS			Hours	2		7	Run Casing & Cmtg.	4.50
SOLIDS			M/HR	4		8	BOP Handling & Tstg.	
PV			Cum. M	8		9	Logging	
YP			Cum. Hrs.	2		10	Coring	7.25
% OIL			Cond. T/B/G	98%		11	Formation Tstg.	
% SAND			WT. on Bit	35-40		12	Reaming	
CL			RPM	750		13	Fishing	
Deviations			Stroke			14	Other Act.	2.0
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.0
8	1/2		l/m	45		Other	Rig up & safety meeting	2.0
			Ann Vel					
			Surf. Press.	69				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

114.3mm Casing Shoe # 4662

Weather	O/C	**Temp.**	2 C	**Roads**	Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Move in and rig up East Coast Drilling Rig # 2.

Spudded 114.3mm hole at 10:00am, May 25, 1997.

Drill 114.3mm hole utilizing 114.3mm casing shoe and casing to 5.0m.

Make up core BBL and recover overburden rubble.

Drill 114mm casing to 6m. Cut 96mm core 6m to 8m.

Recover core (cut 2m, Rec. 2m)

NOTE: Top of rotary head (KB) to ground 4.15m

Drill pipe (rod) on location, 397 joints (89mm)

Drill String Sequence

Tool	Size	Length
Core Bit	96	0.25
Drill Rod	89	7.75
Total Depth		8.0
String Wt.		70#

Daily Cost:	########	**Cum.:**	$71,648.00	**Reported By:**	**Colin Crane**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-05-27	**Day No.**	02
Depth (0800 hrs)	8.0mKB (96mm)	**24 Hr. Progress**	Nil
Activity at Report Time	Drilling 114.3mm		
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	**K.B. Elev.**

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	1A		1	Drilling	23.25
WT	1000		Size	96		2	Trips	0.50
VIS	28		Type	JKS-7		3	Deviation Survey	
WL			Serial No.	3352		4	Rig Service	0.25
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	8		6	Repair Rig	
GELS			Hours	2		7	Run Casing & Cmtg.	
SOLIDS			M/HR	4		8	BOP Handling & Tstg.	
PV			Cum. M	8		9	Logging	
YP			Cum. Hrs.	2		10	Coring	
% OIL			Cond. T/B/G	97%		11	Formation Tstg.	
% SAND			WT. on Bit	35-40		12	Reaming	
CL			RPM	750		13	Fishing	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.0
8	1/2		l/m	45		Other		
			Ann Vel					
			Surf. Press.	69				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

139.7mm Casing Shoe # 2V 8396

Weather	Snowing	**Temp.**	2 C	**Roads**	Slippery

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Attempt to drill 139.7mm hole over 114.3mm casing in hole.
Unsuccessful due to rocks & boulders in overburden.
POOH with139.7mm & 114.3 casings.
Drill 139.7mm hole 4.14m to 5.75mKB.
Ream and clean 114.3mm hole to 6mKB.
Ream and clean 96mm hole to 6mKB

Drill String Sequence

Tool	Size	Length
Core Bit	96	0.25
Drill Rod	89	7.75
Total Depth		8.0
String Wt.		

Daily Cost:	$5,710.00	**Cum.:**	$77,358.00	**Reported By:**	**Colin Crane**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-05-28	**Day No.**	03
Depth (0800 hrs)	31mKB	**24 Hr. Progress**	23m
Activity at Report Time	Drilling 96mm		
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	**K.B. Elev.**

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	1-96		1	Drilling	14.0
WT	1000		Size	96		2	Trips	1.75
VIS	28		Type	JKS-7		3	Deviation Survey	
WL			Serial No.	3352		4	Rig Service	
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	In		6	Repair Rig	
GELS			Hours	14		7	Run Casing & Cmtg.	1.75
SOLIDS			M/HR	1.64		8	BOP Handling & Tstg.	
PV			Cum. M	31.0		9	Logging	
YP			Cum. Hrs.	22.75		10	Coring	2.0
% OIL			Cond. T/B/G	Run		11	Formation Tstg.	
% SAND			WT. on Bit	3115		12	Reaming	
CL			RPM	6-800		13	Fishing	
Deviations			Stroke			14	Other Act.	4.5
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.0
25	1/8		l/m	45		Other	Fill Mud Tks	4.5
			Ann Vel					
			Surf. Press.	69				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Clear & Sunny	**Temp.**	8 C	**Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Pull 114.3mm Casing, Recover 101.6mm Core
Run and set 114.3mm Casing at 6mKB.
Fill circulating tank with fresh water, continue
drilling, clean 96mm hole to 8mKB.
Pick up and make up 96mm Core bbl assembly, cut
96mm core 8m to 31m (cut 23m, rec. 23m)

139.3mm Casing at 5.74m
114.3mm Casing at 6.00m

Drill String Sequence

Tool	Size	Length
Bit	96.0	0.11
Shell	93.0	0.14
BBI	90.0	3.75
Drill Rod	88.9	27.00
Total Depth		31.00
String Wt.		334 daN

Daily Cost:	$5,710.00	**Cum.:**	$83,068.00	**Reported By:**	**Colin Crane**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-05-29	**Day No.**	04
Depth (0800 hrs)	62mKB	**24 Hr. Progress**	31m
Activity at Report Time	Trip for bit #2-96		
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	**K.B. Elev.**

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	1-96		1	Drilling	22
WT	1000		Size	96		2	Trips	1.5
VIS	28		Type	JKS-7		3	Deviation Survey	
WL			Serial No.	3352		4	Rig Service	0.5
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	62		6	Repair Rig	
GELS			Hours	22		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.41		8	BOP Handling & Tstg.	
PV			Cum. M	62		9	Logging	
YP			Cum. Hrs.	44.75		10	Coring	
% OIL			Cond. T/B/G	50%		11	Formation Tstg.	
% SAND			WT. on Bit	3115		12	Reaming	
CL			RPM	6-800		13	Fishing	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.0
60	1/2		I/m	45		Other		
			Ann Vel					
			Surf. Press.	69				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Over Cast	**Temp.**	2 C	**Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue Drilling 96mm Core
Cut 31m, Recover 31m
Rig Service & Survey as Required
Circulate bottom up, trip for bit #2-96

Drill String Sequence		
Tool	Size	Length
Csg	139.7	5.74
Csg	114.3	6.0
Bit	96.0	0.11
R/Shell	93.0	0.14
Core BBL	90.0	3.75
Drill Rod	88.9	58.00
Total Depth		62.0
String Wt.		648

Daily Cost: $5,710.00 **Cum.:** $88,778.00 **Reported By:** **Colin Crane**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-05-30	**Day No.**	05
Depth (0800 hrs)	87mkb	**24 Hr. Progress**	25m
Activity at Report Time	Trip out with bit #2		
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	**K.B. Elev.**

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	2-96		1	Drilling	21.5
WT	1000		Size	96		2	Trips	2.0
VIS	28		Type	JKS-7		3	Deviation Survey	
WL			Serial No.	3355		4	Rig Service	0.5
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	87		6	Repair Rig	
GELS			Hours	21.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.15		8	BOP Handling & Tstg.	
PV			Cum. M	25		9	Logging	
YP			Cum. Hrs.	21.5		10	Coring	
% OIL			Cond. T/B/G	In		11	Formation Tstg.	
% SAND			WT. on Bit	3100		12	Reaming	
CL			RPM	6-900		13	Fishing	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.0
85	1/8		I/m	45		Other		
			Ann Vel					
			Surf. Press.	69				

DST No.		Formation		Interval		To		Times: IF
ISI		FF		FSI		Press.: IHP		FHP
PF		IFP		FFP		ISIP	FSIP	
BHT		Choke		Results				

Weather	Sunny	**Temp.**	7 C	**Roads**	Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Run in with bit #2, break circ on
bottom, continue coring, cut 4m.
Recover 4m, rig service, core 66m to 76m,
recover 10m, rig service, core
76m to 87m, recover 11m.

Drill String Sequence

Tool	Size	Length
Csg	139.7	5.74
Csg	114.3	6.0
Bit	96.0	0.11
R/Shell	93.0	0.14
Core BBL	90.0	3.75
Drill Rod	88.9	83.00
Total Depth		87
String Wt.		950 daN

Daily Cost: $5,710.00 **Cum.:** $94,488.00 **Reported By:** **Colin Crane**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-05-31	**Day No.**	06
Depth (0800 hrs)	115mKB	**24 Hr. Progress**	28m
Activity at Report Time	Drilling 96mm hole.		
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	**K.B. Elev.**

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	2-96		1	Drilling	19.5
WT	1000		Size	96		2	Trips	4.0
VIS	28		Type	JKS-7		3	Deviation Survey	
WL			Serial No.	3355		4	Rig Service	0.5
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	In		6	Repair Rig	
GELS			Hours	19.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.43		8	BOP Handling & Tstg.	
PV			Cum. M	53		9	Logging	
YP			Cum. Hrs.	41		10	Coring	
% OIL			Cond. T/B/G	Run		11	Formation Tstg.	
% SAND			WT. on Bit	3100		12	Reaming	
CL			RPM	6-900		13	Fishing	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth Degree	Liner				Total Hours	24.0
115	1/2		l/m	45		Other		
			Ann Vel					
			Surf. Press.	69				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Partly Cloudy	**Temp.**	7 C	**Roads**	Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

POOH, with core BBL, recover jammed core,
Run back in with bit #2 (approximately 30% wear)
Break circulation, rig service cut and recover
96mm core 87m to 103m (rec 16m).
Rig service, continue coring 96mm to 115m, recover 12m.

Drill String Sequence

Tool	Size	Length
Csg	139.7	5.74
Csg	114.3	6.0
Bit	96.0	0.11
BHA	93-90.0	3.89
Drill Rod		111.00
Total Depth		115.0
String Wt.		1200 daN

Daily Cost:	$5,710.00	**Cum.:**	$100,198.00	**Reported By:**	**Colin Crane**

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WELLCO DAILY DRILLING REPORT

WELL NAME: Delpet Vinland Big Spring # 1
Date 97-06-01 **Day No.** 07
Depth (0800 hrs) 145mKB **24 Hr. Progress** 30m
Activity at Report Time Drilling 96mm hole.
Rig & Rig No. East Coast # 2 **Grd. Elev.** **K.B. Elev.**

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	2-96	3-96	1	Drilling	19.0
WT	1000		Size	96	96	2	Trips	4.5
VIS	28		Type	JKS-7	JKS-7	3	Deviation Survey	
WL			Serial No.	3355	3350	4	Rig Service	0.5
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	
pH			Out At	115	In	6	Repair Rig	
GELS			Hours	19.5	19	7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.43	1.58	8	BOP Handling & Tstg.	
PV			Cum. M	53	30	9	Logging	
YP			Cum. Hrs.	41	19	10	Coring	
% OIL			Cond. T/B/G	Damaged	Run	11	Formation Tstg.	
% SAND			WT. on Bit	3100	3100	12	Reaming	
CL			RPM	6-900	6-900	13	Fishing	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth Degree	Liner				Total Hours	24.0
			I/m	45	45	Other		
			Ann Vel					
			Surf. Press.	69	70			

DST No. Formation Interval To Times: IF
ISI FF FSI Press.: IHP FHP
PF IFP FFP ISIP FSIP
BHT Choke Results

Weather Over Cast **Temp.** 6 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

POOH with bit # 2, bit damaged, broken water
course divider, run in with bit # 3-96.
Rig service, cut core, 96mm 115 to 135m
recover 20m, rig service, continue coring
96mm, 135m to 145m, recover 10m.

Drill String Sequence

Tool	Size	Length
Csg	139.7	5.74
Csg	114.3	6.0
Bit	96.0	0.11
BHA	93-90.0	3.89
Drill Rod	88.9	141.00
(47 joints)		
Total Depth		145.00mKB
String Wt.		

Daily Cost: $5,710.00 **Cum.:** $105,908.00 **Reported By:** **Colin Crane**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-06-02	**Day No.**	08
Depth (0800 hrs)	96mm-154mKB	**24 Hr. Progress**	9m
Activity at Report Time	Ream to 148mm		
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	**K.B. Elev.**

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	3-96	1-148	1	Drilling	5.75
WT	1000		Size	96	148	2	Trips	5.0
VIS	28		Type	JKS-7	Pilot	3	Deviation Survey	
WL			Serial No.	3350	2U8394	4	Rig Service	0.5
CAKE			Jets	Open	Ported	5	Circ. & Cond. Mud	
pH			Out At	154	In	6	Repair Rig	
GELS			Hours	5.75	11.75	7	Run Casing & Cmtg.	1.00
SOLIDS			M/HR	1.57	1.02	8	BOP Handling & Tstg.	
PV			Cum. M	39	12	9	Logging	
YP			Cum. Hrs.	24.75	11.75	10	Coring	
% OIL			Cond. T/B/G	10%	Run	11	Formation Tstg.	
% SAND			WT. on Bit	3100	890	12	Reaming	11.75
CL			RPM	6-900	2-400	13	Fishing	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.0
154	1/2		l/m	45	45	Other		
			Ann Vel					
			Surf. Press.	70	60			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Rain	**Temp.**	2 C	**Roads**	Slippery

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue coring to 152m, recover 7m, rig service, cut and recover 2m core to 154mKB. POOH with bit #3-96, lay down 50 singles. Rig down flow nipple, lay down 114.3mm casing. Drill 168.3mm casing from surface to 6.79m. Lay down 139.7mm casing. Ream 148mm hole surface to 12m.

Drill String Sequence

Tool	Size	Length
Total Depth		145.0
String Wt.		

Daily Cost:	$5,710.00	**Cum.:**	$111,618.00	**Reported By:**	**Colin Crane**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-06-03	**Day No.**	09
Depth (0800 hrs)	148mm @ 21m	**24 Hr. Progress**	9m (148mm)
Activity at Report Time	Ream to 148mm		
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	**K.B. Elev.**

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	1-148	1RR-96	1	Drilling	
WT	1000		Size	148	96	2	Trips	1.75
VIS	28		Type	Pilot	JKS-7	3	Deviation Survey	
WL			Serial No.	2U8394	3352	4	Rig Service	0.5
CAKE			Jets	Ported	Open	5	Circ. & Cond. Mud	
pH			Out At	In	62	6	Repair Rig	7.25
GELS			Hours	11.5	44.75	7	Run Casing & Cmtg.	3.0
SOLIDS			M/HR	0.78	1.38	8	BOP Handling & Tstg.	
PV			Cum. M	21	62	9	Logging	
YP			Cum. Hrs.	23.25	44.75	10	Coring	
% OIL			Cond. T/B/G	Run		11	Formation Tstg.	
% SAND			WT. on Bit	1780		12	Reaming	11.5
CL			RPM	2-400		13	Fishing	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.0
154	1/2		l/m	45		Other		
			Ann Vel					
			Surf. Press.	69				

DST No.		Formation		Interval		To		Times: IF
ISI		FF		FSI		Press.: IHP		FHP
PF		IFP		FFP		ISIP	FSIP	
BHT		Choke		Results				

Weather	Drizzle w/fog	**Temp.**	2 C	**Roads**	Slippery

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue reaming 148mm 12m to 18m, rig service,
pull and lay down 1 damaged joint of 88.9 drill pipe.
Continue drilling 168.3mm casing from 6.79m to 10.25 mKB.
Run in with 148mm reamer and # 1-RR 96mm bit and pilot,
continue reaming 148mm hole from 18m to 20.5m.
Rig service, ream 148mm 20.5m to 21m, shut down to repair rig.

Drill String Sequence

Tool	Size	Length
Csg.	168.3	10.25m
Reamer	148.0	0.80
Drill Rod	88.9	20.20
Total Depth		21.0mKB
String Wt.		226 daN

Daily Cost: $5,710.00 **Cum.:** $117,328.00 **Reported By:** **Colin Crane**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-04		**Day No.**	10	
Depth (0800 hrs)	21.8mKB		**24 Hr. Progress**	None	
Activity at Report Time	Wait on rig repairs.				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.45m

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	1-148	1-RR	1	Drilling	
WT	1000		Size	148	96mm	2	Trips	
VIS	28 Water		Type	Pilot	JKS-7	3	Deviation Survey	
WL			Serial No.	3352	3352	4	Rig Service	
CAKE			Jets	Ported	Open	5	Circ. & Cond. Mud	
pH			Out At		62	6	Repair Rig	24
GELS			Hours	11.5m	44.75	7	Run Casing & Cmtg.	
SOLIDS			M/HR	0.9	1.38	8	BOP Handling & Tstg.	
PV			Cum. M	21	62	9	Logging	
YP			Cum. Hrs.	23.25	44.75	10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	2100		12	Reaming	
CL			RPM	2-400		13	Fishing	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth Degree	Liner				Total Hours	24.0
154	0.5		l/m	45		Other		
			Ann Vel					
			Surf. Press.	69				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Fog & Drizzle	**Temp.**	2 C	**Roads**	Slippery

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 hours, 97-06-03 WAIT ON MAIN DRIVE PARTS

08:00 hours, 97-06-04

Expect to have rig repaired by midnight.

Drill String Sequence

Tool	Size	Length
Reamer	152mm	0.8
H-T	88.9mm	21
Total Depth		21.8mKB
String Wt.		226 daN

Daily Cost:	$2,570.00	**Cum.:**	$119,898.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-05		**Day No.**	11	
Depth (0800 hrs)	35mKB		**24 Hr. Progress**	8.8m	
Activity at Report Time	Make repairs to hydraulics				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	1-148	RR #3	1	Drilling	
WT	1000		Size	148	96mm	2	Trips	5.25
VIS	28		Type	Pilot	JKS-7	3	Deviation Survey	
WL			Serial No.	3352	3350	4	Rig Service	0.5
CAKE			Jets	Ported	Open	5	Circ. & Cond. Mud	
pH			Out At	30.4	154	6	Repair Rig	8
GELS			Hours	49.25	26.25	7	Run Casing & Cmtg.	
SOLIDS			M/HR	0.8		8	BOP Handling & Tstg.	
PV			Cum. M	30.4		9	Logging	
YP			Cum. Hrs.	49.25	26.25	10	Coring	
% OIL			Cond. T/B/G	-90%	-10%	11	Formation Tstg.	
% SAND			WT. on Bit	227 daN		12	Reaming	10.25
CL			RPM	150	150	13	Fishing	
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51	51		Total Hours	24.0
154	0.5		l/m	45	45	Other		
			Ann Vel					
			Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Rain, fog	**Temp.**	1 C	**Roads**	Slick

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control	
08:00 hours, 97-06-04	Wait on main drive parts.
13:00 hours	Continue to ream ahead to 29.8mKB.
21:00 hours	Wait on repairs to hydraulic motor.
22:00 hours	Continue to ream to 30.4 mKB.
23:00 hours	POOH, remove reamer, 90% worn, segment gone on.
24:00 hours	96mm Mill.
01:30 hours	RIH with RR#3, to TD, circulate hole clean.
06:00 hours	POOH to 35mKB, hydraulic motor failure.
08:00 hours	Make repairs, wait on 114mm reamers.

Drill String Sequence		
Tool	Size	Length
Reamer	96mm	0.8m
H-T Rod	89mm	152.8m
Total Depth		154mKB
String Wt.		227 daN

Daily Cost:	$3,266.00	**Cum.:**	$123,164.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-06		**Day No.**	12	
Depth (0800 hrs)	154m		**24 Hr. Progress**	Clean Out	
Activity at Report Time	RIH 114mm reamer				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	# 4		1	Drilling	
WT	1000	10L Insgel	Size	96mm		2	Trips	7.25
VIS	28	10L Polmer	Type	Mill		3	Deviation Survey	
WL			Serial No.	3351		4	Rig Service	0.5
CAKE			Jets	Open		5	Circ. & Cond. Mud	3.25
pH			Out At	C/Out		6	Repair Rig	2
GELS			Hours	0		7	Run Casing & Cmtg.	
SOLIDS			M/HR	0		8	BOP Handling & Tstg.	10.75
PV			Cum. M	0		9	Logging	
YP			Cum. Hrs.	0		10	Coring	
% OIL			Cond. T/B/G	New		11	Formation Tstg.	
% SAND			WT. on Bit	N/A		12	Reaming	
CL			RPM	Clean	Out	13	Fishing	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51			Total Hours	24.0
154	0.5		l/m	125		Other		
			Ann Vel					
			Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Rain, fog	**Temp.**	1 C
Roads	Hard		

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control	
97-06-05, 08:00 hours	Finish repairs to hydraulic pump.
97-06-05, 10:00 hours	While wait on reamers, build mud cross and manifold.
	rig up still in progress ie: mixing pump, tank.
97-06-05, 21:00 hours	RIH with 89mm taperet tap, hold up at 81mKB.
97-06-06	Circulate down to 82mKB, dirty returns, POOH,
	RIH 96mm mill, slowly circulate/drill through bridge to
	88mKB, slurry returns, same bridge from 118mKB to
	120mKB, and fill on bottom from 152mKB to 154mKB
06:00 hours	Circulate hole clean.
97-06-06, 08:00 hours	POOH, to 36mKB.

Drill String Sequence		
Tool	Size	Length
Tapertap	89mm	
Mill	96mm	0.80m
H/T Rod	89mm	153.2m
Total Depth		154mKB
String Wt.		227 daN

Daily Cost: $6,590.00 **Cum.:** $129,754 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-07		**Day No.**	13	
Depth (0800 hrs)	40m		**24 Hr. Progress**	9.6M	
Activity at Report Time	Reaming to 148mm hole.				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	2-148		1	Drilling	4
WT	1000	10L Matrix	Size	148mm		2	Trips	13.5
VIS	30		Type	Mill		3	Deviation Survey	
WL			Serial No.	2V8866		4	Rig Service	0.5
CAKE			Jets	Open		5	Circ. & Cond. Mud	1
pH			Out At	IN		6	Repair Rig	
GELS			Hours	4		7	Run Casing & Cmtg.	
SOLIDS			M/HR	2.3		8	BOP Handling & Tstg.	
PV			Cum. M	9.6		9	Logging	
YP			Cum. Hrs.	4		10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	800daN		12	Reaming	5
CL			RPM	600		13	Fishing	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51			Total Hours	24.0
154	0.5		l/m	150		Other		
			Ann Vel					
			Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	10 C	**Roads**	Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Surface RR#4
RIH 148mm casing shoe mill, ream out 169mm
shoe, open hole to 30 MKB with 139mm casing and
HT rod, POOH. RIH with #2-148 overhole mill,
utilize 139mm casing, mill ahead to 30 MKB.
Mill ahead on hard overhole to 40 MKB, ensure clean hole.

Drill String Sequence

Tool	Size	Length
Mill	148mm	0.15m
Casing	139mm	33.0m
H/T Rod	89mm	6.85m
Total Depth		40.0mKB
String Wt.		850 daN

Daily Cost: $7,565.00 **Cum.:** $137,319 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-08		**Day No.**	14	
Depth (0800 hrs)	49MKB (148mm hole)		**24 Hr. Progress**	18.6m (148mm hole)	
Activity at Report Time	Tripping				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	2-148	RR#4	1	Drilling	8.5
WT	1000	10L Matrix	Size	148mm	96	2	Trips	8.5
VIS	30		Type	Mill	Mill	3	Deviation Survey	
WL			Serial No.	2V8866	7-3351	4	Rig Service	0.5
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	4.5
pH			Out At	49	IN	6	Repair Rig	
GELS			Hours	10.5	2	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3	N/A	8	BOP Handling & Tstg.	
PV			Cum. M	18.6	N/A	9	Logging	
YP			Cum. Hrs.	14.5	N/A	10	Coring	
% OIL			Cond. T/B/G	-15%	-15	11	Formation Tstg.	
% SAND			WT. on Bit	800daN	N/A	12	Reaming	
CL			RPM	700	Clean	13	Fishing	
Deviations			Stroke	76	Out	14	Other Act.	2
Depth	Deg.	Depth / Degree	Liner	51	Hole		Total Hours	24.0
154	0.5		l/m	65		Other	Unplug 139 Casing	
			Ann Vel					
			Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather Sunny **Temp.** 18 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Mill ahead to 46MKB (148mm)
Encounter string vibration, BOP
slowed 3m/hour to 0.5m/hour.
No increase in pump pressure. Sweep hole with
hi-viscous pill. Pump pressure increased, POOH
with plugged mill. Recovered approximately
3 lincox meters froginented core.
Run in with 96mm mill c/w 118mm stabilizer, unable
to re-enter original 96mm core hole. Circulate
and condition hole, POOH.

NOTE: Core analysis indicated 75 degrees to 80 degrees
fracture plane cut at approximetely 44.7MKB.
Core consists of limestone with calcium stringers.

Drill String Sequence

Tool	Size	Length
Joint	89mm	3.0m
Stabler	118mm	0.4m
Joints	89mm	45m
K/D	89mm	0.45m

Total Depth 49.0MKB
String Wt. 227 daN

Daily Cost: $9,000.00 **Cum.:** $146,319 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-09		**Day No.**	15	
Depth (0800 hrs)	37mKB		**24 Hr. Progress**	5m	
Activity at Report Time	POOH 140mm casing				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	RR#4	RR#5	1	Drilling	1
WT	1000	5L PL Safe	Size	96mm	96mm	2	Trips	8
VIS	32		Type	Mill	Mill	3	Deviation Survey	
WL			Serial No.	7-3351	2V8866	4	Rig Service	0.5
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	2.5
pH			Out At	49	54	6	Repair Rig	
GELS			Hours	3	1	7	Run Casing & Cmtg.	
SOLIDS			M/HR	N/A	5	8	BOP Handling & Tstg.	
PV			Cum. M	N/A	5	9	Logging	
YP			Cum. Hrs.	N/A	1	10	Coring	
% OIL			Cond. T/B/G	50%	100%	11	Formation Tstg.	
% SAND			WT. on Bit	N/A	500	12	Reaming	12
CL			RPM	N/A	800	13	Fishing	
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51	51		Total Hours	24.0
154	0.5		l/m	120	75	Other		
			Ann Vel					
			Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	22 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

RIH 140mm casing, c/w 148mm OD casing shoe, hang at 40 mKB.
RIH 112mm casing c/w 114mm OD casing bit, ream from 42mKB
to 51mKB, hang string at 42 mKB. RIH 96mm open mill on 89mm
pipe, clean hole to 49m, pick up to 43mKB, make two attempts to
re-enter original pilot hole, core ahead to 54mKB, plug pipe, POOH.
Recover 3m core, original hole not showing.
Circulate 112mm casing, POOH.
Circulate 140mm casing, start to POOH to 37mKB.

Drill String Sequence

Tool	Size	Length
Shoe	148mm	0.14m
Casing	140mm	36.6m
Total Depth		36.74mKB
String Wt.		900 daN

Daily Cost:	$6,590.00	**Cum.:**	$152,909	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-10		**Day No.**	16	
Depth (0800 hrs)	54mKB		**24 Hr. Progress**	0	
Activity at Report Time	Core ahead on new 96mm hole				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#5		1	Drilling	
WT	1010	Celloflake	Size	96mm		2	Trips	5.5
VIS	34		Type	Mill		3	Deviation Survey	1.5
WL			Serial No.	2V8866		4	Rig Service	0.5
CAKE			Jets	Open		5	Circ. & Cond. Mud	1.5
pH			Out At	In		6	Repair Rig	
GELS			Hours	1		7	Run Casing & Cmtg.	
SOLIDS			M/HR	0		8	BOP Handling & Tstg.	
PV			Cum. M	1		9	Logging	
YP			Cum. Hrs.	1		10	Coring	
% OIL			Cond. T/B/G	100%		11	Formation Tstg.	
% SAND			WT. on Bit			12	Reaming	
CL			RPM	800		13	Fishing	7
Deviations			Stroke	76		14	Other Act.	8
Depth	Deg.	Depth Degree	Liner	51			Total Hours	24
54	0.75		l/m	67		Other	Wait on Acid	
154	0.5		Ann Vel					
			Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF
ISI		FF		FSI		Press.: IHP		FHP
PF		IFP		FFP		ISIP	FSIP	
BHT		Choke		Results				

Weather	Sunny	**Temp.**	20 C	**Roads**	Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue pulling 140mm casing, shoe joint missing.
Run in with tapered casing tap, attempt to screw into
shoe joint. Run in with 96mm open mill to 54mKB sweep hole
with hi-visc pill, ensure hole clean to 54mKB. Run in with
survey assembly to 54m, wait on bottom for survey time, POOH,
hole @ 0.75 degrees off vertical. Leave 89mm drill pipe
at 54m, run in 114mm casing and set into bed rock @ 54m.
Continue milling and reaming at 54mKB.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11m
O/X	87mm	0.14m
Barrel	90mm	3.44m
X/O	92mm	0.19m
X/O	90mm	0.26m
H/T Rod	89mm	48.0m
K/D	89mm	1.86m
Total Depth		54.0mKB
String Wt.		224 daN

Daily Cost:	$6,590.00	**Cum.:**	$159,499	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-11		**Day No.**	17	
Depth (0800 hrs)	86mKB		**24 Hr. Progress**	32m	
Activity at Report Time	Coring and Drilling				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#5		1	Drilling	2
WT	1010	Celloflake	Size	96mm		2	Trips	2
VIS	34		Type	Mill		3	Deviation Survey	2
WL			Serial No.	722403		4	Rig Service	0.5
CAKE			Jets	Open		5	Circ. & Cond. Mud	1.5
pH			Out At	In		6	Repair Rig	
GELS			Hours	8		7	Run Casing & Cmtg.	1
SOLIDS			M/HR	4		8	BOP Handling & Tstg.	
PV			Cum. M	32		9	Logging	
YP			Cum. Hrs.	9		10	Coring	10
% OIL			Cond. T/B/G	Run		11	Formation Tstg.	
% SAND			WT. on Bit	3000		12	Reaming	
CL			RPM	800		13	Fishing CORES	4.5
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51			Total Hours	24
154	0.5		l/m	58		Other	Wait on Acid	
54	0.75		Ann Vel					
83	0.5		Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Overcast	**Temp.**	10 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue coring 96mm, recover core, to 63mKB

(cut 9m, recover 9m) survey at 63m at 0.5 degrees.

Continue coring to 86mKB (cut 20m, recover 20m)

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11m
O/X	87mm	0.14m
Barrel	90mm	3.44m
X/O	92mm	0.19m
X/O	90mm	0.26m
H/T Rod	89mm	81.0m
K/D	89mm	0.86m
Total Depth		86.0mKB
String Wt.		720 daN

Daily Cost:	$6,590.00	**Cum.:**	$166,089	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-12		**Day No.**	18	
Depth (0800 hrs)	121mKB		**24 Hr. Progress**	35m	
Activity at Report Time	Survey				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#5	#6	1	Drilling	2
WT	1010	10L P.Safe	Size	96mm	96mm	2	Trips	2
VIS	35		Type	JKS#5	JKS#5	3	Deviation Survey	2
WL			Serial No.	722403	HQ-X4-420	4	Rig Service	0.5
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	1.5
pH			Out At	95	In	6	Repair Rig	
GELS			Hours	3	7	7	Run Casing & Cmtg.	1
SOLIDS			M/HR	3	3.5	8	BOP Handling & Tstg.	
PV			Cum. M	41	26	9	Logging	
YP			Cum. Hrs.	12	7	10	Coring	10
% OIL			Cond. T/B/G	-100%		11	Formation Tstg.	
% SAND			WT. on Bit	3000	3000	12	Reaming	
CL			RPM	800	800	13	Retreive Cores	5
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51	51		Total Hours	24
154	0.5	95 0.5	l/m	58	55	Other	Wait on Acid	
54	0.75		Ann Vel					
83	0.5		Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Rain	**Temp.**	4 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control	**Drill String Sequence**		
	Tool	Size	Length
Core ahead to 95 mKB, recover 9m core	Mill	96mm	0.11m
mill segments in core, sweep hole hivisc pill,	X/O	87mm	0.14m
survey at 95mKB, 0.5 degree, rig service.	Barrel	90mm	3.44m
POOH, reset 114mm casing into bedrock 0.08m (circulate casing annulus),	X/O	90mm	0.19m
RIH new mill to 95mKB. Core ahead to 106mKB, recover 11m	X/O	90mm	0.26m
Core (change out sleeve on wireline barrel)	H/T Rod	90mm	116.0m
Core ahead to 121 mKB, recover 15m core, sweep hole, ready to survey.	K/D	90mm	0.86m
	Total Depth		121mKB
	String Wt.		1200 daN

Daily Cost:	$6,590.00	**Cum.:**	$172,679	**Reported By:**	**Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-06-13	**Day No.**	19
Depth (0800 hrs)	147mKB, to Total Depth	**24 Hr. Progress**	26m
Activity at Report Time	POOH, 112mm casing		
Rig & Rig No.	East Coast # 2	**Grd. Elev.** 40.30m	**K.B. Elev.** 44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#6		1	Drilling	
WT	1010		Size	96mm		2	Trips	3.5
VIS	35		Type	Mill		3	Deviation Survey	2
WL			Serial No.	HQ-X4-420		4	Rig Service	0.5
CAKE			Jets	Open		5	Circ. & Cond. Mud	1
pH			Out At	147		6	Repair Rig	8
GELS			Hours	7		7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.5		8	BOP Handling & Tstg.	
PV			Cum. M	42		9	Logging	
YP			Cum. Hrs.	14		10	Coring	
% OIL			Cond. T/B/G	-50%		11	Formation Tstg.	
% SAND			WT. on Bit	3000		12	Reaming	11
CL			RPM	800		13	Recover Cores	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51			Total Hours	24
			l/m	55		Other	Wait on Acid	
		121 / 0.25	Ann Vel					
		141 / 0.25	Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	18 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Sweep hole with hi-vis pill, continue coring to 125m,
recover 4m, repair rotating head, resume coring to 136m,
cut 11m, recover 11m, continue coring to casing point of 147mKB,
recover 11m, survey circulate hole, POOH.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11m
X/O	87mm	0.14m
Barrel	90mm	3.44m
X/O	90mm	0.19m
X/O	90mm	0.26m
H/T Rod	90mm	141.0m
K/D	90mm	1.86m
Total Depth		147.0mKB
String Wt.		1450 daN

Daily Cost:	$7,750.00	**Cum.:**	$180,429	**Reported By:**	**Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-06-14	**Day No.**	20
Depth (0800 hrs)	55mKB on 147mm hole	**24 Hr. Progress**	6m
Activity at Report Time	Make repairs to rotary head		
Rig & Rig No.	East Coast # 2	**Grd. Elev.** 40.30m	**K.B. Elev.** 44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	RR#6	148-3	1	Drilling	
WT	1000		Size	96	148mm	2	Trips	3.5
VIS	28		Type	Pilot	Reamer	3	Deviation Survey	
WL			Serial No.	HQ-X4-420	2W0437	4	Rig Service	0.5
CAKE			Jets	Open	Ported	5	Circ. & Cond. Mud	1
pH			Out At	In	In	6	Repair Rig	8
GELS			Hours	14	1.5	7	Run Casing & Cmtg.	
SOLIDS			M/HR	N/A	4	8	BOP Handling & Tstg.	
PV			Cum. M	42	6	9	Logging	
YP			Cum. Hrs.	14	1.5	10	Coring	
% OIL			Cond. T/B/G	-50%	In	11	Formation Tstg.	
% SAND			WT. on Bit	N/A	3000	12	Reaming	11
CL			RPM	N/A	800	13	Recover Cores	
Deviations			Stroke	N/A	76	14	Other Act.	
Depth	Deg.	Depth Degree	Liner	N/A	51		Total Hours	24
54	0.75	121 0.25	l/m	N/A	55	Other	Wait on Acid	
63	0.5	141 0.25	Ann Vel					
95	0.5		Surf. Press.	N/A	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather Cloudy **Temp.** 5 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Circulate 112mm casing, POOH, recover 18 joints plus shoe.
RIH 140mm reamer with 96mm pilot on bottom, 1.5m below 148mm bit to 18mKB.
Replace main bearing on rotary head. Ream from 27mKB to 40mKB.
Ream to 49mKB, repair chuck in quill on rotary head, complete repairs to chuck.
Ream 148mm hole to 55mKB, 96mm pilot at 56mKB.
Tear chuck apart, rebuild old sleeve.

Drill String Sequence

Tool	Size	Length
Pilot	96mm	0.11m
Stab	90mm	0.14m
Pup	90mm	0.44m
X/O	90mm	0.46m
Reamer	148mm	0.21m
X/O	140mm	0.14m
Casing	140mm	54.0m
K/D	90mm	0.5m
Total Depth		56.0mKB
String Wt.		1400 daN

Daily Cost: $4,590.00 **Cum.:** $185,019 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-15		**Day No.**	21	
Depth (0800 hrs)	86mKB on 148mm hole		**24 Hr. Progress**	31m	
Activity at Report Time	Reaming				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#6	148-3	1	Drilling	
WT	1030		Size	96	148mm	2	Trips	2
VIS	34		Type	Pilot	Reamer	3	Deviation Survey	
WL			Serial No.	HQ-X4-420	2W0437	4	Rig Service	0.5
CAKE			Jets	Open	Ported	5	Circ. & Cond. Mud	3
pH			Out At	In	In	6	Repair Rig	8.5
GELS			Hours	14	10	7	Run Casing & Cmtg.	
SOLIDS			M/HR	N/A	3.5	8	BOP Handling & Tstg.	
PV			Cum. M	42	37	9	Logging	
YP			Cum. Hrs.	14	11.5	10	Coring	
% OIL			Cond. T/B/G	-50%	In	11	Formation Tstg.	
% SAND			WT. on Bit	N/A	3000	12	Reaming	10
CL			RPM	N/A	800	13	Recover Cores	
Deviations			Stroke	N/A	76	14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	N/A	51		Total Hours	24
54	0.75	121 / 0.25	l/m	N/A	60	Other	Wait on Acid	
63	0.5	141 / 0.25	Ann Vel					
95	0.5		Surf. Press.	N/A	1500			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Cloudy	**Temp.**	10 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Repair sleeve in quill on rotary head.
Repairs complete.
Ream ahead from 55mKB to 60mKB.
Cure losses around conductor pipe with hi-visc pills and celloflake.
Ream ahead to 68mKB, continue to cure losses while reaming.
Ream ahead to 86mKB.

Drill String Sequence

Tool	Size	Length
Pilot	96mm	0.11m
Stab	90mm	0.14m
Pup	90mm	0.44m
X/O	90mm	0.46m
Reamer	148mm	0.21m
X/O	140mm	0.14m
Casing	140mm	84.0m
K/D	90mm	0.5m
Total Depth		86.0mKB
String Wt.		2100 daN

Daily Cost:	$8,500.00	**Cum.:**	$193,519	**Reported By:**	**Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-16		**Day No.**	22	
Depth (0800 hrs)	120mKB		**24 Hr. Progress**	34m	
Activity at Report Time	Trip Reamer				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#6	148-3	1	Drilling	
WT	1000	10L Insta-gel	Size	96mm	148mm	2	Trips	4.5
VIS	34	Celloflake	Type	Pilot	Reamer	3	Deviation Survey	
WL			Serial No.	HQ-X4-420	2W0437	4	Rig Service	0.5
CAKE			Jets	Open	Ported	5	Circ. & Cond. Mud	2
pH			Out At	N/A	121	6	Repair Rig	
GELS			Hours	14	17	7	Run Casing & Cmtg.	
SOLIDS			M/HR	N/A	2	8	BOP Handling & Tstg.	
PV			Cum. M	42	71	9	Logging	
YP			Cum. Hrs.	14	27	10	Coring	
% OIL			Cond. T/B/G	-50%		11	Formation Tstg.	
% SAND			WT. on Bit	N/A	3000	12	Reaming	17
CL			RPM	N/A	800	13	Recover Cores	
Deviations			Stroke	N/A	76	14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	N/A	51		Total Hours	24
			l/m	N/A	60	Other	Wait on Acid	
			Ann Vel					
			Surf. Press.	N/A	70			

DST No.		Formation		Interval		To		Times: IF
ISI		FF		FSI		Press.: IHP		FHP
PF		IFP		FFP		ISIP	FSIP	
BHT		Choke		Results				

Weather Sunny **Temp.** 20 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue reaming from 86mKB to 110mKB.
Sweep hole, slug hole with lost circulation material every connection.
Ream to 110mKB, ream to 120mKB. POOH to check reamer.
Reset conductor barrel.

Drill String Sequence

Tool	Size	Length
Pilot	96mm	0.11m
Stab	90mm	0.14m
Pup	90mm	0.44m
X/O	90mm	0.46m
Reamer	148mm	0.21m
X/O	140mm	0.14m
Casing	140mm	117.0m
K/D	90mm	1.5mm
Total Depth		120mKB
String Wt.		3000 daN

Daily Cost: $6,590.00 **Cum.:** $200,109.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-06-17	**Day No.**	23
Depth (0800 hrs)	TD at 140 mKB, 148 mm Hole	**24 Hr. Progress**	25m
Activity at Report Time	POOH, Reamer		
Rig & Rig No.	East Coast # 2	**Grd. Elev.** 40.30m	**K.B. Elev.** 44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#6	148-2	1	Drilling	
WT	1000	10L Insta-gel	Size	96mm	148mm	2	Trips	6.5
VIS	34	Celloflake	Type	Pilot	Reamer	3	Deviation Survey	
WL			Serial No.	HQ-X4-420	2V8866	4	Rig Service	0.5
CAKE			Jets	Open	Ported	5	Circ. & Cond. Mud	2
pH			Out At	N/A	145	6	Repair Rig	
GELS			Hours	14	14	7	Run Casing & Cmtg.	
SOLIDS			M/HR	N/A	2	8	BOP Handling & Tstg.	
PV			Cum. M	42	44	9	Logging	
YP			Cum. Hrs.	14	28.5	10	Coring	
% OIL			Cond. T/B/G	-50%		11	Formation Tstg.	
% SAND			WT. on Bit	N/A	3000	12	Reaming	15.5
CL			RPM	N/A	800	13	Recover Cores	
Deviations			Stroke	N/A	76	14	Other Act.	
Depth	Deg.	Depth Degree	Liner	N/A	51		Total Hours	24
			l/m	N/A	60	Other	Wait on Acid	
			Ann Vel					
			Surf. Press.	N/A	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	20 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

POOH; recover reamer and pilot (96 mm pilot at -50%).
Reset conductor barrel. RIH with ream 148-2. Continue reaming from 120 mKB to 132 mKB.
TD 148 mm hole at 145 mKB; 96 mm hole to 146.5 mKB. Sweep hole clean.

Drill String Sequence

Tool	Size	Length
Pilot	96 mm	0.11 m
Stab	90 mm	0.14 m
Pup	90 mm	0.44 m
X/O	90 mm	0.46 m
Reamer	148 mm	0.21 m
X/O	140 mm	0.14 m
Casing	140 mm	31.15 m
HT Rod	90 mm	9.0 m
Stab.	140 mm	0.9 m
K/D	90 mm	3.95 m
Total Depth		146.5 mKB
String Wt.		3400 daN

Daily Cost:	$8,590.00	**Cum.:**	$208,699.00	**Reported By:**	**Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-18		**Day No.**	24	
Depth (0800 hrs)	145 mKB		**24 Hr. Progress**	0 m	
Activity at Report Time	WOC - Surface Casing				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number			1	Drilling	
WT	1000		Size			2	Trips	5.00
VIS	34		Type			3	Deviation Survey	
WL			Serial No.			4	Rig Service	0.50
CAKE			Jets			5	Circ. & Cond. Mud	
pH			Out At			6	Repair Rig	
GELS			Hours			7	Run Casing & Cmtg.	1.50
SOLIDS			M/HR			8	BOP Handling & Tstg.	
PV			Cum. M			9	Logging	
YP			Cum. Hrs.			10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit			12	Reaming	15.50
CL			RPM			13	Recover Cores	
Deviations			Stroke			14	Other Act. WOC	17.00
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.00
			l/m			Other		
			Ann Vel					
			Surf. Press.					

DST No.		Formation		Interval		To		Times: IF
ISI		FF		FSI		Press.: IHP		FHP
PF		IFP		FFP		ISIP		FSIP
BHT		Choke		Results				

Weather	Overcast	**Temp.**	8 C	**Roads**	Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

POOH with 140 m casing drill string; lay down reamer and 96 mm pilot mill.
Run in with 140 mm surface casing string; circulate and condition on bottom.
Cement casing in place with 680 kg 0-1-0 "A" + 3% CaCl2 mixed at 1850 kg/m3.
Plug down and casing in place at 1415 hours 97-06-17 with approximately 0.5 m3
good cement returns to surface. Float and annulus held OK. WOC.

Drill String Sequence

Tool	Size	Length
Shoe Jt.	140 mm	2.90 m
Csg Jts.	140 mm	37.25 m
Csg Pups	140 mm	1.50 m
Land Jt.	90 mm	3.35 m
Total Depth		146.5 mKB
String Wt.		3400 daN

Daily Cost:	$8,590.00	**Cum.:**	$220,789.00	**Reported By:**	**Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-06-19	**Day No.**	25
Depth (0800 hrs)	145 mKB	**24 Hr. Progress**	0 m
Activity at Report Time	Conduct Safety Inspection with OH & S		
Rig & Rig No.	East Coast # 2	**Grd. Elev.** 40.30m	**K.B. Elev.** 44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number			1	Drilling	
WT			Size			2	Trips	
VIS			Type			3	Deviation Survey	
WL			Serial No.			4	Rig Service	
CAKE			Jets			5	Circ. & Cond. Mud	
pH			Out At			6	Repair Rig	
GELS			Hours			7	Run Casing & Cmtg.	
SOLIDS			M/HR			8	BOP Handling & Tstg.	18.00
PV			Cum. M			9	Logging	
YP			Cum. Hrs.			10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit			12	Reaming	
CL			RPM			13	Recover Cores	
Deviations			Stroke			14	Other Act. Welding	6.00
Depth	Deg.	Depth Degree	Liner				Total Hours	24.00
			l/m			Other	Weld Bowl	5.00
			Ann Vel				WOC	1.00
			Surf. Press.					

DST No.		Formation		Interval		To		Times: IF
ISI		FF		FSI		Press.: IHP		FHP
PF		IFP		FFP		ISIP		FSIP
BHT		Choke		Results				

Weather	Sunny	**Temp.**	20 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

WOC - surface casing, cut casing, weld on 1-Crown type H, 139.7mm x 179mm (x 14mpa) casing bowl. Pressure test weld to 14mpa for 10 minutes, held OK. Install & nipple up 179mm x 21mpa BOP stack consisting of 1-double gate BOP consisting of 1-blind ram and 1-88.9m pipe ram, 1-179mm x 21mpa Hydril bag preventer all on top of 1-179mm x 179mm x 21mpa drilling spool c/w 2-76mm x 21mpa flanged outlets. Conduct safety inspection with Newfoundland Occupational Health & Safety, OK.

Drill String Sequence

Tool	Size	Length
Shoe Jt.	140 mm	2.90 m
Csg Jts.	140 mm	37.25 m
Csg Pups	140 mm	1.50 m
Land Jt.	90 mm	3.35 m
Total Depth		145.0mKB
String Wt.		daN

Daily Cost:	$27,340.00	**Cum.:**	$248,129.00	**Reported By:**	**Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-20		**Day No.**	26	
Depth (0800 hrs)	147mKB		**24 Hr. Progress**	0 m	
Activity at Report Time	Circulate Hole Clean				
Rig & Rig No.	East Coast # 2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number			1	Drilling	2.50
WT	1000		Size			2	Trips	8.00
VIS	29		Type			3	Deviation Survey	
WL			Serial No.			4	Rig Service	0.50
CAKE			Jets			5	Circ. & Cond. Mud	
pH			Out At			6	Repair Rig	
GELS			Hours			7	Run Casing & Cmtg.	
SOLIDS			M/HR			8	BOP Handling & Tstg.	13.50
PV			Cum. M			9	Logging	
YP			Cum. Hrs.			10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit			12	Reaming	
CL			RPM			13	Recover Cores	
Deviations			Stroke			14	Other Act.	
Depth	Deg.	Depth / Degree	Liner				Total Hours	24.00
			l/m			Other		
			Ann Vel					
			Surf. Press.					

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	20 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Complete Safety Inspection Pressure test casing bowl, blind rams, flow line, and valves to manifold to low test of 1400Kpa, high test of 14mpa, repair and re-test, OK. Run in with RR#6 mill, tag cement at 142mKB. Pressure test 88.9mm pipe rams to 1400Kpa low, 14mpa high, OK. Test annular to 1400Kpa low, 10500kpa high, tested OK 10 minutes. Tested all manifold components to 1400kpa and 14000kpa 10 minutes, tested OK. POOH w/ 88.9mm drill pipe, run in w/ 112mm casing shoe on 114.3mm casing to 142mkB. Core 114.3mm casing to 143mKB. Land 0.5m below mud cross. Run in w/ 88.9mm drill pipe c/w 96mm core bit. Core ahead to 147mKB. Each tour to conduct flow checks, maintain trip sheet and hold a minimum of two BOP shuts-in drills per tour.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
X/O	90mm	0.14
Barrel	90mm	3.44
X/O	90 mm	0.19
X/O	90mm	0.26
H/T Rod	90mm	141
K/D	90mm	1.86
Total Depth		147.0mKB
String Wt.		daN

Daily Cost:	$10,090.00	**Cum.:**	$258,219.00	**Reported By:**	**Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-21		**Day No.**	27	
Depth (0800 hrs)	178mKB		**24 Hr. Progress**	31m	
Activity at Report Time	Coring				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#7	#8	1	Drilling	
WT	1000		Size	96mm	96mm	2	Trips	4.75
VIS	35		Type	#7	#7	3	Deviation Survey	
WL			Serial No.	19660-1	19660-2	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	0.75
pH			Out At	152	In	6	Repair Rig	1.00
GELS			Hours	2	7	7	Run Casing & Cmtg.	
SOLIDS			M/HR	2.5	3.7	8	BOP Handling & Tstg.	
PV			Cum. M	5	26	9	Logging	
YP			Cum. Hrs.	2	7	10	Coring	9.00
% OIL			Cond. T/B/G	Broken	In	11	Formation Tstg.	1.00
% SAND			WT. on Bit	2000	2000	12	Reaming	
CL			RPM	300	300	13	Recover Cores	7.00
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51	51		Total Hours	24.00
			l/m	40	40	Other		
			Ann Vel					
			Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	20 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control	**Drill String Sequence**		
	Tool	Size	Length
Core from 147mKB to 152mKB, recover 5m core, hard sandstone.	Mill	96mm	0.11
POOH, recover 96mm #7 mill, 3 segments broken on the outside.	X/O	90mm	0.14
POOH 114mm casing, stand in derrick 48 joints.	Barrel	90mm	3.44
RIH boart #89, 96mm mill to 152mKB ensure clean hole.	X/O	90mm	0.19
Core ahead to 160mKB, recover 8m core vertically fractured.	X/O	90mm	0.26
Core ahead to 172mKB, modify wireline sheave to accommodate splice in line.	H/T Rod	90mm	171
Recover remaining 8m of core, core to 178mKB, recover 6m core.	K/D	90mm	2.86
Cores from 152mKB to 178mKB are fractured vertically hard coring.			
	Total Depth		178.0mKB
	String Wt.		2300 daN

Daily Cost:	$8,129.00	**Cum.:**	$266,348.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-22		**Day No.**	28	
Depth (0800 hrs)	202mkb		**24 Hr. Progress**	24m	
Activity at Report Time	Coring				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#8		1	Drilling	
WT	1000		Size	96mm		2	Trips	1.50
VIS	35		Type	#7		3	Deviation Survey	1.00
WL			Serial No.	19660-2		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	0.50
pH			Out At	In		6	Repair Rig	1.50
GELS			Hours	8		7	Run Casing & Cmtg.	
SOLIDS			M/HR	3		8	BOP Handling & Tstg.	
PV			Cum. M	50		9	Logging	
YP			Cum. Hrs.	15		10	Coring	8.00
% OIL			Cond. T/B/G	In		11	Formation Tstg.	
% SAND			WT. on Bit	2000		12	Reaming	
CL			RPM	600		13	Recover Cores	8.50
Deviations			Stroke	76		14	Other Act.	2.50
Depth	Deg.	Depth / Degree	Liner	51			Total Hours	24.00
54	0.75	121 / 0.25	l/m	40		Other	Fishing Core String	
63	0.5	141 / 0.25	Ann Vel					
95	0.5	183 / 0.25	Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	17 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control	**Drill String Sequence**		
	Tool	Size	Length
Core from178mKB to 180mKB, recover 2m core, install stabilizer.	Mill	96mm	0.11
Core to 183mKB, could not recover core, two attempts made.	X/O	90mm	0.14
Pipe was broke at 12mKB, above stabilizer, core did not break.	Barrel	90mm	3.44
Fish out core string, remove stabilizer, recover 3m core.	X/O	90mm	0.19
Core to 187mKB, recover 4m core.	X/O	90mm	0.20
Land 114mm casing string to 145mkB, core to 190mKB, recover 3m core.	H/T Rod	90mm	195
Core to 197mKB, recover 3m core. Repairs to hydraulic connections on	K/D	90mm	2.86
motor, replace main belt. Core to 202mKB, recover 6m core.			
Cores are vertically and horizontally fractured.			
Perform BOP drills, record flow checks & trip sheets.			
	Total Depth		202mKB
	String Wt.	2300 daN	

Daily Cost:	$6,980.00	**Cum.:**	$273,328.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-23		**Day No.**	29	
Depth (0800 hrs)	235mKB		**24 Hr. Progress**	31m	
Activity at Report Time	Coring				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#8	#9	1	Drilling	
WT	1000		Size	96mm	96mm	2	Trips	3.00
VIS	35		Type	#7	#5	3	Deviation Survey	
WL			Serial No.	19660-2	3409	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	0.50
pH			Out At	204	In	6	Repair Rig	5.50
GELS			Hours	1.5	8.5	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3	3.6	8	BOP Handling & Tstg.	0.50
PV			Cum. M	52	31	9	Logging	
YP			Cum. Hrs.	16.5	8.5	10	Coring	8.50
% OIL			Cond. T/B/G	-50%		11	Formation Tstg.	
% SAND			WT. on Bit	2000	2000	12	Reaming	
CL			RPM	700	700	13	Recover Cores	5.50
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51	51		Total Hours	24.00
			l/m	40	40	Other		
			Ann Vel					
			Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Rain	**Temp.**	8 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Core from 202mkB to 204mkB, main pillow block bearing seized,
recover 2m core. Ensure clean hole. POOH, recover mill #8,
has cracked segments, wait on rig repairs. RIH 96mm mill #9,
no out of guage hole encountered. Core from 204mKB to 216mKB,
recover 12m core. Core from 216mKB to 235mkB, recover 19m core.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
X/O	90mm	0.14
Barrel	90mm	3.44
X/O	90mm	0.19
X/O	90mm	0.28
H/T Rod	90mm	228
K/D	90mm	2.86
Total Depth		235mKB
String Wt.		2800 daN

Daily Cost:	$6,865.00	**Cum.:**	$280,193.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-24		**Day No.**	30	
Depth (0800 hrs)	271mKB		**24 Hr. Progress**	36m	
Activity at Report Time	Coring				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#8	#9	1	Drilling	
WT	1000		Size	96mm	96mm	2	Trips	
VIS	36		Type	#7	#5	3	Deviation Survey	
WL			Serial No.	19660-2	3409	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	0.50
pH			Out At	204	In	6	Repair Rig	
GELS			Hours	1.5	13	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3	2.75	8	BOP Handling & Tstg.	0.50
PV			Cum. M	52	67	9	Logging	
YP			Cum. Hrs.	16.5	8.5	10	Coring	13.00
% OIL			Cond. T/B/G	-50%	21.5	11	Formation Tstg.	
% SAND			WT. on Bit	2000	2000	12	Reaming	
CL			RPM	700	700	13	Recover Cores	9.50
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51	51		Total Hours	24.00
			l/m	40	40	Other		
			Ann Vel					
			Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Rain	**Temp.**	1 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Core from 235mKB to 259mKB, recovr 24m core.
Core from 259mKB to 271mKB, recover 12m core.
At 271mKB, dark grey to black dolmite, strong H2S
smell on fresh breaks. Varies from highly fractured
to fairly compentent white calcite lined fractures
50 degrees, to vertical bedding still subhorizontal.
Cores from 235 to 271mKB are fractured and hard
to recover full barrel.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
X/O	90mm	0.14
Barrel	90mm	3.44
X/O	90mm	0.19
X/O	90mm	0.28
H/T Rod	90mm	264
K/D	90mm	2.86
Total Depth		271mkB
String Wt.		3400 daN

Daily Cost: $6,150.00 **Cum.:** $286,343.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-25		**Day No.**	31	
Depth (0800 hrs)	305mKB		**24 Hr. Progress**	34m	
Activity at Report Time	Coring				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#9		1	Drilling	
WT	1000	10L P-safe	Size	96mm		2	Trips	
VIS	36		Type	#5		3	Deviation Survey	
WL			Serial No.	3409		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	0.50
pH			Out At	In		6	Repair Rig	
GELS			Hours	13		7	Run Casing & Cmtg.	
SOLIDS			M/HR	2.5		8	BOP Handling & Tstg.	0.50
PV			Cum. M	101		9	Logging	
YP			Cum. Hrs.	34.5		10	Coring	13.00
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	3000		12	Reaming	
CL			RPM	500		13	Recover Cores	9.50
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51			Total Hours	24.00
			l/m	40		Other		
			Ann Vel					
			Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Overcast	**Temp.** 10 C	**Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue coring to 271m to 292mkB, cut 21m,
recover 21m, core to 305m, recover 13m.
From 283 to 299mKB, very dark grey to black calaraous
dolmite, moderatly strong H2S on fresh break. Very little
fracturing or veining of core oolitic textures.
Flow checks and BOP drills are held twice per tour.
H2S courses are being taught as of today to all crew members.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
X/O	90mm	0.14
Barrel	90mm	3.44
X/O	90mm	0.19
X/O	90mm	0.28
H/T Rod	90mm	300
K/D	90mm	0.86
Total Depth		305mKB
String Wt.		3500 daN

Daily Cost: $7,980.00 **Cum.:** $294,323.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-26		**Day No.**	32	
Depth (0800 hrs)	328mKB		**24 Hr. Progress**	23m	
Activity at Report Time	Coring				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#9	#10	1	Drilling	
WT	1000	10L P-safe	Size	96mm	96mm	2	Trips	5.00
VIS	36		Type	#5	#6	3	Deviation Survey	
WL			Serial No.	3409	3799	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	0.50
pH			Out At	319m	In	6	Repair Rig	0.50
GELS			Hours	7.5	9	7	Run Casing & Cmtg.	
SOLIDS			M/HR	2.5	2.4	8	BOP Handling & Tstg.	0.50
PV			Cum. M	115	9	9	Logging	
YP			Cum. Hrs.	46.5	3.8	10	Coring	7.50
% OIL			Cond. T/B/G	N/R		11	Formation Tstg.	
% SAND			WT. on Bit	3000	3000	12	Reaming	
CL			RPM	500	500	13	Recover Cores	9.50
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51	51		Total Hours	24.00
			I/m	40	50	Other		
			Ann Vel					
			Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Overcast	**Temp.**	10 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Core from 305 to 310mKB, recover 5m core. Repair hydraulic arm on rotary head. Core from 310mKB to 319mKB, recover 9m core. Ensure clean hole, POOH, recover bit #9, tie on to 114mm casing, circulate 114mm annulus clean. RIH 96mm bit #10, core from 319mKB to 328mKB, recover 9m core. From 316mKB, thinly interbedded shales and limestone, 1 to 10cm thick, up to 3cm shale at 0.5 to 1cm, change from carbonates to mixed carbonates and clastics. Flow checks and BOP drills are held twice per tour. H2S courses are being taught as of today to all crew members.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
X/O	90mm	0.14
Barrel	90mm	3.44
X/O	90mm	0.19
X/O	90mm	0.26
H/T Rod	90mm	321
K/D	90mm	2.86
Total Depth		28mKG
String Wt.		3800 daN

Daily Cost:	$6,860.00	**Cum.:**	$301,183.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-27		**Day No.**	33	
Depth (0800 hrs)	353mKB		**24 Hr. Progress**	25m	
Activity at Report Time	Survey				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#11	#10	1	Drilling	
WT	1000	10L P-safe	Size	96mm	96mm	2	Trips	3.00
VIS	37		Type	#7	#6	3	Deviation Survey	
WL			Serial No.	3353	3799	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	1.00
pH			Out At	353	353	6	Repair Rig	
GELS			Hours	1	9	7	Run Casing & Cmtg.	
SOLIDS			M/HR	0	2.7	8	BOP Handling & Tstg.	0.50
PV			Cum. M	0	34	9	Logging	
YP			Cum. Hrs.	0	12.8	10	Coring	9.00
% OIL			Cond. T/B/G		-100%	11	Formation Tstg.	
% SAND			WT. on Bit	3000	3000	12	Reaming	1.00
CL			RPM	500	500	13	Recover Cores	9.00
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51	51		Total Hours	24.00
			I/m	40	50	Other		
			Ann Vel					
			Surf. Press.	70	70			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Overcast	**Temp.**	5 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Core from 328mKB to 349mKB, recover 21m core.
Core from 349mKB to 353mKB, recover 4m core.
Core came out with 53mm OD, S/B 63mm OD, '
unable to core ahead, POOH, recover mill #9,
segments were flattened on the inside. Core barrel
plugging up from broken core left in hole. Retreive
inner core barrel, run survey to 353mKB. From 312
to 348mKB, interbonded light gray limestone and
dark grey shale, with lesser medium grey colitic
limestone, no visible porosity, no shows.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
X/O	90mm	0.14
Barrel	90mm	3.44
X/O	90mm	0.19
X/O	90mm	0.26
H/T Rod	90mm	348
K/D	90mm	0.86
Total Depth		353mKB
String Wt.		3800 daN

Daily Cost: $8,000.00 **Cum.:** $309,183.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-28		**Day No.**	34	
Depth (0800 hrs)	167mKB, 120mm hole.		**24 Hr. Progress**	22m	
Activity at Report Time	Ream from 96mm to 120mm hole.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#11	2-120mm	1	Drilling	2.00
WT	1000		Size	96mm	120mm	2	Trips	8.00
VIS	36		Type	JKS#7	P-24-3	3	Deviation Survey	1.00
WL			Serial No.	3353	2V8867	4	Rig Service	0.50
CAKE			Jets	Open	Ported	5	Circ. & Cond. Mud	1.00
pH			Out At	353	In	6	Repair Rig	
GELS			Hours	1	11	7	Run Casing & Cmtg.	
SOLIDS			M/HR	0	2	8	BOP Handling & Tstg.	0.50
PV			Cum. M	0	22	9	Logging	
YP			Cum. Hrs.	0	11	10	Coring	
% OIL			Cond. T/B/G	100%		11	Formation Tstg.	
% SAND			WT. on Bit	3000	2000	12	Reaming	11.00
CL			RPM	600	500	13	Recover Cores	
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51	51		Total Hours	24.00
			l/m	40	60	Other		
			Ann Vel					
			Surf. Press.	70	350			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather Sunny **Temp.** 15 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Complete survey, recover inner tube.
Ensure clean hole, POOH, recover bit #11.
Engage 114mm casing, circulate 114mm annulus.
POOH, RIH 120mm casing bit on 114mm drive
bushing and 96m pilot. Ream from 145mKB to 152mKB.
Ream 120mm hole over 96mm hole from 152mKB
to 167mKB. BOP and H2S drills held on every tour,
every day. 348mKB to 353mKB, medium grey to
very dark grey limestone, with occasional sections
of massive grey oolitic limestone.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.19
R/Shell	90mm	0.26
X/O	90mm	0.02
Reamer	120mm	0.14
X/O	120mm	0.18
Casing	114mm	165
K/D	90mm	0.96
Total Depth		167mKB
String Wt.		3000 daN

Daily Cost: $7,510.00 **Cum.:** $316,693.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-29		**Day No.**	35	
Depth (0800 hrs)	206mKB, 120mm hole.		**24 Hr. Progress**	39m	
Activity at Report Time	Ream from 96mm to 120mm hole.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#11		1	Drilling	
WT	1000		Size	96mm		2	Trips	4.00
VIS	34-32		Type	JKS#7		3	Deviation Survey	
WL			Serial No.	3353		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	0.50
pH			Out At	353		6	Repair Rig	
GELS			Hours	1		7	Run Casing & Cmtg.	
SOLIDS			M/HR	0		8	BOP Handling & Tstg.	1.00
PV			Cum. M	0		9	Logging	
YP			Cum. Hrs.	0		10	Coring	
% OIL			Cond. T/B/G	100%		11	Formation Tstg.	
% SAND			WT. on Bit	3000		12	Reaming	18.00
CL			RPM	500		13	Recover Cores	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51			Total Hours	24.00
			l/m	40		Other		
			Ann Vel					
			Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	15 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue reaming 96mm core hole
to 120mm, 167mKB to 206mKB.
Average reaming rate 2.2m per hour.
BOP and H2S drills held on every tour,
every day.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.19
R/Shell	90mm	0.26
X/O	90mm	0.02
Reamer	120mm	0.14
X/O	120mm	0.18
Casing	114mm	204
K/D	90mm	0.96
Total Depth		206mKB
String Wt.		3000 daN

Daily Cost:	$6,980.00	**Cum.:**	$323,673.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-06-30		**Day No.**	36	
Depth (0800 hrs)	Reaming at 220mKB		**24 Hr. Progress**	14m	
Activity at Report Time	Ream from 96mm to 120mm hole.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	3-120	2-120mm	1	Drilling	2.00
WT	1000		Size	120mm	120mm	2	Trips	7.00
VIS	31		Type	P-24-3	P-24-3	3	Deviation Survey	
WL			Serial No.	2V8869	2V8867	4	Rig Service	0.50
CAKE			Jets	Ported	Ported	5	Circ. & Cond. Mud	0.50
pH			Out At	In	207	6	Repair Rig	3.00
GELS			Hours	9	1	7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.5	2.2	8	BOP Handling & Tstg.	1.00
PV			Cum. M	13	62	9	Logging	
YP			Cum. Hrs.	9	30	10	Coring	
% OIL			Cond. T/B/G		-25%	11	Formation Tstg.	
% SAND			WT. on Bit	3000	3000	12	Reaming	10.00
CL			RPM	500	500	13	Recover Cores	
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51	51		Total Hours	24.00
			l/m	75	70	Other		
			Ann Vel					
			Surf. Press.	70	250			

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	20 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Ream 120mm hole from 206mKB to 207mKB.
Chuck on rotary head broke, POOH 114mm
casing, recover casing mill, RIH new 120mm
mill to 145mKB. Complete repairs to chuck.
Complete RIH 114m casing, ream to 210mKB.
Ream 120mm hole to 220mKB.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.19
R/Shell	90mm	0.26
X/O	90mm	0.02
Reamer	120mm	0.14
X/O	120mm	0.18
Casing	114mm	216
K/D	90mm	2.96
Total Depth		220mkB
String Wt.		3400 daN

Daily Cost: $5,870.00 **Cum.:** $329,543.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-01		**Day No.**	37	
Depth (0800 hrs)	242mKB		**24 Hr. Progress**	22m	
Activity at Report Time	Ream from 96mm to 120mm hole.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	3-120		1	Drilling	2.00
WT	1000		Size	120mm		2	Trips	3.00
VIS	31		Type	P-24-3		3	Deviation Survey	
WL			Serial No.	2V8869		4	Rig Service	0.50
CAKE			Jets	Ported		5	Circ. & Cond. Mud	
pH			Out At	In		6	Repair Rig	
GELS			Hours	18		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.5		8	BOP Handling & Tstg.	0.50
PV			Cum. M	35		9	Logging	
YP			Cum. Hrs.	27		10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	3000		12	Reaming	18.00
CL			RPM	500		13	Recover Cores	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51			Total Hours	24.00
			l/m	75		Other		
			Ann Vel					
			Surf. Press.	70				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	20 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue reaming 96mm core hole to 120mm.
Ream 220mKB to 242mKB. Replace 6 joints
of 114mm casing with 88.9mm drill pipe
attempting to change any wear spots, continue
to caliper casing and drill pipe for wear on a
regular basis.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.19
R/Shell	90mm	0.26
X/O	90mm	0.02
Reamer	120mm	0.14
X/O	120mm	0.18
Casing	114mm	222.96
H/T Rod	90mm	0.18
K/D	90mm	0.00
Total Depth		242mKB
String Wt.		3400 daN

Daily Cost:	$6,620.00	**Cum.:**	$336,163.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-02		**Day No.**	38	
Depth (0800 hrs)	275mKB		**24 Hr. Progress**	33m	
Activity at Report Time	Ream from 96mm to 120mm hole.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	3-120		1	Drilling	4.00
WT	1000		Size	120mm		2	Trips	1.00
VIS	31		Type	P-24-3		3	Deviation Survey	
WL			Serial No.	2V8869		4	Rig Service	0.50
CAKE			Jets	Ported		5	Circ. & Cond. Mud	0.50
pH			Out At	In		6	Repair Rig	
GELS			Hours	17.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.9		8	BOP Handling & Tstg.	0.50
PV			Cum. M	68		9	Logging	
YP			Cum. Hrs.	44.5		10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1000		12	Reaming	17.50
CL			RPM	400		13	Recover Cores	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51			Total Hours	24.00
			I/m	70		Other		
			Ann Vel					
			Surf. Press.	500				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	20 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Ream 96mm hole to 120mm hole from 242mKB
to 260mKB. POOH 2 stands drill pipe, RIH 6 joints
casing, 1 stand drill . Ream from 260mKB to 275mKB.
Entering more limestone from 265mKB.
Removing splices from survey line today.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.19
R/Shell	90mm	0.26
X/O	90mm	0.02
Reamer	120mm	0.14
X/O	120mm	0.18
Casing	114mm	240
H/T Rod	90mm	33
K/D	90mm	0.96
Total Depth		275mKB
String Wt.		3550 daN

Daily Cost: $6,410.00 **Cum.:** $342,573.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-03		**Day No.**	39	
Depth (0800 hrs)	300mKB		**24 Hr. Progress**	25mKB	
Activity at Report Time	Ream from 96mm to 120mm hole.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	3-120		1	Drilling	3.50
WT	1000		Size	120mm		2	Trips	5.50
VIS	32		Type	P-24-3		3	Deviation Survey	
WL			Serial No.	2V8869		4	Rig Service	0.50
CAKE			Jets	Ported		5	Circ. & Cond. Mud	0.50
pH			Out At	In		6	Repair Rig	
GELS			Hours	13.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.9		8	BOP Handling & Tstg.	0.50
PV			Cum. M	93		9	Logging	
YP			Cum. Hrs.	58		10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1000		12	Reaming	13.50
CL			RPM	350		13	Recover Cores	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth / Degree	Liner	51			Total Hours	24.00
			l/m	70		Other		
			Ann Vel					
			Surf. Press.	600				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Rain	**Temp.**	10 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Continue reaming, 275mKB to 287mKB, POOH to inspect change in string weight, lay down split joint (casing box split vertically). Re-run mill, continue reaming to 300mKB. East Coast Drilling & Delpet Resources have accepted two Petroleum students from the College of the North Atlantic to work on location as part of their work commitment for graduation.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.19
R/Shell	90mm	0.26
X/O	90mm	0.02
Reamer	120mm	0.14
X/O	120mm	0.18
Casing	114mm	270
H/T Rod	90mm	27
K/D	90mm	1.96
Total Depth		300mKB
String Wt.		3700 daN

Daily Cost: $6,510.00 **Cum.:** $349,083.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-04		**Day No.**	40	
Depth (0800 hrs)	318mKb		**24 Hr. Progress**	18mKB	
Activity at Report Time	Ream from 96mm to 120mm hole.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	3-120		1	Drilling	3.00
WT	1000		Size	120mm		2	Trips	
VIS	32		Type	P-24-3		3	Deviation Survey	
WL			Serial No.	2V8869		4	Rig Service	0.50
CAKE			Jets	Ported		5	Circ. & Cond. Mud	0.50
pH			Out At	In		6	Repair Rig	
GELS			Hours	19.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1		8	BOP Handling & Tstg.	0.50
PV			Cum. M	111		9	Logging	
YP			Cum. Hrs.	77.5		10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	850		12	Reaming	19.50
CL			RPM	275/350		13	Recover Cores	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51			Total Hours	24.00
			l/m	70		Other		
			Ann Vel					
			Surf. Press.	600				

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Rain	**Temp.**	2 C
Roads	Hard		

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Ream 96mm hole to 120mm hole from 300mKB to 310mKB.
Extremly hard milling, severe vibration in string. Ream hole
from 310mKB to 318mKB. TD 120mm hole to 352mKB.
Confirm cement excess volume to 100% on open hole only.

Geo: A massive oilitic limestone with vertical calcite
veins, highly splintered vertical cleavage, makes
for very slow moving.

Note: Rotary rig at 900mKB at 3m/hour at this interval
currently at 1.6m/hour at 10:30 hours.
Vibration is a problem

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.19
R/Shell	90mm	0.26
X/O	90mm	0.02
Reamer	120mm	0.14
X/O	120mm	0.18
Casing	114mm	288
H/T Rod	90mm	27
K/D	90mm	1.96
Total Depth		300mKB
String Wt.		3700 DAN

Daily Cost: $6,410.00 **Cum.:** $355,493.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-05		**Day No.**	41	
Depth (0800 hrs)	334 mKB		**24 Hr. Progress**	16 mm	
Activity at Report Time	Ream from 96 mm Hole to 120 mm Hole				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	3-120		1	Drilling	2.50
WT	1000	P-Safe 5 L	Size	120mm		2	Trips	5.75
VIS	32		Type	P-24-3		3	Deviation Survey	
WL			Serial No.	2V8869		4	Rig Service	0.50
CAKE			Jets	Ported		5	Circ. & Cond. Mud	0.50
pH			Out At	In		6	Repair Rig	
GELS			Hours	14.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.2		8	BOP Handling & Tstg.	0.50
PV			Cum. M	125.5		9	Logging	
YP			Cum. Hrs.	92		10	Coring	
% OIL			Cond. T/B/G	-50%		11	Formation Tstg.	
% SAND			WT. on Bit	1000		12	Reaming	14.50
CL			RPM	500		13	Recover Cores	
Deviations			Stroke	76		14	Other Act.	
Depth	Deg.	Depth Degree	Liner	51			Total Hours	24.00
			l/m	70		Other		
			Ann Vel					
			Surf. Press.	700				

DST No.		Formation		Interval		To		Times: IF
ISI		FF		FSI		Press.: IHP		FHP
PF		IFP		FFP		ISIP		FSIP
BHT		Choke		Results				

Weather	Rain	**Temp.**	17 C	**Roads**	Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Ream 96 mm hole to 120 mm hole from 318 mKB to 827 mKB. Sweep hole with HiVisc. pill. POOH joint #19; 114 mm casing showing flat side at upset; remove from string (calipered to 112 mm). Complete POOH; 120 mm mill at 50% loss; 96 mm pilot mill showing wear at gauge protected areas and first 4 mm from ouside showing abnormal abrasive wear to face of mill. Shorten pilot stinger to 0.59 m by removing extra reaming shell. Install new 96 mm pilot mill (73354-8 JKS). Utilize same 120 mm mill. RIH to 327 mKB. Ream from 327 mKB to 334 mKB; ROP at 1.2 m/hour - no more excessive rotary tourque after shortening pilot section.

560 m of usable survey line on rig.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.11
Reamer	90mm	0.14
X/O	114 mm	0.18
Casing	114 mm	306
H/T Rod	90 mm	27
K/D	90 mm	0.41
Total Depth		334 mKB
String Wt.		3900 DAN

Daily Cost: $7,210.00 **Cum.:** $362,703.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	July 6, 1997		**Day No.**	42	
Depth (0800 hrs)	352.5 mKB		**24 Hr. Progress**	18 mm	
Activity at Report Time	Ream from 96 mm Hole to 120 mm Hole				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	3-120	2-120mm	1	Drilling	3.00
WT	1000	P-Safe 5 L	Size	120mm	120mm	2	Trips	4.25
VIS	31		Type	P-24-3	P-24-3	3	Deviation Survey	
WL			Serial No.	2V8869	2V8867	4	Rig Service	0.50
CAKE			Jets	Ported	Ported	5	Circ. & Cond. Mud	0.75
pH			Out At	352.5	207	6	Repair Rig	0.25
GELS			Hours	15	1	7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.2	2.2	8	BOP Handling & Tstg.	0.25
PV			Cum. M	143.5	62	9	Logging	
YP			Cum. Hrs.	107	30	10	Coring	
% OIL			Cond. T/B/G	-50	-25%	11	Formation Tstg.	
% SAND			WT. on Bit	1000	3000	12	Reaming	15.00
CL			RPM	500	500	13	Recover Cores	
Deviations			Stroke	76	76	14	Other Act.	
Depth	Deg.	Degree	Liner	51	51		Total Hours	24.00
			l/m	70	70	Other		
			Ann Vel					
		353	0.03	Surf. Press.	700	250		

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather	Sunny	**Temp.**	17 C
Roads	Hard		

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hr.	Ream 96 mm hole to 120 mm hole from 334 mKB to 342.5 mKB.
15:30 Hr.	Main rotary belt broke, Ensure clean hole.
	POOH to land mill assembly at surface shoe. New belt on location.
	RIH to 342.5 mKB. Lay down 3 joints (worn box ends).
20:15 Hr.	Complete installation of main drive belt.
24:00 Hr.	Ream hole from 342.5 mKB to 345.0 mKB.
08:00 Hr.	TD 96 mm hole to 353 mKB, 120 mm hole to 352.5 mKB.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
R/Shell	90mm	0.14
X/O	90mm	0.02
Reamer	120	0.14
X/O	114 mm	0.16
Casing	114 mm	303
H/T Rod	90 mm	48
K/D	90 mm	0.91
Total Depth		352.5 mKB
String Wt.		3900 DAN

Daily Cost: $6,410.00 **Cum.:** $369,113.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-07		**Day No.**	43	
Depth (0800 hrs)	353 mKB (96 mm)		**24 Hr. Progress**	0	
Activity at Report Time	Prepare to Nipple down BOP				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#12		1	Drilling	
WT	1000		Size	96 mm		2	Trips	10.50
VIS	31		Type	Series 8		3	Deviation Survey	
WL			Serial No.	JKS73354		4	Rig Service	
CAKE			Jets	Open		5	Circ. & Cond. Mud	0.50
pH			Out At			6	Repair Rig	
GELS			Hours			7	Run Casing & Cmtg.	2.00
SOLIDS			M/HR			8	BOP Handling & Tstg.	
PV			Cum. M			9	Logging	
YP			Cum. Hrs.			10	Coring	
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit			12	Reaming	
CL			RPM	500		13	Recover Cores	
Deviations			Stroke	76	76	14	Other Act. (WOC)	11.00
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	70	70	Other		
			Ann Vel					
			Surf. Press.	700	250		Total Hours	24.00

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Weather Sunny **Temp.** 17 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hr.	TD 96 mm hole to 353 mKB; TD 120 mm hole to 352.5 mKB. Ensure hole clean.
14:00 Hr.	POOH; recover 96 mm pilot, 120 mm casing bit. RIH 114 mm x 17.3 kg/m, W typ
17:00 Hr.	flush joint casing to land casing shoe at 352.5 mKB. Ensure clean hole.
17:30 Hr.	Batch mix 0.5 m3 clean 15 degree C water, prehydrate 2% CaCl2, 5% NaCl, 27 S
	normal Portland class A cement to yield 0.85 m3 of 1850 kg/m3 slurry. Preflush
	with 1.0 m3 clean water; pump 0.85 m3 slurry; follow with 2.75 m3
	displacement water while rotating casing - SICHP at 2500 kPa; observe no leak of
	in 10 minutes; 0.10 m3 slurry returns to surface. Pull 1500 daN tension into casin
	WOC.
08:00 Hr.	WOC SICHP 150kpa.

Drill String Sequence

Tool	Size	Length
Mill	96mm	
R/Shell	90mm	
X/O	90mm	
Reamer	120	
X/O	114 mm	
Casing	114 mm	348
H/T Rod	90 mm	
K/D	90 mm	3.80
Total Depth		351.8 mKB
String Wt.		4800 DAN

Daily Cost: $7,210.00 **Cum.:** $376,323.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-08		**Day No.**	44	
Depth (0800 hrs)	358mKB		**24 Hr. Progress**	5	
Activity at Report Time	Resume Coring				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#12		1	Drilling	
WT	1000		Size	96 mm		2	Trips	9.00
VIS	31		Type	Series 8		3	Deviation Survey	
WL			Serial No.	JKS73354		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	In		6	Repair Rig	
GELS			Hours	3.75		7	Run Casing & Cmtg.	
SOLIDS			M/HR	1.3		8	BOP Handling & Tstg.	6.75
PV			Cum. M	5		9	Logging	
YP			Cum. Hrs.	3.75		10	Coring	3.75
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1000		12	Reaming	
CL			RPM	600		13	Recover Cores	1.00
Deviations			Stroke	76		14	Other Act. (WOC)	3.00
Depth	Deg.	Depth Degree	Liner	51				
54	0.75	141 0.25	I/m	45		Other		
95	0.50	193 0.25	Ann Vel					
121	0.25	353 0.03	Surf. Press.	800			Total Hours	24.00

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 400kpa MACHP at 5000 kpa, with 1000 kg/m3 water at 358 mKB.

Reduce rate pump strokes at 36.

Weather Sunny **Temp.** 20 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control	**Drill String Sequence**		
	Tool	Size	Length
08:00 hours WOC. Install casing slips, pull 1500 daN tension over string.			
Cut and trim 114mm casing, install primary seal. Install casing			
intermediate head crown type SF, 14mpa x 179mm,	Mill	96mm	0.11
serial # 69474-05, cement top 0.60m below surface casing head.	STUB	90mm	0.14
Nipple up BOP stack, P/T primary seal to secondary seal to	C/BBL	90mm	3.44
12,000kpa. Pressure test blind rams to 114mm casing head to	X/O	90mm	0.18
15:00 hours 13,500kpa, good test. RIH 7 stands, lay down 42 joints H/T	X/O	90mm	0.26
18:00 hours drill pipe, make up BHA, RIH on 90mm H/T pipe, locate	H/T Rod	90mm	351
hard cement at 351 mKB. P/T pipe rams to	K/D	90mm	2.87
24:00 hours 8000kpa annular to 700kpa. Core ahead to 358mKB, recover			
08:00 hours 5m core, no leakoff at 500kpa, gradient to 23.77 kpa/m.			
	Total Depth		358mKB
	String Wt.		4400 DAN

Daily Cost: $42,060.00 **Cum.:** $418,383.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07- 09		**Day No.**	45	
Depth (0800 hrs)	359mKB		**24 Hr. Progress**		
Activity at Report Time	Complete repairs on rotary drive chuck				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#12		1	Drilling	1.00
WT	1000		Size	96 mm		2	Trips	
VIS	31		Type	Series 8		3	Deviation Survey	
WL			Serial No.	JKS73354		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	0.50
pH			Out At	In		6	Repair Rig	21.00
GELS			Hours	4		7	Run Casing & Cmtg.	
SOLIDS			M/HR	2.1		8	BOP Handling & Tstg.	
PV			Cum. M	6		9	Logging	
YP			Cum. Hrs.	4.25		10	Coring	1.00
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1000		12	Reaming	
CL			RPM	500		13	Recover Cores	
Deviations			Stroke	76		14	Other Act. (WOC)	
Depth	Deg.	Depth Degree	Liner	51				
			l/m	45		Other		
			Ann Vel					
			Surf. Press.	800			Total Hours	24.00

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 400 kpa MACHP at 5000 kpa, with 1000 kg/m3 water at 358 mKB.

Reduce rate pump strokes at 36.

Weather Sunny **Temp.** 15 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control	
08:00 hours	Completed leakoff test.
11:00 hours	Core from 358mKB to 359mKB, recover 1.0m core
	Chuck in rotary head split apart, wait on repairs.
24:00 hours	Wait on repairs.
08:00 hours	Complet repairs, ready to core at 08:00 hours, 09-07-97.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
STUB	90mm	0.14
C/BBL	90mm	3.44
X/O	90mm	0.18
X/O	90mm	0.26
H/T Rod	90mm	352
K/D	90mm	2.87
Total Depth		359mkB
String Wt.		4400 DAN

Daily Cost: $3,410.00 **Cum.:** $421,793.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-10		**Day No.**	46	
Depth (0800 hrs)	392mKB		**24 Hr. Progress**	33m	
Activity at Report Time	Milling 96mm hole, recovering 64mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#12		1	Drilling	3.00
WT	1000		Size	96 mm		2	Trips	
VIS	31		Type	Series 8		3	Deviation Survey	
WL			Serial No.	JKS73354		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	In		6	Repair Rig	
GELS			Hours	16		7	Run Casing & Cmtg.	
SOLIDS			M/HR	2		8	BOP Handling & Tstg.	
PV			Cum. M	39		9	Logging	
YP			Cum. Hrs.	20.25		10	Coring	16.00
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1000		12	Reaming	
CL			RPM	400		13	Recover Cores	4.50
Deviations			Stroke	76		14	Other Act. (WOC)	
Depth	Deg.	Depth Degree	Liner	51				
			l/m	45		Other		
			Ann Vel					
			Surf. Press.	700			Total Hours	24.00

DST No.		Formation		Interval		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 400 kpa MACHP at 5000 kpa, with 1000 kg/m3 water at 358 mKB.

Reduce rate pump strokes at 36. Maximum gradient at 21.88 kpa/m.

Weather Overcast **Temp.** 10 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 hours	Repairs completed as of 08:00 hours.			
	Mill 96mm hole, to recover 63mm core from 359mKB to 382mKB.	Mill	96mm	0.11
24:00 hours	Recover 23m core.	STUB	90mm	0.14
08:00 hours	Core from 382mKB to 392mKB, recover 10m core	C/BBL	90mm	3.44
	ROP could be increased, but the retainer breaks if too	X/O	90mm	0.18
	much force is put against it (so it seems).	X/O	90mm	0.26
***	Problems with the slip retainer ring located below slips, keeps breaking,	H/T Rod	90mm	375
	repairs were made during core recovery, no down time, but it is a problem.	K/D	90mm	2.87
	There is a stripper on the pipe to prevent any bebris going down the hole.			
		Total Depth		382 mKB
		String Wt.		4700 DAN

Daily Cost: $6,510.00 **Cum.:** $428,303.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-11		**Day No.**	47	
Depth (0800 hrs)	414mKB		**24 Hr. Progress**	20m	
Activity at Report Time	Complete Survey				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#12		1	Drilling	2.00
WT	1000	None	Size	96 mm		2	Trips	
VIS	31		Type	Series 8		3	Deviation Survey	2.00
WL			Serial No.	JKS73354		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	In		6	Repair Rig	11.50
GELS			Hours	4.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	4.4		8	BOP Handling & Tstg.	
PV			Cum. M	59		9	Logging	
YP			Cum. Hrs.	24.75		10	Coring	4.50
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	2500		12	Reaming	
CL			RPM	500		13	Recover Cores	3.50
Deviations			Stroke	76		14	Other Act. (WOC)	
Depth	Deg.	Depth Degree	Liner	51				
		0.25	l/m	50		Other		
		0.25	Ann Vel					
		0.25	Surf. Press.	700			Total Hours	24.00

DST No.		Formation		Interval	To	Times: IF	
ISI		FF	FSI		Press.: IHP	FHP	
PF		IFP	FFP		ISIP	FSIP	
BHT		Choke	Results				

Reduce rate pump pressure at 400 kpa MACHP at 4438 kpa, with 1000 kg/m3 water at 414 mKB.

Reduce rate pump strokes at 38. Maximum gradient at 20.53 kpa/m.

Weather Sunny **Temp.** 15 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 hours	Mill 96mm hole to 63mm, core from 392 mKB to 394 mKB,			
09:00 hours	Recover 2m core.	Mill	96mm	0.11
20:30 hours	Rotary head slip retainer ring broke, wait on repairs.	STUB	90mm	0.14
24:00 hours	Core from 394 mKB to 402 mKB, recover 8m core.	C/BBL	90mm	3.44
06:00 hours	Core from 402 mKB to 414 mKB, recover 12m core.	X/O	90mm	0.18
	Survey at 414 mKB, shows 1 degrees deviation.	X/O	90mm	0.26
	Weight indicator now functional.	H/T Rod	90mm	408
	560m usable core recovery line available.	K/D	90mm	1.87
****	From 411.12mKB to 413.35mKB			
	Shale: Fillse to sub fissle, moderatly hard, well developed fine laminate			
****	From 354mKB to 411.12mKB.			
	Limestone: same as prior depths, reports to follow			
	some native clays showing in the shale, viscosity is being increased to 32,	Total Depth		414mKB
	to overcome swelling and sticking.	String Wt.	4900	daN

Daily Cost: $4,885.00 **Cum.:** $433,188.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-12		**Day No.**	48	
Depth (0800 hrs)	449mKB		**24 Hr. Progress**	35m	
Activity at Report Time	Milling 95mm hole, recover 63mm core				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#12		1	Drilling	3.50
WT	1000	5 L	Size	96 mm		2	Trips	
VIS	33	Polysafe	Type	Series 8		3	Deviation Survey	
WL			Serial No.	JKS73354		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	1.75
pH			Out At	In		6	Repair Rig	1.25
GELS			Hours	12		7	Run Casing & Cmtg.	
SOLIDS			M/HR	2.7		8	BOP Handling & Tstg.	
PV			Cum. M	94		9	Logging	
YP			Cum. Hrs.	36.75		10	Coring	12.00
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1500		12	Reaming	
CL			RPM	500		13	Recover Cores	5.00
Deviations			Stroke	76		14	Other Act. (WOC)	
Depth	Deg.	Depth Degree	Liner	51				
			l/m	55		Other		
			Ann Vel					
			Surf. Press.	2500			Total Hours	24.00

DST No.		Formation		To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 1400 kpa MACHP at 4095 kpa, with 1000 kg/m3 water at 449 mKB.

Reduce rate pump strokes at 32. Maximum gradient at 18.93 kpa/m.

Weather Sunny **Temp.** 17 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 hours	Mill 96mm hole to recover 63mm core from 414mKB to 428mKB.			
	Build viscosity with poly safe, from 30 sec. to 32 sec.	Mill	96mm	0.11
	to protect drill pipe from sticking to clays and shale from swelling..	STUB	90mm	0.14
19:00 hours	Towards 422mKB.	C/BBL	90mm	3.44
20:30 hours	Respool corre recovery line, utilize fluid control valve.	X/O	90mm	0.18
22:30 hours	Cut and recover core from 429mKB to 432mKB.	X/O	90mm	0.26
24:00 hours	Change out hydraulic rams on rotary chuck.	H/T Rod	90mm	444
1:00 hours	Cut and recover core from 432mKB to 449mKB.	K/D	90mm	0.87
08:00 hours	35m core recovered.			
	Up to 447.30mKB:			
	Limestone Dolmite interbedded with Black Shale partings.			
	Cabot College students released 11-07-97. Student Jeff Gange asked for	Total Depth		449mKB
	confidential well data, as he was instructed to do so by Bob Harvey, for Thesis.	String Wt.	5300 daN	

Daily Cost: $6,860.00 **Cum.:** $440,048.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-13		**Day No.**	49	
Depth (0800 hrs)	477mKB		**24 Hr. Progress**	28m	
Activity at Report Time	Milling 96mm hole, recover 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#12		1	Drilling	3.50
WT	1000	5 L	Size	96 mm		2	Trips	
VIS	33	Polysafe	Type	Series 8		3	Deviation Survey	
WL			Serial No.	JKS73354		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	1.00
pH			Out At	In		6	Repair Rig	8.00
GELS			Hours	8		7	Run Casing & Cmtg.	
SOLIDS			M/HR	4.8		8	BOP Handling & Tstg.	
PV			Cum. M	122		9	Logging	
YP			Cum. Hrs.	42.75		10	Coring	6.00
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1200		12	Reaming	
CL			RPM	500		13	Recover Cores	5.00
Deviations			Stroke	76		14	Other Act. (WOC)	
Depth	Deg.	Depth Degree	Liner	51				
			l/m	60		Other		
			Ann Vel					
			Surf. Press.	2500			Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 1200 kpa MACHP at 3810 kpa, with 1000 kg/m3 water at 447 mKB.

Reduce rate pump strokes at 40. Maximum gradient at 17.82 kpa/m.

Weather Sunny **Temp.** 12 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 hours	Mill 96mm hole to recover 63mm core from 449mKB to 471mKB.			
24:00 hours	Maintain 32 visc in suction. No hole losses.	Mill	96mm	0.11
02:30 hours	Cut and recover core to 477mKB.	STUB	90mm	0.14
07:00 hours	Repair keyway on core recovery wireline winch.	C/BBL	90mm	3.44
08:00 hours	Recover core from 474mKB to 477mKB, ensure clean hole.	X/O	90mm	0.18
		X/O	90mm	0.26
***	From 447.20mKB to 477.63mKB, prodomitly grey micritic limestone,	H/T Rod	90mm	444
	interbedded with dark grey dolostone. Occasional shale partings.	K/D	90mm	0.87
	Bedding from 10 degrees to 3 degrees from horizontal N.V.P.			
	No shows.			
		Total Depth		477mKB
		String Wt.		5300 DAN

Daily Cost: $5,570.00 **Cum.:** $445,618.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-14		**Day No.**	50	
Depth (0800 hrs)	513 mKB		**24 Hr. Progress**	36m	
Activity at Report Time	Fishing core barrel				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#12		1	Drilling	3.00
WT	1000	10 L	Size	96 mm		2	Trips	
VIS	32	Polysafe	Type	Series 8		3	Deviation Survey	
WL		Water	Serial No.	JKS73354		4	Rig Service	0.50
CAKE		back and	Jets	Open		5	Circ. & Cond. Mud	2.00
pH		clean shale	Out At	In		6	Repair Rig	
GELS		tank.	Hours	9		7	Run Casing & Cmtg.	
SOLIDS			M/HR	4		8	BOP Handling & Tstg.	
PV			Cum. M	148		9	Logging	
YP			Cum. Hrs.	51.75		10	Coring	9.00
% OIL			Cond. T/B/G	-60%		11	Formation Tstg.	
% SAND			WT. on Bit	1200		12	Fishing	4.50
CL			RPM	500		13	Recover Cores	5.00
Deviations			Stroke	76		14	Other Act. (WOC)	
Depth	Deg.	Depth Degree	Liner	51				
			l/m	60		Other		
			Ann Vel					
			Surf. Press.	2500			Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 1200 kpa MACHP at 3467 kpa, with 1000 kg/m3 water at 513 mKB.

Reduce rate pump strokes at 40. Maximum gradient at 18.57 kpa/m.

Weather Sunny **Temp.** 12 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 hours	Mill 96mm hole to cut 63mm core from 477mKB to 495mKB,			
17:30 hours	Recover 18m core.	Mill	96mm	0.11
19:30 hours	Complete survey at 495mKB, reading of 0.5 degree.	STUB	90mm	0.14
24:00 hours	Cut and core to 504mKB, recover 9m core.	C/BBL	90mm	3.44
	Core to 513mKB, recover 6m core, unable to recover 510mKB to 513mKB,	X/O	90mm	0.18
	as the inner core barrel would not release, causes unknown	X/O	90mm	0.26
08:00 hours	Cut and thread out of hole to 490 mKB.	H/T Rod	90mm	507
		K/D	90mm	1.87
***	Up to 511.39mKB:			
	Grey Limestone interbedded with black to dark grey Dolostone/Siltstone.			
	Abundant Calcite veining. Bedding 10 degrees to 30 degrees			
	from Horizontal.			
	NVP, No shows.	Total Depth		513mKB
		String Wt.	5300	DAN

Daily Cost: $7,410.00 **Cum.:** $453,028.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-15		**Day No.**	51	
Depth (0800 hrs)	531mKB		**24 Hr. Progress**	18m	
Activity at Report Time	Milling 96mm hole, cuting 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#12	RR#11	1	Drilling	3.00
WT	1000	5 L	Size	96 mm	96mm	2	Trips	7.00
VIS	32	Polysafe	Type	Series 8	Series 7	3	Deviation Survey	
WL			Serial No.	JKS73354-8	JKS73353-7	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	
pH			Out At	513	In	6	Repair Rig	
GELS			Hours	9	4.5	7	Run Casing & Cmtg.	
SOLIDS			M/HR	4	4	8	BOP Handling & Tstg.	
PV			Cum. M	148	18	9	Logging	
YP			Cum. Hrs.	51.75	4.5	10	Coring	4.50
% OIL			Cond. T/B/G	-60%	-5%	11	Formation Tstg.	
% SAND			WT. on Bit	1200	1500	12	Fishing	
CL			RPM	500	550	13	Recover Cores	3.00
Deviations			Stroke	76	76	14	Other Act. (WOC)	8.00
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	60	60	Other		
			Ann Vel					
			Surf. Press.	2500	2500		Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 1200 kpa MACHP at 3290 kpa, with 1000 kg/m3 water at 513 mKB.

Reduce rate pump strokes at 40. Maximum gradient at 16.00 kpa/m.

Weather Squall **Temp.** 0 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 hours	POOH, cut and thread to BHA.			
12:00 hours	Latch sub had a broken roll steel pin, which had moved	Mill	96mm	0.11
	sideways, and jammed the latch assembly to the latch sub.	STUB	90mm	0.14
19:30 hours	Complete installation of the Iron Maiden.	C/BBL	90mm	3.44
22:30 hours	Complete RIH drill assembly on 90mm H/T drill pipe.	X/O	90mm	0.18
24:00 hours	Core 96mm hole, cut 63mm core from 513mKB to 516mKB.	X/O	90mm	0.26
08:00 hours	From 516mKb to 531mKB, recovered 18m core, ensure	H/T Rod	90mm	525
	correct depth. (cored 18m in 4.5 hours).	K/D	90mm	1.87
***	Up to 528.61mKB: predominately black shale and			
	interbedded gray limestone. Minor calcite veining.			
	Bedding plains from 20 degrees to 40 degrees from Horizontal.			
	NVP, no shows.	Total Depth		513mKB
		String Wt.	5300	DAN

Daily Cost: $7,010.00 **Cum.:** $460,038.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-16		**Day No.**	52	
Depth (0800 hrs)	547mKB		**24 Hr. Progress**	43m	
Activity at Report Time	Milling 96mm hole, cuting 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#11		1	Drilling	2.00
WT	1000	2 Litres	Size	96 mm		2	Trips	
VIS	33	Polysafe	Type	Series 7		3	Deviation Survey	
WL		water back	Serial No.	JKS73353-7		4	Rig Service	0.50
CAKE		and clean	Jets	Open		5	Circ. & Cond. Mud	
pH		degrasser	Out At	In		6	Repair Rig	
GELS		tank.	Hours	11.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.8		8	BOP Handling & Tstg.	
PV			Cum. M	61		9	Logging	
YP			Cum. Hrs.	16		10	Coring	11.50
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1500		12	Fishing	
CL			RPM	500		13	Recover Cores	8.50
Deviations			Stroke	76		14	Rig UP	1.50
Depth	Deg.	Depth Degree	Liner	51				
			l/m	110		Other	WOC	
			Ann Vel					
			Surf. Press.	3000			Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 800 kpa MACHP at 2869 kpa, with 1000 kg/m3 water at 574 mKB.

Reduce rate pump strokes at 50. Maximum gradient at 14.8 kpa/m.

Weather Sunny **Temp.** 15 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 hours	Mill 96mm hole, to cut 63mm core from 531mKB to 559mKB.			
24:00 hours	Recover 28m core.	Mill	96mm	0.11
08:00 hours	Mill and cut core from 559mkB to 574mKB, recover 15m core.	STUB	90mm	0.14
		C/BBL	90mm	3.44
****	MACHP at 352mKB, with 1000kg/m3 water is 5000kpa.	X/O	90mm	0.18
	This is where the intermediate shoe is located.	X/O	90mm	0.26
		H/T Rod	90mm	567
	Up to 572.09mKB	K/D	90mm	2.87
	Limestone: 70%			
	Shale: 30%			
	Grey limestone interedded with black shale			
	White Calcite veining throughout the section.			
	Bedding 20 degrees to 30 degrees from horizontal	Total Depth		574mKB
	NVP, no shows.	String Wt.	7000	DAN

Daily Cost: $7,010.00 **Cum.:** $467,048.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-17		**Day No.**	53	
Depth (0800 hrs)	609mKb		**24 Hr. Progress**	35m	
Activity at Report Time	Milling 96mm hole, cuting 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#11		1	Drilling	2.00
WT	1010	1 Litres	Size	96 mm		2	Trips	
VIS	32	Polysafe	Type	Series 7		3	Deviation Survey	2.00
WL		water back	Serial No.	JKS73353-7		4	Rig Service	0.50
CAKE		and clean	Jets	Open		5	Circ. & Cond. Mud	
pH		degrasser	Out At	In		6	Repair Rig	
GELS		tank.	Hours	12.5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.3		8	BOP Handling & Tstg.	
PV			Cum. M	96		9	Logging	
YP			Cum. Hrs.	28.5		10	Coring	12.50
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1500/1000		12	Fishing	
CL			RPM	500		13	Recover Cores	7.00
Deviations			Stroke	76		14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51				
			l/m	110		Other	WOC	
			Ann Vel					
			Surf. Press.	3000			Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 800 kpa MACHP at 8500 kpa GTS.

Reduce rate pump strokes at 50. Maximum gradient at 13.95 kpa/m.

Weather Sunny **Temp.** 15 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 hours	Mill 96mm hole, to cut 63mm core from 574mKB to 591mKB.			
17:30 hours	Survey at 591 mKB, 1.5 degrees.	Mill	96mm	0.11
19:30 hours	Mill and cut core from 591mkB to 598mKB, recover 24m core.	STUB	90mm	0.14
24:00 hours	Mill and cut core to 609 mKB	C/BBL	90mm	3.44
08:00 hours	Recover 11m core.	X/O	90mm	0.18
		X/O	90mm	0.26
***	Up to 605.40 mKB	H/T Rod	90mm	603
	Limestone: 30%	K/D	90mm	1.87
	Shale: 70%			
	Shale: Black Fissle, Hard, Interbedded with grey Micritic Limestone.			
	Bedding: 20 to 40 degrees from Horizontal.			
		Total Depth	609	mKB
		String Wt.	7200	daN

Daily Cost: $7,110.00 **Cum.:** $474,158.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-18		**Day No.**	54	
Depth (0800 hrs)	628 mKB		**24 Hr. Progress**	19m	
Activity at Report Time	Milling 96mm hole, cuting 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#11	#13	1	Drilling	2.00
WT	1000	1 Litre	Size	96 mm	96mm	2	Trips	6.00
VIS	32	Polysafe	Type	Series 7	Series 8	3	Deviation Survey	2.00
WL		water back	Serial No.	JKS73353-7		4	Rig Service	0.50
CAKE		and clean	Jets	Open	Open	5	Circ. & Cond. Mud	1.00
pH		degrasser	Out At	624	In	6	Repair Rig	
GELS		tank.	Hours	8	2	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.1	2	8	BOP Handling & Tstg.	
PV			Cum. M	115	4	9	Logging	
YP			Cum. Hrs.	38.5	2	10	Coring	8.00
% OIL			Cond. T/B/G	NOR. RET.		11	Formation Tstg.	
% SAND			WT. on Bit	1500/1000	1500/1000	12	Fishing	
CL			RPM	500	500	13	Recover Cores	4.50
Deviations			Stroke	76	76	14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	110	110	Other	WOC	
			Ann Vel					
			Surf. Press.	3000	3000		Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 1000 kpa MACHP at 8500 kpa GTS.

Reduce rate pump strokes at 60.

Weather Overcast **Temp.** 10 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 hours	Mill 96mm hole, to cut 63mm core from 609mKB to 615mKB.			
14:00 hours	Survey at 615mKB, 0.75 degrees.	Mill	96mm	0.11
	Mill and cut core from 615mKB to 624mKB, recover 15m core.	STUB	90mm	0.14
24:00 hours	POOH, recover bit # 12, RIH bit # 13.	C/BBL	90mm	3.44
06:00 hours	Cut core from 624mKB to 628mKB, recover 4m core.	X/O	90mm	0.18
08:00 hours		X/O	90mm	0.26
***	Up to 628.84mKB	H/T Rod	90mm	623
	Limestone: 30%	K/D	90mm	0.87
	Shale 70%			
	Black shale with RIP up clasts and Breciciated fragments.			
	of Grey Micritic Limestone.			
	Bedding: 10 to 30 degrees from Horizontal.			
	NVP, no shows.	Total Depth	628	mKB
		String Wt.	7200	daN

Daily Cost: $7,260.00 **Cum.:** $481,418.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-19		**Day No.**	55	
Depth (0800 hrs)	666mKB		**24 Hr. Progress**	38m	
Activity at Report Time	Milling 96mm hole, cuting 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	RR#11	#13	1	Drilling	3.00
WT	1000		Size	96 mm	96mm	2	Trips	
VIS	33		Type	Series 7	Series 8	3	Deviation Survey	
WL			Serial No.	JKS73353-7	20093-2	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	
pH			Out At	624	In	6	Repair Rig	
GELS			Hours	8	12.5	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.1	3	8	BOP Handling & Tstg.	
PV			Cum. M	115	42	9	Logging	
YP			Cum. Hrs.	38.5	14.5	10	Coring	12.50
% OIL			Cond. T/B/G	NOR. RET.		11	Formation Tstg.	
% SAND			WT. on Bit	1500/1000	1500/1000	12	Fishing	
CL			RPM	500	500	13	Recover Cores	8.00
Deviations			Stroke	76	76	14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	110	110	Other	WOC	
			Ann Vel					
			Surf. Press.	3000	3000		Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 600 kpa MACHP at 8500 kpa GTS.

Reduce rate pump strokes at 50. MACP at 5000 kpa, with 9.81kpa/m water to 352 mKB.

Weather Heavy Rains **Temp.** 18 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		Drill String Sequence		
		Tool	Size	Length
08:00 hours	Mill 96mm hole, to cut 63mm core from 628 mKB to 654 mKB.			
24:00 hours	Recover 26m core.	Mill	96mm	0.11
08:00 hours	Cut core to 666 mKB, recover 12m core.	STUB	90mm	0.14
		C/BBL	90mm	3.44
	Hawks Bay Probable top estimated at 621 mKB.	X/O	90mm	0.18
	Up to 664.84mKB:	X/O	90mm	0.26
	Siltstone 10%	H/T Rod	90mm	660
	Limestone 30%	K/D	90mm	1.87
	Shale 60%			
	Black shale interbedded with ribbon grey limestone and grey siltstone.			
	Bedding: 20 degrees to 50 degrees from horizontal			
	NVP, no shows.	Total Depth	666	mKB
		String Wt.	7900	daN

Daily Cost: $7,110.00 **Cum.:** $488,528.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-20		**Day No.**	56	
Depth (0800 hrs)	706 mKB		**24 Hr. Progress**	39m	
Activity at Report Time	Milling 96mm hole, cuting 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	RR#11	#13	1	Drilling	2.50
WT	1000	4 Litres	Size	96 mm	96mm	2	Trips	
VIS	33	Polysafe	Type	Series 7	Series 8	3	Deviation Survey	
WL			Serial No.	JKS73353-7	20093-2	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	
pH			Out At	624	In	6	Repair Rig	
GELS			Hours	8	13.5	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.1	2.8	8	BOP Handling & Tstg.	
PV			Cum. M	115	81	9	Logging	
YP			Cum. Hrs.	38.5	28	10	Coring	13.50
% OIL			Cond. T/B/G	NOR. RET.		11	Formation Tstg.	
% SAND			WT. on Bit	1500/1000	1500/1000	12	Fishing	
CL			RPM	500	500	13	Recover Cores	8.50
Deviations			Stroke	76	76	14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	110	110	Other	WOC	
			Ann Vel					
			Surf. Press.	3000	3000		Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 600 kpa MACHP at 8500 kpa GTS.

Reduce rate pump strokes at 50. MACP at 5000 kpa, with 9.81kpa/m water to 352 mKB.

Weather Heavy Rains **Temp.** 20 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 hours	Mill 96mm hole, to cut 63mm core from 666 mKB to 694 mKB.			
24:00 hours	Recover 28m core.	Mill	96mm	0.11
08:00 hours	Cut core to 705 mkb, recover 11m core.	STUB	90mm	0.14
		C/BBL	90mm	3.44
	Up to 703.13 mkb.	X/O	90mm	0.18
		X/O	90mm	0.26
	Siltstone	H/T Rod	90mm	699
	Limestone	K/D	90mm	1.87
	Shale 100%			
	Predominately black shale, with minor grey ribbon limestone.			
	Some brecciated intervals, bedding from 30 to 60 degrees			
	from horizontal, NVP, no shows.			
	Possible Northwest Arm formation, an upper correlante of the Green	Total Depth	705	mKB
	Point formation of the Humber Arm Allochthon.	String Wt.	8200	DAN

Daily Cost: $7,160.00 **Cum.:** $495,688.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-21		**Day No.**	57	
Depth (0800 hrs)	727 mKB		**24 Hr. Progress**	22m	
Activity at Report Time	Milling 96mm hole, cuting 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	RR#11	#13	1	Drilling	2.50
WT	1000	2 Litres	Size	96 mm	96mm	2	Trips	
VIS	37	Polysafe	Type	Series 7	Series 8	3	Deviation Survey	
WL			Serial No.	JKS73353-7	20093-2	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	
pH			Out At	624	In	6	Repair Rig	
GELS			Hours	8	14.5	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.1	1.5	8	BOP Handling & Tstg.	
PV			Cum. M	115	103	9	Logging	
YP			Cum. Hrs.	36.5	42.5	10	Coring	14.50
% OIL			Cond. T/B/G	NOR. RET.		11	Formation Tstg.	
% SAND			WT. on Bit	1500/1000	500/800	12	Fishing	
CL			RPM	500	500	13	Recover Cores	6.50
Deviations			Stroke	76	76	14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	110	110	Other	WOC	
			Ann Vel					
			Surf. Press.	3000	3000		Total Hours	24.00

DST No.		Formation			To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 600 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 50.

Weather Overcast **Temp.** 10 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 hours	Mill 96mm hole, to cut 63mm core from 705 mKB to 722 mKB.			
24:00 hours	Recover 17m core, flow check well, no losses or gains.	Mill	96mm	0.11
06:00 hours	Survey at 724 mKB, deviation at 1.5 degrees.	STUB	90mm	0.14
08:00 hours	Finished coreing from 722 mKB to 727mKB, recover 5m core.	C/BBL	90mm	3.44
	Increased penetration rate to 3m/hr, as the bedding plains have	X/O	90mm	0.18
	become more horizontal.	X/O	90mm	0.26
		H/T Rod	90mm	720
	Up to 727.73 mKB	K/D	90mm	2.87
	Northwest Arm Formation:			
	Black shale, with interbedded and ribbon limestone.			
	Bedding plains from 30 to 40 degrees from horizontal			
	NVP, no shows.			
		Total Depth	727	mKB
		String Wt.	8900	DAN

Daily Cost: $7,260.00 **Cum.:** $502,948.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-22		**Day No.**	58	
Depth (0800 hrs)	758 mKB		**24 Hr. Progress**	31m	
Activity at Report Time	Milling 96mm hole, cut 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#11	#13	1	Drilling	2.50
WT	1000	2 Litres	Size	96 mm	96mm	2	Trips	
VIS	39	Polysafe	Type	Series 7	Series 8	3	Deviation Survey	
WL			Serial No.	JKS73353-7	20093-2	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	
pH			Out At	624	In	6	Repair Rig	
GELS			Hours	8	13.5	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.1	2.4	8	BOP Handling & Tstg.	
PV			Cum. M	115	134	9	Logging	
YP			Cum. Hrs.	36.5	58	10	Coring	13.50
% OIL			Cond. T/B/G	NOR. RET.		11	Formation Tstg.	
% SAND			WT. on Bit	1500/1000	1500/1800	12	Fishing	
CL			RPM	500	500	13	Recover Cores	7.50
Deviations			Stroke	76	76	14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	110	110	Other	WOC	
			Ann Vel					
			Surf. Press.	3000	3000		Total Hours	24.00

DST No.		Formation			To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 600 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 50.

Weather Sunny **Temp.** 10 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole to cut 63mm core from 727mKB to 748mKB.			
24:00 Hours	Recover 21m core, BOP drill, flow checks, no losses or gains.	Mill	96mm	0.11
08:00 Hours	Cut core to 758mKB, recover 10m core.	STUB	90mm	0.14
		C/BBL	90mm	3.44
	To 754.88 mKB	X/O	90mm	0.18
	North West Arm Formation (possible)	X/O	90mm	0.26
	Black shale interbedded with grey mottled limestone,	H/T Rod	90mm	753
	Bedding from 40 degrees to horizontal.	K/D	90mm	0.87
	(The shale will burn when fired over a small propane hand torch).			
	Continue coring, 727m to 758mKB,			
	cut 31m, recover 31m, BOP drill.			
		Total Depth	758	mKB
		String Wt.	11500	DAN

Daily Cost: $7,880.00 **Cum.:** $510,828.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-23		**Day No.**	59	
Depth (0800 hrs)	788 mkB		**24 Hr. Progress**	30m	
Activity at Report Time	Milling 96mm hole, cut 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	RR#11	#13	1	Connections	2.00
WT	1000	2 Litres	Size	96 mm	96mm	2	Trips	
VIS	39	Polysafe	Type	Series 7	Series 8	3	Deviation Survey	
WL			Serial No.	JKS73353-7	20093-2	4	Rig Service	0.50
CAKE			Jets	Open	Open	5	Circ. & Cond. Mud	
pH			Out At	624	In	6	Repair Rig	
GELS			Hours	8	13	7	Run Casing & Cmtg.	
SOLIDS			M/HR	3.1	2.4	8	BOP Handling & Tstg.	1.00
PV			Cum. M	115	164	9	Logging	
YP			Cum. Hrs.	36.5	69	10	Coring	13.00
% OIL			Cond. T/B/G	NOR. RET.		11	Formation Tstg.	
% SAND			WT. on Bit	1500/1000	1500/1800	12	Fishing	
CL			RPM	500	500	13	Recover Cores	7.50
Deviations			Stroke	76	76	14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	110	110	Other	WOC	
			Ann Vel					
			Surf. Press.	3000	3000		Total Hours	24.00

DST No.		Formation			To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 600 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 55.

Weather Sunny **Temp.** 10 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole to cut 63mm core. From 758mKB to 778mKB.			
24:00 Hours	Recover 20m core.	Mill	96mm	0.11
08:00 Hours	Mill to 788 mkB, recover 10m core.	STUB	90mm	0.14
		C/BBL	90mm	3.44
	Flow checks prior to pulling every core section.	X/O	90mm	0.18
	Soft shut in drills conducted by day and night crews.	X/O	90mm	0.26
		H/T Rod	90mm	783
***	Up to 784.42mKB	K/D	90mm	0.87
	Table Cove formation (possible)			
	Grey ribbon and parted limestone with laminated and			
	interbedded black sub-fissile shale.			
	NVP, no shows.			
		Total Depth	788	mKB
		String Wt.	9900	DAN

Daily Cost: $7,160.00 **Cum.:** $517,988.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-24		**Day No.**	60	
Depth (0800 hrs)	796mKB		**24 Hr. Progress**	8m	
Activity at Report Time	Milling 96mm hole, cut 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#14	#13	1	Connections	1.00
WT	1000	2 Litres	Size	96mm	96mm	2	Trips	5.50
VIS	42	Polysafe	Type	Series 2	Series 8	3	Deviation Survey	
WL		40 Litres	Serial No.	20305-2	20093-2	4	Rig Service	0.50
CAKE		Lubrigel	Jets	Open	Open	5	Circ. & Cond. Mud	
pH			Out At	In	796	6	Repair Rig	5.00
GELS			Hours		4	7	Run Casing & Cmtg.	
SOLIDS			M/HR		2	8	BOP Handling & Tstg.	1.00
PV			Cum. M		172	9	Logging	
YP			Cum. Hrs.		173	10	Coring	8.00
% OIL			Cond. T/B/G		Nor. Ret.	11	Formation Tstg.	
% SAND			WT. on Bit	2000		12	Fishing	
CL			RPM	500	500	13	Recover Cores	3.00
Deviations			Stroke	76	76	14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51	51			
			l/m	110	110	Other	WOC	
			Ann Vel					
			Surf. Press.	3000	3000		Total Hours	24.00

DST No.		Formation			To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 600 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 55.

Weather Sunny **Temp.** 19 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Mill 96mm hole, to cut 63mm core from 788 mKB to 796 mKB.
Recover 8m core
POOH, to intermediate casing.
Install new braided line for core recovery.
Complete POOH, check depth against core recovery.
MIll # 13 was to normal retirement.
RIH to 450 mKB at 08:00 hours this am.

*** Up to 796 mKB,
Grey limestone with interbedded black shale.
NVP, no shows.
Bedding 30 degrees from horizontal.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
STUB	90mm	0.14
C/BBL	90mm	3.44
X/O	90mm	0.18
X/O	90mm	0.26
H/T Rod	90mm	789
K/D	90mm	2.87
Total Depth	796	mKB
String Wt.	9900	DAN

Daily Cost: $6,810.00 **Cum.:** $524,798.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-25		**Day No.**	61	
Depth (0800 hrs)	828 mKB		**24 Hr. Progress**	32m	
Activity at Report Time	Milling 96mm hole, cut 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		**Hours**
Properties		Additives	Number	#14		1	Connections	3.00
WT	1000	2 Litres	Size	96mm		2	Trips	2.00
VIS	42	Polysafe	Type	Series 2		3	Deviation Survey	
WL			Serial No.	20305-2		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	
pH			Out At	In		6	Repair Rig	
GELS			Hours	8		7	Run Casing & Cmtg.	
SOLIDS			M/HR	4		8	BOP Handling & Tstg.	0.50
PV			Cum. M	32		9	Logging	
YP			Cum. Hrs.	8		10	Coring	8.00
% OIL			Cond. T/B/G			11	Formation Tstg.	
% SAND			WT. on Bit	1500		12	Fishing	
CL			RPM	500		13	Recover Cores	10.00
Deviations			Stroke	76		14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51				
			I/m	110		Other	WOC	
			Ann Vel					
			Surf. Press.	3000			Total Hours	24.00

DST No.		Formation			To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 600 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 55.

Weather Sunny, Windy **Temp.** 20 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 796 mKB to 828 mKB.			
08:00 Hours	Recover 32m core.	Mill	96mm	0.11
		STUB	90mm	0.14
***	Flow checks prior to core recovery.	C/BBL	90mm	3.44
	Packoff off head installed on every run.	X/O	90mm	0.18
		X/O	90mm	0.26
	Up to 824 mKB.	H/T Rod	90mm	822
	Massive light grey oolitic limestone, similar to location.	K/D	90mm	1.87
	Located from 347.27 mKB to 375.47 mKB.			
	Bedding from 30 to 40 degrees from horizontal.			
	No VP, no shows.			
		Total Depth	828	mKB
		String Wt.	9900	DAN

Daily Cost: $7,160.00 **Cum.:** $531,958.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**				
Date	97-07-26		**Day No.**	62	
Depth (0800 hrs)	852 mKB		**24 Hr. Progress**	24m	
Activity at Report Time	Milling 96mm hole, cut 63mm core.				
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m	**K.B. Elev.**	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		Hours
Properties		Additives	Number	#14		1	Connections	
WT	1000	8 Litres	Size	96mm		2	Trips	3.75
VIS	37	Polysafe	Type	Series 2		3	Deviation Survey	
WL			Serial No.	20305-2		4	Rig Service	0.50
CAKE			Jets	Open		5	Circ. & Cond. Mud	0.75
pH			Out At	In		6	Repair Rig	
GELS			Hours	5		7	Run Casing & Cmtg.	
SOLIDS			M/HR	4		8	BOP Handling & Tstg.	
PV			Cum. M	56		9	Logging	
YP			Cum. Hrs.	13		10	Coring	14.00
% OIL			Cond. T/B/G	Run		11	Formation Tstg.	
% SAND			WT. on Bit	1000/2000		12	Fishing	
CL			RPM	500		13	Recover Cores	5.00
Deviations			Stroke	76		14	Rig Up	
Depth	Deg.	Depth Degree	Liner	51				
			l/m	110		Other	WOC	
			Ann Vel					
			Surf. Press.	3000			Total Hours	24.00

DST No.		Formation			To		Times: IF		
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 1000 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 55.

Weather Rain **Temp.** 12 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control		**Drill String Sequence**		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 828 mKB to 849 mKB, recover 21m core.			
	Spring in fluid control valve broke, fell against core	Mill	96mm	0.11
	barrel on last recovery, broke braided line.	STUB	90mm	0.14
	Ensure clean hole, flow check, POOH to 558 mKB, recover	C/BBL	90mm	3.44
	line, POOH core BBL., run in to continue coring.	X/O	90mm	0.18
	Core 96mm hole to recover 63mm core from 849 mKB to 852 mKB.	X/O	90mm	0.26
08:00 Hours	Splice on more core recovery cable as of 0800 hours.	H/T Rod	90mm	846
		K/D	90mm	1.87
***	Up to 850.01 mKB			
	Grey limestone interbedded with black shale.			
	Bedding from 40 to 60 degrees from horizontal.			
	NVP, no shows.			
		Total Depth	852	mKB
		String Wt.	9900	DAN

Daily Cost: $7,160.00 **Cum.:** $539,118.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-07-27	**Day No.**	
Depth (0800 hrs)	880 mKB	**24 Hr. Progress**	63
Activity at Report Time	Milling 96mm hole, cut 63mm core.		28m
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid

Properties		Additives
WT	1000	2 Litres
VIS	37	Polysafe
WL		
CAKE		
pH		
GELS		
SOLIDS		
PV		
YP		
% OIL		
% SAND		
CL		

Deviations

Depth	Deg.	Depth	Degree
		862	2.0

Bit Data

Number	#14	
Size	96mm	
Type	Series 2	
Serial No.	20305-2	
Jets	Open	
Out At	In	
Hours	8	
M/HR	3.5	
Cum. M	84	
Cum. Hrs.	21	
Cond. T/B/G		
WT. on Bit	800/1000	
RPM	500	
Stroke	76	
Liner	51	
l/m	110	
Ann Vel		
Surf. Press.	3000	

Time Analysis

		Hours
1		
2	Connections	
3	Trips	
4	Deviation Survey	1.50
5	Rig Service	0.50
6	Circ. & Cond. Mud	
7	Repair Rig	
8	Run Casing & Cmtg.	
9	BOP Handling & Tstg.	
10	Logging	
11	Coring	8.00
12	Formation Tstg.	
13	Fishing	
14	Recover Cores	14.00
	Rig Up	
Other		
	WOC	
	Total Hours	24.00

DST No.		Formation		To			
ISI		FF		FSI		Press.: IHP		Times: IF	
PF		IFP		FFP		ISIP		FHP	
BHT		Choke		Results			FSIP		

Reduce rate pump pressure at 1400 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 55.

Weather Partly Sunny **Temp.** 17 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hours	Mill 96mm hole, cut 63mm core from 852 mKB to 862 mKB, recover 13m co	
	Survey at 862 mkB, 2.0 degrees deviation.	
	Mill 96mm hole, cut 63mm hole from 862 mKB to 880 mkB, recover 18m cor	
	Bedding plains are up to 75-80 degrees from horizontal.	
	Penetration rates are being cut back so not to drift off vertical.	
08:00 Hours		
***	Up to 879.47 KKB	
	Massive grey to dark grey limestone with paper thin shale partings.	
	Bedding up to 80 degrees.	
	NVP, no shows.	
	Formation: Possible March Point	

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
STUB	90mm	0.14
C/BBL	90mm	3.44
X/O	90mm	0.18
X/O	90mm	0.26
H/T Rod	90mm	873
K/D	90mm	2.87
Total Depth	880	mKB
String Wt.	9900	DAN

Daily Cost: $7,510.00 **Cum.:** $546,628.00 **Reported By:** Ron Ranger

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-07-28	**Day No.**	
Depth (0800 hrs)	914 mKB	**24 Hr. Progress**	64
Activity at Report Time	Milling 96mm hole, cut 63mm core.		34m
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
			K.B. Elev. 44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number	#14		1		**Hours**
WT	1000	2 Litres	Size	96mm		2	Connections	
VIS	37	Polysafe	Type	Series 2		3	Trips	
WL			Serial No.	20305-2		4	Deviation Survey	
CAKE			Jets	Open		5	Rig Service	0.50
pH			Out At	In		6	Circ. & Cond. Mud	
GELS			Hours	10.5		7	Repair Rig	
SOLIDS			M/HR	3.2		8	Run Casing & Cmtg.	
PV			Cum. M	118		9	BOP Handling & Tstg.	
YP			Cum. Hrs.	31.5		10	Logging	
% OIL			Cond. T/B/G	Run		11	Coring	10.50
% SAND			WT. on Bit	800/1000		12	Formation Tstg.	
CL			RPM	500		13	Fishing	
Deviations			Stroke	76		14	Recover Cores	13.00
Depth	Deg.	Depth Degree	Liner	51			Rig Up	
			l/m	110		Other		
			Ann Vel				WOC	
			Surf. Press.	3000				
							Total Hours	24.00

DST No.		Formation		To			
ISI		FF	FSI	Press.: IHP		Times: IF	
PF		IFP	FFP	ISIP		FHP	
BHT		Choke	Results		FSIP		

Reduce rate pump pressure at 1400 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Partly Sunny **Temp.** 17 C **Roads** Hard

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 880 mKB to 914 mKB,			
08:00 Hours	Recover 34m core.	Mill	96mm	0.11
***	Up to 912.42 mkB	STUB	90mm	0.14
	Dark grey to black massive limestone frequently oolitic	C/BBL	90mm	3.44
	Bedding 10 to 20 degrees from horizontal.	X/O	90mm	0.18
	NVP, no shows.	X/O	90mm	0.26
	Marche point formation (possible).	H/T Rod	90mm	909
		K/D	90mm	0.87
		Total Depth	914	mKB
		String Wt.	9900	DAN

Daily Cost: $7,135.00 **Cum.:** $553,763.00 **Reported By:** Ron Ranger

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-07-29	**Day No.**	
Depth (0800 hrs)	946	**24 Hr. Progress**	65
Activity at Report Time	Milling 96mm hole, cut 63mm core.		32m
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		
Properties		Additives	Number	#14		1		Hours
WT	1000	2 Litres	Size	96mm		2	Connections	
VIS	37	Polysafe	Type	Series 2		3	Trips	
WL			Serial No.	20305-2		4	Deviation Survey	2.00
CAKE			Jets	Open		5	Rig Service	0.50
pH			Out At	In		6	Circ. & Cond. Mud	
GELS			Hours	19		7	Repair Rig	
SOLIDS			M/HR	3.8		8	Run Casing & Cmtg.	
PV			Cum. M	150		9	BOP Handling & Tstg.	
YP			Cum. Hrs.	40		10	Logging	
% OIL			Cond. T/B/G			11	Coring	8.50
% SAND			WT. on Bit	1000/1500		12	Formation Tstg.	
CL			RPM	500		13	Fishing	
Deviations			Stroke	76		14	Recover Cores	13.00
Depth	Deg.	Depth Degree	Liner	51			Rig Up	
946	3.5		l/m	110		Other		
			Ann Vel				WOC	
			Surf. Press.	3000				
							Total Hours	24.00

DST No.		Formation		To			
ISI		FF	FSI	Press.: IHP		Times: IF	
PF		IFP	FFP	ISIP		FHP	
BHT		Choke	Results		FSIP		

Reduce rate pump pressure at 1000 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Rain **Temp.** 6 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 914 mKB to 946 mKB,			
	recover 32m core.			
08:00 Hours	Survey @ 946 mKB to 3.5 degrees off true vertical.	Mill	96mm	0.11
		STUB	90mm	0.14
		C/BBL	90mm	3.44
***	Up to 945.53 mkB	X/O	90mm	0.18
	Grey to dark grey limestone, interbedded with black shale	X/O	90mm	0.26
	Massive oolitic limestone from 938.09 to 945.53 mKB	H/T Rod	90mm	939
	Bedding 10-20 degrees from horizontal.	K/D	90mm	2.87
	NVP, no shows.			
	Marche point formation			
		Total Depth	946	mKB
Daily Cost:	$7,285.00 **Cum.:** $561,048.00 **Reported By:** Ron Ranger	String Wt.	9900	DAN

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-07-30	**Day No.**	
Depth (0800 hrs)	976 mKB	**24 Hr. Progress**	66
Activity at Report Time	Milling 96mm hole, cut 63mm core.		30m
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number	#14		1		**Hours**
WT	1000	2 Litres	Size	96mm		2	Connections	
VIS	37	Polysafe	Type	Series 2		3	Trips	
WL			Serial No.	20305-2		4	Deviation Survey	2.00
CAKE			Jets	Open		5	Rig Service	0.50
pH			Out At	In		6	Circ. & Cond. Mud	
GELS			Hours	8.5		7	Repair Rig	
SOLIDS			M/HR	3.7		8	Run Casing & Cmtg.	
PV			Cum. M	180		9	BOP Handling & Tstg.	
YP			Cum. Hrs.	48.5		10	Logging	
% OIL			Cond. T/B/G			11	Coring	8.50
% SAND			WT. on Bit	1000/1500		12	Formation Tstg.	
CL			RPM	500		13	Fishing	
Deviations			Stroke	76		14	Recover Cores	13.00
Depth	Deg.	Depth Degree	Liner	51			Rig Up	
946		946 3.50	l/m	110		Other		
976		976 3.50	Ann Vel				WOC	
			Surf. Press.	3000				

DST No.		Formation			To		Total Hours		24.00
ISI		FF		FSI		Press.: IHP		Times: IF	
PF		IFP		FFP		ISIP		FHP	
BHT		Choke		Results			FSIP		

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Rain, Sunny **Temp.** 11 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 947 mKB to 976 mKB,			
	Recover 30m core			
08:00 Hours	Survey @ 976 mKB to 3.5 degrees off true vertical.	Mill	96mm	0.11
		STUB	90mm	0.14
***	Up to 975.08 mkB	C/BBL	90mm	3.44
	100% limestone	X/O	90mm	0.18
	Oolitic, massive dark grey.	X/O	90mm	0.26
	Bedding 10-20 degrees from horizontal.	H/T Rod	90mm	969
	Marche point formation	K/D	90mm	2.87
		Total Depth	976	mKB
		String Wt.	9900	DAN

Daily Cost: $7,285.00 **Cum.:** $568,333.00 **Reported By:** Ron Ranger

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-07-31	**Day No.**	67
Depth (0800 hrs)	994 mKB	**24 Hr. Progress**	18m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		
Properties		Additives	Number	#14	#15	1		Hours
WT	1000	2 Litres	Size	96mm	96mm	2	Connections	
VIS	37	Polysafe	Type	Series 2	Series 2	3	Trips	14.50
WL			Serial No.	20305-2	20305-3	4	Deviation Survey	
CAKE			Jets	Open	Open	5	Rig Service	0.50
pH			Out At	988	In	6	Circ. & Cond. Mud	
GELS			Hours	3.5	2	7	Repair Rig	
SOLIDS			M/HR	3.7	3	8	Run Casing & Cmtg.	
PV			Cum. M	192	6	9	BOP Handling & Tstg.	
YP			Cum. Hrs.	51.5	2	10	Logging	
% OIL			Cond. T/B/G	Out Gauge		11	Coring	5.00
% SAND			WT. on Bit	1000/1500	1000/1500	12	Formation Tstg.	
CL			RPM	500	500	13	Fishing	
Deviations			Stroke	76	76	14	Recover Cores	4.00
Depth	Deg.	Depth Degree	Liner	51	51		Rig Up	
		976 3.50	l/m	110	110	Other		
976	3.50		Ann Vel				WOC	
			Surf. Press.	3000	3000			

DST No.		Formation			To		Total Hours	24.00
ISI		FF		FSI		Press.: IHP	Times: IF	
PF		IFP		FFP		ISIP	FHP	
BHT		Choke		Results			FSIP	

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Sunny **Temp.** 17 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 976 mKB to 989 mKB,			
	recover 13m core.			
	Last 3m core recovered was out of round, not true lined	Mill	96mm	0.11
	Ensure clean hole, flow checks done, POOH, recover bit	STUB	90mm	0.14
	Strap drill string, reported depths correct.	C/BBL	90mm	3.44
	#14 mill was out of guage inside and outside	X/O	90mm	0.18
	RIH #15 mill, series 2, 20305-3, boart/long year	X/O	90mm	0.26
	Mill 96mm hole, cut 63mm core from 989 mKB to 994 mKB,	H/T Rod	90mm	987
08:00 Hours	Recover 5m core	K/D	90mm	2.87
***	Up to 994 mKB			
	Ribbon grey limestone with dark to black shale			
	bedding 20-30 degrees from horizontal, marche point formation			
		Total Depth	994	mKB

Daily Cost: $9,135.00 **Cum.:** $577,468.00 **Reported By:** Ron Ranger String Wt. 11,000 DAN

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-01	**Day No.**	68
Depth (0800 hrs)	1027 mKB	**24 Hr. Progress**	33m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		
Properties		Additives	Number		#15	1		**Hours**
WT	1000	2 Litres	Size		96mm	2	Connections	
VIS	38	Polysafe	Type		Series 2	3	Trips	
WL		20 Litres	Serial No.		20305-3	4	Deviation Survey	2.00
CAKE		Lubrigel-L	Jets		Open	5	Rig Service	0.50
pH			Out At		In	6	Circ. & Cond. Mud	
GELS			Hours		8.5	7	Repair Rig	
SOLIDS			M/HR		3.9	8	Run Casing & Cmtg.	
PV			Cum. M		39	9	BOP Handling & Tstg.	
YP			Cum. Hrs.		10.5	10	Logging	
% OIL			Cond. T/B/G			11	Coring	8.50
% SAND			WT. on Bit		1000/1500	12	Formation Tstg.	
CL			RPM		600	13	Fishing	
Deviations			Stroke		76	14	Recover Cores	13.00
Depth	Deg.	Depth Degree	Liner		51		Rig Up	
			l/m		110	Other		
			Ann Vel				WOC	
			Surf. Press.		3000			
							Total Hours	24.00

DST No.		Formation			To		Times: IF	
ISI		FF		FSI		Press.: IHP		FHP	
PF		IFP		FFP		ISIP		FSIP	
BHT		Choke		Results					

Reduce rate pump pressure at 1100 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Sunny **Temp.** 25 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Survey at 994 mKB, was unsuccessful.			
	No attempt made to resurvey as indicator device unreliable.			
	Mill 96mm hole, core 63mm, from 995 mKB to 1027 mKB.	Mill	96mm	0.11
08:00 Hours	Recover 33m core	STUB	90mm	0.14
		C/BBL	90mm	3.44
		X/O	90mm	0.18
***	Up to 1024.30 mKB	X/O	90mm	0.26
	Dark grey oolitic and pisolitic limestone interbedded	H/T Rod	90mm	1020
	with grey ribbon limestone and black shale	K/D	90mm	2.87
	NVP, no shows.			
	Bedding from 20-30 degrees from horizontal			
	Marche point formation			
		Total Depth	1027	mKB
		String Wt.	11,000	DAN

Daily Cost: $7,435.00 **Cum.:** $584,903.00 **Reported By:** Ron Ranger

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-02	**Day No.**	69
Depth (0800 hrs)	1054 mKB	**24 Hr. Progress**	27m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid

Properties		Additives
WT	1000	4 Litres
VIS	37	Polysafe
WL		
CAKE		
pH		
GELS		
SOLIDS		
PV		
YP		
% OIL		
% SAND		
CL		

Deviations

Depth	Deg.	Depth	Degree
		1027	3.50

Bit Data

Number		#15
Size		96mm
Type		Series 2
Serial No.		20305-3
Jets		Open
Out At		In
Hours		9
M/HR		3.4
Cum. M		66
Cum. Hrs.		19.5
Cond. T/B/G		
WT. on Bit		1000/1500
RPM		600
Stroke		76
Liner		51
l/m		110
Ann Vel		
Surf. Press.		3000

Time Analysis

		Hours
1		
2	Connections	
3	Trips	
4	Deviation Survey	2.50
5	Rig Service	0.50
6	Circ. & Cond. Mud	
7	Repair Rig	
8	Run Casing & Cmtg.	
9	BOP Handling & Tstg.	
10	Logging	
11	Coring	9.00
12	Formation Tstg.	
13	Fishing	
14	Recover Cores	12.00
	Rig Up	
Other		
	WOC	
	Total Hours	24.00

DST No. _____ Formation _____ To _____ Press.: IHP _____ Times: IF _____

ISI _____ FF _____ FSI _____ ISIP _____ FHP _____

PF _____ IFP _____ FFP _____ FSIP _____

BHT _____ Choke _____ Results _____

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Sunny **Temp.** 21 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hours	Survey at 1027 mKB indicated 3.5 degrees off true vertical
	Mill 96mm hole, cut 63mm core from 1027 mKB to 1054 mKB
08:00 Hours	Recover 27m core.
***	Up to 1057 mKB.
	Ribbon and parted limestone (dolimitic) interbedded with
	dark grey shale phillite chaotic internal structure through out.
	Possible melange.
	Bedding from 20-30 degrees from horizontal.
	NVP, no shows.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
STUB	90mm	0.14
C/BBL	90mm	3.44
X/O	90mm	0.18
X/O	90mm	0.26
H/T Rod	90mm	1047
K/D	90mm	2.87
Total Depth	1054	mKB
String Wt.	11,000	DAN

Daily Cost: $7,435.00 **Cum.:** $592,338.00 **Reported By:** Ron Ranger

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-03	**Day No.**	70
Depth (0800 hrs)	1087 mKB	**24 Hr. Progress**	33m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid

Properties		Additives
WT	"1000	5 Litres
VIS	38	Polysafe
WL		
CAKE		
pH		
GELS		
SOLIDS		
PV		
YP		
% OIL		
% SAND		
CL		

Deviations

Depth	Deg.	Depth	Degree

Bit Data

Number		#15	
Size		96mm	
Type		Series 2	
Serial No.		20305-3	
Jets		Open	
Out At		In	
Hours		10.5	
M/HR		3.3	
Cum. M		99	
Cum. Hrs.		30	
Cond. T/B/G			
WT. on Bit		1000/1500	
RPM		600	
Stroke		76	
Liner		51	
l/m		110	
Ann Vel			
Surf. Press.		3000	

Time Analysis

		Hours
1		
2	Connections	
3	Trips	
4	Deviation Survey	
5	Rig Service	0.50
6	Circ. & Cond. Mud	
7	Repair Rig	
8	Run Casing & Cmtg.	
9	BOP Handling & Tstg.	
10	Logging	
11	Coring	10.50
12	Formation Tstg.	
13	Fishing	
14	Recover Cores	13.00
	Rig Up	
Other		
	WOC	
	Total Hours	24.00

DST No.		Formation		To					
ISI		FF		FSI		Press.: IHP		Times: IF	
PF		IFP		FFP		ISIP		FHP	
BHT		Choke		Results			FSIP		

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Overcast **Temp.** 15 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hours	Mill 96mm hole, cut 63mm core from 1054 mKB to 1087 mKB	
08:00 Hours	Recover 33m core.	
***	Up to 1083.43 mKB	
	Ribbon and parted grey limestone interbedded with dark grey black shale.	
	This is a melange sequence that is very strongly brecciate	
	Bedding from 10-20 degrees from horizontal, but occasonally up to 50 degr	
	NVP, no shows.	
	Possible Brent Island Thrust in the Northwest Arm formation.	

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
STUB	90mm	0.14
C/BBL	90mm	3.44
X/O	90mm	0.18
X/O	90mm	0.26
H/T Rod	90mm	1080
K/D	90mm	2.87
Total Depth	1087	mKB
String Wt.	11,000	DAN

Daily Cost: $7,435.00 **Cum.:** $599,773.00 **Reported By:** Ron Ranger

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-04	**Day No.**	71
Depth (0800 hrs)	1117 mKB	**24 Hr. Progress**	30m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid

Properties		Additives
WT	1000	5 Litres
VIS	38	Polysafe
WL		20 Litres
CAKE		Lubrigel-L
pH		
GELS		
SOLIDS		
PV		
YP		
% OIL		
% SAND		
CL		

Deviations

Depth	Deg.	Depth	Degree

Bit Data

Number		#15	
Size		96mm	
Type		Series 2	
Serial No.		20305-3	
Jets		Open	
Out At		In	
Hours		8	
M/HR		3.4	
Cum. M		129	
Cum. Hrs.		38	
Cond. T/B/G			
WT. on Bit		1000/1500	
RPM		600	
Stroke		76	
Liner		51	
l/m		110	Other
Ann Vel			
Surf. Press.		3000	

Time Analysis

		Hours
1		
2	Connections	
3	Trips	
4	Deviation Survey	
5	Rig Service	0.50
6	Circ. & Cond. Mud	
7	Repair Rig	
8	Run Casing & Cmtg.	
9	BOP Handling & Tstg.	
10	Logging	
11	Coring	8.00
12	Formation Tstg.	
13	Fishing	
14	Recover Cores	15.50
	Rig Up	
Other		
	WOC	
	Total Hours	24.00

DST No.		Formation		To		Times: IF	
ISI		FF		FSI		Press.: IHP	
PF		IFP		FFP		ISIP	FHP
BHT		Choke		Results			FSIP

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 64.

Weather Overcast **Temp.** 12 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 1087 mKB to 1117 mKB			
08:00 Hours	Recover 30m core.			
		Mill	96mm	0.11
***	Up to 1118.86 mKB.	STUB	90mm	0.14
	Sequence of massive nodular and oolitic limestone	C/BBL	90mm	3.44
	interbedded with dark grey shale.	X/O	90mm	0.18
	Bedding 20-30 degrees from horizontal.	X/O	90mm	0.26
	NVP, no shows.	H/T Rod	90mm	1110
	This is possibly a repeat of the marche point (equivalent) formation.	K/D	90mm	2.87
		Total Depth	1117	mKB
		String Wt.	11,000	DAN

Daily Cost: $9,235.00 **Cum.:** $609,008.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-05	**Day No.**	72
Depth (0800 hrs)	1150 mKB	**24 Hr. Progress**	33m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid

Properties		Additives
WT	1000	5 Litres
VIS	38	Polysafe
WL		
CAKE		
pH		
GELS		
SOLIDS		
PV		
YP		
% OIL		
% SAND		
CL		

Deviations

Depth	Deg.	Depth	Degree

Bit Data

Number		#15
Size		96mm
Type		Series 2
Serial No.		20305-3
Jets		Open
Out At		In
Hours		8.5
M/HR		3.9
Cum. M		162
Cum. Hrs.		46.5
Cond. T/B/G		
WT. on Bit		1000/1500
RPM		600
Stroke		76
Liner		51
l/m		110
Ann Vel		
Surf. Press.		3000

Time Analysis

		Hours
1		
2	Connections	
3	Trips	
4	Deviation Survey	
5	Rig Service	0.50
6	Circ. & Cond. Mud	
7	Repair Rig	
8	Run Casing & Cmtg.	
9	BOP Handling & Tstg.	
10	Logging	
11	Coring	8.50
12	Formation Tstg.	
13	Fishing	
14	Recover Cores	15.00
	Rig Up	
Other		
	WOC	
	Total Hours	24.00

DST No.		Formation		To			
ISI		FF		FSI		Press.: IHP	Times: IF
PF		IFP		FFP		ISIP	FHP
BHT		Choke		Results		FSIP	

Reduce rate pump pressure at 1000 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Overcast **Temp.** 3 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hours	Mill 96mm hole, cut 63mm core from 1117 mKB to 1150 mKB
08:00 Hours	Recover 33m core.
***	Up to 1151.99 mKB.
	Oolitic limestone interbedded with parted ribbon limestone
	and black shale phyllite.
	Bedding 20-40 degrees form horizontal.
	NVP, no shows.
	March point (equivalent).

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
STUB	90mm	0.14
C/BBL	90mm	3.44
X/O	90mm	0.18
X/O	90mm	0.26
H/T Rod	90mm	1143
K/D	90mm	2.87
Total Depth	1150	mKB
String Wt.	12000	DAN

Daily Cost: $7,235.00 **Cum.:** $616,243.00 **Reported By:** Ron Ranger

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-06	**Day No.**	73
Depth (0800 hrs)	1183 mKB	**24 Hr. Progress**	33m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid

Properties		Additives
WT	1000	8 Litres
VIS	38	Polysafe
WL		10 Litres
CAKE		Lubrigel
pH		
GELS		
SOLIDS		
PV		
YP		
% OIL		
% SAND		
CL		

Deviations

Depth	Deg.	Depth	Degree

Bit Data

Number		#15
Size		96mm
Type		Series 2
Serial No.		20305-3
Jets		Open
Out At		In
Hours		8.5
M/HR		3.9
Cum. M		195
Cum. Hrs.		55
Cond. T/B/G		
WT. on Bit		1000/1500
RPM		600
Stroke		76
Liner		51
l/m		110
Ann Vel		
Surf. Press.		3000

Time Analysis

		Hours
1		
2	Connections	
3	Trips	
4	Deviation Survey	
5	Rig Service	0.50
6	Circ. & Cond. Mud	
7	Repair Rig	
8	Run Casing & Cmtg.	
9	BOP Handling & Tstg.	
10	Logging	
11	Coring	8.50
12	Formation Tstg.	
13	Fishing	
14	Recover Cores	15.00
	Rig Up	
Other		
	WOC	
	Total Hours	24.00

DST No.		Formation		To		Times: IF	
ISI		FF		FSI		Press.: IHP	
PF		IFP		FFP		ISIP	FHP
BHT		Choke		Results		FSIP	

Reduce rate pump pressure at 1100 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Overcast **Temp.** 5 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hours	Mill 96mm hole, cut 63mm core from 1150 mKB to 1183 mKB
08:00 Hours	Recover 33m core.
***	Up to 1166.02 mKB.
	Oolitic limestone, massive, dark grey, moderatly brecciated.
	Bedding 10-30 degrees form horizontal.
	NVP, no shows.
	March point FM (equivalent).

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
STUB	90mm	0.14
C/BBL	90mm	3.44
X/O	90mm	0.18
X/O	90mm	0.26
H/T Rod	90mm	1176
K/D	90mm	2.87
Total Depth	1183	mKB
String Wt.	12500	DAN

Daily Cost: $12,585.00 **Cum.:** $628,828.00 **Reported By:** Ron Ranger

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-07	**Day No.**	74
Depth (0800 hrs)	1216 mKB	**24 Hr. Progress**	33m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		
Properties		Additives	Number		#15	1		Hours
WT	1000	8 Litres	Size		96mm	2	Connections	
VIS	38	Polysafe	Type		Series 2	3	Trips	
WL		10 Litres	Serial No.		20305-3	4	Deviation Survey	
CAKE		Lubrigel	Jets		Open	5	Rig Service	0.50
pH			Out At		In	6	Circ. & Cond. Mud	
GELS			Hours		8.5	7	Repair Rig	
SOLIDS			M/HR		3.9	8	Run Casing & Cmtg.	
PV			Cum. M		228	9	BOP Handling & Tstg.	
YP			Cum. Hrs.		63.5	10	Logging	
% OIL			Cond. T/B/G			11	Coring	8.50
% SAND			WT. on Bit		1000/1500	12	Formation Tstg.	
CL			RPM		600	13	Fishing	
Deviations			Stroke		76	14	Recover Cores	15.00
Depth	Deg.	Depth Degree	Liner		51		Rig Up	
			I/m		110	Other		
			Ann Vel				WOC	
			Surf. Press.		3000			
							Total Hours	24.00

DST No.		Formation		To			
ISI		FF	FSI	Press.: IHP		Times: IF	
PF		IFP	FFP	ISIP		FHP	
BHT		Choke	Results		FSIP		

Reduce rate pump pressure at 1100 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Overcast **Temp.** 5 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 1183 mKB to 1216 mKB			
08:00 Hours	Recover 33m core.			
	Flow checks reveal no hole losses or gains.	Mill	96mm	0.11
	**At 1184.39 mKG	STUB	90mm	0.14
	Total gas units at 287, 2.87% equivalent, no H2S.	C/BBL	90mm	3.44
	1184 mKB, 32 units	X/O	90mm	0.18
	1184.70 mKB, 34 units	X/O	90mm	0.26
	1185 mKB, 41 units	H/T Rod	90mm	1209
	Probably from stylotic partings.	K/D	90mm	2.87
	**Up to 1216.66 mKB			
	Parted & ribbon limestone with black shale-phyllite			
	Interbedded with oolitic limestone.			
	Bedding from 10-20 degrees from horizontal, NVP, no shows.			
		Total Depth	1216	mKB
		String Wt.	12500	DAN

Daily Cost: $7,635.00 **Cum.:** $636,463.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-08	**Day No.**	75
Depth (0800 hrs)	1243 mKB	**24 Hr. Progress**	28m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		
Properties		Additives	Number		#15	1		Hours
WT	1000	5 Litres	Size		96mm	2	Connections	3.00
VIS	38	Polysafe	Type		Series 2	3	Trips	3.50
WL		10 Litres	Serial No.		20305-3	4	Deviation Survey	
CAKE		Lubrigel	Jets		Open	5	Rig Service	0.50
pH			Out At		In	6	Circ. & Cond. Mud	
GELS			Hours		6.5	7	Repair Rig	
SOLIDS			M/HR		4.3	8	Run Casing & Cmtg.	
PV			Cum. M		256	9	BOP Handling & Tstg.	
YP			Cum. Hrs.		70.0	10	Logging	
% OIL			Cond. T/B/G			11	Coring	6.50
% SAND			WT. on Bit		1000/1500	12	Formation Tstg.	
CL			RPM		600	13	Fishing	
Deviations			Stroke		76	14	Recover Cores	10.50
Depth	Deg.	Depth Degree	Liner		51		Rig Up	
			l/m		110	Other		
			Ann Vel				WOC	
			Surf. Press.		3000			
							Total Hours	24.00

DST No.		Formation		To			
ISI		FF		FSI		Press.: IHP	Times: IF
PF		IFP		FFP		ISIP	FHP
BHT		Choke		Results		FSIP	

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Sunny **Temp.** 22 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 1216 mKB to 1222 mKB			
	Recover 6m core.			
	Flow checks reveal no hole losses or gains.	Mill	96mm	0.11
	Dummy trip to 950 mKB, ensure clean hole. (no fill)	STUB	90mm	0.14
	Background gas went from 22 units to 34 units on bottoms up.	C/BBL	90mm	3.44
	Mill 96mm hole, cut 63mm core from 1222 mKB to 1243 mKB	X/O	90mm	0.18
08:00 Hours	Recover 22m core	X/O	90mm	0.26
	** Up to 1242.12 mKB	H/T Rod	90mm	1236
	Ollictic limestone dark grey brecciated	K/D	90mm	2.87
	highly fractured (60-80 degrees from HZ), brecciated			
	from 1220.94 mKB to 1233.60 mKB (12.66m).			
	No VPS, no shows.			
	Bedding from 20-30 degrees from HZ.			
	March point formation. (equivalent)	Total Depth	1243	mKB
Daily Cost:	$7,535.00 **Cum.:** $643,998.00 **Reported By:** **Ron Ranger**	String Wt.	12900	DAN

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-09	**Day No.**	76
Depth (0800 hrs)	1276 mKB	**24 Hr. Progress**	33m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number		#15	1		**Hours**
WT	1000	5 Litres	Size		96mm	2	Connections	3.00
VIS	38	Polysafe	Type		Series 2	3	Trips	
WL		10 Litres	Serial No.		20305-3	4	Deviation Survey	
CAKE		Lubrigel	Jets		Open	5	Rig Service	0.50
pH			Out At		In	6	Circ. & Cond. Mud	
GELS			Hours		6.5	7	Repair Rig	
SOLIDS			M/HR		4.3	8	Run Casing & Cmtg.	
PV			Cum. M		256	9	BOP Handling & Tstg.	
YP			Cum. Hrs.		63.5	10	Logging	
% OIL			Cond. T/B/G			11	Coring	8.50
% SAND			WT. on Bit		1000/1500	12	Formation Tstg.	
CL			RPM		600	13	Fishing	
Deviations			Stroke		76	14	Recover Cores	12.00
Depth	Deg.	Depth Degree	Liner		51		Rig Up	
			l/m		110	Other		
			Ann Vel				WOC	
			Surf. Press.		3000			
							Total Hours	24.00

DST No.		Formation		To			
ISI		FF		FSI		Press.: IHP	Times: IF
PF		IFP		FFP		ISIP	FHP
BHT		Choke		Results		FSIP	

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Sunny **Temp.** 21 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hours	Mill 96mm hole, cut 63mm core from 1243 mKB to 1276 mKB			
	Recover 33m core.			
08:00 Hours	Flow checks reveal no hole losses or gains.	Mill	96mm	0.11
		STUB	90mm	0.14
	Loggers on location at 21:00 hours, 08-08-97.	C/BBL	90mm	3.44
		X/O	90mm	0.18
	** Up to 1373.83 mKB	X/O	90mm	0.26
	Grey to dark grey oolitic limestone with bands of grey	H/T Rod	90mm	1269
	micritic limestone.	K/D	90mm	2.87
	Bedding 10-20 degrees from horizontal			
	March point (equivalent) formation.			
		Total Depth	1276	mKB
		String Wt.	13300	DAN

Daily Cost: $7,535.00 **Cum.:** $651,533.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-10	**Day No.**	77
Depth (0800 hrs)	1309 mKB	**24 Hr. Progress**	33m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		
Properties		Additives	Number		#15	1		Hours
WT	1000	5 Litres	Size		96mm	2	Connections	3.00
VIS	39	Polysafe	Type		Series 2	3	Trips	
WL		5 Litres	Serial No.		20305-3	4	Deviation Survey	
CAKE		Lubrigel	Jets		Open	5	Rig Service	0.50
pH			Out At		In	6	Circ. & Cond. Mud	
GELS			Hours		8	7	Repair Rig	
SOLIDS			M/HR		4	8	Run Casing & Cmtg.	
PV			Cum. M		322	9	BOP Handling & Tstg.	
YP			Cum. Hrs.		86.5	10	Logging	
% OIL			Cond. T/B/G			11	Coring	8.00
% SAND			WT. on Bit		1000/1500	12	Formation Tstg.	
CL			RPM		600	13	Fishing	
Deviations			Stroke		76	14	Recover Cores	12.50
Depth	Deg.	Depth Degree	Liner		51		Rig Up	
			I/m		110	Other		
			Ann Vel				WOC	
			Surf. Press.		3000			

DST No.		Formation			To	Total Hours		24.00
ISI		FF		FSI		Press.: IHP	Times: IF	
PF		IFP		FFP		ISIP	FHP	
BHT		Choke		Results		FSIP		

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Sunny **Temp.** 21 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hours	Mill 96mm hole, cut 63mm core from 1276 mKB to 1309 mKB
	Recover 33m core.
08:00 Hours	Flow checks reveal no hole losses or gains.
	Soft shut in BOP drill.
	Loggers on location at 21:00, 08-08-97.
	** Up to 1309.84 mKB
	From 1288.08 to 1305.31 mKB.
	Parted and ribbon grey limestone with black shale.
	Bedding 30-40 degrees form horizontal.
	From 1305.31 to 1309.84 mkB.
	Oolitic limestone, dark grey, massive
	bedding from 0 to 20 degrees from horizontal. NVP, no shows.
	March Point equivalent formation.

Drill String Sequence

Tool	Size	Length
Mill	96mm	0.11
STUB	90mm	0.14
C/BBL	90mm	3.44
X/O	90mm	0.18
X/O	90mm	0.26
H/T Rod	90mm	1302
K/D	90mm	2.87
Total Depth	1309	mKB
String Wt.	13700	DAN

Daily Cost: $10,235.00 **Cum.:** $661,768.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-11	**Day No.**	78
Depth (0800 hrs)	1313mKB	**24 Hr. Progress**	4m
Activity at Report Time	Milling 96mm hole, cut 63mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number	# 16	#15	1		**Hours**
WT	1000	5 Litres	Size	96mm	96mm	2	Connections	1.00
VIS	39	Polysafe	Type	Series 8	Series 2	3	Trips	17.00
WL			Serial No.	16941-24	20305-3	4	Deviation Survey	
CAKE			Jets	Open	Open	5	Rig Service	0.50
pH			Out At	In	1213	6	Circ. & Cond. Mud	
GELS			Hours	1	1	7	Repair Rig	2.50
SOLIDS			M/HR	1	4	8	Run Casing & Cmtg.	
PV			Cum. M	1	323	9	BOP Handling & Tstg.	
YP			Cum. Hrs.	1	87.5	10	Logging	
% OIL			Cond. T/B/G	Out Gauge	-90%	11	Coring	2.00
% SAND			WT. on Bit	500	1000/1500	12	Formation Tstg.	
CL			RPM	300	600	13	Fishing	
Deviations			Stroke	76	76	14	Recover Cores	1.00
Depth	Deg.	Depth Degree	Liner	51	51		Rig Up	
			l/m	90	110	Other		
			Ann Vel				WOC	
			Surf. Press.	2000	3000			

DST No.		Formation			To	Total Hours		24.00
ISI		FF		FSI		Press.: IHP		Times: IF	
PF		IFP		FFP		ISIP		FHP	
BHT		Choke		Results			FSIP		

Reduce rate pump pressure at 1200 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 60.

Weather Rain **Temp.** 15 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
08:00 Hours	Mill 96mm hole, cut 63mm core from 1309 mKB to 1312 mKB	Tool	Size	Length
	Wireline broke on core recovery (worn out).			
	Dummy trip to 1200 mKB, no hole fillat 1312.			
	Ensure clean hole, no hole losses or gains.	Mill	76mm	0.08
	POOH, 58 stands (348 singles), 1044m, lay down 88 joints, 264m.	R/Shell	75mm	0.12
	Recover BHA, 3m core, strap pipe, depth correct.	C/BBL	70mm	3.98
	Replace worn core recovery with new armoured cable (21mm), 6 x 19.	C/BBL	70mm	1.72
	RIH 76mm, series 6 mill, (46mm ID), on 70mm BHA assembly.	L/CPL	70mm	0.3
	70mm, N/T tuff rod (JKS), 88 singles, (3.05m), X/O to 90mm H/T rod.	X/O	70mm	0.22
	345 singles, tag 96mm TD at 1312 mkB (no hole fill).	N/T Rod	70mm	268.4
	Mill ahead, easy to bury new BHA into 76mm hole, to 1313 mKB.	X/O	90mm	0.17
08:00 Hours	** Up to 1312.83 mKB. Oolitic limestone, massive, with parted limestone &.	H/T Rod	90mm	1038
	shale phyllite. NVP, no shows. Bedding 0 to 10 degrees from horizonal.	K/Down	90mm	0.18
	March Point Formation (equivalent).			
		Total Depth	1313	mKB
		String Wt.	13000	DAN

Daily Cost: $9,435.00 **Cum.:** $671,203.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-12	**Day No.**	79
Depth (0800 hrs)	1346 mKB	**24 Hr. Progress**	33m
Activity at Report Time	Milling 76mm hole, cut and recovering 46mm core.		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number	# 16		1		**Hours**
WT	1000	4 Litres	Size	76mm		2	Connections	3.00
VIS	38	Polysafe	Type	Series 8		3	Trips	
WL			Serial No.	16941-24		4	Deviation Survey	
CAKE			Jets	Open		5	Rig Service	0.50
pH			Out At	In		6	Circ. & Cond. Mud	
GELS			Hours	12.5		7	Repair Rig	
SOLIDS			M/HR	2.5		8	Run Casing & Cmtg.	
PV			Cum. M	34		9	BOP Handling & Tstg.	
YP			Cum. Hrs.	13.5		10	Logging	
% OIL			Cond. T/B/G			11	Coring	12.50
% SAND			WT. on Bit	1000/1500		12	Formation Tstg.	
CL			RPM	500		13	Fishing	
Deviations			Stroke	76		14	Recover Cores	8.00
Depth	Deg.	Depth / Degree	Liner	51			Rig Up	
			l/m	110		Other		
			Ann Vel				WOC	
			Surf. Press.	3000				
							Total Hours	24.00

DST No.		Formation		To			
ISI		FF		FSI		Press.: IHP		Times: IF	
PF		IFP		FFP		ISIP		FHP	
BHT		Choke		Results		FSIP	

Reduce rate pump pressure at 800 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 40.

Weather Overcast **Temp.** 15 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
08:00 Hours	Mill 76mm hole, cut 46mm core from 1313 mKB to 1346 mKB	Tool	Size	Length
08:00 Hours	Recover 33m core.			
	No hole losses or gains.	Mill	76mm	0.08
	Ensure proper depth control.	R/Shell	70mm	0.12
	** Up to 1342.72 mKB.	C/BBL	70mm	3.98
	Parted and ribbon limestone with black shale	C/BBL	70mm	1.72
	Phyillte, abundant quartz carbonate veining	L/CPL	70mm	0.3
	minor pyrites	X/O	70mm	0.22
	Bedding 20 to 30 degrees from horizontal.	N/T Rod	70mm	268.4
	No VPS, no shows.	X/O	90mm	0.17
	March point formation (equivalent)	BHA: 274.99m		
		H/T Rod	90mm	1071
		K/Down	90mm	0.01
		Total Depth	1346	mKB
		String Wt.	13000	DAN

Daily Cost: $9,435.00 **Cum.:** $680,638.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-13	**Day No.**	80
Depth (0800 hrs)	1387.KB	**24 Hr. Progress**	41m
Activity at Report Time	Mill 76mm hole , cut and recover 46mm core		
Rig & Rig No.	East Coast Drilling #2	**Grd. Elev.**	40.3m
		K.B. Elev.	44.5mKB

Drilling Fluid			Bit Data			Time Analysis		
Properties		Additives	Number	# 16	#15	1		Hours
WT	1010		Size	76mm		2	Connections	5.00
VIS	39		Type	Series 6		3	Trips	
WL			Serial No.	16941-24		4	Deviation Survey	
CAKE			Jets	Open		5	Rig Service	0.50
pH			Out At	In		6	Circ. & Cond. Mud	
GELS			Hours	10.5		7	Repair Rig	
SOLIDS			M/HR	3.1		8	Run Casing & Cmtg.	
PV			Cum. M	74		9	BOP Handling & Tstg.	
YP			Cum. Hrs.	24		10	Logging	
% OIL			Cond. T/B/G			11	Coring	10.50
% SAND			WT. on Bit	1000/1500		12	Formation Tstg.	
CL			RPM	500		13	Fishing	
Deviations			Stroke	76		14	W.O.C.	8.00
Depth	Deg.	Depth Degree	Liner	51			Rig Out	
	3.5	3.5	l/m	110		Other	Total Hours	24.00
			Ann Vel				WOC	
			Surf. Press.	3000				

DST No.		Formation		Interval		To			
ISI		FF		FSI		Press.: IHP		Times: IF	
PF		IFP		FFP		ISIP		FHP	
BHT		Choke		Results			FSIP		

Reduced rate pump pressure at 8.00kpa, MACP at 6371 kpa GTS

Reduced rate pump strokes at 40

Weather Rain **Temp.** 17 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 hrs. Mill 76mm hole, cut 46mm core from 1346mKB to 1387 mKB

08:00 hrs. Recover 41m core

No hole losses or gains

Ensure proper depth control

*** Up to 1387.51 mKB

Mainly Colitic Limestone interbedded with Micritic

Limestone and Black Shale-Phyllites

Bedding 20 to 30 degrees from horizontal

NVP, No shows

Marche point (equivalent)

Drill String Sequence		
Tool	Size	Length
MILL	70mm	0.08
4/SHELL	75mm	0.12
C/BBL	70mm	3.98
C/BBL	70mm	1.72
L/CPL	70mm	0.3
X/O	70mm	0.22
N/T ROD	70mm	268.4
X/O	90mm	0.17
BHA:274.99M		
H/T ROD	90mm	1110
K/DWN	90mm	2.01
Total Depth	1346	mKB
String Wt.	1339	daN

Daily Cost: $9,435.00 **Cum.:** $690,073.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-14	**Day No.**	81
Depth (0800 hrs)	1396.82 mKB	**24 Hr. Progress**	11m
Activity at Report Time	Mill 76mm hole, cut and recovering 46mm core		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid

Properties		Additives
WT	1010	6 Litres
VIS	39	Polysafe
WL		
CAKE		
pH		
GELS		
SOLIDS		
PV		
YP		
% OIL		
% SAND		
CL		

Deviations

Depth	Deg.	Depth	Degree

Bit Data

Number	# 16	
Size	76mm	
Type	Series 8	
Serial No.	16941-24	
Jets	Open	
Out At	1398.82	
Hours	2.5	
M/HR	3.5	
Cum. M	84.82	
Cum. Hrs.	26.5	
Cond. T/B/G	-15%	
WT. on Bit	1000/1500	
RPM	600	
Stroke	76	
Liner	51	
l/m	110	
Ann Vel		
Surf. Press.	3000	

Time Analysis

		Hours
1		
2	Connections	1.00
3	Trips	6.00
4	Deviation Survey	
5	Rig Service	0.50
6	Circ. & Cond. Mud	1.00
7	Repair Rig	
8	Run Casing & Cmtg.	
9	BOP Handling & Tstg.	
10	Logging	11.00
11	Coring	2.50
12	Formation Tstg.	
13	Fishing	
14	Recover Cores	2.00
	Rig Up	
Other		
	WOC	
	Total Hours	24.00

DST No.		Formation			To				
ISI		FF		FSI		Press.: IHP		Times: IF	
PF		IFP		FFP		ISIP		FHP	
BHT		Choke		Results			FSIP		

Reduce rate pump pressure at 800 kpa MACHP at 6371 kpa GTS.

Reduced rate pump strokes at 40.

Weather Rain **Temp.** 18 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

08:00 Hrs.	Mill 76mm hole, cut 46mm core from 1387 mKB to 1396.82 mKB.
	Recover 7.92 m core. No hole losses or gains.
	At 1396.82 mkB, swivel piled up, final TD in 76mm hole at 1396.82 mKB.
	Dummy trip to 1200 mKB, sweep hole clean with Hivisc pill.
	POOH, stand drill rod, ensure proper depth, left 3.57m core
	on bottom of 76mm hole.
	Rig in Western Atlas, utilize stub lubricator, conduct
	suite of logs as follows:
	1390.0 mKB to 352 mKB: Induction, Spontaneous potential
	Gamma Ray, Sonic had two tool failures
	Two attempts failed to go beyond 1391.00 mKB
08:00 Hrs.	Next run: Compensated neutron, Sonic, both separate runs up to 1393.25mKB
	Marche point (equivalent) FM Oolitic Limestone; occasionally Micritic,
	Frequent styolit bedding: 10 to 30 deg. from HZ, no VP, no shows.

Drill String Sequence

Tool	Size	Length
Mill	76mm	0.08
R/Shell	75mm	0.12
C/BBL	70mm	3.98
C/BBL	70mm	1.72
L/CPL	70mm	0.3
X/O	70mm	0.22
N/T Rod	70mm	268.4
X/O	90mm	0.17
BHA: 274.99m		
H/T Rod	90mm	1119
K/Down	90mm	2.83
Total Depth	1396.82	mKB
String Wt.	14100	DAN

Daily Cost: $9,435.00 **Cum.:** $699,508.00 **Reported By:** **Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-15	**Day No.**	82
Depth (0800 hrs)	1396.82 mKB	**24 Hr. Progress**	0
Activity at Report Time	Circulate Well		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number			1		**Hours**
WT	1010		Size			2	Connections	
VIS	39		Type			3	Trips	7.50
WL			Serial No.			4	Deviation Survey	
CAKE			Jets			5	Rig Service	0.50
pH			Out At			6	Circ. & Cond. Mud	
GELS			Hours			7	Repair Rig	
SOLIDS			M/HR			8	Run Casing & Cmtg.	
PV			Cum. M			9	BOP Handling & Tstg.	
YP			Cum. Hrs.			10	Logging	16.00
% OIL			Cond. T/B/G			11	Coring	
% SAND			WT. on Bit			12	Formation Tstg.	
CL			RPM			13	Fishing	
Deviations			Stroke			14	Recover Cores	2.00
Depth	Deg.	Depth Degree	Liner				Rig Up	
			I/m			Other		
			Ann Vel				WOC	
			Surf. Press.					

DST No.		Formation		To		Total Hours	24.00
ISI		FF	FSI	Press.: IHP		Times: IF	
PF		IFP	FFP	ISIP		FHP	
BHT		Choke	Results		FSIP		

Reduce rate pump pressure at 800 kpa MACHP at 6371 kpa GTS.

Reduce rate pump strokes at 40.

Weather Rain **Temp.** 18 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

			Drill String Sequence		
			Tool	Size	Length
08:00 Hrs.	Western sonic had three run failures.				
	Tool was in CBL mode				
	Suite of logs run:	Induction, Gamma ray, S. P.	N/T Rod	70mm	75
		Acoustic (Sonic)	X/O	90mm	0.17
		CNL Density	H/T Rod	90mm	1311
	Well was verbally validated by David Hawkins				
08:00 Hrs.	RIH open ended to 1386 mKB (consideration for lost core)				
	Prepare for plug and abandonment of Big Spring 1				
NOTE:	The caliper had OD of 105mm, due to a side pad not being				
	able to retract fully, this tool was not function tested				
	at Big Springs 1, the logging crew had 122 hrs. of standby				
	to check this tool out as they were requested to check				
	all tools brought to location as per CHOH 9618		Total Depth	1386.17	mKB
Daily Cost:	$124,080 **Cum.:** $823,588.00 **Reported By:**	**Ron Ranger**	String Wt.	14100	DAN

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-16	**Day No.**	83
Depth (0800 hrs)	1390 mKB	**24 Hr. Progress**	0
Activity at Report Time	Plug and abandon		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number			1		**Hours**
WT			Size			2	Connections	
VIS			Type			3	Trips	2.50
WL			Serial No.			4	Deviation Survey	
CAKE			Jets			5	Rig Service	0.50
pH			Out At			6	Circ. & Cond. Mud	2.00
GELS			Hours			7	Repair Rig	
SOLIDS			M/HR			8	Run Casing & Cmtg.	4.00
PV			Cum. M			9	BOP Handling & Tstg.	
YP			Cum. Hrs.			10	Logging	
% OIL			Cond. T/B/G			11	Coring	
% SAND			WT. on Bit			12	Formation Tstg.	
CL			RPM			13	Fishing	
Deviations			Stroke			14	W.O.C.	14.00
Depth	Deg.	Depth / Degree	Liner				RIG UP	
			I/m			Other	Total Hours	24.00
			Ann Vel				WOC	
			Surf. Press.					

DST No.		Formation		To		Total Hours	24.00
ISI		FF	FSI	Press.: IHP		Times: IF	
PF		IFP	FFP	ISIP		FHP	
BHT		Choke	Results		FSIP		

Weather	Rain	**Temp.**	25 C	**Roads**	Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hrs.	Batch mix 9 sxs type H portland cement in 135 litres water			
	slurry yield: 0.49m3, density: 1830kg/m3, preflush 1.0 m3 H2O.			
10:00 Hrs.	Set plug from 1390 mKB to 1283 mKB, land BOT at 1215 mKB.	N/T Rod	70mm	75
12:00 Hrs.	Backwash to observe 20L slurry to surface.	X/O	90mm	0.17
18:00 Hrs.	Wait on cement, 6 hours, locate plug at 1285 mKB.	H/T Rod	90mm	1023
	Batch mix 9 sxs type H portland cement in 135 litres water	K/Up	90mm	1.83
	slurry yield: 0.49m3, density: 1830kg/m3, preflush 1.0 m3 H2O.			
19:00 Hrs.	Set plug from 1215 mKB to 1109 mKB, land BOT at mKB.			
21:00 Hrs.	Backwash to observe cement scavenger water to surface.			
	Wait on cement for 8 hours.			
05:00 Hrs.	Tag cement top at 1115 mKB, backwash scavenger water			
07:00 Hrs.	to surface			
08:00 Hrs.	POOH, lay down premium thread H/T rod to 1100 mKB			
		Total Depth	1100 DAN	mKB
		String Wt.	12500	DAN

Daily Cost:	$9,335.00	**Cum.:**	$832,923.00	**Reported By:**	**Ron Ranger**

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WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-17	**Day No.**	84
Depth (0800 hrs)		**24 Hr. Progress**	0
Activity at Report Time	Plug and abandon		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number			1		**Hours**
WT			Size			2	Connections	
VIS			Type			3	Trips	9.50
WL			Serial No.			4	Deviation Survey	
CAKE			Jets			5	Rig Service	0.50
pH			Out At			6	Circ. & Cond. Mud	2.00
GELS			Hours			7	Repair Rig	
SOLIDS			M/HR			8	Run Casing & Cmtg.	4.00
PV			Cum. M			9	BOP Handling & Tstg.	
YP			Cum. Hrs.			10	Logging	
% OIL			Cond. T/B/G			11	Coring	
% SAND			WT. on Bit			12	Formation Tstg.	
CL			RPM			13	Fishing	
Deviations			Stroke			14	W.O.C.	8.00
Depth	Deg.	Depth Degree	Liner				RIG UP	
			l/m			Other	Total Hours	24.00
			Ann Vel				WOC	
			Surf. Press.					

DST No.		Formation			To		Total Hours	24.00
ISI		FF		FSI		Press.: IHP		Times: IF
PF		IFP		FFP		ISIP		FHP
BHT		Choke		Results			FSIP	

Weather	Rain	**Temp.**	17 C
Roads	Good		

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 Hrs.	POOH, lay down 261 H/T premium thread drill rod, 59 joints.			
	HT missing, 24 joints N/T rod missing from bottom of string.			
14:30 Hrs.	Inform Calgary office of lost pipe, complete abandonment.			
18:00 Hrs.	RIH 39 stands, lay down 96 joints H/T rod.			
	Batch mix 9 sxs sxs portland type H CEMENT IN 135 LITRES H2O.			
	2% CaCl2, slurry yield: 0.49m3, density: 1830 mKB.			
	Set plug from 390 mKB to 330 mKB, POOH to 290 mKB.			
21:00 Hrs.	Back wash to surface scavenger slurry.			
05:00 Hrs.	Wait on cement 8 hours. Pressure test casing to 7000 kpa, good test.			
	Tag cement top at 330 mKB. Inhibit casing 0.05% clorinox (by volume)			
08:00 Hrs.	POOH, to 15 mKB, ready to install cement cap.			
	Batch mix 9 sxs portland type H cement in 135 liters water,			
	3% CaCl2, slurry yield 0.49 m3, density: 1830 Kg/m3.			
	Set plug from 15 mKB to surface.	Total Depth		mKB
	**** Pipe was dropped heavily into slips due to driller error in handling.	String Wt.		daN
	Contractor realizes it is uneconomical to recover their pipe, as it is an East Coast problem.			

Daily Cost: $8,385.00 **Cum.:** $841,308.00 **Reported By:** **Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-18	**Day No.**	85
Depth (0800 hrs)	6.3mKB	**24 Hr. Progress**	0
Activity at Report Time	Rig out and release rig		
Rig & Rig No.	East Coast #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number			1		**Hours**
WT			Size			2	Connections	
VIS			Type			3	Trips	
WL			Serial No.			4	Deviation Survey	
CAKE			Jets			5	Rig Service	
pH			Out At			6	Circ. & Cond. Mud	
GELS			Hours			7	Repair Rig	
SOLIDS			M/HR			8	Run Casing & Cmtg.	
PV			Cum. M			9	BOP Handling & Tstg.	
YP			Cum. Hrs.			10	Logging	
% OIL			Cond. T/B/G			11	Coring	
% SAND			WT. on Bit			12	Formation Tstg.	
CL			RPM			13	Fishing	
Deviations			Stroke			14	W.O.C.	8.00
Depth	Deg.	Depth Degree	Liner				RIG OUT	16.00
			l/m			Other	Total Hours	24.00
			Ann Vel				WOC	
			Surf. Press.					

DST No.		Formation			To				
ISI		FF		FSI		Press.: IHP		Times: IF	
PF		IFP		FFP		ISIP		FHP	
BHT		Choke		Results			FSIP		

Weather	Rain	**Temp.**	17 C	**Roads**	Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

		Drill String Sequence		
		Tool	Size	Length
08:00 HRS	Wait on cement 8 hours, hard cement at surface.			
	Cut 139.7mm & 114.3mm casings 2.0m below GL,			
	cap with steel plate marked as BS #1			
08:00 HRS	Rig out, release rig. 97-08-18 @ 08:00 hrs.			
	All rentals released.			
		Total Depth		mKB
		String Wt.		daN

Daily Cost:	$5,855.00	**Cum.:**	$847,163.00	**Reported By:**	**Ron Ranger**

wellco

WELLCO DAILY DRILLING REPORT

WELL NAME:	**Delpet Vinland Big Spring # 1**		
Date	97-08-19	**Day No.**	86
Depth (0800 hrs)	6.3 mKB	**24 Hr. Progress**	0
Activity at Report Time	Rig out and release rig		
Rig & Rig No.	East Coast Drilling #2	**Grd. Elev.**	40.30m
		K.B. Elev.	44.5mKB

Drilling Fluid			**Bit Data**			**Time Analysis**		
Properties		Additives	Number	# 16	#15	1		**Hours**
WT			Size			2	Connections	
VIS			Type			3	Trips	
WL			Serial No.			4	Deviation Survey	
CAKE			Jets			5	Rig Service	
pH			Out At			6	Circ. & Cond. Mud	
GELS			Hours			7	Repair Rig	
SOLIDS			M/HR			8	Run Casing & Cmtg.	
PV			Cum. M			9	BOP Handling & Tstg.	
YP			Cum. Hrs.			10	Logging	
% OIL			Cond. T/B/G			11	Coring	
% SAND			WT. on Bit			12	Formation Tstg.	
CL			RPM			13	Fishing	
Deviations			Stroke			14	W.O.C.	8.00
Depth	Deg.	Depth Degree	Liner				Rig Out	16.00
			l/m			Other	Total Hours	24.00
			Ann Vel				WOC	
			Surf. Press.					

DST No.		Formation			To			
ISI		FF		FSI		Press.: IHP		Times: IF
PF		IFP		FFP		ISIP		FHP
BHT		Choke		Results			FSIP	

Weather Rain **Temp.** 17 C **Roads** Good

Remarks: Sample, Core Desc, Tops, Tests, Logs, Elevations, Casing, Cementing, Solids Control

Load out all Canadian fluid drilling mud products.
Crown Wellhead components.
Casing and Wedge.
Core boxes, sent to Pasedena, Jamie Meyers, 709-686-2874
Remaninder of material to be stored in Eddys yard, Stephenville, 709-643-5040.

Drill String Sequence		
Tool	Size	Length
Total Depth		mKB
String Wt.		daN

Daily Cost: $3,500.00 **Cum.:** $850,663.00 **Reported By:** Ron Ranger

wellco

DELPET - VINLAND COMPANY

BIG SPRING # 1

Western Newfoundland

Geological Well Report

Prepared by:

Roland Strickland

Wellsite Geologist

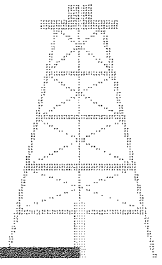
Stride Consulting Ltd.

Prepared for:

EARL LEWIS / KEN ZIPSE

Delpet – Vinland / Welco

Stride Consulting Ltd.



CONTENTS

APPENDIX A

APPENDIX B

SYNOPSIS

OPERATOR:	DELPET - VINLAND COMPANY
WELL NAME:	BIG SPRING # 1
LOCATION:	WESTERN NEWFOUNDLAND
FIELD:	EXPLORATION
PROVINCE:	NEWFOUNDLAND
ELEVATIONS:	G. L. 40.3m K. B. 44.5m
LOCATION	(NAD 27) N 5664039 E 572158
SPUD DATE:	MAY 25, 1997
T. D. DATE	August 13, 1997
FORMATION AT TD.	Marche Point (equivalent)
STATUS	Plug and Abandoned on August 15, 1997
CONTRACTOR:	EAST COAST DRILLING CO. (Colin Crane)
WELL TYPE:	Slim - Hole Continuous Coring Borehole
RIG	HS 150, ECD Rig # 2
HOLE SIZE:	0m To 150m 127 mm with PW casing 0m To 352m 99mm 352m To 1312m 96mm 1312m To 1397m 76mm
MUDLOGGING COMPANY:	Dresser
MUD COMPANY:	Delpet
MUD TYPE:	WATER with Poly - Safe TO TD.
WIRELINE LOGGING CO.:	Western Atlas
LOG RECORD:	Run #1 Aug.13 to 14, 1997 GAMMA RAY Compensated NEUTRON - GAMMA RAY BHC ACOUSTILOG GAMMA RAY

DRILLING SUPERVISION:	Ron Ranger (WELLCO)
GEOLOGICAL SUPERVISION:	Roland Strickland
TOTAL DEPTH	1397m

LOG TOPS DELPET - VINLAND BIG SPRING # 1

FORMATION	THICK - NESS	LOG TOPS
		meters
	meters	
PETIT JARDIN(SPUD)	272.1	
MARCH POINT	1121.15	272.1 D. T.
TOTAL DEPTH of HOLE = 1393.35 M		

EXECUTIVE SUMMARY

DELPET - VINLAND BIG SPRINGS # 1

DELPET – VINLAND BIG SPRING # 1WAS SPUDDED ON MAY 25, 1997 AND DRILLED TO A TOTAL DEPTH OF 1397 M ON AUGUST 13, 1997. (80 days)

THE WELL WAS SPUDDED IN THE PETIT JARDIN DOLOSTONE AND DRILLED TO 272.1M.

THE MARCH POINT WAS FROM 272.1M to 1397M. THIS WAS AN IMBRICATE THRUST STACK, CONSISTING OF MASSIVE OOLITIC LIMESTONE, WITH PARTED AND RIBBON LIMESTONES INTERBEDDED WITH DARK GREY SUB-FISSILE SHALE.

THE MAIN PROSPECTIVE ZONES WERE THE ORDOVICIAN CARBONATE PLATFORM OF THE TABLE HEAD AND ST. GEORGES GROUPS

THE ONLY HYDROCARBONS ENCOUNTERED IN THIS WELL WAS AT 1184 M (284UNITS). THE REMAINING WELL HAD HYDROCARBON UNITS LESS THAN 100 UNITS.

NO POROSITY ZONES WERE ENCOUNTERED IN THESE DRILLING DEPTHS.

THIS WELL WAS PLUGGED AND ABANDONED ON AUGUST 15, 1997 AT A T. D. OF 1397 M.

Lithology

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 1
Date: June 8/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: 1396.82m Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: Aug. 13, 1997
Logged by: Jamie Meyer / Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
		Petit Jardin Formation		
0.00 - 3.32m	Box 1	Dolomitic-Limestone: initially broken pieces, grading into medium grey dolomitic-limestone.	- highly fractured, many sets of calcite veins.	bedding varies from 0* - 15* (from horizontal)
6.70 - 7.84	Box 2	Dolomitic-limestone with sub-vertical (1-2cm) wide quartz vein.	- high angle fracture	well cemented, very low porosity
7.84 - 10.0		Dolostone: horizontally, laminated dolostone, medium grey with irregular light grey 1-3mm laminae - grading into mottled light to medium grey.		
10.0 - 11.0	Box 3	Dolostone: medium, broken and yellow stained dolostone. some breccia textures, some stromatolite banding.		yellow brown staining on some fractures.
11.0 - 21.4	Box 4	light and dark grey banded, laminated, mottled, brecciated stromatolite zones, distinct orange/white dolomite/calcite spar		
	Box 5	light grey to white medium crystalline, calcite infilling fractures. irregular, discontinuous, black chert laminae, cavity lining.		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 2
Date: June 8/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
21.4 - 32.7m	Box 6	Dolostone: light, medium and dark grey dolostone. breccia dominates light grey matrix, more calcitic. some white sparry infilling. dark grey to black chert.		core well cemented low porosity.
	Box 7	laminae appears to line many cavities and coat some fragments. laminated, rounded fragments 2-10cm, stromatolites??		
	Box 8	some less disrupted zones display sub-horizontal bedding minor pyrite.		
	Box 9 10	mildly calcareous		
32.7 - 45.0m	Box 11	Dolostone: breccia features and stromatolitic patterns are present, but less common	high angle fractures and yellow/brown staining @32.9, 35.3 41.6, and 43.6m	bedding at 36.1 is 30* from horizontal.
	Box 12 13	light to medium grey dolostone, slightly calcareous		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 3
Date: June 8/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
45.0 - 52.m	Box 14	Dolostone: light to medium grey, mottled, dolostone. minor sparry calcite and pyrite few stromatolites.		@ 51.3 bedding is 25* (from horizontal)
	Box 15	bedding, fragments of laminated dolostone		
52.0 - 53.4m	Box 15	Dolostone: light grey, mottled dolostone	extreme high angle to vertical fracturing - yellow staining - calcite on fractures	
53.4 - 58.7m	Box 16	Dolostone: medium grey, variably mottled. 25 -60cm zones of massive dolostone with 2-5mm calcite filled vugs, separated by 10-50cm zones of disrupted bedding/breccia- all well cemented, - medium calcite zones.		
58.7 - 61.1	Box 17	Dolostone: medium to massive stromatolitic dolostone.	high angle to vertical calcite filled fractures some yellow/brown staining.	50% very broken core along calcite fractures.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 4
Date: June 10/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
61.1 - 68.3m	Box 18 Box 19	Dolostone: greenish grey, laminated to stromatolitic dolostone, grading into light and medium grey dolostone (slightly calcitic). medium grey dolostone is massive lightly mottled, and has 2-20cm zones of light grey dolomite, with very even texture, but containing angular fragments of medium grey dolomite.		bedding @ 61.6 is 20* to horizontal very broken core.
68.3 - 72.3m	Box 20 21	Dolostone: medium grey mottled dolostone, with 10-25 cm zones of dark grey, pyritiferous, argillaceous dolostone.	high angle broken fracture@ 62.0m, calcite along fractures	bedding @ 71.3 is 15* to horizontal
72.3 - 82.25	Box 22 Box 23 Box 24	Dolostone: sequence going from dark grey, argillaceous dolostone to medium grey mottled dolostone, with vertical, irregular calcite filled vuggy zones, to medium grey pseudobreccias; to light grey stromatolitic zones, broken up with abundant sparry calcite infilling, to light & medium grey mottled dolostone, and back to dark grey, very argillaceous dolostone.	high angle, yellow brown stained, calcite filled fractures @ 77.5 & 77.7; no staining, but broken at 79m.	continues to be very well cemented with no porosity. dark grey argillaceous dolomite has perfect horizontal break.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 5
Date: June 11/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
82.25 - 85.25m	Box 24	Dolostone: light grey, mottled dolostone with yellow-brown stained calcite lined fractures.		core moderately to extremely broken.
85.25 - 88.0m	Box 25	Dolostone: mottled, medium grey dolostone, grading into dark grey argillaceous dolostone (two sequences)		bedding in dolomitic shale is 20* to horizontal @ 87.7m
88.0 - 95.9m	Box 26 Box 27	Dolostone: medium grey dolostone with calcite-filled vugs & vuggy fractures, small scale breccias, occasional stromatolites, moderately calcareous	high angle, calcite lined fractures, broken core @ 88.9, 91.3, 93.2, 94.2m.	badly broken core @ 90.0m
95.9 - 97.7m	Box 28	Dolostone: light grey mottled dolostone, with yellow stained calcite-lined fractures.		broken core through most of this interval.
97.7 - 103.95m	Box 29	Dolostone: medium grey dolostone moderately to slightly calcareous, mottled to brecciated on a small scale. 50cm zones of laminated to banded dolostone with 1-3mm green-grey laminae. burrows, soft sedimentary deformation and stromatolites	high angle fractures and broken core @ 100.7, 101.1 & 101.6m.	bedding @ 1004m is 15*-20* to horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 6
Date: June 12/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
103. 85 - 119.04m	Box 30 31 32 33 34	Dolostone: medium grey dolostone, mottled, banded, and at times brecciated. 2mm to 2cm wide vuggy zones up to 10cm long, filled with sparry calcite.	high angle, calcite filled fractures, broken core @ 110.2. 113.6, & 117.6m.	dolostone continues to be well cemented. very low porosity.
119.04 - 123.2m	Box 35 Box 36	Dolostone: light to medium grey mottled dolostone, pseudobreccias, and zones of calcite - filled vugs.	abundant moderate to high angle calcite-lined fractures, yellow stained and badly broken core through half of this interval. staining permeates up to 2cm in some zones.	
123.2 - 130.2m	Box 36 37	Dolostone: light grey, variably mottled dolostone. two zones, 1m each, of yellow grey dolostone, appearing "bleached", accompanying yellow stained fracture.		bedding varies from 5*-15*
130.2 - 133.99m	Box 38	Dolostone: light to medium grey dolostone, and dark grey dolomitic shale(55cm) irregular patches of dark grey shale in dolostone, calcite filled vugs, worm burrows	high angle fractures, partially open at 131m	bedding in shale is 20*-30* to horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 7
Date: June 12/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
133.99 - 141.3m	Box 39 40	Dolostone: initial 3cm, yellow-brown, highly weathered dolostone, indulating bedding plane, with contact ~15* to horizontal. light to medium grey dolostone calcite filled vugs & burrows	high angle fractures with yellow brown staining, particularly in light grey zones. core moderately to badly broken @ 135.85, 137, 139m	bedding averages ~15* to horizontal
141.3 - 147.0m	Box 41 Box 42	Dolostone: medium to medium dark dolostone-initially with dark grey argillaceous patches, very irregular patterns, grading down into even textured arenaceous to argillaceous dolostone. middle section is medium grey, mottled, small, 1-3mm calcite patches, which grades down into darker grey dolostone.	high angle, yellow brown stained fractures, broken core @ 144.2, & 145.6m	
147.0 - 153.29m	Box 43	Dolostone: light to medium dark grey dolostone, irregular shaped vugs and fractures filled with white calcite . dark grey argillaceous dolomite / dolomitic shale, often with abundant pyrite these infillings are up to 7-8cm wide, with breccia textures. interval ends in medium grey dolostone, slightly calcareous 1-3mm calcite filled vugs.	high angle fractures at 149.7-150.2m and at 152.9m (yellow stained)	bedding at end of interval is 10*-15* to horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 8
Date: June 23/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
149.76 - 156.1m	Box 44-B	**NOTE: Box 44-B, is lateral equivalent of Box 44, as a result of "sidetracking"** Dolostone: medium grey, finely crystalline dolostone with 1-5mm wide shale inter-laminae 2-30cm spacing. grades in & out of medium crystalline, light-medium grey, mottled dolostone, minor calcite filled vugs and veins.	near vertical yellow / brown stained fractures and broken core @ 152.5 & 154.5m.	shale laminae are wavy, but average 5* - 15* from horizontal. very low porosity
156.1 - 159.8m	Box 45 Box 46	Dolostone: light to medium grey dolostone, calcitic at times, initially very disrupted to brecciated. at bottom, extremely fractured and recemented with calcite veins.		
159.8 - 166.63m	Box 47 Box 48	Dolostone: light grey dolostone with lesser medium grey, slightly to moderately calcitic, stylolitic to horizontally laminated in sections. dark grey burrow-like feature near top calcite filled vugs.	very thin, irregular, calcite lined fractures	bedding generally 0*-5* from horizontal

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 9
Date: June 23/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
166.63 - 171.3m	Box 49	Dolostone: light grey dolostone, mottled to lightly banded	hairline fractures, yellow and white. core still competent.	maytex on core.
171.3 - 172.5m	Box 50	Dolostone: light grey dolostone, faintly banded at least 40cm of light yellow, to bleached grey, crushed dolostone calcite veining common.	moderate to extreme fracturing and crushing of core yellow/brown staining on fractures.	core meterage straightened up in this zone to reflect markers in box.
172.5 - 178.18m	Box 51 Box 52	Dolostone: light to medium grey dolostone discontinuous bands of calcite, very irregular shaped sparry calcite, vug infilling up to 1cm wide, in one third of this interval.	moderate to strong fracturing, often yellow stained, calcite lined very steep angles, at times vertical.	
178.18 - 185.35m	Box 53 Box 54	Dolostone: light-medium grey dolostone, finely laminated to mottled. some small scale brecciation in 3cm thick bands occasionally core breaks on very irregular "bumpy" beddings planes, with disseminated pyrite 1-5mm calcite filled vugs, most fractures calcite lined.	high angle fracturing 75* to vertical, and broken core @ 179.1, 183.15, & 184.15 yellow-brown stained, calcite lined.	bedding 0*-5* from horizontal

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 10
Date: June 24/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
185.35 - 186.5m	Box 55	Dolostone: medium grey to almost black dolostone the blackest interval is strongly calcareous and has strong H2S smell when broken, fine crystalline almost shaly on some breaks, but core still massive abundant 1-3mm, white calcite patches near base.		
186.5 - 192.1m	Box 56	Dolostone: medium grey dolostone with 2-8mm wide, green grey shale laminae, spaced 15-90cm shale laminae are often very thin and stylolitic in appearance shale laminae, minor pyrite dolostone is generally fine crystalline, planar laminated to thin wavy bands	core moderately to heavy fractured and broken @ 187, 188, 189.3 yellow-brown calcite lined fracture @ 191.1	shale laminae vary from 0* to 30* from horizontal.
192.1 - 198.0m	Box 57 Box 58	Dolostone: medium grey, laminated to banded, fine to medium crystalline dolostone stylolitic partings common occasionally calcareous	white, hairline fractures through 50% of interval calcite veins rarely up to 1cm wide, with rock fragments	bedding most commonly 0*-5*, but up to 15* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 11
Date: June 24/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
198.0 - 209.2m	Box 59 Box 60 Box 61	Dolostone: medium grey dolostone, quite massive, laminated and stylolitic(every 5-10cm) rose, undulating, green grey shale laminae (1-3mm) in upper portion only' generally finely crystalline laminated appearance less obvious near base	white, 1-8mm wide calcite veins, 70* to vertical, increasing in frequency towards bottom hairline calcite veins also increasing towards bottom	bedding varies from near horizontal to 20* very low porosity
209.2 - 214.14m	Box 62 Box 63	Dolostone: medium, dark grey, quickly changing to dark grey uniform textures quickly changing to strongly medium to very dark mottled increasing frequency of stylolites with depth abundant white calcite-filled vugs and veins burrow textures common much more calcareous with increasing depth several undulating shale laminae.	badly broken core at 210.0, 211.5	bedding harder to see, but in 5*-15* range in shale laminae

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 12
Date: June 24/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
214.14 - 231.8m	Box 64 65 66 67 68	Dolostone: medium to dark grey almost black at times moderately to highly calcareous variably mottled, burrowed and occasionally breccia textures stylolites in medium grey intervals argillaceous in black intervals well cemented, white calcite veins veins 75* to vertical, typically pinching out 1-5mm white calcite, filled vugs sporadic through the interval		bedding generally sub-horizontal only moderate H2S smell on fresh breaks very low porosity
231.8m - 241.12m	Box 69 70 71 72	Dolostone: medium to dark grey dolostone, slightly calcareous 1-4cm bands of graded, oolitic dolomite wavy bedding planes (at times very massive, no visible bedding)	calcite veining at high angles, to vertical extreme fracturing of core @ 232.7, 237, 238.5, 239.5 (50-100cm intervals)	bedding varies from o*-15* (from horizontal)
241.12 - 242.47m		Dolostone: medium grey dolostone, slightly calcareous abundant, vertically elongated calcite filled vugs	1mm wide, vertical calcite veins, < 1mm, hairline calcite veins @ 70* to horizontal	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 13
Date: June 24/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
242.47 - 247.21m	Box 73 Box 74	Dolostone: light grey dolostone with 1-4mm, dark wavy, discontinuous laminae,(closely spaced) grading into dark grey dolostone, with 2-15mm, very dark bands (argillaceous)	erratic calcite veining intense fracturing and yellow-brown stained fracture planes calcareous @ 243.9 & 244.7 (20 to 50cm intervals)	bedding varies from 0* to 10* from horizontal
247.21 - 256.04m		Dolostone: dark grey, massive to faintly banded, oolitic dolostone 2-4cm argillaceous bands at top of interval	yellow-brown stained calcite coated fractures @ 249.2, 250.0, 250.5, (30-40cm intervals of broken core) much of this interval is broken along 1mm calcite veins @ 255m slickensides @ 250.7	
256.04 - 272.10m	Box 77 78 79 80 81	Dolostone: medium to very dark grey oolitic dolostone, slightly to moderately calcareous faint to moderate, light colored bands & lenses 1-5cm wide, due to white calcite cement darker bands more argillaceous.	extensive vertical fracturing 257 to 259.5, yellow-brown stained calcite from 260 to 263 strong/extensive vertical fracturing associated with vuggy calcite veins, very hackly, crystal lined fractures, breaks @ 60* to horizontal	slight vuggy porosity bedding is 0*-10* from horizontal

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 14
Date: June 25-26/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer / Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
256.04 - 272.10m	Box 82		again from 271.75 to 272.75 2-10mm wide, white calcite veins common in bottom meter	
272.10 - 279.17m	Box 82 83 84	**MARCH POINT FM.** Limestone: dark grey to very dark grey oolitic limestone subtle banding, highlighted by presence or absence of white calcite cement possible slump features at 273.1m increasing with depth are almost black, mottled zones, and 1-3cm bands with breccia textures minor calcite filled vugs and 1mm veins several very irregular black shale seams (1-2mm)		very low porosity virtually no H_2S smell on fresh breaks bedding generally sub-horizontal
279.17 - 284.29m	Box 85 86	Limestone: very dark grey, with lesser medium grey, limestone very dark grey mottled textures dominate, at times fragmental 2-10cm intervals with white calcite cement, 0.5-2cm rounded clasts, minor oolites 15-25% of interval is oolitic limestone minor calcite filled vugs and veins.		very low porosity very faint H_2S smell on fresh break bedding still sub-horizontal

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 15
Date: June 26/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer / Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
284.29 - 290.43m	Box 87	Limestone: mottled dark and medium grey limestone, speckled with 1-5mm calcite filled vugs pseudobreccia textures with very dark micritic matrix stylolitic to shaly seams, very irregular 1-5cm bands of oolitic limestone, and small intraformational breccias cemented with white calcite.	very little fracturing or veining	very low porosity only faint H2S smell on fresh break relatively horizontal bedding
290.43 - 295.11m	Box 88 89	Limestone: medium to dark grey limestone oolitic, going into intraformational breccia, (with clasts up to 4cm) and back to mixed oolitic and mottled limestone with abundant calcite filled vugs irregular shale seams and stylolites.		very low porosity relatively horizontal bedding
295.11 - 301.10m	Box 90	Limestone: medium to dark grey oolitic limestone graded beds, 1.0mm to silt, over 1 to 2cm coarse oolites typically cemented with white calcite cross bedded , silt laminations	minor discontinuous, white calcite veins, near vertical.	very low porosity very faint H2S smell generally sub-horizontal bedding.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 16
Date: June 26/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Jamie Meyer / Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
295.11 - 301.10m	Box 91	Limestone: curved and discontinuous occasional rip-up clasts		
301.10 - 312.47m	Box 91 92 93 94	Limestone: interbedded oolitic limestone, medium to very dark grey banded limestone, and limestone with stylolitic to pseudobreccia textures over 75% massive oolitic limestone with white calcite cement and minor silty laminae approximately 15% medium grey stylolitic & pseudo-brecciated limestone, with very irregular bedding at times near vertical approximately 10% medium grey, fine grained limestone grading up into dark grey micrite.	minor calcite veining < 1mm to 3mm wide 75* to vertical occasional breaks in core along veins.	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 17
Date: June 27/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
312.47 - 326.75m	Box 95 Box 96 Box 97 Box 98	Limestone: medium grey with very dark grey bands of limestone, weakly stylolitic to pseudobreccia textures, graded bedding throughout. No visible porosity, no shows. - frequent soft deformational textures. - 25% massive oolitic limestone, calcite cemented - abundant very dark bands of limestone 1-3 cm wide, with shale partings sub-parallel to bedding. - abundant very dark bands of limestone. - frequent well developed stylolites.	- occasional calcite veining at high angles to vertical	bedding varies from 0* - 15* (from horizontal)
326.75 to 331.03m	Box 99 100	Limestone: medium grey, microcrystalline, massive, oolitic, with minor siltstone/ limestone interbands. NVP, No shows.		generally sub-horizontal bedding

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 18
Date: June 27/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
331.03 - 337.60m	Box 101	Limestone: medium grey with abundant very dark grey partings (1-4 mm wide) and dipping 15* to 20* from horizontal. NVP, No shows.	- calcite bands (5-10mm wide) sub-parallel to bedding.	bedding varies from 0* - 15* (from horizontal)
	Box 102	Abundant stylolites with shale partings. Very dark grey banding sub-parallel to bedding.		
337.60 - 340.36m	Box 103	Limestone: medium to dark grey, massive oolitic limestone with minor shale partings, weakly stylolitic. NVP, No shows.	- occasional calcite veining 75* to vertical.	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 19
Date: June 28/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
340.36 - 347.27.m		Limestone: medium grey, with abundant very dark grey bands of ribbon micritic limestone, generally sub-parallel to 15* with bedding. NVP, No shows.	minor calcite veining 3-5mm wide, 80* to vertical.	bedding varies from 0* to 10* from horizontal.
	Box 104	abundant very dark ribbons limestone bands (5-10mm wide) with 5*-20* dip from horizontal, soft deformation textures common, occasional rip-up clasts.		
	Box 105	abundant very dark ribbon limestone bands similar to box 104, slightly argillaceous.		
347.27 - 351.43	Box 105	Limestone: massive, grey, oolitic limestone, cemented with white calcite. well developed stylolitic textures with shale partings.	minor calcite veinlets, discontinuous, near vertical to sub-parallel.	
	Box 106	increase calcite veining from (349.40-349.62m) Trace bitumen stain @ 352.14 in a 5cm dark grey argillaceous vein.		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 20
Date: June 28/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
351.43 - 353.0.m	Box 106	Limestone: medium grey to very dark grey bands of micritic limestone. NVP, No shows.	extensive core break up from 351.8 to 353m (mechanical)	bedding sub-horizontal
	Box 107	Predominately very dark argillaceous limestone with an oolitic section from 352.21 - 352.98m		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 21
Date: July 10/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
353.0 - 360.48m	Box 108 109	Limestone: very dark grey, massive, micro-crystalline limestone, argillaceous, with frequent interbedded Shale, that is black, sub-fissile, moderately hard, abundant slickensided surfaces, minor flecks of pyrite throughout. NVP, no shows.	Abundant white calcite veining (2-10cm wide), from 353.49-355.99m, showing brecciated textures, with vertical veinlets.	Bedding from 0* to 25* from horizontal
360.48 - 367.24m	Box 110 111	Limestone: massive, dark grey, to grey, with bands of very dark micritic limestone, abundant soft deformational textures, occasional black shale partings, minor disseminated pyrite. NVP, no shows.	Horizontal white calcite veining at 361.91m (5-10mm wide).	Bedding 0*-10* from horizontal.
367.24 - 371.42m	Box 112 113	Limestone: massive, crystalline, grey, oolitic limestone, cemented with white calcite. Well developed stylolitic textures with black shale partings, and disseminated fine grained pyrite. NVP, no shows.	Minor vertical calcite veinlets.	Bedding 0* - 10* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 22
Date: July 10/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
371.42 - 375.47m	Box 113 114	Limestone: massive, grey, oolitic limestone, with bands of very dark grey, micritic, ribbon limestone, slightly argillaceous, with well developed stylolites in the oolitic limestone.	Abundant white horizontal calcite veining at 371.94 (2-10mm wide).	Bedding 0*-10* from horizontal.
375.47 - 378.94m	Box 115	Limestone: massive, crystalline grey, oolitic to pisolitic limestone, well cemented with white calcite, well developed stylolitic textures with shale partings, minor disseminated pyrite. NVP, no shows.	Minor calcite veining.	Bedding 0* - 10* from horizontal.
378.94 - 380.87m	Box 115 116	Limestone: grey to dark grey, micritic, with wavy very dark grey, limestone bands, occasional speckled filled calcite vugs (1-2mm), well developed stylolites with shale partings. NVP, no shows.	Minor calcite veining parallel to bedding (0.5- 1cm wide) at 379.36m.	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 23
Date: July 10/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
380.87 - 383.89m	Box 116 117	Limestone: grey, massive, crystalline, oolitic limestone with alternating bands of very dark grey micritic limestone, slightly argillaceous, well developed stylolites with shale partings in massive limestone. Massive white brecciated calcite vein (0.33m wide) at 383.2m. NVP, no shows	Occasional white calcite veins 3-5mm wide at 20* to bedding.	Bedding 0* - 10* from horizontal.
383.89 - 389.73m	Box 117 118	Limestone: grey to dark grey massive, crystalline, oolitic limestone, very well cemented with white calcite, well developed stylolitic textures with shale partings throughout. NVP, no shows	Minor calcite veining.	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 24
Date: July 11/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
389.73 - 399.81m	Box 119 120 121	Limestone: grey to dark grey, massive, crystalline, oolitic to pisolitic limestone, cemented with calcite, well developed stylolitic textures, with shale partings, occasional rip-up clasts, bioturbation, and abundant pisolites. Minor disseminated pyrite. NVP, no shows.	Minor calcite veining vertical to horizontal.	
399.81 - 404.15m	Box 122 123	Shale: dark grey to black, sub-fissile to fissile, moderately hard, silty and micaceous, minor flecks of pyrite, interbedded with dark grey limestone, with well develpoed fine laminae, frequent slickensided surfaces, occasional mudstone, massive. NVP, no shows.	Minor calcite veining along shale-limestone contacts.	Bedding 10* - 30* from horizontal.
404.15 - 411.12m	Box 123 124	Limestone: 75% dark grey, micritic limestone, with well developed, fine laminae, occasional cross-bedding, rip-up clasts and soft deformational structures. Shale: 25% interbedded, dark grey shale, sub-fissile, hard, silty, micaceous, minor pyrite. NVP, no shows.	Abundant white calcite veins, from parallel to bedding to vertical. Some veins are 2-4cm wide At 408.62-408.77m small calcite vugs filled with crystalline calcite.	Bedding 0* - 10* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 25
Date: July 11/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
404.15 - 411.12m	Box 125	At 409.99 - 411.2m limestone more massive, oolitic - pisolitic with minor calcite		
411.12 - 414.34m	Box 125	Shale-Siltstone: 60% dark grey, sub-fissile, hard, silty, calcareous, slightly micaceous. Dolomitic-Limestone: 40% grey, interbedded with shale, micritic, slightly argillaceous, cross-bedding features, fine laminae		Bedding 0* - 10* from horizontal.
	126	Frequent alternating bands of very dark grey-grey limestone dolomite. NVP, no shows.		
414.34 - 422.84m	Box 126	Limestone: dark grey to grey bands of micritic limestone, with abundant shale partings, fine laminae, frequent intraclasts, occasional bioturbation, minor stylolites and disseminated pyrite.	Frequent calcite veining from 1-5cm wide, generally parallel to bedding. Brecciation common in the 4-5cm wide veins at 419.72 and 421.87m	Bedding 0* - 20* from hirizontal.
	127	Increase in very dark grey limestone, slightly argillaceous from 419.29-420.22m		
	128	White calcite vein 15cm wide at 421.87m, parallel to bedding. Abundant shale partings in the banded limestone. NVP, no shows		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 26
Date: July 11-12/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
422.84 - 429.91m	Box 129	Limestone: crystalline, grey, massive oolitic limestone with minor stylolitic textures and shale partings, minor flecks of pyrite. From 429.25-429.91m limestone is grey, micritic with bands of dark grey limestone, soft deformation structures with intraclast common. NVP, no shows	Minor calcite veining.	
429.91 - 434.33m	Box 130 131 132	Dolostone: very dark grey, micritic dolostone, with a fine laminae, slightly argillaceous, with shale partings common. NVP, no shows. From 433.43-434.33m dolostone becomes more calcareous, with increase in calcite veining both parallel and vertical to bedding, increase in shale partings	Occasional calcite veins parallel to bedding. Calcite veining from 433.94 - 434.17	Bedding 10* - 30* from horizontal.
434.33 - 440.37m	Box 132 133	Limestone: massive crystalline grey, oolitic-pisolitic limestone, weakly stylolitic, minor shale partings, occasional intraclasts, minor fine grained pyrite. From 434.33-435.25m micritic with abundant calcite veining. NVP, no shows.	Calcite veining parallel and vertical to bedding from 434.63 - 439.12m	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 27
Date: July 12/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
440.37 - 443.5m	Box 134	Dolostone: dark grey, micritic, with fine laminae, slightly calcareous. Abundant white calcite veining throughout with common veinlets of pyrite, frequent shale partings. NVP, no shows.	Abundant white calcite veining parallel and vertical to bedding. Brecciation and micro-faulting and small scale folding common	Bedding 10* - 30* from horizontal.
443.5 - 453.96m	Box 135	Limestone: dark grey to grey, massive, micritic limestone, occasionally dolomitic, with a fine laminae, slightly argillaceous. Abundant calcite veining from 443.5-444.45m	White calcite veining from 443.5-444.45, brecciated with small scale faulting.	
	136	From 444.45 to 450.62m very dark grey limestone with minor calcite parallel to bedding, increase in shale partings. NVP, no shows.		Bedding 10* - 30* from horizontal.
	137	From 450.62-453.96m dark grey micritic limestone interbedded with dolostone, frequent shale partings, occasional intraclasts, frequent alternating bands of grey to dark grey limestone with fine laminae, speckled white calcite blebs throughout. NVP, no shows	Abundant white calcite veining at 451.45-452.08m parallel to bedding At 453.6m calcite veining 1-2cm wide parallel to bedding.	Bedding 20* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 28
Date: July 13/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
453.96 - 461.12m	Box 138 139 140	Limestone: grey to dark grey micritic limestone with alternating wavy bands of black to dark grey, micritic dolostone, frequent shale partings, intraclasts, bed slumping, and soft deformation common. NVP, no shows	Abundant white calcite veining (0.5-1.5cm wide) throughout, both parallel and near vertical to bedding. Frequent micro - faulting and folding, minor brecciation.	Bedding 20* - 30* from horizontal.
461.12 - 475.63m	Box 140 141 142 143 144	Limestone: grey to dark grey, massive, crystalline, bioturbated intraformational conglomerate, limestone. Frequent black, argillaceous rims surrounding the limestone, minor very fine grained pyrite, occasional stylolites with shale partings. NVP, no shows	Minor calcite veining	
475.63 - 481.05m	Box 144 145	Limestone: grey to dark grey micritic limestone, interbedded with black to dark grey wavy bands(2-3cm wide) micritic dolostone. Argillaceous, frequent black shale partings, soft deformation structures common, stromatolitic at 480.19m, rip-up clasts, cross-bedding, & graded bedding common. NVP, no shows.	Abundant white calcite veining both parallel to near vertical to bedding. Abundant micro-faulting and folding, with brecciation common.	Bedding 20* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 29
Date: July 13/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
481.05 - 484.73m	Box 146	Dolostone - Siltstone: black to dark grey, micritic, dolostone, interbedded with brown grey fine grained siltstone, well indurated & slightly calcareous. Occasionally intraclastic with large rip-up clasts. Grey micritic limestone with shale partings from 484.32-484.73m.	Abundant white calcite veining up to 2cm wide. Brecciation common throughout.	Bedding 10* - 20* from horizontal.
484.73 - 486.19m	Box 147	Limestone: grey, massive, crystalline, oolitic limestone, with well developed stylolitic texture. NVP, no shows.	minor calcite veining	
486.19 - 491.26m	Box 147 148	Limestone - Dolostone: grey, micritic limestone, interbedded with black-grey micritic dolostone. Fine laminae, abundant soft deformation structures, occasional intraformational conglomerate limestone, frequent shale partings, minor fine grained pyrite. NVP, no shows.	Abundant white calcite veining, (0.5-3cm wide), parallel to near vertical to bedding. At 489.36 - 490.46m intense small scale folding and faulting.	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 30
Date: July 14/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
491.26 - 493.69m	Box 149	Limestone-Dolostone: dark grey - black, micritic dolomitic limestone, fine laminae, occasional cross-bedding & intraformational conglomerate limestone, minor shale partings. NVP, no shows.	Minor white calcite parallel to bedding.	Bedding 20* - 30* from horizontal.
493.69 - 500.18m	Box 149 150 151	Limestone: grey-dark grey, massive, crystalline to micritic limestone. From 493.69-494.67m interbedded with black micritic dolostone, bioturbated & intraformational limestone, minor shale partings. From 494.67-495.84m very dark grey massive oolitic-pisolitic limestone with abundant intraformational limestone. From 495.84-496.96m mainly micritic limestone interbedded with black micritic dolostone, frequent black shale partings, micaceous. From 496.96-500.18m grey micritic to massive limestone, slightly pisolitic, interbedded with black dolostone, intraformational conglomerate common. NVP, no shows.	Minor calcite veining parallel to bedding.	Bedding 20* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 31
Date: July 14/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation:30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth:_____Core size:HQ

Hole No:BIG SPRING # 1
Spud date:May 25, 1997 Completed:_____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
500.18 - 514.76m	Box	Shale - Siltstone: Shale 70% dark grey - black sub-fissile, hard, blocky, well indurated, slightly calcareous with well developed fine laminae. Siltstone 20% dark grey, massive, interbedded with shale and grey micritic limestone. Frequent micaceous -clay partings, minor fine grained pyrite. Limestone 10% From 500.32-500.85m limestone stromatolitic with intraclasts. NVP, no shows.	Abundant white calcite veining both parallel and near vertical to bedding. Extensive brecciation at 501.33m & from 507.63-508.91m.	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 32
Date: July 15/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
514.7 - 517.65m	Box 157	Shale: dark grey, black, sub-fissile to fissile, hard, indurated slightly calcareous, well developed fine laminae, frequent micaceous-phyllitic partings, minor pyrite, fossil fragments @ 515.31m. NVP, no shows.	Abundant white calcite veining predominately parallel to bedding. Brecciation with micro-folding and faulting throughout.	Bedding 20* - 30* from horizontal.
517.65 - 522.37m	Box 158 159	Limestone: grey to dark grey, massive, crystalline, intraformational conglomerate, bioturbated, minor slumping. fossil fragments @ 518.31m, minor shale partings. NVP, no shows.	Minor calcite veining parallel to bedding.	
522.37 - 524.6m	Box 159	Limestone - Shale: grey micritic limestone, interbedded with black fissile to sub-fissile shale, hard and indurated. Cross-bedding and soft deformation common, minor pyrite. NVP, no shows.	Minor calcite veining parallel to bedding.	Bedding 20* - 30* from horizontal.
524.6 - 536.85m	Box 159 160 161	Limestone: grey to dark grey, massive, crystalline to micritic, intraformational conglomerate limestone, bonded by a matrix of black carbonate mud, intraclastic, bioturbated,	Minor calcite veining parallel to bedding.	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 33
Date: July 15/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
524.6 - 536.85m	Box 162	Limestone: with occasional shale partings. NVP, no shows		
536.85 - 540.39m	Box 163	Limestone - Shale: grey - light grey, micritic, limestone, interbedded with black fissile -sub-fissile shale, hard, indurated, slightly calcareous, cross-bedding, slump beds and soft deformation common, occasional rip-up clasts. NVP, no shows.	Minor calcite veining parallel to bedding, micro-faulting common.	Bedding 10* -30* from horizontal.
540.39 - 545.83m	Box	Limestone: grey to light grey, micritic, abundant intraformational conglomerate limestone bonded by a matrix of black carbonate mud with frequent rip-up clasts. Large intraclasts up to 3cm in diameter, frequent interbedding of black shale, hard, indurated. Shale partings common, occasional fine grained pyrite. NVP, no shows.	Minor calcite veining with small scale folding and faulting.	Bedding 20* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 34
Date: July 16/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
545.83 - 550.4m	Box 166 167	Shale: black, fissile-sub-fissile, hard, indurated, well developed fine laminae, interbedded with light grey limestone, soft deformation common, occasional intraclasts. NVP, no shows.	Abundant white calcite veining from 1 -2cm wide, parallel to near vertical to bedding, frequent micro-folding & faulting.	Bedding 30* - 40* from horizontal.
550.4 - 555.52m	Box 167	Limestone: grey, micritic, intraformational conglomerate limestone, bonded by a matrix of black calcareous carbonate mud. Abundant shale partings with frequent interbedded black shale. From 554.17-555.52m predominately black shale with occasional intraformational limestone. At 553.65m minor fossil fragments, occasional intraclasts. NVP, no shows.	Occasional calcite veining parallel to bedding, up to (6cm wide), brecciation common.	
555.52 - 566.07m	Box 169	Limestone 60% - Shale 40% grey to light grey micritic intraformational conglomerate limestone, bonded with black carbonate muds, interbedded with black fissile to sub-fissile shale. NVP, no shows. From 558.89-562.39m, black sub-fissile shale	Frequent calcite veining parallel to near vertical to bedding.	Bedding 10* -40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 35
Date: July 16/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
555.52 - 566.07	Box 170	From 558.89-562.39m mainly black shale, minor pyrite, interbedded with dark grey limestone, intraclastic, with fossil fragments.		
	171	From 562.39-563.28m abundant intraformational conglomerate, with intraclasts up to 3cm in diameter. From 563.28-564.08m black fissile shale.		
	172	From 564.08-566.07m mainly intraformational conglomerate, light grey limestone, bioturbated, burrowed limestone with fossil fragments @ 565.45m, occasional rip-up clasts.		
566.07 - 570.42m	Box 172	Limestone: dark grey, massive limestone, cemented with a matrix of black carbonate muds, fossil fragments throughout this section, minor pyrite, occasional black shale partings. NVP, no shows.	Frequent white calcite veining parallel to near vertical to bedding, up to 10cm wide. Brecciation at 569.52-570.42m.	
	173			

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 36
Date: July 16/97

Location(NTS.): 2M / 4
UTM Cood: N 5664039, E 572158
Elevation:30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth:_____Core size:HQ

Hole No:BIG SPRING # 1
Spud date:May 25, 1997 Completed:_____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
570.42 - 576.22m	Box 173 174 175	Shale - Limestone: black fissile-sub-fissile, hard, laminated shale, with interbedded limestone(0.5-2cm wide), light grey, micritic. NVP, no shows.	Abundant white calcite veining, mainly parallel to bedding. Some parallel veins @ 575.93 are 15cm wide. Abundant micro faulting and folding in the white calcite veinlets.	Bedding 20* - 30* from horizontal.
576.22 - 581.76m	Box 175 176	Limestone: grey to light grey micritic, intraformational conglomerate limestone, bonded by a matrix of black calcareous carbonate muds, intraclastic, occasional fine grained pyrite, abundant shale partings. NVP, no shows.	Minor calcite veining.	
581.76 - 587.38m	Box 177 178	Shale 70% - Limestone 30% black fissile-sub-fissile, laminated, hard shale, interbedded with light grey micritic limestone, intraclastic, fine laminae, with abundant micro-faulting and folding, cross-bedding & slump beds common, fine grained pyrite throughout. NVP, no shows.	Abundant white calcite veining mainly parallel to bedding. Numerous micro-folding and faulting features. Brecciation @ 585.56-585.98m	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 37
Date: July 17/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
587.38 - 601.39m	Box 178	Limestone: 60% - Shale: 40% grey to light grey micritic limestone, with sections of intraformational conglomerate and intraclasts up to 3cm wide, interbedded with black fissile to sub-fissile shale, laminated. NVP, no shows.		
	179	From 587.38-591.07 intraformational conglomerate limestone, with abundant intraclasts and rip-up clasts.	Abundant white calcite veining, parallel to near vertical to bedding. Frequent brecciation with complex micro-faulting & folding.	Bedding increase from 20* - 50* from horizontal.
	180	From 591.07-593.26m, grey limestone with black interbedded laminated shale.	Minor calcite veining, mainly parallel to bedding.	Bedding 20* - 30* from horizontal.
	180	From 593.26-594.37m, mainly intraclastic limestone in a matrix of black shale.	Abundant white calcite, parallel to bedding.	Bedding 10* - 20* from horizontal.
	181	From 594.37-599.01m, limestone with black, fine laminated shale.	Occasional calcite veining, up to 3cm wide, mainly parallel to bedding.	Bedding 20* - 40* from horizontal.
	182	From 599.01-601.39m, mainly black shale with minor pyrite, interbedded with light grey, micritic limestone, occasional intraclasts.	Frequent calcite veining mainly parallel to bedding, with micro-faulting, folding & brecciation	Bedding 10* - 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 38
Date: July 17/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
601.39 - 606.71m	Box 183	Shale: black, sub-fissile, blocky silty, hard, with fine grained pyrite common. NVP, no shows.	Abundant white calcite veining, parallel and near vertical to bedding, frequent brecciation, micro-faulting and folding.	Bedding 10* - 20* from horizontal.
606.71 - 609.92m	Box 184	Shale: 60% - Limestone: 40% black, sub-fissile to blocky shale, interbedded with grey micritic limestone, with intraclasts of light grey limestone up to 5cm in diameter, intraformational conglomerate limestone common, frequent slump beds NVP, no shows.	Frequent white calcite veining mainly parallel to bedding.	Bedding 10* - 30* from horizontal.
609.92 - 614.71m	Box 185	Limestone: light grey to grey micritic limestone, with minor interbedded black shale, frequent intraformational conglomerate limestone. Frequent shale-phyllitic partings. NVP, no shows.	Abundant white calcite veining parallel and near vertical to bedding. Intense brecciation from 610.64-611.46m	Bedding 10* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 39
Date: July 17-18/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
614.71 - 617.03m	Box 186	Limestone: 50% - Shale: 50% grey micritic limestone interbedded with black blocky shale, frequent large rip-up clasts 5cm in diameter. NVP, no shows.	Abundant white calcite brecciation throughout the whole section.	
617.03 - 621.25m	Box 187	Shale: black, blocky to massive, hard, slaty with frequent rip-up clasts and brecciated fragments of light grey limestone, abundant schistose partings. Melange type structure. NVP, no shows.	Intense brecciation of white crystalline to massive calcite throughout the whole section.	Bedding 20* from horizontal.
621.25 - 625.6m	Box 188 189 190	Shale: 60% - Siltstone: 40% black, sub-fissile to blocky, hard, shale interbedded with light grey to buff siltstone, quartz-feldspar rich, very hard, well indurated, slightly calcareous,occasional intraclasts of grey limestone. NVP, no shows.	Abundant white calcite veining parallel and near vertical to bedding. Brecciation throughout.	Bedding 10* - 30* from horizontal.
625.6 - 633.40m	Box 190	Shale: 70% - Limestone: 20% Siltstone: 10% Predominately black, sub-fissile to blocky, hard shale, interbedded with light grey micritic ribbon limestone and	Abundant calcite veining mainly parallel to bedding. Strongly brecciated from 625.97-627.36m	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 40
Date: July 18-19/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
625.6 - 633.40m	Box 190 191 192	Shale: Limestone: Siltstone minor grey-buff, quartz-feldspar rich siltstone, very hard and well indurated. Frequent rip-up clasts and intraclasts of grey limestone. Phyllitic partings very common. NVP, no shows.	Extensive veining from 628.28-629.23m Calcite vein 10cm wide at 629.76m. Micro-faulting and folding common.	Bedding 20* - 40* from horizontal.
633.40 - 645.80	Box 192 193 194 195 196	Limestone: 50% - Shale: 50% grey, micritic limestone, intraformational conglomerate limestone, with intraclasts 5cm in diameter, interbedded black, sub-fissile-blocky, hard shale, frequently slaty to phyllitic, minor pyrite, occasional very fine grained grey-buff siltstone. NVP, no shows.	Abundant calcite veining throughout with brecciated zones from 635.96-636.91m from 637.16-637.57m extensive complex micro-faulting and folding.	Bedding 20* - 30* from horizontal.
645.80 - 654.40m	Box 196 197 198	Shale: 70% - Limestone: 30% black, sub-fissile to blocky, hard, smooth, laminated, slightly calcareous shale, interbedded with thin (3-15mm) wide grey ribbon limestone, occasional intraclasts and rip-up clasts. NVP, no shows.	Frequent calcite veining parallel to near vertical to bedding. Micro-faulting and folding common.	Bedding 30* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 41
Date: July 19/97

Location(NTS.): 2M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
654.40 - 661.66m	Box 198 199 200	Shale: 50% - Siltstone: 40% Limestone: 10% black, blocky to sub-fissile, hard shale, interbedded with siltstone, grey-buff, very hard, indurated, quartz-feldspar rich, bonded in a matrix of black carbonate muds, cross laminated, occasional intraclasts of grey limestone, fossil fragments @ 659.45m NVP, no shows.	Abundant calcite veining mainly vertical to bedding. Intense brecciation from 655.58-656.61m & from 659.45-660.89m. Micro-faulting and folding common.	Bedding 20* - 30* from horizontal.
661.66 - 666.51m	Box 201	Shale: black, fissile to sub-fissile, blocky, medium hard, smooth with abundant slickenside partings, micaceous, occasional pyrite, interbedded with grey-buff, very hard, indurated siltstone. Minor ribbon grey micritic limestone NVP, no shows	Frequent calcite veining, parallel to near vertical to bedding.	Bedding 40* - 50* from horizontal.
666.51 - 671.64m	Box 202 203	Shale: 70% - Limestone: 30% black shale, fissile-sub-fissile, hard, smooth, laminated, interbedded with grey ribbon limestone, minor intraformational conglomerate limestone and intraclasts, some soft deformation, mainly phyllitic partings, minor	Frequent calcite veining, mainly parallel to bedding, minor brecciation, micro-faulting and folding common.	Bedding 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 42
Date: July 19-20/97

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
666.51 - 671.64m (5.13m)	Box 203	Shale: 70% - Limestone: 30% argillaceous. NVP, no shows.		
671.64 - 673.43m (1.79m)	Box 204	Shale: 50% - Limestone: 50% black, sub-fissile to blocky, hard, smooth, dense shale interbanded with light grey micritic limestone up to (0.75m wide) NVP, no shows.	Occasional calcite veining parallel to near vertical to bedding. Micro - folding common.	Bedding 30* from horizontal.
673.43 - 674.50m (1.07m)	Box 204	Shale: 70% - Limestone: 30% black shale, sub-fissile, hard, cross-laminated, interbedded, with grey ribbon limestone. NVP, no shows,	Calcite veining mainly parallel to bedding.	Bedding 10* - 20* from horizontal.
674.50 - 683.44m (8.94m)	Box 205 206 207	Shale: black, sub-fissile, hard, occasional slickensides, schistose. Frequent angular - sub-rounded clasts of limestone in a matrix of carbonate muds. Brecciated fragments of grey limestone and white crystalline calcite common, minor light grey ribbon limestone. Melange type features. Six(6)cm of fault gouge at 682.89m. NVP, no shows.	Abundant white calcite veining parallel and near vertical to bedding. Brecciation throughout. Frequent complex micro-folding and faulting.	Bedding 30* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 43
Date: July 20, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
683.44 - 698.95m (15.51m)	Box	Shale: 90% - Limestone: 10% black, sub-fissile to blocky, hard, occasionally dense, laminated shale with grey ribbon and parted ribbon limestone and white calcite. NVP, no shows.	Frequent white calcite veining from mainly parallel to near vertical to bedding.	Bedding 30* - 40* from horizontal.
	208	From 686.39-686.65m increase brecciation with complex folding and faulting.		
	209	From 686.75-689.86m black shale, fissile to sub-fissile, medium hard, platy partings.	Frequent calcite veining parallel to bedding.	Bedding 30* - 40* from horizontal.
	210 211	From 689.86-696.50m black shale, fissile to blocky, dense, hard, flaky partings.	Occasional calcite veining parallel to bedding.	Bedding 30* - 50* from horizontal.
	212	From 696.50-698.95m black shale, sub-fissile to blocky, dense. Melange zone from 696.50-698.95 (2.45m wide), with a chaotic mixture of white quartz-calcite and grey limestone fragments in a matrix of carbonate muds. Minor ribbon limestone, waxy-micaceous partings.	Frequent calcite veining parallel to bedding.	Bedding 30* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 44
Date: July 20, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
698.95 - 715.64m (16.69m)	Box	Shale: black, blocky to fissile, hard to medium hard, occasionally laminated, smooth with frequent slickensides. NVP, no shows.		
	213	From 698.95-702.10m interbedded grey ribbon limestone with rip-up clasts.	Abundant calcite veining parallel to near vertical to bedding Micro-faulting and folding.	Bedding 30* from horizontal.
	214	From 702.10-704.23m shale, black, blocky-splintery, hard, dense, with an increase in bedding from 30*-60*.	Occasional calcite veining mainly parallel to bedding.	Bedding 60* from horizontal.
	214	From 704.23m-706.15m mainly shale, black, blocky with increase brecciated zones of angular fragments of limestone, siltstone and white calcite.	Abundant calcite veining parallel to near vertical to bedding.	Bedding 30* - 50* from horizontal.
	215 216 217	From 706.15-714.26m shale, black, sub-fissile to fissile, occasionally splintery, waxy along partings, minor ribbon limestones, increase in limestone from 712.22-714.26m banded, intraformational conglomerate, with intraclasts in brecciated zones.	Frequent calcite veining parallel to near vertical to bedding. Minor brecciation throughout.	Bedding 30* - 50* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 45
Date: July 20-21, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
698.95 - 716.64m (17.69m)	Box 217	From 714.26-716.64, shale, black, blocky, dense, slaty, with silty partings.	Minor calcite veining.	Bedding 40* from horizontal.
716.64 - 718.64m (2.0m)	Box 218	Shale: black, blocky to sub-fissile, smooth to irregular partings, occasional brecciated zones with fragments of limestone, siltstone, and white calcite. NVP, no shows.	Abundant white calcite in a chaotic pattern throughout, complex folding common.	Bedding 40* -50* from horizontal.
718.64 - 728.66m (10.02m)	Box	Shale: black, blocky to sub-fissile, smooth, shaly to schistose throughout, with interbanded limestone and siltstone and ribbon limestone. NVP, no shows.		
	219	From 718.64 -719.95m intraformational conglomerate limestone, rounded fragments of siltstone, rip-up clasts, occasional cross-bedding and soft deformation features.	Occasional white calcite parallel to near vertical to bedding.	Bedding 40* from horizontal.
	219	From 719.95-722.06 shale, laminated, waxy to silty partings, with grey ribbon and parted limestone.	Minor calcite veining mainly parallel to bedding.	Bedding 30* - 40* from horizontal.
	220	From 722.06-726.13m, black shale, waxy-micaceous partings with occasional brecciated fragments of limestone, siltstone and white calcite.	Frequent white calcite veining, mainly near vertical to bedding.	Bedding 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 46
Date: July 21, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
	Box 221	From 726.13 - 728.66m shale, black, hard, dense, blocky to sub-fissile, slaty with greasy partings	Minor white calcite veining.	
728.66 - 731.62m (2.96m)	Box 222	Shale: 70% - Ribbon Limestone: 30% black shale, sub-fissile, hard, laminated and cross-laminated, with grey ribbon limestone. NVP, no shows.	Abundant white calcite veining, mainly parallel to bedding.	Bedding 10* - 20* from horizontal.
731.62 - 733.84m (2.22m)	Box 223	Melange Zone: Shale, black, blocky, slaty, with brecciated fragments of siltstone and limestone bonded in a matrix of black carbonate muds and crystalline calcite, schistose slickensides common.	Abundant white calcite brecciation, with calcite vein 19cm wide @ 732.62m, chaotic structures throughout.	Bedding 30* from horizontal.
733.84 - 738.78m (4.94m)	Box 224	Shale: black, sub-fissile to blocky, hard, dense, slightly laminated and calcareous, slaty, smooth, greasy partings, minor brecciated zone of limestone and white calcite @ 738.37m NVP, no shows.	Minor calcite veining parallel to bedding.	Bedding 20* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 47
Date: July 21-22, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
738.78 - 742.47m (3.01m)	Box 225	Limestone: grey, intraformational conglomerate limestone, bonded in a matrix of black carbonate muds, soft deformation structures common, parted black, greasy ,shale throughout. NVP, no shows.	Calcite vein 15cm wide @ 738.79. Minor veining, mainly parallel to bedding.	Bedding 20* - 30* from horizontal.
742.47 - 747.87m (5.40m)	Box 226 227	Shale: - Ribbon Limestone: black, blocky to sub-fissile, hard , dense, finely laminated, slickensided, greasy, micaceous partings common, minor pyrite, occasional thin bedded ribbon and nodular limestone, with rip-up clasts. NVP, no shows.	Abundant white calcite veinlets in a chaotic appearance.	Bedding 30* - 40* from horizontal.
747.87 - 752.00m (4.13m)	Box 228	Limestone: 70% - Shale: 30% dark grey, micritic, nodular bedded limestone, with abundant black shale partings, cross laminations common, from 749.41-750.17m, blocky, dense shale. NVP, no shows.	Abundant calcite veining parallel and near vertical to bedding. Brecciation 0.26m wide @ 749.08m & 0.32m wide @ 750.91m	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 48
Date: July 22, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
752.00 - 754.13m (2.13m)	Box 229	Limestone: grey, micritic, ribbon limestone, thinly bedded with black shale, silty, greasy-micaceous partings, very fine laminae with abundant cross-laminated features, occasional calcite rip-up clasts, minor pyrite. NVP, no shows.	Minor calcite veining mainly parallel to bedding.	Bedding 50* from horizontal.
754.13 - 756.72m (2.59m)	Box 229	Limestone: 70% - Shale: 30% grey, micritic, nodular bedded limestone, with interbedded and parted black shale, waxy slickensides common. Intense brecciation, with fragments of limestone throughout. NVP, no shows.	Abundant white calcite veining parallel to near vertical to bedding. Abundant micro-faulting and folding.	Bedding 30*- 40* from horizontal.
756.72 - 764.55m (7.83m)	Box 230 231 232	Limestone: light grey, massive, micritic, stylo-nodular to ribbon limestone, with occasional rounded clasts of crystalline limestone, 2-3mm in diameter, minor shale-schistose partings. From 761.82-762.37m, black shale with ribbon and parted limestone. NVP, no shows.	Minor calcite veining parallel to bedding.	Bedding 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 49
Date: July 22-23, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
764.55 - 766.30m (1.75m)	Box 232	Limestone: 80% - Shale: 20% grey, micritic, ribbon limestone, stylo-nodular bedding, cross-laminated, with black shale, greasy -micaceous partings. NVP, no shows.	Frequent calcite veining parallel and near vertical to bedding. Calcite vein @765.22m, 11cm wide. Brecciation throughout.	Bedding 20* -30* from horizontal.
766.30 - 771.42m (5.12m)	Box 233 234	Limestone: 60% - Shale: 40% grey microcrystalline to crystalline limestone, ribbon to nodular, cross-laminated to interbedded, with black, sub fissile, medium hard, shale, slump folded, smooth, waxy partings. Oolitic limestone 0.2m wide @ 766.30m and 0.29m wide @ 771.13m. Mainly black shale from 770.50-770.89m. NVP, no shows.	Frequent calcite veining mainly parallel to bedding.	Bedding 10* -20* from horizontal.
771.42 - 772.81m (1.39m)	Box 235	Limestone: grey, massive, micritic, nodular bedded with very thin partings of black shale, minor slump beds, oolitic @ 771.42 (0.34m wide) NVP, no shows.	Minor calcite veining mainly parallel to bedding.	Bedding 20* -30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 50
Date: July 23, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
772.81 - 774.87 (2.06)	Box 235	Shale: 70% - Limestone: 30% black, sub-fissile, hard, dense, very fine laminae, slump folded, greasy argillaceous partings, interbedded with grey micritic limestone, slightly nodular, thinly to cross-bedded, rip-up clasts. NVP, no shows.	Abundant calcite veining mainly parallel to bedding, micro-folding and faulting common.	Bedding 20* -30* from horizontal.
774.87 - 778.23m (3.36)	Box 236	Limestone: dark grey, micritic, parted limestone, slightly ribbon, with very thin, smooth, waxy, parted black shale, laminated and cross laminated features common. NVP, no shows.	Calcite brecciation @ 774.86m (0.28m wide), minor veining parallel to bedding.	Bedding 40* -50* from horizontal.
778.23 - 781.64m (3.41m)	Box 237	Limestone: dark grey, micritic, ribbon limestone, slightly nodular, with very fine laminated to interbedded black shale. Oolitic section @ 779.27m, (0.29m wide) NVP, no shows.	Highly fractured and brecciated, with white calcite parallel to near vertical to bedding. Intense brecciation @ 779.04m (0.35m wide).	Bedding 30* -40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 51
Date: July 23, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
781.64 - 786.01m (4.37m)	Box 238 239	Limestone: 40% - Shale: 60% dark grey micritic to crystalline limestone, interbedded with black fissile to sub-fissile hard shale, laminated and cross laminated, slump beds common, oolitic section @ 784.59m (0.23m wide). NVP, no shows.	Abundant calcite veining in a chaotic appearance. Brecciation throughout. Small fault zone with calcareous argillaceous muds @ 781.98m, 0.10m wide, and @ 782.57m 0.20m wide. Calcite vein @ 782.57m, 0.19m wide.	Bedding 20* -30* from horizontal.
786.01 - 787.94m (1.93m)	Box 239	Limestone: grey, micritic to crystalline, massive, with minor interbedded black shale, fossil fragments @ 786.59. NVP, no shows.	Frequent calcite veining parallel to near vertical to bedding. Brecciation @ 786.85m (0.22m wide.)	Bedding 30* -40* from horizontal.
787.94 - 793.26m (5.32m)	Box 240	Shale: black, hard, dense, blocky to splintery, slaty, minor pyrite, silty partings interbedded with grey limestone (up to 6cm wide), parted limestone, laminated to cross laminated from 791.92-793.00m. NVP, no shows.	Occasional calcite veining mainly parallel to bedding.	Bedding 20* -30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 52
Date: July 23-24, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
793.26 - 797.90m (3.93m)	Box 242	Limestone: dark grey, massive, very hard, indurated, coarse crystalline, oolitic limestone, slightly stylolitic with very irregular partings. NVP, no shows.	Frequent calcite veining parallel to near vertical to bedding.	Bedding 10* -20* from horizontal.
NOTE: DEPTH CORRECTION FROM 798.69 - 796.83m (1.86m)				
794.48 - 798.02m (3.97m)	Box 243	Limestone: 70% - Shale: 30% grey, micritic, ribbon limestone with interbedded and thin parted shale, laminated and cross laminated, rip-up clasts common, slaty partings. NVP, no shows.	Calcite veining mainly parallel to bedding, up to 5cm wide.	Bedding 10* -20* from horizontal.
798.02 - 805.42m (7.40)	Box 244 245	Limestone: 60% - Argillite: 40% grey to black, micro-crystalline to crystalline, stromatolitic limestone(mounds up to 1.49m) interbedded with grey-green massive argillite, up to 0.53m wide hard, indurated, minor pyrite. At 799.83 pisolitic section 0.29m wide. Frequent argillaceous partings, with splintery and slaty partings. NVP, no shows.	Occasional calcite veining, chaotic throughout, with common micro-folding.	Bedding 20* -30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 53
Date: July 24-25, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
805.42 - 809.41m (3.99m)	Box 246	Limestone: 70% - Shale: 30% grey, dark grey, micritic to crystalline, brecciated limestone, interbedded with black shale, hard blocky to sub-fissile, with smooth silky to silty partings. NVP, no shows.	Brecciated with dark grey to light grey angular fragments of limestone and occasional argillite fragments, cemented with calcite @ 805.4m, 1.24m wide, and @ 808.74m 0.69m wide.	Bedding 20* from horizontal.
809.41 - 810.63m (1.22m)	Box 247	Limestone: dark grey to black, micritic, massive, with frequent bird's eye white calcite, occasional fine grained pyrite, paper thin shale partings, silty to micaceous appearance. NVP, no shows.	Minor hairline calcite veining parallel to bedding.	Bedding 20* - 30* from horizontal.
810.63 - 813.49m (2.86)	Box 248	Argillite: grey-green, mssive, hard, indurated, with occasional fine grained and cubic pyrite. Frequent silty partings. NVP, no shows.	Very minor calcite veining.	Bedding 20* - 30* from horizontal.
813.49 - 831.38m (17.89m)	Box 249 250 251	Limestone: dark grey to black, crystalline to coarse crystalline, massive, oolitic limestone, with well developed stylolitic structures. Pisolitic from 813.62-814.76m, occasional intraclasts.	Minor calcite veining parallel and near vertical to bedding. Brecciation @ 817.82m, 0.46m wide.	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 54
Date: July 25, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
813.49 - 831.38m (17.89m)	Box 252 253	Limestone: Frequent stylolitic partings, very irregular, sandy to silty. Occasional micritic massive light grey limestone, with paper thin shale partings. NVP, no shows.	From 830.63-831.38 calcite veins perpendicular to bedding.	
831.38 - 837.25m (5.87m)	Box 254 255	Limestone: grey to dark grey, micro-crystalline to crystalline, massive, very ribbon thin limestone, with paper thin black shale partings. Frequent oolitic sections up to 0.44m wide, occasional irregular schistose partings. NVP, no shows.	Minor white calcite veinlets.	Bedding 30* - 40* from horizontal.
837.25 - 841.12m (3.87m)	Box 256	Limestone: 70% - Shale: 30% grey to dark grey, crypto-crystalline to micro-crystalline, massive limestone, slightly dolomitic, interbedded with black shale, blocky to platy, hard, dense, with minor pyrite, silty-schistose partings. NVP, no shows.	Frequent calcite veining parallel to bedding, also chaotic calcite appearance throughout. Micro-faulting and folding only in the black shale.	Bedding 30* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 55
Date: July 25-26, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
841.12 - 842.92m (1.80m)	Box 257	Shale: Black, blocky to platy, dense, silty partings. NVP, no shows.	Intense brecciation from 841.49-842.92m with fragments of limestone and argillite. Abundant white calcite, with micro-faulting and folding.	
842.92 - 846.84m (3.92m)	Box 258	Limestone: Dark grey, micro-crystalline to crypto-crystalline, massive, hard, indurated, oolitic limestone, with well developed stylolitic structures. Frequent interbedded, micritic very dark grey limestone, with paper thin shale partings, cross-laminated, irregular hackly, schistose partings common. NVP, no shows.	Abundant calcite veining parallel to bedding, slight brecciation from 843.60-844.92m	Bedding 40* - 50* from horizontal.
846.84 - 857.82m (10.98m)	Box 259	Limestone: 60% - Shale: 40% grey to dark grey, micritic to micro-crystalline, stromatolitic limestone, interbedded with black, blocky to sub-fissile, dense shale. NVP, no shows.		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 56
Date: July 26, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
846.84 - 857.82m (10.98m)	Box 259	From 846.84-848.94m, limestone with interbedded shale(0.25m wide), with minor pyrite, slightly oolitic.	Occasional calcite veining with micro-folding.	Bedding 40* - 60* from horizontal.
	260	From 848.94-851.10m stromatolitic grey-green limestone, with black shale layering throughout.		Bedding 40* - 60* from horizontal.
		From 851.10-853.32m, micritic to slightly oolitic limestone, interbedded with black shale up to (0.23m wide) with minor pyrite.	Minor calcite parallel to near vertical to bedding.	Bedding 30* - 40* from horizontal.
	261	From 853.32-854.76m, black shale, blocky to sub-fissile, hard, dense, calcareous, with frequent cubes of pyrite, platy to silty partings.	Frequent calcite veining, with micro-folding.	Bedding 20* - 30* from horizontal.
		From 854.76-856.90m, grey limestone with interbedded black shale, minor pyrite.		
	262	From 856.90-857.67m black shale, calcareous, greasy, argillaceous partings.	Brecciated zone with abundant calcite veining up to (0.11m wide)	Bedding 40* - 50* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 57
Date: July 26-27, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
857.82 - 862.42m (4.60m)	Box 263	Limestone: grey micritic limestone, with thin black shale partings, interbedded with dark grey, oolitic limestone (up to 0.37m wide), having well developed stylolitic structures. NVP, no shows.	Minor calcite veining near vertical to bedding.	Bedding 40* from horizontal.
862.42 - 895.85m (33.43)	Box	Limestone: dark grey to black, crypto-crystalline to crystalline, hard, dense, mainly massive to finely laminated. NVP, no shows.		
	264	From 862.42-867.43m, micritic, intraformational conglomerate limestone, bonded in a matrix of black wavy carbonate muds, slump beds common, interbanded black micritic limestone, up to 1cm wide and parallel to bedding.	Abundant micro-faulting and folding. Minor calcite vein @ 864.44m, 0.06m wide. Frequent micro-faulting and folding in the black limestone	Bedding 40* - 50* from horizontal.
	265	From 867.43-869.64m, micro-crystalline to crystalline, massive, occasionally bioturbated, with intraclasts.		Bedding 30* - 40* from horizontal.
	266	From 869.64-870.73m, micro-crystalline limestone with black bands of crypto-crystalline limestone, up to 1cm wide.	Frequent micro-faulting and folding.	Bedding 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 58
Date: July 27, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
862.42 - 895.85m (33.43m)	Box 267	Limestone: From 870.73 - 875.16m, massive, micro-crystalline to crypto-crystalline, occasionally crystalline limestone, with black bands parallel to bedding.	Occasional calcite veining.	Bedding 60* from horizontal.
	268	From 875.16-882.78m, dark grey to black, massive, very hard, crypto-crystalline to micro-crystalline limestone,	Minor calcite veining.	Bedding 10* from horizontal.
	269	with very thin stylolites running near vertical to bedding, irregular, hackly partings.		
	270	From 882.78-886.10m, dark grey to black, massive, very hard, crypto-crystalline, occasional stylolites, with black carbonaceous partings.	Frequent conchoidal fractures. At 884.65m (0.12m wide) calcite vein.	Bedding 10* from horizontal.
	271	From 886.10-889.36m, very dark grey, micro-crystalline to crypto-crystalline, massive limestone, with black wavy crypto-crystalline limestone bands. Well developed stylolites, parallel and near vertical to bedding.	Frequent calcite veining with brecciation and tension gashes. Minor micro-faulting and folding.	Bedding 10* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 59
Date: July 27-28, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
862.42 - 929.06m (66.64m)	Box 272	From 889.36-893.64m Limestone, dark grey, massive, micro-crystalline to crypto-crystalline, very hard, indurated slightly intraformational conglomerate limestone, occasional stylolites, black silty carbonaceous partings.	Frequent tension gashes, filled with black crypto-crystalline limestone.	Bedding 10* -30* from horizontal.
	273	From 893.64-905.20m Oolitic Limestone: coarse crystalline, black, oolitic, very hard, massive, occasional stylolites, with carbonaceous irregular partings.		Bedding 10* -30* from horizontal.
	274		Minor calcite veinlets	Bedding from 898.04-904.66m 0* - 10* from horizontal.
	275			
	276	From 905.20-907.56m Limestone: dark grey to black, micritic, with near vertical tension gashes, filled with crypto-crystalline, black limestone. Frequent stylolites.		Bedding 10* - 20* from horizontal.
	277	From 907.56 - 908.46m Oolitic Limestone: crystalline, dark grey to black, very hard, massive.	Calcite veinlets parallel to bedding.	Bedding 0* - 10* from horizontal.
	278	From 908.46 - 912.40m Micritic Limestone: dark grey to black,	Minor calcite veining parallel to bedding.	Bedding 0* - 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 60
Date: July 28, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
862.42 - 929.06m (66.64m)	Box 278	with very well developed near vertical tension gashes filled with crypto-crystalline black limestone.		
	279	From 912.40 - 917.23m Oolitic Limestone: massive dark grey to black, crystalline, very hard.	Frequent calcite veining, mainly parallel to bedding. Occasional tension gashes filled with black crypto-crystalline limestone, cross-cutting calcite veins, near vertical to bedding.	Bedding 10* - 20* from horizontal.
	280	From 917.23-926.02m Oolitic Limestone: massive dark grey to black, crystalline to micro-crystalline, carbonaceous partings common.	Occasional white calcite veining parallel to near vertical to bedding.	Bedding 0* - 10* from horizontal.
	281			
	282			
	283	From 926.02-927.68m Micritic Limestone: dark grey to black, very hard, alternating bands of black crypto-crystalline limestone (1cm wide), parallel to bedding, with frequent carbonaceous partings.		Bedding 0* - 10* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 61
Date: July 28-29, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
862.42 - 931.35m (68.93m)	Box 283 284	From 927.68-931.35m Limestone: light grey, micritic, occasional fine laminae, well developed fine stylolites, common phyllitic slickensided partings.	Abundant white calcite veining, parallel to bedding. Brecciation common throughout.	Bedding 0* - 20* from horizontal.
931.35 - 937.99m (6.64m)	Box 285 286	Limestone: 60% - Shale: 40% grey, micritic, laminated to cross-laminated, medium hard, interbedded with black shale, sub-fissile to blocky, medium-hard, dense, common ribbon limestone, frequent fine grained and cubic pyrite, greasy, platy schistose partings. NVP, no shows.	Frequent brecciation zones from 933.07-934.48 & 936.35-937.68m. Possible melange zone.	Bedding 10* - 30* from horizontal.
937.90 - 944.77m (6.87m)	Box 287	Oolitic Limestone: 100% dark grey to black, massive, crystalline, very hard, well developed stylolites, infilled with black crypto-crystalline limestone, very irregular schistose partings with carbonaceous coatings. NVP, no shows.	Abundant calcite veining from 937.90-938.92m, parallel and vertical to bedding.	Bedding 10* - 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 62
Date: July 29-30, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
944.70 - 949.65m (4.95m)	Box 288 289	Limestone: 100% dark grey, micro-crystalline, massive to nodular bedded with paper thin black shale, irregular hackly partings, with carbonaceous coatings. NVP, no shows.	Very minor calcite veining.	Bedding 30* from horizontal.
949.65 - 958.69m (9.04m)	Box 290 291	Oolitic Limestone: dark grey, crystalline, massive, very hard, recrystallized oolites, with well developed stylolites, infilled with black crypto-crystalline limestone, very irregular slaty partings, occasional fine grained pyrite. From 955.40-955.86m, grey micritic limestone, with greasy phyllitic partings. NVP, no shows.	Occasional calcite veining parallel and near vertical to bedding. Abundant calcite veining, with micro-folding and faulting.	Bedding 10* - 20* from horizontal.
958.69 - 976.21m (17.51m)	Box 292 293 294 295 296 297	Limestone: 100% Oolitic, dark grey to black, massive, very hard, crystalline to coarse crystalline, frequent pisolitic intervals up to (0.44m wide), well developed stylolites mainly parallel to bedding, very irregular hackly - slaty partings. NVP, no shows.	Calcite veining parallel and near vertical to bedding. Intense veining @ 968.49-971.78m	Bedding 0* - 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 63
Date: July 30-31, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
976.21 - 980.58m (4.37m)	Box 298	Shale: 60% - Limestone: 40% Dark grey to grey, slaty to phyllitic, hard, dense, silty-sandy partings, calcareous, frequent fine grain & cubic (10mm) pyrite, interbedded with grey micritic limestone, slightly stromatolitic. NVP, no shows.	Very minor calcite veining.	Bedding 10* - 20* from horizontal.
980.58 - 986.62m (6.04m)	Box 299 300	Limestone: 50% - Shale: 50% Ribbon Limestone with Black Shale. Limestone laminated to cross-laminated, frequent intraclasts, and rip-up clasts, bioturbated, with dark grey Shale-Phyllite, paper thin partings up to 10mm wide, platy to smooth, slickensided, occasionally dense, hard, soft deformation common, minor fine grain pyrite, moderately calcareous, intraformational conglomerate, pisolitic interval (0.10m wide) NVP, no shows.	Abundant calcite veining parallel and near vertical to bedding. Intense micro-folding & faulting. Brecciation common.	Bedding 10* - 20* from horizontal.
986.62 - 989.42m (2.80m)	Box 301	Limestone: 100% Grey to grey-green, micritic, slightly dolomitic, stromatolitic, with common interbedded dark grey shale,	Minor calcite veining occasional micro-folding. Fault gouge (argillaceous), 0.10m wide @ 986.62m.	Bedding 20* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 64
Date: July 31, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
986.62 - 989.42m (2.80m)	Box 301	irregular silty partings, NVP, no shows.		
989.42 - 997.59 (8.08m)	Box 302 303	Ribbon Limestone - with Black Shale. grey to dark grey, micritic, limestone, laminated to cross-laminated, frequent intraclasts, rip-up clasts, slightly stromatolitic, interbedded with shale-phyllite, dark grey-black, hard, sub-fissile to blocky, abundant argillaceous partings, with smooth-silky phyllitic partings, fine grained pyrite. At 994.25m, fault gouge, 10mm wide. NVP, no shows.	Frequent calcite veining parallel and near vertical to bedding. Brecciation @ 995.13 & 996.15m	Bedding 10* - 30* from horizontal.
997.50 - 1004.61 (7.11m)	Box 304 305	Oolitic Limestone: 100% massive, dark grey, very hard, crystalline to coarse crystalline, occasional pisolites, well developed stylolites, mainly parallel to bedding, with paper thin partings. NVP, no shows.	Abundant calcite veining parallel and near vertical to bedding. White crystalline calcite veins @ 998.93m (0.09m wide), &, at 999.16m, (0.28m, wide).	Bedding 10* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 65
Date: Aug 1, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1004.6 - 1014.96m (10.36m)	Box 307 308 309	Oolitic Limestone: massive, dark grey to grey, very hard, crystalline to coarse crystalline, interbedded with micritic, grey limestone, well developed stylolites, with shale partings up to 3mm wide, mainly parallel to bedding, interbedded shale from 1006.17 to 1007.05m. NVP, no shows.	Frequent calcite veining parallel and near vertical to bedding. Brecciation @ 1006.62m (0.44m wide).	
1014.96- 1020.34 (5.38m)	Box 310 311	Ribbon Limestone: & Black Shale - Phyllite. micritic, grey, laminated to cross-laminated, intraclasts, slightly intraformational conglomerate, interbedded with dark grey to black Shale-Phyllite, hard, dense, hackly-flaky, smooth-waxy partings, soft deformation common, calcareous. NVP, no shows.	Occasional calcite veining, mainly parallel to bedding.	Bedding 20* - 30* from horizontal.
1020.34 - 1023.57 (3.23m)	Box 312	Pisolitic Limestone: grey, micro-crystalline to crystalline, massive, hard, minor stylolites, flaky phyllitic partings common. NVP, no shows.	Occasional white calcite veining parallel to near vertical to bedding. Minor brecciation @ 1021.55m (0.20m wide.	Bedding 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 66
Date: Aug 1, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1023.57 - 1027.87 (4.30m)	Box 313	Ribbon Limestone: - Shale - Phyllite: micritic, grey, laminated to cross-laminated, intraclasts, frequent rip-up clasts. shale-phyllite, black to grey, dense, blocky to sub-fissile, minor fine grained pyrite, some soft deformation, smooth argillaceous partings. NVP, no shows	Abundant white calcite veining, with frequent complex micro-faulting and folding. Brecciation @ 1026.47m, (0.52m wide).	Bedding 35* from horizontal.
1027.87 - 1036.33 (8.46m)	Box 314	Limestone: 60% - Shale: 40% parted and ribbon limestone, dark grey to grey, micritic, intraformational conglomerate, abundant intraclasts & rip-up clasts, stromatolitic @ 1036.56 (0.26m wide), nodular bedding in a matrix of black shale common, slightly dolomitic, interbedded with black shale-phyllite, dark grey, sub-fissile to blocky, hard, dense, slump beds, rhythmitic layering of Limestone-Shale common. NVP, no shows.	Occasional white calcite veining parallel to bedding. Brecciation @ 1030.43m (0.15m wide).	Bedding 30* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 67
Date: Aug. 2, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1036.33 - 1047.37 (11.04m)	Box 317	Limestone: 60% - Shale: 40% From 1036.30-1040.65m dark grey limestone, micritic, intraformational conglomerate, Abundant intraclasts & rip-up clasts, slightly stromatolitic, cross-bedding, oolitic @1039.69 (0.34m wide), nodular bedded, interbedded with black shale-phyllite, blocky, flaky-greasy partings, parted limestones common.	Abundant white calcite in a chaotic structure. Veining parallel & near vertical to bedding, micro-folding & faulting common.	Bedding 20* - 30* from horizontal.
	318	From 1040.65-1043.13m limestone, grey, nodular bedded in a martix of black shale. NVP, no shows.	Minor calcite veining	Bedding 35* from horizontal.
	319	From 1043.13-1047.35m Melange zone: black shale-phyllite & parted limestone. shale-phyllite sub-fissile to blocky, dense, up to 0.63m wide, interbedded with micritic limestone, slightly oolitic, intraclasts & rip-up clasts, occasional nodular bedding.	Abundant white calcite veining. Brecciated throughout with angular fragments in a white carbonate matrix.	

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 68
Date: Aug. 2, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1047.35 - 1055.97 (8.62m)	Box 320 321 322	Shale: 60% - Limestone: 40% shale-phyllite, dark grey, blocky to sub-fissile, dense, hard, with smooth, waxy partings, interbedded with parted and ribbon limestone, micritic, slightly dolomitic, intraclasts, slump beds common, minor pyrite. NVP, no shows.	White calcite veining parallel and near vertical to bedding. Intense brecciation @ 1048.34m (0.59m wide),& @ 1053.29m (0.68m wide) cemented with very fine calcite.	Bedding 30* from horizontal.
1055.97 - 1059.20 (3.23m)	Box 323	Ribbon - Parted Limestone: with Black Shale-Phyllite. (Melange) limestone, micritic, laminated, abundant intraclasts and rip-up clasts, grey nodular bedding, interbedded with very dark to black, shale-phyllite, blocky, dense, hackly-sub-fissile. NVP, no shows.	Abundant white calcite veining parallel and near vertical to bedding. Brecciation frequent with a chaotic appearance in the white carbonate.	Bedding 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 69
Date: Aug. 2-3, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1059.20 - 1066.79 (7.59m)	Box 324 325	Melange **(Major Thrust Fault)** Shale: 60 % - Limestone: 40% Parted Limestone with interbedded Black Shale-Phyllite: limestone micritic, nodular bedding, parted, frequent intraclasts and rip- up clasts, abundant soft deformation structures, interbedded shale-phyllite, black, blocky, hard, dense, splintery, slickensided partings. NVP, no shows.	Intense Limestone - Shale brecciation, with complex faulting and folding, infilled with abundant ribbon white calcite and minor quartz in a chaotic display. Fragmental limestone common. Veining parallel to near vertical to bedding.	Bedding mainly 30* from horizontal, but occasionally up to 50* from horizontal.
1066.79 - 1093.61 (26.82m)	Box 326 327	Limestone: Parted & Ribbon Limestone with interbedded Shale - Phyllite. From 1066.79-1072.67m dark grey -black, shale-phyllite, hard, dense, blocky, silty, slickensided, with occasional interbeds of parted & ribbon dark grey, micritic, limestone, intraclastic, rip-clasts common. NVP, no shows.	Frequent calcite veining mainly parallel to bedding. Abundant micro-folding and faulting. Chaotic display of very fine ribbon white calcite.	Bedding 10* - 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 70
Date: Aug. 3, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
1066.79 - 1093.61 (26.82m)	Box	Limestone: Shale		
	328	From 1072.67-1076.79m limestone: dark grey, micritic, cross-bedded, intraclastic, rip-up clasts, abundant soft deformation, occasional parted limestone, 2cm wide, with interbeds of black shale 1cm wide, slightly stromatolitic. NVP, no shows.	Frequent calcite veining parallel to near vertical to bedding. Occasional brecciation.	Bedding 10* - 20* from horizontal.
	329	From 1076.79-1078.88m limestone: grey, nodular bedded in a fine lined matrix of black shale, intraformational conglomerate limestone. NVP, no shows.	Very strongly brecciated with complex folding and faulting, in a matrix of white calcite and black shale.	Bedding 20* from horizontal.
	330	From 1078.88 - 1083.66m parted & ribbon limestone interbedded with black shale-phyllite, up to 3cm wide. Limestone dark grey, micritic, intraclastic, with abundant rip-up clasts & soft deformation, slightly intraformational conglomerate, shale-phyllite, splintery to flaky, slickensided partings. NVP, no shows.	Abundant white calcite veining with a chaotic display of white calcite throughout. Frequent complex folding - faulting. Brecciated limestone common	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 71
Date: Aug. 3-4, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1066.79 - 1093.61 (26.82m)	Box 331 332 333	Limestone: - Shale From 1083.66 - 1093.61m Shale: 70% - Limestone: 30% shale-phyllite, dark grey-black, hard, dense, blocky to splintery, greasy-slickensided, interbedded with light grey limestone, micritic, brecciated, parted limestone, and nodular bedded, up to 0.68m wide. Shale-phyllite from 1090.97-1093.18m (2.21m), minor pyrite. NVP, no shows.	Abundant calcite veining parallel to near vertical, in a chaotic display. Intense brecciation @1084.52 (0.68m wide), & @ 1088.89 (0.90m wide). Small fault zone @ 1084.52m with calcite crystals filling vugs, (0.20m wide) minor pyrite.	Bedding 20* - 40* from horizontal.
1093.61 - 1099.61 (5.99m)	Box 334 335	**MARCH POINT FM.** (equivalent) Limestone: 100% grey, massive, micritic to crystalline, nodular bedded, with paper thin shale partings, splintery-platy, slickensided. NVP, no shows.	Minor calcite veining mainly parallel to bedding.	Bedding 20* - 30* from horizontal.
1099.61 - 1100.70 (1.10m)	Box 336	Oolitic Limestone: dark grey, massive, with occasional fine stylolites and paper thin shale partings. NVP, no shows.	Abundant calcite veining parallel to near vertical to bedding.	Bedding 10* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 72
Date: Aug. 4, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1100.70 - 1102.96 (2.26m)	Box 336	Shale-Phyllite: with Limestone. dark grey to black shale-phyllite with parted limestone, blocky to sub-fissile, silty-splintery partings. NVP, no shows.	Minor white calcite veining mainly parallel to bedding.	Bedding 10* - 20* from horizontal.
1102.96 - 1104.33 (1.37m)	Box 337	Parted -Ribbon Limestone & interbeds Shale-Phyllite. limestone micritic, dark grey, intraclastic, interbedded with black shale-phyllite, up to 2cm wide, blocky, hard, smooth, greasy partings. NVP, no shows.	Occasional calcite veining mainly parallel to bedding.	Bedding 20* - 30* from horizontal.
1104.33 - 1106.36 (2.03m)	Box 338	Oolitic Limestone: massive, grey, hard, indurated, pisolitic, slightly nodular bedded, occasional stylolites with paper thin shale partings. NVP, no shows.	Minor calcite veining parallel to bedding.	Bedding 30* from horizontal.
1106.36 - 1119.25 (12.89m)	Box 338	Parted & Ribbon Limestone with Oolitic Limestone. NVP, no shows. From 1106.36-1107.48m parted limestone with interbeds of black shale-phyllite up to 1cm wide, intraclastic, with abundant rip-up clasts.		Bedding 20* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 73
Date: Aug. 4, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1106.36 - 1123.62 (17.26m)	Box	From 1107.48 - 1107.94m Oolitic limestone, massive, dark grey, hard, indurated.		
	339	From 1107.94 - 112.35m Parted - nodular limestone with black shale-phyllite, up to 0.14m wide, slightly oolitic, micritic, grey, irregular splintery shale-phyllite partings.	Abundant white calcite veining. Intense brecciation with angular fragments of limestone cemented in a white fine grained carbonate matrix.	
	340	From 1112.35 - 1117.06m Limestone, stylo-nodular, wavy, massive, dark grey, micro-crystalline, with paper thin,	Very minor calcite veining.	Bedding 30* from horizontal.
	341	hackly, greasy shale-phyllite partings.		
	342	From 117.06 - 1123.62m Parted -Ribbon Limestone with interbedded Shale-Phyllite. and Oolitic Limestone intervals up to 0.47m wide.	Abundant white calcite veining parallel to near vertical to bedding. Brecciation throughout but intense @1119.51m (0.39m wide).	Bedding 30* - 40* from horizontal.
	343	parted limestone is micritic, nodular bedded, grey, intraclastic, oolitic limestone is massive, crystalline, hard, indurated. NVP, no shows.		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 74
Date: Aug. 4-5, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
1123.62 - 1136.90 (13.28m)	Box 344	Limestone: 60% - Shale: 40% From 1123.62 - 1130.02m Parted limestone, micritic, dark grey, intraformational conglomerate, intraclastic, abundant rip-up clasts, interbedded with black shale-phyllite, dense, hard, blocky, up to 0.36m wide. Smooth greasy partings, minor fine grained pyrite. NVP, no shows.	Frequent calcite veining parallel to near vertical to bedding. Chaotic display of white carbonate common. Intense brecciation @ 1128.93m (0.86m wide).	Bedding 20* - 30* from horizontal.
	345	From 1130.02 - 1133.34m Shale - Phyllite, dense, dark-grey, black, hard, blocky-hackly slickensided partings, minor pyrite, paper thin ribbon grey limestone. NVP, no shows.	Occasional calcite veining mainly parallel to bedding. Minor micro-folding.	Bedding 20* - 40* from horizontal.
	346	From 1133.34 - 1135.15m Limestone: 50% - Shale: 50% grey, micritic, pisolitic, slightly nodular, intraclasts, interbedded with grey-green shale-phyllite, calcareous, blocky to sub-fissile platy, silty argillaceous partings.	Occasional calcite veining mainly parallel to bedding. Brecciation @ 1134.43m, (0.72m wide).	Bedding 30* - 50* from horizontal.
	347	From 1135.15 - 1136.90 Shale - Phyllite dense, dark grey to black, hard, blocky-platy, smooth, occasional fine grained pyrite.	Occasional calcite veining mainly parallel to bedding.	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 75
Date: Aug. 5, 1997

Location(NTS.): 2M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1136.90 - 1140.79 (3.89m)	Box 348	Oolitic Limestone: dark grey, massive, micro-crystalline to crystalline, occasional stylolites with paper thin argillaceous partings, parallel to bedding. NVP, no shows.	Abundant calcite veining parallel, cross-cutting, and near vertical to bedding. Moderately brecciated.	Bedding 20* - 30* from horizontal.
1140.79 - 1146.43 (5.64)	Box 349	Parted & Ribbon Limestone - interbedded with Shale-Phyllite. Parted-ribbon limestone, grey, micritic, intraclastic, rip-up clasts, slump beds, interbedded with dark grey-black, shale-phyllite, up to 0.25m wide, dense, blocky-platy, smooth partings, occasional oolitic limestone @ 1144.30m, 0.51m wide.	Frequent calcite veining, mainly parallel to bedding. Micro-folding common.	Bedding 20* - 30* from horizontal.
1146.43 - 1153.84 (7.41m)	Box 351 352	Oolitic Limestone: brecciated, grey to dark grey, massive, micro-crystalline to crystalline, with well developed stylolites, with very thin argillaceous partings. NVP, no shows.	Intensely brecciated from 1146.43 - 1150.08m, angular fragments cemented with white carbonate.	Bedding 20* - 30* from horizontal.
1153.84 - 1154.29 (0.45m)	Box 352	Shale - Phyllite: green-grey shale-phyllite interbedded with dark green Chert stringers, 2cm wide.		Bedding 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 76
Date: Aug. 5, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1153.84 - 1155.84 (2.00m)	Box 353	Shale - Phyllite: dark grey to black, dense, hard, blocky-hackly, smooth slickensided partings, with occasional parted and ribbon limestone, minor pyrite.	Calcite veining parallel to bedding.	Bedding 20* - 30* from horizontal.
1155.84 - 1157.10 (1.26m)	Box 353	Shale - Phyllite: green grey, dense, very hard, blocky-platy, silty partings. NVP, no shows.	Minor calcite veining.	Bedding 10* - 20* from horizontal.
1157.10 - 1162.53 (5.43m)	Box 354 356	Oolitic Limestone: massive, dark grey, very hard, siliceous, with well developed stylolites, parallel to bedding and paper thin argillaceous partings, brecciated throughout. NVP, no shows.	Intense brecciation from 1157.10 - 1158.52m, very strongly cemented with white buff carbonate.	Bedding 10* - 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 77
Date: Aug. 6, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1162.53 - 1191.46 (28.93m)	Box 356 357 358 359 360 361 362 363	Oolitic Limestone: dark grey-black, massive, micro-crystalline to crystalline, very hard, indurated, well developed stylolites, mainly parallel to bedding, breaking splintery-irregularly, with carbonaceous coatings. occasionally micritic, light grey very hard. Fine to coarse oolitic intervals, slightly pisolitic. From 1184.24 - 1184.68m irregular partings with graphite-carbonaceous coatings, slickensided. NVP, no shows.	Frequent calcite veining throughout, mainly parallel to bedding, occasionally near vertical. Brecciation @ 1171.08m, (0.61m wide), @ 1178.71m, (0.45m wide), @ 1185.34 to 1190.86m, cemented with white, fine grained carbonate.	Bedding 10* - 20* from horizontal. **NOTE:** Total gas units @ 1184.39m, **287 units.** @1184m=32 units @1184.39m=287 units @1184.70m=34 units @1185m=41units. Probably from stylolitic partings.
1191.46 - 1194.37 (2.91m)	Box 364	Siltstone: dark grey, dense, massive, hard indurated, blocky-splintery, earthy partings with frequent thin flakes of pyrite, weakly calcareous. Occasional pyrrhotite and pyrite throughout NVP, no shows.	Very minor calcite veining.	Bedding 10* - 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 78
Date: Aug. 6-7, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1194.37 - 1205.46 (11.09m)	Box 365 366 367 368	Parted & Ribbon Limestone with Black Shale-Phyllite. limestone, micritic, cross-bedded, intraclastic, rip-up clasts, occasional slump beds, abundant soft deformation structures interbedded with black shale-phyllite, up to 0.36m wide, hard, dense, blocky-platy, smooth greasy partings, occasional pyrite. NVP, no shows.	Occasional calcite veining, mainly parallel to bedding with micro-folding and faulting common. Frequent complex micro-folding.	Bedding 0* - 20* from horizontal.
1205.46 - 1209.27 (3.81m)	Box 369	Oolitic Limestone: dark grey-black, massive, very hard, indurated, well developed stylolites, mainly parallel to bedding, with paper thin black carbonaceous partings, breaking irregular to splintery. Slightly re-crystallized to Marble.	Abundant white calcite veining parallel to near vertical to bedding Brecciation throughout.	Bedding 10* - 20* from horizontal.
1209.27 - 1211.27 (2.00m)	Box 370	Shale - Phyllite with Ribbon-Parted Limestone: green-grey, shale-phyllite, very hard, dense, blocky-platy, with fine grained pyrite, interbedded with micritic, grey ribbon - parted limestone. NVP, no shows.	Minor calcite veining, mainly parallel to bedding.	Bedding 20* - 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 79
Date: Aug. 7, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1211.27 - 1220.96 (9.69m)	Box	Oolitic Limestone - Marble NVP, no shows.		
	371	From 1211.2 -1213.88 (2.61m) dark grey to black, micro-crystalline to crystalline, massive, fine oolitic limestone, with well developed stylolites parallel to bedding, paper thin irregular partings with carbonaceous coatings.	Frequent calcite veining parallel and near vertical to bedding. Occasional brecciation cemented with white carbonate.	Bedding 0* - 10* from horizontal.
		From 1213.88-1216.56 (2.68m) Marble: light grey to white, micro-crystalline to crypto - crystalline, relict limestone textures, frequent oolites, black wavy streaks throughout, occasional stylolites.	Abundant white calcite veining in a chaotic display.	Bedding 0* - 10* from horizontal.
		From 1216.56-1217.42 (0.86m) dark grey-black, massive, limestone, very hard, crystalline to crypto-crystalline, faintly oolitic, occasional stylolitic.	Brecciated throughout	Bedding 40* - 50* from horizontal.
	372	From 1217.42-1218.61 (1.19m) light grey to white, micro-crystalline to crypto-crystalline marble, with dark grey wavy laminae.	Abundant micro-folding and faulting.	Bedding 10* - 20* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 80
Date: Aug. 7-8, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1211.27 - 1220.96 (9.69m)	Box 372	Limestone - Marble From 1218.61-1219.49 (0.88m) dark grey-black, massive, limestone, very hard, frequently oolitic, irregular partings with slickensides. From 1219.49-1220.96 (1.47m) light grey-white to dark grey, limestone-marble, massive, slightly oolitic, wavy white-black bands.	Minor calcite veining. Minor calcite veining.	Bedding 20* - 30* from horizontal.
1220.96 - 1234.93 (13.77m)	Box 373 374 375 376 377	Dolostone: Brecciated dark grey-black, massive, very hard, abundant to occasionally oolitic, calcareous, minor vugs, fine crystalline to micro-crystalline, cemented with cream calcareous muds. Highly fractured and splintery, well polished slickensides common. Stylolitic from 1233.60-1234.73m. NVP, no shows.	Fault Zone: highly fractured and fragmental. Loosely consolidated and weakly cemented with fine calcareous fault gouge. Abundant slickensides from 1225.43-1230.28m, Highly polished.	From 1225.43-1230.28 (4.85m). Bedding 60* - 80* from horizontal. From 1230.28-1234.73 (4.45m). Bedding 30* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 81
Date: Aug. 8, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1234.98 - 1247.47 (12.54m)	Box 377	**MARCHE POINT Fm.** (equivalent)		
	378	Limestone: Oolitic grey to dark grey, massive, very hard, micro-crystalline to crystalline, fine to coarse oolites.		
	379	From 1234.93-1242.56 (7.63m) frequent stylolites, parallel to bedding, irregular partings with black carbonaceous coatings.	From 1234.93-1242.56 (7.63m) Brecciated limestone with angular fragments, well cemented with fine grained carbonate muds. Chaotic display throughout.	Bedding 20* - 30* from horizontal.
	380	From 1242.56-1247.47 (4.91m) limestone: dark grey-black, massive, fine oolites, frequently	Minor calcite veining, parallel to bedding.	Bedding 10* - 20* from horizontal.
	381	stylolitic, very irregular partings with paper thin carbonaceous coatings, no brecciation NVP, no shows.		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 82
Date: Aug. 8-9, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1247.47 - 1254.38 (6.91m)	Box 381 382 383	Limestone: Micritic: Brecciated massive, grey-dark grey, micritic, very hard, slightly peloidal, fine laminae, with very paper thin black partings, frequent rip-up clasts, intraclastic, occasional stylolites, breaking irregular, with carbonaceous coatings. NVP, no shows.	Frequent calcite veining mainly parallel to bedding. Finely brecciated with angular fragments, very well cemented with white carbonate muds.	Bedding 0* - 20* from horizontal.
1254.38 - 1259.84 (5.46m)	Box 384 385	Limestone: Oolitic massive, grey to dark grey, very hard, indurated, micro - crystalline to crystalline, frequent stylolites, with paper thin irregular partings and carbonaceous coatings, alternating bands of micritic limestone (1-2cm wide), intraclastic. NVP, no shows.	Frequent white carbonate veining, parallel and vertical to bedding.	Bedding 0* - 10* from horizontal.
1259.84 - 1262.23 (2.39m)	Box 386	Shale-Phyllite: - Parted Limestone: dark grey to black, dense, very hard, blocky to platy, silty partings, interbedded with parted limestone, micritic, intraclastic, cross-bedding, with slump beds. NVP, no shows.	Abundant calcite veining, parallel to near vertical to bedding. Brecciated @ 1260.85 (0.30m wide). Frequent micro folding & faulting.	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 83
Date: Aug. 9, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1262.23 - 1275.80 (13.57m)	Box 387 388 389 390	Limestone: Oolitic to Micritic: dark grey to grey, massive, micro-crystalline to crystalline, very hard, coarse to fine oolites with well developed stylolites, mainly parallel to bedding, paper thin irregular partings, with carbonaceous coatings, interbanded with micritic limestone, up to 5cm wide. From 1274.08-1275.80m, increase banding of fine oolitic limestone with very dark grey micritic limestone. NVP, no shows.	Frequent calcite veining, mainly parallel, but occasionally, vertical to bedding.	Bedding 10* - 20* from horizontal.
1275.80 - 1280.21 (4.41m)	Box 391	Parted Limestone with Black Shale-Phyllite: dark grey to black, dense, hard, blocky-platy, silty partings, with carbonaceous coatings, interbedded with parted & ribbon limestone, micritic, slump beds, intraclasts, cross-bedding, occasional fine oolites, up to 4cm wide. NVP, no shows.	Minor calcite veining near vertical to bedding.	Bedding 0* - 10* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 84
Date: Aug. 9-10, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1280.21 - 1288.08 (7.87m)	Box 392 393	Oolitic Limestone: massive, dark grey-black, micro-crystalline to crystalline, very hard, indurated, occasional stylolites, but well developed, with very irregular partings, carbonaceous coatings fine to medium oolites, occasional rip-up clasts. NVP, no shows.	Frequent calcite veinlets near vertical to bedding. Occasional brecciation @ 1282.94 (0.49m wide).	Bedding 0* - 10* from horizontal.
1288.08 - 1305.31 (17.23m)	Box 394 395 396 397	Parted & Ribbon Limestone with Black Shale-Phyllite. micritic, grey to dark grey, cross-bedding, slump beds, intraclastic, rip-up clasts, with black shale-phyllite, dense hard, silty partings, up to 4cm wide. From 1289.60-1290.20 (0.60m) fine oolitic limestone, massive, occasional stylolite, but very well developed. NVP, no shows. From 1297.66-1300.04, (2.38m) black shale-phyllite, up to 0.09m wide, interbedded with micritic limestone, up to 0.10m wide, slightly stylolitic.	 Frequent calcite mainly parallel to bedding. Abundant calcite veining mainly parallel to bedding.	Bedding 10* - 40* from horizontal. Bedding 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 85
Date: Aug. 10-11, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: HQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1288.08 - 1305.31 (17.23m)	Box 398	From 1300.04-1300.75 (0.71m) fine oolitic limestone, occasional stylolites, but very irregular and well developed.	Calcite veining near vertical.	Bedding 0* - 10* from horizontal.
	399	From 1300.75-1305.31 (4.56m) parted limestone, micritic to slightly oolitic, interbedded with black shale-phyllite, (2-3cm wide).		Bedding 10* - 20* from horizontal.
1305.31 - 1312.83 (7.52m)	Box 400	Oolitic Limestone: massive, dark grey to black, fine to medium oolites, very hard, indurated, frequent	Occasional calcite veining, near vertical to bedding.	Bedding 0* - 10* from horizontal.
	401	stylolites, with very irregular partings and carbonaceous coatings. NVP, no shows.		

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 86
Date: Aug. 11-12, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: NQ=46mm

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1312.83 - 1329.55 (16.72m)	Box 402	**March Point Fm.** (equivalent) **NOTE: Began coring with NQ =46mm @ 1312.83m**		
	403 404	Oolitic Limestone: dark grey to black, massive, frequent stylolites, very irregular partings, with graphite and carbonaceous coatings.	Frequent calcite veining, mainly vertical to bedding.	Bedding 0* - 10* from horizontal.
	405 406	From 1322.69 -1326.13 (3.44m) fine oolites, occasional stylolites with mainly paper thin irregular partings, slightly micritic. NVP, no shows.	Calcite veining mainly parallel to bedding, up to 2cm wide.	Bedding 10* - 30* from horizontal.
1329.55 - 1353.09 (23.54m)	Box 407 408	Parted-Ribbon Limestone: and Shale-Phyllite: parted-ribbon limestone, grey to dark-grey, micritic, hard, cross-bedded, slightly intraclastic & oolitic, interbedded with shale-phyllite, black, blocky-platy, hard, dense, calcareous. NVP, no shows.	Minor calcite veining from 1329.55-1337.15m.	Bedding 20* - 35* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 87
Date: Aug. 12, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: NQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1329.55 - 1353.09 (23.54m)	Box 409	From 1337.15-1341.09 (3.94m) mainly black shale-phyllite, with minor parted limestone.	Abundant calcite veining, mainly parallel to bedding. @ 1338.16m quartz-carbonate vein (0.53m wide).	Bedding 35* from horizontal.
	410	From 1341.09-1343.23 (2.14m) grey-green, shale-phyllite, interbedded, with black shale-phyllite & minor parted-ribbon limestone.	Frequent calcite veining mainly parallel to bedding.	Bedding 20* - 40* from horizontal.
	411 412	From 1343.23-1348.65 (5.42m) black shale-phyllite, blocky-sub-fissile, medium hard, dense, highly calcareous, with paper thin ribbon limestone and occasional parted limestone, frequent fine grained pyrite, smooth partings. NVP, no shows.	Frequent calcite veining mainly parallel to bedding. Micro-folding & faulting common.	Bedding 10* - 20* from horizontal.
	413	From 1348.65-1353.09 (4.44m) parted & ribbon limestone interbedded with black shale-phyllite, cross-bedded, slump beds, intraformational conglomerate, slightly oolitic.	Minor calcite veining parallel to bedding. Brecciated shale & limestone @ 1348.65m, (0.36m wide).	Bedding 0* - 10* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 88
Date: Aug. 12-13, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: NQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1353.09 - 1355.38 (2.29m)	Box 414	Oolitic Limestone: massive, grey to dark-grey, fine oolites, slightly micritic, occasional stylolites, vertical to bedding. NVP, no shows.	Frequent calcite veining parallel and near vertical to bedding. Brecciation @ 1354.31m (0.43m wide).	Bedding 20* - 30* from horizontal.
1355.38 - 1365.74 (10.36m)	Box 415 416 417	Parted Limestone with Black Shale - Phyllite: parted limestone, micritic, hard, cross-bedded, with frequent interbeds of fine micritic limestone, massive, slump beds, shale-phyllite partings paper thin to 1cm wide, medium hard argillaceous greasy, smooth, medium hard, minor pyrite. NVP, no shows.	Frequent calcite veining parallel and near vertical to bedding. Brecciation @ 1361.71m (4cm wide), & @ 1362.10m 0.11m wide)	Bedding 0* - 10* from horizontal.
1365.74 - 1375.91 (3.63m)	Box 418 419 420	Micritic Limestone: massive to slightly laminated, grey, hard, intraclasts, cross-bedded, with frequent oolite intervals up to 0.80m wide. Occasional stylolites from parallel to near vertical to bedding, interbedded shale-phyllite up to 2cm wide. NVP, no shows.	Minor calcite veining parallel and near vertical to bedding. Minor faulting and folding.	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 89
Date: Aug. 13, 1997

Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: _____ Core size: NQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: _____
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth	Lithology Description		Fracture / Alteration	Remarks
1375.91 - 1379.54 (3.63m)	Box 421	**March Point Fm.** (equivalent) Oolitic Limestone: massive, grey to dark-grey, micro-crystalline to crystalline, hard, dense, fine to medium oolites, frequent stylolites parallel to bedding with paper thin irregular partings, minor pyrite. NVP, no shows.	Minor calcite veining parallel to bedding @1378.54m. Fault Zone with clear crystalline calcite lining small veins. Mechanical break up of core from 1379.35 to 1379.35m	Bedding 20* - 40* from horizontal.
1379.54 - 1381.82 (2.28m)	Box 422	Parted -Ribbon Limestone with Black Shale-Phyllite: micritic, cross-bedded, intraclastic, rip-up clasts, slump beds interbedded with black shale-phyllite up to 5cm wide, splintery to platy partings, carbonaceous coatings, occasional oolitic intervals. NVP, no shows.	Minor calcite veining mainly parallel to bedding.	Bedding 20* - 40* from horizontal.

DELPET VINLAND BIG SPRING #1
DIAMOND DRILL CORE LOG

SHEET # 90
Date: Aug. 13, 1997

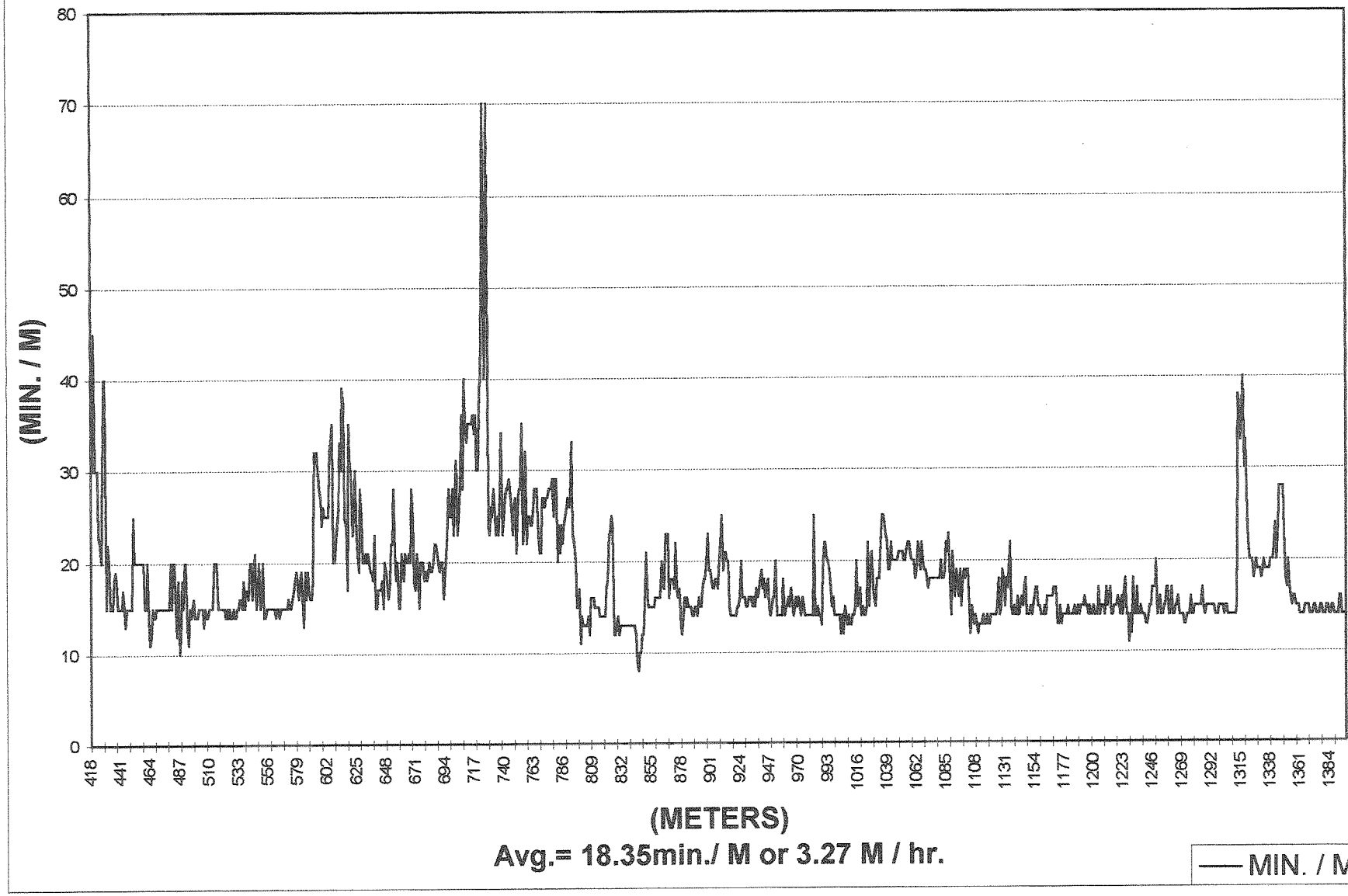
Location(NTS.): 2 M / 4
UTM Cood: N 5664039, E 572158
Elevation: 30.0m (98') above MSL
Dip at Collar: Vertical
Total Depth: 1396.82m Core size: NQ

Hole No: BIG SPRING # 1
Spud date: May 25, 1997 Completed: Aug. 13, 1997
Logged by: Roland Strickland
Drilled by: East Coast Drilling

Depth		Lithology Description	Fracture / Alteration	Remarks
1381.82 - 1393.25 (11.43m)	Box 423 424 425 426	**March Point Fm.** (equivalent) Oolitic Limestone: massive, dark grey to black, fine to medium oolites, frequent stylolites mainly parallel to bedding, but occasionally near vertical, with paper thin irregular partings, occasionally micritic. NVP, no shows. **NOTE:** **Total drilling depth 1396.82m.**	Minor calcite veining mainly parallel to bedding.	Bedding 10* - 30* from horizontal.

Diamond Drill Penetration
&
Diamond Bit Data

BIG SPRING # 1 PENETRATION RATES



PENETRATION RECORD

DEPTH M	TIME START	TIME FINISH	MINUTES / M	BIT # /SERIES	RPM / WOB
151	1930	2010	40	19660-1 / # 7	300 / 2000
		150 MIN			
152	2010	2050	40	19660-2 / # 7	300 / 2000
153	2050	2130	40		
154	2130	2155	25		
155	2155	2210	15		
156	2210	2225	15		
157	2225	2305	30		
158	2305	2325	20		
159	2325	2340	15		
160	2340	20	40		
161	20	45	15		
162	45	110	25		
163	140	155	15		
164	155	213	18		
165	213	230	18		
166	230	310	40		
167	310	325	15		
168	325	340	15		
169	340	420	40		
170	420	435	15		
171	435	450	15		
172	510	521	11		
173	521	533	12		
174	533	545	12		
175	700	730	30		
176	730	800	30		
177	800	830	30		
178	1015	1115	60		
179	1115	1200	45		
180	1230	1315	45		
181	1745	1830	45		
182	1830	1905	35		
183	1905	1945	40		
184	2200	2220	20		
185	2220	2240	20		
186	2240	2300	20		
187	10	20	10		
188	20	30	10		
189	30	40	10		
190	55	106	11		
191	106	117	11		
192	117	128	11		
193	245	258	13		
194	258	309	11		
195	309	320	11		
196	340	353	13	19660-2 / # 7	600 / 2000
		1037 MIN			

PENETRATION RECORD

DEPTH M	TIME START	TIME FINISH	MINUTES / M	BIT #	RPM / WOB
			1037 MIN.		
197	530	542	12	19660-2 / # 7	700 / 2000
198	542	557	15		
199	610	630	20		
200	630	650	20		
201	650	710	20		
202	745	800	15		
203	800	830	30		
204	1935	1955	20	19660-2 / # 7	700 / 2000
52 METRES			152 MIN / 1189 MIN, ROP @ 2.6 HRS		
205	1955	2015	20	3409 / #5	700 / 2000
206	2015	2035	20		
207	2035	2055	20		
208	2055	2115	20		
209	2115	2135	20		
210	2135	2155	20		
211	2215	2230	15		
212	2230	2245	15		
213	2305	2312	7		
214	2335	2355	20		
215	2355	15	20		
216	15	45	20		
217	100	115	15		
218	115	130	15		
219	130	145	15		
220	200	216	16		
221	216	233	17		
222	233	250	17		
223	305	325	20		
224	325	345	20		
225	345	405	20		
226	420	440	20		
227	440	500	20		
228	500	520	20		
229	535	555	20		
230	555	615	20		
231	615	635	20		
232	655	730	35		
233	815	825	15		
234	900	915	15		
235	940	955	15		
236	955	1015	20		
237	1015	1045	30		
238	1200	1220	20		
239	1220	1240	20		
240	1240	1300	20		
241	1330	1350	20		
242	1350	1410	20	3409 / #5	700 / 2000
38 METRES			722 MIN.		

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	OFF PRESS.	W. O. B.	CORE M
97/06/24	83 METRES AT 1887 MINUTES EQUALS 2.6 METRES PER HOUR								
	289	2220	2310	30					
	290	2310	2340	30					
	291	2340	10	30					
97/06/25	292	20	50	30					
	293	50	120	30					
	294	120	140	20					
	295	210	240	30					
	296	240	310	30					
	297	310	340	30					
	298	405	435	30					
	299	435	505	30					
	300	505	535	30					
	301	605	632	27					
	302	632	658	26					
	303	658	730	32					
	304	815	845	30					
	305	845	905	20					
	306	915	945	30					
	307	1025	1050	25					
	308	1050	1120	30					
	309	1120	1150	30					
	310	1330	1405	35					
	311	1405	1440	35					
	312	1440	1520	40					
	313	1625	1650	25					
	314	1650	1715	25					
	315	1715	1750	35					
	316	1835	1900	25					
	317	1900	1930	30					
	318	1930	2000	30	NORMAL RETIREMENT ON MILL				
97/06/26	319	100	133	33	JKS 03409-5, # 09	500	600	3000	
	115 METRES AT 2800 MINUTES EQUALS 2.5 METRES PER HOUR.								
	320	133	205	32	JKS 03799-6, # 10	500	600	3000	
	321	205	225	20					
	322	310	337	27					
	323	337	409	32					
	324	409	444	35					
	325	515	550	35					
	326	550	635	45					
	327	635	730	55					
	328	820	855	35					
	329	855	930	35					
	330	930	1015	45					
	331	1045	1125	40					
97/06/27	332	1125	1210	45	JKS 03799-6, # 10	500	600	3000	
	12 METRES			481 MINUTES EQUALS 1.5 M/HOUR					

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	OFF PRESS.	W. O. B.	CORE M
	333	1210	1240	30					
	334	1310	1340	30					
	335	1340	1410	30					
	336	1410	1455	45					
	337	1535	1605	30					
	338	1605	1645	40					
	339	1645	1730	45					
	340	1820	1850	30					
	341	1850	1920	30					
	342	1920	2000	40					
	343	2000	2030	30					
	344	2030	2138	68					
	345	2138	2200	32					
	346	2225	2250	25					
	347	2250	2315	25					
	348	2315	2345	30					
97/06/28	349	25	55	30					
	350	55	130	35					
	351	130	200	30					
	352	320	400	40					
	353	400	430	30	SQUASHED SEGMENTS				
	34 METRES,ROP @ 2.8M/H			725	JKS 03799-6, #10	500	600	3000	
97-06-28	354	730	830	60	JKS 03353-7, #11	500	400	3000	
					JKS 7-3354-8 #12				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50 X 76	W. O. B. DAN	CORE M
97-07-11	64		1534	1534	JKS73354-8	500		1500	
	418	935	1005	30					
	419	1010	1040	30					
	420	1045	1130	45					
	421	1215	1245	30					
	422	1245	1315	30					
	423	1345	1415	30					
	424	1515	1538	23					
	425	1538	1600	22					
	426	1600	1620	20					
	427	1720	1750	30					
	428	1750	1830	40					
	429	1830	1910	40					
	430	2128	2143	15					
	431	2143	2200	22					
	432	2200	2220	20					
97-07-12	433	15	30	15					
	434	30	45	15					
	435	45	100	15					
	436	200	218	18					
	437	218	237	19					
	438	237	255	18					
	439	335	350	15					
	440	350	405	15					
	441	405	420	15					
	442	455	510	15					
	443	510	527	17					
	444	527	543	15					
	445	615	628	13					
	446	628	643	15					
	447	643	658	15					
	448	740	755	15					
	449	755	815	15					
	450	815	830	15					
	451	930	955	25					
	452	955	1015	20					
	453	1015	1035	20					
	454	1500	1520	20					
	455	1520	1540	20					
	456	1540	1600	20					
	457	1645	1705	20					
	458	1705	1725	20					
	459	1725	1745	20					
	460	1840	1855	15					
	461	1855	1910	15					
97-07-12	462	1910	1930	20	JKS 73354-8				
	108M			2476 MIN ROP AT 2.6M PER MIN.					

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50 X 76	W. O. B. DAN	CORE M
97-07-12	108M			2476	JKS73354-8	500	50	1000	
	463	2010	2024	14					
	464	2024	2035	11					
	465	2035	2047	12					
	466	2125	2140	15					
	467	2140	2154	14					
	468	2154	2208	14					
	469	2245	2300	15					
	470	2300	2315	15					
	471	2315	2330	15					
97-07-13	472	12	27	15					
	473	27	42	15					
	474	42	56	314					
	475	130	145	15					
	476	145	200	15					
	477	200	215	15					
	478	840	855	15					
	479	855	910	15					
	480	910	930	20					
	481	1020	1035	15					
	482	1035	1055	20					
	483	1055	1115	20					
	484	1210	1225	15					
	485	1225	1237	12					
	486	1237	1255	18					
	487	1345	1355	10					
	488	1355	1407	12					
	489	1407	1425	18					
	490	1510	1525	15					
	491	1525	31545	20					
	492	1545	1605	20					
	493	1650	1703	13					
	494	1704	1715	11					
	495	1715	1730	15					
	496	1940	1954	14		550	60	1500	
	497	1954	2009	15					
	498	2009	2025	16					
	499	2105	2119	14					
	500	2119	2133	14					
	501	2133	2147	14					
	502	2227	2242	15					
	503	2242	2257	15					
	504	2257	2312	15					
97-07-14	505	2347	2	15	JKS 73354-8	550	60	1500	
	196M			3421	ROP AT 3.4M PER HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	OFF PRESS.	W. O. B.	CORE M

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50 X 76	W. O. B. DAN	CORE M
97-07-14	196M			3421	JKS 73354-8	550	2500	1500	
	506	2	15	13	INSTAL FLUID CONTROL VALVE				
	507	15	30	15					
	508	117	131	14					
	509	131	145	14					
	510	145	200	15					
	511	235	250	15					
	512	250	305	15					
97-07-14	513	305	320	15	PULL BIT, - 60%	550	140	1500	
	204M			3537	3.5M PER HR				
	514	2230	2250	20	JKS 73353-7	550	140	1500	
	515	2250	2310	20					
	516	2310	2330	20					
97-07-15	517	15	30	15					
	518	30	45	15					
	519	45	100	15					
	520	200	215	15					
	521	215	230	15					
	522	230	245	15					
	523	325	339	14					
	524	339	354	15					
	525	354	408	14					
	526	458	513	15					
	527	513	527	14					
	528	527	541	14					
	529	620	635	15					
	530	635	649	14					
	531	649	703	14					
	532	800	815	15		550	140	1500	
	533	815	830	15			110		
	534	830	846	16					
	535	946	1002	16					
	536	1003	1018	15					
	537	1018	1036	18					
	538	1135	1150	15					
	539	1150	1207	17					
	540	1207	1220	17					
	541	1315	1331	16					
	542	1332	1352	20					
	543	1353	1413	20					
	544	1503	1519	16					
	545	1520	1539	19					
	546	1539	1600	21					
	547	1650	1705	15					
97-07-15	548	1706	1723	17	JKS 73353-7	550	110	1500	
	35M			567	ROP AT 3.7 M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50 X 76	W. O. B.	CORE M
	35M			567					
97-07-15	549	1724	1744	20	JKS73353-7	500	110	1500	
	550	1840	1855	15					
	551	1856	1912	16					
	552	1912	1932	20					
	553	2017	2031	14					
	554	2031	2045	14					
	555	2045	2100	15					
	556	2237	2252	15					
	557	2252	2307	15					
	558	2307	2322	15					
97-07-16	559	8	23	15					
	560	23	38	15					
	561	38	43	15					
	562	134	148	14					
	563	148	203	15					
	564	203	218	15					
	565	258	312	14					
	566	312	327	15					
	567	327	342	15					
	568	425	440	15					
	569	440	455	15					
	570	455	510	15					
	571	551	604	15					
	572	604	620	16					
	573	620	635	15					
	574	745	800	15					
	575	801	817	16					
	576	818	835	17					
	577	935	953	18					
	578	954	1013	19					
	579	1014	1032	18					
	580	1120	1136	16					
	581	1137	1155	18					
	582	1156	1215	19					
	583	1305	1320	15					
	584	1321	1334	13					
	585	1335	1354	19					
	586	1440	1450	16					
	587	1457	1516	19					
	588	1517	1535	17					
	589	1630	1636	16					
	590	1636	1702	16					
97-07-16	591	1703	1721	18	JKS 73353-7				
	78M			1255	ROP AT 3.73M/HR	500	110	1500	

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 51X76	W. O. B.	CORE M
97-07-16	78M			1255	JKS 73353-7	500	110	1000	
	592	1930	2002	32					
	593	2002	2033	31					
	594	2033	2105	32					
	595	2150	2220	30					
	596	2220	2248	28		550	110	1000	
	597	2248	2315	27					
	598	2358	22	24					
97-07-18	599	22	48	26					
	600	48	113	25					
	601	155	220	25					
	602	220	245	25					
	603	245	310	25					
	604	355	427	32		450	110	1000	
	605	427	500	33					
	606	500	535	35					
	607	618	638	20		600	110	500	
	608	638	658	20					
	609	658	720	22					
	610	818	842	24					
	611	843	909	26		500	110	1500	
	612	910	943	33					
	613	1055	1125	30					
	614	1126	1205	39					
	615	1205	1242	37					
	616	1425	1450	25					
	617	1451	1515	24					
	618	1515	1532	17					
	619	1730	1805	35					
	620	1805	1835	30					
	621	1835	1905	30					
	622	2005	2028	23					
	623	2029	2053	25					
	624	2053	2123	30	MILL N/R				
	115M			2175	ROP AT 3.17M/HR	500	110	1500	
97-07-18	625	600	623	23	B/L 20093-2	500	110	1500	
	626	624	645	21					
	627	646	705	19					
	628	800	828	28					
	629	828	853	25					
	630	853	915	20					
	631	1000	1020	20					
	632	1020	1041	21					
	633	1041	1102	20					
	634	1150	1210	21					
	635	1210	1231	20					
	636	1231	1251	19	B/L 20093-2	500	110	1500	
97-07-18	12M			257	ROP AT 2.8M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 51X76	W. O. B.	CORE M
97-07-18	12M			257	B/L 20093-2 S8	500	110	1500	
	637	1343	1402	19					
	638	1402	1420	18					
	639	1420	1443	23					
	640	1530	1545	15					
	641	1545	1600	15					
	642	1600	1617	17					
	642	1705	1722	17					
	644	1722	1739	17					
	645	1739	1757	18					
	646	1850	1905	15					
	647	1906	1926	20					
	648	1927	1946	19					
	649	2040	2058	18					
	650	2059	2115	16					
	651	2116	2134	18					
	652	2240	2302	22					
	653	2303	2325	22					
	654	2326	2354	28					
97-07-19	655	100	121	21					
	656	122	140	18					
	657	141	201	20					
	658	255	310	15					
	659	311	326	15					
	660	327	347	21					
	661	445	505	20					
	662	506	523	18					
	663	524	545	21					
	664	630	650	20					
	665	651	711	20					
	666	712	733	21					
	667	837	857	20					
	668	857	925	28					
	669	925	950	25					
	670	1037	1055	18					
	671	1055	1112	17					
	672	1112	1133	21					
	673	1221	1240	19					
	674	1240	1255	15					
	675	1255	1315	20					
	676	1315	1335	20					
	677	1417	1437	20					
	678	1437	1455	18					
	679	1455	1514	19					
	680	1600	1618	18	B/L 20093-2 S8	500	110	1500	
97-07-19	56M			1102	ROP AT 3.0M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 51X76	W. O. B.	CORE M
97-07-20	56M			1102	B/L 20093-2 S8	500	110	1500	
	681	1618	1637	19					
	682	1637	1657	20					
	683	1741	1800	19					
	684	1800	1819	19					
	685	1819	1839	20					
	686	1918	1940	22					
	687	1941	2003	22					
	688	2004	2025	21					
	689	2125	2145	20					
	690	2146	2205	19					
	691	2206	2226	20					
	692	2318	2338	20					
	693	2339	2355	16					
	694	2356	14	18					
97-07-20	695	100	121	21					
	696	122	143	23					
	697	146	214	28					
	698	300	325	25					
	699	326	351	25					
	700	352	420	28					
	701	510	533	23					
	702	534	603	29		500	110	1000	
	703	604	635	31					
	704	724	747	23					
	705	747	812	25					
	706	812	840	28					
	707	931	1007	36					
	708	1007	1035	28					
	709	1035	1115	40					
	710	1202	1237	35					
	711	1237	1310	33		500	110	800	
	712	1310	1345	35					
	713	1430	1505	35					
	714	1505	1540	35					
	715	1540	1615	35					
	716	1702	1738	36					
	717	1738	1812	34					
	718	1812	1848	36					
	719	2025	2055	30					
	720	2055	2125	30					
	721	2126	2205	39	REDUCED WOB DUE TO HIGH ANGLE				
	722	2305	2345	40	SHALE				
	723	2346	40	54					
21-07-97	724	40	150	70	SURVEY	500	110	500	
	725	310	350	40		500	110	1500	
	726	300	440	51					
	727	440	550	70	20093-2 S8	500	110	1500	
	103M			2528	ROP AT 2.1M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 51X76	W. O. B.	CORE M
21-07-97	103M			2528	B/L 20093-2 S8	500	110	1500	
	728	803	827	24					
	729	827	850	23					
	730	850	916	26					
	731	1002	1027	25					
	732	1027	1055	28					
	733	1055	1120	25					
	734	1205	1228	23					
	735	1228	1253	25					
	736	1253	1317	23					
	737	1411	1438	27					
	738	1438	1512	34					
	739	1512	1535	23					
	740	1632	1657	25					
	741	1657	1724	27					
	742	1724	1752	28					
	743	1854	1922	28					
	744	1923	1952	29					
	745	1953	2021	28					
	746	2125	2151	26					
	747	2152	2215	23					
	748	2216	2242	26					
22-07-97	749	2340	7	27					
	750	8	29	21					
	751	30	56	26					
	752	152	220	28					
	753	221	249	28					
	754	250	325	35					
	755	508	530	22					
	756	531	555	24					
	757	556	628	32					
	758	731	753	22					
	759	753	815	25					
	760	815	840	25					
	761	940	1005	24					
	762	1005	1029	24					
	763	1029	1053	26					
	764	1141	1207	28					
	765	1207	1235	28					
	766	1235	1303	28					
	767	1355	1418	23					
	768	1418	1439	21					
	769	1439	1500	21					
	770	1643	1710	27	B/L 20093-2 S8	500	110	1500	
22-07-97	146M			3639	ROP AT 2.45 M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 51X76	W. O. B. DAN	CORE M
22-07-97	146M			3639	B/L 20093-2 S8	500	110	1500 TO	
	771	1710	1737	27				2000	
	772	1737	1803	26					
	773	1910	1937	27					
	774	1938	2005	27					
	775	2005	2033	28					
	776	2152	2220	28					
	775	2221	2249	28					
23-07-97	778	2250	2319	29					
	779	50	115	25					
	780	116	145	29					
	781	146	215	29					
	782	400	420	20					
	783	421	445	24					
	784	446	507	21					
	785	616	640	24					
	786	641	703	22					
	787	704	728	24					
	788	728	907	25					
	789	907	933	26					
	790	933	1000	27					
	791	1134	1200	26					
	792	1200	1227	27					
	793	1227	1300	33					
	794	1415	1438	23					
	795	1438	1500	22					
	796	1500	1520	20	NORMAL RETIREMENT				
	173M			4306	ROP AT 2.4 M/HR				
24-07-97	797	1005	1020	15	B/L 20305-2 S2	500	110	1000	
	798	1020	1035	15					
	799	1035	1052	17					
	800	1157	1208	11		500	110	1500	
	801	1208	1222	14					
	802	1222	1235	13					
	803	1333	1346	13					
	804	1346	1359	13					
	805	1359	1412	13					
	806	1507	1521	14					
	807	1521	1533	12					
	808	1702	1718	16					
	809	1718	1734	16					
	810	1734	1750	16					
	811	1900	1915	15					
	812	1915	1930	15					
	813	1930	1945	15					
	814	2058	2113	15					
24-07-97	815	2113	2127	14					
	18M			272	ROP AT 4M/HR	500	110	1500	

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
24-07-97	19M			272	B/L20305-2 S8				
	816	2127	2141	14		500	110	1500	
	817	2246	2300	14					
	818	2300	2314	14					
	819	2314	2328	14					
25-07-97	820	100	117	17					
	821	118	136	18					
	822	137	200	23					
	823	336	350	23					
	824	400	425	25					
	845	426	450	24					
	826	609	621	12					
	827	622	634	12					
	828	935	648	13					
	829	808	822	14					
	830	822	834	12					
	831	834	847	13					
	832	952	1005	13					
	833	1005	1018	13					
	834	1018	1031	13					
	835	1145	1158	13					
	836	1158	1211	13					
	837	1211	1224	13					
	838	1335	1348	13					
	839	1348	1401	13					
	840	1401	1414	13					
	841	1517	1530	13					
	842	1530	1543	13					
	843	1543	1555	12					
	844	1702	1711	9		500	110	2000	
	845	1711	1719	8					
	846	1719	1729	10					
	847	1936	1946	10					
	848	1946	1958	12					
	849	1958	2010	12					
	850	2038	2055	17		500	110	1000	
26-07-97	851	522	543	21					
	852	544	600	16					
	853	1113	1128	15					
	854	1128	1143	15					
	855	1143	1158	15					
	856	1158	1213	15					
	857	1327	1342	15					
	858	1342	1358	16					
	859	1358	1414	16					
	860	1520	1536	16	B/L 20305-2 S2				
26-07-97	63M			927	ROP AT 4.0 M/HR	500	110	1500	

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
	63M			927	B/L 20305-2 S2	500	110	800	
	861	1536	1542	16					
	862	1542	1556	16					
	863	1839	1859	20					
	864	1859	1917	18					
	865	1918	1935	17					
	866	2125	2148	23					
	867	2148	2211	22					
	868	2212	2235	23					
27-07-97	869	5	21	16					
	870	22	40	18					
	871	41	54	18					
	872	220	238	18					
	873	239	256	17					
	874	257	319	22					
	875	433	450	17					
	876	451	507	16					
	877	508	525	17					
	878	633	647	13					
	879	648	700	12					
	880	701	715	14					
	881	826	842	16					
	882	842	857	15					
	883	857	913	16					
	884	1035	1050	15					
	885	1050	1105	15					
	886	1105	1120	15					
	887	1222	1236	14					
	888	1236	1250	14					
	889	1250	1305	15					
	890	1415	1430	15					
	891	1430	1444	14					
	892	1444	1500	16					
	893	1620	1635	15					
	894	1635	1650	15					
	895	1650	1707	17					
	896	1822	1840	18					
	897	1840	1858	18					
	898	1858	1918	20					
	899	2035	2058	23					
	900	2058	2117	19					
	901	2117	2136	19					
	902	2300	2318	18					
	903	2318	2335	17					
27-07-97	904	2335	2352	17	B/L 20305-2 S2				
	106M			1676	ROP AT 3.8M/HR	500	110	1000	

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
	106M			1676	B/L 20305-2 S2				
28-07-97	905	103	121	18		500	110	1000	
	906	121	139	18					
	907	139	156	17					
	908	313	333	20					
	909	333	355	22					
	910	355	420	25					
	911	535	554	19					
	912	554	615	21					
	913	615	636	21					
	914	750	810	20					
	915	810	830	20		500	110	1500	
	916	830	845	15					
	917	958	1012	14					
	918	1012	1026	14					
	919	1026	1040	14					
	920	1147	1201	14					
	921	1201	1215	14					
	922	1215	1230	15					
	923	1351	1406	15					
	924	1406	1422	16					
	925	1422	1442	20					
	926	1548	1604	16					
	927	1604	1620	16					
	928	1620	1636	16					
	929	1741	1756	15					
	930	1756	1811	15					
	931	1811	1827	16					
	932	1935	1951	16					
	933	1951	2007	16					
	934	2007	2022	15					
	935	2140	2156	16					
	936	2156	2211	15					
	937	2211	2228	17					
29-07-97	938	2352	8	16					
	939	8	25	17					
	940	25	43	18					
	941	200	219	19					
	942	219	236	17					
	943	236	254	18					
	944	412	428	16					
	945	428	445	17					
	946	445	503	18	B/L 20305-2 S2				
	150M			2393	ROP AT 3.8M/HR	500	110	1500	

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
29-07-97	150M			2393					
	947	816	831	15	B/L 20305-2 S8	500	110	1500	
	948	831	845	14					
	949	845	900	15					
	950	1025	1041	16					
	951	1041	1057	16					
	952	1057	1117	20					
	953	1333	1347	14					
	954	1347	1401	14					
	955	1401	1415	14					
	956	1538	1552	14					
	957	1552	1606	14					
	958	1617	1635	18					
	959	1746	1800	14					
	960	1800	1815	15					
	961	1815	1830	15					
	962	1947	2003	16					
	63	2003	2018	15					
	964	2018	2035	17					
	965	2225	2241	16					
	966	2241	2255	14					
	967	2255	2310	15					
30-07-97	968	33	49	16					
	969	49	104	15					
	970	104	120	16					
	971	238	253	15					
	972	253	307	14					
	973	307	323	16					
	974	440	455	15					
	975	455	509	14					
	976	509	523	14					
	977	812	826	14					
	978	826	840	14					
	979	840	854	14					
	980	1011	1025	14					
	981	1025	1039	14					
	982	1039	1104	25					
	983	1217	1231	14					
	984	1231	1245	14					
	985	1245	1300	15					
	986	1415	1429	14					
	987	1429	1443	14					
30-07-97	988	1443	1456	13	B/L 20305-2 S2	OUT OF GUAGE ON ID AND OD			
	192M			3028	ROP AT 3.8M/HR	500	110	3000	

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
31-07-97					B/L 20305-3 S2	600	110	1500	
	989	306	325	19					
	990	325	347	22					
	991	347	409	22					
	992	531	551	20					
	993	551	611	20					
	994	611	630	19					
	995	828	845	17					
	996	845	900	15					
	997	900	916	16					
	998	1210	1224	14					
	999	1224	1238	14					
	1000	1238	1252	14					
	1001	1410	1424	14					
	1002	1424	1438	14					
	1003	1438	1450	12					
	1004	1617	1631	14					
	1005	1631	1643	12					
	1006	1643	1658	15					
	1007	1831	1845	14					
	1008	1845	1858	13					
	1009	1858	1912	14					
	1010	2023	2036	13					
	1011	2036	2049	13					
	1012	2049	2103	14					
	1013	2218	2232	14					
	1014	2232	2247	15					
	1015	2247	2307	20					
1/8/97	1016	37	52	15					
	1017	52	108	16					
	1018	108	125	17					
	1019	242	256	14					
	1020	256	311	15					
	1021	311	325	14					
	1022	443	457	14					
	1023	457	512	15					
	1024	512	534	22					
	1025	646	701	15					
	1026	701	719	18					
	1027	719	740	21					
	1028	907	924	17					
	1029	924	940	16					
	1030	940	955	15					
	1031	1244	1302	18					
	1032	1302	1320	18				1500	
	1033	1320	1338	18				1000	
	1034	1510	1532	22					
1/8/97	1035	1532	1557	25	B/L 20305-3 S8	600	110	1000	
	48M			768	ROP AT 3.75M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
	48M			768	B/L 20305-3 S2				
1/8/97	1036	1557	1622	25		600	110	1000	
	1037	1740	1804	24					
	1038	1804	1827	23					
	1039	1827	1849	22					
	1040	2007	2026	19					
	1041	2026	2045	19					
	1042	2045	2107	22					
	1043	2232	2252	20					
	1044	2252	2312	20					
	1045	2312	2332	20					
2/8/97	1046	49	109	20					
	1047	109	129	20					
	1048	129	150	21					
	1049	302	323	21					
	1050	323	344	21					
	1051	344	405	21					
	1052	522	542	20					
	1053	542	602	20					
	1054	602	623	21					
	1055	758	820	22					
	1056	820	842	22					
	1057	842	905	23					
	1058	1025	1045	20					
	1059	1045	1105	20					
	1060	1105	1125	20					
	1061	1246	1304	18					
	1062	1304	1323	19					
	1063	1323	1345	22					
	1064	1506	1527	21					
	1065	1527	1546	19					
	1066	1546	1608	22					
	1067	1729	1749	20					
	1068	1749	1808	19					
	1069	1808	1827	19					
	1070	1940	1958	18					
	1071	1958	2015	17					
	1072	2015	2033	18					
	1073	2154	2212	18					
	1074	2212	2230	18					
	1075	2230	2248	18					
3/8/97	1076	15	33	18					
	1077	33	51	18					
	1078	51	109	18					
	1079	231	249	18					
3/8/97	1080	249	307	18	B/L 20305-3 S2	600	110	1000/1500	
	92M			1670	ROP AT 3.3M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
3/8/97	92M			1670	B/L 20305-3 S2	600	1110	1000/1500	
	1081	307	327	20					
	1082	448	506	18					
	1083	506	524	18					
	1084	524	543	19					
	1085	712	734	22					
	1086	735	756	21					
	1087	757	820	23					
	1088	1005	1023	18					
	1089	1024	1038	14					
	1090	1039	1100	21					
	1091	1225	1243	18					
	1092	1244	1300	16	PUMP HIVISC SWEEP				
	1093	1301	1320	19					
	1094	1445	1503	18					
	1095	1504	1520	16					
	1096	1521	1540	19					
	1097	1705	1720	15					
	1098	1721	1739	18					
	1099	1740	1759	19					
	1100	1918	1936	18					
	1101	1936	1955	19					
	1102	1955	2014	19					
	1103	2128	2143	15		600	110	1500	
	1104	2143	2155	12					
	1105	2155	2210	15					
4/8/97	1106	28	42	14					
	1107	42	55	13					
	1108	55	109	14					
	1109	226	239	13					
	1110	239	251	12					
	1111	251	304	13					
	1112	421	434	13					
	1113	434	447	13					
	1114	447	501	14					
	1115	623	636	13					
	1116	636	649	13					
	1117	649	703	14					
	1118	837	850	13					
	1119	851	904	13					
	1120	905	919	14					
	1121	1046	1100	14					
	1122	1101	1115	14					
	1123	1116	1130	14					
	1124	1306	1320	14					
4/8/97	1125	1321	1336	15	B/L 20305-3 S2	600	110	1000/1500	
	137M			2390	ROP AT 3.5M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
4/8/97	137M			2390					
	1126	1337	1355	18					
	1127	1523	1537	14					
	1128	1538	1553	15					
	1129	1554	1615	19					
	1130	1757	1815	18					
	1131	1816	1831	15					
	1132	1832	1850	18	SWEEP HOLE WITH HIVISC				
	1133	2024	2041	17					
	1134	2041	2100	19					
	1135	2100	2122	22					
	1136	2236	2251	15					
	1137	2251	2305	14					
	1138	2305	2320	15					
5/8/97	1139	38	52	14					
	1140	52	106	14					
	1141	106	122	16					
	1142	231	245	14					
	1143	245	300	15					
	1144	300	316	16					
	1145	440	455	15					
	1146	455	512	17					
	1147	512	530	18					
	1148	645	659	14					
	1149	659	713	14					
	1150	713	727	14					
	1151	855	910	15					
	1152	911	925	14					
	1153	926	941	15					
	1154	1116	1132	16					
	1155	1133	1150	17					
	1156	1151	1208	17					
	1157	1340	1355	15					
	1158	1356	1411	15					
	1159	1412	1426	14					
	1160	1550	1604	14					
	1161	1605	1619	14					
	1162	1620	1635	15					
	1163	1800	1814	14					
	1164	1815	1831	16	SWEEP WELL WITH HIVISC				
	1165	1832	1848	16					
	1166	2000	2016	16					
	1167	2016	2032	16					
	1168	2032	2048	16					
	1169	2207	2224	17					
5/8/97	1170	2224	2241	17	20305-3 S2	600	110	1000/1500	
	182M			3099	ROP AT 3.5M/HR				

PENETRATION RECORD

DATE Y/M/D	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	TOTAL GAS
5/8/97	182M			3099	20305-3 S2	600	110	1000/1500	
	1171	2241	2258	17	SWEEP HIVISC				
6/8/97	1172	22	35	13					
	1173	35	48	13					
	1174	48	103	15					
	1175	218	231	13					
	1176	231	245	14					
	1177	245	259	14					
	1178	416	430	14					
	1179	430	444	14					
	1180	444	500	15					
	1181	616	630	14					
	1182	630	644	14					
	1183	644	658	14					
	1184	838	850	14	287 UNITS TOTAL GAS		1184.39 MKB		
	1185	851	905	15					
	1186	905	920	14					
	1187	1105	1119	14					
	1188	1120	1134	15	HIVISC SWEEP				
	1189	1135	1150	14					
	1190	1310	1324	15					
	1191	1325	1340	15					
	1192	1341	1356	15					
	1193	1517	1532	16					
	1194	1533	1549	15					
	1195	1550	1605	15					
	1196	1730	1745	14					
	1197	1746	1800	15					
	1198	1801	1816	14					
	1199	1936	1950	14					
	1200	1950	2004	15	HIVISC SWEEP				
	1201	2104	2119	14					
	1202	2138	2152	14					
	1203	2152	2206	14					
	1204	2206	2223	17					
	1205	2335	2349	14					
	1206	2349	4	15					
7/8/97	1207	4	19	15					
	1208	140	154	15	HIVISC SWEEP				
	1209	154	208	14					
	1210	208	225	17					
	1211	342	357	15					
	1212	357	413	16					
	1213	413	430	17					
	1214	547	601	14	HIVISC SWEEP				
7/8/97	1215	601	615	14	B/L 20305-3 S2	600	110	1200	
	228M			3757	ROP AT 3.6M/HR				

PENETRATION RECORD

DATE	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
7/8/97	228M			3757	B/L 20305-3 S2	600	110	1500	
	1216	615	630	15					
	1217	805	820	15					
	1218	821	836	15					
	1219	836	852	16					
	1220	1025	1040	15					
	1221	1041	1055	14					
	1222	1056	1112	16	fractured limestone	600	110	1000	
	1223	1658	1712	14					
	1224	1712	1729	17					
	1225	1729	1747	18	hivisc sweep				
	1226	1913	1927	14					
	1227	1927	1941	14					
	1228	1941	1952	11	increase wob to 2000 dan			2000	
	1229	2110	2124	14		600	110	1000	
	1230	2124	2136	12					
	1231	2136	2154	18					
	1232	2313	2327	14					
	1233	2328	2342	14					
	1234	2343	2400	17	hivisc sweep				
8/8/97	1235	155	209	14					
	1236	210	224	14					
	1237	225	240	15					
	1238	408	422	14	end of fractured limestone				
	1239	423	437	14		600	110	1500	
	1240	438	452	14					
	1241	614	627	13	hivisc sweep				
	1242	628	641	13					
	1243	642	656	14					
	1244	813	828	15					
	1245	828	843	15					
	1246	843	900	17					
	1247	1021	1038	17	hivisc sweep				
	1248	1038	1055	17					
	1249	1055	1115	20					
	1250	1237	1251	14					
	1251	1251	1304	15					
	1252	1304	1320	16					
	1253	1441	1455	14					
	1254	1455	1509	14					
	1255	1509	1524	15					
	1256	1650	1705	15	hivisc sweep				
	1257	1705	1722	17					
	1258	1722	1739	17					
	1259	1858	1912	14					
8/8/97	1260	1912	1926	14	B/L 20305-3 S2	600	110	1500	
	273M			4431	ROP AT 3.7M/HR				

PENETRATION RECORD

DATE	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
8/8/97	273M			4431	B/L 20305-3 S2	600	110	1500	
	1261	1926	1943	17					
	1262	2120	2134	14					
	1263	2135	2144	14					
	1264	2150	2205	15	HIVISC SWEEP				
	1265	2335	2350	15					
	1266	2351	7	16					
9/9/97	1267	8	22	14					
	1268	148	202	14					
	1269	203	217	14					
	1270	218	232	14					
	1271	405	418	13					
	1272	419	432	13	HIVISC SWEEP				
	1273	433	447	14					
	1274	620	634	14					
	1275	635	649	14					
	1276	650	706	16					
	1277	830	844	14					
	1278	844	858	14					
	1279	858	913	15					
	1280	1037	1052	15					
	1281	1052	1107	15					
	1282	1107	1122	15					
	1283	1258	1313	15	HIVISC SWEEP				
	1284	1313	1328	15					
	1285	1328	1345	17					
	1286	1508	1523	15					
	1287	1523	1537	14					
	1288	1537	1552	15					
	1289	1709	1724	15					
	1290	1724	1739	15					
	1291	1739	1754	15					
	1292	1909	1924	15					
	1293	1925	1940	15					
	1294	1941	1956	15					
	1295	2130	2144	14					
	1296	2145	2159	14					
	1297	2200	2214	14					
10/8/97	1298	15	30	15					
	1299	31	46	15	HIVISC SWEEP				
	1300	47	102	15					
	1301	230	245	15					
	1302	246	300	14					
	1303	307	316	15					
	1304	430	445	15					
10/8/97	1305	446	500	14	B/L 20305-3 S2	110	600	1200	
	319M			5091	ROP AT 3.75M/HR				

PENETRATION RECORD

DATE	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
10/8/97	319			5091	B/L 20305-3 S2	600	110	1200	
	1306	501	515	14					
	1307	630	644	14					
	1308	645	659	14					
	1309	700	714	14					
	1310	830	844	14					
	1311	844	858	14					
	1312	858	913	15	B/L 20305-3 S2				
	326M	end of 96mm hole		5190	ROP AT 3.7M/HR	600	110	1200	
12/8/97	1313	630	758	88	B/L 16941-24 S6	300	90	500	
	1314	758	835	37	76MM HOLE				
	1315	835	908	33					
	1316	908	945	37	HIVISC SWEEP				
	1317	945	1025	40					
	1318	1225	1305	30					
	1319	1305	1338	33					
	1320	1338	1403	25		400	100	1000	
	1321	1403	1425	22					
	1322	1425	1445	20					
	1323	1618	1638	20					
	1324	1638	1658	20					
	1325	1715	1733	18					
	1326	1733	1752	19					
	1327	1752	1812	20					
	1328	1956	2015	19					
	1329	2016	2035	19					
	1330	2036	2055	19					
	1331	2056	2114	18	HIVISC SWEEP				
	1332	2115	2134	19					
	1333	2315	2335	20					
	1334	2336	2355	19					
	1335	2356	15	19					
12/8/97	1336	16	35	19					
	1337	36	55	19					
	1338	245	305	20	HIVISC SWEEP				
	1339	306	326	20					
	1340	327	347	20					
	1341	348	410	22					
	1342	411	435	24					
	1343	625	645	20	HIVISC SWEEP				
	1344	646	710	24					
	1345	711	739	28					
	1346	739	807	28					
	1347	807	835	28					
	1348	1000	1023	28		500	110	1000	
	1349	1030	1045	23	HIVISC SWEEP				
12/8/97	1350	1045	1103	18	B/L 16941-24 S6	500	110	1500	
	38M			955	ROP AT 2.3M/HR				

PENETRATION RECORD

DATE	METRE START	TIME START	TIME FINISH	MIN. / M	MAKE AND BIT #	RPM	SPM 50X76	W. O. B.	CORE M
12/8/97	38M			955	B/L 16941-24 S6	600	110	1500	
	1351	1213	1230	17					
	1352	1230	1250	20					
	1353	1408	1425	17					
	1354	1425	1441	16					
	1355	1441	1456	15					
	1356	1456	1512	16	HIVISC SWEEP				
	1357	1512	1528	16					
	1358	1638	1653	15					
	1359	1653	1708	15					
	1360	1708	1723	15					
	1361	1723	1737	14					
	1362	1737	1751	14					
	1363	1843	1857	14					
	1364	1857	1912	14					
	1365	1912	1927	15					
	1366	1927	1943	15					
	1367	1943	1957	15					
	1368	2105	2120	15					
	1369	2121	2135	14	HIVISC SWEEP				
	1370	2136	2150	14					
	1371	2151	2204	14					
	1372	2205	2220	15					
13-08-97	1373	0	15	15					
	1374	16	30	14					
	1375	31	45	14					
	1376	46	100	14					
	1377	101	116	15					
	1378	300	315	15	HIVISC SWEEP				
	1379	316	330	14					
	1380	331	345	14					
	1381	346	400	14					
	1382	401	416	15					
	1383	528	543	15					
	1384	544	558	14					
	1385	559	613	14					
	1386	614	629	15					
	1387	630	645	15	HIVISC SWEEP				
	1388	808	822	14					
	1389	822	836	14					
	1390	836	850	14					
	1391	853	907	14					
	1392	907	923	16					
	1393	1028	1044	16					
	1394	1044	1058	14					
	1395	1107	1121	14	MILL WEAR - 15%				
	1396	1121	1135	14	B/L 16941-24 S6	600	110	1500	
13-08-97	1397	1135			SWIVEL PILED UP				
	84.82M			1637	ROP AT 3.5M/HR				

Appendix A
Biostratigraphic Report

Date: Fri, 1 Aug 1997 15:52:17 -0230 (NDT)
From: Elliott Burden <etburden@morgan.ucs.mun.ca>
To: Roland Strickland <roland.strickland@nf.sympatico.ca>
Cc: henry williams <williams@sparky2.esd.mun.ca>
Subject: Re: Preliminary Report - Palynology

Three cleaved and crenulated phylitic samples, weighing 10-12 g, and from 692.6, 743, and 788.8 m were processed for fossil palynomorphs using standard techniques. On application of HF acid, samples disaggregated releasing tiny (less than 0.25 mm) mica? flakes and graphite.

Scanned residues are dominantly comprised of partially dissolved mineral material, carbonized shards and framboids. Possible microfossil material may still remain in the sample from 692.6 m; several small (less than 10 micrometre) ovoid and spheroid objects, including one with putative small verrucae or blunt spines, are present.

Carbonized material and mineral separates released during preparation suggest these rocks belong to low grade metamorphic strata lying well below the oil window (Thermal Alteration Index - Acritarch Alteration Index of greater than 4). The possible microfossils may belong to an assemblage of small, long ranging sphaeromorph and acanthomorph form taxa. This kind of restricted fossil assemblage is common to (but not restricted to) Lower and Middle Cambrian strata of western Newfoundland.

Elliott Burden Ph.D, P. Geo
OMNICHRON Associates

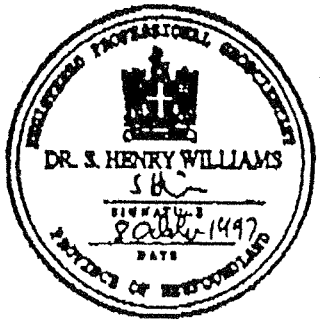
BIG SPRING #1
REPORT ON SAMPLES RECEIVED FOR PALEONTOLOGICAL ANALYSIS FROM DELPET RESOURCES, BY OMNICHRON ASSOCIATES

Six samples were received for paleontological work. Of these, three were processed for conodonts and three for palynomorphs.

Three cleaved and crenulated phylitic samples, weighing 10-12 g, and from 692.6, 743.0 and 788.8 m were processed for fossil palynomorphs using standard techniques. On application of HF acid, samples disaggregated releasing tiny (less than 0.25 mm) mica? flakes and graphite. Scanned residues are dominantly comprised of partially dissolved mineral material, carbonized shards and framboids. Possible microfossil material may still remain in the sample from 692.6 m; several small (less than 10 micrometre) ovoid and spheroid objects, including one with putative small verrucae or blunt spines, are present. Carbonized material and mineral separates released during preparation suggest these rocks belong to low grade metamorphic strata lying well below the oil window (Thermal Alteration Index - Acritarch Alteration Index of greater than 4). The possible microfossils may belong to an assemblage of small, long ranging sphaeromorph and acanthomorph form taxa. This kind of restricted fossil assemblage is common to (but not restricted to) Lower and Middle Cambrian strata of western Newfoundland.

The remaining three samples, 757.1 m, 768.1-768.4 m and 1392.9 m were processed for conodonts using formic acid in order to permit digestion of both limestone and dolostone. All samples were composed of strained, deformed carbonate; fine, graphitic residues were released during acid digestion, particularly from the lowest sample. Careful scanning of the heavy residue failed to reveal conodonts or other fossils of any kind. As conodonts would not be destroyed by metamorphism of the level apparently present in the well, we believe that the lack of conodonts points towards a Cambrian age for the samples, as we would have expected to recover at least a few fragments from this quantity of material if it was Ordovician or later. The porous nature of the processed rock and copious amounts of graphitic residue from the dolomitized oolitic carbonate at 1392.9 m suggests that it may have originally contained relatively large amounts of organic material and possibly had a high porosity prior to metamorphism.

S. Henry Williams, P.Geo & Elliott T. Burden, P.Geo
Omnichron Associates



Appendix B

Geological Well Log

STRIDE CONSULTING

GEOLOGICAL WELL LOG

Operator: Delpet - Vinland
Well: Big Springs # 1
Location: Western Newfoundland
Country: Newfoundland, Canada
Elevation: GL: 3m
KB: 5m
Drilling Rig: HS 150 ECD Rig # 2
Spud Date: May 25, 1997

Logging Commenced: June 8, 1997
Depth: 0 m
Logging Completed: Aug. 13, 1997
Depth: 1397 m
Prepared By: Roland Strickland

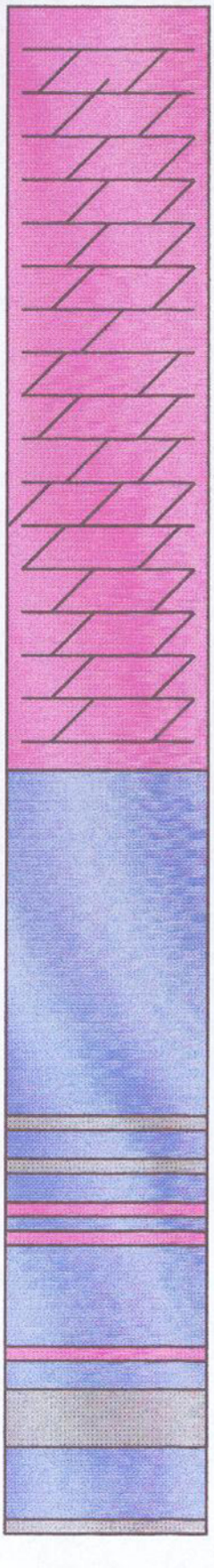
Mud Data:
1. Water with Poly - Safe from 0m to 1397m (T.D.)

Well Type: Slim - Hole Continuous Coring Borehole.

Hole Size:
1. 0m to 150m - 127mm, PW casing
2. 0m to 352m - 99mm, PQ
3. 352m to 1312m - 96mm, HQ
4. 1312mm to 1397mm - 76mm, NQ

LEGEND

Sandstone
Shale
Dolostone
Siltstone
Limestone



Petit Jardin Formation

0m

50m

100m

150m

200m

250m

Dolostone: light, medium and dark grey dolostone. breccia dominates light grey matrix, more calcitic. some white sparry infilling.dark grey to black chert.

Dolostone: light to medium dark grey dolostone, irregular shaped vugs and fractures filled with white calcite.Dark grey argillaceous dolomite / dolomitic shale, often with abundant pyrite these infillings are up to 7-8cm wide, with breccia textures.

March Point Formation

300m

350m

400m

450m

500m

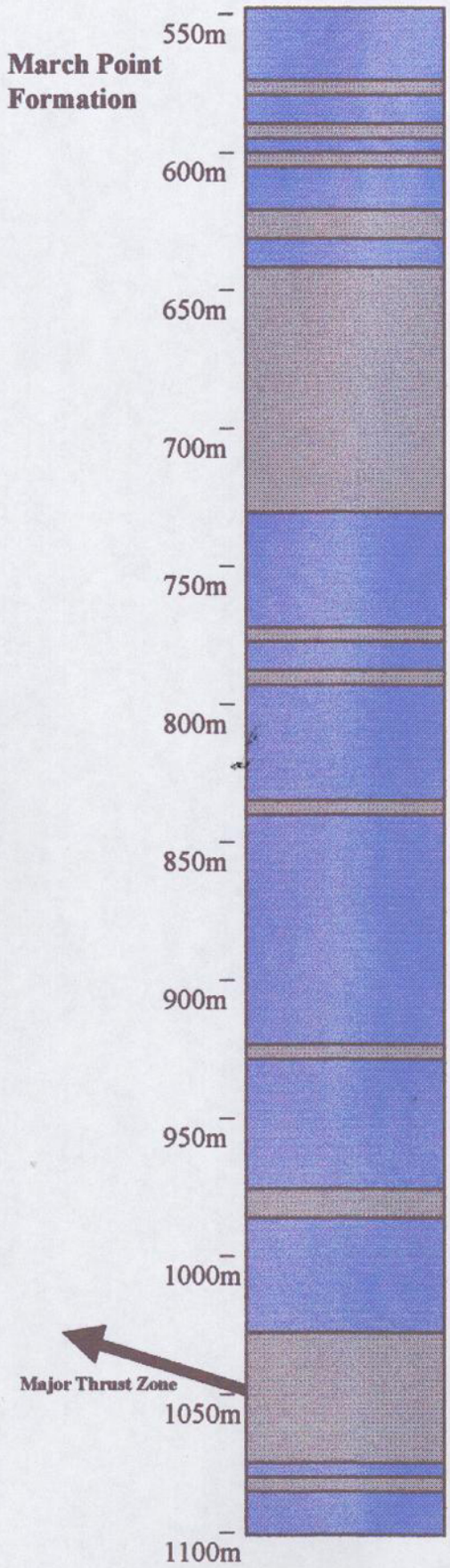
550m

Limestone: interbedded oolitic limestone, medium to very dark grey banded limestone, and limestone with stylolitic to pseudobreccia textures.

Shale: dark grey to black, sub-fissile to fissile, moderately hard, silty and micaceous,

Limestone: grey to dark grey,massive, crystalline, bioturbated intraformational conglomerate.

Shale: dark grey - black sub-fissile, hard, blocky, well indurated, slightly calcareous with well developed fine laminae.



Limestone: grey, micritic,intraformational conglomerate

Shale 70% - Limestone 30%black fissile-sub-fissile, laminated, hard shale, interbedded with light grey micritic limestone,

Shale: black, fissile to sub-fissile, blocky, medium hard, smooth with abundant slickenside partings, micaceous, occasional pyrite, interbedde with grey-buff, very hard, indurated siltstone. Minor ribbon grey micritic limestone.

Limestone: grey, micritic,ribbon limestone, thinly bedded with black shale, silty, greasy-micaceous partings, very fine laminae with abundant cross-laminated features, occasional calcite rip-up clasts, minor pyrite.

Shale: black, hard, dense, blocky to splintery, slaty.
Limestone: 70% - Shale: 30% grey, dark grey, micritic to crystalline, brecciated limestone, interbedded with black shale, hard blocky to sub-fissile, with smooth silky to silty partings.

Limestone: grey micritic limestone, with thin black shale partings, interbedded with dark grey, oolitic limestone (up to 0.37m wide), having well developed stylolitic structures.

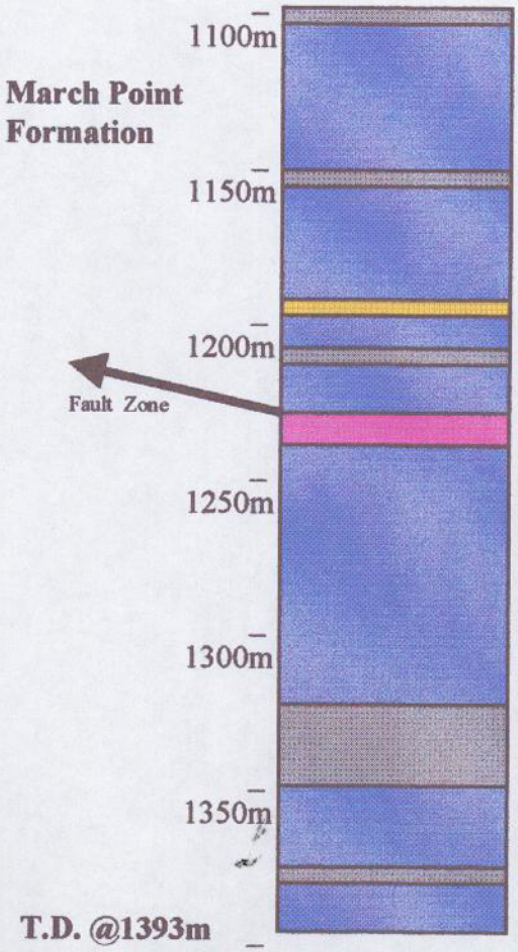
Shale: black shale,sub-fissile to blocky, medium hard,dense.
Oolitic Limestone: 100% dark grey to black massive, crystalline,very hard, well developed stylolites,infilled with black crypto-crystalline limestone, very irregular schistose partings with carbonaceous coatings.

Ribbon Limestone with Black Shale

Oolitic Limestone:massive, dark grey, very hard,crystalline to coarse crystalline occasional pisolites, well developed stylolites, mainly parallel to bedding, with paper thin partings.

Shale: 60% - Limestone: 40% shale-phyllite, dark grey, blocky to sub-fissile, Intense Limestone - Shale brecciation, with complex faulting and folding.

Oolitic Limestone: dark grey, massive



Parted & Ribbon Limestone with Oolitic Limestone.

Shale - Phyllite:green-grey shale-phyllite, with chert.
Oolitic Limestone:massive, dark grey, very hard, siliceous, well developed stylolites, parallel to bedding.
Total Gas units @1184 = 284units

Siltstone:dark grey, dense, massive, hard indurated, blocky.

Shale
Oolitic Limestone - Marble
Dolostone:Brecciated dark grey-black, massive,very hard.

Oolitic Limestone:dark grey-black, massive, micro-crystalline to crystalline, very hard, indurated, well developed stylolites, mainly parallel to bedding, breaking splintery-irregularly, with carbonaceous coatings. occasionally micritic, light grey very hard. Fine to coarse oolitic intervals, slightly pisolitic.

Parted-Ribbon Limestone and Shale-Phyllite:

Oolitic Limestone:massive, grey to dark-grey,fine oolites, occasional stylolites, vertical to bedding.
Parted Limestone with black Shale - Phyllite
Oolitic Limestone:massive, dark grey to black,fine to medium oolites,frequent stylolites