

NATIONAL ENERGY BOARD  
Exploration and Production  
JUN 23 2003

**FINAL WELL REPORT**

**PARAMOUNT RESOURCES LTD.**

**N.E.B. COPY**

**PARA ET AL CAMERON F-75**

**Grid: 60° 10', 117° 15'**

**DATE: June 16, 2003**

**COMPANY REPRESENTATIVE:**

**Dave Block**

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## A. INTRODUCTION

Paramount Resources Ltd. (Paramount) drilled a 1463 meter exploratory well spudded on January 10, 2003 and finishing on January 23, 2003 to evaluate hydrocarbon potential. The primary target was the Sulphur Point formation at a depth of 1418 mKB. The secondary target was the Slave Point formation at 1353 mKB

The drilling contractor was Precision Drilling based out of Calgary, Alberta. Precision rig # 117 was used and is a land rig rated for 1800 m. The rig had a mud system capacity of 65 m<sup>3</sup> and was equipped with a boiler.

The well was drilled on Production License No PL-13 in which Paramount has an 88% working interest. Operating License No 1971 was issued to Paramount on December 6, 2002.

The exact co-ordinates of the well are as follows:

Latitude: 60° 04' 29.364"

Longitude: 117° 29' 11.066"

Shadow Rathole Drilling Ltd. drilled a 610 mm conductor hole to 12.2 meters. From surface to 0.9 meters was frozen snow fill, 0.9 – 3.1 m was frozen muskeg, 3.1 – 6.1 m was permafrost and rocks, and 6.1 – 12.2 m was good clay. A 406 mm conductor pipe was set and cemented at 12.2 meters.

Precision #117 was moved onto the location and rigged up on January 9, 2003. The diverter was nipped up, the rig was rigged up, and the well was spudded on January 10, 2003 at 00:00 hours. A 311 mm surface hole was drilled to 436 mKB. There were no major lost circulation or mud ring problems but rock and gravel were encountered from 70 to 92 meters. A string of 219.1 mm, 35.7 kg/m, J-55, ST&C surface casing was run to 436 mKB. The casing was cemented with 34 t class 'G' cement plus 2% CaCl<sub>2</sub>. There were 7 m<sup>3</sup> of cement returned to surface while cementing. The plug was bumped and the float held OK. The plug was down at 06:44 hours on January 10, 2003.

The casing and conductor were trimmed and the casing bowl was welded on. The BOP's were installed and function tested. The BOP's and manifold were pressure tested to 1400 kPa low pressure and 10500 kPa high pressure.

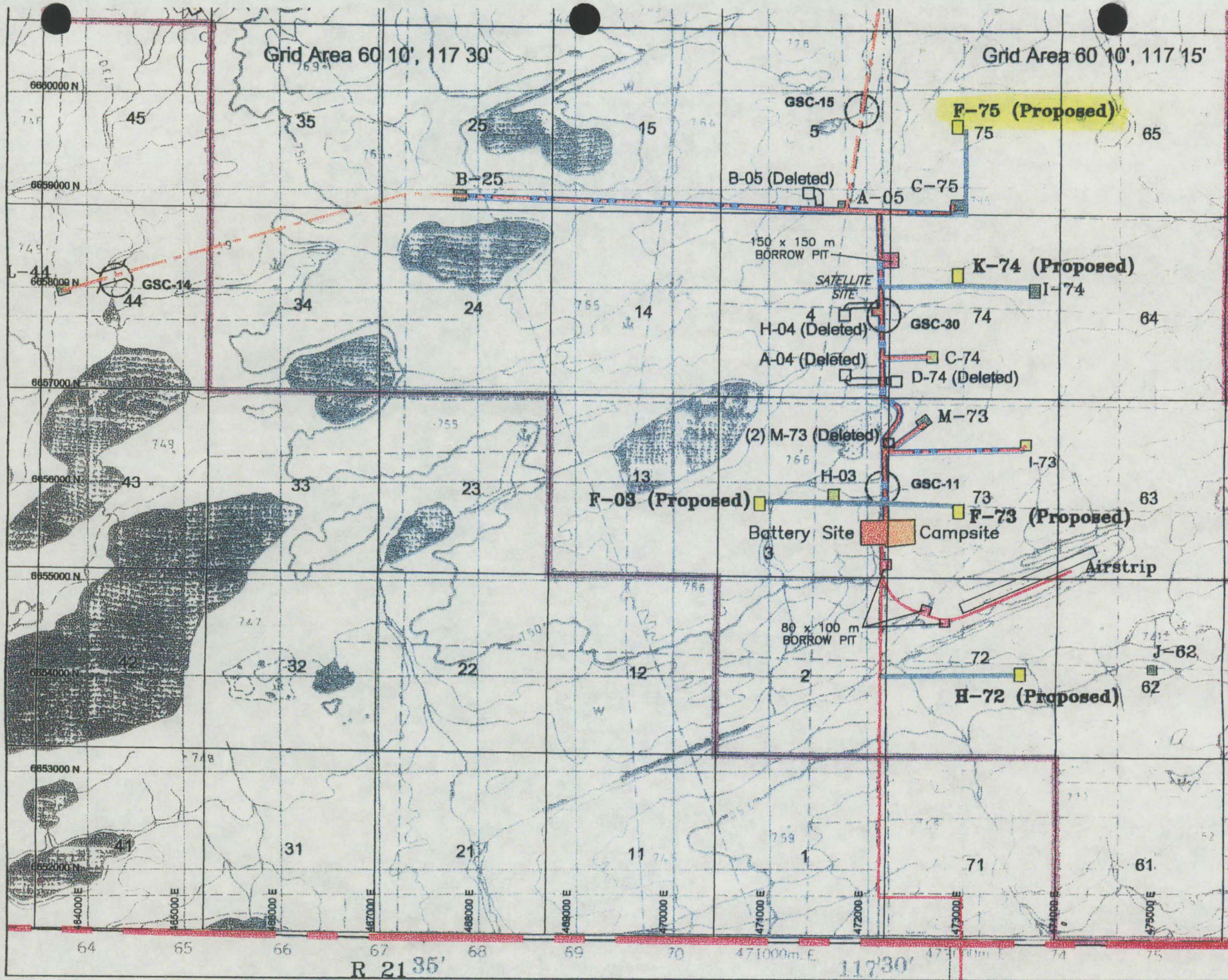
The float collar and shoe were drilled out to 446 mKB on January 13, 2003. A leak off test was performed with the leak off gradient found to be 22.16 kPa/m. A 200 mm hole was drilled with a flocculated water system to approximately 573 mKB when circulation losses were encountered. LCM's were pumped but losses continued. The hole was drilled with losses to 722 mKB. The losses were cemented off and drilling continued with the flocculated water system to 1250 m. A gel/chem mud system was then used. A core was cut from 1413 – 1432 mKB. The well was drilled to a total depth of 1463 mKB. Computalog ran induction and density logs from bottom to surface casing and a micro resistivity log from bottom to 1330 mKB. The hole bridged off at 817 m while attempting to run the sonic log. It was decided to run casing rather than re-attempt the sonic log.



139.7 mm, 20.83 kg/m, J-55, ST&C production casing was run and set at 1463 mKB. It was cemented with 23.0 t Fill-Lite 2-125 + 3% A-9 + 0.6% R-3 and 5 t 'G' cement + 0.2% R-3 + 0.4% FL-5. There were no cement returns and the plug was bumped with 4 MPa.

Precision #117 was rigged out and released at 08:00 hours on January 23, 2003.







## B.GENERAL DATA

1. Well Name: Para et al Cameron F-75  
  
Authority to Drill a Well No: 1971  
  
Exploration Agreement Number: PL-13  
  
Location Unit: F  
  
Section: 75  
  
Grid Area: 60<sup>0</sup> 10' N, 117<sup>0</sup> 15' W  
  
Classification: Development
2. Coordinates:  
    Latitude: 60<sup>0</sup> 04' 29.364"  
    Longitude: 117<sup>0</sup> 29' 11.066"
3. Unique Well Identifier: 300F756010117150
4. Operator: Paramount Resources Ltd.
5. Contractor: Precision Drilling
6. Drilling Unit: Precision Rig # 117, Land Rig
7. Position Keeping: N/A
8. Support Craft (Helicopter): N/A
9. Drilling Unit Performance: Good
10. Difficulties and Delays: Lost circulation that was cemented off
11. Total Well Cost: \$917,000
12. Bottom Hole Co-ordinates: Same as surface

## C. SUMMARY OF DRILLING OPERATIONS

1. Elevations:
  - Ground: 774.35 m above sea level
  - KB: 778.83 m above sea level
  - KB to Casing Flange: 4.48 m
2. Total Depth:
  - FTD: 1463 mKB
  - PBTD: 1453 mKB
  - TVD: 1463 mKB
3. Date and Hour Spudded: January 10, 2003 at 00:00 hours
4. Date Drilling Completed: January 20, 2003
5. Date of Rig Release: January 23, 2003
6. Well status: Cased and Suspended
7. Hole Sizes and Depths:
  - Conductor Hole: 610 mm to 12.2 m
  - Surface Hole: 311 mm to 436 mKB
  - Main Hole: 200 mm to 1463 mKB
8. Casing and Cementing Record:
  - Conductor Hole:
    - Casing Size: 406 mm
    - Wall Thickness: 7 mm
    - Depth Set: 12.2 m
    - Cut Height: At Surface
    - Date Set: January 3, 2003
    - Cement Volume: 40 sacks
    - Cement Type: Portland Normal
  - Surface Hole:
    - Casing Make: Ipsco
    - Casing Size: 219.1 mm
    - Casing Weight: 35.7 kg/m
    - Casing Grade: J-55
    - Thread: ST&C
    - Number of Joints: 34
    - Depth Set: 436 mKB
    - Cut Height: At surface
    - Date Set: January 12, 2003

Cement Volume: 34 Tonnes  
 Float Shoe Depth: 436 mKB  
 Float Collar Depth: 432 mKB  
 Cement Type: Class 'G'  
 Additives: 2% CaCl<sub>2</sub>  
 Cement Top: Surface  
 Casing Bowl Size: 279 mm x 21 Mpa  
 Casing Bowl Make: ABB Vetco

**Main Hole:**

Casing Size: 139 mm  
 Casing Weight: 20.83 kg/m  
 Casing Grade: J-55  
 Casing Make: Ipsco  
 Number of Joints: 117  
 Thread: ST&C  
 Depth Set: 1463 m KB  
 Cut Height: Surface  
 Date Set: January 22, 2003  
 Float Shoe Depth: 1463 mKB  
 Float Collar Depth: 1453 mKB  
 Cement Volume 1: 23.0 Tonnes  
 Cement Type 1: Fill-Lite 2-125  
 Additives 1: 3% A-9 & 0.6% R-3  
 Cement Volume 2: 5 Tonnes  
 Cement Type 2: Class 'G'  
 Additives 2: 0.2% R3 & 0.4% FL-5  
 Cement Top: To be determined by cement bond log.

9. Sidetracked Hole: N/A

10. Drilling Fluid:

Conductor Hole: Water  
 Properties: N/A

Surface Hole: Gel - Chemical  
 Properties: Viscosity: 40 - 60 sec/L  
 Weight: 1120 - 1160 kg/m<sup>3</sup>  
 PH: 8.0 - 8.5

Main (436 - 1250 m): Floc water  
 Properties: Viscosity: 30 sec/L  
 Weight: 1000 kg/m<sup>3</sup>  
 PH: 9.0

Main (1250 m – TD):	GeI-chem
Properties:	Viscosity: 52 - 78 sec/L
	Weight: 1070 - 1100 kg/m <sup>3</sup>
	PH: 8.5 – 10.5
	Water loss: 8.0 – 12.0 cc
	Solids: Not reported
	Gels: Not reported
	Filtrate: Not reported
	PV / YP: Not reported

11. Fishing Operations: N/A

12. Well Kicks and Well Control Operations: N/A

13. Formation Leak Off Tests:

Depth:	447 m
Fluid Density:	1000 kg/m <sup>3</sup>
Applied Pressure:	5400 kPa
Hydrostatic Pressure:	4287 kPa
Mud Weight Equivalent:	2265 kg/m <sup>3</sup>
Casing setting depth:	436 mKB

The surface casing leak-off test was taken to a gradient of 22.21 kPa/m before leak off was detected.



#### 14. Time Distribution

Date	Hours	Activity
03/01/08	16.0	Move in / rig up
03/01/09	20.0	Move in / rig up
	2.5	Drill rat hole
	0.25	Safety meeting
	1.25	Make up BHA
03/01/10	0.25	Rig service
	2.0	Survey
	18.75	Drill
	2.0	Trip
	1.0	Circulate and condition mud
03/01/11	12.5	Drill
	1.5	Circulate and condition mud
	0.25	Safety meeting
	2.25	Survey
	6.5	Trip
	1.0	Run casing
03/01/12	0.25	Safety meeting
	2.5	Trip
	1.5	Slip & cut drill line
	4.0	Run casing
	1.25	Cement casing
	4.0	Wait on cement
	5.25	Nipple up BOP's
	3.75	Pressure test BOP's
	1.5	Circulate and condition mud
03/01/13	3.25	Rig repair
	6.75	Circulate and condition mud
	0.25	Survey
	6.75	Drill
	4.5	Mix LCM
	0.5	Safety meeting
	0.5	Pressure test BOP's
	1.0	Drill out casing shoe
	0.5	Leak off test

03/01/14	0.25	Rig service
	6.25	Trip
	0.25	Survey
	5.0	Drill
	0.25	Safety meeting
	8.25	Wait on water
	0.75	Cement off losses
	3.0	Wait on cement
03/01/15	0.25	Rig service
	1.0	Safety meeting
	0.75	Drill
	2.75	Circulate and condition mud
	1.25	Cement off losses
	9.5	Trip
	8.5	Wait on cement
03/01/16	0.25	Rig service
	0.25	Safety meeting
	11.5	Drill
	1.0	Circulate and condition mud
	2.0	Survey
	9.0	Drill out cement plugs
03/01/17	1.0	Safety meeting
	19.0	Drill
	2.25	Circulate and condition mud
	1.75	Survey
03/01/18	0.25	Safety meeting
	0.25	Drill
	3.25	Circulate and condition mud
	1.0	Ream
	4.0	Coring
	15.25	Trip
03/01/19	0.25	Safety meeting
	4.5	Drill
	0.25	Rig service
	3.0	Ream
	3.75	Coring

	1.25	Circulate and condition mud
	11.0	Trip
03/01/20	3.5	Circulate and condition mud
	9.25	Trip
	11.25	Logging
03/01/21	0.25	Safety meeting
	3.0	Circulate and condition mud
	15.0	Trip
	4.0	Logging
	1.75	Run casing
03/01/21	0.25	Safety meeting
	5.5	Circulate and condition mud
	5.0	Run casing
	1.75	Cement casing
	2.5	Nipple down BOP's
	9.0	Rig out
03/01/22	8.0	Rig out

### Time Break Down by Activity:

<u>Activity</u>	<u>Hours</u>
Move in / rig up:	36.0
Drill rat hole:	2.5
Drilling:	79.0
Drill out casing shoe:	1.0
Surveying:	8.5
Circulate and condition mud:	33.25
Mix LCM:	4.5
Cement off losses:	2.0
Drill out cement plugs:	9.0
Running casing:	11.75
Cementing casing:	3.0
Wait on cement	15.5
Wait on water:	8.25
Rig service:	1.25
Rig repair:	3.25
Tripping:	77.25
Safety meetings:	4.75
Nipple up BOP's:	5.25
Pressure test BOP's	3.75
Leak off tests:	0.5

Make up BHA:	1.25
Slip & cut drill line:	1.5
Logging:	15.25
Coring:	7.75
Reaming:	4.0
Nipple down BOP's:	2.5
Rig out:	17.0

15. Deviation Survey: See page 7 of the Geological Report in the Attachment Section
16. Abandonment Plugs: N/A
17. Composite Well Record: See the copy of the strip log in the Geological Report in the Attachment Section.
18. Completion Record: Reported in a separate report.

## D: GEOLOGY

### GEOLOGICAL SUMMARY

Tops: See page 11 of the Geological Report in the Attachment Section.

Sample Descriptions: See page 12 - 18 of the Geological Report in the Attachment Section.

Total Depth: 1463 mKB

Coring Record: #1: Sulphur Point: 1413.0 - 1419.0  
Cut: 6.0 m  
Rec: 6.0 m  
#2: Sulphur Point: 1419.0 - 1432.0  
Cut: 13.0 m  
Rec: 13.0 m

### GAS DETECTION REPORT

A gas detector was utilized from the drill out of the conductor pipe to total depth. The gas detector readings are included on the composite geological log at the end of the Geological Report in the Appendix Section.

### DRILL STEM TESTS

There were no drill stem tests run on the well.

### WELL EVALUATION

The following logs were run:

Simultaneous Triple Induction Shallow Focused Log:	436.0 – 1450.4 mKB
Spectral Density Compensated Neutron Log:	436.0 – 1442.9 mKB
Micro Resistivity Log:	1330.0 – 1433.2 mKB

GAS, OIL, & WATER ANALYSES: N/A

FORMATION STIMULATION: N/A

FORMATION AND TEST RESULTS: N/A

DETAILED TEST PRESSURE DATA READINGS: N/A

#### E. ENVIRONMENTAL CONSIDERATIONS

There are no known outstanding environmental considerations on this well. The well was drilled sumpleless with all drilling fluids being held in tanks on the lease. At the end of the job the water was stripped from the mud system and hauled to the next lease for re-use. The solids were hauled to a remote site where they were disposed of using the mix/bury/cover technique.





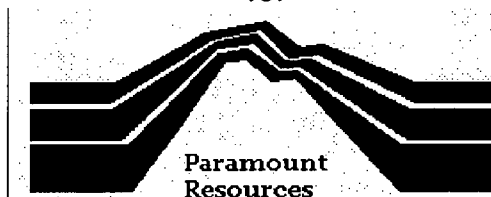
# Geological Report

on

## Para et al Cameron F-75 F-75


Well Reached Total Depth of 1463 metres  
on  
January 19, 2003 @ 22:38 hours.

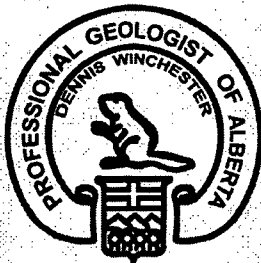
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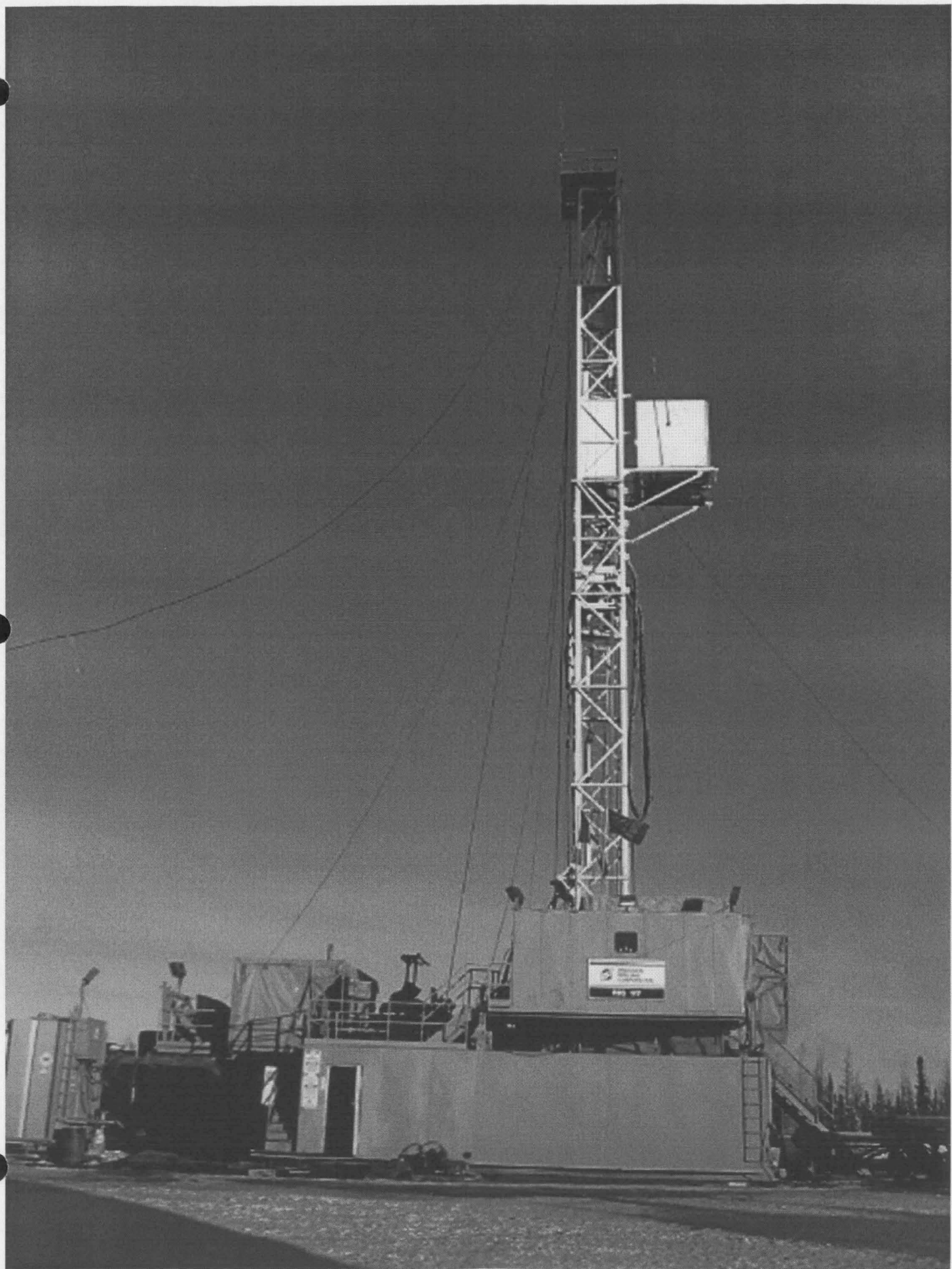


Prepared for: **Mr. Llew Williams**  
**Paramount Resources Ltd.**

Wellsite Geologist: **Brad Powell, B.Sc.**  
**Running Horse Resources Inc.**

Approved by:   
**Dennis Winchester, P.Geol.**  
**Running Horse Resources Inc.**





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## Executive Summary

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**Para et al Cameron F-75** is a vertical well spudded by Precision Drilling Rig #117 on January 10, 2003 at 00:00 hours. Surface hole is 311mm drilled to 436.1m with 219.1 mm casing landed at 436.1m. The 200mm main hole terminated in the **Muskeg Formation** at 1463m on January 19, 2003 @ 22:38.

This well was drilled primarily to produce oil from the **Sulphur Point Dolomite** and secondarily to evaluate the **Slave Point** for possible gas. Samples were taken from 1300m to TD at 1463m. Two cores were cut of the **Sulphur Point Dolomite**. Core #1 from 1413-1419m. Core #2 from 1419-1432m. Triple Induction, SP, Neutron Density, Compensated Sonic, Gamma Ray and XY Caliper logs were run from TD to surface casing.

The **Slave Point** was picked in samples at 1349m and was confirmed on logs at 1347.5m. It is approximately 41.5m thick, underlain by the the F4 Marker. It can be described as cream to light brown to brown, mottled, predominantly cryptocrystalline to microcrystalline, occasional very fine crystalline, mudstone to occasionally wackestone. It was chalky in part and had scattered pellets providing some matrix support. It had argillaceous laminations and common bituminous partings. It is generally dense and tight, with local poor pinpoint and vug porosity, assumed chalky/earthy porosity, and traces of poor intercrystalline porosity. Density logs confirm streaks of 9% porosity. This was co-related to drilling breaks and with gas detector responses. There were gas peaks of up to 400 units over a baseline of 50 units in this zone. Samples showed pale yellow fluorescence, with weak green watery cuts. Analysis of the induction logs showed intervals of 100-300ohms on the deep induction, associated with the porous intervals. Poor curve separation suggests poor permeability. **The Slave Point does not appear to be of economic value at this location.**

The **Sulphur Point dolomite** is a microcrystalline to coarse crystalline dolostone, occurring as breccia at the top of the formation. The dolomite was picked in core at 1414.5m and 1414.0m on logs. Observation of cores saw common euhedral dolomite crystals and rhombs growing in fractures and common good to excellent interconnected vug porosity. Good intercrystalline sucrosic porosity was also seen throughout. Density logs show average porosity of 9-12% with intervals of porosity up to 24% on a dolomite scale. The samples were light brown to brown and saw some good dark brown oil staining, as well as massive even oil staining in the core. The core had a strong sweet oil odor. The samples and core had bright yellow fluorescence with instant thick milky yellowish cuts. Induction log analysis showed an average of about 30-40ohms on the deep induction, with good curve separation. Readings of 20ohms at the top of the interval to 100ohms at the bottom of the interval. **The Sulphur Point dolomite appears to have good potential for oil production.**

Based on sample evaluation, gas detector responses, and analysis of geophysical logs, **Para et al Cameron F-75** was cased for production.

## Well Data Summary

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<b>OPERATOR</b>	Paramount Resources Ltd.
<b>WELL NAME</b>	Para et al Cameron F-75
<b>LOCATION</b>	Unit F    Section 75
	Grid Area: Lat 60° 10' N Long 117° 15' W
<b>UWI</b>	300F756010117150
<b>POOL</b>	
<b>FIELD</b>	
<b>PROVINCE</b>	NorthWest Territories
<b>LICENCE NUMBER</b>	1971
<b>CLASSIFICATION</b>	Production
<b>A.F.E. NUMBER</b>	02N31148

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<b>SURFACE COORDINATES</b>	Latitude: 60° 04' 29.364" North
	Longitude: 117° 29' 11.066" West

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<b>ELEVATIONS</b>	KB: 778.83m
	GL: 774.35m

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<b>TOTAL DEPTH</b>	Driller: 1463.0m (-684.17m SubSea)
	Logger: 1459.0m (-680.17m SubSea)

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<b>DRILLING CONTRACTOR</b>	Precision Drilling Rig #117
<b>ENGINEER</b>	Brian Neigum            403-997-5286
<b>GEOLOGIST</b>	Brad Powell            403-861-0838

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<b>SPUD DATE</b>	January 10, 2003 @ 00:00
<b>COMPLETED DRILLING</b>	January 19, 2003 @ 22:38

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## Well Data Summary

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**HOLE SIZE** Surface hole: 311mm  
Main hole: 200mm

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**LOGGING** DIL-SP, CNL-FDC, Sonic, Microrolog, from TD to surface casing.

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**DST's** none

**CORE** Core #1: 1413-1419m **100% recovery**  
Core #2: 1419-1432m **100% recovery**

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**SAMPLES** Operator: 1 set vials (@ 5m) over interval: 1300m - TD  
NEB: 2 sets vials (@ 5m) over interval: 1300m - TD  
1 set bags (@ 5m) over interval: 1300m - TD  
1 set geochem jars (@ 5m) over interval: 1300m - TD

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**DIRECTIONS** From High Level, Alberta, go north on Highway 35. 1.3km south of Indian Cabins, turn west onto main road and go 32km, staying right at all Y forks. Turn right up big hill, drive 10.5km. Turn right to location.

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### PROBLEMS

**On Surface Hole:** Lost circulation in Wabamun formation, starting at 568m. Had to drill ahead blind into Fort Simpson shale at 722m and then plug back with "nowblock cement". The cement was drilled out and then normal drilling ahead.

**On Main Hole:** While coring Core #1, the core jammed off at 1419m. Had to run in and cut Core #2 to recover the full Slave Point dolomite.

Logging Run #2 (BCS / GR / CAL) bridged off twice in a badly washed out section, first at 817m and then 806m, after a washout trip. It was decided not to try again to log the sonic.

## Logging Summary

---

**Date:** January 20, 2003

**Logging Company:** Computalog      **Engineer:** C. Williamson / J. Peterson

**Mud Properties:** WT: 1100 kg/m<sup>3</sup>    Visc: 72 s/L    WL: 10.0    pH: 9.5

**Hole Size:** 200mm

**Surface Casing:** 219.1mm, 35.7kg/m, set @ 436.1m

**Depths:** Driller: 1463.0m    Strap: 1463.0m    Logger: 1459m (4m fill)

**Logging Times:** First Alerted: 00:30 January 18, 2003  
Time Required: 04:00 January 20, 2003 (8.0hr final notice)  
Arrived: 03:30 January 20, 2003

**Hole Condition:** Good

**Circulations:** 1hr after TD then 1.5hr after wiper trip

**Wiper Trips:** 20 stands

### LOGGING SEQUENCE

**Run #1:** STI / MRT/ SpeD / CNS / GR / CAL  
**Interval:** TD to surface casing (with MRT from TD to top of Slave Point)

**Run #2:** BCS / GR / CAL  
**Interval:** TD to surface casing

### REMARKS:

No problems getting logging tools to bottom for Run #1. On bottom with Run #1 @ 12:45 January 20, 2003. Upon tagging bottom, the tools became stuck. After working the tools they became free, and Run #1 was completed. Log Run #2 (BCS / GR / CAL) bridged off at 817m, in a badly washed out section. A washout trip was done. Log Run #2 bridged off again, this time at 806m, after the washout trip. It was decided not to try again to log the sonic.

## Bit Record & Casing Summary

### Bit Record

Bit #	Make	Type	Size	In (m)	Out (m)	Meters (m)	Hours	ROP (m/hr)	IADC T - B - G
1A	Varel	L-127	311mm	0	170	170	14.00	12.14	4 - 4 - IN
2A	Varel	L-127	311mm	170	409	239	14.00	17.07	4 - 4 - IN
3A	HW	XGG	311mm	409	437	28	1.75	16.00	2 - 2 - IN
1	Varel	MKS 56 PDC	200mm	437	722	285	11.25	25.33	98%
1RR	Varel	MKS 56 PDC	200mm	532	1413	881	39.75	22.16	98%
2	Hughes	BHC406 (coring)	199 x 102mm	1413	1432	19	2.25	8.44	IN
1RR	Varel	MKS 56 PDC	200mm	1432	1463	31	4.50	6.89	IN

### Casing Summary

Type	Csg. Size	Hole Size	Landed	Total Jts	Remarks
Surf	219.1mm	311mm	436.1m	34	34 joints of 219.1mm 35.7kg/m, J-55, 8RD ST&C new casing ran. Cemented with BJ 34t of 0:1:0 Class G + 2% CaCl <sub>2</sub> . Approximately 7m <sup>3</sup> of good returns, float OK, plug down @ 06:44 Jan 12, 2003.
Prod	114.1mm	200mm	1463m	135	117 joints of 139.7mm 20.83kg/m, J-55, ST&C new casing ran. Cemented with BJ.

## Deviation Surveys

---

Depth	Inc
31	1.25
49	0.50
105	1.00
133	0.50
171	1.00
199	0.75
228	1.00
256	1.00
285	1.00
313	1.00
342	2.50
370	3.00
389	1.50
430	0.75
534	0.75
649	0.75
553	0.50
601	0.75
647	0.50
695	0.25
788	0.25
891	0.75
998	0.25
1094	0.50
1195	0.75
1290	0.25

## Daily Drilling Summary

<u>Date</u>	<u>Depth</u>	<u>Progress</u>	<u>Operations</u>
			<b>* note that operations are as reported the previous 24hrs to 08:00 on the date shown</b>
Jan 8	0	0	Load out rig at Barrhead and start to travel to location.
Jan 9	0	0	Move rig to location from High Level. Rig up rig and start to nipple up diverter.
Jan 10	86	86	Weld on diverter flange, nipple up. Function test system. Drill rat hole. Prespud safety meeting. Make up BHA with Bit #1A. Spud @ 00:00 January 10, 2003. Drill 311mm surface hole with surveys and required rig service from 0m to 86m.
Jan 11	361	275	Drill 311mm surface hole with surveys and required rig service from 86m to 170m. Circulate bottoms up and POOH for bit trip. Make up new BHA with Bit #2A and RIH. Drill ahead from 170m to 361m
Jan 12	436	75	Drill 311mm surface hole from 361m to 409m. Circulate bottoms up and POOH for bit trip. Make up new BHA with Bit #3A and RIH. Drill ahead from 409m to 436m. Wiper trip and circulate and condition hole to prepare for casing. Run 34 joints 219.1mm surface casing. Circulate casing and condition mud for cementing. Cement with BJ. Plug down @ 06:44 January 13, 2003.
Jan 13	477	41	WOC. Weld on bowl and pressure test. Nipple up BOPs and pressure test. Test manifold valves, HCR valves, kill line valves, pipe rams, hydril, inside BOPs, stabbing valve, and Kelley cock. Slip and cut line. Make up BHA with Bit #1 and RIH. Hold BOP drill and check accumulator. Drill out shoe, and do leak test gradient. Circulate and condition mud, and drill ahead to 477m.

## Daily Drilling Summary

Jan 14	648	171	Hold BOP drill and safety meeting. Drill ahead 200mm main hole with surveys and required rig service to 573m and lost circulation, starting at 568m. Mix LCM pill twice, drill ahead to 610m. Switch back to water and lost circulation again. Mix straight mud and drill ahead blind to 648.5m. After discussion with BJ, it was determined to plug back hole with "nowblock cement" after drilling ahead to 720m (into Fort Simpson shale).
Jan 15	722	74	Drill ahead blind 200mm main hole from 648.5m to 722m. POOH to run LCM plugs. RIH with open ended pipe to run plugs. Run 4 plugs and WOC. RIH and feel top plug at 545.8m. Circulate hole and POOH. Make up new BHA and RIH with Bit #1RR. Drill cement from 545.8m to 658m.
Jan 16	658	0	Drill out LCM plug to 722m. Clean cement out of water drilling fluid with centrifuges.
Jan 17	1160	502	Drill 200mm main hole with surveys and required rig service to 1160m.
Jan 18	1413	253	Drill ahead 200mm main hole with surveys and required rig services from 1160m to core point at 1413m, with control drilling from 1405-1413m. Circulate up bottom sample. Wiper trip, then back to bottom and circulate to condition hole for coring. Strap out of hole with flow checks to core.
Jan 19	1432	19	Make up coring BHA. RIH to 1413m. Circulate hole clean. Cut Core #1 with Baker from 1413-1419m. Core jammed off. POOH. Lay down coring BHA. Recover core. Make up coring BHA. RIH to 1419m. Circulate hole clean. Cut Core #2 from 1419-1432m. POOH.
Jan 20	1463	31	Lay down coring BHA. Recover Core #2. RIH, wash and ream to bottom. Drill ahead 200mm main hole with surveys and required rig service to 1463m. Well reached TD @ 22:38 on January 19, 2003. Circulate up bottom hole



## Daily Drilling Summary

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			sample, 20 stand wiper trip. Circulate 1.5 hours and POOH to log. Rig in Computalog. RIH with logging Run #1.
Jan 21	1463	0	Upon tagging bottom, log Run #1 tools became stuck. Work tools free and log Run #1 without problems. Rig out tools from log Run #1. RIH with log Run #2. Bridged off at 817m. Rig out tools. RIH and ream and wash to bottom. Circulate, work pipe. POOH. Rig up Computalog for logging Run #2. RIH with tools for Run #2 and bridged off again in a badly washed out section. POOH with tools, did not run BCS log.
Jan 22	1463	0	RIH to condition hole to run production casing. Lay down drill string. Run 117 joints 139.7mm production casing. Circulate casing. Cement with BJ. WOC and start to tear out rig. Rig release 23:59 January 22, 2003.

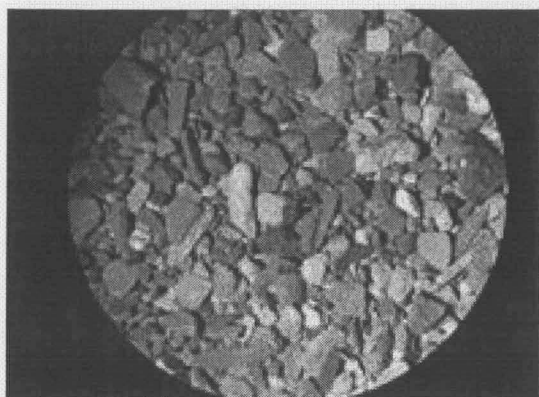
## Formation Tops

**Kelly Bushing Elevation:        778.83m**

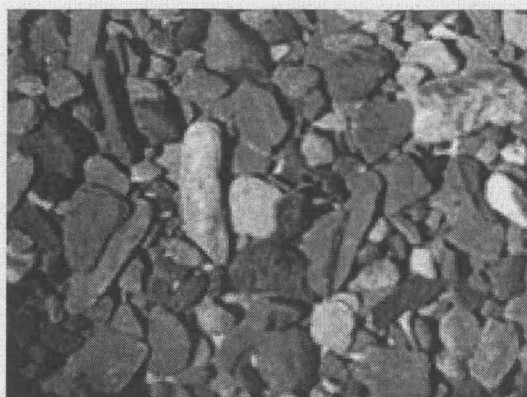
Formation	Sample (m)	Logger (m)	Elevation (m)
Wabamun		548.5	+230.33
Fort Simpson		720.0	+ 58.83
Beaverhill Lake	1291.0	1291.0	-512.17
Slave Point *	1349.0	1347.5	-568.67
F4		1389.0	-610.17
Watt Mountain	1397.0	1396.5	-617.67
Sulphur Point LS	1404.5	1404.0	-625.17
Sulphur Point DOL **	1414.0	1413.5	-634.67
Muskeg	1429.8	1428.0	-649.17
T.D.	1463.0	1459.0	-680.17

*\*\*Primary Zones of Interest*

*\* Secondary Zones of Interest*



**1315m, Beaverhill Lake 10X**



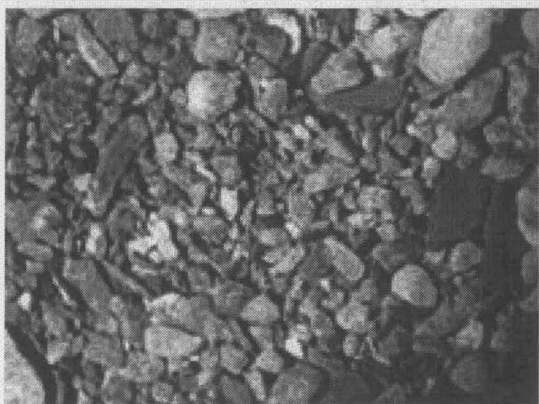
**1315m, Beaverhill Lake 30X**



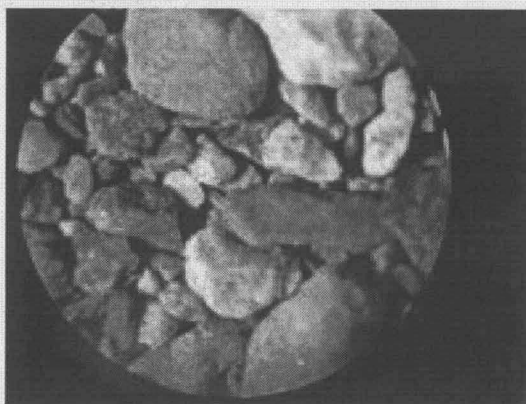
**1365m, Slave Point 10X**



**1365m, Slave Point 30X**



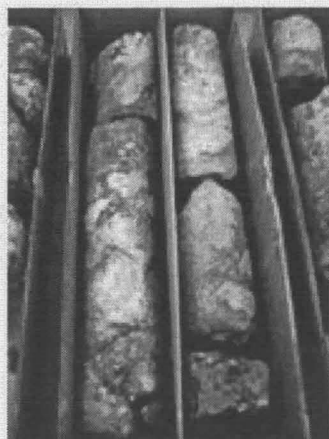
**1410m, Watt Mountain 10X**



**1410m, Watt Mountain 30X**



**Core 1, Box 1**



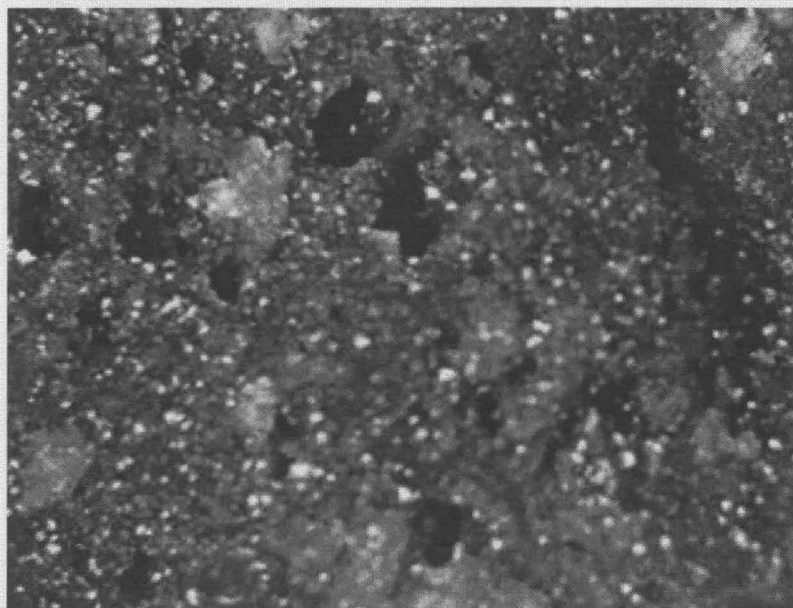
**Core 1, Box 2**



**Core 1, Box 3**



**Core 1, Box 4**



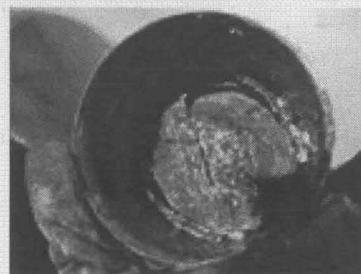
**Core 1, Close-up on patchy wuggy porosity (oil stained)**



**Core 1, Box 5**



**Core 1, Oil weeping**



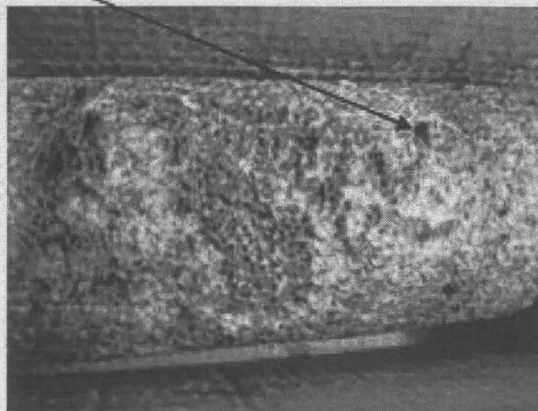
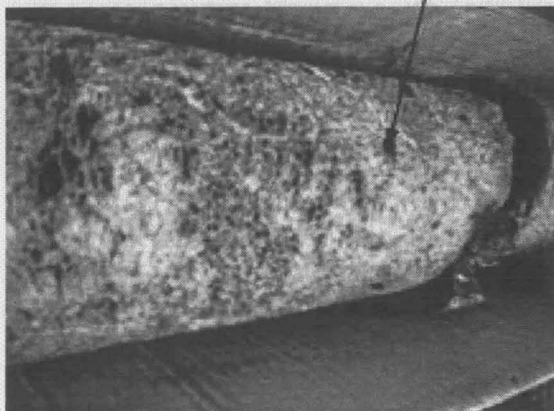
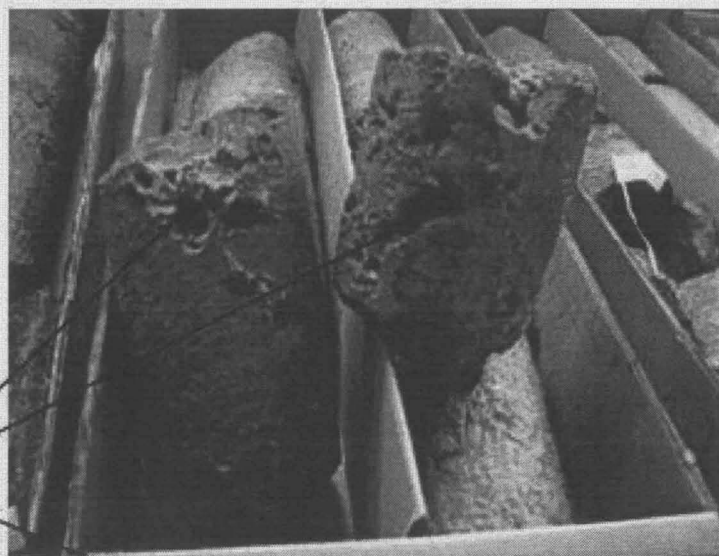
**Jamm off in Core catcher**





**Core #2, 1419 to 1432m**  
**Cut 13m, Recovered 13m**

**Large Vuggy Porosity**



## Sample Descriptions

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1295-1305 SHALE 100%, 50% gray brown to medium brown, micromicaceous in part, blocky, firm, dolomitic in part, silty in part, trace calcite veining, 50% light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules

1305-1320 SHALE 100%, 40% gray brown to medium brown, micromicaceous in part, blocky, firm, dolomitic in part, silty in part, trace calcite veining, 60% light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules, trace LIMESTONE stringers, off white to light gray, micritic, mudstone, lumpy to blocky, dense, tight, locally pyritized, no shows

MUSKWA @ 1324m

1320-1325 SHALE 100%, 30% gray brown to medium brown, micromicaceous in part, blocky, firm, dolomitic in part, silty in part, trace calcite veining, 60% light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules, 10% dark brown to black, bituminous appearance, lumpy to blocky, firm, trace LIMESTONE stringers, off white to light gray, micritic, mudstone, lumpy to blocky, dense, tight, locally pyritized, no shows

1325-1330 SHALE 20%, dark brown to black, bituminous appearance, lumpy to blocky, firm, LIMESTONE 20%, off white to light gray, micritic, mudstone, lumpy to blocky, dense, tight, locally pyritized, no shows, SHALE 60%, brown and green, as above (cavings?)

1330-1335 LIMESTONE 30%, off white to light gray, micritic, mudstone, lumpy to blocky, dense, tight, locally pyritized, no shows, SHALE, 30%, dark brown to black, bituminous appearance, lumpy to blocky, firm, SHALE, 40%, brown and green, as above

1335-1340 LIMESTONE 40%, off white to light gray, buff to occasional light brown, micritic to occasionally very fine crystalline, mudstone, lumpy to blocky, dense, tight, locally pyritized and coarse pyrite nodules, trace bioclastic debris, no shows, SHALE 40%, light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules, 20% dark brown to black, bituminous appearance, trace limy streaks, blocky, firm

## Sample Descriptions

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1340-1349 LIMESTONE, 50% as above, SHALE 40% light greenish gray to light green, as above, SHALE 10%, dark brown to black, as above, ROP falling off, becoming limier downsection

SLAVE POINT @ 1349.0m

1349-1350 LIMESTONE 50%, cream to light brown, rare brown, cryptocrystalline to microcrystalline, mudstone, in part chalky, argillaceous in part, lumpy to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, trace fossil debris including Brachiopods, dense, tight, questionable show, SHALE 50% (cavings), light greenish gray to light green, dull to slightly micromicaceous, platy to blocky, fissile to firm, smooth and waxy in part, calcareous, scattered pyrite nodules

1350-1355 LIMESTONE 100%, cream to light brown, rare brown, cryptocrystalline to microcrystalline, mudstone, in part chalky, argillaceous in part, lumpy to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, trace fossil debris including Brachiopods, trace bituminous partings, dense, generally tight with trace local poor pinpoint porosity, no shows

1355-1360 LIMESTONE 100%, cream to light brown to brown, mottled, predominantly cryptocrystalline to microcrystalline, occasional very fine crystalline, mudstone to occasionally wackestone, in part chalky, argillaceous in part, lumpy to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, trace bituminous partings, dense, massive, generally tight with trace local poor pinpoint and vug porosity, assumed chalky/earthy porosity, pale yellow fluorescence, weak green watery cut

1360-1375 LIMESTONE 100%, cream to light brown to brown, mottled, predominantly cryptocrystalline to microcrystalline, occasional very fine crystalline, mudstone to occasionally wackestone, scattered pellets, in part chalky, argillaceous laminations, lumpy to blocky, scattered pyrite nodules and locally disseminated pyrite crystals, common bituminous partings, dense, massive, generally local poor pinpoint and vug porosity, assumed chalky/earthy porosity, trace poor intercrystalline porosity, pale yellow fluorescence, very weak green watery cut

1375-1385 LIMESTONE 80%, cream to brown, very mottled, mudstone to wackestone, microcrystalline to very fine crystalline, argillaceous, lumpy to blocky, dolomitic in part, tight, yellow fluorescence, weak faint green cut, DOLOMITE 20%, medium brown, cryptocrystalline to microcrystalline, blocky, firm, tight, questionable show, minor ANHYDRITE, off white to tan, cryptocrystalline to microcrystalline, pearly lustre in part,

## Sample Descriptions

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calcareous in part, soft

1385-1395 LIMESTONE 100%, cream to light brown, occasional light gray tan, becoming lighter than as above, predominantly microcrystalline mudstone to finely crystalline wackestone, argillaceous in part, silty, scattered anhydrite and dolomitic streaks, lumpy to blocky, streaks of poor pinpoint and inter crystalline porosity, no shows, minor anhydrite, pearly to opaque, off white to tan, firm, tight, minor SHALE partings, gray to green, platy, fissile

WATT MOUNTAIN @ 1397.0m

1395-1400 LIMESTONE 50%, as above, SHALE 50%, slightly greenish gray to mint green, occasionally bright blue green, waxy, soft, slightly calcareous in part common disseminated pyrite and very coarse cubic pyrite crystals and crystalline clusters, scattered rounded coarse to granule sized frosted varicolored free quartz grained

1400-1405 SHALE 100%, slightly greenish gray to mint green, occasionally bright blue green, waxy, soft, slightly calcareous in part, common disseminated pyrite and very coarse cubic pyrite crystals and crystalline clusters, scattered rounded coarse to granule sized frosted varicolored free quartz grained, trace LIMESTONE below

SULPHUR POINT LIMESTONE @ 1404.5m

1405-1413 LIMESTONE 70%, predominantly off white to tan, light brown to dark brown, occasionally gray, cryptocrystalline to medium crystalline, mudstone to wackestone with argillaceous lime matrix, chalky, lumpy to blocky, tight with streaks of poor pinpoint porosity, assumed earthy porosity, slight oily odor, scattered dull gold fluorescence, no cut, SHALE 30%, as above (cavings)

1413-1432 DESCRIPTIONS ARE FROM OBSERVATION OF CORE AND SAMPLES

Core #1 1413-1419m

1413-1414.5 LIMESTONE breccia, buff to tan rock fragments with light brown to brown lime mud matrix, cryptocrystalline to microcrystalline, collapse breccia?, very worked, fracturing throughout, predominantly mudstone, in part chalky, with trace dark grey shale partings, bottom 0.3m has very abundant finely disseminated pyrite, trace spotty bleeding oil and oil staining, very dense, firm, tight



## Sample Descriptions

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1414.5-1416.0 DOLOMITE, in part breccia, tan fragments with brown matrix, microcrystalline to coarse crystalline, argillaceous in part, generally dense and firm, common fracturing with calcite infill or fine to coarse clear euhedral dolomite rhombs, scattered good vugular porosity with vugs upper to 1cm with very coarse rhombs to 0.5cm in open pore throats, tight to fair intercrystalline porosity, bleeding oil and common oil staining with common yellow fluorescence,

1416.0-1417.8 DOLOMITE, tan to light brown with brown mud matrix, mottled, becoming very shaly downsection, microcrystalline to medium upper crystalline, streaks of good to excellent pinpoint to vugular porosity, fair to good in part sucrosic intercrystalline porosity, common oil staining and fluorescence, watery to milky greenish yellow cut, SHALE dark grey, well indurated, interbedded at bottom of section

1417.8-1419.0 DOLOMITE, brown and dark brown banded, predominantly microcrystalline to fine crystalline, grading to medium upper crystalline, excellent vertical fracturing with calcite, subhedral and euhedral dolomite crystals along fracture surfaces, microsucrosic texture in part, bottom 0.3m has good to excellent vuggy porosity with open pores and rhombs, fair to good intercrystalline porosity with bitumen coatings, massive dark oil staining and even deep yellow fluorescence, milky thick yellowish white cut, dark shale partings

Core #2 1419-1432m

1419-1423.2 DOLOMITE, brown and dark brown banded, even dark brown oil staining, microcrystalline to coarse crystalline, breccia at top of section, crumbly, sucrosic, good to excellent vug porosity with interconnected vugs upper to 2 to 3cm, "sponge" appearance, common vertical fracturing with calcite infill, subhedral and euhedral dolomite crystals and clear rhombs upper to 1.5cm along fracture surfaces and vug linings, open pore throats, dark shale partings, fair to excellent intercrystalline porosity, massive dark oil staining and even deep yellow fluorescence, strong oil odor

1423.2-1424.4 DOLOMITE, tan to dark brown, microcrystalline to very fine crystalline, common oil staining, no vugs, very common calcite veining, black partings, dense, tight

1424.4-1427.4 DOLOMITE, light brown to very dark brown oil stained, greyish brown, becoming more grey downsection, in part banded, microcrystalline to fine crystalline, euhedral crystals, sucrosic texture, good intercrystalline porosity, streaks of good to excellent vug porosity with open vugs to 2 to 3mm, clear rhomb vug linings, possible poor fracture porosity, gritty feel, firm, black shale partings, even oil staining, yellow

## Sample Descriptions

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fluorescence, milky yellowish cut

1427.6-1427.8 SHALE, dark grey to greenish grey

1427.8-1429.2 DOLOMITE, becoming more grey, greyish brown to dark brown, banded, microcrystalline to very fine lower crystalline, blocky, tight, patchy oil staining and fluorescence, scattered dark grey SHALE partings

1429.2-1429.4 SHALE, grey, soft

1429.4-1429.6 DOLOMITE, as above

1429.6-1429.8 SHALE, greyish green, waxy in part, soft, sharp contact with anhydrite below

MUSKEG @ 1429.8m

1429.8-1432 ANHYDRITE, sharp contact with dolomite and shale above, white to watery lustre, pearly to opaque, light brown in part, mottled, cryptocrystalline, dense, very firm with chalky texture on outside of core, massive, tight, no fluorescence, scattered grey to greenish grey soft SHALE partings, in part dolomitic

1432-1435 DOLOMITE 80%, off white to light brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, limy streaks, lumpy to blocky, tight with streaks of poor pinpoint and intercrystalline porosity, no show, ANHYDRITE 20%, pearly to light gray to tan, cryptocrystalline, tight

1435-1440 ANHYDRITE 60%, pearly to light gray to tan, cryptocrystalline, soft, tight, DOLOMITE 40%, off white to light brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part; limy streaks, lumpy to blocky, tight with streaks of poor pinpoint and intercrystalline porosity, no show

1440-1450 ANHYDRITE 80%, pearly to opaque, tan to light brown, cryptocrystalline, soft, tight, DOLOMITE 20%, off white to light brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, flaky, lumpy to blocky, tight with scattered poor

## Sample Descriptions

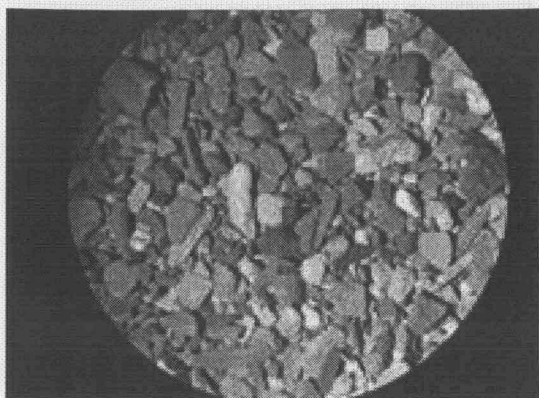
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intercrystalline porosity, no show

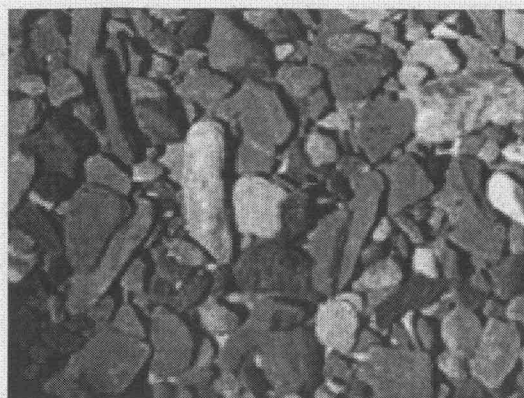
1450-1455 ANHYDRITE 50%, pearly to opaque, tan to light brown, cryptocrystalline, soft, tight, DOLOMITE 50%, off white to light brown, occasional dark brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, flaky, lumpy to blocky, poor to fair intercrystalline porosity, bright yellow fluorescence, watery greenish cut, gassy odor in sample

1455-1463 ANHYDRITE 90%, pearly to opaque, tan to light brown, cryptocrystalline, soft, tight, DOLOMITE 10%, off white to light brown, occasional dark brown, microcrystalline to fine crystalline, sucrosic in part, anhydritic in part, flaky, lumpy to blocky, poor to fair intercrystalline porosity, scattered bright yellow fluorescence, trace watery greenish cut

TOTAL DEPTH @ 1463.0m



**1315m, Beaverhill Lake 10X**



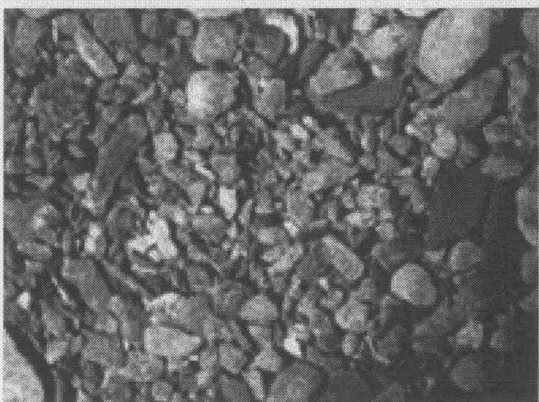
**1315m, Beaverhill Lake 30X**



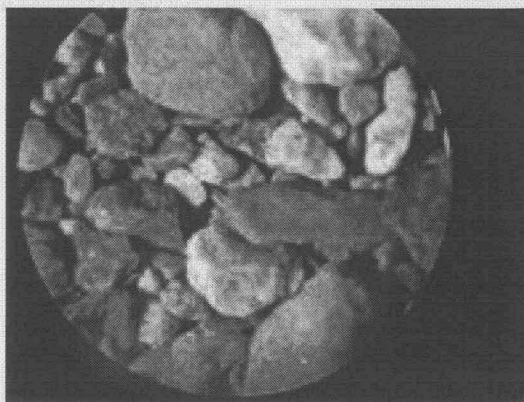
**1365m, Slave Point 10X**



**1365m, Slave Point 30X**



**1410m, Watt Mountain 10X**



**1410m, Watt Mountain 30X**





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

Well Name: Para et al Cameron F-75  
Location: F-75 Grid Area: Lat 60° 10' N Long 117° 15' W  
Licence Number: 1971  
Spud Date: Jan 10, '03 @ 00:00  
Surface Coordinates: Latitude: 60° 04' 29.364" North  
Longitude: 117° 29' 11.066" West  
Bottom Hole Coordinates

Region: Camern Hills, NWT  
Drilling Completed: Jan 19, 03 @ 22:38

Ground Elevation (m): 774.35m  
Logged Interval (m): 1300m To: 1463m  
Formation: Primary = Sulphur Point DOL, Secondary = Slave Point  
Type of Drilling Fluid: Gelchem  
K.B. Elevation (m): 778.83m  
Total Depth (m): 1463m

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

#### OPERATOR

Company: Paramount Resources Ltd.  
Address: 4700 Bankers Hall West  
888 3rd Street S.W.  
Calgary, Alberta T2P 5C5

#### GEOLOGIST

Name: Brad Powell, B.Sc.  
Company: Running Horse Resources Inc.  
Address: Site: www.WellsiteGeologists.com  
Email: wellsitgeologists@telus.net  
Phone: 403-660-9883

#### Cores

Core #1 1413-1419m  
Core #2 1419-1432m

#### SEE SEPERATE CORE LOGS

While coring Core #1, the core jammed off at 1419m. Had to run in and cut Core #2 to recover the full Slave Point dolomite.









































































This well was drilled by Presicion Drilling Rig #117.  
A Continental gas detector was run.  
Logging by Computalog.  
Paramount AFE #02N31148

Core Log #1, 1413 to 1419m is attached to bottom of Striplog  
Core Log #2, 1419 to 1432m is attached to bottom of Striplog

## ROCK TYPES

	Anhy		Clyst		Gyp		Mrlst		Shgy
	Bent		Coal		Igne		Salt		Sltst
	Brec		Congl		Lmst		Shale		Ss
	Cht		Dol		Meta		Shcol		Till

## ACCESSORIES

<b>MINERAL</b>		Ferrpel		Silt		Coral		Strom	<b>TEXTURE</b>
	Anhy		Ferr		Sil		Crin		Boundst
	Arggrn		Glau		Sulphur		Echin		Chalky
	Arg		Gyp		Tuff		Fish		Cryxln
	Bent		Hvymin	<b>FOSSIL</b>			Foram		Earthy
	Bit		Kaol		Algae		Fossil		Finexln
	Brecfrag		Marl		Amph		Gastro		Grainst
	Calc		Minxl		Belm		Oolite		Lithogr
	Carb		Nodule		Bioclst		Ostra		Microxln
	Chtdk		Phos		Brach		Pelec		Mudst
	Chtlt		Pyr		Bryozoa		Pellet		Packst
	Dol		Salt		Cephal		Pisolite		Wackest
	Feldspar		Sandy				Plant		
								<b>STRINGER</b>	
									Anhy
									Arg
									Bent
									Coal
									Dol
									Gyp
									Ls
									Mrst
									Sltstrg
									Ssstrg

## OTHER SYMBOLS

<b>POROSITY TYPE</b>		<input type="checkbox"/> Organic	<input type="checkbox"/> Moderate	<input type="checkbox"/> Subang	<input type="checkbox"/> Ques	<b>EVENTS</b> <input type="checkbox"/> Rft <input type="checkbox"/> Sidewall
<input type="checkbox"/> Earthy	<input type="checkbox"/> Pinpoint	<input type="checkbox"/> Poor	<input type="checkbox"/> Angular	<input type="checkbox"/> Dead		
<input type="checkbox"/> Fenest	<input type="checkbox"/> Vuggy					
<input type="checkbox"/> Fracture		<b>ROUNDING</b>	<b>OIL SHOWS</b>	<b>INTERVALS</b>		
<input type="checkbox"/> Inter	<b>SORTING</b>	<input type="checkbox"/> Rounded	<input type="checkbox"/> Even	<input type="checkbox"/> Core		
<input type="checkbox"/> Moldic	<input type="checkbox"/> Well	<input type="checkbox"/> Subrnd	<input type="checkbox"/> Spotted	<input type="checkbox"/> Dst		



# Curve Track 1

ROP (min/m) ———  
 Gas (units) - - - - -  
 Gamma (API) ———  
 X Caliper - - - - -  
 Y Caliper - - - - -

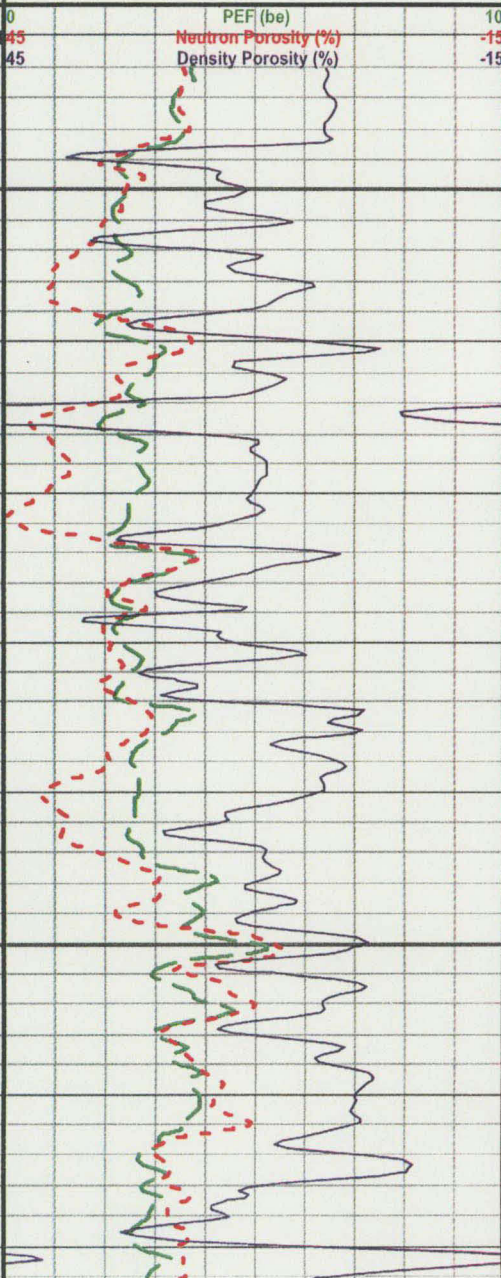
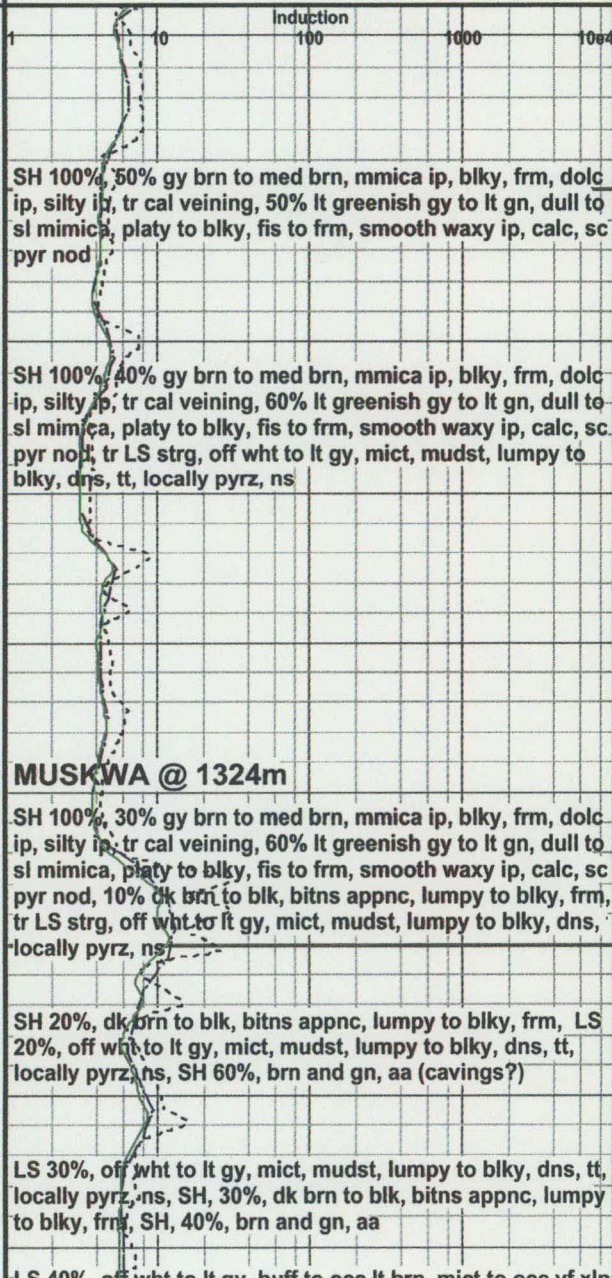
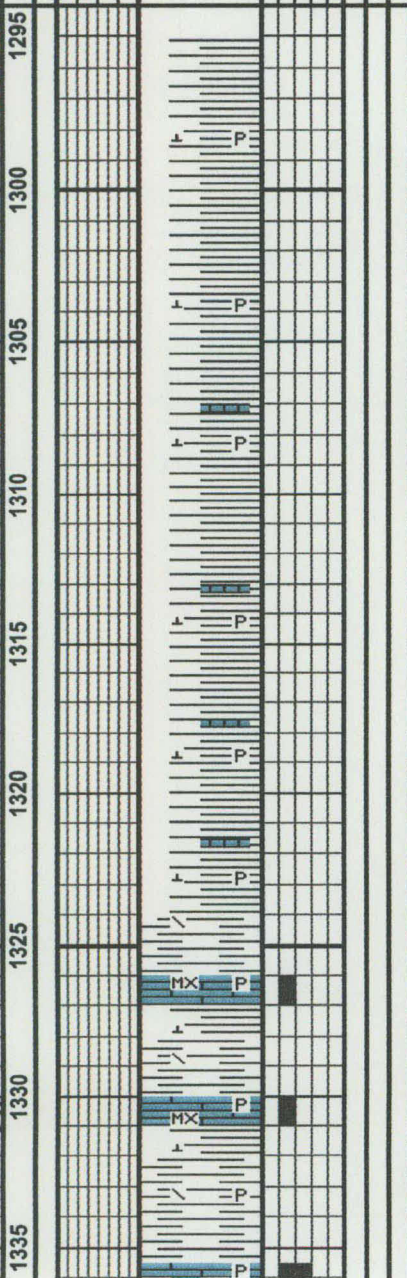
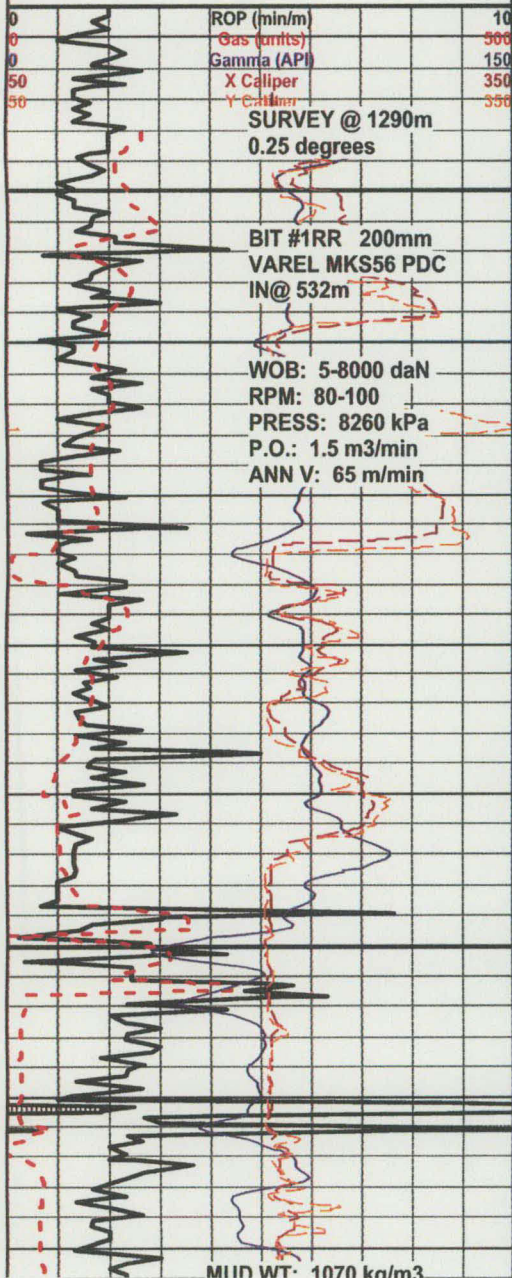
Depth ———  
 Porosity Type ———  
 Porosity ———  
 Lithology ———  
 Grain Size ———  
 Sorting ———  
 Rounding ———  
 Oil Shows ———

## Geological Descriptions

Shall Induction (ohmm) - - - - -  
 Medium Induction ———  
 Deep Induction (ohmm) ———

## Neutron Density

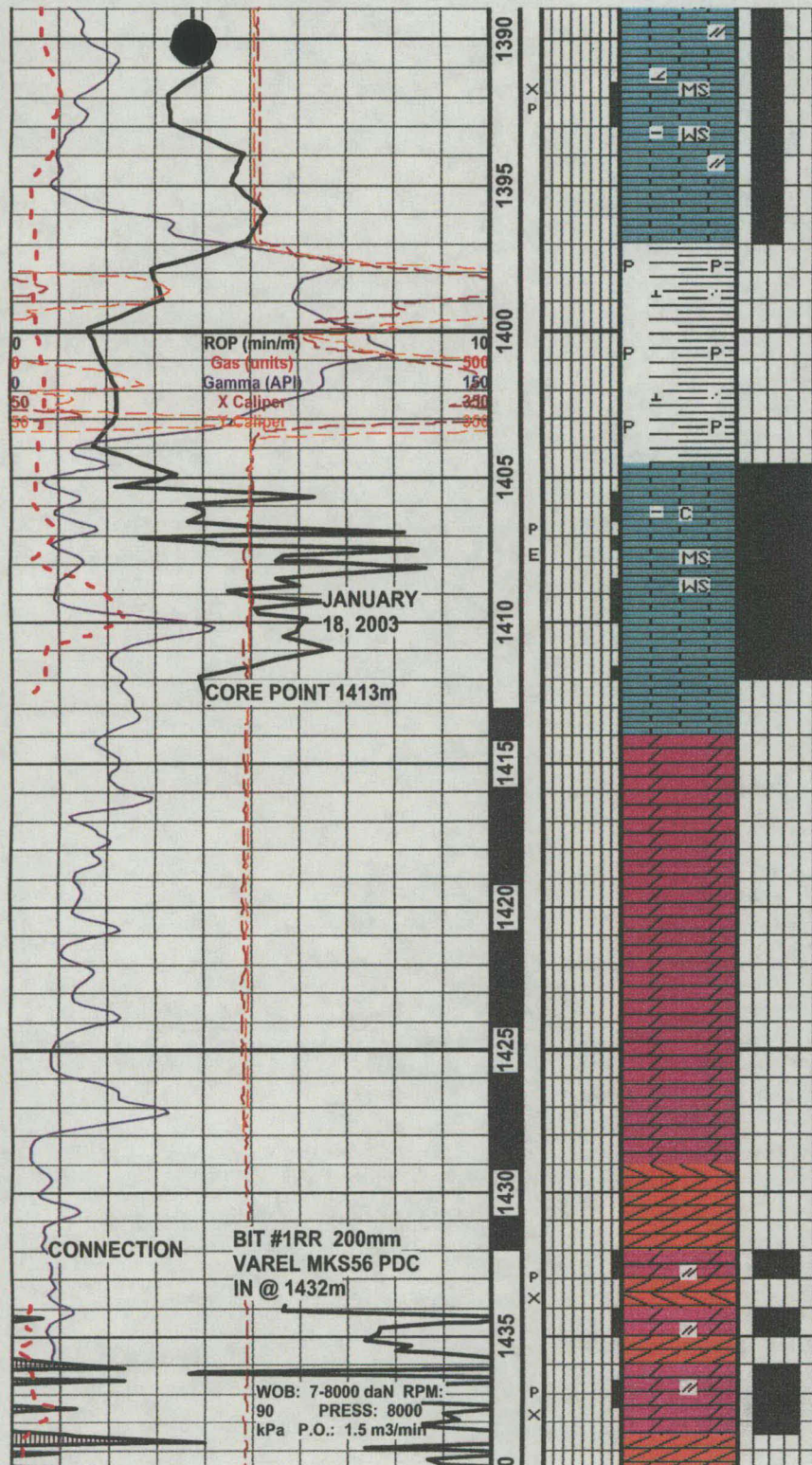
PEF (be) - - - - -  
 Neutron Porosity (%) - - - - -  
 Density Porosity (%) ———











predy mcln mudst to fy xln wkst, arg ip, silty, scat anhy and dolc st; lumpy to blocky, streaks of p pp and inter xln por, ns, mly aliyd, pearly to opaque, off wh to tan, frm, tt, mnr SH partings, gy to gn, platy, fis

### WATT MOUNTAIN @ 1397.0m

LS 50%, aa, SH 50%, sl greenish gy to mint gn, occly bri blue gn, waxy, soft, sl calc ip com desm pyr and v c cubic pyr xls and xl clusters, scat rnd c to granule sized fros vcol free qtz gr

SH 100%, sl greenish gy to mint gn, occly bri blue gn, waxy, soft, sl calc ip com desm pyr and v c cubic pyr xls and xl clusters, scat rnd c to granule sized fros vcol free qtz gr, tr LS below

### SULPHUR POINT LS @ 1404.5m

LS 70%, predy off wh to tan, lt brn to dk prn, occly gy, cptxl to med xln, mudst to wkst with arg lime matrix, chalky, lumpy to blk, tt with streaks of p pp por, assumed earthy por, slight oily odor, scat dull gold flr, no cut, SH 30%, aa (cavings)

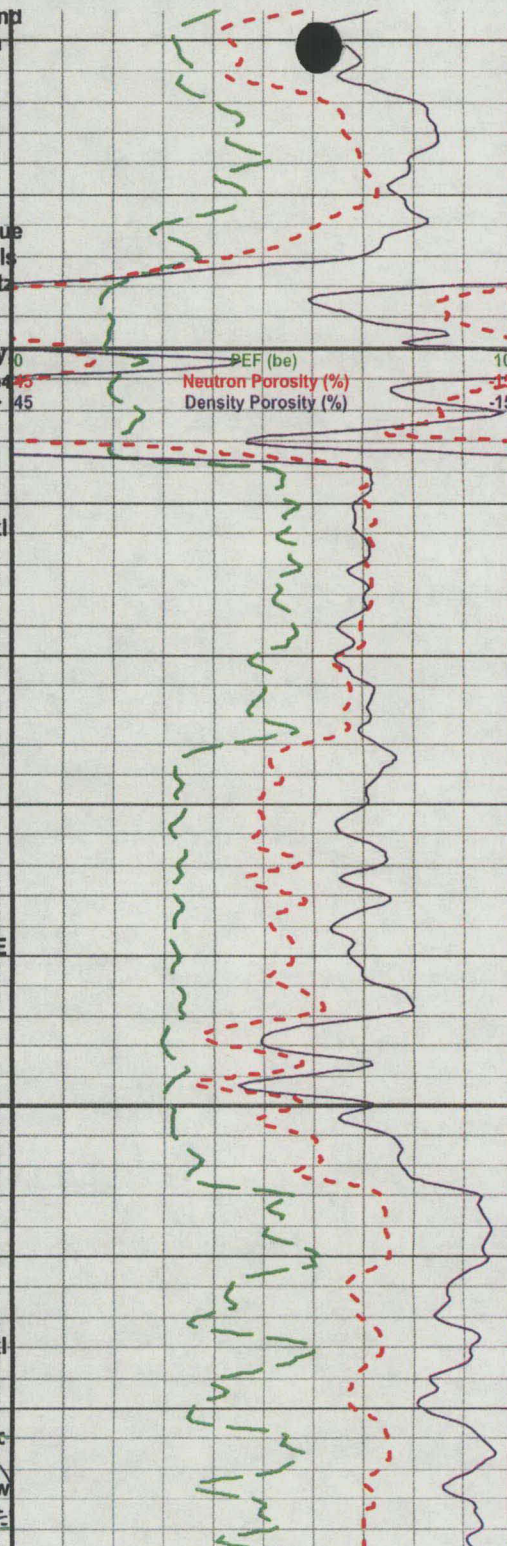
### SULPHUR POINT DOLOMITE @ 1414.0m

SEE SEPERATE CORE REPORTS FOR DETAILED SAMPLE DESCRIPTIONS FOR 1413-1432m INTERVAL

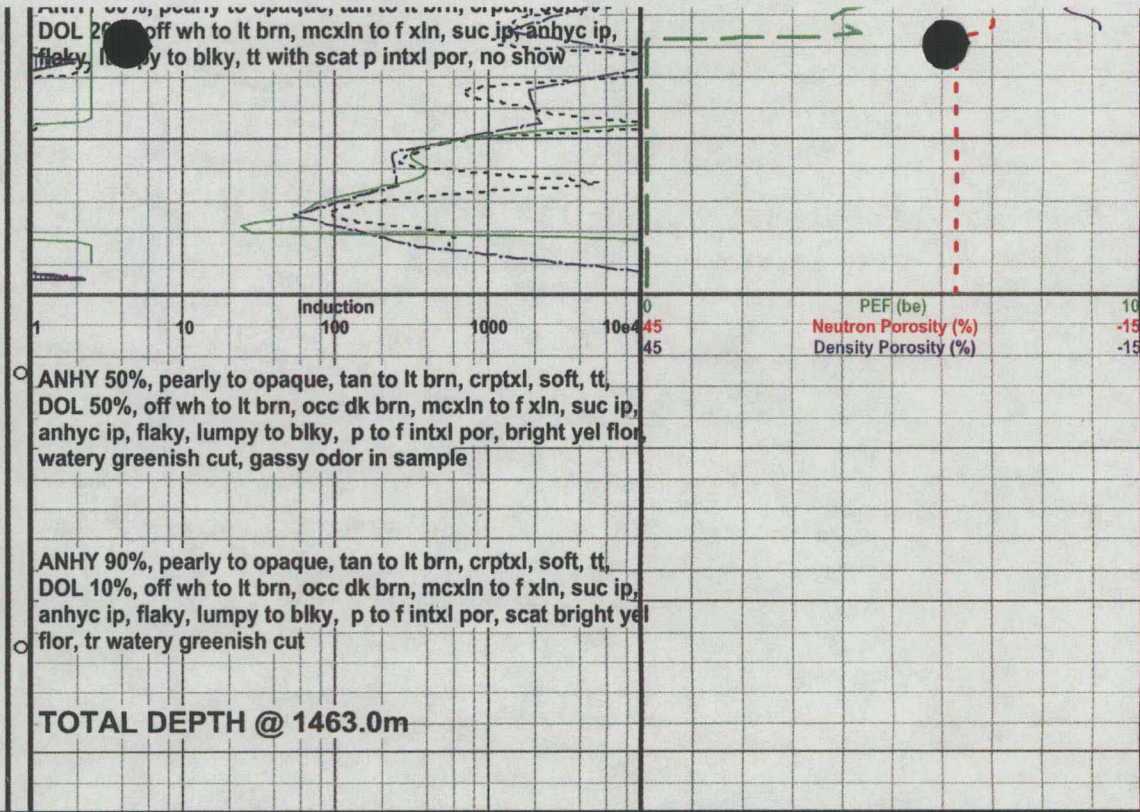
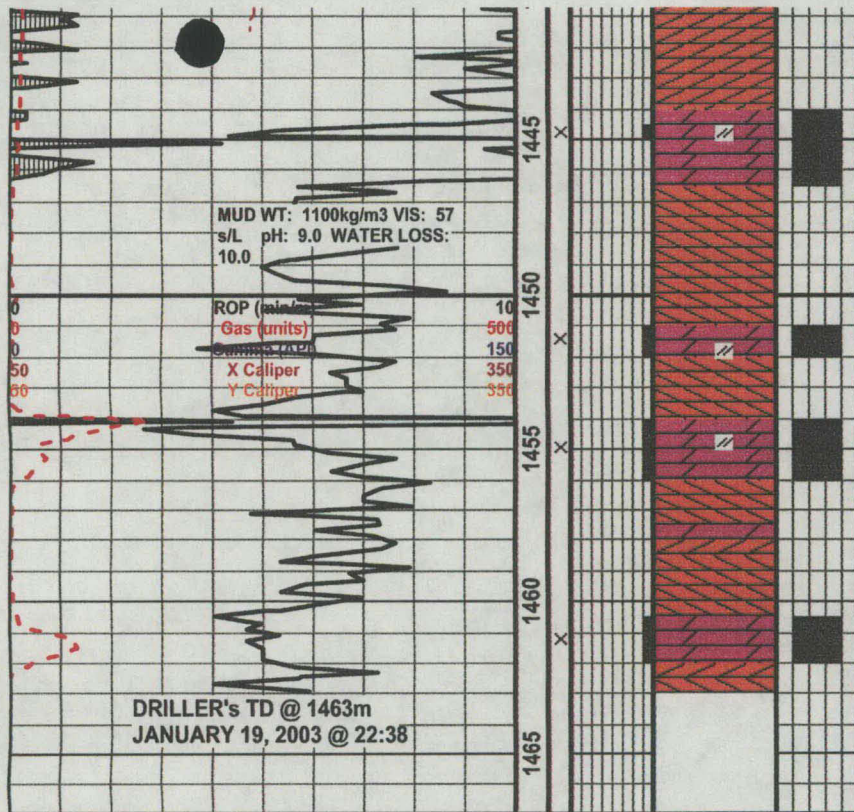
### MUSKEG @ 1429m

DOL 80%, off wh to lt brn, mcln to f xln, suc ip, anhy ip, limy streaks, lumpy to blk, tt with streaks of p pp and intxl por, no show, ANHY 20%, pearly to lt gy to tan, crptxl, tt

ANHY 60%, pearly to lt gy to tan, crptxl, soft, tt, DOL 40%, off wh to lt brn, mcln to f xln, suc ip, anhy ip, limy streaks, lumpy to blk, tt with streaks of p pp and intxl por, no show









# Running Horse Resources Inc.

[www.wellsitegeologists.com](http://www.wellsitegeologists.com)

Scale 1:48 (25"=100') Metric

Well Name: Para et al Cameron F-75  
Location: F-75 Grid Area: Lat 60° 10' N Long 117° 15' W  
Licence Number: 1971 Region: Camern Hills, NWT  
Spud Date: Jan 10, '03 @ 00:00 Drilling Completed:  
Surface Coordinates: Latitude: 60° 04' 29.364" North  
Longitude: 117° 29' 11.066" West

## Bottom Hole Coordinates:

Ground Elevation (m): 774.35m K.B. Elevation (m): 778.83m  
Logged Interval (m): 1413m To: 1419m Total Depth (m): 1419m  
Formation: Sulphur Point Dolomite  
Type of Drilling Fluid: Gelchem

Printed by STRIP.LOG from WellSight Systems Inc. 1-800-447-1534 [www.wellsight.com](http://www.wellsight.com)

## OPERATOR

Company: Paramount Resources Ltd.  
Address: 4700 Bankers Hall West  
888 3rd Street S.W.  
Calgary, Alberta T2P 5C5

## GEOLOGIST

Name: Brad Powell, B.Sc.  
Company: Running Horse Resources Inc.  
Address: 66A New Street S.E.  
Calgary, Alberta T2G 3X9  
(403) 660-9883

## Cores

General core description upon retrieval: strong gassy odor, slightly sour. Commonly brecciated in the top 1-2m with light colored broken rock fragments and darker matrix. Abundant fracturing in the lower half of the core caused rubble. The core had a very rough texture and mottled appearance. There was areas of bleeding oil, becoming more frequent in the bottom 1-2m. Numerous shale partings were noted. Oil staining was patchy to massive, which was confirmed under UV light.

## Comments

This well was drilled by Presicion Drilling Rig #117.  
A Continental gas detector was run.  
Gamma data provided by Computalog.  
Paramount AFE #02N31148



## CORE

**Contractor:** Baker  
**Core #:** 1  
**Formation:** Sulphur Point Dolomite  
**Core Interval:** From: 1413m Cut: 6.0m  
 To: 1419m Recovered: 6.0m  
**Bit type:** Hughes Christensen BHC-406  
**Size:** 199 OD, 101 ID  
**Coring Time:** 32min

## ROCK TYPES

	Anhy		Congl		Mrlst		Ss
	Bent		Dol		Salt		Till
	Brec		Gyp		Shale		Blank
	Cht		Igne		Shcol		
	Clyst		Lmst		Shgy		
	Coal		Meta		Sltst		

## ACCESSORIES

MINERAL							
	Anhy		Marl		Coral		Dol
	Arggrn		Minxl		Crin		Gyp
	Arg		Nodule		Echin		Ls
	Bent		Phos		Fish		Mrst
	Bit		Pyr		Foram		Sltstrg
	Brecfrag		Salt		Fossil		Ssstrg
	Calc		Sandy		Gastro	TEXTURE	
	Carb		Silt		Oolite		Boundst
	Chtdk		Sil		Ostra		Chalky
	Chtlt		Sulphur		Pelec		Earthy
	Dol		Tuff		Pellet		Finexln
	Feldspar	FOSSIL			Pisolite		Grainst
	Ferrpel		Algae		Plant		Lithogr
	Ferr		Amph		Strom		Microxln
	Glau		Belm	STRINGER			Mudst
	Gyp		Bioclst		Anhy		Packst
	Hvymin		Brach		Bent		Wackest
	Kaol		Bryozoa		Coal		
			Cephal				

## OTHER SYMBOLS

POROSITY TYPE							
	Earthy		Vuggy		Subang		None
	Fenest	SORTING			Angular		Core
	Fracture		Well	OIL SHOWS			Dst
	Inter		Moderate		Even	EVENTS	
	Moldic		Poor		Spotted		Rft
	Organic	ROUNDING			Ques		Sidewall
	Pinpoint		Rounded		Dead		
			Subrnd	INTERVALS			



## Curve Track 1

ROP (min/m)

Gas (units)

Gamma (API)

ROP (min/m) 20  
Gas (units) 200  
Gamma (API) 150

BIT TYPE:  
Hughes BHC-406  
199mm OD  
102mm ID

WOB: 3000daN  
RPM: 50  
PRESS:  
5800kPa P.O.:  
1.0m<sup>3</sup>/min  
ANN V:  
45m/min

ROP (min/m) 20  
Gas (units) 200  
Gamma (API) 150

Depth	Porosity Type	Porosity	Lithology	Grain Size	Sorting	Rounding	Oil Shows	Geological Descriptions
		24% 18% 12% 6%		1/16 mm 1/8 mm 1/4 mm 1/2 mm 1 mm				
1413			MS					LIMESTONE breccia, buff to tan rock fragments with light brown to brown lime mud matrix, cryptocrystalline to microcrystalline, collapse breccia?, very worked, fracturing throughout, predominantly mudstone, in part chalky, with trace dark grey shale partings, bottom 0.3m has very abundant finely disseminated pyrite, trace spotty bleeding oil and oil staining, very dense, firm, tight
1414			P					DOLOMITE, in part breccia, tan fragments with brown matrix, microcrystalline to coarse crystalline, argillaceous in part, generally dense and firm, common fracturing with calcite infill or fine to coarse clear euhedral dolomite rhombs, scattered good vugular porosity with vugs up to 1cm with very coarse rhombs to 0.5cm in open pore throats, tight to fair intercrystalline porosity, bleeding oil and common oil staining with common yellow fluorescence,
1415			CX					DOLOMITE, tan to light brown with brown mud matrix, mottled, becoming very shaly downsection, microcrystalline to medium upper crystalline, streaks of good to excellent pinpoint to vugular porosity, fair to good in part sucrosic intercrystalline porosity, common oil staining and fluorescence, watery to milky greenish yellow cut, SHALE dark grey, well indurated, interbedded at bottom of section
1416								
1417								
1418			CX					DOLOMITE, brown and dark brown banded, predominantly mcxln to fine crystalline, grading to medium upper xln, excellent vertical fracturing with calcite, subhedral and euhedral dolomite crystals along fracture surfaces, microsucrosic texture in part, bottom 0.3m has good to excellent vuggy porosity with open pores and rhombs, fair to good intxl porosity with bitumen coatings, massive dark oil staining and even deep yellow fluor, milky thick yellowish white cut, dark shale partings
1419								
1420								



# Running Horse Resources Inc.

[www.wellsitegeologists.com](http://www.wellsitegeologists.com)

Scale 1:48 (25"=100') Metric

Well Name: Para et al Cameron F-75  
Location: F-75 Grid Area: Lat 60° 10' N Long 117° 15' W  
Licence Number: 1971 Region: Camern Hills, NWT  
Spud Date: Jan 10, '03 @ 00:00 Drilling Completed: Jan 19, '03 22:38  
Surface Coordinates: Latitude: 60° 04' 29.364" North  
Longitude: 117° 29' 11.066" West

## Bottom Hole Coordinates:

Ground Elevation (m): 774.35m K.B. Elevation (m): 778.83m  
Logged Interval (m): 1419m To: 1432m Total Depth (m): 1432m  
Formation: Sulphur Point Dolomite  
Type of Drilling Fluid: Gelchem

Printed by STRIP.LOG from WellSight Systems Inc. 1-800-447-1534 [www.wellsight.com](http://www.wellsight.com)

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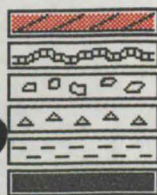
## Comments

This well was drilled by Presicion Drilling Rig #117.  
A Continental gas detector was run.  
Gamma data provided by Computalog.  
Paramount AFE #02N31148

## CORE

Contractor: Baker  
Core #: 2  
Formation: Sulphur Poin Dolomite  
Core Interval: From: 1419m Cut: 13m  
To: 1432m Recovered: 13m  
Bit type: Hughes Christensen BHC-406  
Size: 199 OD 101 ID  
Coring Time: 82min

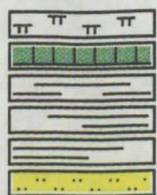
## ROCK TYPES



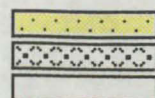
Anhy  
Bent  
Brec  
Cht  
Cyst  
Coal



Congl  
Dol  
Gyp  
Igne  
Lmst  
Meta



Mrlst  
Salt  
Shale  
Shcol  
Shgy  
Sltst



Ss  
Till  
Blank

## ACCESSORIES

### MINERAL

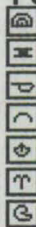


Anhy  
Arggrn  
Arg  
Bent  
Bit  
Brecfrag  
Calc  
Carb  
Chtdk  
Chtlt  
Dol  
Feldspar  
Ferrpel  
Ferr  
Glau  
Gyp  
Hvymin  
Kaol

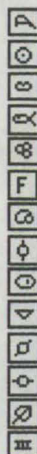


Marl  
Minxl  
Nodule  
Phos  
Pyr  
Salt  
Sandy  
Silt  
Sil  
Sulphur  
Tuff

### FOSSIL

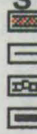


Algae  
Amph  
Belm  
Bioclst  
Brach  
Bryozoa  
Cephal



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

### STRINGER

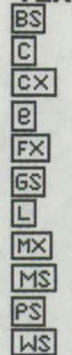


Anhy  
Arg  
Bent  
Coal



Dol  
Gyp  
Ls  
Mrst  
Sltstrg  
Ssstrg

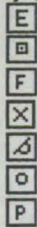
### TEXTURE



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

### INTERVALS



None



Core



Dst

### EVENTS



Rft  
Sidewall



## Curve Track 1

ROP (min/m)

Gas (units)

Gamma (API)



ROP (min/m) 20  
Gas (units) 500  
Gamma (API) 150

ROP (min/m) 20  
Gas (units) 500  
Gamma (API) 150

BIT TYPE:  
Hughes BHC-406  
199mm OD  
102mm ID

WOB: 3000daN  
RPM: 50  
PRESS: 5800kPa  
P.O.: 1.0m<sup>3</sup>/min  
ANN V: 45m/min

Depth

Porosity Type

Porosity

Lithology

Grain Size

Grain Size

Grain Size

Grain Size

Grain Size

Grain Size

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Geological Descriptions

DOL, brn and dark brn banded, even dark brn oil staining, mcxln to coarse crystalline, breccia at top of section, crumbly, sucrosic, g to excel vug por with interconnected vugs up to 2-3cm, "sponge" appnc, com vert fracturing with calcite infill, subhedral and euhedral dol xls and clear rhombs up to 1.5cm along fracture surfaces and vug linings, open pore throats, dark shale partings, fair to excel intxl porosity, massive dark oil staining and even deep yellow flor, strong oil odor

DOLOMITE, tan to dark brown, microcrystalline to very fine crystalline, common oil staining, no vugs, very common calcite veining, black partings, dense, tight

DOLOMITE, It brown to very dark brown oil stained, greyish brown, becoming more grey downsection, in part banded, microcrystalline to fine crystalline, euhedra crystals, sucrosic texture, good intercrystalline porosity, streaks of good to excellent vug porosity with open vugs to 2-3mm, clear rhomb vug linings, possible poor fracture porosity, gritty feel, firm, black shale partings, even oil staining, yellow fluorescence, milky yellowish cut

SHALE, dark grey to greenish grey

DOLOMITE, becoming more grey, greyish brown to dark brown, banded, microcrystalline to very fine lower crystalline, blocky, tight, patchy oil staing and fluorescence, scattered dark grey SHALE partings

SHALE, grey, soft

DOLOMITE, as above







