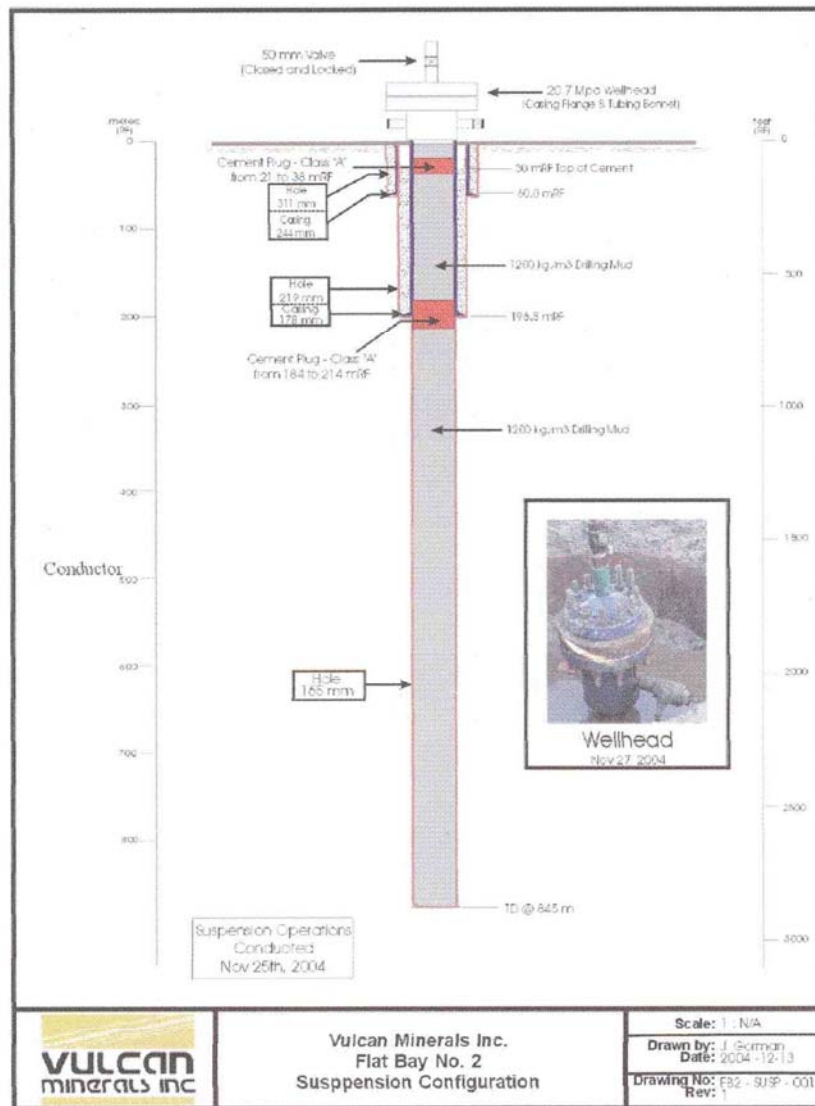


# FINAL WELL REPORT





## FINAL WELL REPORT

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<b>Revision:</b>	<b>Version 1</b>
<b>Operating Company:</b>	<b>Vulcan Minerals Inc</b>
<b>Well Name:</b>	<b>Flat Bay #2a &amp; #2</b>
<b>Rig:</b>	<b>Rose Drilling RD10</b>
<b>Field:</b>	<b>Flat Bay</b>
<b>Location:</b>	<b>St. Georges Bay, Western Newfoundland, Canada</b>

Prepared by: Karla Smith, Vulcan Minerals Joe Gorman, P.Eng, Namrog Services	Reviewed by: Patrick Laracy, Vulcan Minerals
Date:	Date:

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## 1 Introduction

Flat Bay #2 was the second well drilled by the operator, Vulcan Minerals Inc., in the Flat Bay field located in St. Georges Bay, Newfoundland. (See map in Appendix A). The purpose of the well was to gather geological and geophysical data as a means to evaluate the economical potential of future field exploration and development for crude oil and/or natural gas production.

The drilling contractor Rose Resource Drilling Inc. agreed to use the rig RD10, a single-type rig with 210-hp (156-kW) rating and a 70000-lb (31750-kg) hookload.

The 845.6-m from rig floor (RF) vertical well was drilled in accordance with the Drilling Program Approval #DPA2004-116-01 and Authority to Drill Well #ADW2004-116-01-01 under Permit #03-106 (see Appendix B).

After abandoning the original hole Flat Bay #2a that was drilled to a total depth of 175-mRF due to difficulties of hole problems (see section 3.1), the rig was moved approximately 10-m east of the original location where Flat Bay #2 was spudded on 2004-10-24 by setting 341-mm conductor casing at 5-mRF. The 311-mm hole was drilled to 61.5-m then the 245-mm casing was set to 60-m and cemented into place with cement to surface. The hole was air drilled with a 216-mm BHA to 164-mRF then the well was displaced to mud and drilled to 198.7-mRF without losses. 245-mm casing was run to 178.04-mRF and cemented into place with pre-flush returns to surface. Blow out preventors were nipped up and hi-low pressured tested against surface casing. Formation integrity test was executed at 200-m resulting in a calculated pressure gradient of 16.2-kPa/m. The hole was continued through the Lower Codroy Group, the Ship Cove formation and into the Fishell's Brook formation with a 165-mm BHA to a total depth of 845.4-mRF. Open hole logs that included HRLA + CNL + DSI + MCFL + TLD + Caliper were run to 845-m. The formation flow test recorded at 722.3-mKB and 734.8-mFB showed lack of pressure build up indicating no flow of oil, gas, or water. The well was suspended with two cemented plugs located from 214-m to 184-m and 38-m to 21-m.

## 2 General Information

Well Name	Flat Bay #2a	Flat Bay #2
Exploration Permit	03-106	
Drilling Program Approval	DPA 2004-116-01	
Authority to Drill Well	ADW 2004-116-01-01	
NAD 27 Coordinates	N 5359965.033 E 386708.972	N 5359963.881 E 386697.341
Survey System	A differential GPS survey was carried out at Flat Bay to determine the location of the two wells. The coordinates are UTM Grid, NAD27, Zone 21 and the combined scale factor is 0.999757. The results of the survey indicate that the coordinates are accurate to within 0.02-m. The site is about 4550-m from C.M. 84G4148 with coordinates listed of N 5361647.371 E 382471.410 and elevation of 25.81-m.	

See Appendix A for Legal Survey completed by R. Davis Surveys Ltd.

## **3 Difficulties and Delays**

### **3.1 Abandoned Original Hole – Flat Bay #2a**

The initial well, entitled Flat Bay #2a, was spudded on 2004-09-27 and 341-mm conductor casing was set at 5-mRF. The 311-mm hole was drilled to 57.3-m then the 245-mm casing was set to 46.9-m and cemented into place with cement to surface.

After drilling out the casing shoe at 46.9-m, sloughing of the overburden was experienced that led to the execution of a remedial job and squeeze cement at the casing shoe. The rig was on hold for 78-hours, or five and a half days based on 12-hour shifts, while waiting on pump to complete the remedial cement job. The operations to squeeze the cement around the casing shoe and drill out cement shoe took a total of 36-hours, or three-days based on 12-hour shifts. The operations sequence consisted of rigging up the pump, reaming and circulating the hole clean with bit, running in the hole open ended to 53-mRF, pumping remedial cement job around shoe (0.5-m<sup>3</sup> H<sub>2</sub>O pre-flush and 3.75-m<sup>3</sup> 15.3-ppg Class A cement), closing the diverter, squeezing 2-m<sup>3</sup> around shoe, pulling out of the hole, waiting on cement, and drilling out the shoe.

The hole was continued with a 216-mm BHA to 155-mRF where a lost circulation zone was found. After regaining circulation, the well was drilled to TD at 175-mRF when circulation was lost again and attempted to regain were unsuccessful. The well was then shut in with a total fluid loss of 20-m<sup>3</sup> and rig released on 2004-10-22. On 2004-10-26 Flat Bay #2a, a cement plug place on top of natural bridge that formed at the shoe from 45-mRF to surface. The 244.5-mm casing was then cut 1-m below ground level and abandoned without footprint.

### **3.2 Fishing Job – Flat Bay #2**

On 2004-11-06 while air drilling the 165-mm hole on Flat Bay #2, the hammer bit failed at a depth of 420-mRF. At surface it was observed that the hammer bit was broken leaving metal in the hole. Fishing operations were conducted by the rig crew and the metal brought to surface for a total time lost of 17-hours.

### **3.3 Wait on DST Testers – Flat Bay #2**

Due to logistical problems with Holland Testers Ltd equipment, ten-hours of operational time were lost on 2004-11-22 while waiting on services to complete the drill stem test.

## 4 Drilling Operations

### 4.1 Elevation

Well Name	Flat Bay #2a	Flat Bay #2
Ground Level	56.15-m MSL	55.45-m MSL
Casing Flange	Not Applicable	55.95-m MSL
Rig Floor	58.95-m MSL	58.25-m MSL

### 4.2 Total Depth

Well Name	Flat Bay #2a	Flat Bay #2
Total Drilled Depth	175-mRF	845.6-mRF
Logged Depth	Not Applicable	845 to 196.5-mRF
Plugged-Back Depth	2.8-mRF	21-mRF

### 4.3 Important Dates and Status

Well Name	Flat Bay #2a	Flat Bay #2
Spud	2004-09-27	2004-10-23
Drilling Completed	2004-10-20 at 175-mRF	2004-11-19 at 845.6-mRF
Rig Release	2004-10-22	2004-11-25
Well Status	Abandoned	Suspended

### 4.4 Hole Sizes and Depths

Well Name	Flat Bay #2a	Flat Bay #2
311-mm Hole	57.3-mRF	61.5-mRF
216-mm Hole	175-mRF	198.7-mRF
165-mm Hole	Not Applicable	845.6-mRF

### 4.5 Bit Records

Flat Bay #2a								
Bit Number	Size [mm]	Type	Depth In [mRF]	Depth Out [mRF]	Meterage [m]	Hours [h]	ROP [m/h]	Pulled Condition
1	311	Insert Tooth Tricone	2.8	57.3	54.5	16	3.4	
2	216	Security Tricone	57.3	175	117.7	22	5.4	

Flat Bay #2								
Bit Number	Size [mm]	Type	Depth In [mRF]	Depth Out [mRF]	Meterage [m]	Hours [h]	ROP [m/h]	Pulled Condition
1	311	Insert Tooth Tricone	2.8	9.2	6.4	3	2.1	
2	216	Mill Tooth Tricone	9.2	61.5	52.3	10	5.2	
3	216	Air Insert	61.5	164.0	92.5	11	8.4	
4	216	Security Tricone	164.0	198.7	44.7	8	5.6	
5	165	Drillmaster Air Insert	198.7	420.0	221.3	6	36.9	Broken
6	165	Mission Air Insert	420.0	638.0	218	7	31.1	
7	165	Smith F3	638.0	823.0	185	45.5	4.1	
8	165	Smith F3	823.0	845.6	22.4	15	1.5	

#### 4.6 Casing Record

314-mm cellar line pipe was installed at 5-mRF for both Flat Bay#2a and Flat Bay#2.

Well Name	Flat Bay #2a	Flat Bay #2	
Casing Type	Conductor	Conductor	Surface
Casing Size [mm]	244.5	244.5	177.8
Weight [kg/m]	48.13	48.13	25.33
Grade	J-55	J-55	H-40
Number of Joints	4	5	15
Connection Type	8Rd Short	8Rd Short	8Rd Short
Depth of Shoe [mRF]	46.9	60	196.5
Casing Hanger and Seal	N/A	N/A	Casing Head Type NSB

#### 4.7 Cementing Record

Well Name	Flat Bay #2a	Flat Bay #2	
Casing Size [mm]	244.5	244.5	177.8
Centralizer Spacing			As necessary
Cement Volume [sks]			7.2
Slurry Volume [m <sup>3</sup> ]	3	2.85	4.08
Slurry Density [kg/m <sup>3</sup> ]	1820	1820	1900
Cement Class	A	A	G
Cement Additives			5% BWOW D044 + 0.2 % BWOB D046
Cement Top [mRF]	2.8	2.8	30
Cement Base [mRF]	46.9	60	197
Basis of Top Estimate [Calc/CBL]	Visual	Visual	Calc

See Appendix C for Schlumberger cement proposals and service reports.

Based on time delay of fluid, it was decided that 75% cement excess would be used for cementing Flat Bay #2 177.8-mm casing. Although cement was not to surface as planned, 30-m of cement was placed above the 244.5-m casing shoe.

#### **4.8 Sidetracted Hole**

Not applicable.

#### **4.9 Drilling Fluid**

Flat Bay #2 was drilled with air including during two depth intervals from 65.5-m RF to 164-m RF and 198.7-m RF to 638-m RF (64% of the well's total length). During these periods of air drilling, a reserve of weighted drilling fluid of at least 150% of hole volume was kept on sight as per section 74 of the Petroleum Drilling Regulations (CNR 1150/96).

Flat Bay #2 was drilled with gel water two depth intervals from 2.8-m RF to 65.5-m RF and 164-m RF to 198.7-m RF (11% of the well's total length). The gel water was comprised of water with Federal Gel and soda ash supplied by MI SWACO. The properties of the gel water included a viscosity 60-sec, 11pH, and mud weight of 1000-kg/m<sup>3</sup>. The entirety of Flat Bay #2a was drilled with gel water.

Finally, Flat Bay #2 was drilled with brine two depth intervals from 638-m RF to 845.6-m RF (25% of the well's total length). The brine solution was comprised of fresh water mixed with road salt supplied by A. Harvey & Company and soda ash supplied by MI SWACO. The properties of the brine included a minimum mud weight of 1120-kg/m<sup>3</sup> that increased graduation to a final mud weight of 1200-kg/m<sup>3</sup> at total depth of 845.6-mRF. The entirety of the ship cove formation (found at 650-mRF) was drilled overbalanced.

#### **4.10 Fluid Disposal**

While drilling Flat Bay #2a, a lost circulation zone was encountered at 155-m RF. Total gel water fluid loss was 20-m<sup>3</sup> (see Section 3.1).

No lost circulation was experienced while drilling Flat Bay #2 and as a result there was no downhole fluid disposal.

Pardy's Waste Management was contracted to dispose of the drilling fluid contained in mud tanks on site in accordance with Government regulations.

#### **4.11 Well Kicks**

Not applicable.

#### **4.12 Formation Leak-Off Tests**

Formation integrity test was executed on Flat Bay #2 at 200-m with 1100-kg/m<sup>3</sup> mud weight to 1400-kPa that stabilized at 1035-kPa for a calculated pressure gradient of 16.2-kPa/m

### 4.13 Time Distribution

	Totals					
	Hours			Percentage of Time		
	FB #2a	FB #2	Both Wells	FB #2a	FB #2	Both Wells
Rig up/ Tear Out Misc Equipment	87.0	66.0	153.0	13.9%	8.3%	10.8%
Drilling	39.0	105.5	144.5	6.2%	13.3%	10.2%
Reaming Conditioning & Tripping	56.5	51.3	107.8	9.0%	6.5%	7.6%
Fishing & Working Pipe	1.0	13.3	14.3	0.2%	1.7%	1.0%
Rig Repairs	1.5	0.8	2.3	0.2%	0.1%	0.2%
Surveys, DST's & Logs	12.0	7.5	19.5	1.9%	0.9%	1.4%
Casing, Cementing, WOC and Drill Out	27.8	19.5	47.3	4.4%	2.5%	3.3%
Testing BOP's, Safety & Drills	0.8	10.3	11.0	0.1%	1.3%	0.8%
Waiting on Materials, Services & Dead Time	71.0	10.5	81.5	11.3%	1.3%	5.8%
SDFN & Sunday Shut Down	329.5	506.8	836.3	52.6%	64.0%	59.0%
<b>Total Time</b>	<b>626.0</b>	<b>791.3</b>	<b>1417.3</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Total Operational Time (Not Including SDFN &amp; Sunday Shutdown)</b>	<b>296.5</b>	<b>284.5</b>	<b>581.0</b>			

### 4.14 Deviation Plot

A deviation survey was completed at approximately every 150-m.

Depth	Deviation	Measurement Tool
160-m	0.5°	Pajari
198.7-m	0.5°	Pajari
300-m	0.0°	Pajari
460-m	0.0°	Pajari
610-m	0.0°	Pajari
740.0-m	1.5° (maximum deviation)	Pajari

### 4.15 Abandonment/Suspension Plugs

Well Name	Flat Bay #2a	Flat Bay #2
Fluid Above Plug #1	Not applicable	1200-kg/m <sup>3</sup> brine
Cement Plug #1	2-m <sup>3</sup> Class A 1820-kg/m <sup>3</sup> cement from 45-mRF to surface	0.4-m <sup>3</sup> Class A 1820-kg/m <sup>3</sup> cement from 38-mRF to 21-mRF.
Fluid Below Plug #1	Gel water drilling fluid.	1200-kg/m <sup>3</sup> brine
Cement Plug #2	Not applicable	1-m <sup>3</sup> Class A 1820-kg/m <sup>3</sup> cement from 214-mRF to 184-mRF.
Fluid Below Plug #2	Not applicable	1200-kg/m <sup>3</sup> brine
Well Status	Abandoned	Suspended

### 4.16 Well Schematic

See Appendix D for well termination reports and well schematics.

#### **4.17 Fluid Samples**

Not applicable.

#### **4.18 Composite Well Record**

See Appendix E for composite well record and detailed time versus depth curve.

### **5 Geology**

#### **5.1 Drill Cuttings**

See Appendix F geological report completed by Corey Fitzgerald.

#### **5.2 Cores**

Not applicable.

#### **5.3 Lithology**

See Appendix F geological report completed by Corey Fitzgerald.

#### **5.4 Stratigraphic Column**

See Appendix G.

#### **5.5 Biostratigraphic Data**

Not applicable.

### **6 Well Evaluation**

#### **6.1 Downhole Logs**

Open Hole logging for Flat Bay #2.

<b>Log Type</b>	<b>Depth Interval Logged</b>
HRLA	845 to 196.5-m
CNL	845 to 196.5-m
DSI	845 to 196.5-m
MCFL	845 to 196.5-m
TLD	845 to 196.5-m
1-arm Caliper	845 to 196.5-m

See Appendix H for open hole well logs completed by Schlumberger.

#### **6.2 Other Logs**

Not applicable.

#### **6.3 Synthetic Seismograms**

Not applicable.

#### **6.4 Vertical Seismic Profiles**

Not applicable.

#### **6.5 Velocity Surveys**

Not applicable.

#### **6.6 Formation Stimulation**

Not applicable.

#### **6.7 Formation Flow Tests**

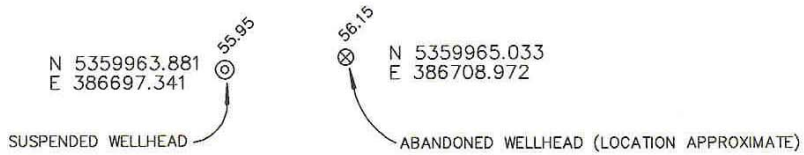
See Appendix I for drill stem test report completed by Holland Testers Ltd.



## **APPENDIX A: WELL LOCATION & MAP**

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 GRID NORTH  
 NAD27  
 UMT ZONE 21

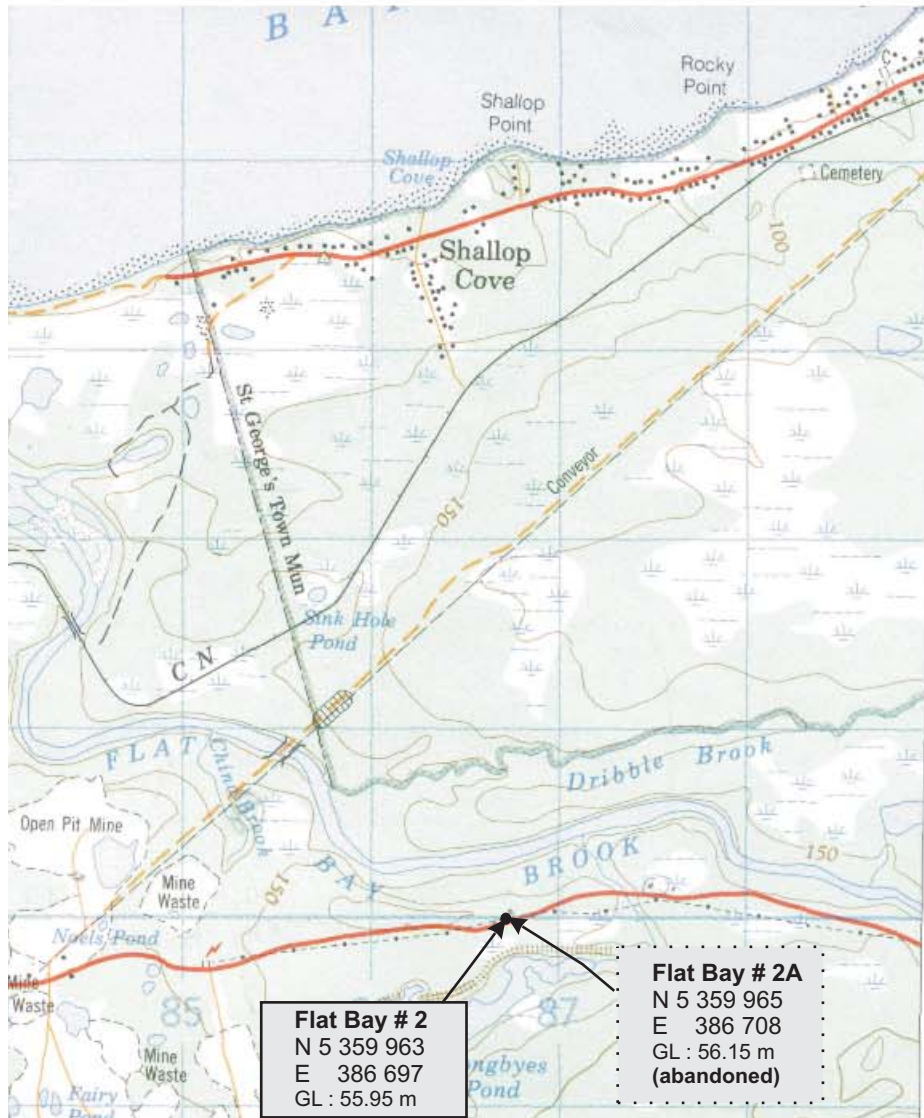


COORDINATES SHOWN ARE UTM, NAD27, ZONE21  
 AND ARE REFERENCED TO C.M. 84G4148 WITH  
 COORDINATES OF N 5361647.371 E 382471.410  
 AND ELEVATION OF 25.810.

THE LOCATION OF THE ABANDONED WELLHEAD IS  
 APPROXIMATE AS WELLHEAD WAS NOT VISIBLE.

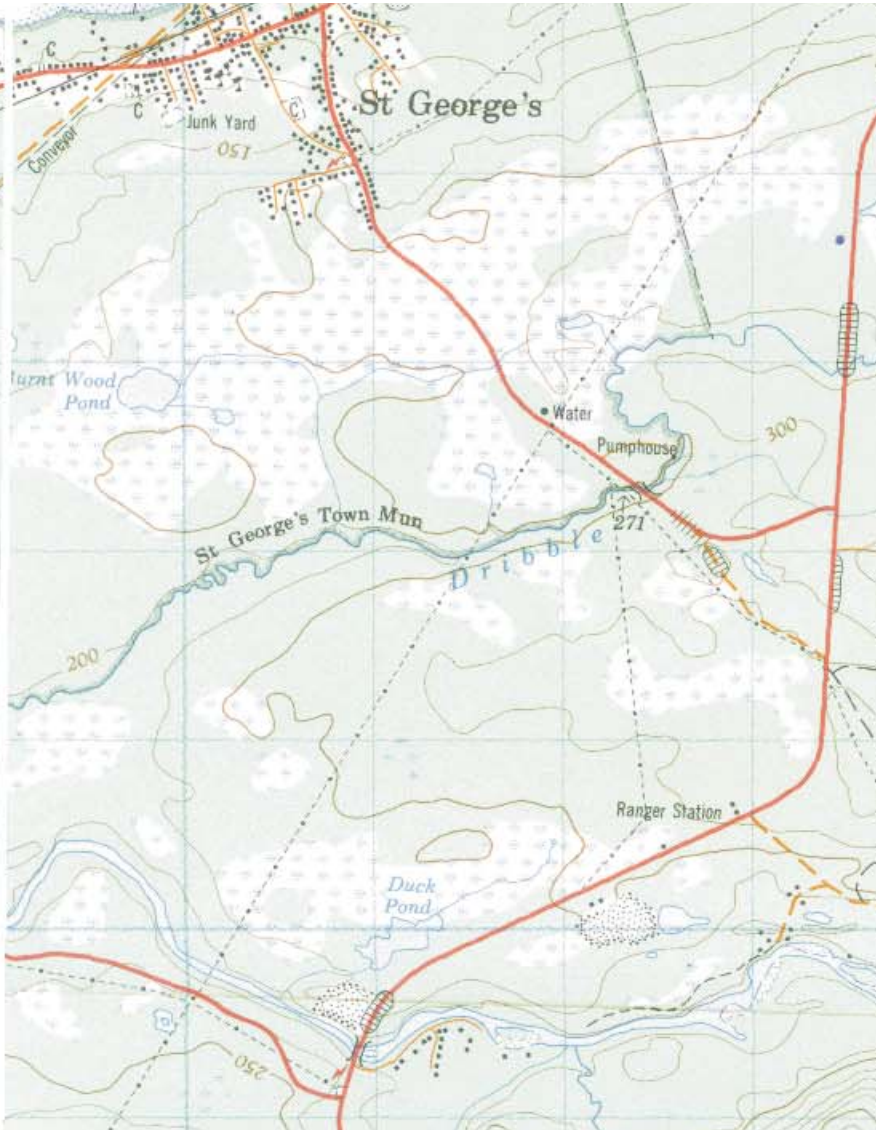


SCALE:  1 : 500	PLAN SHOWING LOCATION OF FLAT BAY # 2 WELL SUSPENDED WELLHEAD / ABANDONED WELLHEAD FLAT BAY ROAD, FLAT BAY, NL	DWG. NO.:  5002-1
DATE:  JAN. 14, 2005	R. DAVIS SURVEYS LTD. P.O. BOX 419 STEPHENVILLE CROSSING, NL	DRAWN BY:  R.D.



**Flat Bay # 2**  
 N 5 359 963  
 E 386 697  
 GL : 55.95 m

**Flat Bay # 2A**  
 N 5 359 965  
 E 386 708  
 GL : 56.15 m  
 (abandoned)



## LOCATION MAP Flat Bay 2 and 2A Wells

Scale: 1:40 000 (approx)  
 Drawn by: J.E.G.  
 Date: 2005 - 02 - 02  
 Drawing No:  
 Rev:

## **APPENDIX B: DRILLING PROGRAM APPROVAL AND AUTHORITY TO DRILL WELL**



**GOVERNMENT OF NEWFOUNDLAND AND LABRADOR**  
**Department of Natural Resources, Energy Branch**

**DRILLING PROGRAM APPROVAL - APPLICATION**

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act*, Volcan Minerals Inc.,  
 as operator on behalf of Volcan Minerals Inc., holding a  
 subsisting licence, permit or lease issued pursuant to the *Petroleum Regulations*<sup>1</sup>, namely: Permit 03-100

(licence, permit, or lease)  
 hereby applies for approval to conduct a drilling program using the drilling rig Rosa Resource Drilling Inc. - RD10  
 and equipment and procedures described in the detailed program dated Aug 3, 2004 and as amended Sept 10<sup>th</sup>, 2004  
and revised Sept. 30<sup>th</sup>, 2004

The undersigned operator's Representative hereby declares that, to the best of the operator's knowledge, the information contained herein and in the attached detailed program is true, accurate and complete.

Signed: [Signature]  
 Operator's Representative

Date: Sept. 27/04

**APPROVAL**

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act*, the operator named in the Application is hereby authorized to conduct the proposed drilling program subject to the following conditions:

1. This Drilling Program Approval shall, unless otherwise extended or terminated, expire upon the 31<sup>st</sup> day of March, 2005;
2. This Authorization shall be prominently displayed at the well site at all times during which operations are being conducted;
3. Evidence of financial responsibility, as required pursuant to Section 14 of the *Petroleum Drilling Regulations*<sup>1</sup>, shall be provided by the operator to the Minister of Natural Resources;
4. The operator shall use the equipment and procedures described in the detailed program dated Aug 3<sup>rd</sup>, 2004 and as revised Sept. 10<sup>th</sup>, 27<sup>th</sup>, 2004 and and Sept. 30<sup>th</sup>, 2004 unless a change in the equipment or procedures is approved in writing by the Director; and
5. The operator shall comply with such other conditions as are appended to this Approval.

Signed: [Signature]  
 Director

Effective Date: October 02, 2004

Drilling Program Approval No. 2004-116-01

<sup>1</sup> R.S.N. 1990, c. P-10  
<sup>2</sup> CNR 1151/96  
<sup>3</sup> CNR 1130/96





**GOVERNMENT OF NEWFOUNDLAND AND LABRADOR**  
 Department of Natural Resources, Energy Branch

**AUTHORITY TO DRILL A WELL - APPLICATION**

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act*<sup>1</sup> and in compliance with section 29 of the *Petroleum Drilling Regulations*<sup>2</sup>, Vulcan Minerals Inc., as operator, hereby applies for Authority to Drill a Well to be known as Vulcan Minerals Inc. - Flat Bay No. 2 using the equipment and procedures described in the well program dated Aug 31<sup>st</sup> 2004 and as revised (Sept 10 27) 2004 and revised Sept 30<sup>th</sup> 2004. Permit, Licence or Lease to which this Program applies: 03-106

Area: Field/Pool:	<b>CO-ORDINATES</b>	
Drilling Rig: Rig Type: <u>RD10</u> Drilling Contractor: <u>Rose Resource Drilling Inc.</u>	Long: Lat:	UTM (NAD 27) Northing: <u>5,359,990</u> Easting: <u>386,675</u>
	<b>ELEVATION</b>	
RT/KB/RF: G.L.: <u>50.0 m</u>		<b>DEPTH</b> T.D.: 1000 m TVD: 1000 m.
<b>ESTIMATES</b>		<b>TARGET HORIZONS</b>
Spud Date: <u>Sept 30<sup>th</sup> 2004</u> Days on Location: <u>15</u>	Well Cost: <u>\$600,000</u>	<u>Fischell's Brook</u>

**EVALUATION PROGRAM**

Ten-metre sample intervals: <u>if high penetration rates</u>	Conventional cores at:
Five-metre sample intervals: <u>From conductor casing to TD</u>	Logs and Tests:
Control sample intervals:	<u>DLL - CN - GR - SP - CAL</u>

**CASING AND CEMENTING PROGRAM**

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m)	Cementing Program
<u>244</u>	<u>48.07</u>	<u>J55</u>	<u>30</u>	<u>Class "A"</u>
<u>178</u>	<u>25.30</u>	<u>H40</u>	<u>250</u>	<u>Class "G" as per Schlumberger cementing program Sept 14, 2004</u>
<u>114</u>	<u>14.14</u>	<u>J55</u>	<u>1000</u>	<u>Class "G" as per Schlumberger cementing program Sept 14, 2004</u>
Other Equipment: <u>21MR BOPs, Rotating Head, Annular Preventer</u>				

The undersigned operator's Representative hereby declares that to the best of the Representative's knowledge, the information contained herein and in the attached detailed program is true, accurate and complete.

Signed: [Signature] Operator's Representative Date: Sept 27/04

**AUTHORIZATION**

Whereas the Minister of Natural Resources has jurisdiction under the *Petroleum Drilling Regulations*, ("the Regulations").

In accordance with section 32 of the Regulations, the operator named in the Application is authorized to undertake the proposed well program described above subject to the following conditions:

- This Authorization shall be prominently displayed at the well site at all times during which operations are being conducted;
- Copies of all logs and well test data shall be submitted to the director by the operator promptly after their acquisition;
- The operator shall comply with all conditions of the Drilling Program Approval No. 2004-116-01 under which the above well is to be drilled;
- No change in the well program hereby approved may be made unless it is first approved by the director in writing;
- This Authorization is conditional on the operator commencing drilling within 120 days of the effective Authorization date; and
- The operator shall comply with such other conditions as are appended to this Authorization.

Signed: [Signature] Director Effective Date: October 08, 2004  
 Authority to Drill a Well No. 2004-116-01-01

<sup>1</sup> R.S.N. 1990, c. P-10

<sup>2</sup> CNR 1150/96

## **APPENDIX C: SCHLUMBERGER CEMENT PROPOSALS AND SERVICE REPORTS**

**CEMENTING PROPOSAL**

for

**VULCAN MINERALS INC  
Flatbay #2**

Attention: Joe Gorman, Pat Laracy

Shawn Berg  
Field Service Manager  
Atlantic Canada  
Office: 709 748-7978  
Cell: 709 685-9015

Service District:  
Dartmouth, Nova Scotia



### 178mm Casing

Well Data	Hole Size:	219mm (8 5/8")
	Casing Size:	178mm (7") - 25.3 kg/m
	Casing Depth:	250m
	Cement Interval:	250m - Surface
	Previous Casing:	244mm (9 5/8") - 43.6 kg/m
	Previous Casing Depth:	40m
	BHST	11°C
	BHCT	25°C
	Casing Volume:	0.0217 m <sup>3</sup> /m
	OH Annular Volume:	0.0129 m <sup>3</sup> /m
	Csg-Csg Annular Volume	0.0168 m <sup>3</sup> /m

Preflush/Spacer	Freshwater		4	m <sup>3</sup>
	+ Salt, Granulated	D044	5%	BWOW
	+ Iron Oxide Marker Dye	B880	6.25	kg/m <sup>3</sup> Water

Cement System	Cement, Class G	D907		
	+ CemNet, Fibre Cement Additive	B137	5	kg/m <sup>3</sup> Slurry
	+ Salt, Granulated	D044	5%	BWOW
	+ Antifoam Agent	D046	0.2%	BWOC
	Density		1900	kg/m <sup>3</sup>
	Yield		0.78	m <sup>3</sup> /tonne
	Base Fluid (Freshwater)		460.13	L/tonne
	CAOH Ann. Vol		2.70	m <sup>3</sup>
	CAC Ann. Vol		0.67	m <sup>3</sup>
	Annular Volume		3.37	m <sup>3</sup>
	Shoe Track		0.28	m <sup>3</sup>
	Total Volume		3.66	m <sup>3</sup>
	% Excess		100.00	%
		with excess	6.36	m <sup>3</sup>

Materials Required	CemNet, Fibre Cement Additive	B137	32	kg
	Iron Oxide Marker Dye	B880	25	kg
	Salt, Granulated	D044	387	kg
	Antifoam Agent	D046	16	kg
	Cement, Class G	D907	8150	kg
	Freshwater		7.7	m <sup>3</sup>
	Displacement Fluid		5.1	m <sup>3</sup>

## 178mm Casing Cementing Procedure

1. Ensure casing has 65% standoff with centralizers.
2. Rig up Schlumberger Equipment.
3. Conduct Safety and Procedures meeting with all personnel on location.
4. Pressure test treating lines.
5. Prepare to conduct cement job.
6. Drop bottom plug.
7. Pump required preflush/spacer.
8. Mix and pump cement as per program.
9. Drop top plug.
10. Chain down casing.
11. Displace cement with required volume fluid.
12. Slow pumping and land plug a minimum of 3,500 kPa over the final pumping pressure.
13. Bleed pressure off and ensure that the float is holding.
14. Rig down Schlumberger equipment.

**SAFETY CONSIDERATIONS – 178mm Casing Cement Job****SAFE HANDLING OF CHEMICALS**

Chemicals vary greatly in hazardous properties. Some chemicals can be handled safely without any special protective equipment, while others do require such equipment. Of the materials to be used on this treatment, special considerations should be given to the following:

CemNet, Fibre Cement Additive	B137
Iron Oxide Marker Dye	B880
Salt, Granulated	D044
Antifoam Agent	D046
Cement, Class G	D907

For further information regarding safe handling guidelines and potential health hazards, please refer to "A Guide of the Hazardous Properties of Schlumberger Products", a Schlumberger safety publication, and/or to Schlumberger's Material Safety Data Sheets.

**STANDARD HOOK-UP**

In addition to the safe handling of chemicals, proper procedures for on-location operations must be followed to ensure a safely conducted treatment. Schlumberger's publication "Safety & Loss Prevention Standards 5, 9, 11" provides specific information regarding job planning, hook-up, pressure testing, preparation of fluids, pumping flammable and combustible fluids, emergency shutdown, flowback procedures and other pertinent information.

## 114mm Casing

Well Data	Hole Size:	165mm (6 1/2")
	Casing Size:	114mm (4 1/2") - 14.14 kg/m
	Casing Depth:	1000m
	Cement Interval:	1000m - Surface
	Previous Casing:	178mm (7") - 25.3 kg/m
	Previous Casing Depth:	250m
	BHST	31°C
	BHCT	25°C
	Casing Volume:	0.0085 m <sup>3</sup> /m
	OH Annular Volume:	0.0111 m <sup>3</sup> /m
	Csg-Csg Annular Volume	0.0114 m <sup>3</sup> /m

Preflush/Spacer	Freshwater	4	m <sup>3</sup>
	+ Salt, Granulated	D044	10% BWOW
	+ Iron Oxide Marker Dye	B880	6.25 kg/m <sup>3</sup> Water

Cement System	RFC-LITE	B810		
	+ Salt, Granulated	D044	10%	BWOW
	+ Antifoam Agent	D046	0.2%	BWOB
	+ UniFLAC-S (Fluid Loss)	D167	0.5%	BWOB
	Density	1500	kg/m <sup>3</sup>	
	Yield	1.524	m <sup>3</sup> /tonne	
	Base Fluid (Freshwater)	1162.8	L/tonne	
	CAOH Ann. Vol	8.36	m <sup>3</sup>	
	CAC Ann. Vol	2.85	m <sup>3</sup>	
	Annular Volume	11.21	m <sup>3</sup>	
	Shoe Track	0.11	m <sup>3</sup>	
	Total Volume	11.32	m <sup>3</sup>	
	% Excess	50.00	%	
	with excess	15.50	m <sup>3</sup>	

Materials Required	RFC-LITE	B810	10171	kg
	Iron Oxide Marker Dye	B880	25	kg
	Salt, Granulated	D044	1583	kg
	Antifoam Agent	D046	20	kg
	UniFLAC-S (Fluid Loss)	D167	51	kg
	Freshwater		15.8	m <sup>3</sup>
	Displacement Fluid		8.4	m <sup>3</sup>

## 114mm Casing Cementing Procedure

1. Ensure casing has 65% standoff with centralizers.
2. Rig up Schlumberger Equipment.
3. Conduct Safety and Procedures meeting with all personnel on location.
4. Pressure test treating lines.
5. Prepare to conduct cement job.
6. Drop bottom plug.
7. Pump required preflush/spacer.
8. Mix and pump cement as per program.
9. Drop top plug.
10. Chain down casing.
11. Displace cement with required volume fluid.
12. Slow pumping and land plug a minimum of 3,500 kPa over the final pumping pressure.
13. Bleed pressure off and ensure that the float is holding.
14. Rig down Schlumberger equipment.

**SAFETY CONSIDERATIONS – 114mm Casing Cement Job****SAFE HANDLING OF CHEMICALS**

Chemicals vary greatly in hazardous properties. Some chemicals can be handled safely without any special protective equipment, while others do require such equipment. Of the materials to be used on this treatment, special considerations should be given to the following:

RFC-LITE	B810
Iron Oxide Marker Dye	B880
Salt, Granulated	D044
Antifoam Agent	D046
UniFLAC-S (Fluid Loss)	D167

For further information regarding safe handling guidelines and potential health hazards, please refer to "A Guide of the Hazardous Properties of Schlumberger Products", a Schlumberger safety publication, and/or to Schlumberger's Material Safety Data Sheets.

**STANDARD HOOK-UP**

In addition to the safe handling of chemicals, proper procedures for on-location operations must be followed to ensure a safely conducted treatment. Schlumberger's publication "Safety & Loss Prevention Standards 5, 9, 11" provides specific information regarding job planning, hook-up, pressure testing, preparation of fluids, pumping flammable and combustible fluids, emergency shutdown, flowback procedures and other pertinent information.



# Service Order

2005-Jan-20

Customer VULCAN MINERALS INC.		Person Taking Call Clarke, Andrew		Dowell Location Dartmouth, NS		OrderDate 2004-Oct-15		Job Number <b>2203840317</b>	
Well Name and Number Flat Bay 1			Legal Location		Field			County Newfoundland	
Well Master: 0630581738			API / UWI:						
Rig Name Rose		Well Age New		Sales Engineer Burgess, Lara			Job Type Cem Surface Casing		
Time Well Ready: 11/1/2004 10:45 AM		Deviation °		Bit Size 216 mm		Well MD 199 m		Well TVD 199 m	
						BHP kPa		BHST °C	
Treat Down Casing		Packer Type		Packer Depth m		WellHead Connection 178mm head		HHP on Location	
								Max AllowedPressure 10000	
<b>Casing</b>					<b>Services Instructions:</b> Supply Men, Equipment and Material to Cement 178mm Surface Casing with approx 7 tonnes of Class G + 5 % D044.				
Depth, m	Size, mm	Weight, kg/m	Grade	Thread					
61	244	48.13	H40	8RD					
198.5	178	25.33	H40	8RD					
<b>Tubing</b>					<b>Extra Equipment:</b>				
Depth,	Size, mm	Weight, kg/m	Grade	Thread					
<b>Perforated Intervals</b>									
Top, m	Bottom, m	spm	No. of Shots	Total Interval					
				m					
				Diameter					
				mm					
<b>Expected On Location:</b> 11/1/2004 10:45 AM <b>Ready To Pump:</b> 11/1/2004 11:45 AM									

Contact	Voice	Mobile	FAX	Notes
Bill Williams	709 649 4051	709 689 9673		

**Notes:**

**Directions:**  
Flat Bay road and 4 kms. Rig is on the right next to the road.

**Other Notes:**

Comments:

**Fluid Systems:**

<b>Salt</b>			
7020 kg D907 + 5 % BWOW D044 + 0.2 % BWOB D046 +			
<i>Density:</i>	1900	kg/m <sup>3</sup>	<i>Thickening Time:</i> 3.5
<i>Yield:</i>	0.78	ft <sup>3</sup> /sk	
<i>H2O Mix:</i>	0.46	m <sup>3</sup> /ton	
<i>H2O:</i>	3.312	m <sup>3</sup>	<i>Eq. Sack Weight:</i> 0 lb
			<i>Total Blend:</i> 7.2 sacks
<b>Dowell Code</b>	<b>Conc/ Amount</b>		<b>Total Quantity</b>
D046	0.2	% BWOB	14.4
D044	5	% BWOW	165.2688
D907	7020	kg	7020





# Cementing Service Report

Customer <b>VULCAN MINERALS INC.</b>						Job Number <b>2203840317</b>									
Well <b>Flat Bay 1</b>			Location (legal)			Schlumberger Location <b>Dartmouth, NS</b>			Job Start <b>2004-Nov-01</b>						
Field		Formation Name/Type			Deviation °		Bit Size <b>216 mm</b>		Well MD <b>199 m</b>		Well TVD <b>199 m</b>				
County		State/Province <b>Newfoundland</b>			BHP kPa		BHST °C		BHCT °C		Pore Press. Gradient kPa/m				
Well Master: <b>0630581738</b>		API / UWI:			<b>Casing/Liner</b>										
Rig Name <b>Rose</b>		Drilled For <b>Oil</b>		Service Via			Depth, m		Size, mm		Weight, kg/m		Grade	Thread	
Offshore Zone		Well Class <b>New</b>		Well Type <b>Development</b>			<b>61</b>		<b>244</b>		<b>48.13</b>		<b>H40</b>	<b>8RD</b>	
							<b>198.5</b>		<b>178</b>		<b>25.33</b>		<b>H40</b>	<b>8RD</b>	
Drilling Fluid Type <b>Other</b>				Max. Density <b>1050 kg/m³</b>		Plastic Vi: cp <b>50</b>		<b>Tubing/Drill Pipe</b>							
Service Line <b>Cementing</b>		Job Type <b>Cem Surface Casing</b>			Depth,		Size, mm		Weight, kg/m		Grade		Thread		
Max. Allowed Tubing Pressure <b>10000 kPa</b>		Max. Allowed Ann. Pressure <b>kPa</b>		WellHead Connection <b>178mm head</b>			<b>Perforations/Open Hole</b>								
Service Instructions <b>Supply Men, Equipment and Material to Cement 178mm Surface Casing with approx 7 tonnes of Class G + 5 % D044.</b>				Top, m		Bottom, m		spm		No. of Shots		Total Interval m			
												Diameter mm			
Treat Down <b>Casing</b>		Displacement <b>4.1 m³</b>		Packer Type		Packer Depth m		Tubing Vol. m³		Casing Vol. <b>4.3 m³</b>		Annular Vol. <b>2.7 m³</b>		OpenHole Vol <b>7 m³</b>	
Casing/Tubing Secured <input checked="" type="checkbox"/>				1 Hole Volume Circulated prior to Cementing <input checked="" type="checkbox"/>				<b>Casing Tools</b>			<b>Squeeze Job</b>				
Lift Pressure: kPa				Pipe Rotated <input type="checkbox"/>				Pipe Reciprocated <input type="checkbox"/>				Shoe Type: <b>Float</b>		Squeeze Type	
No. Centralizers: <b>5</b>				Top Plugs: <b>1</b>		Bottom Plugs: <b>0</b>				Shoe Depth: <b>189.5 m</b>		Tool Type:			
Cement Head Type: <b>Single</b>				Job Scheduled For: <b>11/1/2004 10:45</b>				Arrived on Location: <b>2004-Nov-01 10:30</b>		Leave Location: <b>2004-Nov-01 16:00</b>		Stage Tool Type:		Tool Depth: m	
												Stage Tool Depth: m		Tail Pipe Size: m	
												Collar Type:		Tail Pipe Depth: m	
												Collar Depth: m		Sqz Total Vol: m³	
<b>Date</b>		<b>Time</b>	Treating Pressure kPa	Flow Rate m3/min	Volume m3	CMT DENS kg/m3	0	0	0	<b>Message</b>					
		24 hr clock					0	0	0						
2004-Nov-01		12:50	625	0.00	0.0	982.95	0	0	0						
2004-Nov-01		12:51	625	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:51	0	0.00	0.0	982.95	0	0	0						
2004-Nov-01		12:51								Safety Meeting					
2004-Nov-01		12:51	0	0.00	0.0	982.95	0	0	0						
2004-Nov-01		12:51	0	0.00	0.0	982.95	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.95	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	0	0.00	0.0	982.22	0	0	0						
2004-Nov-01		12:52	-32	0.00	0.0	982.22	0	0	0						

Well		Field			Service Date		Customer		Job Number
Flat Bay #1					04306-Nov-01		VULCAN MINERALS INC.		2203840317
Date	Time	Treating Pressure	Flow Rate	Volume	CMT DENS	0	0	0	Message
	24 hr clock	kPa	m3/min	m3	kg/m3	0	0	0	
2004-Nov-01	12:57	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	12:57	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	12:57	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	12:58	0	0.00	0.0	982.95	0	0	0	
2004-Nov-01	12:58	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	12:58	0	0.00	0.0	981.49	0	0	0	
2004-Nov-01	12:59	0	0.00	0.0	981.49	0	0	0	
2004-Nov-01	12:59	0	0.00	0.0	981.49	0	0	0	
2004-Nov-01	12:59	0	0.00	0.0	981.49	0	0	0	
2004-Nov-01	13:00	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:00	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:00	0	0.00	0.0	981.49	0	0	0	
2004-Nov-01	13:01	0	0.00	0.0	981.49	0	0	0	
2004-Nov-01	13:01	0	0.00	0.0	981.49	0	0	0	
2004-Nov-01	13:01	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:02	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:02	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:02	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:03	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:03	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:03	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:04	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:04	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:04	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:05	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:05	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:05	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:06	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:06	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:06	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:07	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:07	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:07	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:08	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:08	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:08	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:09	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:09	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:09	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:10	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:10	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:10	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:11	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:11	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:11	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:12	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:12	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:12	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:13	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:13	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:13	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:14	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:14	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:14	-32	0.00	0.0	982.22	0	0	0	

Well		Field			Service Date		Customer		Job Number
Flat Bay #1					04306-Nov-01		VULCAN MINERALS INC.		2203840317
Date	Time	Treating Pressure	Flow Rate	Volume	CMT DENS	0	0	0	Message
	24 hr clock	kPa	m3/min	m3	kg/m3	0	0	0	
2004-Nov-01	13:15	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:15	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:15	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:16	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:16	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:16	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:17	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:17	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:17	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:18	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:18	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:18	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:19	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:19	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:19	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:20	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:20	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:20	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:21	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:21	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:21	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:22	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:22	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:22	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:22	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:23	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:23	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:23	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:24	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:24	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:24	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:25	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:25	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:25	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:26	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:26	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:26	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:27	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:27	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:27	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:28	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:28	0	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:28	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:29								Start Job
2004-Nov-01	13:29	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:29	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:29								Start Pumping Spacer
2004-Nov-01	13:29	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:29	-32	0.00	0.0	982.22	0	0	0	
2004-Nov-01	13:29	0	0.20	0.0	982.22	0	0	0	
2004-Nov-01	13:30	284	0.35	0.1	982.22	0	0	0	
2004-Nov-01	13:30	347	0.43	0.3	982.22	0	0	0	
2004-Nov-01	13:30	347	0.44	0.4	981.49	0	0	0	
2004-Nov-01	13:31	442	0.50	0.6	981.49	0	0	0	
2004-Nov-01	13:31	473	0.53	0.7	980.03	0	0	0	

Well		Field			Service Date		Customer		Job Number
Flat Bay #1					04306-Nov-01		VULCAN MINERALS INC.		2203840317
Date	Time	Treating Pressure	Flow Rate	Volume	CMT DENS	0	0	0	Message
	24 hr clock	kPa	m3/min	m3	kg/m3	0	0	0	
2004-Nov-01	13:31	473	0.52	0.9	980.03	0	0	0	
2004-Nov-01	13:32	505	0.53	1.1	980.03	0	0	0	
2004-Nov-01	13:32	505	0.53	1.3	980.03	0	0	0	
2004-Nov-01	13:32	505	0.53	1.4	978.56	0	0	0	
2004-Nov-01	13:33	505	0.52	1.6	979.29	0	0	0	
2004-Nov-01	13:33	505	0.52	1.8	978.56	0	0	0	
2004-Nov-01	13:33	537	0.52	2.0	979.29	0	0	0	
2004-Nov-01	13:34	189	0.00	2.1	977.83	0	0	0	
2004-Nov-01	13:34	126	0.00	2.1	978.56	0	0	0	
2004-Nov-01	13:34								Pressure Test Lines
2004-Nov-01	13:34	126	0.00	2.1	978.56	0	0	0	
2004-Nov-01	13:34								Reset Total, Vol = 2.09 m3
2004-Nov-01	13:34	126	0.00	2.1	978.56	0	0	0	
2004-Nov-01	13:34	126	0.00	0.0	978.56	0	0	0	
2004-Nov-01	13:35	158	0.00	0.0	978.56	0	0	0	
2004-Nov-01	13:35	158	0.00	0.0	978.56	0	0	0	
2004-Nov-01	13:35	8459	0.00	0.0	978.56	0	0	0	
2004-Nov-01	13:36	10542	0.00	0.0	978.56	0	0	0	
2004-Nov-01	13:36	10352	0.00	0.0	978.56	0	0	0	
2004-Nov-01	13:36	1073	0.00	0.0	978.56	0	0	0	
2004-Nov-01	13:37	316	0.00	0.0	979.29	0	0	0	
2004-Nov-01	13:37	158	0.00	0.0	979.29	0	0	0	
2004-Nov-01	13:37	158	0.00	0.0	979.29	0	0	0	
2004-Nov-01	13:38	158	0.00	0.0	980.03	0	0	0	
2004-Nov-01	13:38								Good Test
2004-Nov-01	13:38	158	0.00	0.0	979.29	0	0	0	
2004-Nov-01	13:38	158	0.00	0.0	980.03	0	0	0	
2004-Nov-01	13:38	158	0.00	0.0	980.76	0	0	0	
2004-Nov-01	13:38								Start Mixing Lead Slurry
2004-Nov-01	13:38	158	0.00	0.0	980.76	0	0	0	
2004-Nov-01	13:39	158	0.00	0.0	980.76	0	0	0	
2004-Nov-01	13:39	158	0.00	0.0	980.03	0	0	0	
2004-Nov-01	13:39	126	0.00	0.0	1017.32	0	0	0	
2004-Nov-01	13:40	252	0.00	0.0	867.40	0	0	0	
2004-Nov-01	13:40	189	0.00	0.0	1001.23	0	0	0	
2004-Nov-01	13:40	126	0.00	0.0	1019.52	0	0	0	
2004-Nov-01	13:41	95	0.00	0.0	1022.44	0	0	0	
2004-Nov-01	13:41	95	0.00	0.0	1022.44	0	0	0	
2004-Nov-01	13:41	95	0.00	0.0	1023.18	0	0	0	
2004-Nov-01	13:42	221	0.00	0.0	1167.99	0	0	0	
2004-Nov-01	13:42	252	0.00	0.0	1314.26	0	0	0	
2004-Nov-01	13:42	252	0.00	0.0	1491.25	0	0	0	
2004-Nov-01	13:43	252	0.00	0.0	1683.60	0	0	0	
2004-Nov-01	13:43	158	0.00	0.0	1843.76	0	0	0	
2004-Nov-01	13:43	852	0.66	0.1	1897.89	0	0	0	
2004-Nov-01	13:44	600	0.42	0.2	1892.03	0	0	0	
2004-Nov-01	13:44	221	0.17	0.3	1895.69	0	0	0	
2004-Nov-01	13:44	505	0.42	0.4	1851.08	0	0	0	
2004-Nov-01	13:45	410	0.42	0.5	1903.00	0	0	0	
2004-Nov-01	13:45	410	0.42	0.7	1955.66	0	0	0	
2004-Nov-01	13:45	379	0.42	0.8	1960.05	0	0	0	
2004-Nov-01	13:46	884	0.66	1.0	1946.16	0	0	0	
2004-Nov-01	13:46	852	0.66	1.2	1914.71	0	0	0	
2004-Nov-01	13:46	473	0.42	1.5	1891.30	0	0	0	

Well		Field		Service Date		Customer		Job Number	
Flat Bay #1				04306-Nov-01		VULCAN MINERALS INC.		2203840317	
Date	Time	Treating Pressure	Flow Rate	Volume	CMT DENS	0	0	0	Message
	24 hr clock	kPa	m3/min	m3	kg/m3	0	0	0	
2004-Nov-01	13:47	316	0.42	1.6	1881.80	0	0	0	
2004-Nov-01	13:47	316	0.42	1.7	1878.87	0	0	0	
2004-Nov-01	13:47	347	0.46	1.9	1879.60	0	0	0	
2004-Nov-01	13:48	821	0.66	2.1	1876.68	0	0	0	
2004-Nov-01	13:48	821	0.66	2.3	1878.14	0	0	0	
2004-Nov-01	13:48	316	0.42	2.5	1880.33	0	0	0	
2004-Nov-01	13:49	284	0.42	2.6	1884.72	0	0	0	
2004-Nov-01	13:49	284	0.42	2.8	1907.39	0	0	0	
2004-Nov-01	13:49	284	0.42	2.9	1897.89	0	0	0	
2004-Nov-01	13:50	284	0.42	3.1	1887.65	0	0	0	
2004-Nov-01	13:50	316	0.42	3.2	1884.72	0	0	0	
2004-Nov-01	13:50	284	0.42	3.3	1924.95	0	0	0	
2004-Nov-01	13:51	379	0.42	3.5	1955.66	0	0	0	
2004-Nov-01	13:51	316	0.42	3.6	1947.62	0	0	0	
2004-Nov-01	13:51	316	0.42	3.8	1918.36	0	0	0	
2004-Nov-01	13:52	347	0.42	3.9	1895.69	0	0	0	
2004-Nov-01	13:52	537	0.42	4.0	1899.35	0	0	0	
2004-Nov-01	13:52								End Cement Slurry
2004-Nov-01	13:52	410	0.38	4.1	1735.52	0	0	0	
2004-Nov-01	13:52	0	0.00	4.1	305.71	0	0	0	
2004-Nov-01	13:53								Drop Top Plug
2004-Nov-01	13:53	0	0.00	4.1	305.71	0	0	0	
2004-Nov-01	13:53								Reset Total, Vol = 4.08 m3
2004-Nov-01	13:53	0	0.00	4.1	305.71	0	0	0	
2004-Nov-01	13:53								Approx 1.5m3 Preflush Returned
2004-Nov-01	13:53	0	0.00	0.0	305.71	0	0	0	
2004-Nov-01	13:53	-32	0.00	0.0	305.71	0	0	0	
2004-Nov-01	13:53	-63	0.00	0.0	305.71	0	0	0	
2004-Nov-01	13:53	32	0.00	0.0	1255.75	0	0	0	
2004-Nov-01	13:54	63	0.00	0.0	1261.60	0	0	0	
2004-Nov-01	13:54	-63	0.00	0.0	1289.39	0	0	0	
2004-Nov-01	13:54	95	0.00	0.0	1255.02	0	0	0	
2004-Nov-01	13:55	284	0.46	0.1	1030.49	0	0	0	
2004-Nov-01	13:55	189	0.51	0.3	1027.56	0	0	0	
2004-Nov-01	13:55	158	0.51	0.4	1028.30	0	0	0	
2004-Nov-01	13:56	252	0.58	0.6	1027.56	0	0	0	
2004-Nov-01	13:56	252	0.58	0.8	1027.56	0	0	0	
2004-Nov-01	13:56	252	0.58	1.0	1027.56	0	0	0	
2004-Nov-01	13:57	252	0.58	1.2	1027.56	0	0	0	
2004-Nov-01	13:57	252	0.58	1.4	1027.56	0	0	0	
2004-Nov-01	13:57	252	0.58	1.6	1027.56	0	0	0	
2004-Nov-01	13:58	316	0.58	1.8	1027.56	0	0	0	
2004-Nov-01	13:58	442	0.59	2.0	1027.56	0	0	0	
2004-Nov-01	13:58	568	0.58	2.2	1027.56	0	0	0	
2004-Nov-01	13:59	663	0.58	2.4	1023.18	0	0	0	
2004-Nov-01	13:59	757	0.58	2.6	1023.18	0	0	0	
2004-Nov-01	13:59	884	0.58	2.8	1023.18	0	0	0	
2004-Nov-01	14:00	1010	0.58	2.9	1023.18	0	0	0	
2004-Nov-01	14:00	1168	0.58	3.1	1023.18	0	0	0	
2004-Nov-01	14:00	1326	0.58	3.3	1023.18	0	0	0	
2004-Nov-01	14:01	1515	0.58	3.5	1023.18	0	0	0	
2004-Nov-01	14:01	1262	0.28	3.7	1023.18	0	0	0	
2004-Nov-01	14:02	1357	0.30	3.8	1023.91	0	0	0	

Well		Field			Service Date		Customer		Job Number
Flat Bay #1					04306-Nov-01		VULCAN MINERALS INC.		2203840317
Date	Time	Treating Pressure	Flow Rate	Volume	CMT DENS	0	0	0	Message
	24 hr clock	kPa	m3/min	m3	kg/m3	0	0	0	
2004-Nov-01	14:02	1483	0.29	3.9	1023.91	0	0	0	
2004-Nov-01	14:02	7606	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:03	7543	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:03	7480	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:03	7449	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:04	7449	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:04	7449	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:04	7417	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:05	7417	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:05	473	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:05	1105	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:06	1105	0.00	3.9	1023.91	0	0	0	
2004-Nov-01	14:06	1231	0.27	4.0	1023.91	0	0	0	
2004-Nov-01	14:06	1420	0.26	4.0	1023.91	0	0	0	
2004-Nov-01	14:06	1483	0.26	4.1	1024.64	0	0	0	
2004-Nov-01	14:06								Rebump
2004-Nov-01	14:07	6596	0.00	4.1	1023.91	0	0	0	
2004-Nov-01	14:07								Floats Not Holding
2004-Nov-01	14:07	6596	0.00	4.1	1023.91	0	0	0	
2004-Nov-01	14:07								Reset Total, Vol = 4.09 m3
2004-Nov-01	14:07	6565	0.00	4.1	1024.64	0	0	0	
2004-Nov-01	14:07	6502	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:07	6470	0.00	0.0	1024.64	0	0	0	
2004-Nov-01	14:08	6439	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:08	6439	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:08	6407	0.00	0.0	1024.64	0	0	0	
2004-Nov-01	14:09	6407	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:09	6407	0.00	0.0	1024.64	0	0	0	
2004-Nov-01	14:09	6407	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:10	6407	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:10	6407	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:10	6407	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:11	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:11	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:11	6407	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:12	6407	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:12	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:12	6344	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:13	6407	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:13	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:13	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:14	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:14	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:14	6344	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:15	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:15	6344	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:15	6344	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:16	6375	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:16	6344	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:16	4292	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:17	1736	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:17	1736	0.00	0.0	1023.91	0	0	0	
2004-Nov-01	14:17								Differential On Casing
2004-Nov-01	14:17	1736	0.00	0.0	1023.91	0	0	0	

Well Flat Bay #1		Field		Service Date 04306-Nov-01		Customer VULCAN MINERALS INC.		Job Number 2203840317	
<b>Date</b>	<b>Time</b> 24 hr clock	<b>Treating Pressure</b> kPa	<b>Flow Rate</b> m3/min	<b>Volume</b> m3	<b>CMT DENS</b> kg/m3	0	0	0	<b>Message</b>
2004-Nov-01	14:17	1673	0.00	0.0	1023.91	0	0	0	
2004-Nov-04	9:42								
<b>Post Job Summary</b>									
Average Pump Rates, m <sup>3</sup> /m					Volume of Fluid Injected, m <sup>3</sup>				
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2		
0.66			0.66	4		2			
Treating Pressure Summary, kPa					Breakdown Fluid				
Maximum	Final	Average	Bump Plug to	Breakdown	Volume	Density			
6800		2500	6800			1050 kg/m <sup>3</sup>			
Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	<input type="checkbox"/> Cement Circulated to Surface?	Volume				
%	3.9 m <sup>3</sup>	4.1 m <sup>3</sup>	15 °C	<input type="checkbox"/> Washed Thru Perfs	To	m			
Customer or Authorized Representative Williams, Bill			Schlumberger Supervisor Kevin Law			<input type="checkbox"/> CirculationLost <input checked="" type="checkbox"/> Job Completed			

<b>Client:</b>	VULCAN MINERALS INC.
<b>Field:</b>	
<b>Rig:</b>	Rose
<b>Well:</b>	Flat Bay 1
<b>Service Line:</b>	Cementing
<b>Job Type:</b>	Cem Surface Casing

<b>Service Order #:</b>	2203840317 SQE #: 1
<b>Date:</b>	2004-Nov-01
<b>Operating Time:</b>	1.00 hrs.
<b>Client Rep:</b>	Williams, Bill
<b>Schlumberger Engineer:</b>	Kevin Law
<b>Schlumberger FSM:</b>	Burgess, Lara

**Main Objective\*:** Cement 178mm Surface Casing.

To be completed by Company Rep. Please answer Y (Yes) or N (No) and add any comments below.

		Score	Yes / No	Result
<b>1</b>	<b>HSE</b>			
<b>1a</b>	Free of lost time injury and full compliance with SLB and location specific HSE practice.	5	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5
<b>1b</b>	Free of environmental spill or non-compliant discharge.	5	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5
<b>Sub-total</b>				100%

<b>2</b>	<b>Design / Preparation</b>			
<b>2a</b>	Program including job simulation (CemCADE) and pumping schedule / tool hydraulic calculations and fishing diagrams	3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3
<b>2b</b>	Equipment maintenance schedule completed / Green Tagged.	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2
<b>2c</b>	All materials and equipment required for job / contingency checked and on location.	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2
<b>2d</b>	Safety / pre-job meeting conducted with all involved present.	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2
<b>Sub-total</b>				100%

<b>3</b>	<b>Execution</b>			
<b>3a</b>	Lost time < 30mins.	3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3
<b>3b</b>	Equipment pressure tested successfully.	3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3
<b>3c</b>	All key parameters monitored and recorded accurately ( Pressure, Rate, Density ).	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2
<b>3d</b>	Plugs / darts released and tested successfully.	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2
<b>3e</b>	Density variation met expectations.	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2
<b>3f</b>	Personnel performed as per expectations.	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2
<b>3g</b>	Equipment performed as per expectations	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2
<b>Sub-total</b>				100%

<b>4</b>	<b>Evaluation</b>			
<b>4a</b>	Main job objective achieved with no consequential non productive time.	10	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10
<b>Sub-total</b>				100%

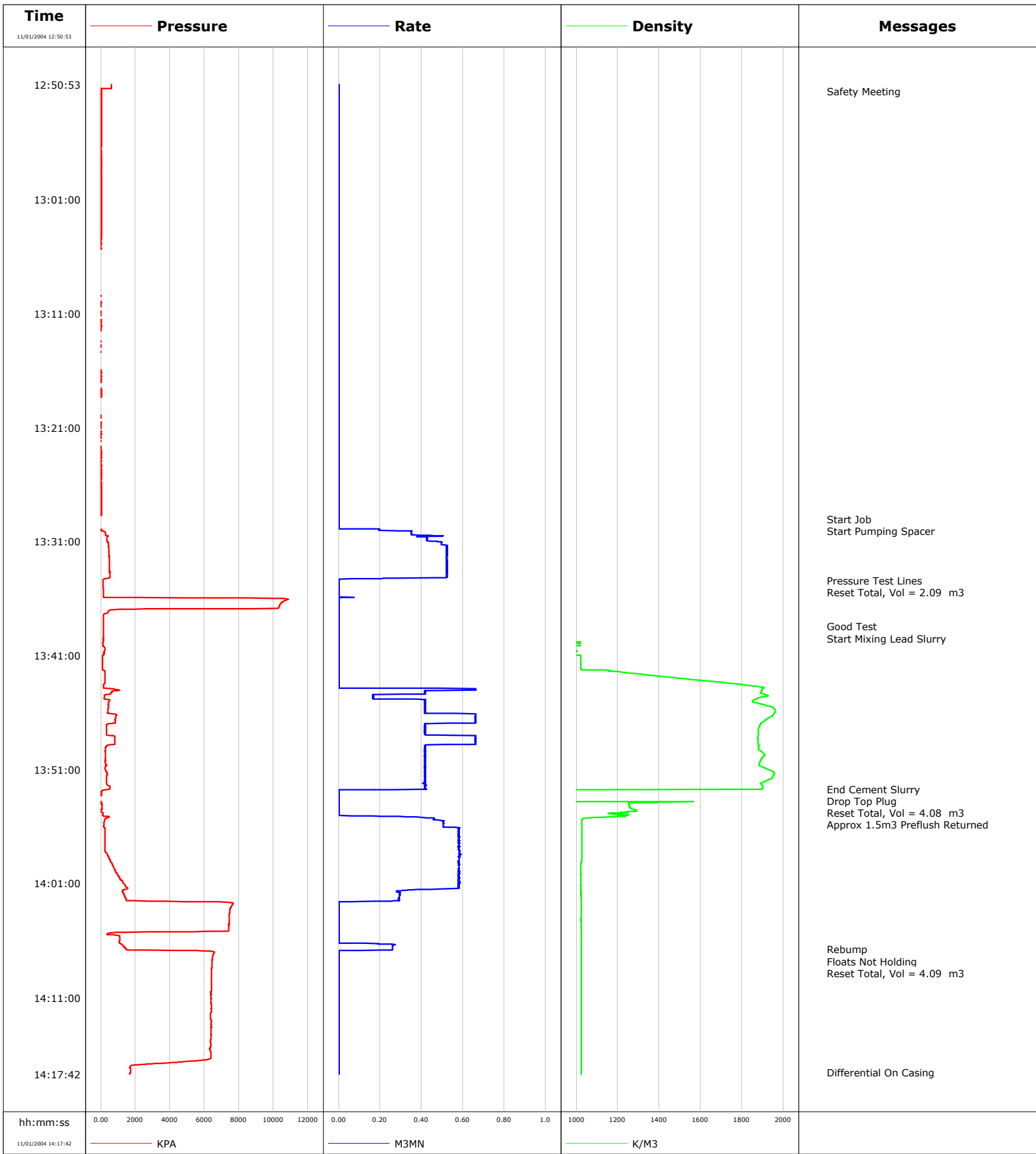
**Total** 100%

**Comments:** (Please include a brief explanation for a "NO" response and summarise any innovations attempted on this well.)

<b>Client:</b>	<b>Schlumberger:</b>
	Job went well with no Safety or operational problems.
	Thanks
	Kevin Law
<b>Client Signature:</b>	<b>Schlumberger Signature:</b>



<b>Well</b>	Flatbay 2 - Cem Surface Casing	<b>Client</b>	Vulcan
<b>Field</b>		<b>SIR No.</b>	2203840317
<b>Engineer</b>	Kevin Law	<b>Job Type</b>	Surface Casing
<b>Country</b>	Canada	<b>Job Date</b>	11-01-2004



## **APPENDIX D: WELL TERMINATION RECORD & WELL SCHEMATIC**

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WELL TERMINATION RECORD

WELL DATA

Well Name: <u>Vulcan Minerals Inc.-Flat Bay No. 2A</u>	CO-ORDINATES	
Operator: <u>Vulcan Minerals Inc.</u>	UTM (NAD 83)	
Drilling Rig:	Long:	Northing: <u>5 359 965</u> <u>5359965.033</u>
Rig Type: <u>Ingersoll Rand RD 10</u>	Lat:	Easting: <u>386 694</u> <u>386708.97</u>
Drilling Contractor: <u>Rose Resource Drilling</u>	ELEVATION	
	RT/KB/RF: <u>95.8m</u>	TD: <u>175 mRF</u>
	G.L.: <u>56.15m</u>	TVD: <u>175 mRF</u>
FOR NR USE ONLY		
Spud Date: <u>Oct 8 2004</u>		
TD Date: <u>Oct 20 2004</u>		
Rig Release Date: <u>Oct 23 2004</u>		
Well Termination Date: <u>Oct 26 2004</u>		
For the purpose of interpreting subsection 154(5) of the Petroleum Drilling Regulations, the rig release date is deemed to be: <u>October 23<sup>rd</sup>, 2004</u>		

CASING AND CEMENTING PROGRAM

O.D. (mm)	WEIGHT (kg/m)	GRADE	SETTING DEPTH (m)	CEMENTING DETAILS
<u>244</u>	<u>48.07</u>	<u>J 55</u>	<u>46.9</u>	<u>3m<sup>3</sup> Class A 1820 kg/m<sup>3</sup> Cement returns</u>

PLUGGING PROGRAM

Approval of the following program was obtained by (person) Patrick Laracy  
from (person) Wes Foote of the Department of Natural Resources by means of  
email dated Oct 22 '04

Type of Plug	Interval	Felt/Pressure Tested	Cement and Additives
<u>Cement</u>	<u>45mRF-Surf</u>	<u>Visible</u>	<u>2m<sup>3</sup> Class A</u>

Lost Circulation/Overpressure Zones: Lost circulation at 155 and 175 mRF

Downhole Completion/Suspension Equipment:

Cement plug only  
(see sketch)

(Describe and Attach Sketch)

DECLARATION

The undersigned operator's Representative hereby declares that on the basis of personal knowledge of operations undertaken at the above named well, the above information is true, accurate and complete.

Signed Patrick Laracy Title President Operator's Representative  
Name PATRICK LARACY Date Dec 15, 04

ACKNOWLEDGEMENT

Acknowledged by [Signature] Date 2005.02.03  
Director



WELL TERMINATION RECORD

WELL DATA

Well Name: <u>Vulcan Minerals Inc. - Flat Bay No. 2</u>	CO-ORDINATES	
Operator: <u>Vulcan Minerals Inc.</u>	UTM (N. 12 23)	
Drilling Rig:	Long: <u>5 359 965</u>	5 <u>359 963.88</u>
	Lat: <u>386 684</u>	<u>386 697.34</u>
Drilling Rig: <u>Ingersoll Rand RD 10</u>	ELEVATION	DEPTH
Drilling Contractor: <u>Rose Resource Drilling</u>	TD: <u>845.0</u>	TVD: <u>845.0</u>
	WFA/RP: <u>85.8 m</u>	
	G.L.: <u>55.95 43.2 m</u>	
FOR NR USE ONLY		
For the purpose of interpreting subsection 154(5) of the Petroleum Drilling Regulations, the rig release date is deemed to be:		
Spud Date: <u>Oct 23 2004</u>		
TD Date: <u>Nov 20 2004</u>		
Rig Release Date: <u>Nov 25 2004</u>		
Well Termination Date: <u>Nov 25 2004</u>		
... November... <u>25<sup>th</sup></u> , 2004		

CASING AND CEMENTING PROGRAM

O.D. (mm)	WEIGHT (kg/m)	GRADE	SETTING DEPTH (m)	CEMENTING DETAILS
<u>244.5</u>	<u>48.07</u>	<u>J 55</u>	<u>1</u>	<u>1m<sup>3</sup> preflush. 2.85 m<sup>3</sup> Class 'A'. Returns</u>
<u>177.8</u>	<u>25.30</u>	<u>H40</u>	<u>196.5</u>	<u>2m<sup>3</sup> preflush. 4.0 m<sup>3</sup> class 'G'. 1.5 m<sup>3</sup> preflush returns</u>

PLUGGING PROGRAM

Approval of the following program was obtained by (person) Joseph Goeman  
from (person) Wes Foote of the Department of Natural Resources by means of  
email dated Nov 25 2004

Type of Plug	Interval	Felt/Pressure Tested	Cement and Additives
<u>Cement</u>	<u>184 - 214 mRF</u>	<u>No.</u>	<u>1m<sup>3</sup> Class 'A' 1824 kg/m<sup>3</sup></u>
<u>Cement</u>	<u>21 - 38 mRF</u>	<u>No.</u>	<u>0.4m<sup>3</sup> Class 'A' 1824 kg/m<sup>3</sup></u>

Lost Circulation/Overpressure Zones: NONE

Downhole Completion/Suspension Equipment:  
2 cement plugs - see attached sketch

(Describe and Attach Sketch)

DECLARATION

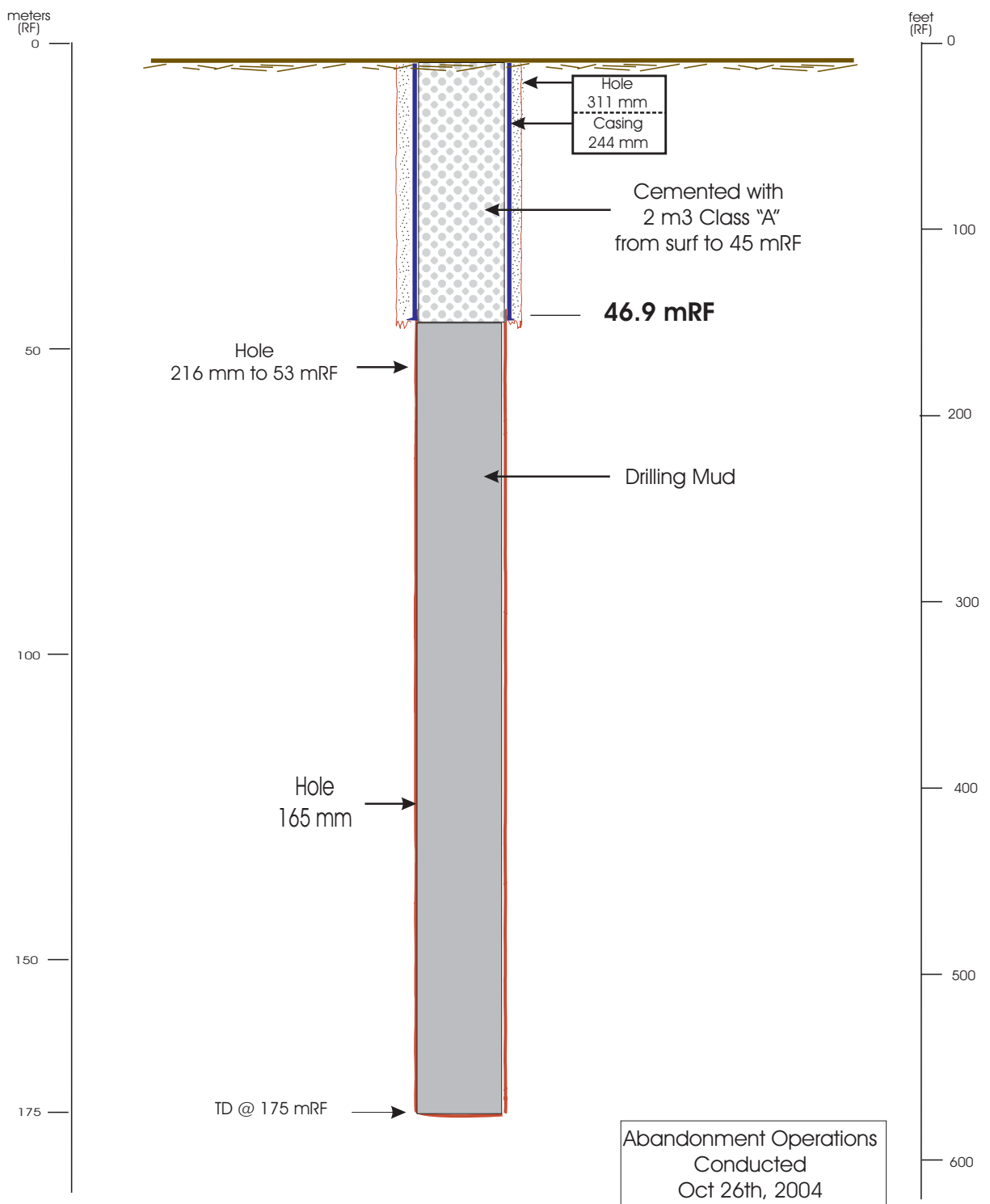
The undersigned operator's Representative hereby declares that on the basis of personal knowledge of operations undertaken at the above named well, the above information is true, accurate and complete.

Signed Patrick L Aracy Title President Operator's Representative  
Name Patrick L Aracy Date Dec 15/04

ACKNOWLEDGEMENT

Acknowledged by C. Aracy Date 2005.02.03  
Director

Flat Bay #2A  
Well Profile  
Abandonment

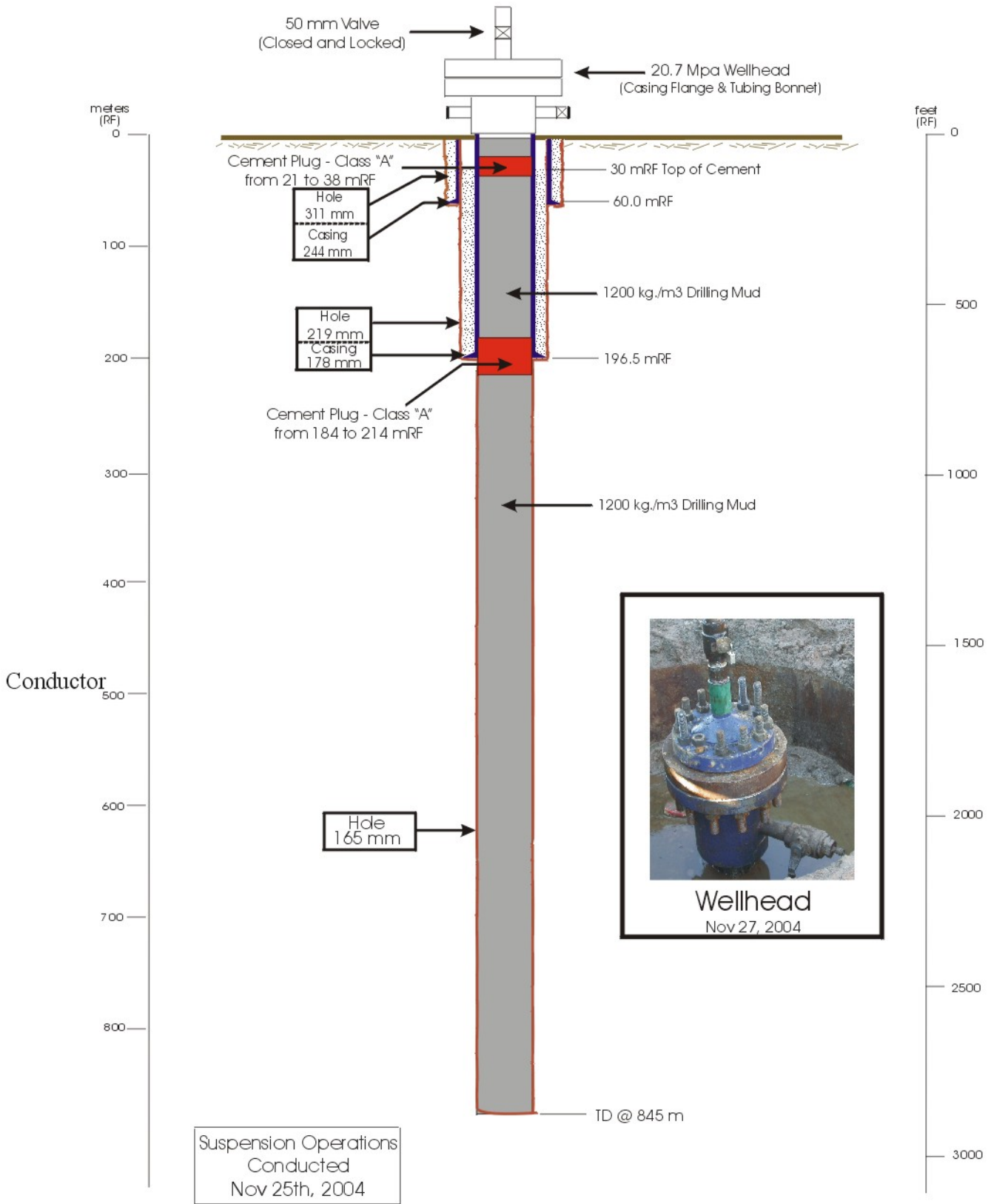


Vulcan Minerals Inc.  
Flat Bay No. 2A  
Abandonment Configuration

Scale: 1 : N/A

Drawn by: J. Gorman  
Date: 2004 -11-30

Drawing No: FB2A - ABAN - 1  
Rev: 0



Vulcan Minerals Inc.  
Flat Bay No. 2  
Suspension Configuration

Scale: 1 : N/A

Drawn by: J. Gorman  
Date: 2004 -12-13

Drawing No: FB2 - SUSP - 001  
Rev: 1

## **APPENDIX E: COMPOSITE WELL RECORD & TIME VERSUS DEPTH CURVE**

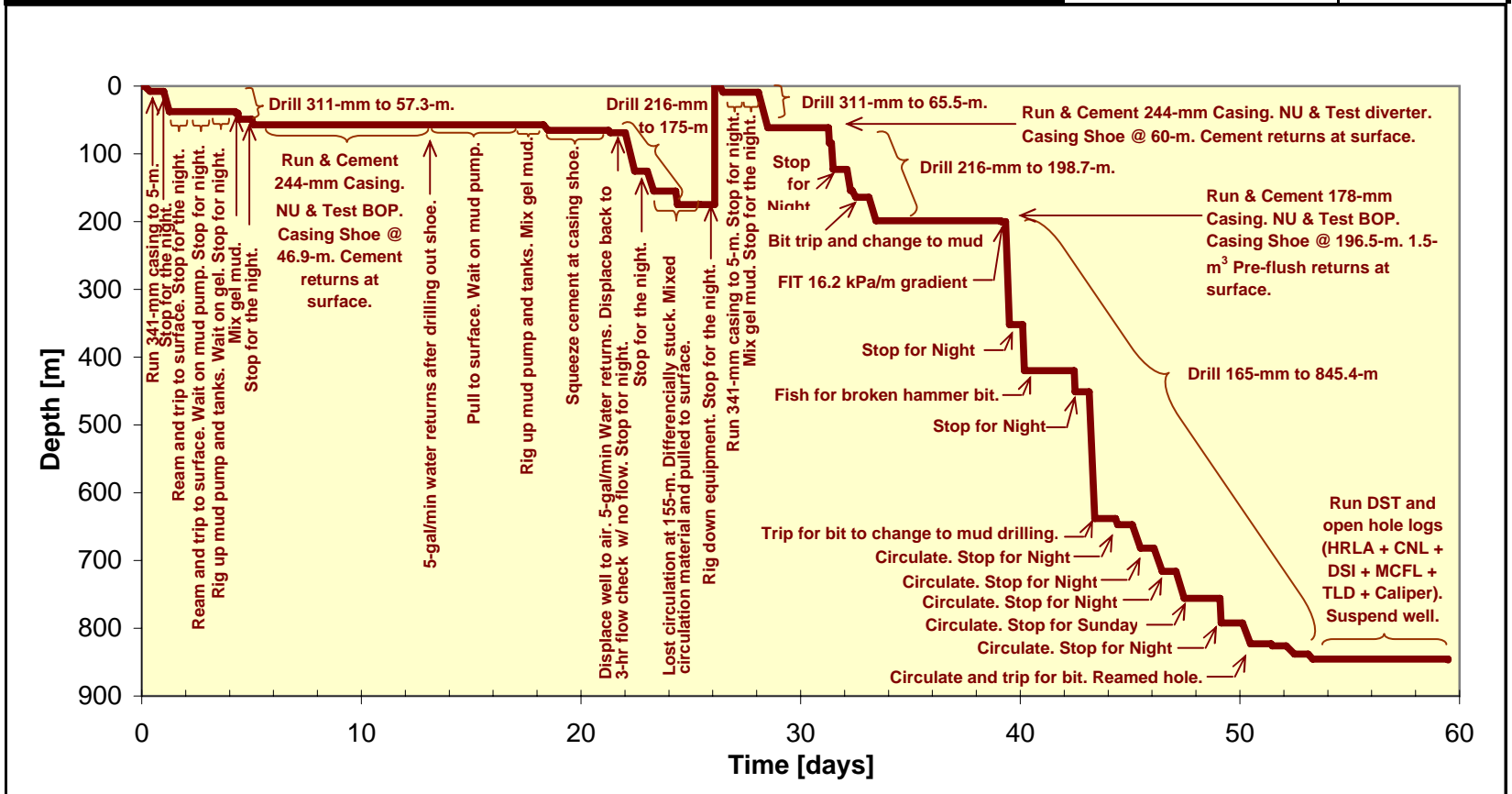








<b>Operating Company</b>	Vulcan Minerals Inc.	<b>Spud Date #2a</b>	27-Sep-04
<b>Well Name</b>	Flat Bay #2a & #2	<b>Rig Release #2a</b>	22-Oct-04
<b>Rig</b>	RD-10	<b>Spud Date #2</b>	23-Oct-04
<b>Field</b>	Western Newfoundland	<b>Rig Release #2</b>	25-Nov-04



### Final Version

Please note that the crew was working approximately six days per week at 8 hours per day.

## **APPENDIX F: DRILL CUTTINGS DESCRIPTION & LITHOLOGY**

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GEOLOGICAL REPORT

*on*

## VULCAN MINERALS FLAT BAY # 2

*in*

**Western Newfoundland**

*for*

**VULCAN MINERALS INC.**

**Prepared For:** Patrick Laracy  
**Prepared By:** Corey Fitzgerald

  
\_\_\_\_\_  
Geologist Name

Corey Fitzgerald will use his best effort to furnish his customers with good interpretations and information relating to oil and (or) gas shows. However, Corey Fitzgerald cannot and does not guarantee the accuracy of such information and interpretation and shall not be liable or responsible for liabilities incurred by customer resulting from same.

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**WELL SUMMARY**

<b>WELL NAME:</b>	Vulcan Minerals Flat Bay # 2			
<b>OPERATOR:</b>	Vulcan Minerals Inc.			
<b>PROVINCE:</b>	Newfoundland			
<b>AREA:</b>	Flat Bay, Western Newfoundland			
<b>DRILLING CONTRACTOR:</b>	Rose Drilling			
<b>WELL LICENCE NUMBER:</b>	03-106			
<b>WELLSITE SUPERVISION:</b>	<b>Geologist:</b>	Corey Fitzgerald		
	<b>Drilling Supervisor:</b>	Bill Williams		
<b>ELEVATIONS:</b>	<b>Ground Level:</b>	97.0 meters	<b>Kelly Bushing:</b>	99.8 meters
<b>SPUD DATE:</b>	24-10-2004			
<b>T.D. DATE:</b>	19-11-2004			
<b>SAMPLE INTERVAL:</b>	120.0 – 845.4 meters			
<b>WELL STATUS:</b>	Suspended.			

**CASING SUMMARY**

<b>String #</b>	<b>Casing Size (mm)</b>	<b>Hole Size (mm)</b>	<b>Joints (#)</b>	<b>Landed At (m)</b>
1	178.0	229.0	22	196.0

## **FORMATION TOPS**

*Kelly Bushing: 99.8 m*

<b>Formation</b>	<b>Prognosis (m)</b>	<b>Sample Top (m)</b>	<b>Log Tops (m)</b>
Lower Codroy Group	20.0	N/A	N/A
Ship Cove Formation	658.0	655.0	650.0
Spout Falls Formation (Fischells Brook Member)	678.0	740.0	738.0
Spout Falls Formation	878.0	N/A	N/A
Granite	920.0	N/A	N/A

## FORMATION EVALUATIONS

<b>Formation:</b>	<u>Ship Cove Limestone</u>		
<b>Age:</b>			
<b>Sample Top:</b>	<u>655.0 meters</u>	<b>Log Top:</b>	<u>650.0 meters</u>
<b>Thickness:</b>	<u>N/A</u>		
<b>Evaluation:</b>	<p>The Ship Cove limestone is described in sample as light gray, light cream gray, microcrystalline with occasional fine crystalline grains. The limestone is firm to occasional soft, massive, argillaceous, with trace red and green clay, with common interbeds of anhydrite, tight, and exhibits an oil odour when acid added. There is an occasional white yellow fluorescence, and a slow very faint white fluorescence cut. This fluorescence is barely visible and determination of pervasiveness was not obvious.</p>		
<b>Conclusion:</b>	<u>Formation looks tight with no indication of hydrocarbons on wireline logs. Poor reservoir potential.</u>		

<b>Formation:</b>	<u>Fischells Brook</u>		
<b>Age:</b>			
<b>Sample Top:</b>	<u>740.0 meters</u>	<b>Log Top:</b>	<u>738.0 meters</u>
<b>Thickness:</b>	<u>N/A</u>		
<b>Evaluation:</b>	<p>The Fischells Brook is described as a light gray cream to pinkish conglomerate with a lower fine to lower coarse grained matrix, angular to lesser sub rounded quartz grains, friable, with calcareous and lesser siliceous cement. The conglomerate is kaolinitic, poorly sorted, containing common clear and translucent to clouded siliceous fragments, common aqua green glauconitic grains, occasional pink to orange feldspar, common cream with trace pink blocky calcareous fragments, common light to dark gray dolomitic fragments, occasional clear and translucent to white blocky anhydrite fragments, occasional varicolored chert fragments, with possible fair intergranular porosity, and no shows.</p>		
<b>Conclusion:</b>	<u>The Fischells Brook formation contains from poor to fair intergranular porosity with no indication of hydrocarbons on wireline logs. Poor reservoir potential.</u>		



## DETAILED SAMPLE DESCRIPTIONS

### Depth ( meters ) K.B. 99.8 meters

**120-125** CLAYSTONE(100%): predominantly red, minor gray cream and gray green, trace silty, very soft, hemititic, calcareous and dolomitic cement, minor calcareous and dolomitic grains, trace anhydrite / gypsum grains.

**125-130** CLAYSTONE(100%): predominantly red, minor gray cream and gray green, trace silty, soft, hemititic, calcareous and dolomitic, minor calcareous and dolomitic grains, minor clear and translucent blocky anhydrite grains, minor soft white gypsum grains.

**130-135** CLAYSTONE(85%): predominantly red, minor gray cream and gray green, slightly silty, soft, hemititic, calcareous and dolomitic, minor calcareous and dolomitic grains.

GYPSUM(15%): white, very soft, massive, minor crystalline, possible stringers, possible clear and translucent slightly firm, blocky anhydrite.

**135-140** CLAYSTONE(80%): predominantly red, minor gray cream and gray green, slightly silty, soft, hemititic, calcareous and dolomitic, minor calcareous and dolomitic grains.

GYPSUM(20%): white, very soft, massive, earthy to minor crystalline, occasional clear and translucent slightly firm, blocky anhydrite / gypsum fragments.

**140-145** CLAYSTONE(80%): predominantly red brown, slightly silty, soft, hemititic, calcareous and dolomitic, minor calcareous and dolomitic grains.

GYPSUM(20%): white to translucent, very soft, earthy, becoming increasingly crystalline, flaky, possible minor anhydrite, tabular in part.

**145-150** GYPSUM(55%): clear and translucent to white, very soft, crystalline to occasional earthy, flaky, possible minor anhydrite, blocky to tabular.

CLAYSTONE(45%): predominantly red brown, slightly silty, soft, hemititic, calcareous and dolomitic matrix well minor calcareous and dolomitic grains.

**150-155** GYPSUM(80%): cream clear to white, very soft, 50% crystalline to 50% earthy, flaky, common cream clear firm blocky anhydrite, occasional dolomite rhomb.

CLAYSTONE(20%): predominantly red brown, slightly silty, soft, hemititic, calcareous and dolomitic matrix well minor calcareous and dolomitic grains.

**155-160** SANDSTONE(80%): predominantly red brown, lithic, upper very fine to lower very coarse grained, common red brown calcareous clay matrix as above, poorly sorted, angular to occasional sub rounded, friable, common dark green, yellow, brown and black siliceous mafic well minor felsic grains upper to 3 mm, minor rhombic dolomitic grains, possible fair intergranular porosity, no shows.

GYPSUM(20%): clear to white, very soft, crystalline to earthy, flaky, 10 to 15% clear to pink blocky to tabular anhydrite grains.

**160-165** SANDSTONE(80%): clear to red brown, lithic, upper very fine to lower very coarse grained, upper to 15% red brown calcareous clay matrix, poorly sorted, 10% sub angular to sub rounded quartz grains, friable, common dark green, yellow, brown and black siliceous mafic well minor felsic grains upper to 3 mm, occasional varicolored chert, minor rhombic dolomitic grains, possible fair intergranular porosity, no shows.

GYPSUM(20%): clear to white, very soft, crystalline to earthy, flaky, mixed well clear blocky to tabular anhydrite grains.

**165-170** SANDSTONE(80%): clear to red brown, lithic, upper very fine to lower very coarse grained, upper to 10% red brown calcareous clay matrix, poorly sorted, 15% sub rounded to rounded quartz grains, friable, common dark green, yellow, brown and black siliceous mafic well minor felsic grains upper to 3 mm, occasional sand rounded to angular varicolored chert, minor dolomitic grains, trace muscovite, possible fair intergranular porosity, no shows.

GYPSUM(20%): clear to white, very soft, crystalline to earthy, flaky, mixed well clear to pink blocky to tabular anhydrite grains.

**170-175** CLAYSTONE(50%): predominantly red, minor gray green, slightly silty, soft, very sandy in part, possible clayey sandstone as above, hemititic, calcareous and dolomitic.

GYPSUM(50%): clear to white, occasional dark green, very soft, earthy, minor crystalline, mixed well clear blocky to tabular anhydrite.

**175-180** GYPSUM(75%): white, minor dark crystalline gypsum, very soft, earthy to flaky crystalline, mixed with common red and blocky clear to cloudy anhydrite ` fragments.

CLAYSTONE(25%): predominantly red brown, soft, silty, hemititic, calcareous to slightly dolomitic, minor dolomite rhomb and grains, trace sand, trace varicolored chert, trace mafic grains.

**180-185** GYPSUM(60%): white, minor dark crystalline gypsum, very soft, earthy to flaky crystalline, mixed with common rounded and blocky clear to cloudy anhydrite grains and fragments.

CLAYSTONE(40%): predominantly red brown, soft, silty, hemititic, calcareous to slightly dolomitic, occasional dolomite rhomb and grains, trace sand, minor varicolored chert, minor mafic grains.

**185-190** GYPSUM(60%): white, minor dark crystalline gypsum, very soft, earthy to minor crystalline, common crystalline rounded and blocky anhydrite grains and fragments.

CLAYSTONE(40%): red brown, minor gray green and gray brown, soft, silty, hemititic, weakly calcareous, slightly dolomitic, occasional dolomite rhomb and grains, minor sand, possible clayey sandstone, trace varicolored chert, occasional light and dark siliceous grains.

**190-198.5** CLAYSTONE(45%): red brown, minor gray green and gray brown, soft, silty, hemititic, weakly calcareous, slightly dolomitic, occasional dolomite rhomb and grains, trace sand, occasional light and dark siliceous grains.

GYPSUM(55%): white, very soft, earthy to minor crystalline, occasional crystalline blocky anhydrite.

**200-205** SALT(100%): clear to translucent, minor cream white, crystalline to massive, blocky, powdery, calcareous in part, slightly dolomitic, minor white gypsum.

**205-215** SALT(100%): clear to translucent, minor white cream, crystalline to massive, blocky, slightly hard, calcareous in part, slightly dolomitic, minor soft white gypsum fragments.

**215-225** SALT(100%): clear to translucent, minor white cream, crystalline to massive, blocky, slightly hard, calcareous in part, weakly dolomitic, minor soft white gypsum fragments.

**225-235** SALT(100%): clear to translucent, trace white cream, coarse crystalline, massive, blocky, firm, calcareous in part, slightly dolomitic, minor soft white gypsum fragments.

**235-245** SALT(100%): clear to translucent, trace white cream, coarse crystalline, massive, blocky, firm, calcareous in part, slightly dolomitic, minor soft white gypsum fragments.

**245-255** SALT(100%): clear to translucent, trace white cream, coarse crystalline, massive, blocky, firm, calcareous in part, slightly dolomitic, minor soft white gypsum fragments, occasional tan dolomitic / anhydrite grains, trace dark possible shale.

**255-265** SALT(100%): clear to translucent, trace white cream, coarse crystalline, massive, blocky, firm, weakly calcareous, slightly dolomitic, trace soft white gypsum fragments, trace tan dolomitic / anhydrite grains, trace dark shale.

**265-275** SALT(100%): clear to translucent, coarse crystalline, massive, blocky, firm, calcareous in part, slightly dolomitic, trace soft white gypsum fragments, rare dark shale.

**275-285** SALT(100%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, slightly dolomitic, trace soft white gypsum fragments, rare dark shale.

**285-295** SALT(100%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, trace dolomitic grains.

**295-300** SALT(100%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, trace dolomitic grains, occasional red brown claystone possible stringer.

**300-305** SALT(75%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, trace dolomitic grains, occasional red brown claystone possible stringer.

ANHYDRITE(15%): light blue gray to white gray, hard, blocky, crystalline, massive.

CLAYSTONE(10%): red brown, minor gray green, soft, silty, possible stringer.

**305-310** ANHYDRITE(95%): light blue gray, hard, blocky, crystalline, massive.

SALT(5%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, trace dolomitic grains.

**310-315** ANHYDRITE(100%): light blue gray, hard, blocky, crystalline, massive, dolomitic in part, trace salt.

**315-320** ANHYDRITE(100%): light blue gray, hard, blocky, crystalline, massive, slightly dolomitic, frosted, rare salt.

**320-325** SALT(60%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, trace dolomitic grains.

ANHYDRITE(40%): light blue gray to white gray, hard, blocky, crystalline, massive, slightly dolomitic, frosted.

**325-330** SALT(80%): clear to translucent, coarse crystalline, massive, blocky, firm, calcareous in part, trace dolomitic grains.

ANHYDRITE(20%): light blue gray to white gray, trace tan, hard, blocky, crystalline, massive, slightly dolomitic, frosted.

**330-335** SALT(100%): clear to translucent, coarse crystalline, massive, blocky, firm, calcareous in part, trace dolomitic grains, occasional anhydrite grains.

**335-340** SALT(100%): clear to translucent, coarse crystalline, massive, blocky, firm, calcareous in part, trace dolomitic grains, minor anhydrite grains, minor black very carbonaceous grains.

**340-350** SALT(100%): clear to translucent, rare tan, coarse crystalline, massive, blocky, firm, calcareous in part, minor anhydrite grains.

**350-355** SALT(100%): clear to translucent, rare tan, fine to coarse crystalline, massive, blocky, firm, calcareous in part.

**355-360** SALT(100%): clear to translucent, rare tan, fine to coarse crystalline, massive, blocky, firm, calcareous in part, minor anhydrite grains.

**360-370** SALT(100%): clear to translucent, rare tan, fine to coarse crystalline, massive, blocky, firm, calcareous in part, trace anhydrite grains.

**370-380** SALT(100%): clear to translucent, rare tan, coarse crystalline, massive, blocky, firm, calcareous in part, weakly dolomitic, trace anhydrite grains.

**380-390** SALT(100%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, weakly dolomitic, trace to minor anhydrite grains.

**390-395** SALT(100%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, weakly dolomitic.

**395-400** SALT(100%): clear to translucent, trace tan, fine to coarse crystalline, massive, blocky, firm, calcareous in part, weakly dolomitic.

**400-405** SALT(100%): clear to translucent, trace tan, coarse crystalline, massive, blocky, firm, calcareous in part, weakly dolomitic.

**405-410** SALT(100%): clear to translucent, minor tan, coarse crystalline, massive, blocky, firm, calcareous in part, weakly dolomitic, rare dark carbonaceous fragments.

**410-420** SALT(100%): clear to translucent, minor tan, coarse crystalline, massive, blocky, firm, calcareous in part, weakly dolomitic, rare dark carbonaceous fragments.

**420-425** SALT(100%): light brown, clear to translucent, fine to coarse crystalline, massive, blocky, firm, calcareous. SAMPLE APPEARS OIL STAINED, NO FLORESCENCE OR CUT AND NO GAS READINGS. *First sample after fishing and retrieving bit.*

**425-430** SALT(100%): light brown, clear to translucent, fine to coarse crystalline, massive, blocky, firm, calcareous, occasional crystalline anhydrite / gypsum. SAMPLE APPEARS STAINED, NO FLORESCENCE OR CUT AND NO GAS READINGS.

**430-435** SALT(100%): clear to translucent, trace tan, trace dark carbonaceous shale, coarse crystalline, massive, blocky, firm, slightly calcareous.

**435-440** SALT(100%): clear to translucent, trace tan, trace dark carbonaceous shale, coarse crystalline, massive, blocky, firm, slightly calcareous.

**440-445** SALT(100%): clear to translucent, trace light brown, trace dark carbonaceous shale, coarse crystalline, massive, blocky, firm, slightly calcareous.

**445-450** SALT(100%): clear to translucent, trace to minor light brown possible staining, trace dark carbonaceous shale, coarse crystalline, massive, blocky, firm, slightly calcareous, < 5% light gray anhydrite, no shows.

**450-455** ANHYDRITE(90%): light blue gray, light gray, fine crystalline, blocky, firm, massive, occasional tan calcareous blebs.

SALT(10%): clear to translucent, trace light brown, coarse crystalline, massive, blocky, firm, slightly calcareous.

**455-460** ANHYDRITE(75%): light blue gray, light white gray, fine crystalline, blocky, soft to firm, massive, occasional tan calcareous blebs, frosted.

SALT(25%): clear to translucent, coarse crystalline, massive, blocky, slightly calcareous.

**460-465** SALT(60%): clear to translucent, coarse crystalline, massive, blocky, slightly calcareous.

ANHYDRITE(40%): light blue gray, light white gray, occasional tan, fine crystalline, blocky, soft to firm, massive, occasional tan calcareous blebs, frosted.

**465-470** SALT(80%): clear to translucent, coarse crystalline, massive, blocky, slightly calcareous.

ANHYDRITE(20%): light blue gray, light white gray, occasional tan, fine crystalline, blocky, soft to firm, frosted, massive, minor tan calcareous blebs.

**470-475** SALT(90%): clear to translucent, coarse crystalline, massive, blocky, slightly calcareous.

ANHYDRITE(10%): light white gray, minor tan, fine crystalline, blocky, soft to firm, frosted, massive, minor tan calcareous blebs.

**475-480** SALT(100%): clear to translucent, coarse crystalline, massive, blocky, slightly calcareous, minor anhydrite grains as above.

**480-485** SALT(100%): clear to translucent, coarse crystalline, massive, blocky, slightly calcareous, minor tan calcareous grains, minor anhydrite.

**485-490** SALT(100%): clear to translucent, coarse crystalline, massive, blocky, slightly calcareous, minor tan calcareous grains, minor anhydrite.

**490-495** SALT(50%): clear to translucent, coarse crystalline, massive, blocky, slightly calcareous, minor tan calcareous grains.

ANHYDRITE(50%): light blue gray, light white gray, occasional tan, fine crystalline, blocky, firm, frosted, massive, minor tan calcareous / dolomitic blebs.

**495-500** ANHYDRITE(100%): light blue gray, light white gray, lesser tan, fine crystalline, blocky, firm, frosted, massive, common tan calcareous / dolomitic blebs.

**500-510** ANHYDRITE(100%): light blue gray, light white gray, lesser tan, fine crystalline, blocky, firm, frosted, massive, occasional tan calcareous / dolomitic blebs.

**510-520** ANHYDRITE(100%): light blue gray, light white gray, tan, fine crystalline, blocky, firm, frosted, sucrosic, massive, occasional calcareous / dolomitic blebs.

**520-530** ANHYDRITE(100%): light blue gray, light white gray, tan, fine crystalline, blocky, firm, frosted, sucrosic, fibrous in part, massive, occasional calcareous / dolomitic blebs.

**530-540** ANHYDRITE(100%): light blue gray, light white gray, tan, fine crystalline, blocky, firm, frosted, sucrosic, fibrous in part, massive, occasional calcareous / dolomitic blebs.

**540-550** ANHYDRITE(100%): light white gray, clear, occasional tan, fine crystalline, blocky, firm, frosted, sucrosic, fibrous in part, massive, occasional calcareous and dolomitic blebs.

**550-560** ANHYDRITE(100%): light white gray, light blue gray, clear, minor tan, fine crystalline, blocky, firm, frosted, sucrosic, fibrous in part, massive, occasional calcareous and dolomitic blebs.

**560-570** ANHYDRITE(100%): light white gray, light blue gray, clear, minor tan, fine crystalline, blocky, firm, frosted, sucrosic, fibrous in part, massive, occasional calcareous and dolomitic blebs.

**570-580** ANHYDRITE(100%): light white gray, light blue gray, clear, occasional tan, fine crystalline, blocky, firm, frosted, sucrosic, massive, occasional calcareous and dolomitic blebs.

**580-590** ANHYDRITE(100%): light white gray, light blue gray, increasing gray brown, fine crystalline, blocky, firm, frosted, massive, powdery, occasional calcareous and dolomitic blebs.

**590-595** ANHYDRITE(50%): light white gray, light blue gray, gray brown, fine crystalline, blocky, firm, frosted, massive, occasional calcareous and dolomitic blebs.



SALT(50%): clear to translucent, blocky, coarse crystalline.

**595-600** SALT(80%): clear to translucent, blocky, coarse crystalline.

ANHYDRITE(20%): light white gray, light blue gray, gray brown, fine crystalline, blocky, firm, frosted, massive, occasional calcareous and dolomitic blebs.

**600-605** SALT(95%): clear to translucent, blocky, coarse crystalline, massive, calcareous.

ANHYDRITE(5%): light white gray, light blue gray, gray brown, fine crystalline, blocky, firm, frosted, fibrous, massive, calcareous and dolomitic blebs.

**605-610** SALT(85%): clear to translucent, blocky, coarse crystalline, firm, massive, calcareous.

ANHYDRITE(15%): light white gray, light blue gray, gray brown, fine crystalline, blocky, firm, frosted, fibrous, massive, calcareous and dolomitic blebs.

**610-615** ANHYDRITE(70%): light white gray, gray brown, light blue gray, fine crystalline, blocky, firm, frosted, massive, calcareous and dolomitic fragments.

SALT(30%): clear to translucent, blocky, coarse crystalline, firm, massive, calcareous.

**615-620** ANHYDRITE(95%): light white gray, gray brown, light blue gray, fine crystalline, blocky, firm, frosted, massive, calcareous and dolomitic fragments.

SALT(5%): clear to translucent, blocky, coarse crystalline, firm, massive, calcareous.

**620-625** ANHYDRITE(100%): light white gray, gray brown, light blue gray, fine crystalline, blocky, firm, frosted, massive, calcareous and dolomitic fragments, minor salt.

**625-638** ANHYDRITE(100%): light white gray, gray brown, light blue gray, fine crystalline, blocky, firm, frosted, massive, calcareous and dolomitic fragments.

**638-645** ANHYDRITE(75%): white, clear and translucent, fine to coarse crystalline, frosted, firm to soft, fibrous in part, common white to tan fine crystalline calcareous grains.

CLAY(25%): light gray, salt and pepper, soft, weakly calcareous, slightly limonitic.

**645-650 ANHYDRITE(70%):** white, clear and translucent, fine to coarse crystalline, frosted, firm to soft, fibrous in part, common white to tan fine crystalline calcareous grains.

CLAY(30%): light gray, salt and pepper, soft, weakly calcareous, slightly limonitic.

**650-655 CLAYSTONE(60%):** light gray, salt and pepper, soft, weakly calcareous, trace red clay, slightly limonitic.

ANHYDRITE(40%): white, clear and translucent, fine to coarse crystalline, frosted, firm to soft, fibrous in part, abundant white to tan fine crystalline calcareous grains.

**655-660 LIMESTONE(20%):** light gray, light cream gray, microcrystalline well occasional fine crystalline grains, firm to occasional soft, massive, argillaceous, tight, no shows.

CLAYSTONE(30%): light gray, salt and pepper, soft, silty, possible clayey siltstone, weakly calcareous, trace red clay, slightly limonitic.

ANHYDRITE(50%): white, clear and translucent, fine to coarse crystalline, frosted, firm to soft, fibrous in part, abundant, black, soft, magnetic, rusty looking material, possible off pipe.

**660-665 ANHYDRITE(50%):** white, occasional clear and translucent, fine crystalline, frosted, firm to soft, fibrous in part.

LIMESTONE(40%): light gray, light cream gray, microcrystalline well occasional fine crystalline grains, firm to occasional soft, massive, argillaceous, trace red and green clay, tight, oil odour when acid added, occasional white yellow fluorescence, slow very faint white fluorescence cut.

CLAYSTONE(10%): light gray, salt and pepper, soft, silty, possible clayey siltstone, weakly calcareous, trace red clay, slightly limonitic.

**665-670 ANHYDRITE(50%):** white, occasional clear and translucent, fine crystalline, frosted, firm to soft, fibrous in part.

LIMESTONE(50%): light gray, light cream gray, microcrystalline well occasional fine crystalline grains, firm to occasional soft, massive, argillaceous, trace claystone as above, trace red and green clay, tight, oil odour when acid added, occasional white yellow fluorescence, slow very faint white fluorescence cut.

**670-675 Limestone(60%):** light gray, light cream gray, microcrystalline, firm to occasional soft, massive, argillaceous in part, trace red and green clay, tight, oil odour when acid added, occasional white yellow fluorescence, slow very faint white fluorescence cut.

**ANHYDRITE(40%):** white, occasional clear and translucent, fine crystalline, frosted, firm to soft, fibrous in part.

**675-680 ANHYDRITE(55%):** white to clear, sucrosic, microcrystalline to fine crystalline, sheety in part, occasional blocky, firm.

**Limestone(35%):** white, cream, lesser gray green, microcrystalline, very argillaceous in part, somewhat brittle, firm in part, tight, oil odour when acid added, slow very faint white fluorescence cut.

**CLAYSTONE(10%):** light gray, salt and pepper, soft, silty, possible clayey siltstone, weakly calcareous, trace red clay, slightly limonitic.

**680-685 ANHYDRITE(55%):** white to clear, sucrosic, microcrystalline to fine crystalline, blocky, firm.

**Limestone(45%):** white, cream, occasional gray green, microcrystalline, very argillaceous in part, brittle to soft, rare glauconite, tight, weak oil odour when acid added, very faint white fluorescence cut.

**685-690 Limestone(45%):** gray, light gray cream, microcrystalline, argillaceous, massive, trace fine disseminated pyrite, minor gray green grains, slightly dolomitic, possible oolitic structures within limestone, laminated in part, tight, faint oil odour when acid added, extremely faint white fluorescence cut.

**ANHYDRITE(55%):** white, occasional clear grains within white matrix, coarse crystalline, sheety in places, soft to occasional firm.

**690-695 Limestone(45%):** gray, light gray cream, microcrystalline, argillaceous, massive, minor fine disseminated pyrite, minor gray green grains, possible oolitic structures within limestone, laminated in part, tight, no shows.

**ANHYDRITE(55%):** white, occasional clear grains within white matrix, coarse crystalline, sheety in places, soft to occasional firm.

**695-700 Limestone(50%):** cream, minor white and gray, microcrystalline, trace pyrite, minor red and dark shale, massive, possible interbeds of anhydrite, oil odour when acid added, tight, no shows.

ANHYDRITE(50%): white to clear, sucrosic, fine crystalline, sheety in part, occasional blocky, firm.

**700-705** LIMESTONE(45%): cream, minor white and gray, microcrystalline, trace pyrite, minor red and dark shale, massive, possible interbeds of anhydrite, oil odour when acid added, tight, very faint to n fluorescence cut.

ANHYDRITE(55%): white to clear, light gray, massive, sucrosic, microcrystalline to fine crystalline, blocky to minor sheety, firm.

**705-710** ANHYDRITE(65%): white to clear, light gray, massive, sucrosic, microcrystalline to fine crystalline, blocky to minor, firm.

LIMESTONE(35%): cream, minor white and gray, microcrystalline, massive, oil odour when acid added, tight, possible very faint white fluorescence cut.

**710-715** ANHYDRITE(75%): white, light gray, fine crystalline, abundant calcareous cement, massive, firm, blocky in part.

LIMESTONE(25%): cream to gray, minor white, microcrystalline, massive, powdery, oil odour when acid added, possible occurring as cement within ANHYDRITE, tight, possible very faint white fluorescence cut.

**715-725** ANHYDRITE(75%): white, light gray, fine crystalline, either a very calcareous anhydrite or a very anhydritic limestone, massive, firm, blocky in part.

LIMESTONE(25%): cream to gray, minor white, microcrystalline, weakly dolomitic, rare pyrite, massive, powdery, oil odour when acid added, possible occurring as cement within ANHYDRITE, tight, very faint white fluorescence cut.

**725-730** ANHYDRITE(75%): white, light gray, cream, fine crystalline, abundant cream calcareous cement?, either a very calcareous anhydrite or a very anhydritic limestone, massive, firm, blocky in part.

LIMESTONE(25%): cream to minor gray and white, microcrystalline, weakly dolomitic, rare pyrite, massive, powdery, oil odour when acid added, possible occurring as cement within ANHYDRITE, tight, no shows.

**730-735** LIMESTONE(65%): gray brown, occasional light gray, very argillaceous, blocky, microcrystalline, firm, massive, dense, tight, strong oil odour when acid added, trace slow blooming milky white fluorescence cut.

ANHYDRITE(35%): light gray, white, massive, fine crystalline to microcrystalline, calcareous cement, firm, tight.

**735-740** LIMESTONE(80%): gray brown, occasional light gray, very argillaceous, blocky, microcrystalline, carbonaceous in part, minor aqua green grains, trace silty, rare pyrite, firm, massive, dense, tight, strong oil odour when acid added, trace slow blooming milky white fluorescence cut.

ANHYDRITE(20%): light gray, white, massive, fine crystalline to microcrystalline, calcareous cement, firm, tight.

**740-745** CONGLOMERATE(100%): light gray green, light gray, occasional pinkish, predominantly very fine to lower medium quartz grains, minor coarse grained, angular to occasional sub rounded, trace rounded, friable, calcareous and minor siliceous cement, possible kaolinitic, poorly sorted, occasional quartz overgrowths, 10% clouded to minor clear to translucent siliceous grains, common aqua green glauconitic grains, common pink to orange feldspar, common cream to gray blocky calcareous grains, possible fair intergranular porosity, no shows.

**745-750** CONGLOMERATE(100%): light gray cream, lower fine to lower coarse grains, angular to lesser sub rounded, friable, calcareous and lesser siliceous cement, kaolinitic, poorly sorted, common clear and translucent to clouded siliceous fragments and cement, common aqua green glauconitic grains, occasional pink to orange feldspar, common cream trace pink blocky calcareous fragments, common light to dark gray dolomitic fragments, common light gray blocky dolomitic grains, occasional clear and translucent to white blocky anhydrite? fragments, occasional varicolored chert fragments, possible fair intergranular porosity, no shows.

**750-755** CONGLOMERATE(100%): light gray green, light gray, occasional pinkish, 30% very fine to possible coarse quartz grains, angular to minor sub rounded, friable, calcareous cement, possible siliceous cement, minor kaolinite, poorly sorted, common clear to clouded siliceous grains and fragments, common green glauconitic grains, occasional feldspar, common cream trace pink blocky calcareous grains / fragments, common light and dark gray dolomitic fragments, occasional clear to frosted anhydrite fragments, possible fair intergranular porosity, no shows.

**755-760** CONGLOMERATE(100%): light gray to gray, 25 to 30% very fine to minor upper coarse quartz grains, occasional angular to minor sub rounded quartz grains, poorly sorted, abundant white calcareous cement, minor quartz overgrowths, slightly kaolinitic, common dolomitic fragments, common green grains, common feldspar grains / fragments, common gray brown and lesser pink limestone fragments, limonitic, occasional clear blocky anhydrite grains?, possible fair intergranular porosity, slightly oil odour when acid added, no shows.

**760-765** CONGLOMERATE(100%): light gray to gray, 25 to 30% very fine to minor upper coarse quartz grains, angular to lesser sub rounded quartz grains, poorly sorted, calcareous cement, occasional quartz overgrowths, dolomitic, common glauconitic grains, occasional feldspar grains, common gray brown and lesser pink rare oolitic limestone fragments, occasional clear blocky anhydrite grains?, limonitic in part, possible fair intergranular porosity, slightly oil odour when acid added, no shows.

**765-770** CONGLOMERATE(100%): light gray, 30% silty to upper medium grains, sub angular to lesser sub rounded quartz grains, poorly sorted, calcareous cement, possible minor siliceous cement, friable, kaolinitic in part, common dolomitic fragments, glauconitic, occasional feldspar grains, common gray brown and lesser pink limestone fragments, limonitic in part, tight to possible fair intergranular porosity, no shows.

**770-775** CONGLOMERATE(100%): light gray, 30% silty to upper medium quartz grains, sub angular to lesser sub rounded quartz grains, poorly sorted, calcareous and lesser siliceous cement, friable, kaolinitic in part, common dolomitic fragments, glauconitic, increasing feldspar grains, common gray brown and lesser pink limestone fragments, limonitic in part, minor anhydrite, tight to possible fair intergranular porosity, no shows.

**775-780** CONGLOMERATE(100%): light gray, 25% silty to upper medium quartz grains, with abundant dolomitic and calcareous fragments, sub angular to lesser sub rounded quartz grains, poorly sorted, calcareous cement, possible minor siliceous cement, occasional anhydrite, friable, kaolinitic in part, glauconitic, occasional feldspar grains, limonitic in part, tight to possible fair intergranular porosity, no shows.

**780-785** CONGLOMERATE(100%): light gray cream, 20% silty to lower coarse grained quartz matrix, with abundant dolomitic and calcareous fragments, sub angular to lesser sub rounded quartz grains, poorly sorted, increasing calcareous cement, possible minor siliceous cement, friable, kaolinite, common anhydritic material, glauconitic, occasional feldspar grains, limonitic in part, tight to possible fair intergranular porosity, no shows.

**785-790** CONGLOMERATE(100%): light gray, slightly pinkish, 35% very silty to medium grained quartz matrix, angular to occasional sub rounded, calcareous and minor kaolinitic cement, friable, occasional green glauconitic fragments, occasional pink feldspar, occasional varicolored siliceous fragments, common light gray brown limestone, common dolomitic fragments, hemititic in part, minor anhydrite, tight to possible fair intergranular porosity, no shows.

**790-795** CONGLOMERATE(100%): light gray cream, pinkish in part, 25% very fine to lower coarse grained sand matrix, poorly sorted, angular to occasional sub rounded, increasing

calcareous and lesser kaolinitic cement, minor siliceous cement, hemititic in part, occasional dark platy ferruginous fragments, occasional varicolored chert fragments, common dolomitic and calcareous fragments, occasional glauconitic grains, feldspathic, tight to possible fine intergranular porosity, no shows.

**795-800** CONGLOMERATE(100%): light gray cream, pinkish in part, 40% predominantly very fine to fine lesser medium grained sand matrix, poorly sorted, angular to occasional sub rounded, calcareous and lesser kaolinitic cement, minor siliceous cement, hemititic in part, occasional varicolored chert fragments, common dolomitic and calcareous fragments, occasional glauconitic grains, feldspathic, tight to possible fine intergranular porosity, no shows.

**800-805** CONGLOMERATE(100%): light gray cream, 30 to 40% predominantly very fine to fine grained sand matrix, minor fine to lower coarse sand, silty, poorly sorted, angular to occasional sub rounded, calcareous and lesser kaolinitic cement, minor siliceous cement, hemititic in part, occasional varicolored chert fragments, common dolomitic and calcareous fragments, occasional glauconitic grains, feldspathic, tight to possible fine intergranular porosity, no shows.

**805-810** CONGLOMERATE(100%): light gray cream, pinkish in part, 15 to 20% fine to medium grained sand matrix, poorly sorted, angular to occasional sub rounded, calcareous and minor kaolinitic cement, possible minor siliceous cement, hemititic in part, increasing varicolored chert fragments, common dolomitic and calcareous fragments, occasional gypsum?, occasional glauconitic grains, feldspathic, tight to possible fine intergranular porosity, no shows.

**810-815** CONGLOMERATE(100%): light gray cream to slightly pinkish, 15 to 20% silty to medium grained sand matrix, poorly sorted, angular to occasional sub rounded, calcareous and minor kaolinitic cement, possible minor siliceous cement, increasing hemititic, occasional varicolored chert fragments, common dolomitic and calcareous fragments, occasional glauconitic grains, increasing feldspathic, occasional gypsum, tight to possible fine intergranular porosity, no shows.

**815-820** CONGLOMERATE(100%): light gray cream to increasing pinkish / hemititic, 25 to 30% very fine to lower coarse grained sand matrix, possible red clay matrix (water turns reddish when sample is being washed), poorly sorted, angular to occasional sub rounded, hard, calcareous and lesser siliceous cement, minor kaolinite, very feldspathic, minor anhydrite, common varicolored chert fragments, common black flaky material (strong attraction to magnet), occasional dolomitic and calcareous fragments, occasional glauconitic grains, occasional gypsum, tight to possible fine intergranular porosity, no shows.

**820-825** CONGLOMERATE(70%): light red to cream, 35 to 40% predominantly very fine to medium lesser lower coarse grained quartz grains, silty, common pink feldspar grains, red clay matrix, decreasing calcareous cement, minor kaolinite, common quartz overgrowths, hard, hemititic, poorly sorted, angular to occasional sub rounded, common varicolored chert fragments, common black platy material (possible hemitite), decreasing dolomitic and limestone fragments, tight to possible fair intergranular porosity, no shows.

ANHYDRITE(20%): white to light gray and cream, minor clear, microcrystalline to occasional cryptocrystalline, frosted, slightly calcareous, platy to blocky, rare vuggy porosity, predominantly tight, no shows.

SILTSTONE / CLAYSTONE(10%): white to light gray, salt and pepper, firm, dense, slightly calcareous, limonitic.

**825-830** CONGLOMERATE(65%): As above, light red to cream, 10 to 15% medium to lesser lower coarse grained quartz grains, common pink feldspar grains, red clay matrix, decreasing calcareous cement, hard, hemititic, minor glauconite, poorly sorted, tight to possible fair intergranular porosity, no shows.

ANHYDRITE(30%): white to light gray, microcrystalline to occasional cryptocrystalline, frosted, slightly calcareous, platy to blocky.

SILTSTONE / CLAYSTONE(15%): white to light gray, salt and pepper, firm, dense, slightly calcareous, limonitic.

**830-840** CONGLOMERATE(85%): light red brown, 10 to 15% medium to lower very coarse quartz grains, common pink feldspar grains, abundant red clay matrix, calcareous cement, minor kaolinite, increasingly hemititic, poorly sorted, angular to occasional rounded, abundant varicolored siliceous fragments, increasingly siliceous, 5% black flaky material (possible hemitite), minor glauconite, slightly dolomitic, common white to pink limestone fragments, occasional to common quartz overgrowths, tight to assumed fair intergranular porosity, no shows.

ANHYDRITE(15%): white, light gray, frosted, microcrystalline to lesser cryptocrystalline, slightly calcareous.

**840-845.5** CONGLOMERATE(80%): light red brown, 10% medium to lower very coarse quartz grains, abundant pink feldspar grains, abundant red clay matrix, calcareous cement, minor kaolinite, very hemititic, poorly sorted, angular to sub rounded, abundant varicolored siliceous fragments, hard, common black flaky material (possible hemitite), minor glauconite, slightly dolomitic, occasional white to pink limestone, occasional to common quartz overgrowths, tight to assumed fair intergranular porosity, no shows.

ANHYDRITE(20%): white, light gray, frosted, microcrystalline to minor cryptocrystalline, platy, slightly calcareous.



**TOTAL DEPTH: 845.4 meters**

# LITHOLOGY STRIP LOG

WellSight Systems Inc.

Scale 1:240 (5"=100') Metric

Well Name: Vulcan Minerals FLAT BAY # 2  
Location: Flat Bay, Western Newfoundland  
Licence Number: 03-106  
Spud Date: Oct. 24th, 2004  
Surface Coordinates: Northing: 5,359,990.  
Easting: 386,675.  
Bottom Hole Coordinates: Northing: 5,359,990.  
Easting: 386,675.  
Ground Elevation (m): 97.0  
K.B. Elevation (m): 99.8  
Logged Interval (m): 125.0 To: 845.4  
Total Depth (m): 845.4  
Formation: Fischells Brook  
Type of Drilling Fluid: Brine

Region: Newfoundland  
Drilling Completed: Nov. 19th, 2004

Printed by WellSight Log Viewer from WellSight Systems Inc. 1-800-447-1534 www.wellsight.com

## OPERATOR

Company: Rose Resource Drilling Inc. Rig: RD10  
Address: Ontario

## GEOLOGIST

Name: Corey Fitzgerald  
Company:  
Address: 12 Guy Street, Box 244,  
Jersey Side, NL.,  
A0B 2G0

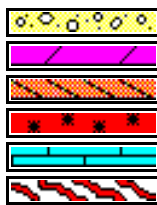
## Casing

22 joints of H-40, 178.04 mm, 25.30 kg/m, landed at 196.0 meters.

## ROCK TYPES



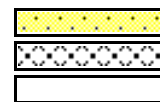
Anhy  
Bent  
Brec  
Cht  
Clyst  
Coal



Congl  
Dol  
Gyp  
Igne  
Lmst  
Meta



Mrlst  
Salt  
Shale  
Shcol  
Shgy  
Sltst



Ss  
Till  
Blank

## ACCESSORIES

### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag
- Calc
- Carb
- Chtdk
- Chtl
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol

- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

### FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal

- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

### STRINGER

- Anhy
- Arg
- Bent
- Coal

- Dol
- Gyp
- Ls
- Mrst
- Slstgr
- Ssstrg

### TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

## OTHER SYMBOLS

### POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint

- Vuggy

### SORTING

- Well
- Moderate
- Poor

### ROUNDING

- Rounded
- Subrnd

- Subang
- Angular

### OIL SHOWS

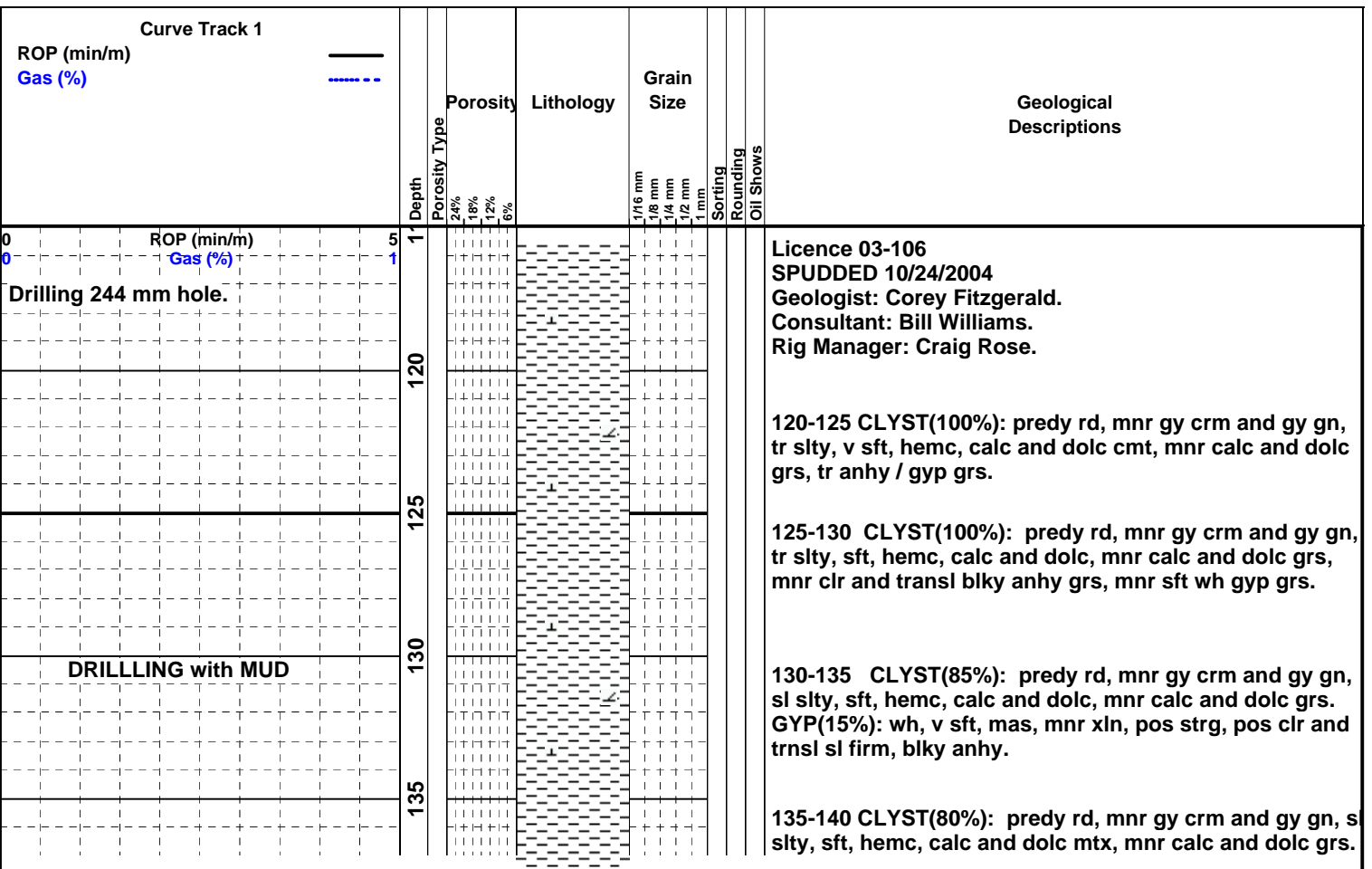
- Even
- Spotted
- Ques
- Dead

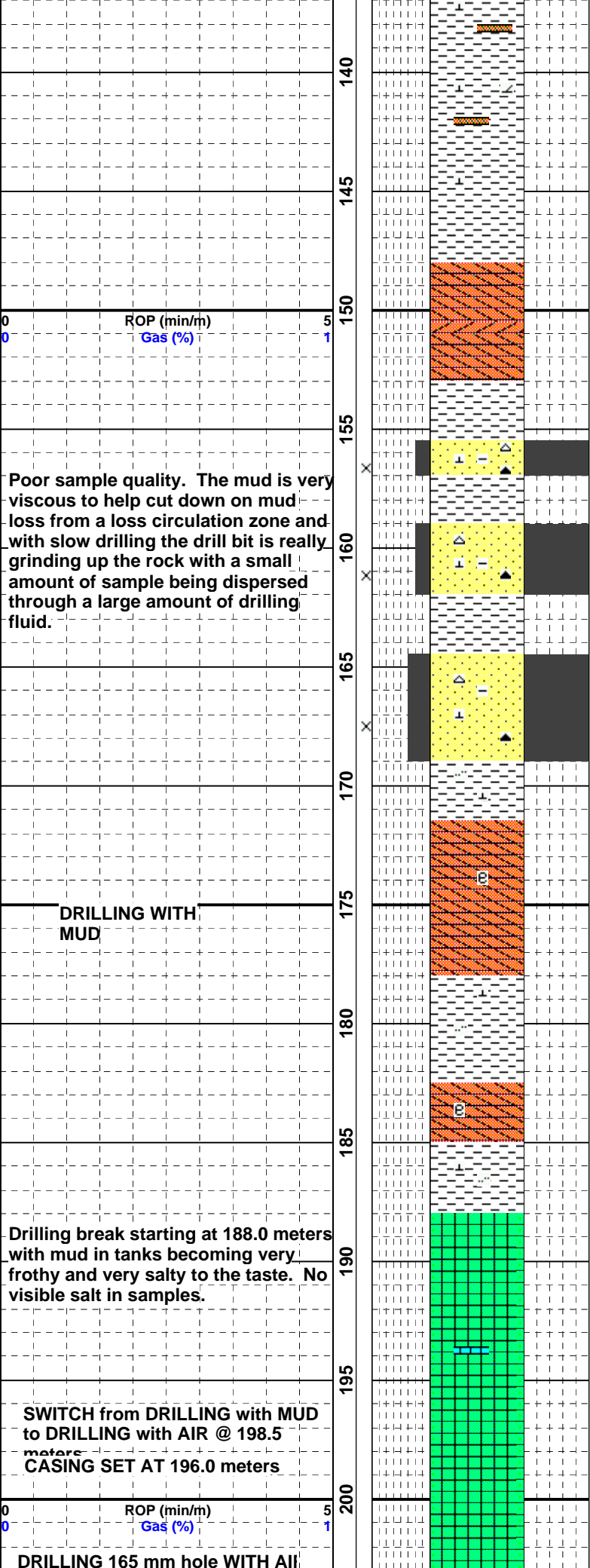
- None
- Core
- Dst

### EVENTS

- Rft
- Sidewall

### INTERVALS





GYP(20%): wh, v sft, mas, rthy, to mnr xln, occ clr and trnsl sl firm, blkly anhy / gyp frags.

140-145 CLYST(80%): predy rd brn, sl slty, sft, hemc, calc and dolc, mnr calc and dolc grs. GYP(20%): wh to trnsl, v sft, rthy, bcm increasingly xln, flky, pos mnr anhy, tab ip.

145-150 GYP(55%): clr & trnsl to wh, v sft, xln to occ rthy, flky, pos mnr anhy, blkly to tab. CLYST(45%): predy rd brn, sl slty, sft, hemc, calc and dolc mtx w mnr calc and dolc grs.

150-155 GYP(80%): crm clr to wh, v sft, 50% xln to 50% rthy, flky, com crm clr firm blkly anhy, occ dol rhmb. CLYST(20%): predy rd brn, sl slty, sft, hemc, calc and dolc mtx w mnr calc and dolc grs.

155-160 SS(80%): predy rd brn, lithic, u vf to l vc gr, com red brn calc cly mtx as above, ply srt, ang to occ sb rd, fri, com dk gn, yel, brn and blk silc grs up to 3 mm, mnr rhmbc dolc grs, pos fair intgr por, ns. GYP(20%): clr to wh, v sft, xln to rthy, flky, 10-15% clr to pnk blkly to tab anhy grs.

160-165 SS(80%): clr to rd brn, lithic, u vf to l vc gr, up to 15% red brn calc cly mtx, ply srt, 10% sb ang to sb rd qtz grs, fri, com dk gn, yel, brn and blk silc grs up to 3 mm, occ vcol cht, mnr rhmbc dolc grs, pos fair intgr por, ns. GYP(20%): clr to wh, v sft, xln to rthy, flky, mixed w clr blkly to tab anhy grs.

165-170 SS(80%): clr to rd brn, lithic, u vf to l vc gr, up to 10% red brn calc cly mtx, ply srt, 15% sb rd to rd qtz grs, fri, com dk gn, yel, brn and blk silc grs up to 3 mm, occ sd rd to ang vcol cht, mnr dolc grs, tr musc, pos fair intgr por, ns. GYP(20%): clr to wh, v sft, xln to rthy, flky, mixed w clr to pnk blkly to tab anhy grs.

170-175 CLYST(50%): predy rd, mnr gy gn, sl slty, sft, v sdy ip, pos clayey ss as above, hemc, calc and dolc. GYP(50%): clr to wh, occ dk gn, v sft, rthy, mnr xln, mixed w clr blkly to tab anhy.

175-180 GYP(75%): wh, mnr dk xln gyp, v sft, rthy to flky xln, mixed with com rd and blkly clr to cloudy anhy frags. CLYST(25%): predy red brn, sft, slty, hemc, calc to sl dolc, mnr dol rhmb and grs, tr sd, tr vcol cht, tr mafic grs.

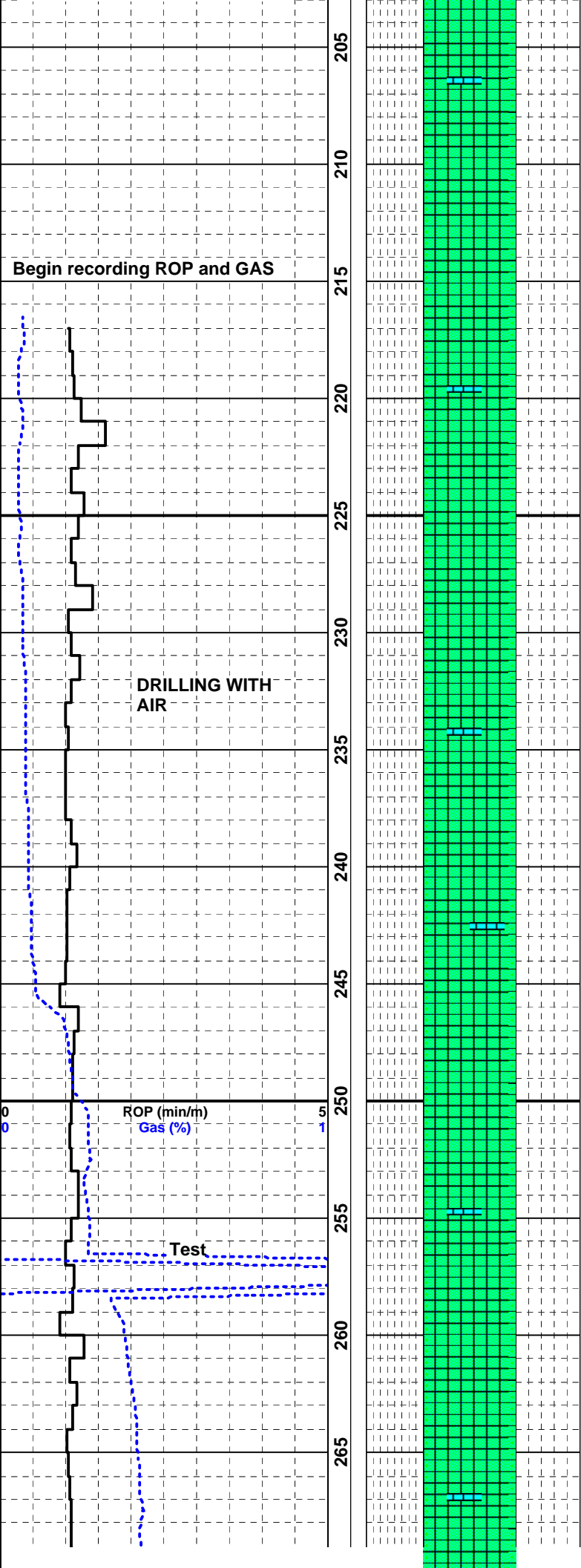
180-185 GYP(60%): wh, mnr dk xln gyp, v sft, rthy to flky xln, mixed with com rd and blkly clr to cloudy anhy grs and frags. CLYST(40%): predy red brn, sft, slty, hemc, calc to sl dolc, occ dol rhmb and grs, tr sd, mnr vcol cht, mnr mafic grs.

185-190 GYP(60%): wh, mnr dk xln gyp, v sft, rthy to mnr xln, com xln rd and blkly anhy grs and frags. CLYST(40%): red brn, mnr gy gn and gy brn, sft, slty, hemc, wkly calc, sl dolc, occ dol rhmb and grs, mnr sd, pos clayey ss, tr v col cht, occ lt and dk silc grs.

190-198.5 CLYST(45%): red brn, mnr gy gn and gy brn, sft, slty, hemc, wkly calc, sl dolc, occ dol rhmb and grs, tr sd, occ lt and dk silc grs. GYP(55%): wh, v sft, rthy to mnr xln, occ xln blkly anhy.

**CASING SET @ 196.0 meters**

200-205 SA(100%): clr to trnsl, mnr crm wh, xln to mas, blkly, powdery, calc ip, sl dolc, mnr wh gyp.



205-215 SA(100%): clr to trnsl, mnr wh crm, xln to mas, blky, sl hd, calc ip, sl dolc, mnr sft wh gyp frags.

215-225 SA(100%): clr to trnsl, mnr wh crm, xln to mas, blky, sl hd, calc ip, wkly dolc, mnr sft wh gyp frags.

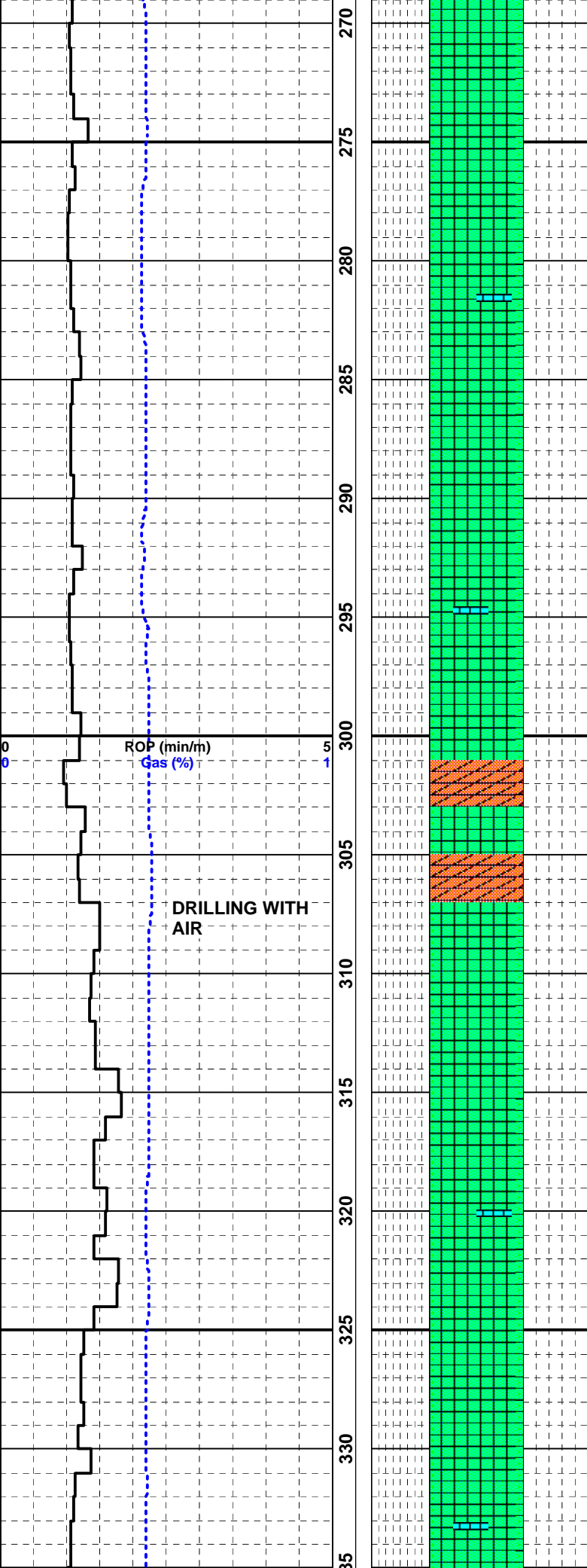
225-235 SA(100%): clr to trnsl, tr wh crm, c xln, mas, blky, firm, calc ip, sl dolc, mnr sft wh gyp frags.

235-245 SA(100%): clr to trnsl, tr wh crm, c xln, mas, blky, firm, calc ip, sl dolc, mnr sft wh gyp frags.

245-255 SA(100%): clr to trnsl, tr wh crm, c xln, mas, blky, firm, calc ip, sl dolc, mnr sft wh gyp frags, occ tan dolc / anhy grs, tr dk pos sh.

255-265 SA(100%): clr to trnsl, tr wh crm, c xln, mas, blky, firm, wkly calc, sl dolc, tr sft wh gyp frags, tr tan dolc / anhy grs, tr dk sh.

265-275 SA(100%): clr to trnsl, c xln, mas, blky, firm, calc ip, sl dolc, tr sft wh gyp frags, rr dk sh.



275-285 SA(100%): clr to trnsl, tr tan, c xln, mas, blk, firm, calc ip, sl dolc, tr sft wh gyp frags, rr dk sh.

285-295 SA(100%): clr to trnsl, tr tan, c xln, mas, blk, firm, calc ip, tr dolc grs.

295-300 SA(100%): clr to trnsl, tr tan, c xln, mas, blk, firm, calc ip, tr dolc grs, occ rd brn clyst pos strng.

300-305 SA(75%): clr to trnsl, tr tan, c xln, mas, blk, firm, calc ip, tr dolc grs, occ rd brn clyst pos strng. ANHY(15%): lt bl gy to wh gy, hd, blk, xln, mas. CLYST(10%): rd brn, mnr gy gn, sft, slty, pos strng.

305-310 ANHY(95%): lt bl gy, hd, blk, xln, mas. SA(5%): clr to trnsl, tr tan, c xln, mas, blk, firm, calc ip, tr dolc grs.

310-315 ANHY(100%): lt bl gy, hd, blk, xln, mas, dolc ip, tr sa.

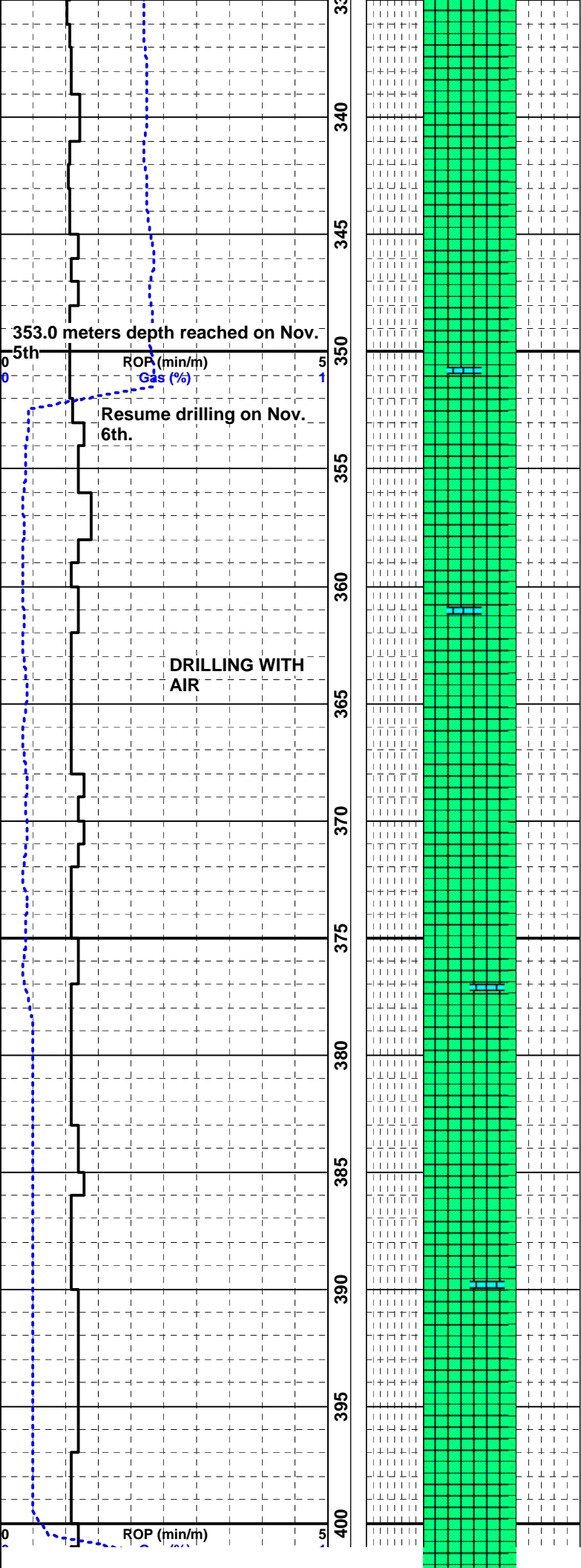
315-320 ANHY(100%): lt bl gy, hd, blk, xln, mas, sl dolc, fros, rr sa.

320-325 SA(60%): clr to trnsl, tr tan, c xln, mas, blk, firm, calc ip, tr dolc grs. ANHY(40%): lt bl gy to wh gy, hd, blk, xln, mas, sl dolc, fros.

325-330 SA(80%): clr to trnsl, c xln, mas, blk, firm, calc ip, tr dolc grs. ANHY(20%): lt bl gy to wh gy, tr tan, hd, blk, xln, mas, sl dolc, fros.

330-335 SA(100%): clr to trnsl, c xln, mas, blk, firm, calc ip, tr dolc grs, occ anhy grs.





335-340 SA(100%): clr to trnsl, c xln, mas, blk, firm, calc ip, tr dolc grs, mnr anhy grs, mnr blk v carb grs.

340-350 SA(100%): clr to trnsl, rr tan, c xln, mas, blk, firm, calc ip, mnr anhy grs.

350-355 SA(100%): clr to trnsl, rr tan, f to c xln, mas, blk, firm, calc ip.

355-360 SA(100%): clr to trnsl, rr tan, f to c xln, mas, blk, firm, calc ip, mnr anhy grs.

360-370 SA(100%): clr to trnsl, rr tan, f to c xln, mas, blk, firm, calc ip, tr anhy grs.

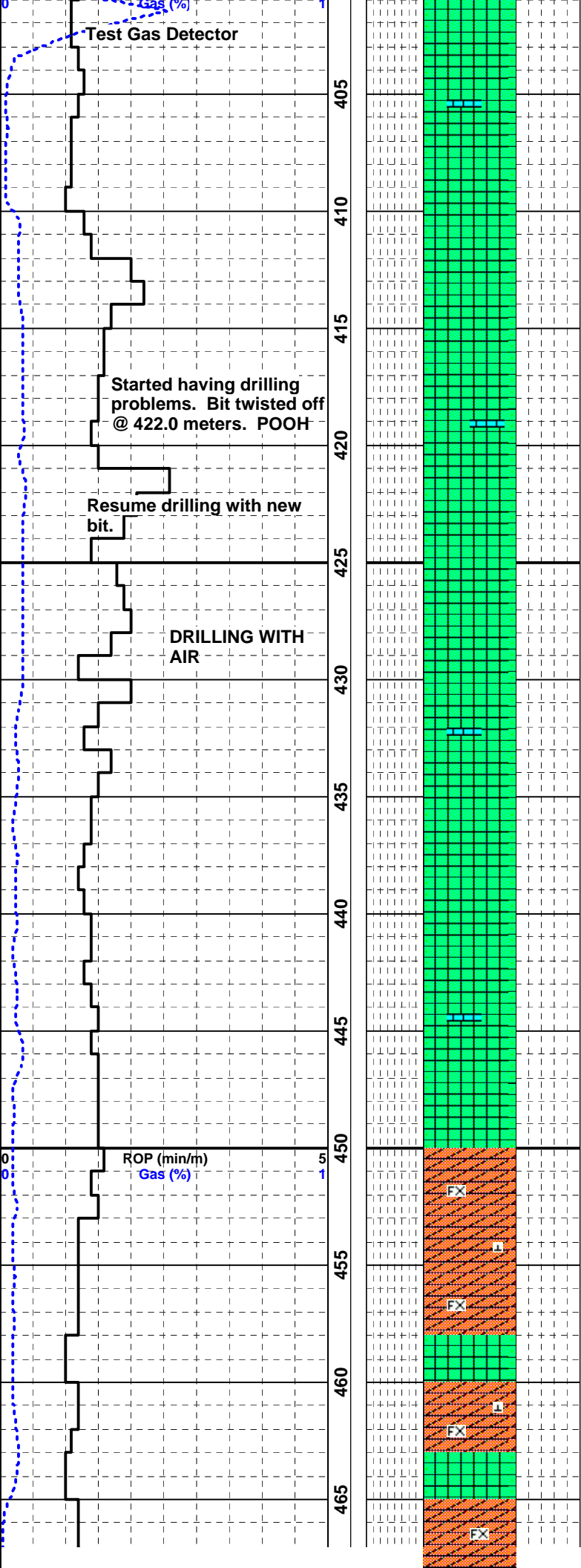
370-380 SA(100%): clr to trnsl, rr tan, c xln, mas, blk, firm, calc ip, wkly dolc, tr anhy grs.

380-390 SA(100%): clr to trnsl, tr tan, c xln, mas, blk, firm, calc ip, wkly dolc, tr to mnr anhy grs.

390-395 SA(100%): clr to trnsl, tr tan, c xln, mas, blk, firm, calc ip, wkly dolc.

395-400 SA(100%): clr to trnsl, tr tan, f to c xln, mas, blk, firm, calc ip, wkly dolc.

400-405 SA(100%): clr to trnsl, tr tan, c xln, mas, blk



firm, calc ip, wkly dolc.

405-410 SA(100%): clr to trnsl, mnr tan, c xln, mas, blkly, firm, calc ip, wkly dolc, rr dk carb frags.

410-420 SA(100%): clr to trnsl, mnr tan, c xln, mas, blkly, firm, calc ip, wkly dolc, rr dk carb frags.

1st Sample after fish for bit.

420-425 SA(100%): lt brn, clr to trnsl, f to c xln, mas, blkly firm, calc. SAMPLE APPEARS OIL STAINED, NO FLORESCENCE OR CUT AND NO GAS READINGS.

425-430 SA(100%): lt brn, clr to trnsl, f to c xln, mas, blkly firm, calc, occ xln anhy / gyp. SAMPLE APPEARS STAINED, NO FLORESCENCE OR CUT AND NO GAS READINGS.

430-435 SA(100%): clr to trnsl, tr tan, tr dk carb sh, c xln, mas, blkly, firm, sl calc.

435-440 SA(100%): clr to trnsl, tr tan, tr dk carb sh, c xln, mas, blkly, firm, sl calc.

440-445 SA(100%): clr to trnsl, tr lt brn, tr dk carb sh, c xln, mas, blkly, firm, sl calc.

445-450 SA(100%): clr to trnsl, tr to mnr lt brn pos stng, tr dk carb sh, c xln, mas, blkly, firm, sl calc, < 5% lt gy anhy, ns.

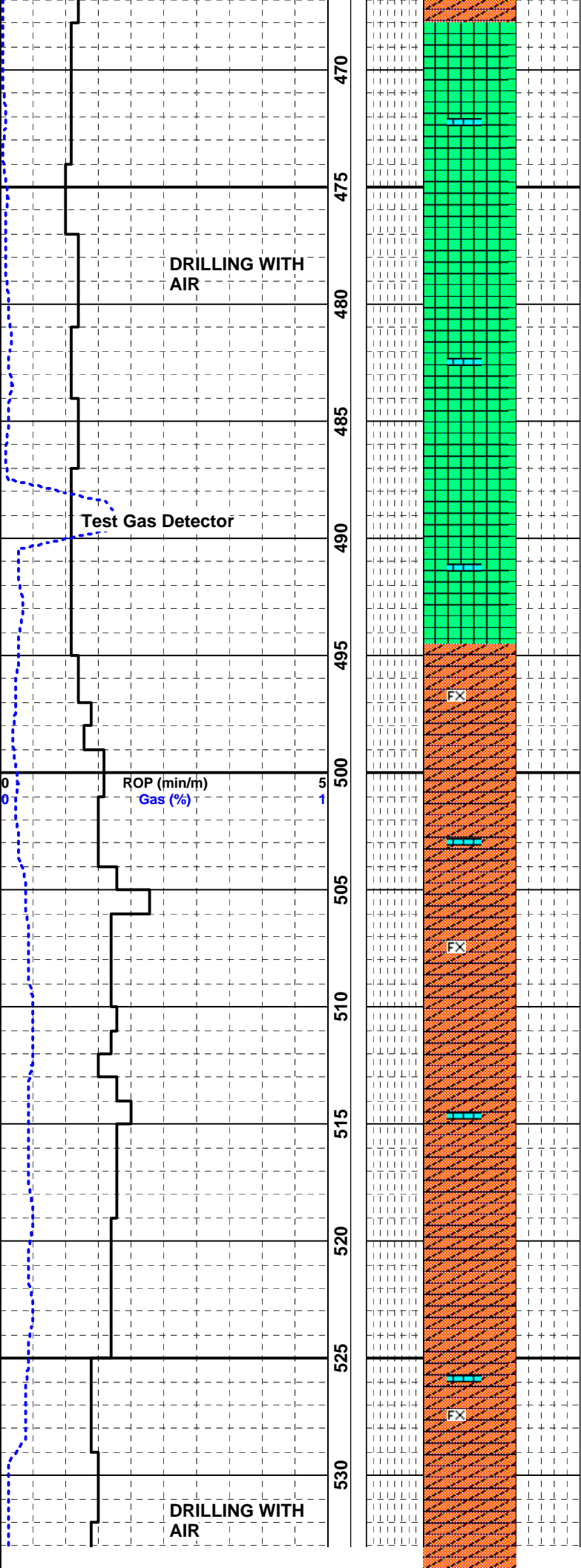
450-455 ANHY(90%): lt bl gy, lt gy, f xln, blkly, firm, mas, occ tan calc blebs. SA(10%): clr to trnsl, tr lt brn, c xln, mas, blkly, firm, sl calc.

455-460 ANHY(75%): lt bl gy, lt wh gy, f xln, blkly, sft to firm, mas, occ tan calc blebs, fros. SA(25%): clr to trnsl, c xln, mas, blkly, sl calc.

460-465 SA(60%): clr to trnsl, c xln, mas, blkly, sl calc. ANHY(40%): lt bl gy, lt wh gy, occ tan, f xln, blkly, sft to firm, mas, occ tan calc blebs, fros.

465-470 SA(80%): clr to trnsl, c xln, mas, blkly, sl calc. ANHY(20%): lt bl gy, lt wh gy, occ tan, f xln, blkly, sft to





firm, fros, mas, mnr tan calc blebs.

470-475 SA(90%): clr to trnsl, c xln, mas, blk, sl calc.  
 ANHY(10%): lt wh gy, mnr tan, f xln, blk, sft to firm, fros, mas, mnr tan calc blebs.

475-480 SA(100%): clr to trnsl, c xln, mas, blk, sl calc, mnr anhy grs as above.

480-485 SA(100%): clr to trnsl, c xln, mas, blk, sl calc, mnr tan calc grs, mnr anhy.

485-490 SA(100%): clr to trnsl, c xln, mas, blk, sl calc, mnr tan calc grs, mnr anhy.

490-495 SA(50%): clr to trnsl, c xln, mas, blk, sl calc, mnr tan calc grs. ANHY(50%): lt bl gy, lt wh gy, occ tan, f xln, blk, firm, fros, mas, mnr tan calc / dolc blebs.

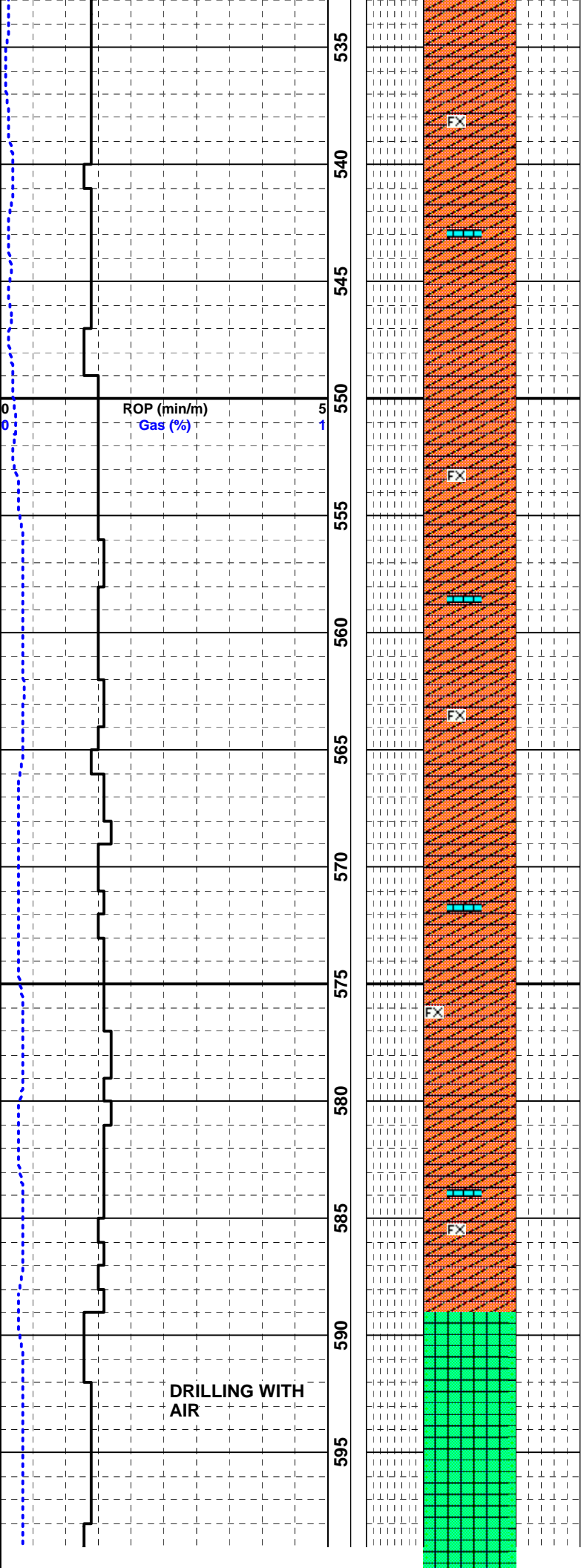
495-500 ANHY(100%): lt bl gy, lt wh gy, lesser tan, f xln, blk, firm, fros, mas, com tan calc / dolc blebs.

500-510 ANHY(100%): lt bl gy, lt wh gy, lesser tan, f xln, blk, firm, fros, mas, occ tan calc / dolc blebs.

510-520 ANHY(100%): lt bl gy, lt wh gy, tan, f xln, blk, firm, fros, suc, mas, occ calc / dolc blebs.

520-530 ANHY(100%): lt bl gy, lt wh gy, tan, f xln, blk, firm, fros, suc, fib ip, mas, occ calc / dolc blebs.

530-540 ANHY(100%): lt bl gy, lt wh gy, tan, f xln, blk, firm, fros, suc, fib ip, mas, com calc / dolc blebs.



540-550 ANHY(100%): lt wh gy, clr, occ tan, f xln, blk, firm, fros, suc, fib ip, mas, occ calc & dolc blebs.

550-560 ANHY(100%): lt wh gy, lt bl gy, clr, mnr tan, f xln, blk, firm, fros, suc, fib ip, mas, occ calc & dolc blebs.

560-570 ANHY(100%): lt wh gy, lt bl gy, clr, mnr tan, f xln, blk, firm, fros, suc, fib ip, mas, occ calc & dolc blebs.

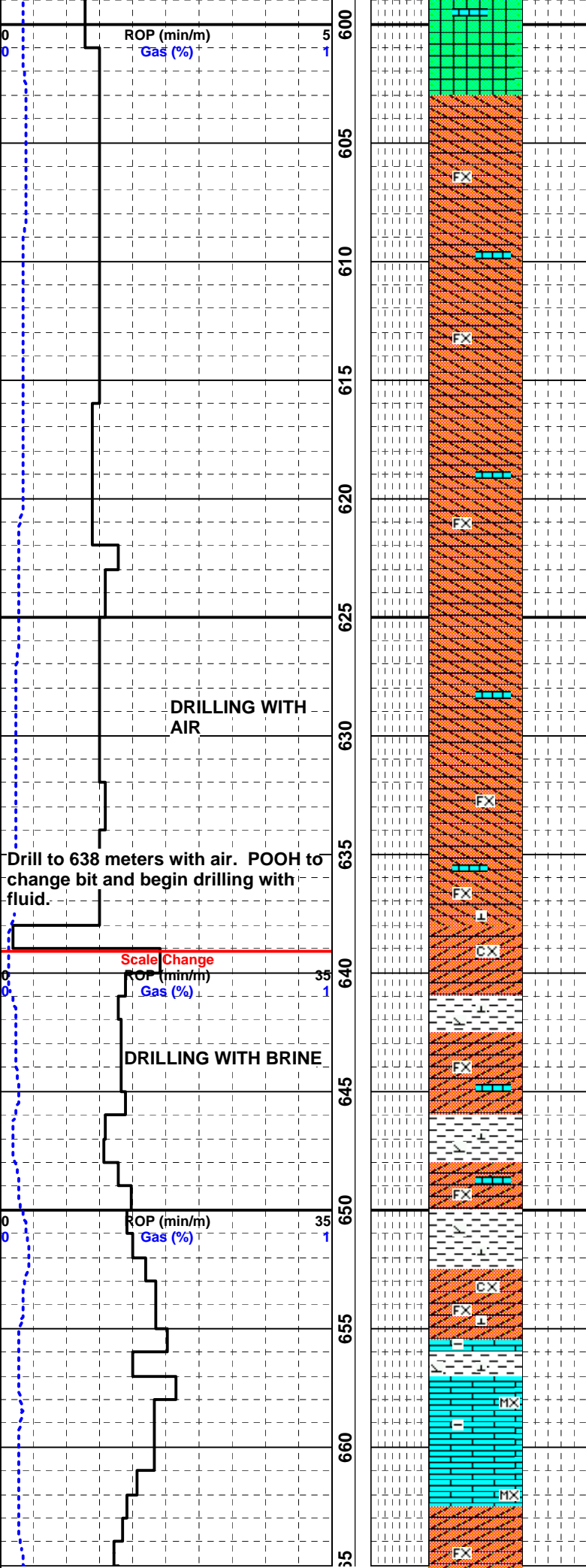
570-580 ANHY(100%): lt wh gy, lt bl gy, clr, occ tan, f xln, blk, firm, fros, suc, mas, occ calc & dolc blebs.

580-590 ANHY(100%): lt wh gy, lt bl gy, incrg gy brn, f xln, blk, firm, fros, mas, powdery, occ calc & dolc blebs.

590-595 ANHY(50%): lt wh gy, lt bl gy, gy brn, f xln, blk, firm, fros, mas, occ calc & dolc blebs. SA(50%): clr to trnsl, blk, c xln.

595-600 SA(80%): clr to trnsl, blk, c xln. ANHY(20%): lt wh gy, lt bl gy, gy brn, f xln, blk, firm, fros, mas, occ calc & dolc blebs.

DRILLING WITH AIR



600-605 SA(95%): clr to trnsl, blk, c xln, mas, calc.  
 ANHY(5%): lt wh gy, lt bl gy, gy brn, f xln, blk, firm, fros, fib, mas, calc & dolc blebs.

605-610 SA(85%): clr to trnsl, blk, c xln, firm, mas, calc.  
 ANHY(15%): lt wh gy, lt bl gy, gy brn, f xln, blk, firm, fros, fib, mas, calc & dolc blebs.

610-615 ANHY(70%): lt wh gy, gy brn, lt bl gy, f xln, blk, firm, fros, mas, calc & dolc frags. SA(30%): clr to trnsl, blk, c xln, firm, mas, calc.

615-620 ANHY(95%): lt wh gy, gy brn, lt bl gy, f xln, blk, firm, fros, mas, calc & dolc frags. SA(5%): clr to trnsl, blk, c xln, firm, mas, calc.

620-625 ANHY(100%): lt wh gy, gy brn, lt bl gy, f xln, blk, firm, fros, mas, calc & dolc frags, mn'r sa.

625-638 ANHY(100%): lt wh gy, gy brn, lt bl gy, f xln, blk, firm, fros, mas, calc & dolc frags.

638-645 ANHY(75%): wh, clr & trnsl, f to c xln, fros, firm to sft, fib ip, com wh to tan f xln calc grs. CLY(25%): lt gy, s&p, sft, wkly calc, sl limn.

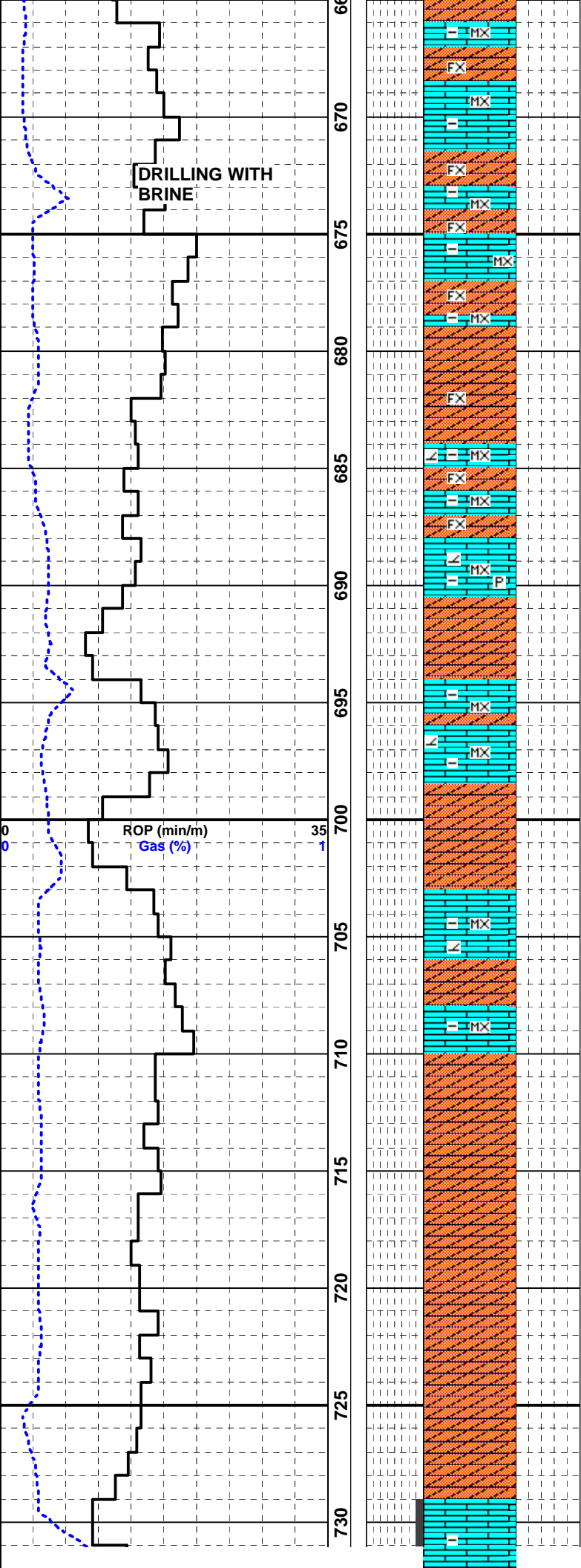
645-650 ANHY(70%): wh, clr & trnsl, f to c xln, fros, firm to sft, fib ip, com wh to tan f xln calc grs. CLY(30%): lt gy, s&p, sft, wkly calc, sl limn.

650-655 CLYST(60%): lt gy, s&p, sft, wkly calc, tr red cly, sl limn. ANHY(40%): wh, clr & trnsl, f to c xln, fros, firm to sft, fib ip, abnt wh to tan f xln calc grs.

**SHIP COVE ( 655.0 meters )**

655-660 LS(20%): lt gy, lt crm gy, mcxln w occ f xln grs, firm to occ sft, mas, arg, tt, ns. CLYST(30%): lt gy, s&p, sft, slty, pos clayey sltst, wkly calc, tr red cly, sl limn. ANHY(50%): wh, clr & trnsl, f to c xln, fros, firm to sft, fib ip, abnt blk, sft, attracted to magnet, rusty looking mat, pos off pipe, pos hemc.

660-665 ANHY(50%): wh, occ clr & trnsl, f xln, fros, firm to sft, fib ip. LS(40%): lt gy, lt crm gy, mcxln w occ f xln grs, firm to occ sft, mas, arg, tr red and gn cly, tt, o odour when acid added, occ wh yel flor, slow v faint wh flor cut. CLYST(10%): lt gy, s&p, sft, slty, pos clayey sltst. wkly calc. tr red cly. sl limn.



665-670 ANHY(50%): wh, occ clr & trnsl, f xln, fros, firm to sft, fib ip. LS(50%): lt gy, lt crm gy, mcxln w occ f xln grs, firm to occ sft, mas, arg, tr clyst as above, tr red and gn cly, tt, o odour when acid added, occ wh yel flor, slow v faint wh flor cut.

670-675 LS(60%): lt gy, lt crm gy, mcxln, firm to occ sft, mas, arg ip, tr red and gn cly, tt, o odour when acid added, occ wh yel flor, slow v faint wh flor cut.  
ANHY(40%): wh, occ clr & trnsl, f xln, fros, firm to sft, fib ip.

675-680 ANHY(55%): wh to clr, suc, mcxln to f xln, sheety ip, occ blk, firm. LS(35%): wh, crm, lesser gy gn, mcxln, v arg ip, somewhat brit, firm ip, tt, o odour when acid added, slow v faint wh flor cut. CLYST(10%): lt gy, s&p, sft, slty, pos clayey sltst, wkly calc, tr red cly, sl limn.

680-685 ANHY(55%): wh to clr, suc, mcxln to f xln, blk, firm. LS(45%): wh, crm, occ gy gn, mcxln, v arg ip, brit to sft, rr glau, tt, wk o odour when acid added, v faint wh flor cut.

685-690 LS(45%): gy, lt gy crm, mcxln, arg, mas, tr f desm pyr, mnr gy gn grs, sl dolc, pos oolc strucs within ls, lam ip, tt, faint o odour when acid added, extremely faint wh flor cut. ANHY(55%): wh, occ clr grs within wh mtx, c xln, sheety in places, sft to occ firm.

690-695 LS(45%): gy, lt gy crm, mcxln, arg, mas, mnr f desm pyr, mnr gy gn grs, pos oolc strucs within ls, lam ip, tt, ns. ANHY(55%): wh, occ clr grs within wh mtx, c xln, sheety in places, sft to occ firm.

695-700 LS(50%): crm, mnr wh and gy, mcxln, tr pyr, mnr red and dk sh, mas, pos intbds of anhy, oil odour when acid added, tt, ns. ANHY(50%): wh to clr, suc, f xln, sheety ip, occ blk, firm.

700-705 LS(45%): crm, mnr wh and gy, mcxln, tr pyr, mnr red and dk sh, mas, pos intbds of anhy, oil odour when acid added, tt, v faint to n flor cut. ANHY(55%): wh to clr, lt gy, mas, suc, mcxln to f xln, blk to mnr sheety, firm.

705-710 ANHY(65%): wh to clr, lt gy, mas, suc, mcxln to f xln, blk to mnr, firm. LS(35%): crm, mnr wh and gy, mcxln, mas, oil odour when acid added, tt, pos v faint wh flor cut.

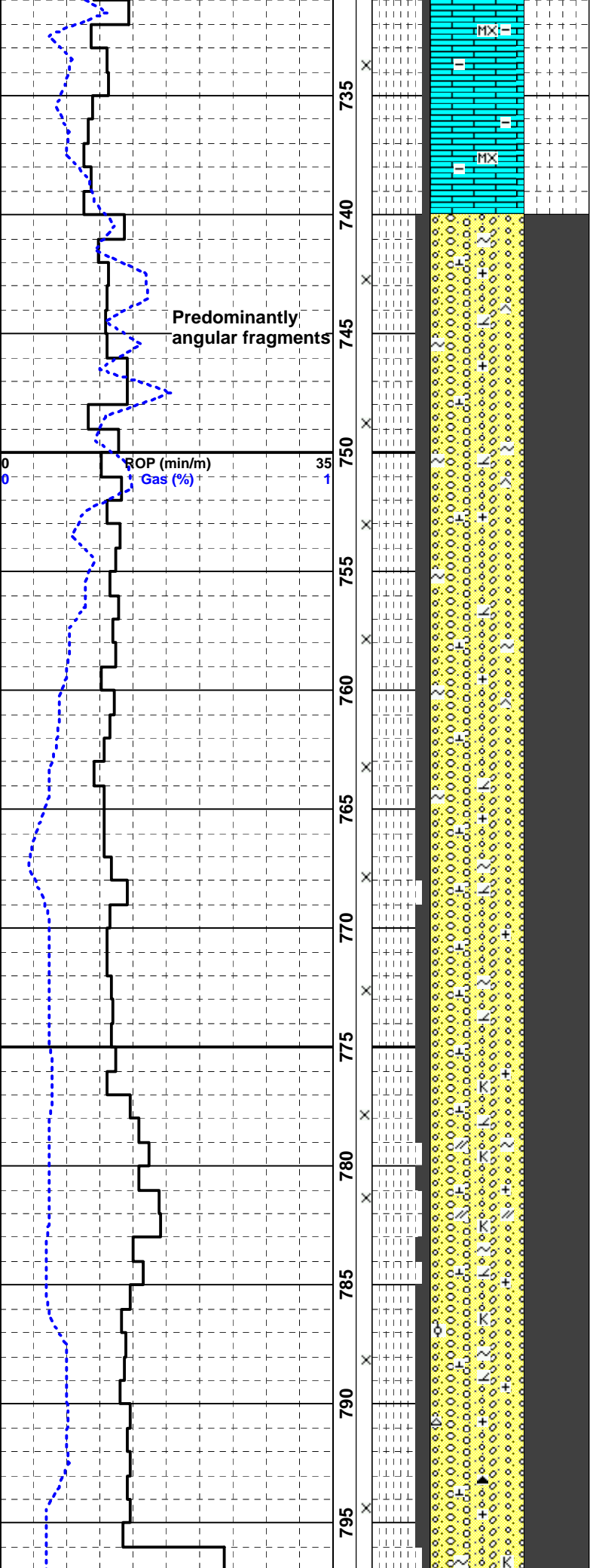
710-715 ANHY(75%): wh, lt gy, f xln, abnt calc cmt, mas, firm, blk ip. LS(25%): crm to gy, mnr wh, mcxln, mas, powdery, oil odour when acid added, pos occuring as cement within ANHY, tt, pos v faint wh flor cut.

715-725 ANHY(75%): wh, lt gy, f xln, either a v calc anhy or a v anhy ls, mas, firm, blk ip. LS(25%): crm to gy, mnr wh, mcxln, wkly dolc, rr pyr, mas, powdery, oil odour when acid added, pos occuring as cement within ANHY, tt, v faint wh flor cut.

725-730 ANHY(75%): wh, lt gy, crm, f xln, abnt crm calc cmt?, either a v calc anhy or a v anhy ls, mas, firm, blk ip. LS(25%): crm to mnr gy and wh, mcxln, wkly dolc, rr pyr, mas, powdery, oil odour when acid added, pos occuring as cement within ANHY, tt, ns.

730-735 LS(65%): gy brn, occ lt gy, v arg, blk, mcxln,





firm, mas, dns, tt, strong o odour when acid added, tr slow blmg mky wh flor cut. AHNY(35%): lt gy, wh, mas, f xln to mclxn, calc cmt, firm, tt.

735-740 LS(80%): gy brn, occ lt gy, v arg, blk, mclxn, carb ip, mnr aqua gn grs, tr slty, rr pyr, firm, mas, dns, tt, strong o odour when acid added, tr slow blmg mky wh flor cut. AHNY(20%): lt gy, wh, mas, f xln to mclxn, calc cmt. firm. tt.

**FISCHELLS BROOK ( 740.0 meters )**

740-745 CGLN(100%): lt gy gn, lt gy, occ pinkish, predy vf to l med qtz grs, mnr c gr, ang to occ sb rd, tr rd, fri, calc and mnr silc cmt, pos kao, ply srt, occ qtz ovgt, 10% clouded to mnr clr to trnsil silc grs, com aqua gn glauc grs, com pink to orange fld, com crm fr calc

745-750 CGLN(100%): lt gy crm, l f to l c grs, ang to lesser sb rd, fri, calc and lesser silc cmt, kao, ply srt, com clr and trnsil to clouded silc frags and cmt, com aqua gn glauc grs, occ pink to orange fld, com crm tr pink blk calc frags, com lt to dk gy dolc frags, com lt gy blk dolc frags, occ clr and trnsil to wh blk anhy? frags, occ vcol cht frags, pos fair intgr por, ns.

750-755 CGLN(100%): lt gy gn, lt gy, occ pinkish, 30% v f to pos c qtz grs, ang to mnr sb rd, fri, calc cmt, pos silc cmt, mnr kao, ply srt, com clr to clouded silc grs and frags, com gn glauc grs, occ fld, com crm tr pink blk calc grs / frags, com lt and dk gy dolc frags, occ clr to fros anhy frags, pos fair intgr por, ns.

755-760 CGLN(100%): lt gy to gy, 25-30% v f to mnr u c qtz grs, occ ang to mnr sb rd qtz grs, ply srt, abnt wh calc cmt, mnr qtz ovgt, sl kao, com dolc frags, com gn grs, com fld grs / frags, com gy brn and lesser pink ls frags, lmnc, occ clr blk anhy grs?, pos fair intgr por, sl o odour when acid added, ns.

760-765 CGLN(100%): lt gy to gy, 25-30% v f to mnr u c qtz grs, ang to lesser sb rd qtz grs, ply srt, calc cmt, occ qtz ovgt, dolc, com glauc grs, occ fld grs, com gy brn and lesser pink rr oolc ls frags, occ clr blk anhy grs?, lmnc ip, pos fair intgr por, sl o odour when acid added,

765-770 CGLN(100%): lt gy, 30% slty to u med grs, sb ang to lesser sb rd qtz grs, ply srt, calc cmt, pos mnr silc cmt, fri, kao ip, com dolc frags, glauc, occ fld grs, com gy brn and lesser pink ls frags, lmnc ip, tt to pos fair intgr por, ns.

770-775 CGLN(100%): lt gy, 30% slty to u med qtz grs, sb ang to lesser sb rd qtz grs, ply srt, calc and lesser silc cmt, fri, kao ip, com dolc frags, glauc, incrg fld grs, com gy brn and lesser pink ls frags, lmnc ip, mnr anhy, tt to pos fair intgr por, ns.

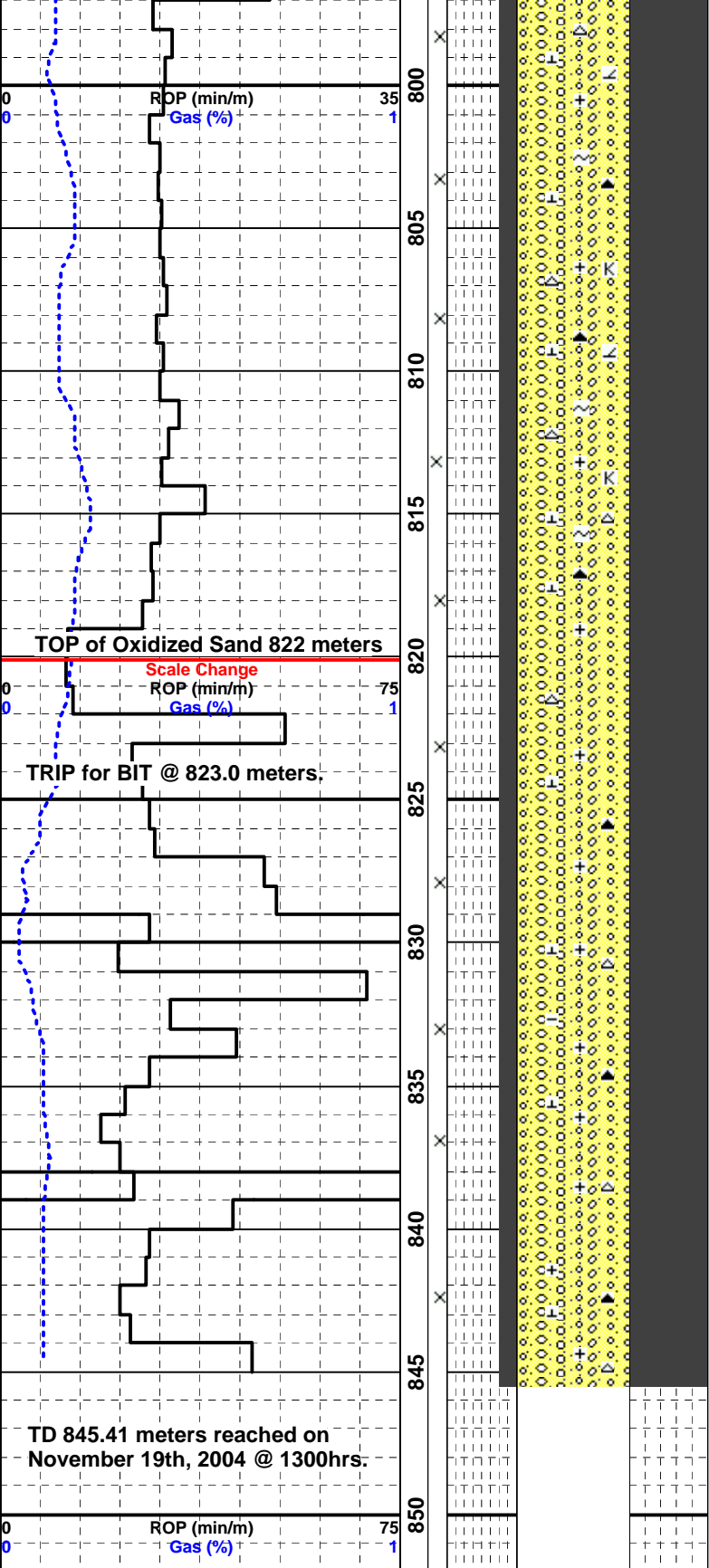
775-780 CGLN(100%): lt gy, 25% slty to u med qtz grs, with abnt dolc and calc frags, sb ang to lesser sb rd qtz grs, ply srt, calc cmt, pos mnr silc cmt, occ anhy, fri, kao ip, glauc, occ fld grs, lmnc ip, tt to pos fair intgr por, ns.

780-785 CGLN(100%): lt gy crm, 20% slty to l c gr qtz mtx with abnt dolc and calc frags, sb ang to lesser sb rd qtz grs, ply srt, incrg calc cmt, pos mnr silc cmt, fri, kao, com anhy mat, glauc, occ fld grs, lmnc ip, tt to pos fair intgr por, ns.

785-790 CGLN(100%): lt gy, sl pinkish, 35% v slty to med gr qtz mtx, ang to occ sb rd, calc and mnr kao cmt, fri, occ gn glauc frags, occ pink fld, occ vcol silc frags, com lt gy brn ls, com dolc frags, hmc ip, mnr anhy, tt to pos fair intgr por, ns.

790-795 CGLN(100%): lt gy crm, pinkish ip, 25% vf to l c gr sd mtx, ply srt, ang to occ sb rd, incrg calc and lesser kao cmt, mnr silc cmt, hmc ip, occ dk plty fe frags, occ vcol cht frags, com dolc and calc frags, occ glauc grs, fldc, tt to pos f intgr por, ns.

795-800 CGLN(100%): lt gy crm, pinkish ip, 40% predy v to f lesser med gr sd mtx, ply srt, ang to occ sb rd, calc



and lesser kao cmt, mnr silc cmt, henc ip, occ vcol ch frags, com dolc and calc frags, occ glauc grs, fldc, tt to pos f intgr por, ns.

800-805 CGLN(100%): It gy crm, 30-40% predy v f to f gr sd mtx, mnr f to l c sd, slty, ply srt, ang to occ sb rd, calc and lesser kao cmt, mnr silc cmt, henc ip, occ vcol cht frags, com dolc and calc frags, occ glauc grs, fldc, tt to pos f intgr por, ns.

805-810 CGLN(100%): It gy crm, pinkish ip, 15-20% f to med gr sd mtx, ply srt, ang to occ sb rd, calc and mnr kao cmt, pos mnr silc cmt, henc ip, incrg vcol cht frags, com dolc and calc frags, occ gyp?, occ glauc grs, fldc, tt to pos f intgr por, ns.

810-815 CGLN(100%): It gy crm to sl pinkish, 15-20% slty to med gr sd mtx, ply srt, ang to occ sb rd, calc and mnr kao cmt, pos mnr silc cmt, incrg henc, occ vcol cht frags, com dolc and calc frags, occ glauc grs, incrg fldc, occ gyp, tt to pos f intgr por, ns.

815-820 CGLN(100%): It gy crm to incrg pinkish / henc, 25-30% vf to l c gr sd mtx, pos red clay mtx (water turns reddish when sample is being washed), ply srt, ang to occ sb rd, hard, calc and lesser silc cmt, mnr kaol, v fldc, mnr anhy, com vcol cht frags, com blk flky mat (strong attraction to magnet), occ dolc and calc frags, occ glauc grs, occ gyp, tt to pos f intgr por, ns.

820-825 CGLN(70%): It red to crm, 35-40% predy v f to med lesser l c gr qtz grs, slty, com pink fld grs, red cly mtx, decrng calc cmt, mnr kaol, com qtz ovgrh, hard, henc, ply srt, ang to occ sb rd, com vcol cht frags, com blk pty mat (pos hem), decrng dolc and ls frags, tt to pos fair intgr por, ns. ANHY(20%): wh to lt gy and crm, mnr clr, mcxln to occ cyxln, fros, sl calc, pty to blk, rr vug por, predy tt, ns. SLTST / CLYST(10%): wh to lt gy, s&p, firm, dns, sl calc, lmnc.

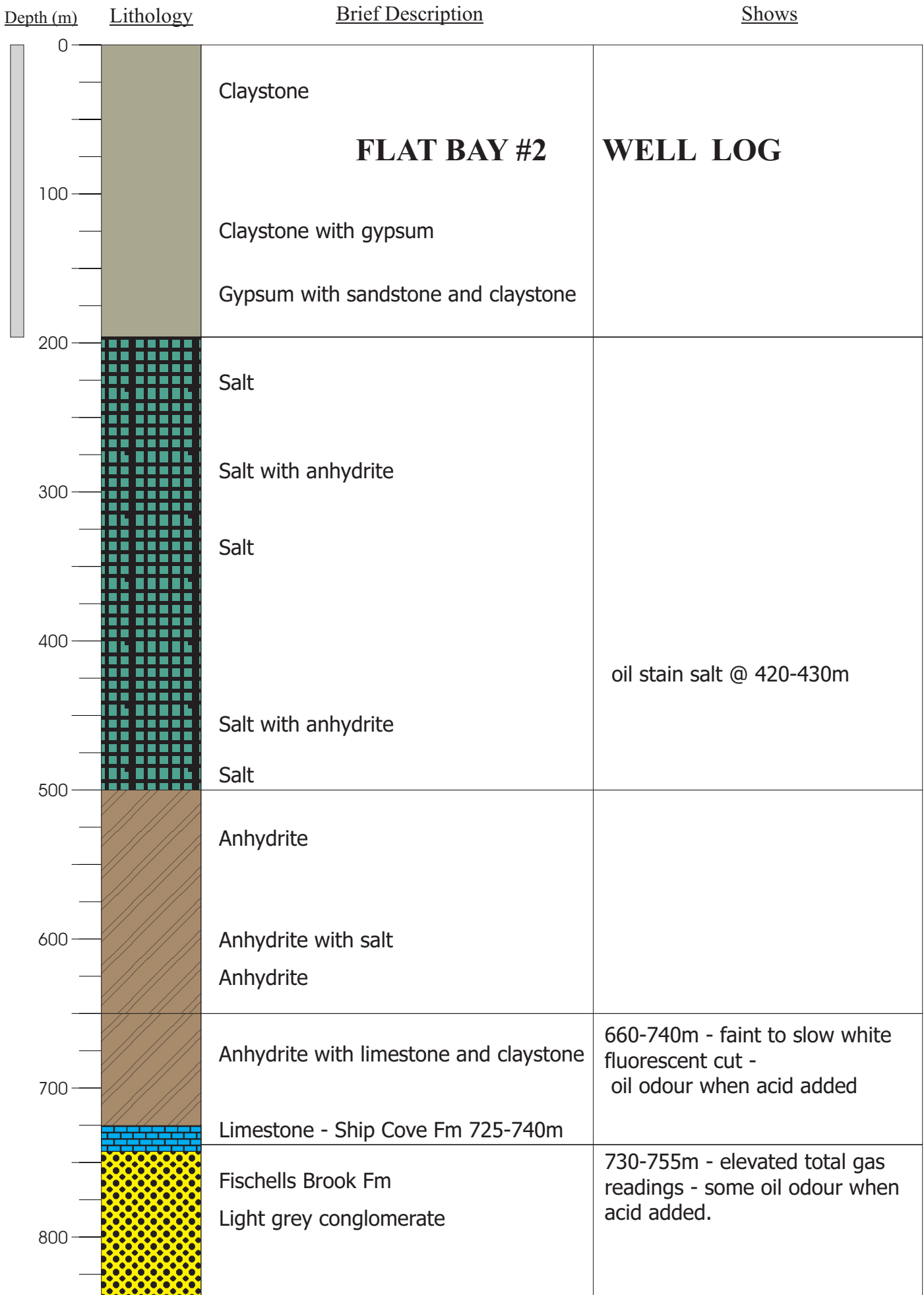
825-830 CGLN(65%): As above, lt red to crm, 10-15% med to lesser l c gr qtz grs, com pink fld grs, red cly mtx, decrng calc cmt, hard, henc, mnr glau, ply srt, tt to pos fair intgr por, ns. ANHY(25%): wh to lt gy, mcxln to occ cyxln, fros, sl calc, pty to blk. SLTST / CLYST(15%): wh to lt gy, s&p, firm, dns, sl calc, lmnc.

830-840 CGLN(85%): It red brn, 10-15% med to l v c qtz grs, com pink fld grs, abnt red cly mtx, calc cmt, mnr kaol, incrg ly henc, ply srt, ang to occ rd, abnt vcol silc frags, incrng ly silc, 5% blk flky mat (pos hem), mnr glau, sl dolc, com wh to pink ls frags, occ to com qtz ovgrh, tt to assumed fair intgr por, ns. ANHY(15%): wh, lt gy, fros, mcxln to lesser cyxln, sl calc.

840-845.50 CGLN(80%): It red brn, 10% med to l v c qtz grs, abnt pink fld grs, abnt red cly mtx, calc cmt, mnr kaol, v henc, ply srt, ang to sb rd, abnt vcol silc frags, hard, com blk flky mat (pos hem), mnr glau, sl dolc, occ wh to pink ls, occ to com qtz ovgrh, tt to assumed fair intgr por, ns. ANHY(20%): wh, lt gy, fros, mcxln to mnr cyxln, pty, sl calc.

## **APPENDIX G: STRATIGRAPHIC COLUMN**

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TD 845m



## **APPENDIX H: DOWNHOLE LOGS**

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The data for this appendix can be found in the Department of Natural Resource's Confidential Well File room.

## **APPENDIX I: FORMATION FLOW TEST**

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Customer Vulcan Minerals Inc. Customer Rep. Mr. Bill Williams  
Location Flat Bay #2, Newfoundland  
Interval 730 - 845.4 Total Depth 845.4 Formation Fischell's Brook  
Test Number one Tester Dale Holland  
Test Type Dual Bottom Hole K. B. Elevation 52.85 Ground Elevation 50.0  
Test Date November 23-24, 2004 Bottom Hole Temperature (C) 12.85

## DRILL STEM TEST REPORT



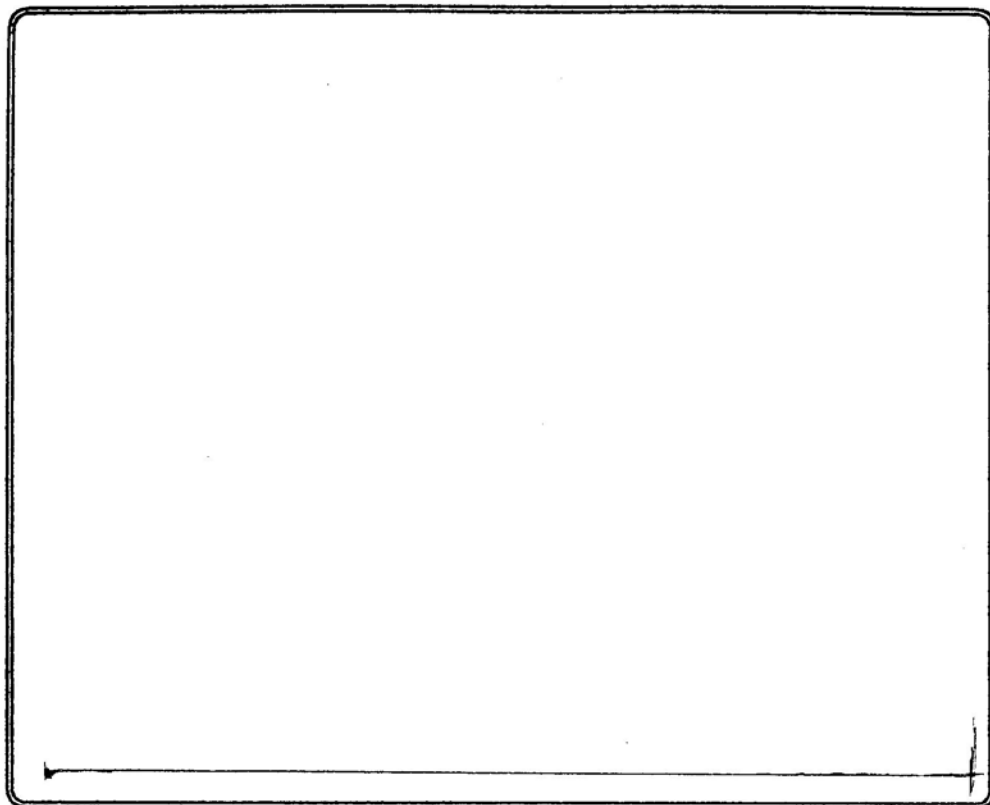
# HOLLAND TESTERS LTD.

R R # 3 WHEATLEY ONTARIO N0P 2P0

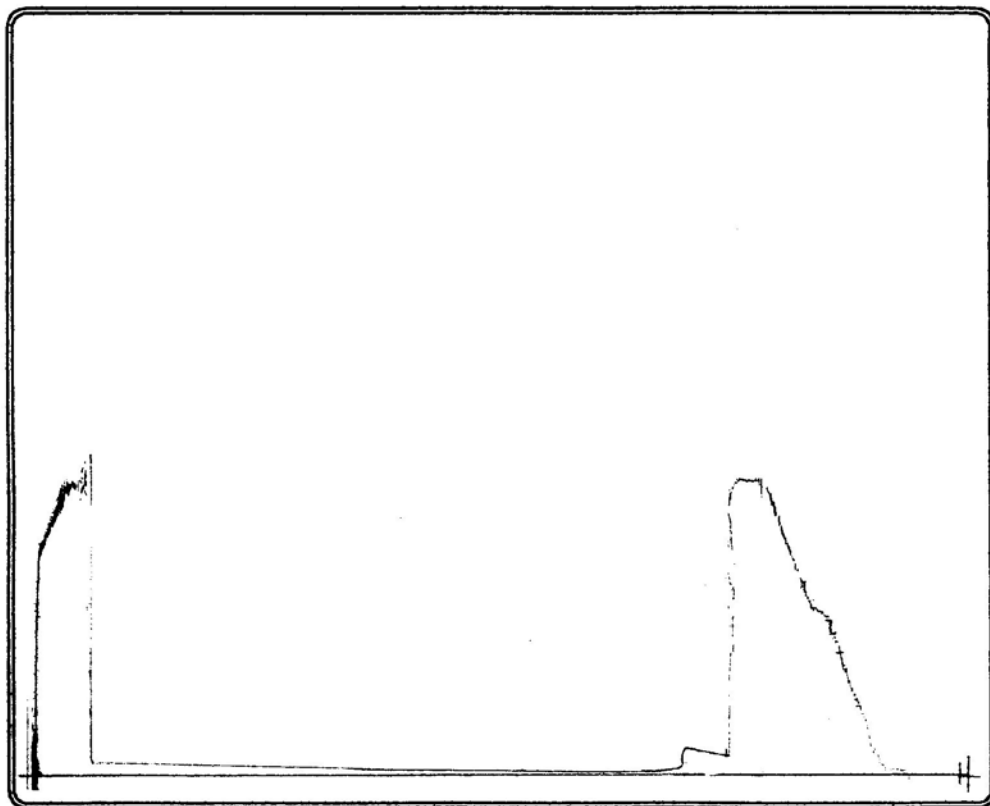


# DRILL-STEM-TEST CHARTS

Well Location: FLAT BAY #2 NEWFOUNDLAND



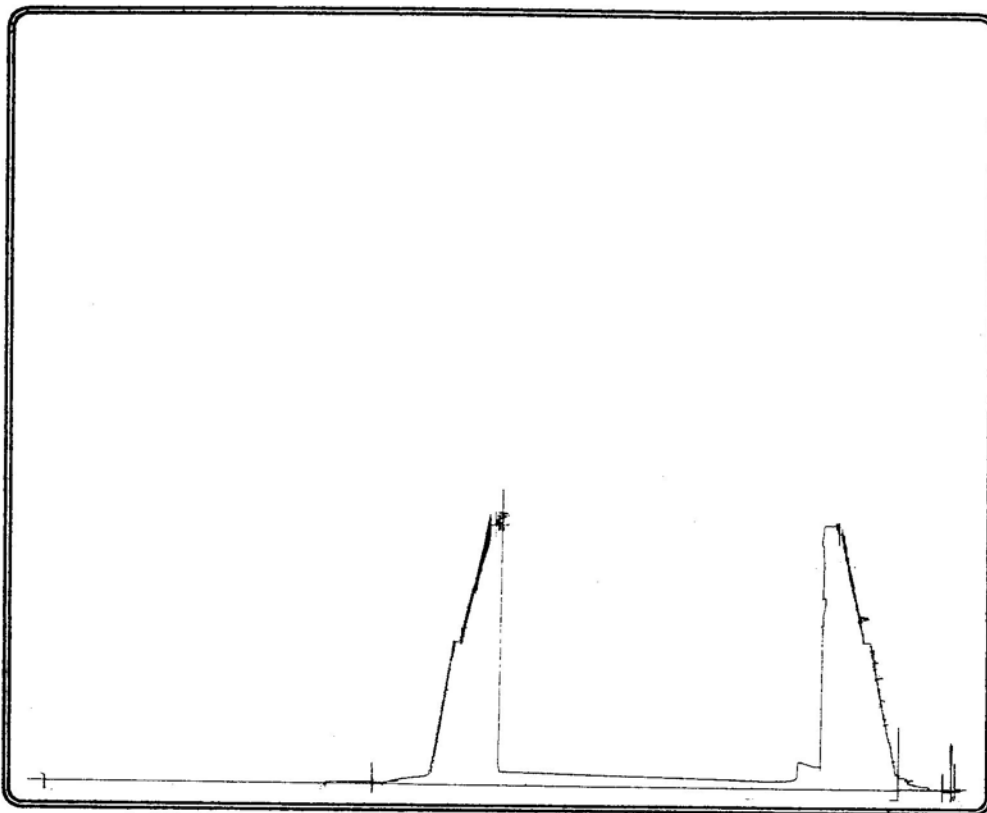
Recorder No.	<u>7419</u>
Recorder Depth	<u>713.888 MKB</u>
DST Number	<u>ONE</u>
Pressure Units	<u>KPAG</u>
Initial Hydro.	<u>0</u>
Initial Prewflow	<u>0</u>
Final Prewflow	<u>0</u>
1st Final Shut-in	<u>0</u>
1st Initial Flow	<u>          </u>
1st Final Flow	<u>0</u>
2nd Final Shut-in	<u>0</u>
Final Hydro.	<u>0</u>



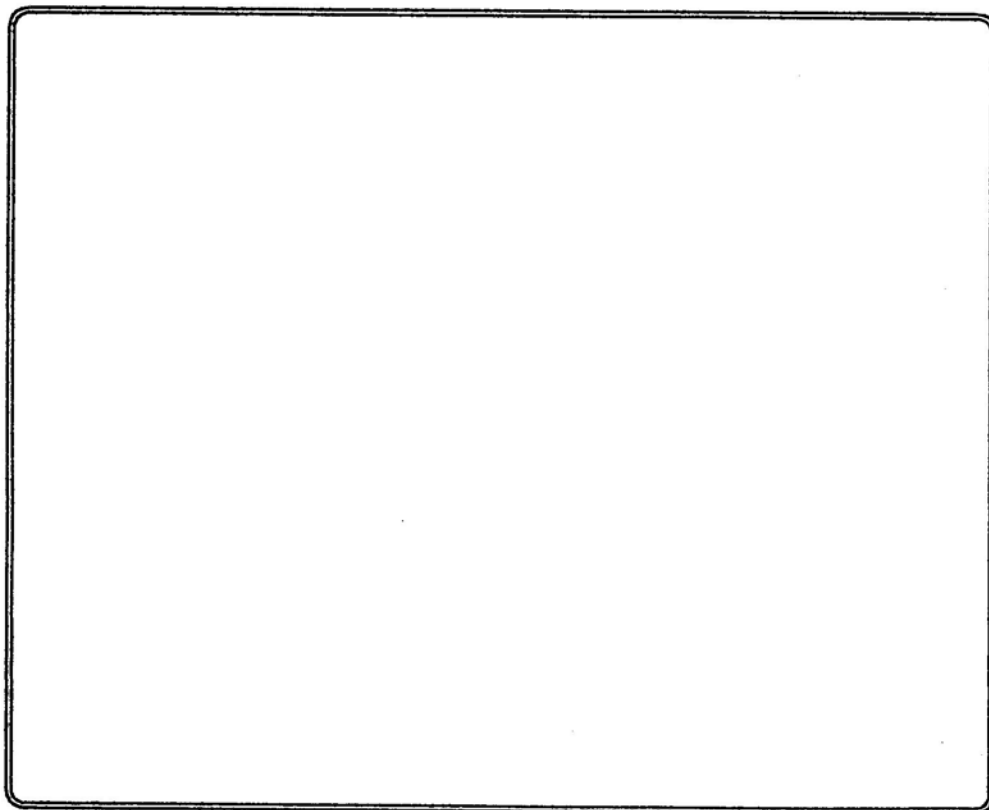
Recorder No.	<u>13544</u>
Recorder Depth	<u>722.272 MKB</u>
DST Number	<u>ONE</u>
Pressure Units	<u>KPAG</u>
Initial Hydro.	<u>8938</u>
Initial Prewflow	<u>542</u>
Final Prewflow	<u>647</u>
1st Final Shut-in	<u>822</u>
1st Initial Flow	<u>216</u>
1st Final Flow	<u>117</u>
2nd Final Shut-in	<u>          </u>
Final Hydro.	<u>          </u>

# DRILL-STEM-TEST CHARTS

Well Location: FLAT BAY #2 NEWFOUNDLAND



Recorder No.	<u>9644</u>
Recorder Depth	<u>734.767 MKB</u>
DST Number	<u>ONE</u>
Pressure Units	<u>KPAG</u>
Initial Hydro.	<u>8985</u>
Initial Prewflow	<u>681</u>
Final Prewflow	<u>772</u>
1st Final Shut-in	<u>969</u>
1st Initial Flow	<u>302</u>
1st Final Flow	<u>282</u>
2nd Final Shut-in	<u>498</u>
Final Hydro.	<u>8953</u>



Recorder No.	_____
Recorder Depth	_____
DST Number	_____
Pressure Units	_____
Initial Hydro.	_____
Initial Prewflow	_____
Final Prewflow	_____
1st Final Shut-in	_____
1st Initial Flow	_____
1st Final Flow	_____
2nd Final Shut-in	_____
Final Hydro.	_____

SUBSURFACE PRESSURE MEASUREMENTS

Company: VULCAN MINERALS INC.  
Location: FLAT BAY#2NEWFOUNDLAND  
Date Of Test: 04/11/23 09:20:00  
Run Depth (mCF): 725.015 MKB  
Probe serial #: 20639  
Probe Range: 0 - 24132 kPag  
Accuracy: 0.03% full scale  
Calibration Date: 04/03/03

PROGRAMMED SAMPLE INTERVALS

From	To	Primary	Fast
----- 04/11/23 09:20	----- --END OF RUN--	----- 10S	----- NONE



## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
--------	------	-------------------	-------------------	--------	-----------

Recorders on bottom - 04/11/23 15:15:00

--- Primary Time: 10S Fast Time: NONE ---

1	04/11/23	15:15:00	0:00:00	13.16	8859.58
31	04/11/23	15:20:00	0:05:00	13.17	8883.05
61	04/11/23	15:25:00	0:10:00	13.16	707.80
91	04/11/23	15:30:00	0:15:00	13.16	636.49
121	04/11/23	15:35:00	0:20:00	13.17	608.61
151	04/11/23	15:40:00	0:25:00	13.19	645.14
181	04/11/23	15:45:00	0:30:00	13.20	675.51
211	04/11/23	15:50:00	0:35:00	13.21	700.81
241	04/11/23	15:55:00	0:40:00	13.22	723.04
271	04/11/23	16:00:00	0:45:00	13.22	743.42
301	04/11/23	16:05:00	0:50:00	13.24	761.90
331	04/11/23	16:10:00	0:55:00	13.24	778.72
361	04/11/23	16:15:00	1:00:00	13.24	794.33
391	04/11/23	16:20:00	1:05:00	13.25	809.18
421	04/11/23	16:25:00	1:10:00	13.25	823.39
451	04/11/23	16:30:00	1:15:00	13.25	837.22
481	04/11/23	16:35:00	1:20:00	13.25	267.89
511	04/11/23	16:40:00	1:25:00	13.25	139.65
541	04/11/23	16:45:00	1:30:00	13.25	140.02
571	04/11/23	16:50:00	1:35:00	13.25	140.02
601	04/11/23	16:55:00	1:40:00	13.25	140.30
631	04/11/23	17:00:00	1:45:00	13.26	140.29
661	04/11/23	17:05:00	1:50:00	13.26	140.57
691	04/11/23	17:10:00	1:55:00	13.26	140.84
721	04/11/23	17:15:00	2:00:00	13.26	140.84
751	04/11/23	17:20:00	2:05:00	13.26	140.84
781	04/11/23	17:25:00	2:10:00	13.26	140.84
811	04/11/23	17:30:00	2:15:00	13.27	140.93
841	04/11/23	17:35:00	2:20:00	13.27	141.02
871	04/11/23	17:40:00	2:25:00	13.27	124.19
901	04/11/23	17:45:00	2:30:00	13.27	126.62
931	04/11/23	17:50:00	2:35:00	13.27	128.86
961	04/11/23	17:55:00	2:40:00	13.28	131.56
991	04/11/23	18:00:00	2:45:00	13.28	133.71
1021	04/11/23	18:05:00	2:50:00	13.28	136.24
1051	04/11/23	18:10:00	2:55:00	13.28	138.57
1081	04/11/23	18:15:00	3:00:00	13.28	140.72
1111	04/11/23	18:20:00	3:05:00	13.28	142.78
1141	04/11/23	18:25:00	3:10:00	13.28	145.20
1171	04/11/23	18:30:00	3:15:00	13.28	147.26
1201	04/11/23	18:35:00	3:20:00	13.28	149.51
1231	04/11/23	18:40:00	3:25:00	13.28	151.75

Date: 04/11/23 15:15 to 04/11/23 18:40 Acc time: 0:00 to 3:25 Page 1

## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
1261	04/11/23 18:45:00	3:30:00		13.28	153.90
1291	04/11/23 18:50:00	3:35:00		13.28	155.77
1321	04/11/23 18:55:00	3:40:00		13.28	157.74
1351	04/11/23 19:00:00	3:45:00		13.28	159.79
1381	04/11/23 19:05:00	3:50:00		13.28	161.85
1411	04/11/23 19:10:00	3:55:00		13.27	163.63
1441	04/11/23 19:15:00	4:00:00		13.27	165.78
1471	04/11/23 19:20:00	4:05:00		13.28	167.55
1501	04/11/23 19:25:00	4:10:00		13.28	169.51
1531	04/11/23 19:30:00	4:15:00		13.28	171.10
1561	04/11/23 19:35:00	4:20:00		13.28	173.06
1591	04/11/23 19:40:00	4:25:00		13.28	174.74
1621	04/11/23 19:45:00	4:30:00		13.28	176.42
1651	04/11/23 19:50:00	4:35:00		13.28	178.01
1681	04/11/23 19:55:00	4:40:00		13.28	179.88
1711	04/11/23 20:00:00	4:45:00		13.29	181.46
1741	04/11/23 20:05:00	4:50:00		13.28	182.96
1771	04/11/23 20:10:00	4:55:00		13.29	184.83
1801	04/11/23 20:15:00	5:00:00		13.29	186.51
1831	04/11/23 20:20:00	5:05:00		13.29	188.10
1861	04/11/23 20:25:00	5:10:00		13.29	189.59
1891	04/11/23 20:30:00	5:15:00		13.29	191.18
1921	04/11/23 20:35:00	5:20:00		13.29	192.86
1951	04/11/23 20:40:00	5:25:00		13.29	194.35
1981	04/11/23 20:45:00	5:30:00		13.29	195.66
2011	04/11/23 20:50:00	5:35:00		13.29	197.16
2041	04/11/23 20:55:00	5:40:00		13.29	198.84
2071	04/11/23 21:00:00	5:45:00		13.29	200.15
2101	04/11/23 21:05:00	5:50:00		13.29	202.02
2131	04/11/23 21:10:00	5:55:00		13.29	203.23
2161	04/11/23 21:15:00	6:00:00		13.29	204.63
2191	04/11/23 21:20:00	6:05:00		13.29	206.41
2221	04/11/23 21:25:00	6:10:00		13.29	207.81
2251	04/11/23 21:30:00	6:15:00		13.29	209.31
2281	04/11/23 21:35:00	6:20:00		13.29	210.81
2311	04/11/23 21:40:00	6:25:00		13.29	212.40
2341	04/11/23 21:45:00	6:30:00		13.29	213.90
2371	04/11/23 21:50:00	6:35:00		13.29	215.39
2401	04/11/23 21:55:00	6:40:00		13.29	217.07
2431	04/11/23 22:00:00	6:45:00		13.29	218.28
2461	04/11/23 22:05:00	6:50:00		13.29	219.50
2491	04/11/23 22:10:00	6:55:00		13.29	220.99
2521	04/11/23 22:15:00	7:00:00		13.29	222.49
2551	04/11/23 22:20:00	7:05:00		13.29	224.17
2581	04/11/23 22:25:00	7:10:00		13.29	225.29
2611	04/11/23 22:30:00	7:15:00		13.29	226.60

Date: 04/11/23 18:40 to 04/11/23 22:30 Acc time: 3:25 to 7:15 Page 2

## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
2641	04/11/23 22:35:00	7:20:00		13.29	228.09
2671	04/11/23 22:40:00	7:25:00		13.29	229.41
2701	04/11/23 22:45:00	7:30:00		13.29	231.00
2731	04/11/23 22:50:00	7:35:00		13.29	232.31
2761	04/11/23 22:55:00	7:40:00		13.29	233.99
2791	04/11/23 23:00:00	7:45:00		13.29	235.30
2821	04/11/23 23:05:00	7:50:00		13.29	236.42
2851	04/11/23 23:10:00	7:55:00		13.29	237.92
2881	04/11/23 23:15:00	8:00:00		13.29	239.23
2911	04/11/23 23:20:00	8:05:00		13.29	240.81
2941	04/11/23 23:25:00	8:10:00		13.29	242.12
2971	04/11/23 23:30:00	8:15:00		13.29	243.43
3001	04/11/23 23:35:00	8:20:00		13.29	244.83
3031	04/11/23 23:40:00	8:25:00		13.28	246.34
3061	04/11/23 23:45:00	8:30:00		13.28	247.37
3091	04/11/23 23:50:00	8:35:00		13.28	248.95
3121	04/11/23 23:55:00	8:40:00		13.28	250.36
3151	04/11/24 00:00:00	8:45:00		13.28	251.86
3181	04/11/24 00:05:00	8:50:00		13.28	252.98
3211	04/11/24 00:10:00	8:55:00		13.28	254.29
3241	04/11/24 00:15:00	9:00:00		13.28	255.79
3271	04/11/24 00:20:00	9:05:00		13.27	256.92
3301	04/11/24 00:25:00	9:10:00		13.27	258.22
3331	04/11/24 00:30:00	9:15:00		13.28	259.52
3361	04/11/24 00:35:00	9:20:00		13.28	260.65
3391	04/11/24 00:40:00	9:25:00		13.28	261.96
3421	04/11/24 00:45:00	9:30:00		13.28	263.26
3451	04/11/24 00:50:00	9:35:00		13.28	264.67
3481	04/11/24 00:55:00	9:40:00		13.28	265.88
3511	04/11/24 01:00:00	9:45:00		13.28	267.09
3541	04/11/24 01:05:00	9:50:00		13.28	268.49
3571	04/11/24 01:10:00	9:55:00		13.28	269.71
3601	04/11/24 01:15:00	10:00:00		13.28	270.73
3631	04/11/24 01:20:00	10:05:00		13.28	271.76
3661	04/11/24 01:25:00	10:10:00		13.28	272.98
3691	04/11/24 01:30:00	10:15:00		13.28	274.57
3721	04/11/24 01:35:00	10:20:00		13.28	275.78
3751	04/11/24 01:40:00	10:25:00		13.29	276.89
3781	04/11/24 01:45:00	10:30:00		13.29	278.30
3811	04/11/24 01:50:00	10:35:00		13.29	279.70
3841	04/11/24 01:55:00	10:40:00		13.28	280.73
3871	04/11/24 02:00:00	10:45:00		13.28	281.95
3901	04/11/24 02:05:00	10:50:00		13.28	283.35
3931	04/11/24 02:10:00	10:55:00		13.28	284.47
3961	04/11/24 02:15:00	11:00:00		13.28	285.60
3991	04/11/24 02:20:00	11:05:00		13.29	286.99

Date: 04/11/23 22:30 to 04/11/24 02:20 Acc time: 7:15 to 11:05 Page 3

## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
4021	04/11/24	02:25:00	11:10:00	13.29	288.39
4051	04/11/24	02:30:00	11:15:00	13.29	289.42
4081	04/11/24	02:35:00	11:20:00	13.29	290.54
4111	04/11/24	02:40:00	11:25:00	13.29	291.76
4141	04/11/24	02:45:00	11:30:00	13.29	292.97
4171	04/11/24	02:50:00	11:35:00	13.29	293.72
4201	04/11/24	02:55:00	11:40:00	13.28	295.04
4231	04/11/24	03:00:00	11:45:00	13.28	296.25
4261	04/11/24	03:05:00	11:50:00	13.28	297.56
4291	04/11/24	03:10:00	11:55:00	13.28	298.96
4321	04/11/24	03:15:00	12:00:00	13.28	300.27
4351	04/11/24	03:20:00	12:05:00	13.28	301.39
4381	04/11/24	03:25:00	12:10:00	13.28	302.42
4411	04/11/24	03:30:00	12:15:00	13.28	303.82
4441	04/11/24	03:35:00	12:20:00	13.28	305.13
4471	04/11/24	03:40:00	12:25:00	13.28	306.35
4501	04/11/24	03:45:00	12:30:00	13.28	307.47
4531	04/11/24	03:50:00	12:35:00	13.28	308.68
4561	04/11/24	03:55:00	12:40:00	13.28	309.90
4591	04/11/24	04:00:00	12:45:00	13.28	310.93
4621	04/11/24	04:05:00	12:50:00	13.28	312.23
4651	04/11/24	04:10:00	12:55:00	13.29	313.16
4681	04/11/24	04:15:00	13:00:00	13.29	314.47
4711	04/11/24	04:20:00	13:05:00	13.29	315.78
4741	04/11/24	04:25:00	13:10:00	13.29	316.90
4771	04/11/24	04:30:00	13:15:00	13.29	318.01
4801	04/11/24	04:35:00	13:20:00	13.29	319.14
4831	04/11/24	04:40:00	13:25:00	13.29	320.16
4861	04/11/24	04:45:00	13:30:00	13.30	321.37
4891	04/11/24	04:50:00	13:35:00	13.29	322.41
4921	04/11/24	04:55:00	13:40:00	13.30	323.61
4951	04/11/24	05:00:00	13:45:00	13.30	324.74
4981	04/11/24	05:05:00	13:50:00	13.29	325.77
5011	04/11/24	05:10:00	13:55:00	13.29	327.27
5041	04/11/24	05:15:00	14:00:00	13.29	328.58
5071	04/11/24	05:20:00	14:05:00	13.29	329.60
5101	04/11/24	05:25:00	14:10:00	13.29	330.82
5131	04/11/24	05:30:00	14:15:00	13.29	332.03
5161	04/11/24	05:35:00	14:20:00	13.29	333.16
5191	04/11/24	05:40:00	14:25:00	13.29	334.56
5221	04/11/24	05:45:00	14:30:00	13.29	335.49
5251	04/11/24	05:50:00	14:35:00	13.29	336.80
5281	04/11/24	05:55:00	14:40:00	13.29	338.20
5311	04/11/24	06:00:00	14:45:00	13.29	339.14
5341	04/11/24	06:05:00	14:50:00	13.29	340.36
5371	04/11/24	06:10:00	14:55:00	13.29	341.48

Date: 04/11/24 02:20 to 04/11/24 06:10 Acc time: 11:05 to 14:55 Page 4

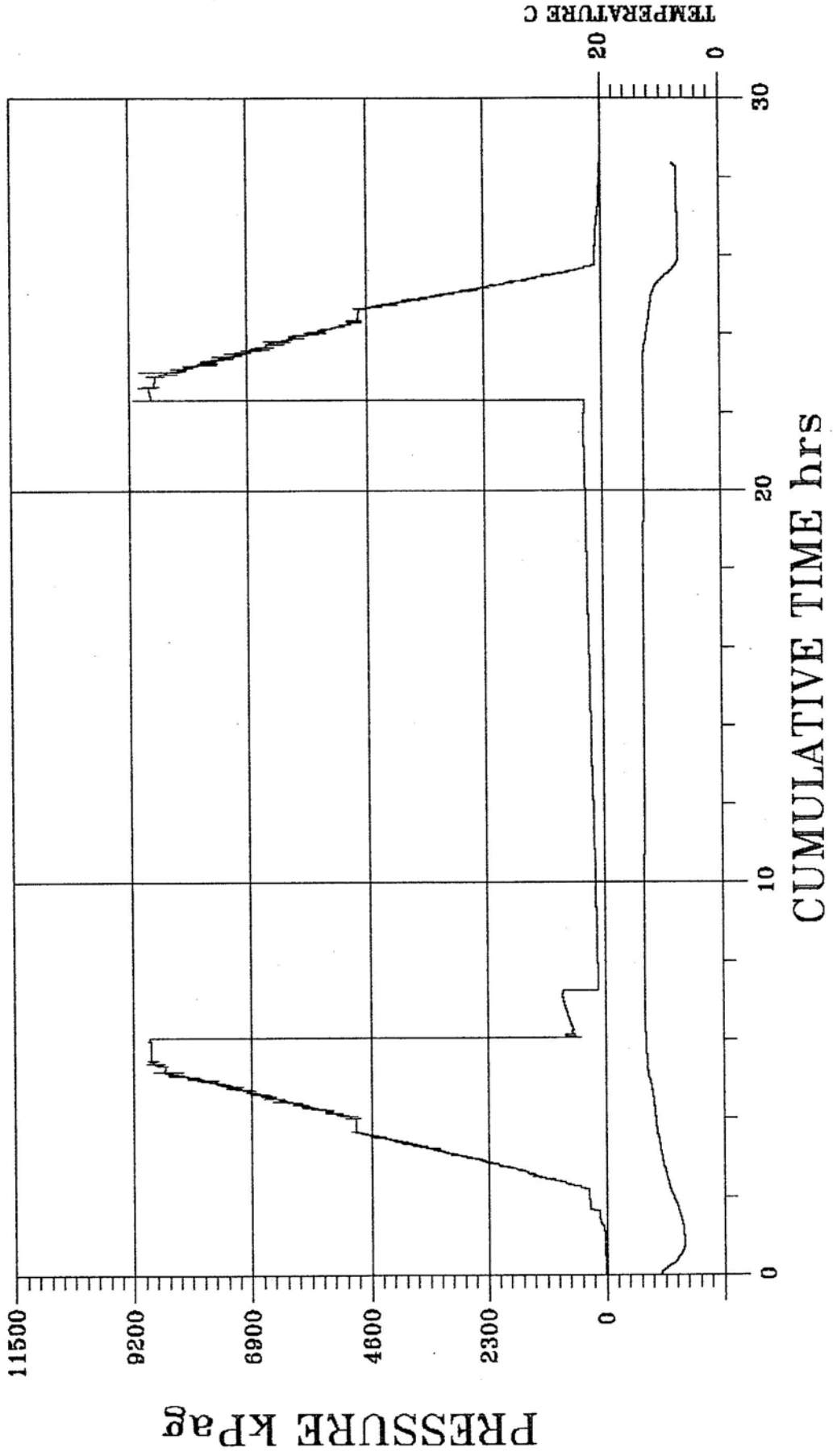
## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
5401	04/11/24	06:15:00	15:00:00	13.29	342.32
5431	04/11/24	06:20:00	15:05:00	13.29	343.62
5461	04/11/24	06:25:00	15:10:00	13.29	344.75
5491	04/11/24	06:30:00	15:15:00	13.29	346.06
5521	04/11/24	06:35:00	15:20:00	13.29	347.37
5551	04/11/24	06:40:00	15:25:00	13.29	348.77
5581	04/11/24	06:45:00	15:30:00	13.28	349.90
5611	04/11/24	06:50:00	15:35:00	13.28	350.74
5641	04/11/24	06:55:00	15:40:00	13.28	352.06
5671	04/11/24	07:00:00	15:45:00	13.28	353.45
5701	04/11/24	07:05:00	15:50:00	13.28	354.76
5731	04/11/24	07:10:00	15:55:00	13.28	355.89
5761	04/11/24	07:15:00	16:00:00	13.28	356.73
5791	04/11/24	07:20:00	16:05:00	13.28	358.23
5821	04/11/24	07:25:00	16:10:00	13.28	358.98
5851	04/11/24	07:30:00	16:15:00	13.28	360.29
5881	04/11/24	07:35:00	16:20:00	13.28	361.88
5911	04/11/24	07:40:00	16:25:00	13.38	8789.96
5941	04/11/24	07:45:00	16:30:00	13.39	8788.52
5971	04/11/24	07:50:00	16:35:00	13.36	8792.62
6001	04/11/24	07:55:00	16:40:00	13.33	8821.41
6031	04/11/24	08:00:00	16:45:00	13.31	8708.40
Recorders off bottom - 04/11/24 08:00:00					

# VULCAN MINERALS INC.

## FLAT BAY # 2 (NEFOUNDLAND)

Probe: 20639  
Pressure vs Time  
By HOLLAND TESTERS LTD.



SUBSURFACE PRESSURE MEASUREMENTS

Company: VULCAN MINERALS INC.  
Location: FLAT BAY#2NEWFOUNDLAND  
Date Of Test: 04/11/23 08:41:00  
Run Depth (mCF): 737.51 MKB  
Probe serial #: 20641  
Probe Range: 0 - 24132 kPag  
Accuracy: 0.03% full scale  
Calibration Date: 04/03/03

PROGRAMMED SAMPLE INTERVALS

From	To	Primary	Fast
----- 04/11/23 08:41	----- --END OF RUN--	----- 10S	----- NONE

## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
--------	------	-------------------	-------------------	--------	-----------

Recorders on bottom - 04/11/23 15:15:00

--- Primary Time: 10S Fast Time: NONE ---

1	04/11/23	15:15:00	0:00:00	13.00	9005.58
31	04/11/23	15:20:00	0:05:00	13.02	9021.17
61	04/11/23	15:25:00	0:10:00	13.03	839.76
91	04/11/23	15:30:00	0:15:00	12.99	770.49
121	04/11/23	15:35:00	0:20:00	12.88	745.58
151	04/11/23	15:40:00	0:25:00	12.76	781.66
181	04/11/23	15:45:00	0:30:00	12.74	811.37
211	04/11/23	15:50:00	0:35:00	12.74	836.75
241	04/11/23	15:55:00	0:40:00	12.75	858.89
271	04/11/23	16:00:00	0:45:00	12.76	879.76
301	04/11/23	16:05:00	0:50:00	12.76	898.79
331	04/11/23	16:10:00	0:55:00	12.77	915.52
361	04/11/23	16:15:00	1:00:00	12.78	931.50
391	04/11/23	16:20:00	1:05:00	12.78	946.21
421	04/11/23	16:25:00	1:10:00	12.79	960.63
451	04/11/23	16:30:00	1:15:00	12.80	974.69
481	04/11/23	16:35:00	1:20:00	12.80	939.30
511	04/11/23	16:40:00	1:25:00	12.79	276.24
541	04/11/23	16:45:00	1:30:00	12.79	276.33
571	04/11/23	16:50:00	1:35:00	12.80	276.51
601	04/11/23	16:55:00	1:40:00	12.81	276.59
631	04/11/23	17:00:00	1:45:00	12.81	276.77
661	04/11/23	17:05:00	1:50:00	12.81	276.86
691	04/11/23	17:10:00	1:55:00	12.82	277.04
721	04/11/23	17:15:00	2:00:00	12.83	277.12
751	04/11/23	17:20:00	2:05:00	12.83	277.12
781	04/11/23	17:25:00	2:10:00	12.84	277.11
811	04/11/23	17:30:00	2:15:00	12.85	277.10
841	04/11/23	17:35:00	2:20:00	12.85	277.28
871	04/11/23	17:40:00	2:25:00	12.86	259.53
901	04/11/23	17:45:00	2:30:00	12.86	261.46
931	04/11/23	17:50:00	2:35:00	12.86	264.03
961	04/11/23	17:55:00	2:40:00	12.87	266.69
991	04/11/23	18:00:00	2:45:00	12.87	269.44
1021	04/11/23	18:05:00	2:50:00	12.88	271.92
1051	04/11/23	18:10:00	2:55:00	12.88	274.40
1081	04/11/23	18:15:00	3:00:00	12.88	276.51
1111	04/11/23	18:20:00	3:05:00	12.88	278.63
1141	04/11/23	18:25:00	3:10:00	12.88	280.74
1171	04/11/23	18:30:00	3:15:00	12.89	282.76
1201	04/11/23	18:35:00	3:20:00	12.90	284.86
1231	04/11/23	18:40:00	3:25:00	12.90	286.88

Date: 04/11/23 15:15 to 04/11/23 18:40 Acc time: 0:00 to 3:25 Page 1



## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
1261	04/11/23 18:45:00	3:30:00		12.90	288.82
1291	04/11/23 18:50:00	3:35:00		12.91	290.56
1321	04/11/23 18:55:00	3:40:00		12.91	292.67
1351	04/11/23 19:00:00	3:45:00		12.91	294.69
1381	04/11/23 19:05:00	3:50:00		12.91	296.53
1411	04/11/23 19:10:00	3:55:00		12.91	298.73
1441	04/11/23 19:15:00	4:00:00		12.91	300.94
1471	04/11/23 19:20:00	4:05:00		12.91	303.06
1501	04/11/23 19:25:00	4:10:00		12.92	304.80
1531	04/11/23 19:30:00	4:15:00		12.91	306.73
1561	04/11/23 19:35:00	4:20:00		12.91	308.76
1591	04/11/23 19:40:00	4:25:00		12.91	310.59
1621	04/11/23 19:45:00	4:30:00		12.92	312.43
1651	04/11/23 19:50:00	4:35:00		12.92	314.27
1681	04/11/23 19:55:00	4:40:00		12.92	315.65
1711	04/11/23 20:00:00	4:45:00		12.92	317.30
1741	04/11/23 20:05:00	4:50:00		12.92	318.86
1771	04/11/23 20:10:00	4:55:00		12.92	320.70
1801	04/11/23 20:15:00	5:00:00		12.92	321.98
1831	04/11/23 20:20:00	5:05:00		12.93	323.63
1861	04/11/23 20:25:00	5:10:00		12.93	325.56
1891	04/11/23 20:30:00	5:15:00		12.93	327.12
1921	04/11/23 20:35:00	5:20:00		12.93	328.78
1951	04/11/23 20:40:00	5:25:00		12.93	330.25
1981	04/11/23 20:45:00	5:30:00		12.93	331.90
2011	04/11/23 20:50:00	5:35:00		12.94	333.64
2041	04/11/23 20:55:00	5:40:00		12.94	335.11
2071	04/11/23 21:00:00	5:45:00		12.94	336.49
2101	04/11/23 21:05:00	5:50:00		12.94	337.78
2131	04/11/23 21:10:00	5:55:00		12.94	339.25
2161	04/11/23 21:15:00	6:00:00		12.94	340.53
2191	04/11/23 21:20:00	6:05:00		12.95	341.82
2221	04/11/23 21:25:00	6:10:00		12.95	343.10
2251	04/11/23 21:30:00	6:15:00		12.95	344.39
2281	04/11/23 21:35:00	6:20:00		12.95	345.58
2311	04/11/23 21:40:00	6:25:00		12.95	346.96
2341	04/11/23 21:45:00	6:30:00		12.95	348.43
2371	04/11/23 21:50:00	6:35:00		12.95	349.90
2401	04/11/23 21:55:00	6:40:00		12.95	351.28
2431	04/11/23 22:00:00	6:45:00		12.96	352.56
2461	04/11/23 22:05:00	6:50:00		12.96	354.12
2491	04/11/23 22:10:00	6:55:00		12.97	355.77
2521	04/11/23 22:15:00	7:00:00		12.97	357.24
2551	04/11/23 22:20:00	7:05:00		12.97	358.43
2581	04/11/23 22:25:00	7:10:00		12.98	360.27
2611	04/11/23 22:30:00	7:15:00		12.99	361.64

Date: 04/11/23 18:40 to 04/11/23 22:30 Acc time: 3:25 to 7:15 Page 2

## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
2641	04/11/23	22:35:00	7:20:00	12.99	363.01
2671	04/11/23	22:40:00	7:25:00	12.99	364.85
2701	04/11/23	22:45:00	7:30:00	12.99	366.23
2731	04/11/23	22:50:00	7:35:00	12.99	367.51
2761	04/11/23	22:55:00	7:40:00	12.99	369.08
2791	04/11/23	23:00:00	7:45:00	13.00	370.18
2821	04/11/23	23:05:00	7:50:00	13.01	371.36
2851	04/11/23	23:10:00	7:55:00	13.01	372.92
2881	04/11/23	23:15:00	8:00:00	13.01	374.02
2911	04/11/23	23:20:00	8:05:00	13.02	375.39
2941	04/11/23	23:25:00	8:10:00	13.02	376.50
2971	04/11/23	23:30:00	8:15:00	13.03	377.87
3001	04/11/23	23:35:00	8:20:00	13.03	379.24
3031	04/11/23	23:40:00	8:25:00	13.04	380.53
3061	04/11/23	23:45:00	8:30:00	13.04	381.90
3091	04/11/23	23:50:00	8:35:00	13.04	383.38
3121	04/11/23	23:55:00	8:40:00	13.04	384.48
3151	04/11/24	00:00:00	8:45:00	13.06	385.84
3181	04/11/24	00:05:00	8:50:00	13.06	387.40
3211	04/11/24	00:10:00	8:55:00	13.07	388.86
3241	04/11/24	00:15:00	9:00:00	13.06	390.06
3271	04/11/24	00:20:00	9:05:00	13.01	390.67
3301	04/11/24	00:25:00	9:10:00	12.99	391.69
3331	04/11/24	00:30:00	9:15:00	12.99	393.17
3361	04/11/24	00:35:00	9:20:00	13.00	394.17
3391	04/11/24	00:40:00	9:25:00	13.00	395.27
3421	04/11/24	00:45:00	9:30:00	13.00	396.65
3451	04/11/24	00:50:00	9:35:00	13.01	397.84
3481	04/11/24	00:55:00	9:40:00	13.01	399.30
3511	04/11/24	01:00:00	9:45:00	13.02	400.68
3541	04/11/24	01:05:00	9:50:00	13.03	401.87
3571	04/11/24	01:10:00	9:55:00	13.03	403.71
3601	04/11/24	01:15:00	10:00:00	13.03	405.08
3631	04/11/24	01:20:00	10:05:00	13.04	406.64
3661	04/11/24	01:25:00	10:10:00	13.05	407.91
3691	04/11/24	01:30:00	10:15:00	13.05	409.65
3721	04/11/24	01:35:00	10:20:00	13.05	410.94
3751	04/11/24	01:40:00	10:25:00	13.06	412.31
3781	04/11/24	01:45:00	10:30:00	13.06	413.42
3811	04/11/24	01:50:00	10:35:00	13.06	415.25
3841	04/11/24	01:55:00	10:40:00	13.07	416.53
3871	04/11/24	02:00:00	10:45:00	13.07	417.73
3901	04/11/24	02:05:00	10:50:00	13.07	419.11
3931	04/11/24	02:10:00	10:55:00	13.07	420.39
3961	04/11/24	02:15:00	11:00:00	13.07	421.68
3991	04/11/24	02:20:00	11:05:00	13.07	422.97

Date: 04/11/23 22:30 to 04/11/24 02:20 Acc time: 7:15 to 11:05 Page 3

## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
4021	04/11/24 02:25:00	11:10:00		13.07	423.89
4051	04/11/24 02:30:00	11:15:00		13.07	424.99
4081	04/11/24 02:35:00	11:20:00		13.06	426.56
4111	04/11/24 02:40:00	11:25:00		13.07	427.66
4141	04/11/24 02:45:00	11:30:00		13.06	428.68
4171	04/11/24 02:50:00	11:35:00		13.06	429.87
4201	04/11/24 02:55:00	11:40:00		13.06	430.79
4231	04/11/24 03:00:00	11:45:00		13.07	432.25
4261	04/11/24 03:05:00	11:50:00		13.07	433.08
4291	04/11/24 03:10:00	11:55:00		13.07	434.27
4321	04/11/24 03:15:00	12:00:00		13.07	435.47
4351	04/11/24 03:20:00	12:05:00		13.07	436.30
4381	04/11/24 03:25:00	12:10:00		13.07	437.31
4411	04/11/24 03:30:00	12:15:00		13.07	438.13
4441	04/11/24 03:35:00	12:20:00		13.07	438.87
4471	04/11/24 03:40:00	12:25:00		13.07	439.97
4501	04/11/24 03:45:00	12:30:00		13.07	441.17
4531	04/11/24 03:50:00	12:35:00		13.07	442.18
4561	04/11/24 03:55:00	12:40:00		13.07	443.19
4591	04/11/24 04:00:00	12:45:00		13.07	444.29
4621	04/11/24 04:05:00	12:50:00		13.07	445.67
4651	04/11/24 04:10:00	12:55:00		13.07	446.78
4681	04/11/24 04:15:00	13:00:00		13.07	447.69
4711	04/11/24 04:20:00	13:05:00		13.07	448.80
4741	04/11/24 04:25:00	13:10:00		13.07	449.99
4771	04/11/24 04:30:00	13:15:00		13.08	451.27
4801	04/11/24 04:35:00	13:20:00		13.08	452.93
4831	04/11/24 04:40:00	13:25:00		13.08	453.94
4861	04/11/24 04:45:00	13:30:00		13.08	454.86
4891	04/11/24 04:50:00	13:35:00		13.07	456.43
4921	04/11/24 04:55:00	13:40:00		13.07	457.62
4951	04/11/24 05:00:00	13:45:00		13.07	459.00
4981	04/11/24 05:05:00	13:50:00		13.07	460.29
5011	04/11/24 05:10:00	13:55:00		13.07	461.67
5041	04/11/24 05:15:00	14:00:00		13.07	462.96
5071	04/11/24 05:20:00	14:05:00		13.07	463.78
5101	04/11/24 05:25:00	14:10:00		13.07	465.44
5131	04/11/24 05:30:00	14:15:00		13.07	466.54
5161	04/11/24 05:35:00	14:20:00		13.07	467.74
5191	04/11/24 05:40:00	14:25:00		13.08	468.83
5221	04/11/24 05:45:00	14:30:00		13.08	470.12
5251	04/11/24 05:50:00	14:35:00		13.08	471.04
5281	04/11/24 05:55:00	14:40:00		13.08	472.14
5311	04/11/24 06:00:00	14:45:00		13.08	473.43
5341	04/11/24 06:05:00	14:50:00		13.08	474.44
5371	04/11/24 06:10:00	14:55:00		13.08	475.91

Date: 04/11/24 02:20 to 04/11/24 06:10 Acc time: 11:05 to 14:55 Page 4

## VULCAN MINERALS INC. (FLAT BAY#2NEWFOUNDLAND)

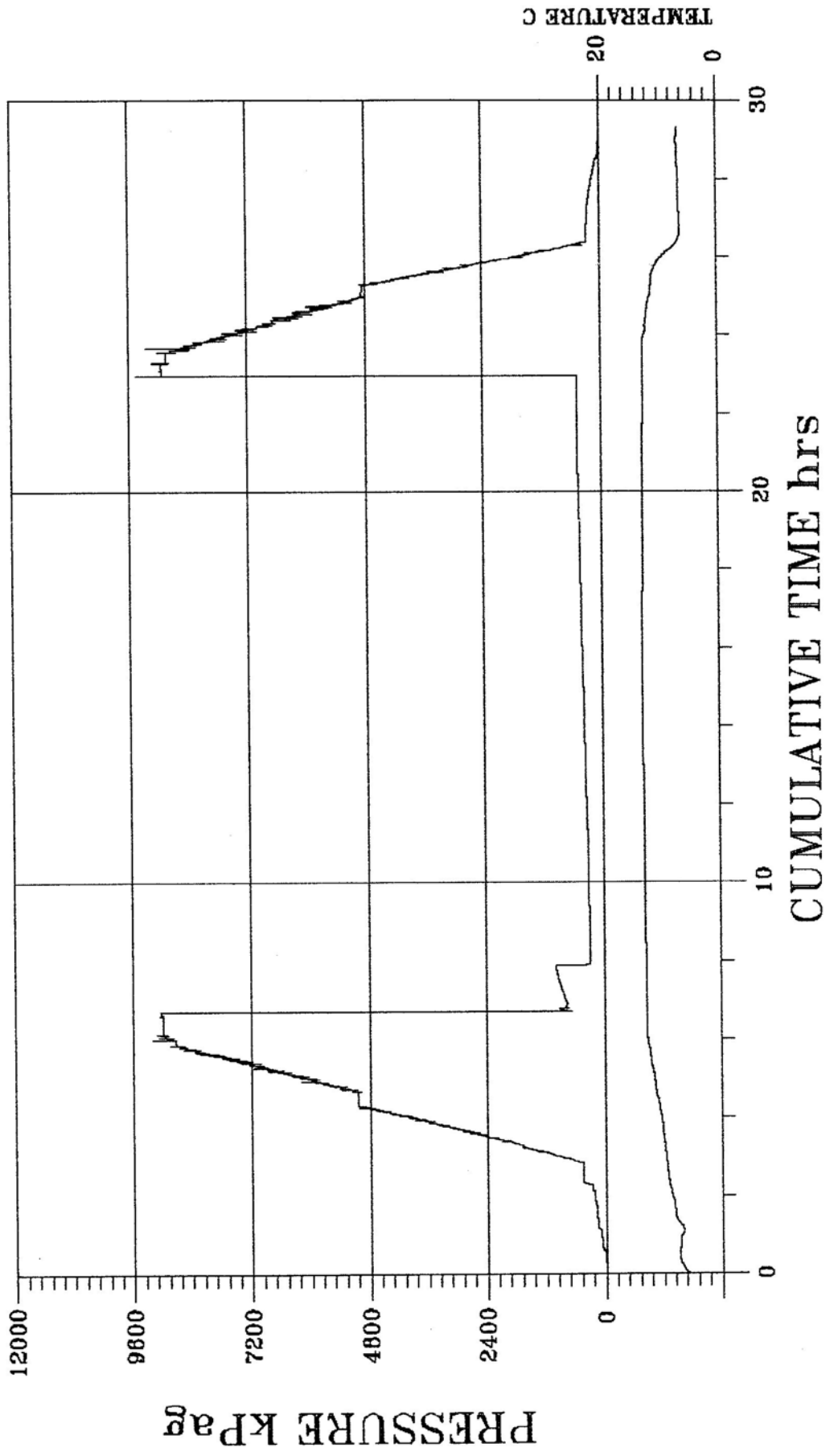
Item #	Date	Total Acc Time	Event Acc Time	Temp C	Pres kPag
5401	04/11/24	06:15:00	15:00:00	13.08	476.93
5431	04/11/24	06:20:00	15:05:00	13.08	478.03
5461	04/11/24	06:25:00	15:10:00	13.08	479.22
5491	04/11/24	06:30:00	15:15:00	13.08	480.42
5521	04/11/24	06:35:00	15:20:00	13.08	480.97
5551	04/11/24	06:40:00	15:25:00	13.08	482.17
5581	04/11/24	06:45:00	15:30:00	13.08	483.36
5611	04/11/24	06:50:00	15:35:00	13.08	484.28
5641	04/11/24	06:55:00	15:40:00	13.08	485.20
5671	04/11/24	07:00:00	15:45:00	13.07	486.31
5701	04/11/24	07:05:00	15:50:00	13.07	487.32
5731	04/11/24	07:10:00	15:55:00	13.07	488.42
5761	04/11/24	07:15:00	16:00:00	13.08	489.52
5791	04/11/24	07:20:00	16:05:00	13.08	490.26
5821	04/11/24	07:25:00	16:10:00	13.08	491.54
5851	04/11/24	07:30:00	16:15:00	13.08	492.56
5881	04/11/24	07:35:00	16:20:00	13.07	493.76
5911	04/11/24	07:40:00	16:25:00	12.99	8934.57
5941	04/11/24	07:45:00	16:30:00	12.99	8935.11
5971	04/11/24	07:50:00	16:35:00	13.02	8936.66
6001	04/11/24	07:55:00	16:40:00	13.02	8966.40
6031	04/11/24	08:00:00	16:45:00	13.00	8851.33

Recorders off bottom - 04/11/24 08:00:00

# VULCAN MINERALS INC.

## FLAT BAY # 2 (NEWFFOUNDLAND)

Probe: 20641  
Pressure vs Time  
By HOLLAND TESTERS LTD.



## **APPENDIX J: EMPLOYEE BENEFITS SUMMARY**

---

**Flat Bay #2  
Drilling Operations**

Week #	Residence		Total
	NL	Other	
1	6	3	9
2	3	3	6
3	10	3	13
4	3	3	6
5	4	3	7
6	3	3	6
7	5	6	11
8	3	3	6
9	3	8	11
10	4	4	8
	44	39	
	53%	47%	

8.3 Workers on site each week on average.

4.4 Residents of the Province

3.9 Non Residents

## **APPENDIX K: DAILY OPERATIONAL REPORTS**

---



WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>1</b>	DATE: <b>September 28, 2004</b>
DEPTH: <b>5 mKB</b>	PROGRESS: <b>6 m</b>	in <b>6</b> rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,993</b>	HOLE CND.:	WEATHER: <b>clear</b>
CUM COST: <b>\$3,993</b>	RIG / RIG #:	TOOLPUSH: <b>Craig Rose</b>
FORMATION: <b>Surface</b>	K.B. ELEV.: <b>2.8 m</b>	TEMP.: <b>12 deg C</b>
	ROADS:	T.P. MOBILE: <b>519 983 5988</b>

AFE # <b>03-002</b>	AFE \$ <b>\$662,400</b>
---------------------	-------------------------

BIT PERFORMANCE			SURVEYS		DRILLING FLUID		PUMPS		
Bit No.	1				Time		Pump No.	#1	#2
Size (mm)	311				Depth(m)		Make	G A	G A
Mfg.	Security				Density		Model		
Type	Insert				Mud Grad		Liner X Stk		
Serial #	348755				Vis		SPM		
Nozzles					PV		Pump Eff.	90%	90%
From (mKB)					YP		Pump Rate		m3/min
To (mKB)	6				Gels		Pump Press.		kPa
Hrs on Bit	6				pH		Drillpipe AV		m/min
WOB (daN)					WL (cc's)		Drillcollar AV		m/min
RPM	30				Filter Cake		Nozzle Vel		m/sec
Condition					Sand (%)				
Pulled For?					Solids (%)				
Meters	6				Oil (%)				
m/hr	1.0				Pf/Mf				
Cum Hrs					MBT				
					Cl (ppm)				
					Ca (ppm)				

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)		
Bit, Stabilizer		
BHA Length:	Hook Load:	daN DP size:
Avail WOB:	Jts DP Racks	DC Conn:
Jts DP in hole:	DP on Loc:	DP Conn:

DRILLING OPERATIONS TIME BREAKDOWN					VOLUMES M <sup>3</sup>		MUD & CHEMICALS	
RU / TO	3	Survey		Move Rig	Water added		Mud Daily Cost	
Drill Actual	6	Logging		Fishing	Losses		Mud Cum Cost	
Reaming	2	Run Casing	1	Direct. Drill				
Coring		Cementing		Rathole				
Rm Rathole		WOC		Safety Meeting				
Cond / Circ		NU BOP's		Mix mud				
Tripping		Test BOP's						
Lubricate Rig		Drill Out Cmt						
Repair Rig		DST						
Slip/Cut Line		Hndle Tools		Total Hrs				

<b>24 HOUR SUMMARY FOR THE DATE :</b> September 27, 2004 (0000 hrs-2400 hrs)
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Completed preparations to drill conductor hole. Held safety meeting prior to drilling. Made up 311mm tricone insert bit and drilled to 4 m using air. Rocks and sand falling in hole. Pull out and make up 215mm bit and air drill pilot hole to 8 m.(red shale/sand). Pull out and run in with 311mm bit and drill to 6 m. Pull out and run 340mm casing to 5 m. Shovel fill in hole around casing. Weld on 7" line to divert cuttings away from hole.

Planned operations for Sept 28: Drill conductor hole into bedrock.

WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>2</b>	DATE: <b>September 29, 2004</b>
DEPTH: <b>37.5 mKB</b>	PROGRESS: <b>33 m in 6</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,895</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Clear</b>
CUM COST: <b>\$5,888</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION: <b>Surface</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS:

AFE # <b>03-002</b>	AFE \$ <b>\$662,400</b>
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BIT PERFORMANCE			SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1				Time		Pump No.	
Size (mm)	311				Depth(m)		Make	
Mfg.	Security				Density		Model	
Type	Insert				Mud Grad		Liner X Stk	
Serial #	348755				Vis		SPM	
Nozzles					PV		Pump Eff.	
From (mKB)					YP		Pump Rate	m3/min
To (mKB)	37.5				Gels		Pump Press.	kPa
Hrs on Bit	12				pH		Drillpipe AV	m/min
WOB (daN)					WL (cc's)		Drillcollar AV	m/min
RPM	30				Filter Cake		Nozzle Vel	m/sec
Condition					Sand (%)			
Pulled For?					Solids (%)			
Meters	37.5				Oil (%)			
m/hr	3.1				Pf/Mf			
Cum Hrs					MBT			
					Cl (ppm)			
					Ca (ppm)			

**BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)**

Bit, Stabilizer	
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BHA Length:	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>-2</b>	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole: <b>2</b>	DP on Loc:	DP Conn: <b>2 7/8 IF</b>

**DRILLING OPERATIONS TIME BREAKDOWN**

RU / TO	Survey	Plug Back
Drill Actual <b>6</b>	Logging	Fishing
Reaming <b>4</b>	Run Casing	Work w/Pason
Coring	Cementing	Work Pipe
Rm Rathole	WOC	Mix LCM
Cond / Circ	NU BOP's	Safety meet
Tripping <b>2</b>	Test BOP's	Weld on Bowl
Lubricate Rig	Drill Out Cmt	BOP Drill
Repair Rig	DST	
Slip/Cut Line	Hndle Tools	Total Hrs <b>12</b>

**24 HOUR SUMMARY FOR THE DATE : September 28, 2004 (0000 hrs-2400 hrs)**

Run in hole with 311 mm insert tricone bit and air drill to 37.5 m . Very fine wet sand causing blooey line to plug. Worked pipe and continued Drilling to 37.5 m. Fine sand to TD. Pulled out of hole.

Planner operations for Sept 29: Continue drilling into bedrock.



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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>4</b>	DATE: <b>October 1, 2004</b>
DEPTH: <b>37.5 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Installing Pump drive.</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,605</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$11,033</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION: <b>MANNVILLE</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	
Size (mm)	311			Depth(m)		Make	
Mfg.	Security			Density		Model	
Type	Insert			Mud Grad		Liner X Stk	
Serial #	348755			Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)				YP		Pump Rate	m3/min
To (mKB)	37.5			Gels		Pump Press.	kPa
Hrs on Bit	12			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	30			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	37.5			Oil (%)			
m/hr	3.1			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

### MUD & CHEMICALS

Mud Cycle	#DIV/0! min
Bottoms Up	#DIV/0! min
Tanks	m3
Hole Volume	3 m3
System Vol.	3 m3
Mud & Chemicals Added:	
Mud Co.	
Mud Man	
Mud Up @	

### BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)

BHA Length:	Hook Load: <b>16,000</b> daN	DP size: <b>114</b> mm
Avail WOB:	Jts DP Racks <b>128</b>	DC Conn: <b>2 7/8</b> IF
Jts DP in hole: <b>2</b>	DP on Loc: <b>130</b>	DP Conn: <b>2 7/8</b> IF

### DRILLING OPERATIONS TIME BREAKDOWN

RU / TO	Survey	Plug Back
Drill Actual	Logging	Fishing
Reaming	Run Casing	Direct. Drill
Coring	Cementing	Work Pipe
Rm Rathole	WOC	Mix LCM
Cond / Circ	NU BOP's	Safety meet
Tripping	Test BOP's	Bop Drill
Lubricate Rig	Drill Out Cmt	
Repair Rig	DST	
Slip/Cut Line	Hndle Tools	Total Hrs

### 24 HOUR SUMMARY FOR THE DATE : September 30, 2004 (0000 hrs-2400 hrs)

Place temp mud tanks,tie in same and fill with water while waiting on gel. Complete welding and painting on mud tanks spot in position next to drill floor.

### VOLUMES M<sup>3</sup>

Water added	
Losses	

### WELL CONTROL

RSPP-SPM	
MACP(kPa)	
Calc Hole Fill	
Act Hole Fill	
Lst BOP Drill:	
Daylights	
Afternoons	

### SOLIDS CONTROL

Shaker Make	
Shaker Mesh	
Vol UF (l/min)	Desilter
U.F. (kg/m3)	Centrifuge
O.F. (kg/m3)	
Hours/Days	
Boiler Hrs:	(to 24:00)

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2A</b>				REPORT #: <b>5</b>		DATE: <b>October 2, 2004</b>			
DEPTH: <b>48.76 mKB</b>		PROGRESS: <b>11 m in</b>		2 rotating hours (last 24 hours)					
OPER 06:00: <b>Installing Pump drive.</b>				FOREMAN: <b>Bill Williams</b>		MOBILE NO.: <b>709 689 9673</b>			
DAILY COST: <b>\$1,460</b>		HOLE CND.: <b>GOOD</b>		WEATHER: <b>Over Cast</b>		TOOLPUSH: <b>Craig Rose</b>			
CUM COST: <b>\$12,493</b>		RIG / RIG #:		TEMP.: <b>11 deg C</b>		T.P. MOBILE: <b>519 983 5988</b>			
FORMATION: <b>MANNVILLE</b>		K.B. ELEV.: <b>2.8 m</b>		ROADS: <b>GOOD</b>					
				AFE # <b>03-002</b>		AFE \$ <b>\$662,400</b>			
<b>BIT PERFORMANCE</b>			<b>SURVEYS</b>		<b>DRILLING FLUID</b>		<b>PUMPS</b>		
Bit No.	<b>1</b>				Time		Pump No.		
Size (mm)	<b>311</b>				Depth(m)		Make		
Mfg.	<b>Security</b>				Density		Model		
Type	<b>Insert</b>				Mud Grad		Liner X Stk		
Serial #	<b>348755</b>				Vis		SPM		
Nozzles					PV		Pump Eff.		
From (mKB)					YP		Pump Rate	m3/min	
To (mKB)	<b>48.76</b>				Gels		Pump Press.	kPa	
Hrs on Bit	<b>12</b>				pH		Drillpipe AV	m/min	
WOB (daN)					WL (cc's)		Drillcollar AV	m/min	
RPM	<b>30</b>				Filter Cake		Nozzle Vel	m/sec	
Condition					Sand (%)		<b>MUD &amp; CHEMICALS</b>		
Pulled For?					Solids (%)		Mud Cycle	#DIV/0! min	
Meters	<b>48.76</b>				Oil (%)		Bottoms Up	#DIV/0! min	
m/hr	<b>4.1</b>				Pf/Mf		Tanks	50 m3	
Cum Hrs					MBT		Hole Volume	4 m3	
					Cl (ppm)		System Vol.	54 m3	
					Ca (ppm)		Mud & Chemicals Added:		
<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)									
BHA Length:		Hook Load: <b>16,000</b> daN		DP size: <b>114 mm</b>					
Avail WOB:		Jts DP Racks <b>128</b>		DC Conn: <b>2 7/8 IF</b>					
Jts DP in hole: <b>2</b>		DP on Loc: <b>130</b>		DP Conn: <b>2 7/8 IF</b>		<b>VOLUMES</b> M <sup>3</sup>			
<b>DRILLING OPERATIONS TIME BREAKDOWN</b>						Water added		Mud Daily Cost	
						Losses		Mud Cum Cost	
RU / TO		Survey		Plug Back		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Drill Actual	<b>2</b>	Logging		Fishing		RSPP-SPM		Shaker Make	
Reaming		Run Casing		Direct. Drill		MACP(kPa)		Shaker Mesh	
Coring		Cementing		Work Pipe	<b>1</b>	Calc Hole Fill		Vol UF (l/min)	Desilter
Rm Rathole		WOC		Mix LCM		Act Hole Fill		U.F. (kg/m3)	Centrifuge
Cond / Circ		NU BOP's		Safety meet		Lst BOP Drill:		O.F. (kg/m3)	
Tripping		Test BOPs		Bop Drill				Hours/Days	
Lubricate Rig		Drill Out Cmt		Repair pump	<b>1</b>				
Repair Rig		DST							
Slip/Cut Line		Hndle Tools		Total Hrs	<b>12</b>			Boiler Hrs:	(to 24:00)
<b>24 HOUR SUMMARY FOR THE DATE :</b> <b>October 1, 2004</b> (0000 hrs-2400 hrs)									
<p>Mix gel in temp tanks to 10:30 hrs. Run in hole staging in and circulating as required while displacing to gel water. 2-3 m of fill on bottom. Drilled ahead f/ 37.5 to 40m. Pulled back &amp; repaired washed line on mud pump. Ran in hole and reamed back to bottom. Drilled ahead f/40 - 48.8m. Formation hard. Circ bottoms up and pull out of hole to inspect bit.</p>									

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>6</b>	DATE: <b>October 3, 2004</b>
DEPTH: <b>57.3 mKB</b>	PROGRESS: <b>9 m in 2</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,360</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Clear</b>
CUM COST: <b>\$13,853</b>	RIG / RIG #:	TEMP.: <b>12 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	311			Depth(m)		Make	TSM
Mfg.	Security			Density		Model	500
Type	Insert			Mud Grad		Liner X Stk	140 X 406
Serial #	348755			Vis		SPM	65
Nozzles				PV		Pump Eff.	90%
From (mKB)				YP		Pump Rate	1.42 m3/min
To (mKB)	57.3			Gels		Pump Press.	6,000 kPa
Hrs on Bit	12			pH		Drillpipe AV	22 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	24 m/min
RPM	30			Filter Cake		Nozzle Vel	62 m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	57.3			Oil (%)			
m/hr	4.8			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

MUD & CHEMICALS	
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Mud Cycle	38 min
Bottoms Up	3 min
Tanks	50 m3
Hole Volume	4 m3
System Vol.	54 m3
Mud & Chemicals Added:	

BHA Length:	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:	DP Conn: <b>2 7/8 IF</b>

Mud Co.	
Mud Man	
Mud Up @	

VOLUMES <b>M<sup>3</sup></b>	
Water added	
Losses	

Mud Daily Cost	
Mud Cum Cost	

DRILLING OPERATIONS TIME BREAKDOWN		WELL CONTROL		SOLIDS CONTROL	
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RU / TO	Survey	Plug Back	RSPP-SPM	Shaker Make	Shaker Mesh
Drill Actual	2	Fishing	MACP(kPa)		
Reaming	3	Direct. Drill	Calc Hole Fill		
Coring		Work Pipe	Act Hole Fill	Vol UF (l/min)	Desilter
Rm Rathole		Mix LCM	Lst BOP Drill:	U.F. (kg/m3)	Centrifuge
Cond / Circ	3	Safety meet	Daylights	O.F. (kg/m3)	
Tripping	1	Bop Drill	Afternoons	Hours/Days	
Lubricate Rig				Boiler Hrs:	(to 24:00)
Repair Rig					
Slip/Cut Line					
		Total Hrs			
		12			

<b>24 HOUR SUMMARY FOR THE DATE :</b>	<b>October 2, 2004</b>	<b>(0000 hrs-2400 hrs)</b>
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Run in hole with same bit to 48.8 m. Drill to 57.3 m.using gel water.Formation hard since 40 m. Circulate to 1200 hrs. Pull out of hole. Held safety meeting and rigged up to run casing. Run shoe, 8 joints 9 5/8 casing to 46.9 m.Stick up 7.95 m Unable to pass. Attempted to circ and rotate casing down. Circulate to 1600 hrs.Wating delivery of cement. Pumped prelush 1 m3 H2O , 3 m3 class A cement 15.2 ppg. 3.7 ton, 100 % excess and displaced with 1.25 m3 H2o.Cement returns to surface.Clean up, shut down operations and wait on cement.Conductor shoe @ 46.9 m.mKB Security on site overnight.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>7</b>	DATE: <b>October 4, 2004</b>
DEPTH: <b>46.9 mKB</b>	PROGRESS: <b>-10 m in</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Installing Pump drive.</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,110</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$14,963</b>	RIG / RIG #:	TEMP.: <b>12 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE # 03-002 AFE \$ \$662,400

BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.						Time		Pump No.	# 1
Size (mm)						Depth(m)		Make	
Mfg.						Density		Model	
Type						Mud Grad		Liner X Stk	
Serial #						Vis		SPM	
Nozzles						PV		Pump Eff.	90%
From (mKB)						YP		Pump Rate	m3/min
To (mKB)						Gels		Pump Press.	kPa
Hrs on Bit						pH		Drillpipe AV	m/min
WOB (daN)						WL (cc's)		Drillcollar AV	m/min
RPM						Filter Cake		Nozzle Vel	m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?						Solids (%)		Mud Cycle	#DIV/0! min
Meters						Oil (%)		Bottoms Up	#DIV/0! min
m/hr						Pf/Mf		Tanks	50 m3
Cum Hrs						MBT		Hole Volume	m3
						Cl (ppm)		System Vol.	50 m3
						Ca (ppm)		Mud & Chemicals Added:	

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
BHA Length:	Hook Load:	16,000 daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	128	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	130	DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				
RU / TO	Survey		Plug Back	
Drill Actual	Logging		Fishing	
Reaming	Run Casing		Direct. Drill	
Coring	Cementing		Work Pipe	
Rm Rathole	WOC	12	Mix LCM	
Cond / Circ	NU BOP's		Safety meet	
Tripping	Test BOPs		Bop Drill	
Lubricate Rig	Drill Out Cmt			
Repair Rig	DST			
Slip/Cut Line	Hndle Tools		Total Hrs	12

VOLUMES M <sup>3</sup>		MUD DAILY COST	
Water added		Mud Daily Cost	
Losses		Mud Cum Cost	
WELL CONTROL		SOLIDS CONTROL	
RSPP-SPM		Shaker Make	
MACP(kPa)		Shaker Mesh	
Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Act Hole Fill		U.F. (kg/m3)	
Lst BOP Drill:		O.F. (kg/m3)	
Daylights		Hours/Days	
Afternoons		Boiler Hrs:	(to 24:00)

**24 HOUR SUMMARY FOR THE DATE :** October 3, 2004 (0000 hrs-2400 hrs)

Wait on cement.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>8</b>	DATE: <b>October 5, 2004</b>
DEPTH: <b>46.9 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Installing Pump drive.</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,505</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Clear</b>
CUM COST: <b>\$16,468</b>	RIG / RIG #:	TEMP.: <b>12 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE # **03-002** AFE \$ **\$662,400**

BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.						Time		Pump No.	<b># 1</b>
Size (mm)						Depth(m)		Make	
Mfg.						Density		Model	
Type						Mud Grad		Liner X Stk	
Serial #						Vis		SPM	
Nozzles						PV		Pump Eff.	
From (mKB)						YP		Pump Rate	m3/min
To (mKB)						Gels		Pump Press.	kPa
Hrs on Bit						pH		Drillpipe AV	m/min
WOB (daN)						WL (cc's)		Drillcollar AV	m/min
RPM						Filter Cake		Nozzle Vel	m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?						Solids (%)		Mud Cycle	#DIV/0! min
Meters						Oil (%)		Bottoms Up	#DIV/0! min
m/hr						Pf/Mf		Tanks	m3
Cum Hrs						MBT		Hole Volume	m3
						Cl (ppm)		System Vol.	m3
						Ca (ppm)		Mud & Chemicals Added:	

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)		
BHA Length:	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:	DP Conn: <b>2 7/8 IF</b>

DRILLING OPERATIONS TIME BREAKDOWN				
RU / TO	<b>12</b>	Survey	Plug Back	
Drill Actual		Logging	Fishing	
Reaming		Run Casing	Direct. Drill	
Coring		Cementing	Work Pipe	
Rm Rathole		WOC	Mix LCM	
Cond / Circ		NU BOP's	Safety meet	
Tripping		Test BOP's	Bop Drill	
Lubricate Rig		Drill Out Cmt		
Repair Rig		DST		
Slip/Cut Line		Hndle Tools	str	Total Hrs <b>12</b>

VOLUMES M <sup>3</sup>		SOLIDS CONTROL	
Water added		Shaker Make	
Losses		Shaker Mesh	
<b>WELL CONTROL</b>		Vol UF (l/min)	Desilter
RSPP-SPM		U.F. (kg/m3)	Centrifuge
MACP(kPa)		O.F. (kg/m3)	
Calc Hole Fill		Hours/Days	
Act Hole Fill		Boiler Hrs:	(to 24:00)
Lst BOP Drill:			
Daylights			
Afternoons			

**24 HOUR SUMMARY FOR THE DATE :** **October 4, 2004 (0000 hrs-2400 hrs)**

Pull 13 3/8 casing. Cut 9 5/8 casing and weld on flange. Nipple up diverter and rotating head. Spot accumulator building and string hoses. Rig up h2s alarms and string hoses. Start riging divertor line. Assemble PVT's.

Security on site overnight



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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>9</b>	DATE: <b>October 6, 2004</b>
DEPTH: <b>46.9 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,380</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$18,848</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.						Time		Pump No.	# 1
Size (mm)						Depth(m)		Make	
Mfg.						Density		Model	
Type						Mud Grad		Liner X Stk	
Serial #						Vis		SPM	
Nozzles						PV		Pump Eff.	
From (mKB)						YP		Pump Rate	m3/min
To (mKB)						Gels		Pump Press.	kPa
Hrs on Bit						pH		Drillpipe AV	m/min
WOB (daN)						WL (cc's)		Drillcollar AV	m/min
RPM						Filter Cake		Nozzle Vel	m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b> Mud Cycle #DIV/0! min Bottoms Up #DIV/0! min Tanks m3 Hole Volume m3 System Vol. m3 Mud & Chemicals Added:	
Pulled For?						Solids (%)			
Meters						Oil (%)			
m/hr						Pf/Mf			
Cum Hrs						MBT			
						Cl (ppm)			
						Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)		
BHA Length:	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:	DP Conn: <b>2 7/8 IF</b>
Mud Co. Mud Man Mud Up @		

<b>VOLUMES</b>	<b>M<sup>3</sup></b>	Mud Daily Cost
Water added		Mud Cum Cost
Losses		

DRILLING OPERATIONS TIME BREAKDOWN				WELL CONTROL		SOLIDS CONTROL	
RU / TO	12	Survey	Plug Back	RSPP-SPM		Shaker Make	
Drill Actual		Logging	Fishing	MACP(kPa)		Shaker Mesh	
Reaming		Run Casing	Direct. Drill	Calc Hole Fill		Vol UF (l/min)	Desilter
Coring		Cementing	Work Pipe	Act Hole Fill		U.F. (kg/m3)	Centrifuge
Rm Rathole		WOC	Mix LCM	Lst BOP Drill:		O.F. (kg/m3)	
Cond / Circ		NU BOP's	Safety meet	Daylights		Hours/Days	
Tripping		Test BOPs	Bop Drill	Afternoons		Boiler Hrs:	(to 24:00)
Lubricate Rig		Drill Out Cmt					
Repair Rig		DST					
Slip/Cut Line		Hndle Tools	Total Hrs				
			12				

**24 HOUR SUMMARY FOR THE DATE :** October 5, 2004 (0000 hrs-2400 hrs)

Weld on flanges to flow line and blooey line. Weld 2" suction in mud tank. Install stillwell in mud tank for PVT and assemble. Hook up hyd lines to divertor. Generator and light tower on site.

WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>10</b>	DATE: <b>October 7, 2004</b>
DEPTH: <b>46.9 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,030</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$20,878</b>	RIG / RIG #:	TEMP.: <b>2 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.						Time		Pump No.	# 1
Size (mm)						Depth(m)		Make	
Mfg.						Density		Model	
Type						Mud Grad		Liner X Stk	
Serial #						Vis		SPM	
Nozzles						PV		Pump Eff.	
From (mKB)						YP		Pump Rate	m3/min
To (mKB)						Gels		Pump Press.	kPa
Hrs on Bit						pH		Drillpipe AV	m/min
WOB (daN)						WL (cc's)		Drillcollar AV	m/min
RPM						Filter Cake		Nozzle Vel	m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?						Solids (%)		Mud Cycle	#DIV/0! min
Meters						Oil (%)		Bottoms Up	#DIV/0! min
m/hr						Pf/Mf		Tanks	m3
Cum Hrs						MBT		Hole Volume	m3
						Cl (ppm)		System Vol.	m3
						Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)		
BHA Length:	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:	DP Conn: <b>2 7/8 IF</b>

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>				<b>VOLUMES</b> M <sup>3</sup>	
RU / TO	12	Survey	Plug Back	Water added	
Drill Actual		Logging	Fishing	Losses	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM	
Rm Rathole		WOC	Mix LCM	MACP(kPa)	
Cond / Circ		NU BOP's	Safety meet	Calc Hole Fill	
Tripping		Test BOP's	Bop Drill	Act Hole Fill	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:	
Repair Rig		DST		Daylights	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons	
			<b>12</b>	<b>SOLIDS CONTROL</b>	
				Shaker Make	
				Shaker Mesh	
				Vol UF (l/min)	Desilter
				U.F. (kg/m3)	Centrifuge
				O.F. (kg/m3)	
				Hours/Days	
				Boiler Hrs:	(to 24:00)

**24 HOUR SUMMARY FOR THE DATE :** October 6, 2004 (0000 hrs-2400 hrs)

Complete welding on blooey line and flow line. Install sample catcher on blooey line. Install base for trip tank. Weld on flange for 6' valve on mud tank. Weld handrails. Hook up power to accm unit and doghouse. Work on programming PVT system

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2A</b>	REPORT #: <b>11</b>	DATE: <b>October 8, 2004</b>
DEPTH: <b>46.9 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,030</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$22,808</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.						Time		Pump No.	# 1
Size (mm)						Depth(m)		Make	
Mfg.						Density		Model	
Type						Mud Grad		Liner X Stk	
Serial #						Vis		SPM	
Nozzles						PV		Pump Eff.	
From (mKB)						YP		Pump Rate	m3/min
To (mKB)						Gels		Pump Press.	kPa
Hrs on Bit						pH		Drillpipe AV	m/min
WOB (daN)						WL (cc's)		Drillcollar AV	m/min
RPM						Filter Cake		Nozzle Vel	m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?						Solids (%)			
Meters						Oil (%)		Mud Cycle	#DIV/0! min
m/hr						Pf/Mf		Bottoms Up	#DIV/0! min
Cum Hrs						MBT		Tanks	m3
						Cl (ppm)		Hole Volume	m3
						Ca (ppm)		System Vol.	m3

<b>BOTTOMHOLE ASSEMBLY</b>	(No., Item, OD, ID, TJ Type)
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BHA Length:	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:	DP Conn: <b>2 7/8 IF</b>

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>	<b>VOLUMES</b>	<b>M<sup>3</sup></b>
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DRILLING OPERATIONS TIME BREAKDOWN				WELL CONTROL		SOLIDS CONTROL	
RU / TO	Survey	Plug Back		Water added		Shaker Make	
Drill Actual	Logging	Fishing		Losses		Shaker Mesh	
Reaming	Run Casing	Direct. Drill		RSPP-SPM		Vol UF (l/min)	
Coring	Cementing	Work Pipe		MACP(kPa)		U.F. (kg/m3)	
Rm Rathole	WOC	Mix LCM		Calc Hole Fill		O.F. (kg/m3)	
Cond / Circ	NU BOP's	Safety meet		Act Hole Fill		Hours/Days	
Tripping	Test BOPs	Bop Drill		Lst BOP Drill:		Boiler Hrs:	(to 24:00)
Lubricate Rig	Drill Out Cmt			Daylights			
Repair Rig	DST			Afternoons			
Slip/Cut Line	Hndle Tools	Total Hrs					

<b>24 HOUR SUMMARY FOR THE DATE :</b>	<b>October 7, 2004</b>	<b>(0000 hrs-2400 hrs)</b>
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Offload 200 bbl tank. Charge up accm unit and function test divertor. Close 8 secs. Work on programming PVT system. Install equalization valve in mud tank. Install mud mixing pump and motor. Make up blooey line for degasser (4 1/2 " casing) Fill mud settling tanks with water.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>12</b>	DATE: <b>October 9, 2004</b>
DEPTH: <b>50 mKB</b>	PROGRESS: <b>3 m in 1</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,030</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$27,438</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	Drillmaster			Density		Model	
Type	Hammer			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	46.9			YP		Pump Rate	m3/min
To (mKB)	50			Gels		Pump Press.	kPa
Hrs on Bit	1			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	20			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	3.1			Oil (%)			
m/hr	3.1			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

### MUD & CHEMICALS

Mud Cycle	#DIV/0! min
Bottoms Up	#DIV/0! min
Tanks	30 m3
Hole Volume	2 m3
System Vol.	32 m3
Mud & Chemicals Added:	

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)	
Bit .10m, Hammer 1 m, Stabilizer. 7.52 m	
BHA Length: <b>8.62</b>	Hook Load: daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc: DP Conn: <b>2 7/8 IF</b>

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>		<b>VOLUMES M<sup>3</sup></b>	
Water added		Mud Daily Cost	\$900
Losses		Mud Cum Cost	\$2,400

DRILLING OPERATIONS TIME BREAKDOWN		WELL CONTROL		SOLIDS CONTROL	
RU / TO	10	RSPP-SPM		Shaker Make	
Drill Actual	1	MACP(kPa)		Shaker Mesh	
Reaming		Calc Hole Fill		Vol UF (l/min)	
Coring		Act Hole Fill		U.F. (kg/m3)	
Rm Rathole		Lst BOP Drill:		O.F. (kg/m3)	
Cond / Circ	1	Daylights		Hours/Days	
Tripping		Afternoons		Boiler Hrs:	(to 24:00)
Lubricate Rig					
Repair Rig					
Slip/Cut Line					

### 24 HOUR SUMMARY FOR THE DATE : October 8, 2004 (0000 hrs-2400 hrs)

Complete programming for PVT system. Complete electrical hook up of mixing pump. Complete rig inspection prior to spud. Held pre spud safety meeting with crew. Make up bit, hammer and stabilizer and run in hole to 40 m. Displaced hole to air. Tag cement @ 43 m. Drilled cement and shoe F/ 43 m to 46.9 m. Drilled 216 mm hole to 50 m. Sand and gravel in returns. Pulled back to 45 m. 20,000 overpull @ shoe. Circulate. Estimate 5 gal water per minute returns. In consultation with operator, decided to drill with gel water. Wait on arrival of contractor mud pump, expected @ oct 11.

Security on site night shift. Daily checks by Craig Rose.

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>13</b>	DATE: <b>October 10, 2004</b>
DEPTH: <b>50 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,715</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$31,898</b>	RIG / RIG #:	TEMP.: <b>2 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

<b>AFE #</b>	<b>AFE \$</b>
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	TSM
Mfg.	Drillmaster			Density		Model	500
Type	Hammer			Mud Grad		Liner X Stk	140 X 406
Serial #				Vis		SPM	65
Nozzles				PV		Pump Eff.	90%
From (mKB)	46.9			YP		Pump Rate	1.42 m3/min
To (mKB)	50			Gels		Pump Press.	6,000 kPa
Hrs on Bit	1			pH		Drillpipe AV	50 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	74 m/min
RPM	20			Filter Cake		Nozzle Vel	62 m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters				Oil (%)			
m/hr				Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

**BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)**

Bit .10m, Hammer 1 m, Stabilizer. 7.52 m		
BHA Length:	Hook Load:	daN DP size: <b>102 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>4 XH</b>
Jts DP in hole: <b>2</b>	DP on Loc: <b>130</b>	DP Conn: <b>4 FH</b>

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>	<b>VOLUMES M<sup>3</sup></b>	<b>MUD &amp; CHEMICALS</b>
Water added		Mud Cycle <b>37 min</b>
Losses		Bottoms Up <b>1 min</b>
		Tanks <b>50 m3</b>
		Hole Volume <b>2 m3</b>
		System Vol. <b>52 m3</b>

DRILLING OPERATIONS TIME BREAKDOWN				WELL CONTROL		SOLIDS CONTROL	
RU / TO	Survey	Plug Back		RSPP-SPM		Shaker Make	
Drill Actual	Logging	Fishing		MACP(kPa)		Shaker Mesh	
Reaming	Run Casing	Direct. Drill		Calc Hole Fill		Vol UF (l/min)	Desilter
Coring	Cementing	Work Pipe		Act Hole Fill		U.F. (kg/m3)	Centrifuge
Rm Rathole	WOC	Mix LCM		Lst BOP Drill:		O.F. (kg/m3)	
Cond / Circ	NU BOP's	Safety meet		Daylights		Hours/Days	
Tripping	Test BOPs	Bop Drill		Afternoons		Boiler Hrs:	(to 24:00)
Lubricate Rig	Drill Out Cmt						
Repair Rig	DST						
Slip/Cut Line	Hndle Tools	Total Hrs					

**24 HOUR SUMMARY FOR THE DATE : October 9, 2004 (0000 hrs-2400 hrs)**

Wait on mud pump.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>14</b>	DATE: <b>October 11, 2004</b>
DEPTH: <b>50 mKB</b>	PROGRESS: <b>3 m in 1</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$915</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$30,068</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	Drillmaster			Density		Model	
Type	Hammer			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	46.9			YP		Pump Rate	m3/min
To (mKB)	50			Gels		Pump Press.	kPa
Hrs on Bit	1			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	20			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	3.1			Oil (%)			
m/hr	3.1			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)		
Bit .10m, Hammer 1 m, Stabilizer. 7.52 m		
BHA Length: <b>8.62</b>	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:	DP Conn: <b>2 7/8 IF</b>

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD & CHEMICALS	
RU / TO	10	Survey	Plug Back	Water added		Mud Cycle	#DIV/0! min
Drill Actual	1	Logging	Fishing	Losses		Bottoms Up	#DIV/0! min
Reaming		Run Casing	Direct. Drill			Tanks	30 m3
Coring		Cementing	Work Pipe			Hole Volume	2 m3
Rm Rathole		WOC	Mix LCM			System Vol.	32 m3
Cond / Circ	1	NU BOP's	Safety meet				
Tripping		Test BOPs	Bop Drill				
Lubricate Rig		Drill Out Cmt					
Repair Rig		DST					
Slip/Cut Line		Hndle Tools	Total Hrs				
			12				

**24 HOUR SUMMARY FOR THE DATE :** October 10, 2004 (0000 hrs-2400 hrs)

Wait on mud pump.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>15</b>	DATE: <b>October 12, 2004</b>
DEPTH: <b>50 mKB</b>	PROGRESS: <b>3 m in 1</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$915</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$30,068</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	Drillmaster			Density		Model	
Type	Hammer			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	46.9			YP		Pump Rate	m3/min
To (mKB)	50			Gels		Pump Press.	kPa
Hrs on Bit	1			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	20			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	3.1			Oil (%)			
m/hr	3.1			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)		
Bit .10m, Hammer 1 m, Stabilizer. 7.52 m		
BHA Length: <b>8.62</b>	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:	DP Conn: <b>2 7/8 IF</b>

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD & CHEMICALS	
RU / TO	10	Survey	Plug Back	Water added		Mud Daily Cost	\$900
Drill Actual	1	Logging	Fishing	Losses		Mud Cum Cost	\$2,400
Reaming		Run Casing	Direct. Drill				
Coring		Cementing	Work Pipe				
Rm Rathole		WOC	Mix LCM				
Cond / Circ	1	NU BOP's	Safety meet				
Tripping		Test BOPs	Bop Drill				
Lubricate Rig		Drill Out Cmt					
Repair Rig		DST					
Slip/Cut Line		Hndle Tools	Total Hrs				
			<b>12</b>				

**24 HOUR SUMMARY FOR THE DATE :** October 11, 2004 (0000 hrs-2400 hrs)

Wait on mud pump.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>16</b>	DATE: <b>October 13, 2004</b>
DEPTH: <b>50 mKB</b>	PROGRESS: <b>3 m in 1</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$915</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$31,898</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	Drillmaster			Density		Model	
Type	Hammer			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	46.9			YP		Pump Rate	m3/min
To (mKB)	50			Gels		Pump Press.	kPa
Hrs on Bit	1			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	20			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	3.1			Oil (%)			
m/hr	3.1			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

### MUD & CHEMICALS

Mud Cycle	#DIV/0! min
Bottoms Up	#DIV/0! min
Tanks	30 m3
Hole Volume	2 m3
System Vol.	32 m3
Mud & Chemicals Added:	

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)	
Bit .10m, Hammer 1 m, Stabilizer. 7.52 m	
BHA Length: <b>8.62</b>	Hook Load:      daN    DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks      DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:      DP Conn: <b>2 7/8 IF</b>

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>		<b>VOLUMES M<sup>3</sup></b>	
Water added		Mud Daily Cost	\$900
Losses		Mud Cum Cost	\$2,400

WELL CONTROL		SOLIDS CONTROL	
RSPP-SPM		Shaker Make	
MACP(kPa)		Shaker Mesh	
Calc Hole Fill		Vol UF (l/min)	Desilter      Centrifuge
Act Hole Fill		U.F. (kg/m3)	
Lst BOP Drill:		O.F. (kg/m3)	
Daylights		Hours/Days	
Afternoons		Boiler Hrs:	(to 24:00)

### 24 HOUR SUMMARY FOR THE DATE :      October 12, 2004      (0000 hrs-2400 hrs)

Wait on mud pump.



# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>17</b>	DATE: <b>October 14, 2004</b>
DEPTH: <b>50 mKB</b>	PROGRESS: <b>3 m in 1</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$915</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$32,813</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	Drillmaster			Density		Model	
Type	Hammer			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	46.9			YP		Pump Rate	m3/min
To (mKB)	50			Gels		Pump Press.	kPa
Hrs on Bit	1			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	20			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	3.1			Oil (%)			
m/hr	3.1			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

### MUD & CHEMICALS

Mud Cycle	#DIV/0! min
Bottoms Up	#DIV/0! min
Tanks	30 m3
Hole Volume	2 m3
System Vol.	32 m3
Mud & Chemicals Added:	
Mud Co.	
Mud Man	
Mud Up @	

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)	
Bit .10m, Hammer 1 m, Stabilizer. 7.52 m	
BHA Length: <b>8.62</b>	Hook Load: daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc: DP Conn: <b>2 7/8 IF</b>

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>		<b>VOLUMES M<sup>3</sup></b>	
RU / TO	10	Water added	
Drill Actual	1	Losses	
Reaming		Mud Daily Cost	\$900
Coring		Mud Cum Cost	\$2,400

WELL CONTROL		SOLIDS CONTROL	
RSPP-SPM		Shaker Make	
MACP(kPa)		Shaker Mesh	
Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Act Hole Fill		U.F. (kg/m3)	
Lst BOP Drill:		O.F. (kg/m3)	
Daylights		Hours/Days	
Afternoons		Boiler Hrs:	(to 24:00)

### 24 HOUR SUMMARY FOR THE DATE : October 13, 2004 (0000 hrs-2400 hrs)

Wait on mud pump.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>18</b>	DATE: <b>October 15, 2004</b>
DEPTH: <b>50 mKB</b>	PROGRESS: <b>3 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,315</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Over Cast</b>
CUM COST: <b>\$34,128</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	Drillmaster			Density		Model	
Type	Hammer			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	46.9			YP		Pump Rate	m3/min
To (mKB)	50			Gels		Pump Press.	kPa
Hrs on Bit	1			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	20			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	3.1			Oil (%)			
m/hr	3.1			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)		
Bit .10m, Hammer 1 m, Stabilizer. 7.52 m		
BHA Length: <b>8.62</b>	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc:	DP Conn: <b>2 7/8 IF</b>

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD & CHEMICALS	
RU / TO	10	Survey	Plug Back	Water added		Mud Cycle	#DIV/0! min
Drill Actual		Logging	Fishing	Losses		Bottoms Up	#DIV/0! min
Reaming		Run Casing	Direct. Drill			Tanks	30 m3
Coring		Cementing	Work Pipe			Hole Volume	2 m3
Rm Rathole		WOC	Mix LCM			System Vol.	32 m3
Cond / Circ		NU BOP's	Safety meet				
Tripping		Test BOPs	Bop Drill				
Lubricate Rig		Drill Out Cmt					
Repair Rig		DST					
Slip/Cut Line		Hndle Tools	Total Hrs				
			<b>10</b>				

**24 HOUR SUMMARY FOR THE DATE :** October 14, 2004 (0000 hrs-2400 hrs)

Offload mud pump and casing from wellmaster. Spot pump and rig up suction and discharge lines



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# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>20</b>	DATE: <b>October 17, 2004</b>
DEPTH: <b>61.5 mKB</b>	PROGRESS: <b>15 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,745</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Clear</b>
CUM COST: <b>\$39,743</b>	RIG / RIG #:	TEMP.: <b>12 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	security			Density		Model	
Type	insert			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	50			YP		Pump Rate	m3/min
To (mKB)	65			Gels		Pump Press.	kPa
Hrs on Bit	5			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	50			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	15			Oil (%)			
m/hr	3.0			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

### MUD & CHEMICALS

Mud Cycle	#DIV/0! min
Bottoms Up	#DIV/0! min
Tanks	30 m3
Hole Volume	2 m3
System Vol.	32 m3
Mud & Chemicals Added:	

### BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)

Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m

BHA Length: <b>8.02</b>	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>137</b>	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole: <b>7</b>	DP on Loc: <b>144</b>	DP Conn: <b>2 7/8 IF</b>

### DRILLING OPERATIONS TIME BREAKDOWN

RU / TO	2	Survey	Plug Back	
Drill Actual		Logging	Fishing	
Reaming		Run Casing	Direct. Drill	
Coring		Cementing	Work Pipe	
Rm Rathole		WOC	Mix LCM	
Cond / Circ	1	NU BOP's	Safety meet	
Tripping	3	Test BOP's	Bop Drill	
Lubricate Rig		Drill Out Cmt		
Repair Rig		DST		
Slip/Cut Line		Hndle Tools	Total Hrs	<b>6</b>

### 24 HOUR SUMMARY FOR THE DATE : October 16, 2004 (0000 hrs-2400 hrs)

Run in hole to 65.5 m. No fill. Circulate hole clean. Pull out of hole and lay down stabilizer and bit. Run in hole open ended to 53 m. Rig up to cement. Pump .5 m3 H2o preflush and 3.75 m3 class A cement 15.3 ppg. Closing divertor and squeezeing @ 2m3 around shoe. Pull out of hole and clean up equipment to 1400 hrs. Wait on cement.

Water added		Mud Daily Cost	\$900
Losses		Mud Cum Cost	\$2,400

### WELL CONTROL

RSPP-SPM		Shaker Make	
MACP(kPa)		Shaker Mesh	
Calc Hole Fill		Vol UF (l/min)	Desilter
Act Hole Fill		U.F. (kg/m3)	Centrifuge
Lst BOP Drill:		O.F. (kg/m3)	
Daylights		Hours/Days	
Afternoons		Boiler Hrs:	(to 24:00)

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>21</b>	DATE: <b>October 18, 2004</b>
DEPTH: <b>61.5 mKB</b>	PROGRESS: <b>15 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,620</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Clear</b>
CUM COST: <b>\$41,363</b>	RIG / RIG #:	TEMP.: <b>12 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	security			Density		Model	
Type	insert			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	50			YP		Pump Rate	m3/min
To (mKB)	65			Gels		Pump Press.	kPa
Hrs on Bit	5			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	50			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	15			Oil (%)			
m/hr	3.0			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			MUD & CHEMICALS	
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			Mud Cycle	#DIV/0! min
BHA Length: 8.02			Bottoms Up	#DIV/0! min
Avail WOB:			Tanks	30 m3
Jts DP in hole: 7			Hole Volume	2 m3
DP on Loc: 144			System Vol.	32 m3
Hook Load:			Mud & Chemicals Added:	
daN DP size: 114 mm				
Jts DP Racks 137				
DC Conn: 2 7/8 IF				
DP Conn: 2 7/8 IF				

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD COST	
RU / TO	2	Survey	Plug Back	Water added		Mud Daily Cost	\$900
Drill Actual		Logging	Fishing	Losses		Mud Cum Cost	\$2,400
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ	1	NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	3	Test BOPs	Bop Drill	Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)
			6				

**24 HOUR SUMMARY FOR THE DATE :** October 17, 2004 (0000 hrs-2400 hrs)

Wait on cement

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>22</b>	DATE: <b>October 19, 2004</b>
DEPTH: <b>61.5 mKB</b>	PROGRESS: <b>15 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,695</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Clear</b>
CUM COST: <b>\$43,058</b>	RIG / RIG #:	TEMP.: <b>12 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	
Mfg.	security			Density		Model	
Type	insert			Mud Grad		Liner X Stk	
Serial #				Vis		SPM	
Nozzles				PV		Pump Eff.	
From (mKB)	50			YP		Pump Rate	m3/min
To (mKB)	65			Gels		Pump Press.	kPa
Hrs on Bit	5			pH		Drillpipe AV	m/min
WOB (daN)				WL (cc's)		Drillcollar AV	m/min
RPM	50			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	15			Oil (%)			
m/hr	3.0			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	8.02	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	137 DC Conn: 2 7/8 IF
Jts DP in hole:	7	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN			
RU / TO	2	Survey	Plug Back
Drill Actual		Logging	Fishing
Reaming		Run Casing	Direct. Drill
Coring		Cementing	Work Pipe
Rm Rathole		WOC	Mix LCM
Cond / Circ	1	NU BOP's	Safety meet
Tripping	3	Test BOPs	Bop Drill
Lubricate Rig		Drill Out Cmt	
Repair Rig		DST	
Slip/Cut Line		Hndle Tools	Total Hrs
			6

**24 HOUR SUMMARY FOR THE DATE :** October 18, 2004 (0000 hrs-2400 hrs)

Run in hole to 20 m. Circulate and mix water in mud. Drill cement to 53 m. Pull up to shoe and displace hole to air. 5 to 10 gal / min water in returns. Pull out of hole and lay out bit and stabilizer. Make up 165 mm bit and stabilizer and ran in hole to 65 m. Displace hole to gel water and drill 165 mm pilot hole to 69 m. (Red claystone). Pull out of hole to shoe and flow check to 1830 hrs.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>23</b>	DATE: <b>October 20, 2004</b>
DEPTH: <b>125.5 mKB</b>	PROGRESS: <b>79 m in 10</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,695</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$44,753</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

<b>AFE #</b>	<b>AFE \$</b>
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	2			Time		Pump No.	# 1
Size (mm)	165			Depth(m)		Make	GD
Mfg.	security			Density		Model	PY 7
Type	insert			Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	65			YP		Pump Rate	0.49 m3/min
To (mKB)	121			Gels		Pump Press.	3,500 kPa
Hrs on Bit	10			pH		Drillpipe AV	44 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	44 m/min
RPM	70			Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	56			Oil (%)			
m/hr	5.6			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

MUD & CHEMICALS	
Mud Cycle	78 min
Bottoms Up	3 min
Tanks	35 m3
Hole Volume	3 m3
System Vol.	38 m3

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)	
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m	

BHA Length: <b>8.02</b>	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>129</b>	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole: <b>15</b>	DP on Loc: <b>144</b>	DP Conn: <b>2 7/8 IF</b>

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>		Mud Co.
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m		Mud Man
		Mud Up @

<b>VOLUMES M<sup>3</sup></b>	
Water added	
Losses	

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>		Mud Daily Cost
		Mud Cum Cost

WELL CONTROL		SOLIDS CONTROL	
RSPP-SPM		Shaker Make	
MACP(kPa)		Shaker Mesh	
Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Act Hole Fill		U.F. (kg/m3)	
Lst BOP Drill:		O.F. (kg/m3)	
Daylights		Hours/Days	
Afternoons		Boiler Hrs:	(to 24:00)

RU / TO		Survey		Plug Back	
Drill Actual	10	Logging		Fishing	
Reaming		Run Casing		Direct. Drill	
Coring		Cementing		Work Pipe	
Rm Rathole		WOC		Mix LCM	
Cond / Circ		NU BOP's		Safety meet	
Tripping	1	Test BOP's		Bop Drill	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Slip/Cut Line		Hndle Tools		Total Hrs	11

<b>24 HOUR SUMMARY FOR THE DATE :</b>					
October 19, 2004 (0000 hrs-2400 hrs)					

Run in hole to 69 m. Drill 165 mm pilot hole from 69 m to 125.5 m.(Red-grey claystone). Flow check,pull out of hole to 75 m. Shut down operations for night @ 1830hrs. Wellsite supervisor on site overnight.

Planned. Drill ahead to competent formation(anhydrite??), pull out and ream hole to 216 mm.with gel water.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>24</b>	DATE: <b>October 21, 2004</b>
DEPTH: <b>175 mKB</b>	PROGRESS: <b>50 m in 7</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,140</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$46,893</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	2			Time		Pump No.	# 1
Size (mm)	165			Depth(m)		Make	GD
Mfg.	security			Density		Model	PY 7
Type	insert			Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	65			YP		Pump Rate	0.49 m3/min
To (mKB)	175			Gels		Pump Press.	3,500 kPa
Hrs on Bit	17			pH		Drillpipe AV	44 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	44 m/min
RPM	70			Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	80 min
Meters	110			Oil (%)		Bottoms Up	4 min
m/hr	6.5			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	4 m3
				Cl (ppm)		System Vol.	39 m3
				Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length: 8.02	Hook Load:	daN DP size: 114 mm	
Avail WOB:	Jts DP Racks 122	DC Conn: 2 7/8 IF	
Jts DP in hole: 22	DP on Loc: 144	DP Conn: 2 7/8 IF	

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO		Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual	7	Logging	Fishing	Losses		Mud Cum Cost	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ	2	NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	2	Test BOP's	Bop Drill	Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs 11	Afternoons		Boiler Hrs:	(to 24:00)

**24 HOUR SUMMARY FOR THE DATE :** October 20, 2004 (0000 hrs-2400 hrs)

Run in hole to 125.5 m. Drill 165 mm pilot hole from 125.5 m to 155 m. Lost circulation @ 155 m, (3 m3). Mixed 2 bags sawdust and 1 bag cellulflake. Regained circulation and drilled to 175 m. (Claystone with minor anhydrite) Lost circulation. Attempted to restore circulation. No success. Total losses 20 m3. Pulled out of hole to Shoe. 30,000 lbs overpull. Suspect sand/gravel falling into well from around shoe. Shut down operations for night @ 1830hrs.

Planned. Run in hole upenended, mix LCM and attempt to regain circulation.



# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay 2A</b>	REPORT #: <b>25</b>	DATE: <b>October 22, 2004</b>
DEPTH: <b>175 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,140</b>	HOLE CND.: <b>GOOD</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$46,893</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	2			Time		Pump No.	# 1
Size (mm)	165			Depth(m)		Make	GD
Mfg.	security			Density		Model	PY 7
Type	insert			Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	65			YP		Pump Rate	0.49 m3/min
To (mKB)	175			Gels		Pump Press.	3,500 kPa
Hrs on Bit	17			pH		Drillpipe AV	44 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	44 m/min
RPM	70			Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	80 min
Meters	110			Oil (%)		Bottoms Up	4 min
m/hr	6.5			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	4 m3
				Cl (ppm)		System Vol.	39 m3
				Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	8.02	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	122 DC Conn: 2 7/8 IF
Jts DP in hole:	22	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	3	Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual		Logging	Fishing	Losses		Mud Cum Cost	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ	2	NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	2	Test BOP's	Bop Drill	Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)

**24 HOUR SUMMARY FOR THE DATE :** October 21, 2004 (0000 hrs-2400 hrs)

Pull out of hole and layout stabilizer and bit. Run in hole opened. Unable to pass below shoe. Pull out of hole, make up 165mm bit and run in hole to shoe. Ream to 61 m. No returns. Pull up to shoe and mix LCM. Regain circulation with full returns. Pull out of hole @ 1500 hrs. Prepare to move rig @ 7 m West.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>26</b>	DATE: <b>October 23, 2004</b>
DEPTH: <b>mKB</b>	PROGRESS: <b>-175 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$4,090</b>	WEATHER: <b>Sunny</b>	TOOLPUSH: <b>Craig Rose</b>
CUM COST: <b>\$50,983</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	T.P. MOBILE: <b>519 983 5988</b>
	ROADS: <b>GOOD</b>	

AFE #	AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.						Time		Pump No.	# 1
Size (mm)						Depth(m)		Make	GD
Mfg.						Density		Model	PY 7
Type						Mud Grad		Liner X Stk	6 x 7
Serial #						Vis		SPM	60
Nozzles						PV		Pump Eff.	90%
From (mKB)						YP		Pump Rate	0.49 m3/min
To (mKB)						Gels		Pump Press.	3,500 kPa
Hrs on Bit						pH		Drillpipe AV	-48 m/min
WOB (daN)						WL (cc's)		Drillcollar AV	-48 m/min
RPM						Filter Cake		Nozzle Vel	21 m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?						Solids (%)			
Meters						Oil (%)		Mud Cycle	min
m/hr	#DIV/0!					Pf/Mf		Bottoms Up	min
Cum Hrs						MBT		Tanks	m3
						Cl (ppm)		Hole Volume	m3
						Ca (ppm)		System Vol.	m3

<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m

BHA Length:	Hook Load:	daN	DP size:	114 mm	
Avail WOB:	Jts DP Racks	122	DC Conn:	2 7/8 IF	
Jts DP in hole:	22	DP on Loc:	144	DP Conn:	2 7/8 IF

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>	<b>VOLUMES</b> M <sup>3</sup>
Water added	
Losses	

DRILLING OPERATIONS TIME BREAKDOWN				WELL CONTROL		SOLIDS CONTROL	
RU / TO	10 1/2	Survey		Plug Back		Shaker Make	
Drill Actual		Logging		Fishing		Shaker Mesh	
Reaming		Run Casing		Direct. Drill		Vol UF (l/min)	Desilter
Coring		Cementing		Work Pipe			
Rm Rathole		WOC		Mix LCM		U.F. (kg/m3)	Centrifuge
Cond / Circ		NU BOP's		Safety meet		O.F. (kg/m3)	
Tripping		Test BOP's		Bop Drill		Hours/Days	
Lubricate Rig		Drill Out Cmt				Boiler Hrs:	(to 24:00)
Repair Rig		DST					
Slip/Cut Line		Hndle Tools		Total Hrs	10 1/2		

**24 HOUR SUMMARY FOR THE DATE :** October 22, 2004 (0000 hrs-2400 hrs)

Tear out rig and equipment. Installed cellar and moved rig 10 m West. Spotted buildings. Rigged up bloeey line. Cleaned out mud tank. Inspected and raised derrick.

Next 24 hrs: Complete Rig up, tie in mud pump, flow line mud up and commence drilling conductor hole to @ 55 - 60 m. Cement in prior hole.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>27</b>	DATE: <b>October 24, 2004</b>
DEPTH: <b>mKB</b>	PROGRESS: <b>-175 m in 3</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,065</b>	WEATHER: <b>Sunny</b>	TOOLPUSH: <b>Craig Rose</b>
CUM COST: <b>\$53,048</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	311			Depth(m)		Make	GD
Mfg.				Density		Model	PY 7
Type				Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)				YP		Pump Rate	0.49 m3/min
To (mKB)	9.2			Gels		Pump Press.	3,500 kPa
Hrs on Bit	3			pH		Drillpipe AV	7 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	7 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	min
Meters	9.2			Oil (%)		Bottoms Up	min
m/hr	3.1			Pf/Mf		Tanks	m3
Cum Hrs				MBT		Hole Volume	m3
				Cl (ppm)		System Vol.	m3
				Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	143	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	5	Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual	3	Logging	Fishing	Losses		Mud Cum Cost	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ		NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping		Test BOPs	Bop Drill	Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt	Weld flow line	Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)
			2				
			10				

**24 HOUR SUMMARY FOR THE DATE :** October 23, 2004 (0000 hrs-2400 hrs)

Continue rig up until 1130 hrs. Drill 311 mm hole to 6 m. Install 340 mm casing. Drill 311 mm hole to 9.2 m. Water in returns. Weld on flow line returning to temporary surface tank. Fill mud tank with water. Shut down @ 1730 hrs. security on site.

Next 24 hrs: Shut down for day off.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>28</b>	DATE: <b>October 25, 2004</b>
DEPTH: <b>mKB</b>	PROGRESS: <b>-175 m in 3</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,165</b>	HOLE CND.:	WEATHER: <b>Sunny</b>
CUM COST: <b>\$55,213</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	311			Depth(m)		Make	GD
Mfg.				Density		Model	PY 7
Type				Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)				YP		Pump Rate	0.49 m3/min
To (mKB)	9.2			Gels		Pump Press.	3,500 kPa
Hrs on Bit	3			pH		Drillpipe AV	7 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	7 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	min
Meters	9.2			Oil (%)		Bottoms Up	min
m/hr	3.1			Pf/Mf		Tanks	m3
Cum Hrs				MBT		Hole Volume	m3
				Cl (ppm)		System Vol.	m3
				Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	143	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	5	Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual	3	Logging	Fishing	Losses		Mud Cum Cost	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ		NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping		Test BOPs	Bop Drill	Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt	Weld flow line	Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)
			2				
			10				

**24 HOUR SUMMARY FOR THE DATE :** October 24, 2004 (0000 hrs-2400 hrs)

Mix mud and clean up lease

Next 24 hrs: Drill 311 mm conductor hole

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>29</b>	DATE: <b>October 26, 2004</b>
DEPTH: <b>61.5 mKB</b>	PROGRESS: <b>-114 m in 10</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,615</b>	WEATHER: <b>Sunny</b>	TOOLPUSH: <b>Craig Rose</b>
CUM COST: <b>\$57,828</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	GD
Mfg.				Density		Model	PY 7
Type	insert			Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	9.2			YP		Pump Rate	0.49 m3/min
To (mKB)	61.5			Gels		Pump Press.	3,500 kPa
Hrs on Bit	12			pH		Drillpipe AV	18 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	18 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	77 min
Meters	52.3			Oil (%)		Bottoms Up	3 min
m/hr	4.4			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	2 m3
				Cl (ppm)		System Vol.	37 m3
				Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	137	DC Conn: 2 7/8 IF
Jts DP in hole: 7	DP on Loc:	144	DP Conn: 2 7/8 IF
<b>DRILLING OPERATIONS TIME BREAKDOWN</b>			
RU / TO	Survey	Plug Back	
Drill Actual	10	Logging	Fishing
Reaming		Run Casing	Direct. Drill
Coring		Cementing	Work Pipe
Rm Rathole		WOC	Mix LCM
Cond / Circ		NU BOP's	Safety meet
Tripping	1	Test BOPs	Bop Drill
Lubricate Rig		Drill Out Cmt	Weld flow line
Repair Rig		DST	
Slip/Cut Line		Hndle Tools	Total Hrs
			11

<b>VOLUMES M<sup>3</sup></b>		<b>MUD DAILY COST</b>	
Water added		Mud Cum Cost	
Losses			
<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
RSPP-SPM		Shaker Make	
MACP(kPa)		Shaker Mesh	
Calc Hole Fill		Vol UF (l/min)	Desilter
Act Hole Fill		U.F. (kg/m3)	Centrifuge
Lst BOP Drill:		O.F. (kg/m3)	
Daylights		Hours/Days	
Afternoons		Boiler Hrs:	(to 24:00)

**24 HOUR SUMMARY FOR THE DATE :** October 25, 2004 (0000 hrs-2400 hrs)

Made up 216 mm bit and stabilizer and Drilled, using gel water, 216 mm pilot hole from 9.2 m to 61.5 m (Red claystone). Pull out of hole to 1800 hrs.

Next 24 hrs: Ream 311 mm conductor hole to 65 m.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>30</b>	DATE: <b>October 27, 2004</b>
DEPTH: <b>61.5 mKB</b>	PROGRESS: <b>-114 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,965</b>	HOLE CND.:	WEATHER: <b>Sunny</b>
CUM COST: <b>\$60,793</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	311			Depth(m)		Make	GD
Mfg.				Density		Model	PY 7
Type	Tooth			Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	9.2			YP		Pump Rate	0.49 m3/min
To (mKB)	61.5			Gels		Pump Press.	3,500 kPa
Hrs on Bit	12			pH		Drillpipe AV	7 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	7 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	82 min
Meters	52.3			Oil (%)		Bottoms Up	8 min
m/hr	4.4			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	5 m3
				Cl (ppm)		System Vol.	40 m3
				Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	137	DC Conn: 2 7/8 IF
Jts DP in hole: 7	DP on Loc:	144	DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO		Survey		Water added		Mud Daily Cost	
Drill Actual		Logging		Losses		Mud Cum Cost	
Reaming	7	Run Casing		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing		RSPP-SPM		Shaker Make	
Rm Rathole		WOC		MACP(kPa)		Shaker Mesh	
Cond / Circ		NU BOP's		Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	1	Test BOPs		Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools		Afternoons		Boiler Hrs:	(to 24:00)
		Total Hrs	8				

**24 HOUR SUMMARY FOR THE DATE :** October 26, 2004 (0000 hrs-2400 hrs)

Made up 311 mm bit and stabilizer and Reamed, using gel water, from 9.2 m to 61.5 m (Red claystone). Pull out of hole and run back in. No fill. Pull out of hole to 1530 hrs

Next 24 hrs: Wiper trip, run and cement 244 mm casing

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>31</b>	DATE: <b>October 28, 2004</b>
DEPTH: <b>61.5 mKB</b>	PROGRESS: <b>-114 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$4,115</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$64,908</b>	RIG / RIG #:	TEMP.: <b>6 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	1			Time		Pump No.	# 1
Size (mm)	311			Depth(m)		Make	GD
Mfg.				Density		Model	PY 7
Type	Tooth			Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	9.2			YP		Pump Rate	0.49 m3/min
To (mKB)	61.5			Gels		Pump Press.	3,500 kPa
Hrs on Bit	12			pH		Drillpipe AV	7 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	7 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	82 min
Meters	52.3			Oil (%)		Bottoms Up	8 min
m/hr	4.4			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	5 m3
				Cl (ppm)		System Vol.	40 m3
				Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	144	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	2	Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual		Logging	Fishing	Losses		Mud Cum Cost	
Reaming	1	Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ		NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	1	Test BOP's	Bop Drill	Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt	Weld flow line	Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)

**24 HOUR SUMMARY FOR THE DATE :** October 27, 2004 (0000 hrs-2400 hrs)

Ran in hole to 61 m. Circulate bottoms up. Pull out of hole and rig up to run casing. Made up shoe and run 9 joints 245 mm casing to 61 m. Pump 1 m3 H2o preflush. 2.85 m3 Class A 15.2 ppg cement (30% excess) slurry and displace with 1.7 m3 H2o. Rotate while cementing 20 rpm Cement returns at cellar @ 1330 hrs. Clean up and wait on cement.

Next 24 hrs: Run in hole with 216 mm air hammer, drill out shoe and drill ahead

Note: Oct 26 Filled abandoned well to 45 m with 2 m3 class A cement 15.2 ppg

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>32</b>	DATE: <b>October 29, 2004</b>
DEPTH: <b>123 mKB</b>	PROGRESS: <b>62 m in 3</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$1,640</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$66,548</b>	RIG / RIG #:	TEMP.: <b>6 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	2			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	GD
Mfg.				Density		Model	PY 7
Type	Air insert			Mud Grad		Liner X Stk	6 x 7
Serial #				Vis		SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	61			YP		Pump Rate	0.49 m3/min
To (mKB)	123			Gels		Pump Press.	3,500 kPa
Hrs on Bit	12			pH		Drillpipe AV	18 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	18 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	62			Oil (%)			
m/hr	5.2			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
Bit .10m, Hammer .93 m. Stabilizer. 7.52 m			
BHA Length:	8.55	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	129 DC Conn: 2 7/8 IF
Jts DP in hole:	15	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN			
RU / TO	4	Survey	Plug Back
Drill Actual	3	Logging	Fishing
Reaming		Run Casing	Direct. Drill
Coring		Cementing	Work Pipe
Rm Rathole		WOC	Mix LCM
Cond / Circ		NU BOP's	Safety meet
Tripping	1 1/2	Test BOPs	Bop Drill
Lubricate Rig		Drill Out Cmt	1 Weld flow line
Repair Rig		DST	
Slip/Cut Line		Hndle Tools	Total Hrs
			9 1/2

**24 HOUR SUMMARY FOR THE DATE :** October 28, 2004 (0000 hrs-2400 hrs)

Cut off 245 mm casing and weld on flange for diverter. Nipple up diverter and blooey line. Function test divertor. Close 5 secs. Made up 216mm bit, air hammer and stabilizer and ran in hole. Tagged cement @ 43 m. Drilled cement from 43 m to shoe @ 61 m. Drilled 216 mm hole from 61 m to 84 m. Water in returns @ 5 gal/min. Pull to shoe and rig up surface tank to pump from shale sloop. Ran in hole and drilled 216 mm hole from 84 m to 123 m. to 1530 hrs. Shut down operations for the night.



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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>33</b>	DATE: <b>October 30, 2004</b>
DEPTH: <b>164 mKB</b>	PROGRESS: <b>41 m in 8</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$4,080</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$70,630</b>	RIG / RIG #:	TEMP.: <b>6 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	2			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	GD
Mfg.				Density	1000	Model	PY 7
Type	Air insert			Mud Grad	10.00	Liner X Stk	6 x 7
Serial #				Vis	60	SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	61			YP		Pump Rate	0.49 m3/min
To (mKB)	123			Gels		Pump Press.	3,500 kPa
Hrs on Bit	12			pH	11.0	Drillpipe AV	18 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	18 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	84 min
Meters	62			Oil (%)		Bottoms Up	9 min
m/hr	5.2			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	6 m3
				Cl (ppm)		System Vol.	41 m3
				Ca (ppm)		Mud & Chemicals Added:	
						Soda ash	7

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	8.55	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	123 DC Conn: 2 7/8 IF
Jts DP in hole:	21	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	1	Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual	8	Logging	Fishing	Losses		Mud Cum Cost	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ		NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	1 1/2	Test BOP's	Bop Drill	Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt	Weld flow line	Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)
			10 1/2				

**24 HOUR SUMMARY FOR THE DATE :** October 29, 2004 (0000 hrs-2400 hrs)

Ran in hole to 123 m. Air drilled 216 mm hole from 123m to 154 m. Pulled out of hole and layed out hammer and bit. Made up 216 mm tricone and stabiizer, Made up flow line and ran in hole to shoe. Filled hole with mud. Continued running in hole to 154 m. to 1330 hrs. Drill 216 mm hole from 154 m to 164 m. to 1730 hrs. Mixed 7 bags soda ash. Full returns no losses. Pull out to shoe. Fill hole and flow check. Shut down for night.

Next 24 hrs: Drill to casing set point @ 190 m.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>34</b>	DATE: <b>October 31, 2004</b>
DEPTH: <b>198.7 mKB</b>	PROGRESS: <b>35 m in 8</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,180</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$72,810</b>	RIG / RIG #:	TEMP.: <b>6 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	2			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	GD
Mfg.	Security			Density	1000	Model	PY 7
Type	Tricone			Mud Grad	10.00	Liner X Stk	6 x 7
Serial #				Vis	60	SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	61			YP		Pump Rate	0.49 m3/min
To (mKB)	198.7			Gels		Pump Press.	3,500 kPa
Hrs on Bit	12			pH	11.0	Drillpipe AV	18 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	18 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	87 min
Meters	137.7			Oil (%)		Bottoms Up	11 min
m/hr	11.5			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	7 m3
				Cl (ppm)		System Vol.	42 m3
				Ca (ppm)		Mud & Chemicals Added:	
						Soda ash	7

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	8.55	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	119 DC Conn: 2 7/8 IF
Jts DP in hole:	25	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO		Survey		Water added		Mud Daily Cost	
Drill Actual	8	Logging		Losses		Mud Cum Cost	
Reaming		Run Casing		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing		RSPP-SPM		Shaker Make	
Rm Rathole		WOC		MACP(kPa)		Shaker Mesh	
Cond / Circ		NU BOP's		Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	1	Test BOPs		Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools		Afternoons		Boiler Hrs:	(to 24:00)
		Total Hrs	9				

**24 HOUR SUMMARY FOR THE DATE :** October 30, 2004 (0000 hrs-2400 hrs)

Ran in hole to 164 m. Drilled 216 mm hole from 164 m.to 198.7 m.(Salt). No losses. Pull out to shoe.Fill hole and flow check.Shut down for night. @ 1700 hrs.

Next 24 hrs: Shut down for day off.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>35</b>	DATE: <b>November 1, 2004</b>
DEPTH: <b>198.7 mKB</b>	PROGRESS: <b>35 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,265</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$75,075</b>	RIG / RIG #:	TEMP.: <b>6 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	2			Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	GD
Mfg.	Security			Density	1000	Model	PY 7
Type	Tricone			Mud Grad	10.00	Liner X Stk	6 x 7
Serial #				Vis	60	SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	61			YP		Pump Rate	0.49 m3/min
To (mKB)	198.7			Gels		Pump Press.	3,500 kPa
Hrs on Bit	12			pH	11.0	Drillpipe AV	18 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	18 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	87 min
Meters	137.7		R	Oil (%)		Bottoms Up	11 min
m/hr	11.5			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	7 m3
				Cl (ppm)		System Vol.	42 m3
				Ca (ppm)		Mud & Chemicals Added:	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	8.55	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	135 DC Conn: 2 7/8 IF
Jts DP in hole:	9	DP on Loc:	144 DP Conn: 2 7/8 IF
<b>DRILLING OPERATIONS TIME BREAKDOWN</b>			

DRILLING OPERATIONS TIME BREAKDOWN		VOLUMES M <sup>3</sup>		WELL CONTROL		SOLIDS CONTROL	
RU / TO	Survey	Water added		RSPP-SPM		Shaker Make	
Drill Actual	Logging	Losses		MACP(kPa)		Shaker Mesh	
Reaming	Run Casing			Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Coring	Cementing			Act Hole Fill		U.F. (kg/m3)	
Rm Rathole	WOC			Lst BOP Drill:		O.F. (kg/m3)	
Cond / Circ	NU BOP's			Daylights		Hours/Days	
Tripping	Test BOPs			Afternoons		Boiler Hrs:	(to 24:00)
Lubricate Rig	Drill Out Cmt						
Repair Rig	DST						
Slip/Cut Line	Hndle Tools						

**24 HOUR SUMMARY FOR THE DATE :** October 31, 2004 (0000 hrs-2400 hrs)

Shut down for day off.

Next 24 hrs: Run in hole to TD, circulate, pull out and run casing. Cement with Schlumberger

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>36</b>	DATE: <b>November 2, 2004</b>
DEPTH: <b>198.7 mKB</b>	PROGRESS: <b>35 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,105</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$77,180</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	2	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	216			Depth(m)		Make	GD
Mfg.	Security			Density	1000	Model	PY 7
Type	Tricone			Mud Grad	10.00	Liner X Stk	6 x 7
Serial #				Vis	60	SPM	60
Nozzles				PV		Pump Eff.	90%
From (mKB)	61			YP		Pump Rate	0.49 m3/min
To (mKB)	198.7			Gels		Pump Press.	3,500 kPa
Hrs on Bit	12			pH	11.0	Drillpipe AV	18 m/min
WOB (daN)				WL (cc's)		Drillcollar AV	18 m/min
RPM				Filter Cake		Nozzle Vel	21 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	87 min
Meters	137.7			Oil (%)		Bottoms Up	11 min
m/hr	11.5			Pf/Mf		Tanks	35 m3
Cum Hrs				MBT		Hole Volume	7 m3
				Cl (ppm)		System Vol.	42 m3
				Ca (ppm)		Mud & Chemicals Added:	
						Soda ash	

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length:	8.55	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	144 DC Conn: 2 7/8 IF
Jts DP in hole:		DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	2	Survey	1	Water added		Mud Daily Cost	
Drill Actual		Logging		Losses		Mud Cum Cost	
Reaming		Run Casing	2	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	1	RSPP-SPM		Shaker Make	
Rm Rathole		WOC		MACP(kPa)		Shaker Mesh	
Cond / Circ	3/4	NU BOP's		Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	1	Test BOPs		Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools		Afternoons		Boiler Hrs:	(to 24:00)
		Total Hrs	8				

**24 HOUR SUMMARY FOR THE DATE :** November 1, 2004 (0000 hrs-2400 hrs)

Run in hole to 198.7 m, no fill. Run survey .5 deg. Pull out and lay down bit and stabilizer. Rig up to run casing. Run 10 joints 177 mm casing to 197.04 m, mKB. Held pre job safety meeting and rigged up schlumberger. Pressure tested surface lines. Pumped 2 m3 water preflush. Pump 4 m3 slurry class G 15.8 ppg 1900 kg/m3 (75% excess) 6 kg Lcm fiber, 23 kg antifoam & 230 kg salt. Displaced with 4 m3 water. Bump plug 6600 kpa @ 1407 hrs @ 1.5 m3 preflush returns to surface. Shut down @ 1530 hrs and wait on cement.

Next 24 hrs: Rig up and test BOP, s. Clean out tanks.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>37</b>	DATE: <b>November 3, 2004</b>
DEPTH: <b>198.7 mKB</b>	PROGRESS: <b>35 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$22,225</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$99,405</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.				198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)						Depth(m)		Make	GD
Mfg.						Density	1000	Model	PY 7
Type						Mud Grad	10.00	Liner X Stk	6 x 7
Serial #						Vis	60	SPM	60
Nozzles						PV		Pump Eff.	90%
From (mKB)						YP		Pump Rate	0.49 m3/min
To (mKB)						Gels		Pump Press.	3,500 kPa
Hrs on Bit						pH	11.0	Drillpipe AV	-48 m/min
WOB (daN)						WL (cc's)		Drillcollar AV	-48 m/min
RPM						Filter Cake		Nozzle Vel	21 m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?						Solids (%)			
Meters						Oil (%)		Mud Cycle	72 min
m/hr	#DIV/0!					Pf/Mf		Bottoms Up	-4 min
Cum Hrs						MBT		Tanks	35 m3
						Cl (ppm)		Hole Volume	m3
						Ca (ppm)		System Vol.	35 m3

**BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)**

Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m			
BHA Length: <b>8.55</b>	Hook Load:	daN	DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>144</b>	DC Conn:	<b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc: <b>144</b>	DP Conn:	<b>2 7/8 IF</b>

**DRILLING OPERATIONS TIME BREAKDOWN**

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	10	Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual		Logging	Fishing	Losses		Mud Cum Cost	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ		NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter
Tripping		Test BOP's	Bop Drill	Act Hole Fill		U.F. (kg/m3)	Centrifuge
Lubricate Rig		Drill Out Cmt	Weld flow line	Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)
			<b>10</b>				

**24 HOUR SUMMARY FOR THE DATE : November 2, 2004 (0000 hrs-2400 hrs)**

Remove cement head, divertor and flow line. Backed out landing joint. Cut off 244 mm casing. Make up casing bowl and x/o flange. Nipple up BOP,s HCR valve and choke line to 1750 hrs.

Next 24 hrs: Complete rig up and test BOP,s and choke manifold.

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# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>38</b>	DATE: <b>November 4, 2004</b>
DEPTH: <b>198.7 mKB</b>	PROGRESS: <b>35 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,365</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$101,770</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS																	
Bit No.				198 m	0.50 deg	Time		Pump No.	# 1																
Size (mm)						Depth(m)		Make	GD																
Mfg.						Density		Model	PY 7																
Type						Mud Grad		Liner X Stk	6 x 7																
Serial #						Vis		SPM	60																
Nozzles						PV		Pump Eff.	90%																
From (mKB)						YP		Pump Rate	0.49 m3/min																
To (mKB)						Gels		Pump Press.	3,500 kPa																
Hrs on Bit						pH		Drillpipe AV	-48 m/min																
WOB (daN)						WL (cc's)		Drillcollar AV	-48 m/min																
RPM						Filter Cake		Nozzle Vel	21 m/sec																
Condition						Sand (%)		<table border="1"> <thead> <tr> <th colspan="2">MUD &amp; CHEMICALS</th> </tr> </thead> <tbody> <tr> <td>Mud Cycle</td> <td>72 min</td> </tr> <tr> <td>Bottoms Up</td> <td>-4 min</td> </tr> <tr> <td>Tanks</td> <td>35 m3</td> </tr> <tr> <td>Hole Volume</td> <td>m3</td> </tr> <tr> <td>System Vol.</td> <td>35 m3</td> </tr> <tr> <td colspan="2">Mud &amp; Chemicals Added:</td> </tr> <tr> <td colspan="2">Soda ash</td> </tr> </tbody> </table>		MUD & CHEMICALS		Mud Cycle	72 min	Bottoms Up	-4 min	Tanks	35 m3	Hole Volume	m3	System Vol.	35 m3	Mud & Chemicals Added:		Soda ash	
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Soda ash																									
Pulled For?						Solids (%)																			
Meters						Oil (%)																			
m/hr	#DIV/0!					Pf/Mf																			
Cum Hrs						MBT																			
						Cl (ppm)																			
						Ca (ppm)																			

<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)
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Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m
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BHA Length:	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>144</b>	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc: <b>144</b>	DP Conn: <b>2 7/8 IF</b>

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>	<b>VOLUMES</b> M <sup>3</sup>
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RU / TO	10	Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual		Logging	Fishing	Losses		Mud Cum Cost	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM		Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)		Shaker Mesh	
Cond / Circ		NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter
Tripping		Test BOP's	Bop Drill	Act Hole Fill		U.F. (kg/m3)	Centrifuge
Lubricate Rig		Drill Out Cmt	Weld flow line	Lst BOP Drill:		O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)

<b>24 HOUR SUMMARY FOR THE DATE :</b> November 3, 2004 (0000 hrs-2400 hrs)
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Installed choke manifold flare lines and prepared flare pit. Pumped out and cleaned mud tanks. Layed down derrick and inspect. Rigged up geolograph unit Pressure tested choke manifold(250 psi low, 1200 psi high). Pressured tested blind rams aganst surface casing(250 psi low 1000 psi high) ok. Shut down operations @ 1730 hrs.

Next 24 hrs: Complete Pressure testing BOP,s, mix brine. Inspect rig and run in hole drill out shoe and conduct PIT.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>39</b>	DATE: <b>November 5, 2004</b>
DEPTH: <b>198.7 mKB</b>	PROGRESS: <b>35 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,490</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$104,260</b>	RIG / RIG #:	TEMP.: <b>3 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS																	
Bit No.				198 m	0.50 deg	Time		Pump No.	# 1																
Size (mm)						Depth(m)		Make	GD																
Mfg.						Density		Model	PY 7																
Type						Mud Grad		Liner X Stk	6 x 7																
Serial #						Vis		SPM	60																
Nozzles						PV		Pump Eff.	90%																
From (mKB)						YP		Pump Rate	0.49 m3/min																
To (mKB)						Gels		Pump Press.	3,500 kPa																
Hrs on Bit						pH		Drillpipe AV	-48 m/min																
WOB (daN)						WL (cc's)		Drillcollar AV	-48 m/min																
RPM						Filter Cake		Nozzle Vel	21 m/sec																
Condition						Sand (%)		<table border="1"> <thead> <tr> <th colspan="2">MUD &amp; CHEMICALS</th> </tr> </thead> <tbody> <tr> <td>Mud Cycle</td> <td>72 min</td> </tr> <tr> <td>Bottoms Up</td> <td>-4 min</td> </tr> <tr> <td>Tanks</td> <td>35 m3</td> </tr> <tr> <td>Hole Volume</td> <td>m3</td> </tr> <tr> <td>System Vol.</td> <td>35 m3</td> </tr> <tr> <td colspan="2">Mud &amp; Chemicals Added:</td> </tr> <tr> <td colspan="2">Soda ash</td> </tr> </tbody> </table>		MUD & CHEMICALS		Mud Cycle	72 min	Bottoms Up	-4 min	Tanks	35 m3	Hole Volume	m3	System Vol.	35 m3	Mud & Chemicals Added:		Soda ash	
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Mud & Chemicals Added:																									
Soda ash																									
Pulled For?						Solids (%)																			
Meters						Oil (%)																			
m/hr	#DIV/0!					Pf/Mf																			
Cum Hrs						MBT																			
						Cl (ppm)																			
						Ca (ppm)																			

<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)
Bit .10m, Bit Sub .4 m. Stabilizer. 7.52 m

BHA Length:	Hook Load:	daN DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>144</b>	DC Conn: <b>2 7/8 IF</b>
Jts DP in hole:	DP on Loc: <b>144</b>	DP Conn: <b>2 7/8 IF</b>

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>	<b>VOLUMES</b> M <sup>3</sup>
Water added	
Losses	

DRILLING OPERATIONS TIME BREAKDOWN				WELL CONTROL		SOLIDS CONTROL	
RU / TO	10	Survey	Plug Back	RSPP-SPM		Shaker Make	
Drill Actual		Logging	Fishing	MACP(kPa)		Shaker Mesh	
Reaming		Run Casing	Direct. Drill	Calc Hole Fill		Vol UF (l/min)	Desilter
Coring		Cementing	Work Pipe	Act Hole Fill		U.F. (kg/m3)	Centrifuge
Rm Rathole		WOC	Mix LCM	Lst BOP Drill:		O.F. (kg/m3)	
Cond / Circ		NU BOP's	Safety meet	Daylights		Hours/Days	
Tripping		Test BOP's	Bop Drill	Afternoons		Boiler Hrs:	(to 24:00)
Lubricate Rig		Drill Out Cmt	Weld flow line				
Repair Rig		DST					
Slip/Cut Line		Hndle Tools	Total Hrs				
			10				

**24 HOUR SUMMARY FOR THE DATE :** November 4, 2004 (0000 hrs-2400 hrs)

07:30 -10:00 Change out kill valve on BOPs . Spot pipe trailer to sub base.  
 10:00 - 14:00 Rig up & Press. Test HCR / annular / Safety Valve & kill valve on BOPs 1500 kpa Low 7000 kpa High Press. Test Pipe Rams & #10 valve on choke manifold. Preform Accumulator Test.  
 14:00 - 16:00 Rig in Degasser lines. Weld Geolagraph, mud tanks, stabilizer arm on rig floor & platform for for sample catching. Complete Rig Inspection prior to drilling out 177mm casing shoe.  
 16:00 - 17:30 Fill mud tanks & mix salt. Made up Bit & Stabilizer & Run In Hole.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>40</b>	DATE: <b>November 6, 2004</b>
DEPTH: <b>352 mKB</b>	PROGRESS: <b>153 m in 4</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,970</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Cloudy</b>
CUM COST: <b>\$108,230</b>	RIG / RIG #:	TEMP.: <b>3 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	3	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165			Depth(m)	198.5	Make	GD
Mfg.	Drillmaster			Density	1100	Model	PY 7
Type	Insert			Mud Grad		Liner X Stk	6 x 7
Serial #	NDo128			Vis		SPM	
Nozzles				PV		Pump Eff.	90%
From (mKB)	198.7			YP		Pump Rate	m3/min
To (mKB)	352			Gels		Pump Press.	kPa
Hrs on Bit	4			pH		Drillpipe AV	m/min
WOB (daN)	1,500			WL (cc's)		Drillcollar AV	m/min
RPM	40			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	153.3			Oil (%)			
m/hr	38.3			Pf/Mf			
Cum Hrs				MBT			
				Cl (ppm)			
				Ca (ppm)			

### BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)

Bit .10m, Hammer .95 m. Stabilizer. 7.52 m			
BHA Length: <b>8.56</b>	Hook Load:	daN	DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>99</b>	DC Conn:	<b>2 7/8 IF</b>
Jts DP in hole: <b>45</b>	DP on Loc: <b>144</b>	DP Conn:	<b>2 7/8 IF</b>

### DRILLING OPERATIONS TIME BREAKDOWN

RU / TO	3 1/2	Survey	Plug Back		
Drill Actual	4	Logging	Fishing		
Reaming		Run Casing	Direct. Drill		
Coring		Cementing	Work Pipe		
Rm Rathole		WOC	Mix LCM		
Cond / Circ		NU BOP's	Safety meet	1/2	
Tripping		Test BOP's	Bop Drill		
Lubricate Rig		Drill Out Cmt	Weld flow line		
Repair Rig		DST	PIT	2	
Slip/Cut Line		Hndle Tools	Total Hrs	10	

### 24 HOUR SUMMARY FOR THE DATE : November 5, 2004 (0000 hrs-2400 hrs)

0730 to 1100 hrs. Run in hole with air bit and hammer. Drill out wiper plug @ 189 m. Drill cement to shoe @ 198 m. Drill out shoe to 200 m. with air. Fill hole with brine 1100 kg/m3. Close pipe rams, HCR and kill valve. Rig up test pump to 2 " line on casing bowl. Conduct PIT. @ 198 m. Pressure bleed down from 1400 kpa, held @ 1035 kpa. 16.2 kpa/m gradient.

1100 to 1330 hrs: secure blooey lines and flare lines, Displace hole to air and cleaned up lease. Held safety meeting with all personnel prior to drilling ahead with air.

1330 to 1730 hrs: Air Drilled 165 mm hole from 200 m to 352 m. (Salt- no fluids). Pull out to 337 m.

Continues gas detection H2s & LEL at blooey line.

Note: Casing setting depth on Nov 02 report should read 197.04 m, not 97.04 m.



# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>41</b>	DATE: <b>November 7, 2004</b>
DEPTH: <b>420 mKB</b>	PROGRESS: <b>68 m in 2</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,305</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain / Snow</b>
CUM COST: <b>\$111,535</b>	RIG / RIG #:	TEMP.: <b>3 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	3	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165			Depth(m)	198.5	Make	GD
Mfg.	Drillmaster			Density	1100	Model	PY 7
Type	Insert			Mud Grad		Liner X Stk	6 x 7
Serial #	NDo128			Vis		SPM	
Nozzles				PV		Pump Eff.	90%
From (mKB)	198.7			YP		Pump Rate	m3/min
To (mKB)	420			Gels		Pump Press.	kPa
Hrs on Bit	6			pH		Drillpipe AV	m/min
WOB (daN)	1,500			WL (cc's)		Drillcollar AV	m/min
RPM	40			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	221.3			Oil (%)			
m/hr	36.9			Pf/Mf			
Cum Hrs	6			MBT			
				Cl (ppm)			
				Ca (ppm)			

MUD & CHEMICALS	
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Mud Cycle	#DIV/0! min
Bottoms Up	#DIV/0! min
Tanks	30 m3
Hole Volume	9 m3
System Vol.	39 m3
Mud & Chemicals Added:	Soda ash

VOLUMES M <sup>3</sup>	
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Water added		Mud Daily Cost
Losses		Mud Cum Cost

WELL CONTROL		SOLIDS CONTROL	
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RSPP-SPM		Shaker Make	
MACP(kPa)	1080	Shaker Mesh	
Calc Hole Fill		Vol UF (l/min)	Desilter
Act Hole Fill		U.F. (kg/m3)	Centrifuge
Lst BOP Drill:	Nov-04	O.F. (kg/m3)	
Daylights		Hours/Days	
Afternoons		Boiler Hrs:	(to 24:00)

<b>24 HOUR SUMMARY FOR THE DATE :</b>	November 6, 2004	(0000 hrs-2400 hrs)
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Held 15 min safety meeting with crew. Rigged tarp for shale sloop. Function annular preventer. Ran in hole to 352 m. No fill. 0830 - 1030 hrs, drilled 165 mm hole from 352 m to 420 m. Hammer bit failed. 1030 - 1230 Pulled out of hole. Bit broken off at hammer. 1230 hrs to 1530 hrs- make up fishing tool and run in hole to 420 m. 1530 - 1730 Latched on fish and pulled out of hole. Fish jammed in cuttings below wellhead and pulled off. Can see fish below wellhead. Close blind rams and shut down for day.

Next 24 hrs: Shut down for day off and wait on fishing magnet.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>42</b>	DATE: <b>November 8, 2004</b>
DEPTH: <b>420 mKB</b>	PROGRESS: <b>68 m in</b>	rotating hours (last 24 hours)
OPER 06:00:	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,290</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Cloudy</b>
CUM COST: <b>\$114,825</b>	RIG / RIG #:	TEMP.: <b>5 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	3	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165			Depth(m)	198.5	Make	GD
Mfg.	Drillmaster			Density	1100	Model	PY 7
Type	Insert			Mud Grad		Liner X Stk	6 x 7
Serial #	NDo128			Vis		SPM	
Nozzles				PV		Pump Eff.	90%
From (mKB)	198.7			YP		Pump Rate	m3/min
To (mKB)	420			Gels		Pump Press.	kPa
Hrs on Bit	6			pH		Drillpipe AV	m/min
WOB (daN)	1,500			WL (cc's)		Drillcollar AV	m/min
RPM	40			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	221.3			Oil (%)			
m/hr	36.9			Pf/Mf			
Cum Hrs	6			MBT			
				Cl (ppm)			
				Ca (ppm)			

### BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)

Bit .10m, Hammer .95 m. Stabilizer. 7.52 m			
BHA Length: <b>8.56</b>	Hook Load:	daN	DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>83</b>	DC Conn:	<b>2 7/8 IF</b>
Jts DP in hole: <b>61</b>	DP on Loc: <b>144</b>	DP Conn:	<b>2 7/8 IF</b>

### DRILLING OPERATIONS TIME BREAKDOWN

RU / TO	Survey	Plug Back	Water added	Losses	Mud Daily Cost	Mud Cum Cost
Drill Actual	Logging	Fishing				
Reaming	Run Casing	Direct. Drill				
Coring	Cementing	Work Pipe				
Rm Rathole	WOC	Mix LCM				
Cond / Circ	NU BOP's	Safety meet				
Tripping	Test BOPs	Bop Drill				
Lubricate Rig	Drill Out Cmt	Weld flow line				
Repair Rig	DST	PIT				
Slip/Cut Line	Hndle Tools	Total Hrs				

### 24 HOUR SUMMARY FOR THE DATE : November 7, 2004 (0000 hrs-2400 hrs)

Shut down for day off. Fishing magnet arrived location 1330 hrs.

VOLUMES M <sup>3</sup>		WELL CONTROL		SOLIDS CONTROL	
		RSPP-SPM		Shaker Make	
		MACP(kPa)	1080	Shaker Mesh	
		Calc Hole Fill		Vol UF (l/min)	Desilter
		Act Hole Fill		U.F. (kg/m3)	Centrifuge
		Lst BOP Drill:	Nov-04	O.F. (kg/m3)	
		Daylights		Hours/Days	
		Afternoons		Boiler Hrs:	(to 24:00)

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>43</b>	DATE: <b>November 9, 2004</b>
DEPTH: <b>451 mKB</b>	PROGRESS: <b>31 m in 1</b>	rotating hours (last 24 hours)
OPER 06:00:	Shoe At <b>198.5 m</b>	FOREMAN: <b>Bill Williams</b>
DAILY COST: <b>\$6,355</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$121,180</b>	RIG / RIG #:	TEMP.: <b>10 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$	
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BIT PERFORMANCE			SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	3	4	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	165			Depth(m)	198.5	Make	GD
Mfg.	Drillmaster	Mission			Density	1100	Model	PY 7
Type	Insert	Air insert			Mud Grad		Liner X Stk	6 x 7
Serial #	NDo128	B 56044			Vis		SPM	
Nozzles					PV		Pump Eff.	90%
From (mKB)	198.7	420			YP		Pump Rate	m3/min
To (mKB)	420				Gels		Pump Press.	kPa
Hrs on Bit	6	1			pH		Drillpipe AV	m/min
WOB (daN)	1,500	1,500			WL (cc's)		Drillcollar AV	m/min
RPM	40	30			Filter Cake		Nozzle Vel	m/sec
Condition	Broken				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?	Broken				Solids (%)		Mud Cycle	#DIV/0! min
Meters	221.3	31			Oil (%)		Bottoms Up	#DIV/0! min
m/hr	36.9	31			Pf/Mf		Tanks	30 m3
Cum Hrs	6				MBT		Hole Volume	10 m3
					Cl (ppm)		System Vol.	40 m3
					Ca (ppm)		Mud & Chemicals Added:	
							Soda ash	

### BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)

Bit .10m, Hammer .95 m. Stabilizer. 7.52 m			
BHA Length:	8.56	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	83 DC Conn: 2 7/8 IF
Jts DP in hole:	61	DP on Loc:	144 DP Conn: 2 7/8 IF

### DRILLING OPERATIONS TIME BREAKDOWN

RU / TO	Survey	Plug Back	Fishing	7 1/2
Drill Actual	1	Logging	Direct. Drill	
Reaming		Run Casing	Work Pipe	
Coring		Cementing	Mix LCM	
Rm Rathole		WOC	Safety meet	1/4
Cond / Circ		NU BOP's	Bop Drill	
Tripping	1 1/4	Test BOPs	Weld flow line	
Lubricate Rig		Drill Out Cmt	PIT	
Repair Rig		DST	Total Hrs	10
Slip/Cut Line		Hndle Tools		

### 24 HOUR SUMMARY FOR THE DATE : November 8, 2004 (0000 hrs-2400 hrs)

Held safety meeting with crew. Made up magnet, two xo's, stabilizer and casing scraper. Ran in hole and attempted to retrieve fish. no success, fish dropped. Cleaned wellhead area with casing scraper to 1030 hrs. Pulled out of hole and layed down magnet and xo's. Made up fishing tool and ran in hole and taged fish @ 420m. Latch onto fish @ 1230 hrs. Pulled out of hole with fish to 1430 hrs. Lay out fish and tools, made up new hammer bit to 1500 hrs. Ran in hole to 420 m. 1630 - 1730 Drilled 165 mm hole from 420 m to 451 m.

Function test blind rams.

Next 24 hrs: Drill to @ 638 m. Pull out to shoe and fill with brine.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>44</b>	DATE: <b>November 10, 2004</b>
DEPTH: <b>638 mKB</b>	PROGRESS: <b>218 m in 6</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,670</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Cloudy</b>
CUM COST: <b>\$124,850</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	4	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165			Depth(m)	638	Make	GD
Mfg.	Mission			Density	1120	Model	PY 7
Type	Air insert			Mud Grad		Liner X Stk	6 x 7
Serial #	B 56044			Vis		SPM	
Nozzles				PV		Pump Eff.	90%
From (mKB)	420			YP		Pump Rate	m3/min
To (mKB)	638			Gels		Pump Press.	kPa
Hrs on Bit	7			pH		Drillpipe AV	m/min
WOB (daN)	1,500			WL (cc's)		Drillcollar AV	m/min
RPM	30			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)			
Pulled For?				Solids (%)			
Meters	218			Oil (%)			
m/hr	31.1			Pf/Mf			
Cum Hrs	7			MBT			
				Cl (ppm)			
				Ca (ppm)			

### BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)

Bit .10m, Hammer .95 m. Stabilizer. 7.52 m			
BHA Length: <b>8.56</b>	Hook Load:	daN	DP size: <b>114 mm</b>
Avail WOB:	Jts DP Racks <b>62</b>	DC Conn:	<b>2 7/8 IF</b>
Jts DP in hole: <b>82</b>	DP on Loc: <b>144</b>	DP Conn:	<b>2 7/8 IF</b>

### DRILLING OPERATIONS TIME BREAKDOWN

RU / TO	Survey	Plug Back	
Drill Actual <b>6</b>	Logging	Fishing	
Reaming	Run Casing	Direct. Drill	
Coring	Cementing	Work Pipe	
Rm Rathole	WOC	Mix LCM	
Cond / Circ	NU BOP's	Safety meet	<b>1/4</b>
Tripping <b>3</b>	Test BOP's	Bop Drill	
Lubricate Rig	Drill Out Cmt	Weld flow line	
Repair Rig	DST	PIT	
Slip/Cut Line	Hndle Tools	Total Hrs	<b>9 1/4</b>

### 24 HOUR SUMMARY FOR THE DATE : November 9, 2004 (0000 hrs-2400 hrs)

Held safety meeting with crew. Drilled 165 mm hole from 420 m to 638 m. Clean hole and pull out to surface. Mix salt to 1120 kg/m3 and fill hole. 14 m3.brine

Function pipe rams.

MUD & CHEMICALS	
Mud Cycle	#DIV/0! min
Bottoms Up	#DIV/0! min
Tanks	30 m3
Hole Volume	14 m3
System Vol.	44 m3
Mud & Chemicals Added:	
Soda ash	
VOLUMES M <sup>3</sup>	
Water added	
Losses	
Mud Daily Cost	
Mud Cum Cost	
WELL CONTROL	
RSPP-SPM	
MACP(kPa)	<b>1050</b>
Calc Hole Fill	
Act Hole Fill	
Lst BOP Drill:	<b>Nov-04</b>
Daylights	
Afternoons	
SOLIDS CONTROL	
Shaker Make	
Shaker Mesh	
Vol UF (l/min)	Desilter
U.F. (kg/m3)	Centrifuge
O.F. (kg/m3)	
Hours/Days	
Boiler Hrs:	(to 24:00)

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>45</b>	DATE: <b>November 11, 2004</b>
DEPTH: <b>647 mKB</b>	PROGRESS: <b>9 m in 2</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$5,240</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Cloudy/snow</b>
CUM COST: <b>\$130,090</b>	RIG / RIG #:	TEMP.: <b>1 deg C</b>
FORMATION:	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	5	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	638	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1120	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad		Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	75
Nozzles				PV		Pump Eff.	90%
From (mKB)	638			YP		Pump Rate	0.61 m3/min
To (mKB)	647			Gels		Pump Press.	1,800 kPa
Hrs on Bit	2			pH		Drillpipe AV	54 m/min
WOB (daN)	5,000			WL (cc's)		Drillcollar AV	54 m/min
RPM	70			Filter Cake		Nozzle Vel	27 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	85 min
Meters	9			Oil (%)		Bottoms Up	12 min
m/hr	4.5			Pf/Mf		Tanks	38 m3
Cum Hrs	2			MBT		Hole Volume	14 m3
				Cl (ppm)		System Vol.	52 m3
				Ca (ppm)		Mud & Chemicals Added:	
				Mud Co.		Soda ash	
				Mud Man			
				Mud Up @			

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	61 DC Conn: 2 7/8 IF
Jts DP in hole:	83	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO		Survey	3	Water added		Mud Daily Cost	
Drill Actual	2	Logging		Losses		Mud Cum Cost	
Reaming	1	Run Casing		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing		RSPP-SPM		Shaker Make	
Rm Rathole		WOC		MACP(kPa)	1050	Shaker Mesh	
Cond / Circ		NU BOP's		Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	3 1/4	Test BOPs		Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:	Nov-04	O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools		Afternoons		Boiler Hrs:	(to 24:00)
		Total Hrs	9 1/2				

**24 HOUR SUMMARY FOR THE DATE :** November 10, 2004 (0000 hrs-2400 hrs)

Held safety meeting with crew. Made up tricone 165 mm bit, stabilizer and float sub. Hooked up flow line. Ran in hole to 160 m and run survey. Ran in hole to 310 m and ran survey. Ran in hole to 460 m and ran survey. Ran in hole to 610 m and ran survey. Continued running in hole to 618 m . Ream to bottom to 1430 hrs. No fill. 1430 - 1630 hrs. Drill 165 mm hole from 638 m to 647 m. 1630 - 1700 hrs. Pull out to 638 m and repair packing in swivel on top drive. Flow check 15 min-no flow. Shut down for night. Pit volume totalizer set to alarm @ 100 litre increase. Watchman monitoring throughout night.

Function pipe rams.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>46</b>	DATE: <b>November 12, 2004</b>
DEPTH: <b>682 mKB</b>	PROGRESS: <b>35 m in 9 1/2</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,515</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$133,605</b>	RIG / RIG #:	TEMP.: <b>5 deg C</b>
FORMATION: <b>Ship cove</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$
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BIT PERFORMANCE			SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	5		198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165		160 m	0.50 deg	Depth(m)	675	Make	GD
Mfg.	Smith		300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3		460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #			610 m	0.00 deg	Vis		SPM	75
Nozzles					PV		Pump Eff.	90%
From (mKB)	638				YP		Pump Rate	0.61 m3/min
To (mKB)	682				Gels		Pump Press.	1,800 kPa
Hrs on Bit	11				pH		Drillpipe AV	54 m/min
WOB (daN)	9,000				WL (cc's)		Drillcollar AV	54 m/min
RPM	70				Filter Cake		Nozzle Vel	27 m/sec
Condition					Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?					Solids (%)			
Meters	44				Oil (%)		Mud Cycle	87 min
m/hr	4.0				Pf/Mf		Bottoms Up	13 min
Cum Hrs	11				MBT		Tanks	38 m3
					Cl (ppm)		Hole Volume	15 m3
					Ca (ppm)		System Vol.	53 m3

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
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Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	61 DC Conn: 2 7/8 IF
Jts DP in hole:	83	DP on Loc:	144 DP Conn: 2 7/8 IF

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>			
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RU / TO	Survey	Plug Back	
Drill Actual	9 1/2	Fishing	
Reaming		Direct. Drill	
Coring		Work Pipe	
Rm Rathole		Mix LCM	
Cond / Circ	1/4	Safety meet	1/4
Tripping		Bop Drill	
Lubricate Rig		Weld flow line	
Repair Rig		PIT	
Slip/Cut Line		Handle Tools	
		Total Hrs	10

<b>24 HOUR SUMMARY FOR THE DATE :</b>		November 11, 2004 (0000 hrs-2400 hrs)
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Held safety meeting with crew. Ran in to bottom and drilled 165 mm hole from 647 m to 682 m. to 1715 hrs. Circulate bottoms up and pull to 674 m.Flow check 15 min and shut down for night.  
Function annular preventor.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>47</b>	DATE: <b>November 13, 2004</b>
DEPTH: <b>716 mKB</b>	PROGRESS: <b>34 m in 9</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,590</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$137,195</b>	RIG / RIG #:	TEMP.: <b>5 deg C</b>
FORMATION: <b>Ship cove</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	5	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	700	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	75
Nozzles				PV		Pump Eff.	90%
From (mKB)	638			YP		Pump Rate	0.61 m3/min
To (mKB)	716			Gels		Pump Press.	1,800 kPa
Hrs on Bit	20			pH	11.0	Drillpipe AV	54 m/min
WOB (daN)	9,000			WL (cc's)		Drillcollar AV	54 m/min
RPM	70			Filter Cake		Nozzle Vel	27 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	88 min
Meters	78			Oil (%)		Bottoms Up	13 min
m/hr	3.9			Pf/Mf		Tanks	38 m3
Cum Hrs	20			MBT		Hole Volume	15 m3
				Cl (ppm)		System Vol.	53 m3
				Ca (ppm)		Mud & Chemicals Added:	
				Mud Co.		Soda ash	
				Mud Man			
				Mud Up @			

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	daN DP size: 114 mm
Avail WOB:		Jts DP Racks	61 DC Conn: 2 7/8 IF
Jts DP in hole:	83	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO		Survey		Water added		Mud Daily Cost	
Drill Actual	9	Logging		Losses		Mud Cum Cost	
Reaming		Run Casing		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing		RSPP-SPM	700-30	Shaker Make	
Rm Rathole		WOC		MACP(kPa)	900	Shaker Mesh	
Cond / Circ	1/4	NU BOP's		Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping		Test BOP's		Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:	Nov-12	O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools		Afternoons		Boiler Hrs:	(to 24:00)
		Total Hrs	9 3/4				

**24 HOUR SUMMARY FOR THE DATE : November 12, 2004 (0000 hrs-2400 hrs)**

Held safety meeting with crew. Ran in to bottom and drilled 165 mm hole from 682 m to 716 m. to 1715 hrs. Circulate bottoms up and pull to 704 m.Flow check 15 min and shut down for night.  
Function Pipe rams.Held BOP drill

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>48</b>	DATE: <b>November 14, 2004</b>
DEPTH: <b>756 mKB</b>	PROGRESS: <b>40 m in 9</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$4,715</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$141,910</b>	RIG / RIG #:	TEMP.: <b>1 deg C</b>
FORMATION: <b>Ship cove</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	5	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	750	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	75
Nozzles				PV		Pump Eff.	90%
From (mKB)	638			YP		Pump Rate	0.61 m3/min
To (mKB)	756			Gels		Pump Press.	1,800 kPa
Hrs on Bit	29			pH	11.0	Drillpipe AV	54 m/min
WOB (daN)	12,000			WL (cc's)		Drillcollar AV	54 m/min
RPM	70			Filter Cake		Nozzle Vel	27 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	89 min
Meters	118			Oil (%)		Bottoms Up	14 min
m/hr	4.1			Pf/Mf		Tanks	38 m3
Cum Hrs	29			MBT		Hole Volume	16 m3
				Cl (ppm)		System Vol.	54 m3
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	18,000 daN DP size: 114 mm
Avail WOB:		Jts DP Racks	46 DC Conn: 2 7/8 IF
Jts DP in hole:	98	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO		Survey		Water added		Mud Daily Cost	
Drill Actual	9	Logging		Losses		Mud Cum Cost	
Reaming		Run Casing		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing		RSPP-SPM	700-30	Shaker Make	
Rm Rathole		WOC		MACP(kPa)	900	Shaker Mesh	
Cond / Circ	1/2	NU BOP's		Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping		Test BOPs		Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:	Nov-12	O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools		Afternoons		Boiler Hrs:	(to 24:00)
		Total Hrs	9 3/4				

**24 HOUR SUMMARY FOR THE DATE :** November 13, 2004 (0000 hrs-2400 hrs)

Held safety meeting with crew. Ran in to bottom and drilled 165 mm hole from 716 m to 756 m. to 1645 hrs. Circulate bottoms up and pull to 740 m. Flow check 15 min and shut down for night.  
Function Annular preventor.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

Next 24 hrs: Shut down for day off.



# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>49</b>	DATE: <b>November 15, 2004</b>
DEPTH: <b>756 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,440</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Snow</b>
CUM COST: <b>\$145,350</b>	RIG / RIG #:	TEMP.: <b>-1 deg C</b>
FORMATION: <b>Ship cove</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	5	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	750	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	75
Nozzles				PV		Pump Eff.	90%
From (mKB)	638			YP		Pump Rate	0.61 m3/min
To (mKB)	756			Gels		Pump Press.	1,800 kPa
Hrs on Bit	29			pH	11.0	Drillpipe AV	54 m/min
WOB (daN)	12,000			WL (cc's)		Drillcollar AV	54 m/min
RPM	70			Filter Cake		Nozzle Vel	27 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	89 min
Meters	118			Oil (%)		Bottoms Up	14 min
m/hr	4.1			Pf/Mf		Tanks	38 m3
Cum Hrs	29			MBT		Hole Volume	16 m3
				Cl (ppm)		System Vol.	54 m3
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	18,000 daN DP size: 114 mm
Avail WOB:		Jts DP Racks	46 DC Conn: 2 7/8 IF
Jts DP in hole:	98	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	Survey	Plug Back		Water added		Mud Daily Cost	
Drill Actual	Logging	Fishing		Losses		Mud Cum Cost	
Reaming	Run Casing	Direct. Drill		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring	Cementing	Work Pipe		RSPP-SPM	700-30	Shaker Make	
Rm Rathole	WOC	Mix LCM		MACP(kPa)	900	Shaker Mesh	
Cond / Circ	NU BOP's	Safety meet		Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Tripping	Test BOPs	Bop Drill		Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig	Drill Out Cmt	Weld flow line		Lst BOP Drill:	Nov-12	O.F. (kg/m3)	
Repair Rig	DST	PIT		Daylights		Hours/Days	
Slip/Cut Line	Hndle Tools	Total Hrs		Afternoons		Boiler Hrs:	(to 24:00)

**24 HOUR SUMMARY FOR THE DATE :** November 14, 2004 (0000 hrs-2400 hrs)

Shut down for day off.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>50</b>	DATE: <b>November 16, 2004</b>
DEPTH: <b>792 mKB</b>	PROGRESS: <b>36 m in 8</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,415</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Snow</b>
CUM COST: <b>\$148,765</b>	RIG / RIG #:	TEMP.: <b>-1 deg C</b>
FORMATION: <b>Ship cove</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

<b>AFE #</b>	<b>AFE \$</b>
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	5	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	790	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	70
Nozzles		745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	638			YP		Pump Rate	0.57 m3/min
To (mKB)	792			Gels		Pump Press.	1,800 kPa
Hrs on Bit	37			pH	11.0	Drillpipe AV	51 m/min
WOB (daN)	12,000			WL (cc's)		Drillcollar AV	51 m/min
RPM	70			Filter Cake		Nozzle Vel	25 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)			
Meters	154			Oil (%)		Mud Cycle	97 min
m/hr	4.2			Pf/Mf		Bottoms Up	16 min
Cum Hrs	37			MBT		Tanks	38 m3
				Cl (ppm)		Hole Volume	17 m3
				Ca (ppm)		System Vol.	55 m3

**BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)**

Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	18,000 daN DP size: 114 mm
Avail WOB:		Jts DP Racks	46 DC Conn: 2 7/8 IF
Jts DP in hole:	98	DP on Loc:	144 DP Conn: 2 7/8 IF

**DRILLING OPERATIONS TIME BREAKDOWN**

RU / TO	Survey	1 1/4	Plug Back	
Drill Actual	8		Fishing	
Reaming			Direct. Drill	
Coring			Work Pipe	
Rm Rathole			Mix LCM	
Cond / Circ	1/2		Safety meet	1/4
Tripping			Bop Drill	
Lubricate Rig			Weld flow line	
Repair Rig			PIT	
Slip/Cut Line			Handle Tools	
			Total Hrs	10

**24 HOUR SUMMARY FOR THE DATE : November 15, 2004 (0000 hrs-2400 hrs)**

Run in hole to bottom. Circulate bottoms up. Survey @ 740 m. 1.5 deg. To 0900 hrs.  
 Drill 165 mm hole from 756 m to 792 m to 1700 hrs. Pull out to 774 m. Circulate bottoms up, flow check and shut down for night.  
 Function HCR valve.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

<b>VOLUMES M<sup>3</sup></b>		<b>MUD DAILY COST</b>	
Water added		Mud Cum Cost	
Losses			
<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
RSPP-SPM	700-30	Shaker Make	
MACP(kPa)	900	Shaker Mesh	
Calc Hole Fill		Vol UF (l/min)	Desilter Centrifuge
Act Hole Fill		U.F. (kg/m3)	
Lst BOP Drill:	Nov-12	O.F. (kg/m3)	
Daylights		Hours/Days	
Afternoons		Boiler Hrs:	(to 24:00)

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>51</b>	DATE: <b>November 17, 2004</b>
DEPTH: <b>823 mKB</b>	PROGRESS: <b>31 m in 8</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$4,715</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Snow</b>
CUM COST: <b>\$153,480</b>	RIG / RIG #:	TEMP.: <b>-1 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	5	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	815	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	70
Nozzles		745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	638			YP		Pump Rate	0.57 m3/min
To (mKB)	823			Gels		Pump Press.	1,800 kPa
Hrs on Bit	45			pH	11.0	Drillpipe AV	51 m/min
WOB (daN)	12,000			WL (cc's)		Drillcollar AV	51 m/min
RPM	70			Filter Cake		Nozzle Vel	25 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	98 min
Meters	185			Oil (%)		Bottoms Up	16 min
m/hr	4.1			Pf/Mf		Tanks	38 m3
Cum Hrs	45			MBT		Hole Volume	18 m3
				Cl (ppm)		System Vol.	56 m3
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	18,000 daN DP size: 114 mm
Avail WOB:		Jts DP Racks	38 DC Conn: 2 7/8 IF
Jts DP in hole:	106	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN			
RU / TO		Survey	1 1/4
Drill Actual	8	Logging	
Reaming		Run Casing	
Coring		Cementing	
Rm Rathole		WOC	
Cond / Circ	1/2	NU BOP's	
Tripping		Test BOPs	
Lubricate Rig		Drill Out Cmt	
Repair Rig		DST	
Slip/Cut Line		Hndle Tools	
		Plug Back	
		Fishing	
		Direct. Drill	
		Work Pipe	
		Mix LCM	
		Safety meet	1/4
		Bop Drill	
		Weld flow line	
		PIT	
		Total Hrs	10

**24 HOUR SUMMARY FOR THE DATE :** November 16, 2004 (0000 hrs-2400 hrs)

Held safety meeting.changed out 2" bleed off valve on Kelly line.Ran in hole to bottom to 0830 hrs.  
 Drilled 165 mm hole from 792 m to 823 m to 1700 hrs.Pull out to 810 m. Circulate bottoms up, flow check and shut down for night.  
 Function annular preventor.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>52</b>	DATE: <b>November 18, 2004</b>
DEPTH: <b>826 mKB</b>	PROGRESS: <b>3 m in 1</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,415</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$156,895</b>	RIG / RIG #:	TEMP.: <b>5 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	5	6	198 m	0.50 deg	Time	Pump No.	# 1
Size (mm)	165	165	160 m	0.50 deg	Depth(m)	Make	GD
Mfg.	Smith	smith	300 m	0.00 deg	Density	Model	PY 7
Type	F3	F3	460 m	0.00 deg	Mud Grad	Liner X Stk	6 x 7
Serial #			610 m	0.00 deg	Vis	SPM	70
Nozzles			745 m	1.5 deg	PV	Pump Eff.	90%
From (mKB)	638	823			YP	Pump Rate	0.57 m3/min
To (mKB)	823	826			Gels	Pump Press.	2,200 kPa
Hrs on Bit	45	1			pH	Drillpipe AV	51 m/min
WOB (daN)	12,000				WL (cc's)	Drillcollar AV	51 m/min
RPM	70				Filter Cake	Nozzle Vel	25 m/sec
Condition					Sand (%)	<b>MUD &amp; CHEMICALS</b>	
Pulled For?					Solids (%)	Mud Cycle	98 min
Meters	185				Oil (%)	Bottoms Up	16 min
m/hr	4.1				Pf/Mf	Tanks	38 m3
Cum Hrs	45				MBT	Hole Volume	18 m3
					Cl (ppm)	System Vol.	56 m3
					Ca (ppm)		

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	20,000 daN DP size: 114 mm
Avail WOB:		Jts DP Racks	38 DC Conn: 2 7/8 IF
Jts DP in hole:	106	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO		Survey		Water added		Mud Daily Cost	
Drill Actual	1	Logging		Losses		Mud Cum Cost	
Reaming	1	Run Casing		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing		RSPP-SPM	700-30	Shaker Make	
Rm Rathole		WOC		MACP(kPa)	900	Shaker Mesh	
Cond / Circ	1/2	NU BOP's		Calc Hole Fill	2.5	Vol UF (l/min)	Desilter Centrifuge
Tripping	7	Test BOPs		Act Hole Fill		U.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Lst BOP Drill:	Nov-17	O.F. (kg/m3)	
Repair Rig		DST		Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools		Afternoons		Boiler Hrs:	(to 24:00)
		Total Hrs	9 3/4				

**24 HOUR SUMMARY FOR THE DATE : November 17, 2004 (0000 hrs-2400 hrs)**

Held safety meeting.Circulate bottoms up,flow check and pull out of hole for bit change to 1130 hrs.BOP drill 30 secs .Made up new bit,inspect stabilizer and ran in hole to 793 m.Broke circulation every 125 m.Reamed from 793 m to 823 m.to 1600 hrs Drilled 165 mm hole from 823 m to 826 m. to 1700 hrs.Circulate bottoms up and pull out of hole to 804 m. Flow check and shut down for night @ 1720 hrs.  
Function blind rams

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>53</b>	DATE: <b>November 19, 2004</b>
DEPTH: <b>838.2 mKB</b>	PROGRESS: <b>12 m in 9</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,715</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$160,610</b>	RIG / RIG #:	TEMP.: <b>5 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	6	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	70
Nozzles		745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	823			YP		Pump Rate	0.57 m3/min
To (mKB)	838.2			Gels		Pump Press.	2,200 kPa
Hrs on Bit	10			pH	10.0	Drillpipe AV	51 m/min
WOB (daN)	12,000			WL (cc's)		Drillcollar AV	51 m/min
RPM	70			Filter Cake		Nozzle Vel	25 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?				Solids (%)		Mud Cycle	99 min
Meters	15.2			Oil (%)		Bottoms Up	17 min
m/hr	1.5			Pf/Mf		Tanks	38 m3
Cum Hrs	10			MBT		Hole Volume	18 m3
				Cl (ppm)		System Vol.	56 m3
				Ca (ppm)		Mud & Chemicals Added:	
				Mud Co.		Soda ash	
				Mud Man			
				Mud Up @			

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
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Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
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BHA Length:	8.02	Hook Load:	20,000 daN	DP size:	114 mm
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Avail WOB:		Jts DP Racks	36	DC Conn:	2 7/8 IF
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Jts DP in hole:	108	DP on Loc:	144	DP Conn:	2 7/8 IF
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<b>DRILLING OPERATIONS TIME BREAKDOWN</b>					
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RU / TO		Survey		Plug Back	
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Drill Actual	9	Logging		Fishing	
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Reaming		Run Casing		Direct. Drill	
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Coring		Cementing		Work Pipe	
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Rm Rathole		WOC		Mix LCM	
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Cond / Circ	3/4	NU BOP's		Safety meet	1/4
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Tripping		Test BOPs		Bop Drill	
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Lubricate Rig		Drill Out Cmt		Weld flow line	
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Repair Rig		DST		PIT	
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Slip/Cut Line		Hndle Tools		Total Hrs	10
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<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
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RSPP-SPM	700-30	Shaker Make	
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MACP(kPa)	900	Shaker Mesh	
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Calc Hole Fill		Vol UF (l/min)	Desilter	Centrifuge
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Act Hole Fill		U.F. (kg/m3)		
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Lst BOP Drill:	Nov-17	O.F. (kg/m3)		
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Daylights		Hours/Days		
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Afternoons		Boiler Hrs:		(to 24:00)
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<b>24 HOUR SUMMARY FOR THE DATE :</b> November 18, 2004 (0000 hrs-2400 hrs)				
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Held safety meeting and run in hole to 826 m.to 0750 hrs.

Drilled 165 mm hole from 826 m to 838.2 m. to 1700 hrs.Circulate bottoms up and pull out of hole to 820 m. Flow check and shut down for night @ 1730 hrs.

Function pipe rams.

Next 24 hrs: Pull out of hole and log with schlumberger.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>54</b>	DATE: <b>November 20, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>7 m in 5</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$4,940</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$165,550</b>	RIG / RIG #:	TEMP.: <b>5 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$	
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	6			198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165			160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.	Smith			300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3			460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #				610 m	0.00 deg	Vis		SPM	70
Nozzles				745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	823					YP		Pump Rate	0.57 m3/min
To (mKB)	845.4					Gels		Pump Press.	2,200 kPa
Hrs on Bit	15					pH	10.0	Drillpipe AV	51 m/min
WOB (daN)	12,000					WL (cc's)		Drillcollar AV	51 m/min
RPM	70					Filter Cake		Nozzle Vel	25 m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?	TD					Solids (%)		Mud Cycle	99 min
Meters	22.4					Oil (%)		Bottoms Up	17 min
m/hr	1.5					Pf/Mf		Tanks	38 m3
Cum Hrs	15					MBT		Hole Volume	18 m3
						Cl (ppm)		System Vol.	56 m3
						Ca (ppm)		Mud & Chemicals Added:	
						Mud Co.		Soda ash	
						Mud Man			
						Mud Up @			

<b>BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)</b>			
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Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
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BHA Length:	8.02	Hook Load:	20,000 daN	DP size:	114 mm
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Avail WOB:		Jts DP Racks	35	DC Conn:	2 7/8 IF
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Jts DP in hole:	109	DP on Loc:	144	DP Conn:	2 7/8 IF
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<b>DRILLING OPERATIONS TIME BREAKDOWN</b>						<b>VOLUMES M<sup>3</sup></b>		<b>Mud Daily Cost</b>	
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RU / TO		Survey		Plug Back		Water added		Mud Cum Cost	
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Drill Actual	5	Logging		Fishing		Losses		<b>WELL CONTROL</b>	
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Reaming		Run Casing		Direct. Drill		RSPP-SPM	700-30	<b>SOLIDS CONTROL</b>	
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Coring		Cementing		Work Pipe		MACP(kPa)	900	Shaker Make	
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Rm Rathole		WOC		Mix LCM		Calc Hole Fill	2.53	Shaker Mesh	
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Cond / Circ	3/4	NU BOP's		Safety meet	1/4	Act Hole Fill	2.6	Vol UF (l/min)	
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Tripping	3	Test BOPs		Bop Drill		Lst BOP Drill:	Nov-17	U.F. (kg/m3)	
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Lubricate Rig		Drill Out Cmt		Weld flow line		Daylights		O.F. (kg/m3)	
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Repair Rig		DST		PIT		Afternoons		Hours/Days	
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Slip/Cut Line		Hndle Tools		Total Hrs	9			Boiler Hrs:	(to 24:00)
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<b>24 HOUR SUMMARY FOR THE DATE : November 19, 2004 (0000 hrs-2400 hrs)</b>									
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Held safety meeting and run in hole to 838.2 m.to 0750 hrs.  
 Drilled 165 mm hole from 838.2 m to TD 845.4. m. to 1300 hrs.Circulate to 1330 hrs. Flow checked and pulled out of hole to 1630 hrs Run in hole with two joints drill pipe, flow check and shut pipe rams. Shut down for night @ 1700 hrs.  
 Function annular preventor.

Next 24 hrs: Log with schlumberger.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

## DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>55</b>	DATE: <b>November 21, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,415</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$168,965</b>	RIG / RIG #:	TEMP.: <b>5 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	6	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	70
Nozzles		745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	823			YP		Pump Rate	0.57 m3/min
To (mKB)	845.4			Gels		Pump Press.	2,200 kPa
Hrs on Bit	15			pH	10.0	Drillpipe AV	51 m/min
WOB (daN)	12,000			WL (cc's)		Drillcollar AV	51 m/min
RPM	70			Filter Cake		Nozzle Vel	25 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?	TD			Solids (%)		Mud Cycle	99 min
Meters	22.4			Oil (%)		Bottoms Up	17 min
m/hr	1.5			Pf/Mf		Tanks	38 m3
Cum Hrs	15			MBT		Hole Volume	18 m3
				Cl (ppm)		System Vol.	56 m3
				Ca (ppm)			

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.			
BHA Length:	8.02	Hook Load:	20,000 daN DP size: 114 mm
Avail WOB:		Jts DP Racks	35 DC Conn: 2 7/8 IF
Jts DP in hole:	109	DP on Loc:	144 DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	5 3/4	Survey	5	Plug Back		Mud Daily Cost	
Drill Actual		Logging		Fishing		Mud Cum Cost	
Reaming		Run Casing		Direct. Drill			
Coring		Cementing		Work Pipe			
Rm Rathole		WOC		Mix LCM			
Cond / Circ		NU BOP's		Safety meet	1/4		
Tripping		Test BOPs		Bop Drill			
Lubricate Rig		Drill Out Cmt		Weld flow line			
Repair Rig		DST		PIT			
Slip/Cut Line		Hndle Tools		Total Hrs	11		

### 24 HOUR SUMMARY FOR THE DATE : November 20, 2004 (0000 hrs-2400 hrs)

Held safety meeting. Rig up schlumberger and make up Gamma ray,newtron density,sonic,caliper,resistivity and SP logs to 1200 hrs.

Check tools to 1300 hrs and run in hole and log well to 1700 hrs.Lay out tools and rig down schlumberger to 1830 hrs.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>56</b>	DATE: <b>November 22, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	Shoe At <b>198.5 m</b>	FOREMAN: <b>Bill Williams</b>
DAILY COST: <b>\$38,540</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$207,505</b>	RIG / RIG #:	TEMP.: <b>5 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$
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BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	6	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	70
Nozzles		745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	823			YP		Pump Rate	0.57 m3/min
To (mKB)	845.4			Gels		Pump Press.	2,200 kPa
Hrs on Bit	15			pH	10.0	Drillpipe AV	51 m/min
WOB (daN)	12,000			WL (cc's)		Drillcollar AV	51 m/min
RPM	70			Filter Cake		Nozzle Vel	25 m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?	TD			Solids (%)			
Meters	22.4			Oil (%)		Mud Cycle	99 min
m/hr	1.5			Pf/Mf		Bottoms Up	17 min
Cum Hrs	15			MBT		Tanks	38 m3
				Cl (ppm)		Hole Volume	18 m3
				Ca (ppm)		System Vol.	56 m3

<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)	
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Bit .10m,.Stabilizer. 7.52 m Float sub .4 m.	
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BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	144	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>	
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RU / TO	Survey	Plug Back	Water added	<b>VOLUMES</b> M <sup>3</sup>		Mud Daily Cost
Drill Actual	Logging	Fishing	Losses			Mud Cum Cost
Reaming	Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring	Cementing	Work Pipe	RSPP-SPM	700-30	Shaker Make	
Rm Rathole	WOC	Mix LCM	MACP(kPa)	900	Shaker Mesh	
Cond / Circ	NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter
Tripping	Test BOPs	Bop Drill	Act Hole Fill		U.F. (kg/m3)	Centrifuge
Lubricate Rig	Drill Out Cmt	Weld flow line	Lst BOP Drill:	Nov-17	O.F. (kg/m3)	
Repair Rig	DST	PIT	Daylights		Hours/Days	
Slip/Cut Line	Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)

<b>24 HOUR SUMMARY FOR THE DATE :</b> November 21, 2004 (0000 hrs-2400 hrs)	
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Shut Down for day off.

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

Next 24 hrs: Wait on Holland Testers



# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>57</b>	DATE: <b>November 23, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$3,115</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Cloudy</b>
CUM COST: <b>\$210,620</b>	RIG / RIG #:	TEMP.: <b>2 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$	
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	6			198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165			160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.	Smith			300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3			460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #				610 m	0.00 deg	Vis		SPM	70
Nozzles				745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	823					YP		Pump Rate	0.57 m3/min
To (mKB)	845.4					Gels		Pump Press.	2,200 kPa
Hrs on Bit	15					pH	10.0	Drillpipe AV	51 m/min
WOB (daN)	12,000					WL (cc's)		Drillcollar AV	51 m/min
RPM	70					Filter Cake		Nozzle Vel	25 m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?	TD					Solids (%)		Mud Cycle	99 min
Meters	22.4					Oil (%)		Bottoms Up	17 min
m/hr	1.5					Pf/Mf		Tanks	38 m3
Cum Hrs	15					MBT		Hole Volume	18 m3
						Cl (ppm)		System Vol.	56 m3
						Ca (ppm)		Mud & Chemicals Added:	
								Soda ash	

### BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)

BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	144	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

### DRILLING OPERATIONS TIME BREAKDOWN

RU / TO	Survey	Plug Back	Water added	Losses	Mud Daily Cost	Mud Cum Cost
Drill Actual	Logging	Fishing				
Reaming	Run Casing	Direct. Drill				
Coring	Cementing	Work Pipe				
Rm Rathole	WOC	Mix LCM				
Cond / Circ	NU BOP's	Safety meet				
Tripping	Test BOPs	Bop Drill				
Lubricate Rig	Drill Out Cmt	Weld flow line				
Repair Rig	DST	PIT				
Slip/Cut Line	Hndle Tools	Total Hrs				

### 24 HOUR SUMMARY FOR THE DATE : November 22, 2004 (0000 hrs-2400 hrs)

Wait on testers

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

Next 24 hrs: Make up test tools and run in hole.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>58</b>	DATE: <b>November 24, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	Shoe At <b>198.5 m</b>	FOREMAN: <b>Bill Williams</b>
DAILY COST: <b>\$3,970</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Cloudy</b>
CUM COST: <b>\$214,590</b>	RIG / RIG #:	TEMP.: <b>2 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$
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BIT PERFORMANCE			SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	6		198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165		160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.	Smith		300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3		460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #			610 m	0.00 deg	Vis		SPM	
Nozzles			745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	823				YP		Pump Rate	m3/min
To (mKB)	845.4				Gels		Pump Press.	2,200 kPa
Hrs on Bit	15				pH	10.0	Drillpipe AV	m/min
WOB (daN)	12,000				WL (cc's)		Drillcollar AV	m/min
RPM	70				Filter Cake		Nozzle Vel	m/sec
Condition					Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?	TD				Solids (%)			
Meters	22.4				Oil (%)		Mud Cycle	#DIV/0! min
m/hr	1.5				Pf/Mf		Bottoms Up	#DIV/0! min
Cum Hrs	15				MBT		Tanks	38 m3
					Cl (ppm)		Hole Volume	18 m3
					Ca (ppm)		System Vol.	56 m3

<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)			

BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	144	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD DAILY COST	
RU / TO	1/2	Survey	Plug Back	Water added		Mud Daily Cost	
Drill Actual		Logging	Fishing	Losses		Mud Cum Cost	
Reaming		Run Casing	Direct. Drill	<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring		Cementing	Work Pipe	RSPP-SPM	700-30	Shaker Make	
Rm Rathole		WOC	Mix LCM	MACP(kPa)	900	Shaker Mesh	
Cond / Circ		NU BOP's	Safety meet	Calc Hole Fill		Vol UF (l/min)	Desilter
Tripping	7	Test BOPs	Bop Drill	Act Hole Fill		U.F. (kg/m3)	Centrifuge
Lubricate Rig		Drill Out Cmt	Weld flow line	Lst BOP Drill:	Nov-17	O.F. (kg/m3)	
Repair Rig		DST	PIT	Daylights		Hours/Days	
Slip/Cut Line		Hndle Tools	Total Hrs	Afternoons		Boiler Hrs:	(to 24:00)

**24 HOUR SUMMARY FOR THE DATE :** November 23, 2004 (0000 hrs-2400 hrs)

Held safety meeting prior to making up test tools. Made up and ran in hole, bull nose, x/o ,14 joints drill pipe, x/o, Electronic recorder, mechanical recorder, perf subs and 1 packer. (Total length below packer 115.51 m.) Made up and ran in 2nd packer, packer assy, safety joint, electronic recorder, mechanical recorder, jars, ,hyd tool, bottom hole sampler, shut in tool, recorder, x/o, 2 joints drill pipe and pump out sub.(Total length above packer to pump out sub 32.16 m). Continued running in hole and tagged bottom. Rigged up surface lines and manifold and pressured tested to 7000 kpa.Seated packer @ 730 m and opened hyd tool @ 1524 hrs. for 10 min. Faint air blow. 1/8 inch in bubble pail.Decreaseing to dead in 2 min.No gas to surface. Shut in for 60 min for initial shut in.Opened for valve open for 60 min.Dead throughout.No gas to surface.Shut in for final shut in @ 1734 hrs. Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

Next 24 hrs: Pull out of hole with test tools.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>59</b>	DATE: <b>November 25, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	Shoe At <b>198.5 m</b>	FOREMAN: <b>Bill Williams</b>
DAILY COST: <b>\$10,995</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Sunny</b>
CUM COST: <b>\$225,585</b>	RIG / RIG #:	TEMP.: <b>2 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	6			198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165			160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.	Smith			300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3			460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #				610 m	0.00 deg	Vis		SPM	
Nozzles				745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	823					YP		Pump Rate	m3/min
To (mKB)	845.4					Gels		Pump Press.	kPa
Hrs on Bit	15					pH	10.0	Drillpipe AV	m/min
WOB (daN)	12,000					WL (cc's)		Drillcollar AV	m/min
RPM	70					Filter Cake		Nozzle Vel	m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?	TD					Solids (%)			
Meters	22.4					Oil (%)		Mud Cycle	#DIV/0! min
m/hr	1.5					Pf/Mf		Bottoms Up	#DIV/0! min
Cum Hrs	15					MBT		Tanks	38 m3
						Cl (ppm)		Hole Volume	18 m3
						Ca (ppm)		System Vol.	56 m3

<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)			

BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	144	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>			
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DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		WELL CONTROL		SOLIDS CONTROL	
RU / TO		Survey		Plug Back		Water added		Mud Daily Cost	
Drill Actual		Logging		Fishing		Losses		Mud Cum Cost	
Reaming		Run Casing		Direct. Drill		RSPP-SPM	700-30	Shaker Make	
Coring		Cementing		Work Pipe		MACP(kPa)	900	Shaker Mesh	
Rm Rathole		WOC		Mix LCM		Calc Hole Fill	8.62	Vol UF (l/min)	Desilter
Cond / Circ		NU BOP's		Safety meet	1/4	Act Hole Fill	8.68	U.F. (kg/m3)	Centrifuge
Tripping	3 3/4	Test BOPs		Bop Drill		Lst BOP Drill:	Nov-17	O.F. (kg/m3)	
Lubricate Rig		Drill Out Cmt		Weld flow line		Daylights		Hours/Days	
Repair Rig		DST		PIT		Afternoons		Boiler Hrs:	(to 24:00)
Slip/Cut Line		Hndle Tools	5 1/2	Total Hrs	9 1/2				

**24 HOUR SUMMARY FOR THE DATE :** November 24, 2004 (0000 hrs-2400 hrs)

Held safety meeting. Released packer. Flow checked and began pulling out of hole with test tools.  
 1115 hrs began breaking down and laying out test tools to 1430 hrs.  
 Clean up and service tools to 1700 hrs

Watchman monitoring and recording pit volumes. PVT alarm set to 20 litre gain.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>60</b>	DATE: <b>November 26, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,990</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$228,575</b>	RIG / RIG #:	TEMP.: <b>6 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

BIT PERFORMANCE		SURVEYS		DRILLING FLUID		PUMPS	
Bit No.	6	198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)	165	160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.	Smith	300 m	0.00 deg	Density	1200	Model	PY 7
Type	F3	460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #		610 m	0.00 deg	Vis		SPM	
Nozzles		745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)	823			YP		Pump Rate	m3/min
To (mKB)	845.4			Gels		Pump Press.	kPa
Hrs on Bit	15			pH	10.0	Drillpipe AV	m/min
WOB (daN)	12,000			WL (cc's)		Drillcollar AV	m/min
RPM	70			Filter Cake		Nozzle Vel	m/sec
Condition				Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?	TD			Solids (%)		Mud Cycle	#DIV/0! min
Meters	22.4			Oil (%)		Bottoms Up	#DIV/0! min
m/hr	1.5			Pf/Mf		Tanks	38 m3
Cum Hrs	15			MBT		Hole Volume	18 m3
				Cl (ppm)		System Vol.	56 m3
				Ca (ppm)		Mud & Chemicals Added:	
						Soda ash	

BOTTOMHOLE ASSEMBLY (No., Item, OD, ID, TJ Type)			
BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	144	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

DRILLING OPERATIONS TIME BREAKDOWN				VOLUMES M <sup>3</sup>		MUD COST	
RU / TO	Survey	Plug Back		Water added		Mud Daily Cost	
Drill Actual	Logging	Fishing		Losses		Mud Cum Cost	
Reaming	Run Casing	Direct. Drill		<b>WELL CONTROL</b>		<b>SOLIDS CONTROL</b>	
Coring	Cementing	Work Pipe		RSPP-SPM	700-30	Shaker Make	
Rm Rathole	WOC	Mix LCM		MACP(kPa)	900	Shaker Mesh	
Cond / Circ	NU BOP's	Safety meet	1/4	Calc Hole Fill	8.62	Vol UF (l/min)	Desilter Centrifuge
Tripping	3 3/4	Test BOPs		Act Hole Fill	8.68	U.F. (kg/m3)	
Lubricate Rig	Drill Out Cmt	Bop Drill		Lst BOP Drill:	Nov-17	O.F. (kg/m3)	
Repair Rig	DST	Weld flow line		Daylights		Hours/Days	
Slip/Cut Line	Hndle Tools	PIT		Afternoons		Boiler Hrs:	(to 24:00)
	5 1/2	Total Hrs	9 1/2				

**24 HOUR SUMMARY FOR THE DATE :** November 25, 2004 (0000 hrs-2400 hrs)

Held safety meeting. Ran in hole to 214 m with open end drill pipe to 0900 hrs. Rig down equipment o 1430 hrs. Pump .2 m3 water preflush, 1 m3 Class A cement 15.2 ppg, .4 m3 water, and spot cement plug 214m-184 m. Pull out to 35 m and pump .2 m3 water, .4 m3 class A cement, and .15 m3 water, spotting plug 35 m- 18 m. Pull out of hole to 1630 hrs. Rig released @ 1700 hrs. Nov 25. Shut down for night

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>61</b>	DATE: <b>November 27, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00: <b>Shoe At 198.5 m</b>	FOREMAN: <b>Bill Williams</b>	MOBILE NO.: <b>709 689 9673</b>
DAILY COST: <b>\$2,990</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$228,575</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #	AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS	
Bit No.				198 m	0.50 deg	Time		Pump No.	# 1
Size (mm)				160 m	0.50 deg	Depth(m)	835	Make	GD
Mfg.				300 m	0.00 deg	Density	1200	Model	PY 7
Type				460 m	0.00 deg	Mud Grad	11.70	Liner X Stk	6 x 7
Serial #				610 m	0.00 deg	Vis		SPM	
Nozzles				745 m	1.5 deg	PV		Pump Eff.	90%
From (mKB)						YP		Pump Rate	m3/min
To (mKB)						Gels		Pump Press.	kPa
Hrs on Bit						pH	10.0	Drillpipe AV	m/min
WOB (daN)						WL (cc's)		Drillcollar AV	m/min
RPM						Filter Cake		Nozzle Vel	m/sec
Condition						Sand (%)		<b>MUD &amp; CHEMICALS</b>	
Pulled For?						Solids (%)			
Meters						Oil (%)		Mud Cycle	#DIV/0! min
m/hr	#DIV/0!					Pf/Mf		Bottoms Up	#DIV/0! min
Cum Hrs						MBT		Tanks	38 m3
						Cl (ppm)		Hole Volume	m3
						Ca (ppm)		System Vol.	38 m3

<b>BOTTOMHOLE ASSEMBLY</b>	(No., Item, OD, ID, TJ Type)
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BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	144	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>						<b>VOLUMES</b>	M <sup>3</sup>
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DRILLING OPERATIONS TIME BREAKDOWN				WELL CONTROL		SOLIDS CONTROL	
RU / TO	9 1/4	Survey		Plug Back		Water added	
Drill Actual		Logging		Fishing		Losses	
Reaming		Run Casing		Direct. Drill		RSPP-SPM	700-30
Coring		Cementing		Work Pipe		MACP(kPa)	900
Rm Rathole		WOC		Mix LCM		Calc Hole Fill	8.62
Cond / Circ		NU BOP's		Safety meet	1/4	Act Hole Fill	8.68
Tripping		Test BOPs		Bop Drill		Lst BOP Drill:	Nov-17
Lubricate Rig		Drill Out Cmt		Weld flow line		Daylights	
Repair Rig		DST		PIT		Afternoons	
Slip/Cut Line		Hndle Tools		Total Hrs	9 1/2		

<b>24 HOUR SUMMARY FOR THE DATE :</b>	November 26, 2004	(0000 hrs-2400 hrs)
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Tear out rig and BOP equipment to 1700 hrs.

# vulcan minerals inc

# DAILY DRILLING REPORT

WELL: <b>Flat Bay # 2</b>	REPORT #: <b>62</b>	DATE: <b>November 28, 2004</b>
DEPTH: <b>845.4 mKB</b>	PROGRESS: <b>in</b>	rotating hours (last 24 hours)
OPER 06:00:	Shoe At <b>198.5 m</b>	FOREMAN: <b>Bill Williams</b>
DAILY COST: <b>\$2,990</b>	HOLE CND.: <b>Good</b>	WEATHER: <b>Rain</b>
CUM COST: <b>\$228,575</b>	RIG / RIG #:	TEMP.: <b>8 deg C</b>
FORMATION: <b>Fischell's Brook</b>	K.B. ELEV.: <b>2.8 m</b>	ROADS: <b>GOOD</b>

AFE #		AFE \$
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BIT PERFORMANCE				SURVEYS		DRILLING FLUID		PUMPS																	
Bit No.				198 m	0.50 deg	Time		Pump No.	# 1																
Size (mm)				160 m	0.50 deg	Depth(m)		Make	GD																
Mfg.				300 m	0.00 deg	Density		Model	PY 7																
Type				460 m	0.00 deg	Mud Grad		Liner X Stk	6 x 7																
Serial #				610 m	0.00 deg	Vis		SPM																	
Nozzles				745 m	1.5 deg	PV		Pump Eff.	90%																
From (mKB)						YP		Pump Rate	m3/min																
To (mKB)						Gels		Pump Press.	kPa																
Hrs on Bit						pH		Drillpipe AV	m/min																
WOB (daN)						WL (cc's)		Drillcollar AV	m/min																
RPM						Filter Cake		Nozzle Vel	m/sec																
Condition						Sand (%)		<table border="1"> <thead> <tr> <th colspan="2">MUD &amp; CHEMICALS</th> </tr> </thead> <tbody> <tr> <td>Mud Cycle</td> <td>#DIV/0! min</td> </tr> <tr> <td>Bottoms Up</td> <td>#DIV/0! min</td> </tr> <tr> <td>Tanks</td> <td>38 m3</td> </tr> <tr> <td>Hole Volume</td> <td>m3</td> </tr> <tr> <td>System Vol.</td> <td>38 m3</td> </tr> <tr> <td colspan="2">Mud &amp; Chemicals Added:</td> </tr> <tr> <td colspan="2">Soda ash</td> </tr> </tbody> </table>		MUD & CHEMICALS		Mud Cycle	#DIV/0! min	Bottoms Up	#DIV/0! min	Tanks	38 m3	Hole Volume	m3	System Vol.	38 m3	Mud & Chemicals Added:		Soda ash	
MUD & CHEMICALS																									
Mud Cycle	#DIV/0! min																								
Bottoms Up	#DIV/0! min																								
Tanks	38 m3																								
Hole Volume	m3																								
System Vol.	38 m3																								
Mud & Chemicals Added:																									
Soda ash																									
Pulled For?						Solids (%)																			
Meters						Oil (%)																			
m/hr	#DIV/0!					Pf/Mf																			
Cum Hrs						MBT																			
						Cl (ppm)																			
						Ca (ppm)																			

<b>BOTTOMHOLE ASSEMBLY</b> (No., Item, OD, ID, TJ Type)			
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BHA Length:	Hook Load:	daN	DP size: 114 mm
Avail WOB:	Jts DP Racks	144	DC Conn: 2 7/8 IF
Jts DP in hole:	DP on Loc:	144	DP Conn: 2 7/8 IF

<b>DRILLING OPERATIONS TIME BREAKDOWN</b>			
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RU / TO	8 1/2	Survey	Plug Back	
Drill Actual		Logging	Fishing	
Reaming		Run Casing	Direct. Drill	
Coring		Cementing	Work Pipe	
Rm Rathole		WOC	Mix LCM	
Cond / Circ		NU BOP's	Safety meet	
Tripping		Test BOP's	Bop Drill	
Lubricate Rig		Drill Out Cmt	Weld flow line	
Repair Rig		DST	PIT	
Slip/Cut Line		Hndle Tools	Total Hrs	8 1/2

<b>24 HOUR SUMMARY FOR THE DATE :</b>		November 27, 2004	(0000 hrs-2400 hrs)
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Tear out rig. Loaded BOP's and trailers. Installed tubing bonnet, x/o and 2" valve on wellhead and locked