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**FINAL WELL REPORT**  
**PARAMOUNT RESOURCES LTD.**

**PARA ET AL CAMERON L-73**

**Grid: 60<sup>0</sup> 10', 117<sup>0</sup> 15'**

**DATE: April 11, 2008**

**COMPANY REPRESENTATIVE:**  
**Dave Block**

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## A. INTRODUCTION

Paramount Resources Ltd. (Paramount) drilled Para et al Cameron L-73 as a 1450 meter delineation well. The well was spudded on February 18, 2007 and finished drilling on February 27, 2007. The purpose of the well was to evaluate hydrocarbon potential. The primary target was the Sulphur Point Dolomite formation which was encountered at a depth of 1415 mKB. The secondary target was the Slave Point formation which was encountered at a depth of 1345 mKB.

The drilling contractor was Precision Drilling Ltd based out of Calgary, Alberta. Precision's Rig # 129 was used and is a land rig rated for 1600 m. The rig had a mud system capacity of 50.5 m<sup>3</sup> and was equipped with a boiler.

The well was drilled on Production License No PL-004 in which Paramount has an 88% working interest under Paramount's Operating License No 1159.

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

Latitude: 60° 02' 38.386"

Longitude: 117° 29' 54.302"

Cancor Rathole Inc. drilled a 610 mm conductor hole to 12.5 meters. From surface to 0.5 meters was snow pad, from 0.5 to 1.5 meters was permafrost muskeg, from 1.5 to 4.6 meters was permafrost clay with boulders, from 4.6 to 5.5 meters was frozen rock layer, 5.5 to 5.6 meters was frozen gravel, and from 5.6 to 12.5 meters was clay with boulders. A heavy walled 406 mm conductor pipe was cemented at 12.5 meters.

Precision #129 was moved onto the location starting February 17, 2007. The rig was rigged up, a diverter was nipped up and drilling commenced February 18, 2007 at 09:45 hours. A 311 mm surface hole was drilled to 436 mKB. There were no problems encountered in drilling the surface hole. 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 38 t class 'G' cement plus 1.5% CaCl<sub>2</sub>. There were 4.0 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 05:35 hours on March 1, 2007.

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 7,000 kPa high pressure.

The float collar and shoe were drilled out to 447 mKB on February 22, 2007. A leak off test was performed with the leak off gradient found to be 26.2 kPa/m. A 200 mm hole was drilled with a flocculated water system to approximately 900 m. Gel was added to the drilling fluid at that point and the gel/chem mud system was then used to drill to a total depth of 1450 mKB. There were fluid losses encountered in the Wabamun starting at 539 meters. Once through the Wabamun three cement plugs were run to control the fluid losses. After the cement plugs were drilled out, drilling continued to TD with no further significant fluid losses. Precision Energy Services ran induction and sonic logs from bottom to surface casing, a density log from bottom to surface, and a micro-resistivity log from bottom to 1300 mKB.

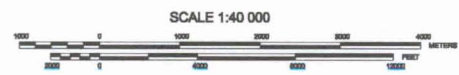
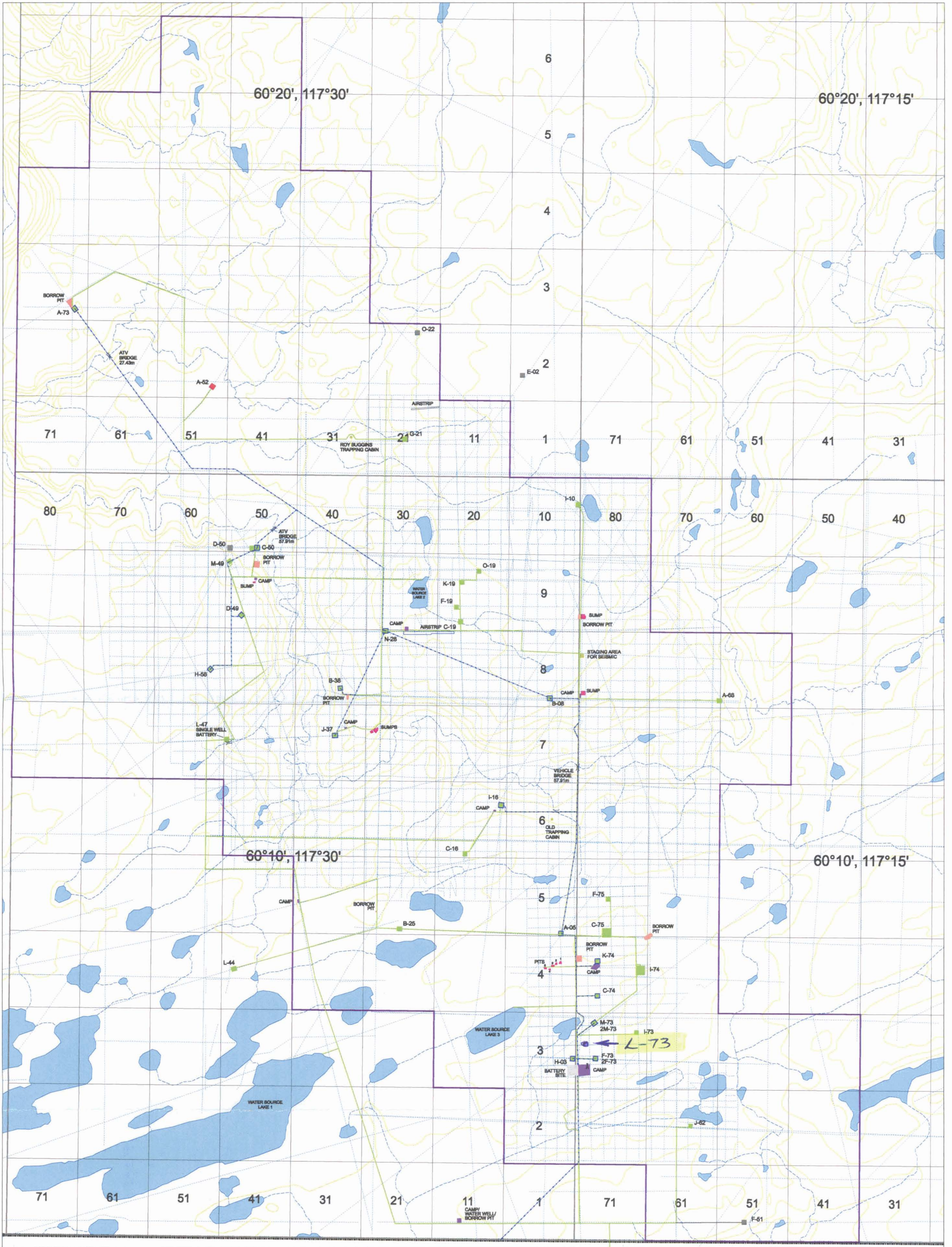
139.7 mm, 23.07 kg/m, J-55, LT&C production casing was run and set at 1450 mKB. It was cemented with 23.0 t Thixlite + 1% SMS and 11.0 t Expando LWL + 0.1% CFL-3 + 0.2%



LTR + 0.2% SPC-II. There were 6.0 m<sup>3</sup> cement returns to surface. The plug was bumped and held.

Precision #220 was rigged out and released at 06:00 hours on March 1, 2007.





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**LEGEND:**

- TOWER
- STRIPE
- STRIPE - (FOREIGN)
- ACCESS ROAD - (FOREIGN)
- STRIPE
- ACCESS ROAD
- PIPELINE RW
- BRIDGE
- SIGNIFICANT DISCOVERY LICENSE
- CONTOUR

- LEASE - (TIED IN)
- LEASE - (NOT TIED IN)
- LEASE - (FOREIGN)
- LEASE - RECLAIMED
- BORROW PIT
- CAMP SITE
- SUMP / PIT
- BATTERY SITE
- OTHER CLEARING



Compiled Map Showing  
**AS-BUILT JULY 2005**  
Oil & Gas Activity

**CAMERON HILLS AREA**  
Northwest Territories  
NAD83 UTM Projection

REVISED: 22-AUG-05  
MODEL: AS-BUILT JULY 2005.

Date: 13-DEC-04

Job No.: 04-1150G  
Filename: CH.BASE.NAD83.DGN



B. GENERAL DATA

1. Well Name: Para et al Cameron L-73  
Authority to Drill a Well No: 2033  
Exploration Agreement Number: PL-004  
Location Unit: L  
Section: 73  
Grid Area: 60<sup>0</sup> 10' N, 117<sup>0</sup> 15' W  
Classification: Delineation
2. Coordinates:  
Surface: Latitude: 60<sup>0</sup> 02' 38.386"  
Longitude: 117<sup>0</sup> 29' 54.302"
3. Unique Well Identifier: 300L736010117150
4. Operator: Paramount Resources Ltd.
5. Contractor: Precision Drilling
6. Drilling Unit: Precision Rig # 129, Land Rig
7. Position Keeping: N/A
8. Support Craft (Helicopter): N/A
9. Drilling Unit Performance: Good
10. Difficulties and Delays: Severe lost circulation in the Wabamun.
11. Total Well Cost: \$1,619,000
12. Bottom Hole Co-ordinates: Same as surface.

## C. SUMMARY OF DRILLING OPERATIONS

1. Elevations:
  - Ground: 770.23 m above sea level
  - KB: 774.8 m above sea level
  - KB to Casing Flange: 4.0 m
2. Total Depth:
  - FTD: 1450 mKB
  - PBTD: 1436 mKB
3. Date and Hour Spudded: February 18, 2007 at 09:45
4. Date Drilling Completed: February 27, 2007
5. Date of Rig Release: March 1, 2007
6. Well status: Cased and Suspended
7. Hole Sizes and Depths:
  - Conductor Hole: 610 mm to 12.5 m
  - Surface Hole: 311 mm to 436 mKB
  - Main Hole: 200 mm to 1450 mKB
8. Casing and Cementing Record:
  - Conductor Hole:
    - Casing Size: 406 mm
    - Wall Thickness: 9.5 mm
    - Depth Set: 12.5 m
    - Cut Height: At Surface
    - Date Set: February 7, 2007
    - Cement Volume: 0.96 tonnes
    - Cement Type: class 'G'
  - 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: 32
    - Depth Set: 436 mKB
    - Cut Height: At surface
    - Date Set: February 21, 2007
    - Cement Volume: 38 Tonnes
    - Float Shoe Depth: 436 mKB
    - Float Collar Depth: 422 mKB



Cement Type: Class 'G'  
 Additives: 1.5% CaCl<sub>2</sub>  
 Cement Top: Surface  
 Casing Bowl Size: 228 mm x 219 mm x 21 MPa  
 Casing Bowl Make: ABB Vetco

Main Hole:

Casing Size: 139 mm  
 Casing Weight: 23.07 kg/m  
 Casing Grade: J-55  
 Casing Make: IPSCO  
 Number of Joints: 107  
 Thread: LT&C  
 Depth Set: 1450 mKB  
 Cut Height: Surface  
 Date Set: March 1, 2007  
 Float Shoe Depth: 1450 mKB  
 Float Collar Depth: 1436 mKB  
 Cement Volume 1: 23.0 Tonnes  
 Cement Type 1: Thixlite  
 Additives 1: 1% SMS  
 Cement Volume 2: 11.0 Tonnes  
 Cement Type 2: Expando LWL  
 Additives 2: 0.1% CFL-3 & 0.2% LTR & 0.2% SPC-II  
 Cement Top: Surface

9. Sidetracked Hole: N/A

10. Drilling Fluid:

Conductor Hole: Water  
 Properties: N/A

Surface Hole: Gel - Chemical  
 Properties: Viscosity: 30 - 54 sec/L  
 Weight: 1040 - 1120 kg/m<sup>3</sup>  
 PH: 9.0 - 10.5

Main (425 - 900 m): Floc water  
 Properties: Viscosity: 29 - 37 sec/L  
 Weight: 1000 kg/m<sup>3</sup>  
 PH: 10.5 - 12.0

Main (900 m – TD):	Gel-chem	
Properties:	Viscosity:	44 - 85 sec/L
	Weight:	1090 - 1200 kg/m <sup>3</sup>
	PH:	8.5 – 11.0
	Water loss:	8.0 – 11.0 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:	446 m
Fluid Density:	1000 kg/m <sup>3</sup>
Applied Pressure:	7150 kPa
Hydrostatic Pressure:	4277 kPa
Mud Weight Equivalent:	2671 kg/m <sup>3</sup>
Casing setting depth:	436 mKB

The surface casing leak-off test was taken to a gradient of 26.2 kPa/m before leak off was detected.



#### 14. Time Distribution

Date	Hours	Activity
07/02/17	1.5	Safety meeting.
	19.5	Rig move.
	2.75	Rig up.
	0.25	Nipple up diverter.
07/02/18	1.0	Safety meeting.
	0.75	Rig service.
	6.5	Nipple up diverter.
	1.0	Make up bottomhole assembly.
	13.0	Drill.
	0.5	Modify flow line.
	1.25	Deviation survey.
07/02/19	0.75	Safety meeting.
	0.75	Rig service.
	17.75	Drill.
	4.75	Deviation survey.
07/02/20	0.75	Safety meeting.
	0.5	Rig service.
	5.25	Drill.
	0.75	Deviation survey.
	6.5	Trip.
	4.75	Circulate and condition mud.
	4.25	Run casing.
	1.25	Cement casing.
07/02/21	1.0	Safety meeting.
	1.25	Cement casing.
	4.0	Wait on cement.
	1.5	Nipple down diverter.
	4.0	Cut casing and weld on bowl.
	3.0	Nipple up BOP's.
	5.5	Test BOP's.
	2.5	Trips.
	1.25	Slip and cut drill line.
07/02/22	1.0	Safety meeting.
	0.75	Rig service.
	12.75	Drill.



	0.5	Drill out float collar and shoe.
	0.25	Circulate and condition mud.
	2.5	Slip and cut drill line.
	0.5	Leak off test.
	0.75	Deviation survey.
	3.25	Trips.
	1.75	Wait on cementers.
07/02/23	0.75	Safety meeting.
	0.75	Rig service.
	3.25	Wait on cementers.
	1.5	Run cement plugs.
	5.75	Wait on cement.
	6.25	Trips.
	0.75	Circulate and condition mud.
	5.0	Drill out cement.
07/02/24	0.75	Safety meeting.
	0.75	Rig service.
	4.5	Drill out cement.
	14.75	Drill.
	3.25	Deviation survey.
07/02/25	0.75	Safety meeting.
	0.75	Rig service.
	20.5	Drill.
	2.0	Deviation survey.
07/02/26	0.75	Safety meeting.
	0.75	Rig service.
	21.75	Drill.
	0.75	Deviation survey.
07/02/27	1.25	Safety meeting.
	0.75	Rig service.
	5.5	Drill.
	3.0	Circulate and condition mud.
	11.0	Trips.
	2.5	Reaming.
07/02/28	0.75	Safety meeting.
	0.75	Rig service.
	5.5	Logging.



	8.75	Trips.
	2.5	Circulate and condition mud.
	1.25	Slip and cut drill line.
	4.5	Run casing.
07/03/01	0.75	Safety meeting.
	0.25	Rig service.
	2.5	Circulate and condition mud.
	2.75	Cement casing.
	1.75	Nipple down BOP.
	12.0	Rig out.

#### Time Break Down by Activity:

<u>Activity</u>	<u>Hours</u>
Move on, rig up:	21.25
Make up bottomhole assembly:	1.0
Drilling:	111.75
Surveying:	13.5
Reaming:	2.5
Tripping:	38.25
Circulate and condition mud:	13.75
Running casing:	8.75
Cementing casing:	5.25
Wait on cement	9.75
Drill out casing shoe:	0.5
Rig service:	7.5
Safety meetings:	11.75
Nipple up diverter:	6.75
Nipple down diverter:	1.5
Weld casing bowl:	4.0
Nipple up BOP's:	3.0
Pressure test BOP's:	5.5
Leak off tests:	0.5
Logging:	5.5
Slip and cut drill line:	5.0
Nipple down BOP's:	1.75
Modify flow line:	0.5
Wait on cementers:	5.0
Run cement plugs:	1.5
Drill out cement plugs:	9.5
Rig out:	12.0

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



## D: GEOLOGY

### GEOLOGICAL SUMMARY

Tops: See page 16-1 of the Geological Report in the Attachments Section.

Sample Descriptions: See pages 19-1 to 19-11 of the Geological Report in the Attachments Section.

Total Depth: 1453 mKB MD

### 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 Attachments Section.

DRILL STEM TESTS: None.

### WELL EVALUATION

The following logs were run:

Array Induction Log:	435 - 1448 mKB
Photo Density Dual Spaced Neutron Log:	surface - 1440 mKB
Compensated Sonic Log:	435 - 1444 mKB
Micro Log:	1300 - 1446 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 sumpless 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 Alberta for disposal. The solids were hauled to a remote site at J-04 60° 10' N, 117° 30' W where they were disposed of using the mix/bury/cover technique.



# Geological Report

On

**Para Et Al Cameron L-73**

**300/L-73-60-10-117-15**

For

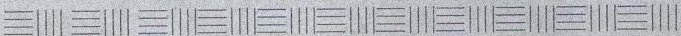


**Paramount Resources Ltd.**

**Prepared For: Llew Williams**

**Prepared By: M. A. Salam Khan**



**Khan Petroleum Ltd.**   
(A Complete Wellsite Solution By PowerLog)

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The proposed Para Et Al Cameron L-73 an exploratory well was a part of an extensive exploratory drilling program in the Cameron Hills. The well was proposed to drill vertically as a new delineation well. Paramount Resources Ltd. retained the services of Precision Drilling Rig # 129.

The primary objective is to penetrate the prognosticated oil productive zone in the Sulphur Point Dolomite Section of Sulphur Point Formation. Productions are being drawn from here in some wells.

Secondary targets were to test gas and heavy hydrocarbon possibilities of in the upper limestone section of Sulphur Point and in the Slave Point formation respectively. The Cameron Hills identifies itself with its structure complexity leading to insufficient geological information. The well bore information will validate the seismic picking of the reservoirs and to learn more about the complex reservoir characteristic of the structures.

The well was spudded at 10:00hrs on the February 18, 2007. Drilling of 311mm hole from surface to 436.0m was completed using one rock bit in 34.75 on bottom bit hours. 219.1mm surface casings were run in setting the shoe at 436.0 and cemented as per program.

Partial mudloss was encountered from 569.0m RKB during drilling of 200mm hole and total loss encountered at 613.0m RKB. Blind drilling to 739.0m RKB was continued to drill through the Wabamun formation into the underlying Fort Simpson formation. Three cement plugs consecutively were conducted to prevent mudloss.

200mm hole section was completed using one PDC bit consuming 69.75 on bottom bit hours. Gel Chem mud was used for the surface hole and displaced with Floc water till 856.0m and back to Gel Chem during the last section of drilling.

139.7mm casings were used to case the well for production tests.

The Para Et Al Cameron L-73 well data is a source of geological information of the morphological changes and reservoirs characteristics of the crater of the complex of Cameron Hills. The fractured and faulted (?) section in the Wabamun Formation leads to mudloss through its crater and encountered in all the wells drilled. The geology section in the Strip Log gives a brief representation of the individual stratigraphic formations.

The Sulphur Point Limestone section was 16.5m thick from at 1398.5m to 1415.0m RKB. It is comparatively tight than that of the dolomite section varying with some high porous streaks. It is oily and indicated gas responses. The porosity varies between 4% - 12%. Gas shows maximum 561/222 units were recorded during drilling. Weak odors with traces to patchy fluorescence were noticed.

The Dolomite Section is 14.0m thick and coarser down the section. Remarkable gas shows were not encountered but vuggy porosity and grainy appearance looked bright prospective for oil. Porosity varies from 4% to maximum 14% in some of the strips.

The Slave Point formation was picked up at 1345.5m (570.3m SS) and 40m thick. Gas shows were noticed although the section with maximum 791/222 units and 932/222 units at 1364.50m and 1373.50m respectively. The Slave Point is mainly of buff and tan limestone with porosities varying between 3% - 13% - maximum in some grainy streaks. Weak odor with traces to patchy natural oil fluorescence was noticed in all through the drilled section.



Weak odor of oil was noticed from the beginning of drilling this interval. Traces of light brown oil show was noticed which gradually increased between 1355m to 1370m RKB and faded away with the boundary section of the underline F4 Marker which hardly can be recognized from the drilling parameters and ditch cuttings.

The open hole logging was completed by Weatherford Logging Services.

MAI/MSS/MPD/MDN/MML/ISC/MGS/MTC/MFE/MCG tools were run in. From the ROP and gas data, ditch cuttings and logs the Sulphur Point Dolomite Section does carry positive reservoir properties for production including good oil shows. Limestone section of the Sulphur Point possesses comparatively tight porosity than that of the Dolomite Section. The Slave Point has got good reservoir properties and could be tested for the commercial viability.

Further evaluation and studies are also proposed for the quest of geological interest in the Cameron Hills Field.



# Well Summary

Storage Units: Metric

## Well Information

Operator: Paramount Resources Ltd.  
Well Name: Para Et Al Cameron L-73  
Location: 300/L-73-60-10-117-15  
UWI: 300-L-73-6010-117150  
Pool: Sulphur Point & Slave Point.  
Field: Cameron Hills.  
State / Province: Northwest Territory  
Country: Canada  
License Number: 1159  
Well Status: Cased for production testing.

## Surface Co-ordinates

Hole Type: Vertical  
Latitude: 60°2'38.3"

Fault Indicator:  
Longitude: 117°29'54.3"

N / S: n/a.  
E / W: n/a.

## Bottom Hole Co-ordinates

Latitude: 60°2'38.3"

Longitude: 117°29'54.3"

N / S: n/a.  
E / W: n/a.

## Elevations

Ground Elevation:	770.80	Reference:	MSL
Kelly Bushing Elevation:	774.80	Kelly Bushing to Ground:	4.00
Casing Flange Elevation:	4.00	Cut (-):	0.00
		Fill (+):	0.60

## Total Depth

	Measured Depth	True Vertical Depth
Total Depth Driller (Tally) :	1,450.00	1,450.00
Total Depth Driller (Strap or SLM):	1,450.00	1,450.00
Total Depth Logger:	1,448.60	1,448.60

## Miscellaneous Depths

Plugback Depth:	Water Depth Reference:
Sidetrack Depth:	Water Depth:

## Well Summary

Drilling Contractor: Precision Rig# 129.  
Rig Release Date:

Spud Date: Feb 18, 2007 @ 10:00  
Total Depth Date: Feb 27, 2007 @ 06:00

Cores	#	Formation	Interval	Cut	Recovered	%
-------	---	-----------	----------	-----	-----------	---

## Casing Summary

Casing Type	Casing Size	Landed Depth	Hole Size
Surface	219.1	436.00	311.0
Production	139.7	1,450.00	200.0

Paramount Resources Ltd.  
UWI 300-L-73-6010-117150

Para Et Al Cameron L-73  
300/L-73-60-10-117-15  
Page 2-1



# Daily Drilling Summary

Storage Units:

Metric

Date	Depth	Progress	Rotating Hours	Avg. P.R.	Daily Operational Summary
Feb 18, 07	0.00		0.00	0.0	Tear down rig. Rig move to the new Cameron L-73 location. Pre-job safety meeting. Rig up.
Feb 19, 07	184.00		18.50		Pre-job safety meeting. Nipple up diverter line. Pick up a new 311mm bit on drilling assembly. Pre-spud safety meeting. Spud the rig. Drilling from surface to 184.0m. Conduct periodical surveys. Gas trap is sent to Rig# 250. Drilling continued.
Feb 20, 07	425.00		14.70		Continue drilling 311mm surface hole from 184.0m to 425.0m. Conduct periodical surveys. Circulation and mud conditioning. Flow check - static. Round trip prior to RIH of surface casings. Strap out drilling string.
Feb 21, 07	436.00		1.70		RIH to bottom. Drill down to 436.0m. Conduct survey at 436.0m. Mud conditioning MW: 1100kg/m <sup>3</sup> ; FV: 95sec and pH: 9. POOH to run production casings. Pre-job safety meeting. Rig up casing equipments and tools. RIH 32 joints of 219.1mm; 35.72m/kg; IPSCO; J-55 casings of total length. The shoe was set at 436.0m RKB. Circulate through casings. Safety meeting with Sangel cementing hands. Conduct cement job. Cemented with 38 tones of 0.1.0 G + 1.5% CaCl <sub>2</sub> . Plug down at 01:15hrs. 4m <sup>3</sup> cement slurry received on surface.WOC. Safety meeting. Cut and dress casing string continued.
Feb 22, 07	600.00		5.70		Pre-job safety meeting. Nipple down diverter line. Cutting and dressing of casing and welding with the casing bowl. Nipple up BOP stacks. Pressure test BOP stack with Rainbow Pressure testers. Test all manifold valves, chokes, flanges, casing bowl, HCR manual and hydraulic valves, Blind Rams, Kill and check lines, drilling spools, stabbing valve, inside BOPs, Pipe Rams and Annular BOP respectively - ok. RIH with anew PDC bit on drilling BHA to 375.0m. Slip and cut drill lines. Tag cement top at 428.0m. Drill down to 347.0m. Conduct LOT at 7150kPa. LOT gradient 26.2kPa/m. Resume drilling and drill down to 600m with periodical surveys.



**Daily Drilling Summary**

Storage Units:

Metric

Date	Depth	Progress	Rotating Hours	Avg. P.R.	Daily Operational Summary
Feb 23, 07	739.00		7.50		Record partial mud loss while drilling from 569m. Drilling to 613m - lost circulation. Blind drilling from 613m to 739m i.e. +/-30m inside the Fort Simpson Formation. Conduct periodical surveys. POOH. Flow check at 739m, 708m, 430m and on surface - mud loss. Cut and slip drill line. RIH with open ended drill pipe to bottom. Rig up Sangel cementing equipments. Set cement plug between 510m to 739m. Pump 0.5m3 water and pressure test lines. Pump 0.5m3 water followed with 6m3 cement slurry (7 tones). Displace 1.6m3 slurry with water. POOH by 12 stands. Circulate and clean out cementing string. WOC. RIH and tag cement top at 571m. Preparation for second cement plug.
Feb 24, 07	790.00		7.00		Cement Plug# 2 between 476m to 571m. Pump 0.5m3 water and pressure test cementing lines. Pump 0.5m3 water followed by 3m3 cement slurry of 3.5 tones cement. Displace 1.4m3 with mud. POOH 7stands and clean out the string. WOC. Tag cement at 559m. Conduct cement plug No. 3 between 464m to 559m. Pump 3m3 cement slurry and displace 1.4m3 with mud. POOH to 464m and clean out the string. WOC. Tag cement at 478m. POOH cementing string. RIH with Bit# 2 on drilling BHA. Drill out cement plug. TG at 478m is 123/34 units. Consistent gas shows were recorded during cement drilling. Resume drilling from 739m and drill down to 790.0m. Conduct survey at 749m. Drilling continued.
Feb 25, 07	1,118.00		18.70		Continue drilling from 790.0m to 1118.0m. Conduct periodical surveys. Drilling continued.
Feb 26, 07	1,288.00		18.20		Continue unabated drilling from 1118.0m to 1288.0m with periodical surveys. Drilling continued.
Feb 27, 07	1,450.00		18.00		Continue unabated drilling from 1288.0m to TD - 1450.0m RKB. Circulation and mud conditioning.



# Daily Drilling Summary

Storage Units:

Metric

Date	Depth	Progress	Rotating Hours	Avg. P.R.	Daily Operational Summary
Feb 28, 07	1,450.00		0.00	0.0	Wiper trip to shoe. Flow check at 1450m, 1378m, 725m, 436m and 0m - static. Pre-job safety meeting. RIH. Flow check at 725m - static. Reaming from 1358m to 1450m. H2S alert - 15ppm. pH gone down. Mud conditioning to 1180kg/m3 and FV: 85sec. POOH. Flow check at 1450m, 1378m, 725m, 435m and 0m - static. Safety meeting with Weatherford hands. Rig up logging tools and equipments. Logging. Run# 1: RUN#1: MCG/MFE/MTC/MML/MGS/MDN/MSS/MAI tools. RIH with a rock bit continued.

## Casing Data Summary

Storage Units:

Metric

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**Casing Type: Surface****Casing Size:** 219.1**Casing Landed @:** 436.00**Casing Date:** Feb 20, 2006 @ 20:00**Hole Size:** 311.0**Total Joints:** 32**Plug Down Date:** Feb 21, 2007 @ 01:15**# of Joints / Length / O.D. / Weight:** 32 joints: 436.48m; 219.1mm; 35.72kg/m; IPSCO; J-55**Cementing Details:** The casing string was cemented with 38 tones 0.1.0 G + 1.5% CaCl<sub>2</sub>. 4m<sup>3</sup> cement slurry received on surface.**Remarks:** No hole problem was encountered during RIH of casings.

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**Casing Type: Production****Casing Size:** 139.7**Casing Landed @:** 1,450.00**Casing Date:****Hole Size:** 200.0**Total Joints:** 111**Plug Down Date:****# of Joints / Length / O.D. / Weight:** 111 joints of 139.7mm, 23.07kg/m, IPSCO, J-55 production casings of total length 1459.82m were run in setting the shoe at 1450m RKB.**Cementing Details:** Conduct cement job with Sangel. Pump lead slurry of 23 tonne Thixlite + 1% SMS followed by tail slurry of 11 tonne Expandomix LWL + 0.1% CFL-3 + 0.2% LTR + 0.2% SPC-II. Displaced with mud. surface.**Remarks:** 6m<sup>3</sup> good cement received on



# Wireline Logging Summary

Storage Units:

Metric

Logging Suite Number: 1  
Wireline Logging Company: Weatherford Logging Services. Engineer: L. Sutherland  
District: GPR Unit Number: 13132  
Witness: Azim Ahmed

Was Pressure Control Equipment Utilized: No Maximum Deviation: 1.500 °  
Was the Logging Job Mechanically Assisted: No Hole Size: 200.0

Total Lost Time: 0.00  
Loggers' Total Down Time: 0.00  
Total Job Time (From Rig up to Rig down): 4.50

	Measured Depth	True Vertical Depth
Casing Depth Driller	436.00	436.00
Casing Depth Logger	435.00	435.00
Total Depth Driller (Tally)	1,450.00	1,450.00
Total Depth Driller (Strap or SLM)	1,450.00	

General Remarks: Logging was completed in one run.  
RUN#1: MCG/MFE/MTC/MML/MGS/MDN/MSS/MAI tools.

Logging Run #: 1  
Date: Feb 27, 2007

## Drilling Fluid Data

Drilling Fluid Type: Gel Chem  
Fluid Density: 1180.0 Viscosity: 85 pH: 10.0 Fluid Loss: 8.0

Mud Resistivity (Rm): 0.54 @ 25.0 °  
Mud Resistivity (Rm) @ BHT: 0.36 @ 47.0 ° Maximum Temperature: 47.0 °  
Mud Filtrate Resistivity (Rmf): 0.41 @ 25.0 ° Source (Rmf): Press  
Mud Cake Resistivity (Rmc): 0.63 @ 25.0 ° Source (Rmc): Filter

## Logging Run Information

Date on Bottom: Feb 27, 2007  
Total Depth Logger: 1,448.60 (MD) 1,448.60 (TVD)

Logging Tools: MCG/MFE/MTC/MML/MGS/MDN/MSS/MAI tools; 1444.30m to 435.0m; no hole problems during logging.

Remarks: # The well is drilled as a vertical one. and all depth are measured from RKB.  
# The well is drilled by Precision Drilling Rig# 129.  
# Paramount AFE# 07N710028.  
# Logging was completed by Weatherford.  
# 139.7mm production casings were run in.

Hole Conditions: Good hole condition.

Paramount Resources Ltd.  
UWI 300-L-73-6010-117150

Para Et Al Cameron L-73  
300/L-73-60-10-117-15  
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# Directional Survey Points

Storage Units: Metric

Survey Type: magnetic / single shot

Measured Depth	T.V.D.	Drift Angle (°)	Azimuth (°)	+N / -S Distance	+E / -W Distance	Vertical Section	DogLeg Severity
31.00	0.25	0.250					
59.37	59.37	0.500					
96.16	96.16	0.500					
128.50	128.50	0.500					
156.36	156.36	1.000					
184.61	184.61	0.750					
212.92	212.92	0.750					
241.57	241.57	0.750					
270.13	270.13	0.250					
309.13	309.13	0.500					
338.17	338.17	0.750					
387.33	387.33	0.250					
396.62	396.62	0.750					
425.00	425.00	0.750					
436.00	436.00	1.000					
515.00	515.00	1.000					
661.80	661.80	0.500					
846.60	846.66	1.000					
943.85	943.85	0.750					
1,041.00	1,041.00	1.000					
1,138.73	1,138.73	1.500					
1,183.73	1,183.73	1.500					
1,196.80	1,196.80	1.250					
1,274.00	1,274.00	0.500					
1,450.00	1,450.00	0.500					



## Drilling Fluid Summary

Storage Units:

Metric

<b>Drilling Fluid Type:</b>	Gel Chem	<b>From:</b>	0	<b>To:</b>	436
<b>Drilling Fluid Type:</b>	Floc Water	<b>From:</b>	436	<b>To:</b>	856
<b>Drilling Fluid Type:</b>	Gel Chem	<b>From:</b>	856	<b>To:</b>	1,450

## Work Schedule

Storage Units: Metric

**Company:** Khan Petroleum Ltd.  
**Geologist:** Azim Ahmed

<b>Work Performed</b>	<b>From:</b> Feb 18, 2007	<b>To:</b> Mar 1, 2007
<b>Depths Logged</b>	<b>From:</b> 1,280.0	<b>To:</b> 1,450.0

**Remarks:** Rig moved from Cameron J-04 to Cameron L-73 on Feb 17, 2007.



**Formation Top Summary**

Storage Units:

Metric

Kelly Bushing Elevation:  
Ground Elevation:774.80  
770.80

Casing Flange Elevation:

4.00

**\*\* All Depths measured from Kelly Bushing Elevation \*\***

<b>Group Formation Member</b>	<b>Prognosis (TVD)</b>	<b>Sample Top (MD)</b>	<b>Sample Top (TVD)</b>	<b>Log Top (MD)</b>	<b>Log Top (TVD)</b>	<b>Subsea</b>	<b>Thickness</b>
<i>Wabamun</i>	554.80			552.00	552.00	222.80	
<i>Fort Simpson</i>	719.80			717.00	717.02	57.78	
<i>Sample Point</i>	1,285.00	1,285.00	1,285.00	1,285.00	1,285.00	-510.20	
<i>Beaverhill LK</i>	1,322.80	1,324.00	1,324.00	1,320.00	1,320.00	-545.20	21.00
<i>Slave Point</i>	1,346.50	1,345.00	1,345.00	1,343.25	1,343.25	-568.45	40.00
<i>F4 Marker</i>	1,388.20	1,385.00	1,385.00	1,386.00	1,386.00	-611.20	8.50
<i>Watt Mountain</i>	1,394.70	1,393.50	1,393.50	1,392.00	1,392.00	-617.20	5.00
<i>Sulphur Pt Ls</i>	1,398.00	1,398.50	1,398.50	1,398.00	1,398.00	-623.20	16.50
<i>Sulphur Pt Dol</i>	1,415.30	1,415.00	1,415.00	1,415.30	1,415.30	-640.50	14.00
<i>Muskeg</i>	1,428.10	1,429.00	1,429.00	1,428.00	1,428.00	-653.20	21.00
<i>Total depth</i>	1,449.80	1,450.00	1,450.00	1,448.60	1,448.60	-673.80	



## Formation Evaluations

Storage Units: Metric

Kelly Bushing Elevation: 774.80  
Ground Elevation: 770.80

Casing Flange Elevation: 4.00

*All Depths Measured from Kelly Bushing Elevation*

Group: Era: Paleozoic  
Formation: Slave Point Series: Middle  
Member: Period: Devonian  
Boundary Type: conformable Stage:  
Fault Type: none Age (Approx): 370 Million years.

	Measured Depth	True Vertical Depth	Subsea	Thickness
Sample Top	1,345.00	1,345.00	-570.20	40.00
Log Top	1,343.25	1,343.25	-568.45	

### Evaluation:

The secondary object of drilling Cameron L-73 was to test the hydrocarbon potentiality in the Slave point. The Slave Point formation was identified at 1345.0m RKB (-570.30m SS) RKB. The formation is overlain by the Upper Devonian Beaverhill Lake. The formation is fully developed with a thickness of 40m. From the consistent ROPs the formation was picked up. ROP varied between 4.3min/ to 9.7min/m and limestone cuttings differentiated from the overlying formation and conformably underlain by the Fort Vermilion (F4) Formation.

In the Para Et Al Cameron L-73 well the Slave Point formation anticipated its typical buff and tan to dark brown limestone, intercalated with fine crystalline dolomite and possibly with thin shale laminae.

The limestone section drilled in the Slave point Formation are generally of buff, off white, light brown, mottled, tan, yellowish brown color with abundant of brownish yellow stained grains. They are firm to crumpled to moderately hard, lumpy to blocky, partly sub blocky and partly chalky. They are predominately cryptocrystalline to microcrystalline, occasionally fine crystalline debris, predominately wackestone to mudstone and locally dolomitic. Commonly the possess intraclasts & occasionally bioclastic debris, loose grains to predominately peloids, calcarenite with traces of fine crystalline dolomite and traces of coarse quartz grain. Traces of granular to nodular pyrites are noticed at some depths. Traces of natural oil fluorescence are noticed with very faint cut.

Down the section are coarser with some very fine crystalline debris and grainstones.

Traces to maximum 40% oil fluorescence are noticed between till 1380.0m. Very weak odor, no visible staining, light brownish yellow natural sample fluorescence, faint cut, no residual ring fluorescence, poor show. Good oil show is noticed in the middle section.

Massive deposition of limestone beds possesses 3% - 6% intercrystalline porosity in all through the drilled section. 5% -13% porosity was noticed between 1354.0m to 1364.0m RKB with a maximum gas show of 819/84 units. 7% -14% porosity are noticed between 1364.0m to 1372.0m RKB.

The section from 1357.0m to 1376.0m RKB is noticeable possessing very good reservoir potentiality and can be tested for production.

### Conclusion:

From the geological point of view the Slave Point Formation in the Cameron Hills is very interesting from the geological view. Usually this formation is not prospective in this area. It is oily and gives gas response but will not be a pay zone. Further investigation and studies are being proposed for the Slave Point formation.



## Formation Evaluations

Storage Units:

Metric

Kelly Bushing Elevation: 774.80

Casing Flange Elevation:

4.00

Ground Elevation: 770.80

*All Depths Measured from Kelly Bushing Elevation***Group:****Formation:** Sulphur Pt Ls**Member:****Boundary Type:** disconformable**Fault Type:** none**Era:**

Paleozoic

**Series:**

Middle

**Period:**

Devonian

**Stage:****Age (Approx):** 370 Million years.

	Measured Depth	True Vertical Depth	Subsea	Thickness
Sample Top	1,398.50	1,398.50	-623.70	16.50
Log Top	1,398.00	1,398.00	-623.20	

**Evaluation:**

The Sulphur Point Formation conformably separates the overlying Watt Mountain from the underlying Muskeg formation. The limestone part of the formation is picked up with the end of greenish shale Watt Mountain formation.

Inconsistent ROP curve varies from the consistent curve of the overlying and underlying formations. ROPs in the limestone part varied from 2.7min/ to 7.4min/m excepting in the grainy and porous limestone deposit. The limestone part is picked at 1398.50m RKB (-623.70m SS) from the samples, gas show and ROP and later was co-related with the electrical logs. In the log the limestone section is noted at 1398.0m RKB (-623.20m SS). Presence of high gas - maximum 561/222 units is the other criteria for picking up the interval.

The limestone are off white, mottled, light yellow with dark brown stain, light brown and of dark brown color. They are generally firm to crumple to moderately hard, friable, blocky to sub blocky, predominately microcrystalline to crystalline debris. Usually wackestone to packstone are encountered with some very fine crystalline and grainstones debris. Traces to abundant crystalline dolomite are present with traces of coarse quartz grain and rare with anhydrite inclusion. Gray to greenish gray shale fragments is common,

off white, mottled, light yellow with dark brown stain, light to dark brown, firm to crumpled to moderately hard, blocky to sub blocky, smooth to gritty, predominately cryptocrystalline, partly microcrystalline, wackestone to packstone, occasionally grading to very fine crystalline grainstone, locally grading to dolomitic limestone, intraclasts & occasionally bioclastic debris, commonly loose grains to predominately peloids, calcarenite, abundant of very fine crystalline dolomite, traces of coarse quartz grain, traces of anhydrite inclusion, abundant of gray to greenish gray shale fragments, vuggy to fair visible intracrystalline porosity, very faint odor, no visible staining, traces of light brown oil show, light brownish yellow sample fluorescence, faint cut, no residual ring fluorescence, poor show.

Traces to patchy brownish yellow natural fluorescence are noticed - weak odor, no visible staining, traces of light brown oil show, light brownish yellow sample fluorescence, faint cut, no residual ring fluorescence, poor show which possibly indicates presence of heavy hydrocarbon in condensate form.

This limestone part is 16.5m thick. Porosity varies from 3% - 7% excepting some porous streaks where >12% porosity can be noticed. Down the section is coarser and dolomitic

**Conclusion:**

The reservoir properties are limited due presence of non porous chalky grains and fine crystalline grains. However, the interval from 1407.0m to 1415.0m RKB identifies itself with good reservoir properties for production. However, further evaluation is needed for the geological interest.



Storage Units: Metric

**Kelly Bushing Elevation:** 774.80  
**Ground Elevation:** 770.80

**Casing Flange Elevation:** 4.00

**All Depths Measured from Kelly Bushing Elevation**

**Group:**  
**Formation:** Sulphur Pt Dol  
**Member:**  
**Boundary Type:** disconformable  
**Fault Type:** none

**Era:** Paleozoic  
**Series:** Middle  
**Period:** Devonian  
**Stage:**  
**Age (Approx):** 370 Million years.

	Measured Depth	True Vertical Depth	Subsea	Thickness
Sample Top	1,415.00	1,415.00	-640.20	14.00
Log Top	1,415.30	1,415.30	-640.50	

**Evaluation:**

The dolomitized part of the Sulphur Point Formation separated from the underlying of limestone part from the overlying Muskeg Formation. Presence of dolomite is the main criteria of identifying the dolomite part. In general ROP varied between 6.7min/m to 12.6min/m other than in the fine crystalline porous intercalation where ROP are faster.

The dolomitized part is encountered at 1415.0m RKB (-640.20m SS) which differs a little from that of electrical log at 1415.5m RKB ( - 640.70m SS).

In the top section the dolomite encountered are off white, light brown, mottled, tan, satiny, creamy and reddish brown color. They are from firm, crumpled to moderately hard, blocky to sub blocky and partly earthy & chalky and ratty., Mainly cryptocrystalline debris, mudstone, partly wackestone, slightly argillaceous, abundant limestone inclusion, locally grading to dolomitic limestone, and rare fossiliferous. Abundant of calcite and anhydrite are noticed down the section with traces of bituminous partings. Shale grains were common.

The middle section is darker and coarser with some good streaks of grainy dolomites. Gas shows were high in all through the drilled section with maximum 606/122 units at 1428m RKB. Porosity varies from 4% - 12% and a little greater in some streaks. Gas show decreases with the increase of chalky and ratty characteristics and presence of anhydrite. The lower section was more of chalky, ratty mudstone and anhydrites. Porosity almost faded away in the lower section whereas 4 - 7% intercrystalline porosity is noticed in the top section with some high percentages.

Live oil flow was noticed at shakers during drilling this section. Weak odor of heavy hydrocarbon was noticed in all through the dolomite section are noticed - weak odor, no visible staining, patchy to even >80% light yellowish brown natural sample fluorescence, faint intensity with light milky cut, feeble milky white residual ring fluorescence - fair to good show

The reservoir properties are limited by the presence of chalky, ratty mudstone dolomite and anhydrite but the middle section from 1414.0m to 1417.0m RKB possesses favorable reservoir properties. This section can be tested for commercial feasibility. Further evaluation and studies are needed for geological interest.

### Conclusion:

The reservoir properties are limited by the presence of chalky, ratty mudstone dolomite and anhydrite but the middle section from 1414.0m to 1417.0m RKB possesses favorable reservoir properties. This section can be tested for commercial feasibility. Further evaluation and studies are needed for geological interest.



## Sample Descriptions

Storage Units: Metric

### Sample Point: 1,285.00 MD, 1,285.00 TVD, -510.20 SSL

1,285.00 to 1,290.00 60% **Shale**  
(5.00)

light gray to dark gray, greenish gray, firm, friable, partly moderately hard to hard, splintery to blocky, micromicaceous, dull earthy texture, mud stone inclusion, smooth to waxy texture in parts, fissile to subfissile, partly platy, carbonaceous, in part calcite grading to argillaceous limestone, abundant of light gray, green gray to tan micritic limestone inclusion, abundant of dark brown to black minerals, rare silty, very calcareous to shaly limestone.

#### 40% **Limestone**

off white, light brown, brownish gray, mottled, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, abundant of green gray to light gray shale fragments, local disseminated pyrite, poor intercrystalline visible porosity, no shows.

1,290.00 to 1,295.00 70% **Shale**  
(5.00)

medium gray, gray, greenish gray, firm, friable, partly moderately hard to hard, splintery to blocky, micromicaceous, dull earthy texture, mud stone inclusion, smooth to waxy texture in parts, fissile to subfissile, partly platy, carbonaceous, traces of granular pyrite, abundant of gray to tan limestone inclusion, abundant of dark brown to black minerals, traces of loose coarse quartz grains, rare silty, very calcareous to shaly limestone.

#### 30% **Limestone**

off white, light brown, brownish gray, mottled, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, abundant of green gray to light gray shale fragments, local disseminated pyrite, poor intercrystalline visible porosity, no shows.

1,295.00 to 1,300.00 70% **Shale**  
(5.00)

medium gray, gray, greenish gray, firm, friable, partly moderately hard to hard, splintery to blocky, micromicaceous, dull earthy texture, mud stone inclusion, smooth to waxy texture in parts, fissile to subfissile, partly platy, carbonaceous, traces of granular pyrite, abundant of gray to tan limestone inclusion, abundant of dark brown to black minerals, traces of loose coarse quartz grains, rare silty, very calcareous to shaly limestone.

#### 30% **Limestone**

off white, light brown, brownish gray, mottled, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, abundant of shale fragments, local disseminated pyrite, poor intercrystalline visible porosity, no shows.



# Sample Descriptions

Storage Units: Metric

- 1,300.00 to 1,305.00 70% **Shale**  
(5.00)  
medium gray, gray, greenish gray, firm, friable, partly moderately hard to hard, splintery to blocky, micromicaceous, dull earthy texture, mud stone inclusion, smooth to waxy texture in parts, fissile to subfissile, partly platy, carbonaceous, traces of granular pyrite, abundant of gray to tan limestone inclusion, abundant of dark brown to black minerals, traces of loose coarse quartz grains, rare silty, very calcareous to shally limestone.
- 30% **Limestone**  
off white, light brown, brownish gray, mottled, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, abundant of shale fragments, local disseminated pyrite, poor intercrystalline visible porosity, no shows.
- 1,305.00 to 1,310.00 80% **Shale**  
(5.00)  
gray, dark gray, brownish gray, occasionally greenish gray, moderately hard to hard, partly friable, sub blocky to blocky, smooth to gritty, commonly micromicaceous, partly limy, partly dull earthy texture, rare subfissile, partly platy, rare thinly laminated, occasionally silty, partly carbonaceous, traces of argillaceous limestone, traces of granular pyrite, calcareous.
- 20% **Limestone**  
off white, light brown, brownish gray, mottled, tan, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains, poor intercrystalline visible porosity, no shows.
- 1,310.00 to 1,315.00 80% **Shale**  
(5.00)  
medium gray, gray, partly greenish gray, firm, friable, partly moderately hard to hard, splintery to blocky, micromicaceous, dull earthy texture, partly clayey & soluble, mud stone inclusion, smooth to waxy texture in parts, fissile to subfissile, partly platy, carbonaceous, traces of granular pyrite, abundant of gray to tan lumpy to blocky limestone, abundant of dark brown to black minerals, traces of loose coarse quartz grains, rare silty, very calcareous to shally limestone, rare dolomitic.
- 20% **Limestone**  
off white, light brown, brownish gray, mottled, tan, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains, poor intercrystalline visible porosity, no shows.



- 1,315.00 to 1,320.00 70% **Shale**  
(5.00)  
medium gray, gray, partly greenish gray, firm, friable, partly moderately hard to hard, splintery to blocky, micromicaceous, dull earthy texture, mud stone inclusion, smooth to waxy texture in parts, fissile to subfissile, partly platy, carbonaceous, traces of granular pyrite, abundant of gray to tan lumpy to blocky limestone, abundant of dark brown to black minerals, traces of loose coarse quartz grains, rare silty, very calcareous to shally limestone, rare dolomitic.
- 30% **Limestone**  
off white, light brown, brownish gray, mottled, tan, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains, poor intercrystalline visible porosity, no shows.

## Beaverhill LK: 1,324.00 MD, 1,324.00 TVD, -549.20 SSL

- 1,320.00 to 1,325.00 80% **Shale**  
(5.00)  
light to medium gray, blackish gray, traces greenish gray, moderately hard to hard, partly friable, sub blocky to blocky, commonly micromicaceous & limy, partly dull earthy texture, partly smooth to waxy, partly subfissile, partly platy, rare thinly laminated, partly clayey, occasionally silty, partly carbonaceous, clayey in parts, traces of argillaceous limestone, traces bituminous in part (?), abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains with rare siltstone & sandstone stringers, calcareous. traces of siltstone and sandstone stringers, abundant of argillaceous limestone, calcareous.
- 20% **Limestone**  
off white, light brown, brownish gray, mottled, tan, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, traces bituminous in part (?), abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains, poor intercrystalline visible porosity, no shows.
- 1,325.00 to 1,330.00 80% **Shale**  
(5.00)  
light to medium gray, dark gray, brownish gray, occasionally greenish gray, moderately hard to hard, partly friable, sub blocky to blocky, smooth to gritty, commonly micromicaceous, partly limy, partly dull earthy texture, rare subfissile, partly platy & rare thinly laminated, occasionally silty, partly carbonaceous, traces off white to gray argillaceous limestone, traces of coarse quartz grain with some siltstone stringers, calcareous.



## Sample Descriptions

Storage Units: Metric

1,325.00 to 1,330.00 (5.00)	20% <b>Limestone</b> off white, light brown, brownish gray, mottled, tan, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains, poor intercrystalline visible porosity, no shows.
1,330.00 to 1,335.00 (5.00)	60% <b>Shale</b> gray, dark gray, brownish gray, occasionally greenish gray, moderately hard to hard, partly friable, sub blocky to blocky, smooth to gritty, commonly micromicaceous, partly limy, partly dull earthy texture, rare subfissile, partly platy, rare thinly laminated, occasionally silty, partly carbonaceous, traces of argillaceous limestone, traces of granular pyrite, calcareous.  40% <b>Limestone</b> off white, light brown, brownish gray, mottled, tan, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, traces bituminous in part (?), abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains, poor intercrystalline visible porosity, no shows.
1,335.00 to 1,340.00 (5.00)	60% <b>Shale</b> gray, dark gray, brownish gray, occasionally greenish gray, moderately hard to hard, partly friable, sub blocky to blocky, smooth to gritty, commonly micromicaceous, partly limy, partly dull earthy texture, rare subfissile, partly platy, rare thinly laminated, occasionally silty, partly carbonaceous, traces of argillaceous limestone, traces of granular pyrite, calcareous.  40% <b>Limestone</b> off white, light brown, brownish gray, mottled, tan, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, traces bituminous in part (?), abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains, poor intercrystalline visible porosity, no shows.
1,340.00 to 1,345.00 (5.00)	80% <b>Shale</b> gray, dark gray, brownish gray, occasionally greenish gray, moderately hard to hard, partly friable, sub blocky to blocky, smooth to gritty, commonly micromicaceous, partly limy, partly dull earthy texture, rare subfissile, partly platy & rare thinly laminated, occasionally silty, partly carbonaceous, traces of argillaceous limestone, traces of coarse quartz graing with some siltstone stringers, calcareous.



1,340.00 to 1,345.00 20% **Limestone**  
(5.00)  
off white, light brown, brownish gray, mottled, tan, in part chalky, firm to crumpled, rare moderately hard, blocky to subblocky, smooth to gritty, partly grainy, cryptocrystalline to microcrystalline debris, predominately mudstone, rare wackestone, calcarenite, commonly dolomitic & locally grading to dolomitic limestone, traces of calcite inclusions, traces bituminous in part (?), abundant of shale fragments, local disseminated pyrite, traces of loose coarse quartz grains, poor intercrystalline visible porosity, no shows.

## Slave Point: 1,345.00 MD, 1,345.00 TVD, -570.20 SSL

1,345.00 to 1,350.00 80% **Limestone**  
(5.00)  
off white, mottled, tan, creamy, dark brown, occasional dark brown oil stain, firm to crumpled to moderately hard, lumpy to blocky, partly subblocky, partly chalky, predominately cryptocrystalline to microcrystalline, occasionally fine crystalline debris, predominately wackestone to mudstone, locally dolomitic, intraclasts & occasionally bioclastic debris, commonly loose grains to predominately peloids, calcarenite, traces of fine crystalline dolomite, rare calcite infill, dense with trace poor intracrystalline porosity, traces of light brown oil show, no visible staining, very weak odour, light pale brownish yellow natural sample fluorescence, very faint cut, no residual ring fluorescence, poor show.

20% **Shale**  
gray, dark gray, brownish gray, occasionally greenish gray, moderately hard to hard, partly friable, sub blocky to blocky, smooth to gritty, commonly micromicaceous, partly limy, partly dull earthy texture, rare subfissile, partly platy, rare thinly laminated, occasionally silty, partly carbonaceous, traces of argillaceous limestone, traces of granular pyrite, calcareous.

1,350.00 to 1,355.00 100% **Limestone**  
(5.00)  
predominately brown, off white, light yellow with dark brown stain, occasionally tan, dark brown, firm, friable to crumpled to moderately hard, lumpy to blocky, predominately cryptocrystalline to microcrystalline, rare very fine crystalline debris, predominately wackestone, partly mudstone, intraclasts & occasionally bioclastic debris, calcarenite, partly argillaceous, traces of fine crystalline dolomite, rare siltstone stringer & greenish brown shale fragments inclusion, traces of loose coarse quartz grains, good visible intracrystalline porosity, weak odour, no visible staining, patchy golden white natural sample fluorescence, slow faint cut, pale yellowish brown residual ring fluorescence, good show.

1,355.00 to 1,360.00 100% **Limestone**  
(5.00)  
predominately brown, off white, occasional dark brown oil stain, dark brown, firm, friable to crumpled to moderately hard, lumpy to blocky, predominately cryptocrystalline to microcrystalline, rare very fine crystalline debris, predominately wackestone, partly mudstone, intraclasts & occasionally bioclastic debris, calcarenite, partly argillaceous, traces of fine crystalline dolomite, rare siltstone stringer & greenish brown shale fragments inclusion, traces of loose coarse quartz grains, good visible intracrystalline porosity, weak odour, no visible staining, patchy brownish yellow natural sample fluorescence, slow faint cut, pale yellowish white residual ring fluorescence, good show.



## Sample Descriptions

Storage Units: Metric

- |                                |  |
|--------------------------------|--|
| 1,360.00 to 1,365.00<br>(5.00) | <b>100%Limestone</b><br>predominately brown, off white, occasional dark brown oil stain, dark brown, firm, friable to crumpled to moderately hard, lumpy to blocky, predominately cryptocrystalline to microcrystalline, rare very fine crystalline debris, predominately wackestone, partly mudstone, intraclasts & occasionally bioclastic debris, calcarenite, partly argillaceous, traces of fine crystalline dolomite, rare siltstone stringer & greenish brown shale fragments inclusion, traces of loose coarse quartz grains, good visible intracrystalline porosity, weak odour, no visible staining, patchy brownish yellow natural sample fluorescence, slow faint cut, pale yellowish white residual ring fluorescence, good show.   |
| 1,365.00 to 1,370.00<br>(5.00) | <b>100%Limestone</b><br>brown, tan, off white, greenish brown, light yellow with dark brown stain, dark brown, firm, friable to crumpled to moderately hard, lumpy to blocky, predominately microcrystalline to very fine crystalline debris, partly cryptocrystalline, predominately wackestone, partly mudstone, intraclasts & occasionally bioclastic debris, calcarenite, partly argillaceous, traces of fine crystalline dolomite, local bituminous partings, rare siltstone stringer & greenish brown shale fragments inclusion, traces of loose coarse quartz grains, good visible intracrystalline porosity, weak odour, no visible staining, patchy golden white natural sample fluorescence, slow faint cut, pale yellowish brown residual ring fluorescence, good show.                     |
| 1,370.00 to 1,375.00<br>(5.00) | <b>100%Limestone</b><br>off white, mottled, tan, creamy, dark brown, occasional dark brown oil stain, firm to crumpled to moderately hard, lumpy to blocky, partly subblocky, partly chalky, predominately cryptocrystalline to microcrystalline, occasionally fine crystalline debris, predominately wackestone to mudstone, locally dolomitic, intraclasts & occasionally bioclastic debris, commonly loose grains to predominately peloids, calcarenite, traces of fine crystalline dolomite, rare calcite infill, fair to good visible intracrystalline porosity, weak odour, no visible staining, patchy brownish yellow natural sample fluorescence, slow faint cut, pale yellowish white residual ring fluorescence, good show.   |
| 1,375.00 to 1,380.00<br>(5.00) | <b>100%Limestone</b><br>brown, off white, greenish brown, dark brown, light yellow with dark brown stain, tan, firm, friable to crumpled to moderately hard, lumpy to blocky, predominately microcrystalline to very fine crystalline debris, partly cryptocrystalline, predominately wackestone, partly mudstone, partly grainy, intraclasts & occasionally bioclastic debris, calcarenite, argillaceous in parts, traces of fine crystalline dolomite, local bituminous partings, rare siltstone stringer & greenish brown shale fragments inclusion, traces of loose coarse quartz grains, good visible intracrystalline porosity, weak odour, no visible staining, traces of golden white natural sample fluorescence, slow faint cut, pale brownish yellow residual ring fluorescence, fair show. |



1,380.00 to 1,385.00 100% **Limestone**  
(5.00)

brown, tan, greenish brown, dark brown, occasional dark brown oil stain, firm, friable to crumpled to moderately hard, lumpy to blocky, predominately microcrystalline to very fine crystalline debris, partly cryptocrystalline, predominately wackestone, partly mudstone, partly grainy, intraclasts & occasionally bioclastic debris, calcarenite, argillaceous in parts, traces of fine crystalline dolomite, local bituminous partings, rare calcite infill, rare siltstone stringer & greenish brown shale fragments inclusion, traces of loose coarse quartz grains, good visible intracrystalline porosity, weak odour, no visible staining, traces of yellowish brown natural sample fluorescence, slow faint cut, pale brownish yellow residual ring fluorescence, fair show.

## **F4 Marker: 1,385.00 MD, 1,385.00 TVD, -610.20 SSL**

1,385.00 to 1,390.00 80% **Limestone**  
(5.00)

brown, light yellow with dark brown stain, occasionally tan, dark brown, firm, friable to crumpled to moderately hard, blocky to subblocky, smooth to gritty, predominately microcrystalline to very fine crystalline debris, partly cryptocrystalline, predominately wackestone, partly mudstone, partly argillaceous, traces of fine crystalline dolomite, traces of greenish brown shale fragments, abundant of anhydrite inclusion, loose coarse quartz grains, tight visible intracrystalline porosity, no shows.

### **20% Shale**

medium gray to brownish gray, greenish gray, firm, friable, moderately hard to hard, sub blocky to blocky, commonly micromicaceous, rare dull earthy texture, partly clayey, soft & sticky, rare subfissile, partly platy, occasionally silty, partly carbonaceous, abundant crystalline limestone, traces of fine crystalline dolomite, traces of bituminous (?) fragments, traces of coarse quartz grain, traces of anhydrite inclusion, non to slightly calcareous.

## **Watt Mountain: 1,393.50 MD, 1,393.50 TVD, -618.70 SSL**

1,390.00 to 1,395.00 80% **Limestone**  
(5.00)

gray, brownish gray, off white, mottled, light yellow with dark brown stain, light brown, dark brown, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, predominately microcrystalline to crystalline debris, predominately wackestone to packstone, locally grading to dolomitic limestone, intraclasts & occasionally bioclastic debris, commonly loose grains to predominately peloids, calcarenite, traces of fine crystalline dolomite, traces of coarse quartz grain, traces of anhydrite inclusion, abundant of gray to greenish gray shale fragments, vuggy to fair visible intracrystalline porosity, very faint odour, no visible staining, traces of light brown oil show, light brownish yellow sample fluorescence, faint cut, no residual ring fluorescence, poor show.

### **20% Shale**

gray, greenish gray, moderately hard to hard, partly friable, sub blocky to blocky, commonly micromicaceous, rare dull earthy texture, partly clayey & soft to firm, rare subfissile, partly platy, occasionally silty, partly carbonaceous, abundant crystalline limestone, traces of fine crystalline dolomite, traces of bituminous (?) fragments, non to slightly calcareous.



## Sulphur Pt Ls: 1,398.50 MD, 1,398.50 TVD, -623.70 SSL

1,395.00 to 1,400.00 80% **Limestone**  
(5.00)

brown, light yellow with dark brown stain, occasionally tan, dark brown, firm, friable to crumpled to moderately hard, blocky to subblocky, smooth to gritty, predominately microcrystalline to very fine crystalline debris, partly cryptocrystalline, predominately wackestone, partly mudstone, partly argillaceous, traces of fine crystalline dolomite, traces of greenish brown shale fragments, abundant of anhydrite inclusion, loose coarse quartz grains, fair visible intracrystalline porosity, traces of light brown oil show, weak odor, light brownish yellow sample fluorescence, faint cut, no residual ring fluorescence, poor show.

20% **Shale**

gray, greenish gray, green, moderately hard to hard, partly friable, sub blocky to blocky, smooth to gritty, commonly micromicaceous, rare dull earthy texture, rare subfissile, occasionally thinly laminated, occasionally silty, partly carbonaceous, abundant crystalline limestone, traces of fine crystalline dolomite, abundant of bituminous (?) fragments with dark brown to black minerals, traces of coarse quartz grain with granular pyrite, traces of anhydrite inclusion, calcareous.

1,400.00 to 1,405.00 100% **Limestone**  
(5.00)

off white, mottled, light yellow with dark brown stain, light to dark brown, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, predominately cryptocrystalline, partly microcrystalline, wackestone to packstone, occasionally grading to very fine crystalline grainstone, locally grading to dolomitic limestone, intraclasts & occasionally bioclastic debris, commonly loose grains to predominately peloids, calcarenite, abundant of very fine crystalline dolomite, traces of coarse quartz grain, traces of anhydrite inclusion, abundant of gray to greenish gray shale fragments, vuggy to fair visible intracrystalline porosity, very faint odour, no visible staining, traces of light brown oil show, light brownish yellow sample fluorescence, faint cut, no residual ring fluorescence, poor show.

1,405.00 to 1,410.00 100% **Limestone**  
(5.00)

off white, mottled, light yellow with dark brown stain, light to dark brown, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, predominately cryptocrystalline, partly microcrystalline, wackestone to packstone, occasionally grading to very fine crystalline grainstone, locally grading to dolomitic limestone, intraclasts & occasionally bioclastic debris, commonly loose grains to predominately peloids, calcarenite, abundant of very fine crystalline dolomite, traces of coarse quartz grain, traces of anhydrite inclusion, abundant of gray to greenish gray shale fragments, vuggy to fair visible intracrystalline porosity, very faint odour, no visible staining, traces of light brown oil show, light brownish yellow sample fluorescence, faint cut, no residual ring fluorescence, poor show.



## Sample Descriptions

Storage Units: Metric

- 1,410.00 to 1,415.00 60% **Limestone**  
(5.00)  
off white, mottled, light yellow with dark brown stain, light brown, dark brown, firm to crumpled to moderately hard, blocky to subblocky, predominately microcrystalline to crystalline debris, predominately wackestone to packstone, intraclasts & occasionally bioclastic debris, abundant of fine crystalline dolomite inclusion, traces of coarse quartz grain, fair to good visible intracrystalline porosity, very faint odour, no visible staining, traces of light brown oil show, light brownish yellow sample fluorescence, faint cut, no residual ring fluorescence, poor show.
- 40% **Dolomite**  
white, off white, mottled, tan, light gray, light brown, blocky to subblocky, smooth to gritty, partly chalky predominately cryptocrystalline debris, predominately mudstone, partly wackestone, slightly argillaceous, rare evidence of fractures surface with bituminous coating, abundant limestone inclusion, fossiliferous, abundant of calcite, traces of loose quartz grains, traces of anhydrite inclusion, vuggy visible intracrystalline porosity, very faint odour, no visible staining, patchy light brown oil show, light brownish yellow sample fluorescence, faint cut, faint milky white residual ring fluorescence, fair to good show.

### **Sulphur Pt Dol: 1,415.00 MD, 1,415.00 TVD, -640.20 SSL**

- 1,415.00 to 1,420.00 80% **Dolomite**  
(5.00)  
off white, light brown, mottled, tan, stained, creamy, reddish brown, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, partly earthy & chalky, ratty, predominately cryptocrystalline debris, mudstone, partly packstone, slightly argillaceous, abundant limestone inclusion, locally grading to dolomitic limestone, calcarenite, fossiliferous, abundant of calcite and anhydrite inclusions, traces of bituminous partings, traces of shale grain, vuggy to good visible intracrystalline porosity, weak odour, no visible staining, patchy light brown oil show, light brownish yellow sample fluorescence, faint cut, faint milky white residual ring fluorescence, poor show.
- 20% **Limestone**  
light brown, off white, mottled, light yellow with dark brown stain, dark brown, partly tan, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, predominately microcrystalline to crystalline debris, predominately wackestone to packstone, locally grading to dolomitic limestone, intraclasts & occasionally bioclastic debris, commonly loose grains to predominately peloids, calcarenite, abundant of fine crystalline dolomite, traces of coarse quartz grain, vuggy to fair visible intracrystalline porosity, very faint odour, no visible staining, traces of light brown oil show, light brownish yellow sample fluorescence, faint cut, no residual ring fluorescence, poor show.
- 1,420.00 to 1,425.00 100% **Dolomite**  
(5.00)  
mottled, tan, light gray, light brown, blocky to subblocky, smooth to gritty, partly chalky predominately cryptocrystalline debris, predominately mudstone, partly wackestone, slightly argillaceous, rare evidence of fractures surface with bituminous coating, abundant limestone inclusion, fossiliferous, abundant of calcite, traces of loose quartz grains, traces of anhydrite inclusion, vuggy visible intracrystalline porosity, weak odor, no visible staining, patchy light brown oil show, light brownish yellow sample fluorescence, faint cut, faint milky white residual ring fluorescence. NB; live oil flow noticed at shaker.



**Muskeg: 1,429.00 MD, 1,429.00 TVD, -654.20 SSL**

- 1,425.00 to 1,430.00 (5.00) 70% **Dolomite**  
light brown, mottled, tan, off white, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, partly earthy & chalky, ratty, predominately cryptocrystalline debris, predominately mudstone, partly wackestone, slightly argillaceous, abundant limestone & anhydrite inclusion, calcarenite, no visible intracrystalline porosity, no shows.
- 30% **Anhydrite**  
white, off white, hyaline, tan, irregularly shaped, sharp, angular, abundant of calcite inclusion, traces of fine crystalline limestone with abundant of brownish gray to tan dolomite inclusion.
- 1,430.00 to 1,435.00 (5.00) 50% **Anhydrite**  
white, off white, light brown, light gray, white, interbedded with dolomite, interbedded with limestone with patchy faint oil stain and black bituminous(?) and black minerals, moderately hard, very hard in parts, blocky, cryptocrystalline to micro crystalline, grading to thromb stone debris.
- 50% **Dolomite**  
light gray, light brown, mottled, tan, stained, creamy, reddish brown, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, partly earthy & chalky, ratty, predominately cryptocrystalline debris, mudstone, partly packstone, slightly argillaceous, abundant limestone inclusion, locally grading to dolomitic limestone, calcarenite, fossiliferous, abundant of calcite and anhydrite inclusions, traces of bituminous partings with some black minerals, traces of shale grain, tight intracrystalline porosity, no shows.
- 1,435.00 to 1,440.00 (5.00) 70% **Dolomite**  
light brown, mottled, tan, off white, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, partly earthy & chalky, ratty, predominately cryptocrystalline debris, predominately mudstone, partly wackestone, slightly argillaceous, abundant anhydrite inclusion with some limestone, calcarenite, no visible intracrystalline porosity, no shows.
- 30% **Anhydrite**  
white, off white, hyaline, tan, irregularly shaped, sharp, angular, abundant of calcite inclusion, traces of fine crystalline limestone with abundant of brownish gray to tan dolomite inclusion, traces of greenish brown shale fragments, traces of carbonaceous material.
- 1,440.00 to 1,445.00 (5.00) 60% **Dolomite**  
light brown, mottled, tan, off white, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, partly earthy & chalky, ratty, predominately cryptocrystalline debris, predominately mudstone, partly wackestone, slightly argillaceous, abundant anhydrite inclusion with some limestone, calcarenite, no visible intracrystalline porosity, no shows.
- 40% **Anhydrite**  
white, off white, hyaline, tan, irregularly shaped, sharp, angular, abundant of calcite inclusion, traces of fine crystalline limestone with abundant of brownish gray to tan dolomite inclusion, traces of greenish brown shale fragments, traces of carbonaceous material.



## Sample Descriptions

Storage Units: Metric

1,445.00 to 1,450.00  
(5.00)

60% **Dolomite**

light gray, light brown, mottled, tan, stained, creamy, reddish brown, firm to crumpled to moderately hard, blocky to subblocky, smooth to gritty, partly earthy & chalky, ratty, predominately cryptocrystalline debris, mudstone, partly packstone, slightly argillaceous, abundant limestone inclusion, locally grading to dolomitic limestone, calcarenite, fossiliferous, abundant of calcite and anhydrite inclusions, traces of bituminous partings with some black minerals, traces of shale grain, tight intracrystalline porosity, no shows.

40% **Anhydrite**

white, off white, hyaline, tan, irregularly shaped, sharp, angular, abundant of calcite inclusion, traces of fine crystalline limestone with abundant of brownish gray to tan dolomite inclusion, traces of greenish brown shale fragments, traces of carbonaceous material.



## Well Information

Operator: **Paramount Resources Ltd.**  
 Well Name: **Para Et Al Cameron L-73**  
 Location: **300/L-73-60-10-117-15**  
 UWI: **300-L-73-6010-117150**  
 Pool: **Sulphur Point & Slave Point.**  
 Field: **Cameron Hills.**  
 Province / State: **Northwest Territory**  
 Country: **Canada**



**Paramount**  
resources ltd.

## Elevations

Reference: MSL Ground: 770.8 m  
 Cut(-) / Fill(+): -0 m Kelly Bushing: 774.8 m  
 K.B. to Ground: 4 m Casing Flange: 4 m

## Total Depth

Measurement Type	Measured Depth	True Vertical Depth
Drillers TD (Tally)	1450 m	1450 m
Drillers TD (Strap or SLM)	1450 m	1450 m
Loggers TD	1448.6 m	1448.6 m

## Surface Co - Ordinates

Well Type: Straight Longitude: 117°29'54.3" Latitude: 60°2'38.3"  
 N / S Co - Ordinates: n/a.  
 E / W Co - Ordinates: n/a.

## Bottom Hole Co - Ordinates

Longitude: 117°29'54.3" Latitude: 60°2'38.3"  
 N / S Co - Ordinates: n/a.  
 E / W Co - Ordinates: n/a.

## Drilling Fluid Summary

Fluid Type	From	To
Gel Chem	0 m	436 m
Floc Water	436 m	856 m
Gel Chem	856 m	1450 m

## Casing Summary

Type	Hole Size	Casing Size	Landed At
Surface	311 mm	219.1 mm	436 m
Production	200 mm	139.7 mm	1450 m

## Well Summary

Spud Date: Feb 18, 2007 @ 10:00hrs Contractor: Precision Rig# 129.  
 TD Date: Feb 27, 2007 @ 06:00hrs Rig Release Date: \_\_\_\_\_

## Work Schedule

Contractor	Geologist	Log Interval	Dates Logged
Khan Petroleum Ltd.	Azim Ahmed	1280 m - 1450 m	Feb 18, 2007 - Mar 1, 2007

## Remarks

Composite Striplog Presentation - Scales 1:240

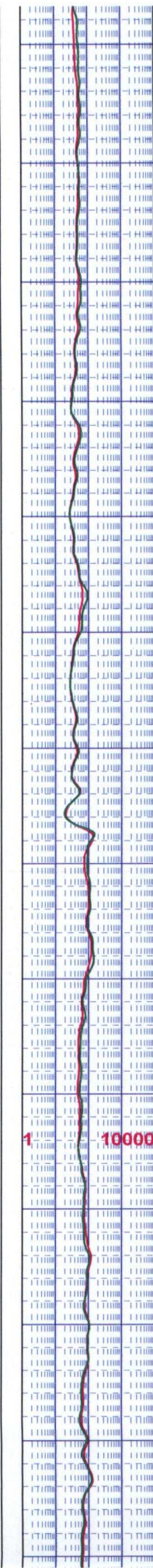
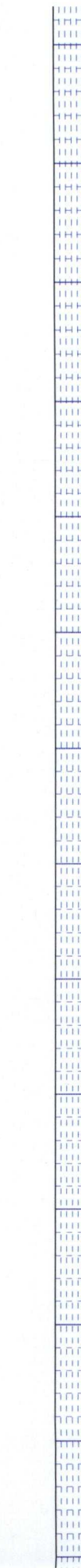
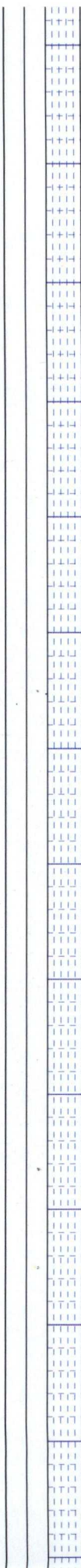
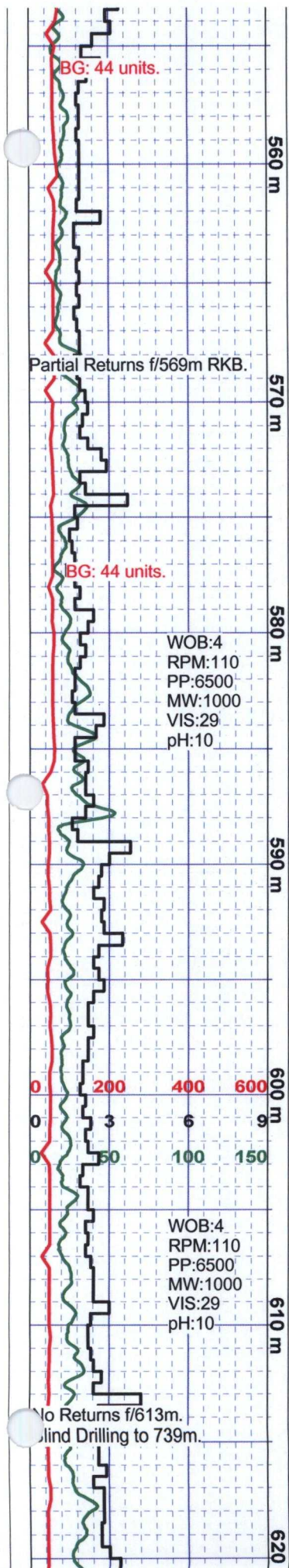
























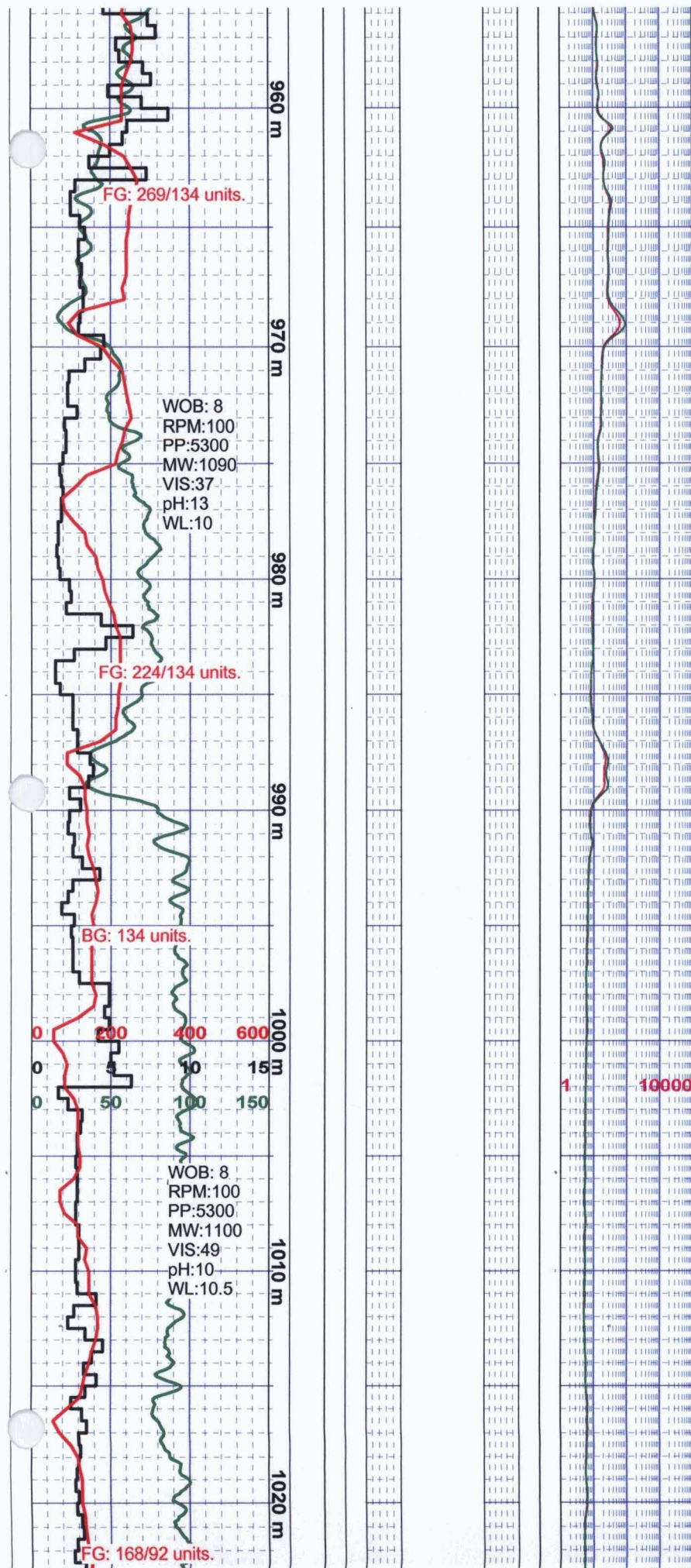




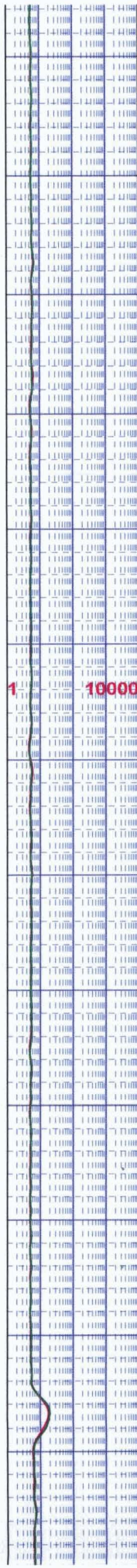
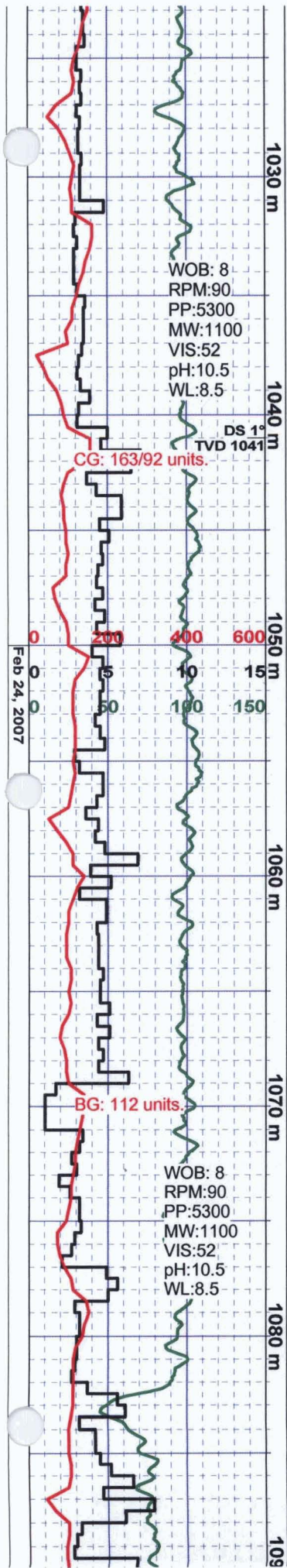












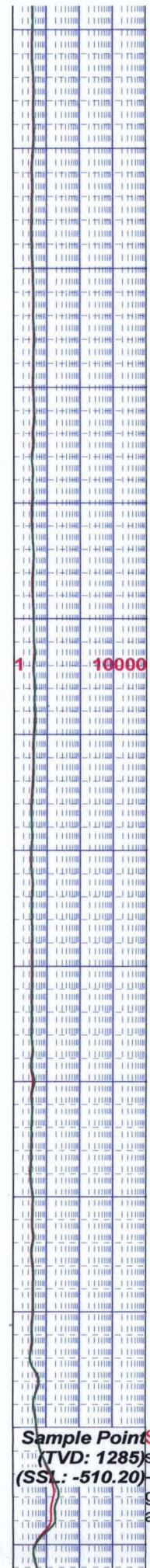
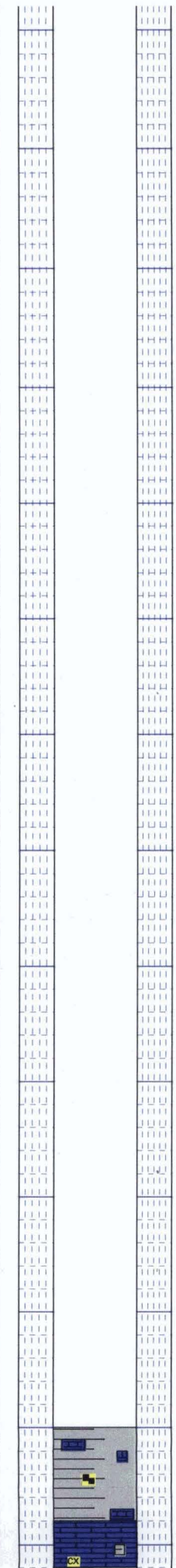
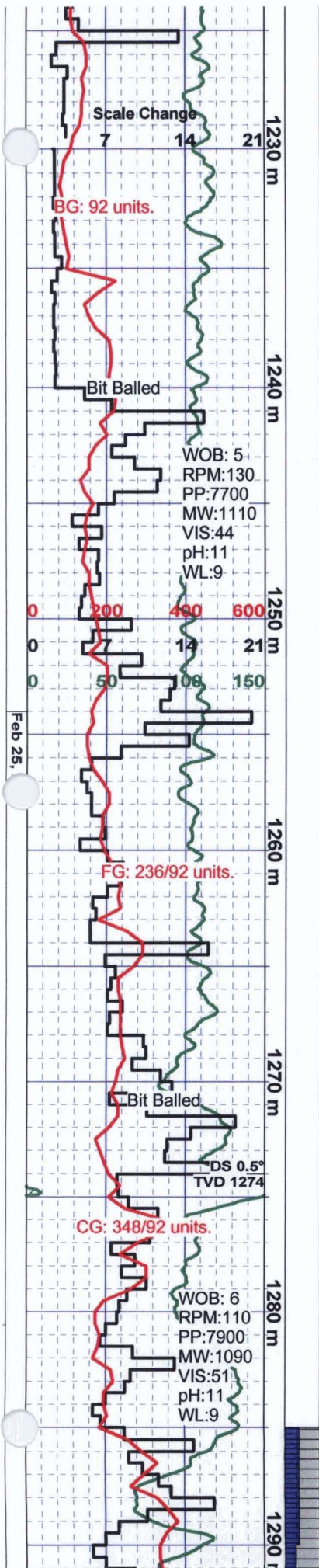






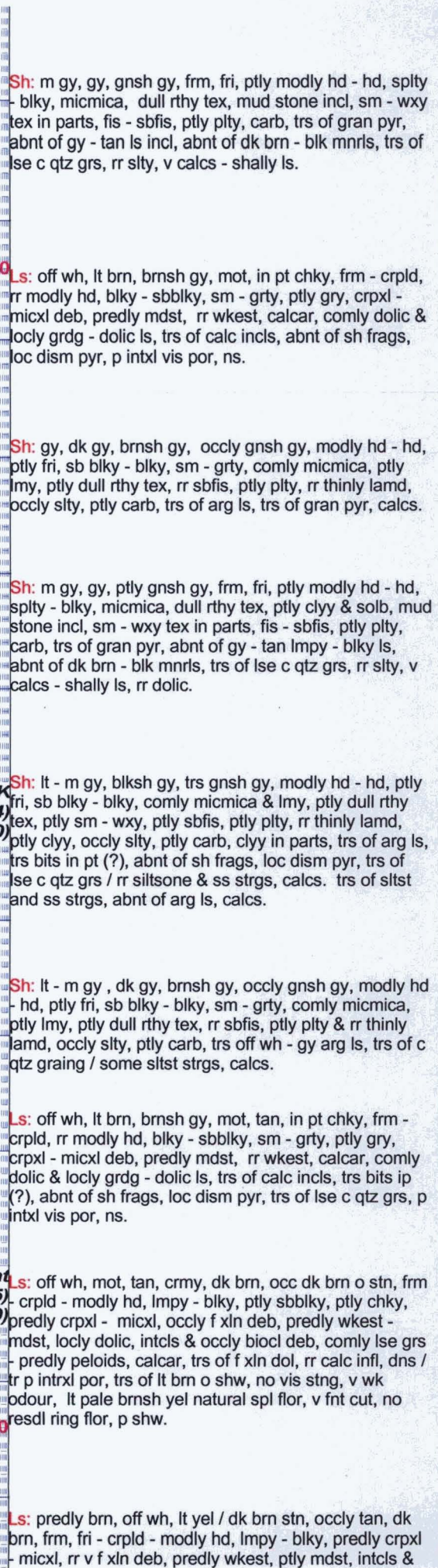
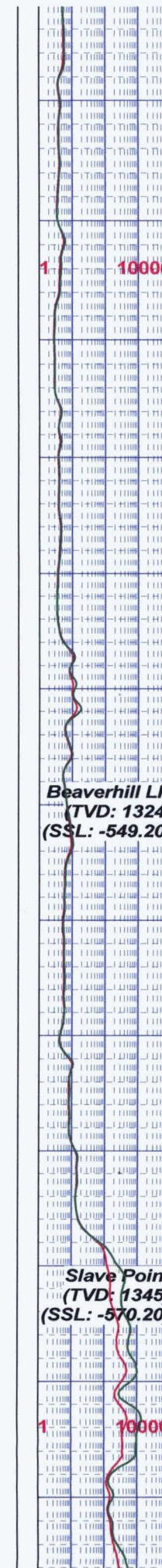
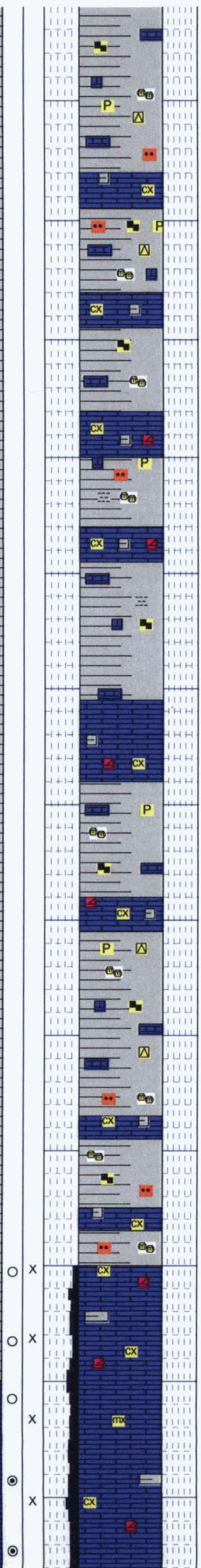
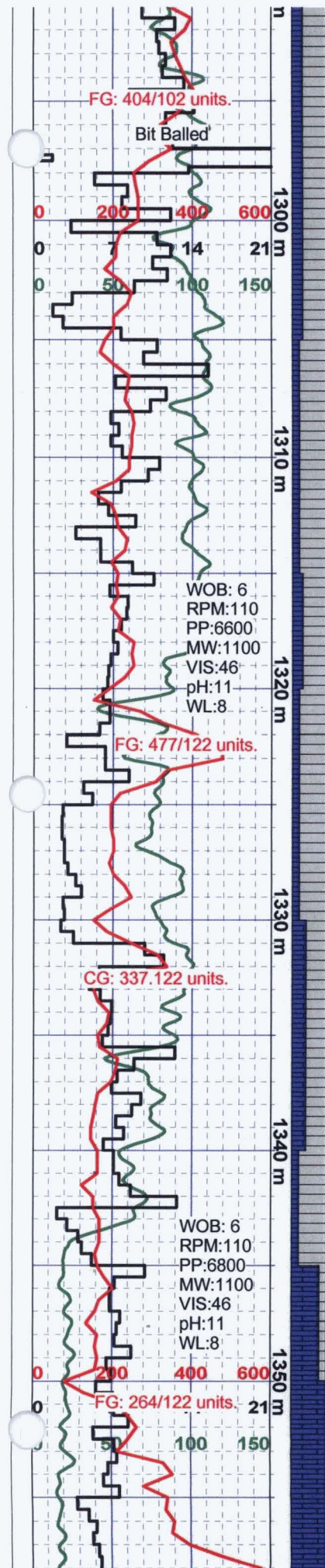






**Sample Point** Sh: lt gy - dk gy, gnsh gy, frm, fri, ptly modly hd - hd,  
 (TVD: 1285) sply - blk, micmica, dull rthy tex, mud stone incl, sm  
 (SSL: -510.20) wxy tex in parts, fis - sbfis, ptly pty, carb, in pt calc  
 grdg - arg ls, abnt of lt gy, gn gy - tan mcxln ls incl,  
 abnt of dk brn - blk mnrls, rr slty, v calcs - shally ls.





**Sh:** m gy, gy, gnsh gy, frm, fri, ptly modly hd - hd, splty - blkly, micmica, dull rthy tex, mud stone incl, sm - wxy tex in parts, fis - sbfis, ptly ptly, carb, trs of gran pyr, abnt of gy - tan ls incl, abnt of dk brn - blk mnrls, trs of se c qtz grs, rr slty, v calcs - shally ls.

**1 10000** **LS:** off wh, lt brn, brnsh gy, mot, in pt chky, frm - crpld, rr modly hd, blkly - sbblkly, sm - grty, ptly gry, crpxl - micxl deb, predly mdst, rr wkest, calcar, comly dolc & locly grd - dolc ls, trs of calc incl, abnt of sh frags, loc dism pyr, p intxl vis por, ns.

**Sh:** gy, dk gy, brnsh gy, occlly gnsh gy, modly hd - hd, ptly fri, sb blkly - blkly, sm - grty, comly micmica, ptly lmy, ptly dull rthy tex, rr sbfis, ptly ptly, rr thinly lamd, occlly slty, ptly carb, trs of arg ls, trs of gran pyr, calcs.

**Sh:** m gy, gy, ptly gnsh gy, frm, fri, ptly modly hd - hd, splty - blkly, micmica, dull rthy tex, ptly clyy & solb, mud stone incl, sm - wxy tex in parts, fis - sbfis, ptly ptly, carb, trs of gran pyr, abnt of gy - tan lmpy - blkly ls, abnt of dk brn - blk mnrls, trs of lse c qtz grs, rr slty, v calcs - shally ls, rr dolc.

**Beaverhill LK (TVD: 1324) (SSL: -549.20)** **Sh:** lt - m gy, blksh gy, trs gnsh gy, modly hd - hd, ptly fri, sb blkly - blkly, comly micmica & lmy, ptly dull rthy tex, ptly sm - wxy, ptly sbfis, ptly ptly, rr thinly lamd, ptly clyy, occlly slty, ptly carb, clyy in parts, trs of arg ls, trs bits in pt (?), abnt of sh frags, loc dism pyr, trs of se c qtz grs / rr siltstone & ss strgs, calcs. trs of sltst and ss strgs, abnt of arg ls, calcs.

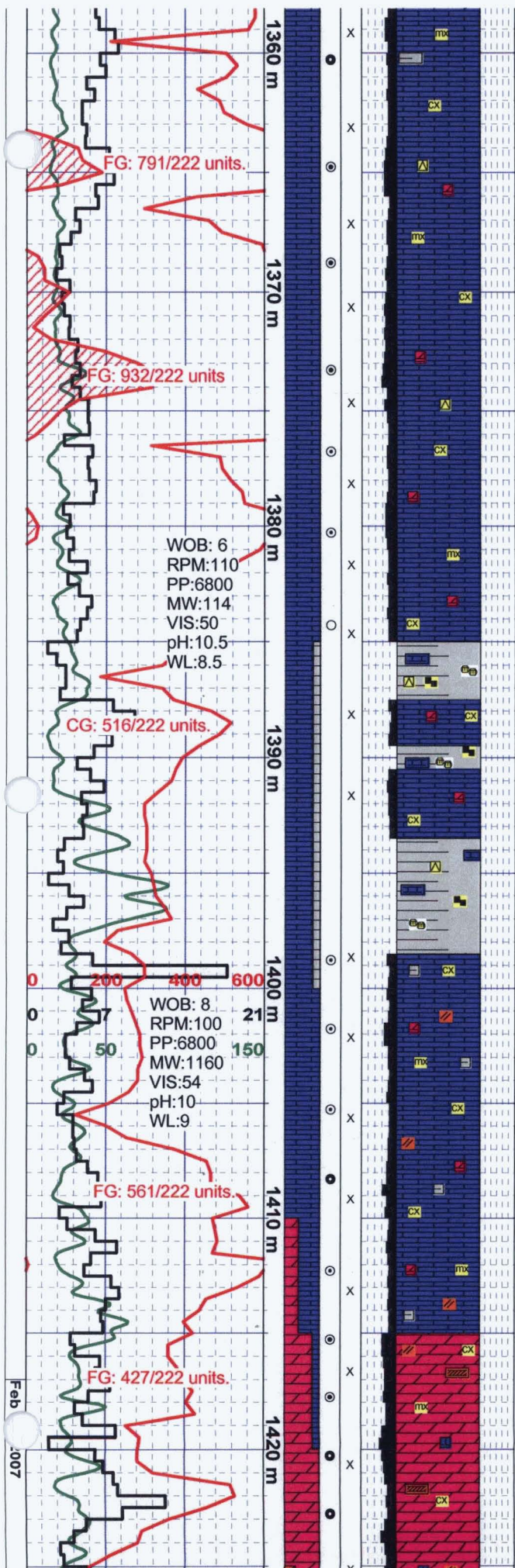
**Sh:** lt - m gy, dk gy, brnsh gy, occlly gnsh gy, modly hd - hd, ptly fri, sb blkly - blkly, sm - grty, comly micmica, ptly lmy, ptly dull rthy tex, rr sbfis, ptly ptly & rr thinly lamd, occlly slty, ptly carb, trs off wh - gy arg ls, trs of c qtz graing / some sltst strgs, calcs.

**LS:** off wh, lt brn, brnsh gy, mot, tan, in pt chky, frm - crpld, rr modly hd, blkly - sbblkly, sm - grty, ptly gry, crpxl - micxl deb, predly mdst, rr wkest, calcar, comly dolc & locly grd - dolc ls, trs of calc incl, trs bits ip (?), abnt of sh frags, loc dism pyr, trs of lse c qtz grs, p intxl vis por, ns.

**Slave Point (TVD: 1345) (SSL: -570.20)** **1 10000** **LS:** off wh, mot, tan, crmy, dk brn, occ dk brn o stn, frm - crpld - modly hd, lmpy - blkly, ptly sbblkly, ptly chky, predly crpxl - micxl, occlly f xln deb, predly wkest - mdst, locly dolc, intcls & occlly biocl deb, comly lse grs - predly peloids, calcar, trs of f xln dol, rr calc incl, dns / tr p intrxl por, trs of lt brn o shw, no vis stng, v wk odour, lt pale brnsh yel natural spl flor, v fnt cut, no resdl ring flor, p shw.

**LS:** predly brn, off wh, lt yel / dk brn stn, occlly tan, dk brn, frm, fri - crpld - modly hd, lmpy - blkly, predly crpxl - micxl, rr v f xln deb, predly wkest, ptly mdst, intcls &





occl biocl deb, calcar, ptly arg, trs of f xln dol, rr sltst strg & gnsh brn sh frags incl, trs of lse c qtz grs, g vis intrxl por, wk odour, no vis stng, ptch golden wh natural spl flor, slow fnt cut, pale yelsh brn resdl ring flor, g shw.

LS: brn, tan, off wh, gnsh brn, lt yel / dk brn stn, dk brn, frm, fri - crpld - modly hd, lmpy - blkly, predly micxl - v f xln deb, ptly crpxl, predly wkest, ptly mdst, intcls & occl biocl deb, calcar, ptly arg, trs of f xln dol, loc bits ptgs, rr sltst strg & gnsh brn sh frags incl, trs of lse c qtz grs, g vis intrxl por, wk odour, no vis stng, ptch golden wh natural spl flor, slow fnt cut, pale yelsh brn resdl ring flor, g shw.

LS: brn, off wh, gnsh brn, dk brn, lt yel / dk brn stn, tan, frm, fri - crpld - modly hd, lmpy - blkly, predly micxl - v f xln deb, ptly crpxl, predly wkest, ptly mdst, ptly gry, intcls & occl biocl deb, calcar, arg in parts, trs of f xln dol, loc bits ptgs, rr sltst strg & gnsh brn sh frags incl, trs of lse c qtz grs, g vis intrxl por, wk odour, no vis stng, trs of golden wh natural spl flor, slow fnt cut, pale brnsh yel resdl ring flor, fr shw.

**F4 Marker** Sh: m gy - brnsh gy, gnsh gy, frm, fri, modly hd - hd, (TVD: 1385) sb blkly - blkly, comly micmica, rr dull rthy tex, ptly clyy, (SSL: -610.20) sft & sticky, rr sbfis, ptly ptly, occl stly, ptly carb, abnt xln ls, trs of f xln dol, trs of bits (?) frags, trs of c qtz gr, trs of anhy incl, nn - sily calcs.

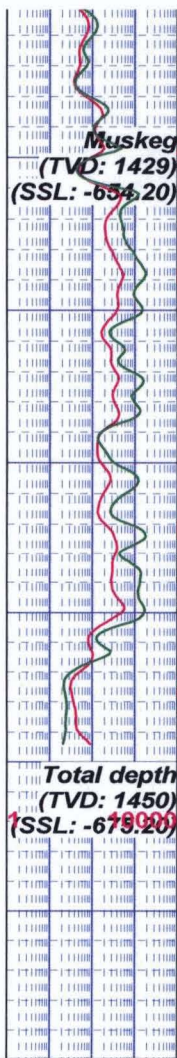
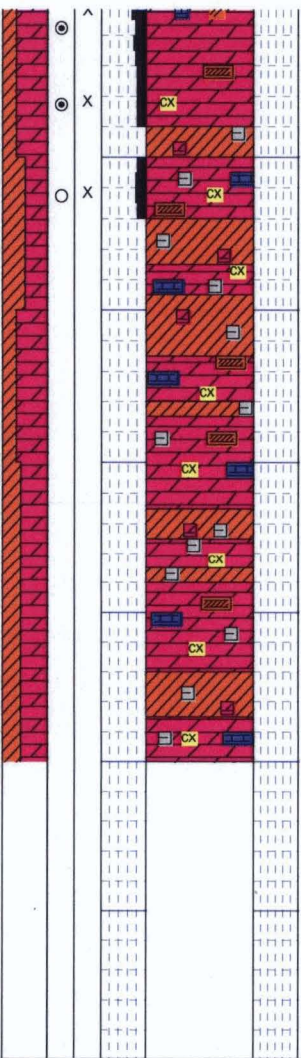
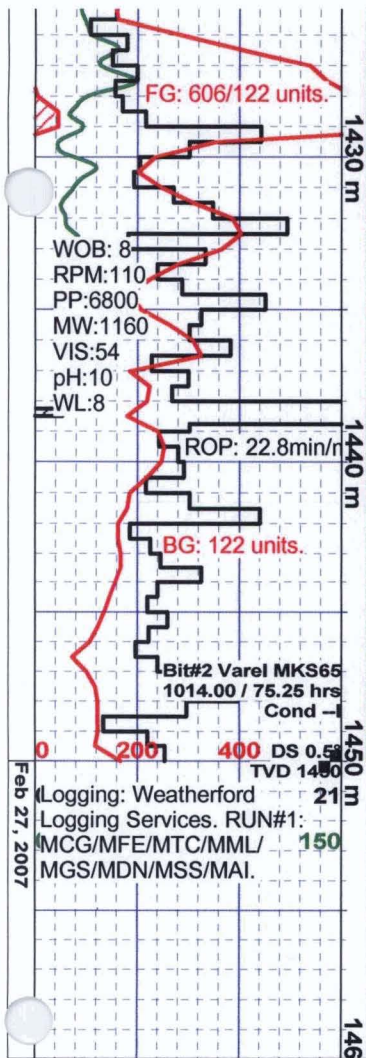
**Watt Mountain** Sh: gy, gnsh gy, gn, modly hd - hd, ptly fri, sb blkly - blkly, sm - grty, comly micmica, rr dull rthy tex, rr sbfis, occl thinly lamd, occl stly, ptly carb, abnt xln ls, trs of f xln dol, abnt of bits (?) frags / dk brn - blk mnrls, trs of c qtz gr / gran pyr, trs of anhy incl, calcs. (TVD: 1393.5) (SSL: -618.70)

**Sulphur Pt Ls** LS: brn, lt yel / dk brn stn, occl tan, dk brn, frm, fri - crpld - modly hd, blkly - sbbkly, sm - grty, predly micxl - v f xln deb, ptly crpxl, predly wkest, ptly mdst, ptly arg, trs of f xln dol, trs of gnsh brn sh frags, abnt of anhy incl, lse c qtz grs, fr vis intrxl por, trs of lt brn o shw, wk od, lt brnsh yel spl flor, fnt cut, no resdl ring flor, p shw. (TVD: 1398.5) (SSL: -623.70)

**Sulphur Pt Dol** LS: off wh, mot, lt yel / dk brn stn, lt - dk brn, frm - crpld - modly hd, blkly - sbbkly, sm - grty, predly crpxl, ptly micxl, wkest - pkst, occl grdg - v f xln grst, locly grdg - dolc ls, intcls & occl biocl deb, comly lse grs - predly peloids, calcar, abnt of v f xln dol, trs of c qtz gr, trs of anhy incl, abnt of gy - gnsh gy sh frags, vugy fr vis intrxl por, v fnt odour, no vis stng, trs of lt brn o shw, lt brnsh yel spl flor, fnt cut, no resdl ring flor, p shw. (TVD: 1415) (SSL: -640.20)

**Dol** Dol: off wh, lt brn, mot, tan, stainy, crmy, redsh brn, frm - crpld - modly hd, blkly - sbbkly, sm - grty, ptly rthy & chky, ratty, predly crpxl deb, mdst, ptly pkst, sily arg, abnt ls incl, locly grdg - dolc ls, calcar, foss, abnt of calc and anhy incl, trs of bits ptgs, trs of sh gr, vugy - g vis intrxl por, wk odour, no vis stng, ptch lt brn o shw, lt brnsh yel spl flor, fnt cut, fnt mky wh resdl ring flor, p shw.





of frags sfc / bits ctg, abnt ls incl, foss, abnt of calc, trs of lse  
qtz grs, trs of anhy incl, vugy vis intrxl por, wk od, no vis  
stng, ptch lt brn o shw, lt brnsh yel spl flor, fnt cut, fnt mky wh  
resdl ring flor. NB; live o flw noticed @ shaker.

**Muskegon** Anhy: wh, off wh, lt brn, lt gy, wh, interbedded / dol,  
(TVD: 1429) interbedded / ls / ptch fnt o stn and blk bits(?) and blk mnrls,  
(SSL: -654.20) modly hd, v hd in parts, blk, crpxl - mic xln, grdg - thomb  
stone deb.

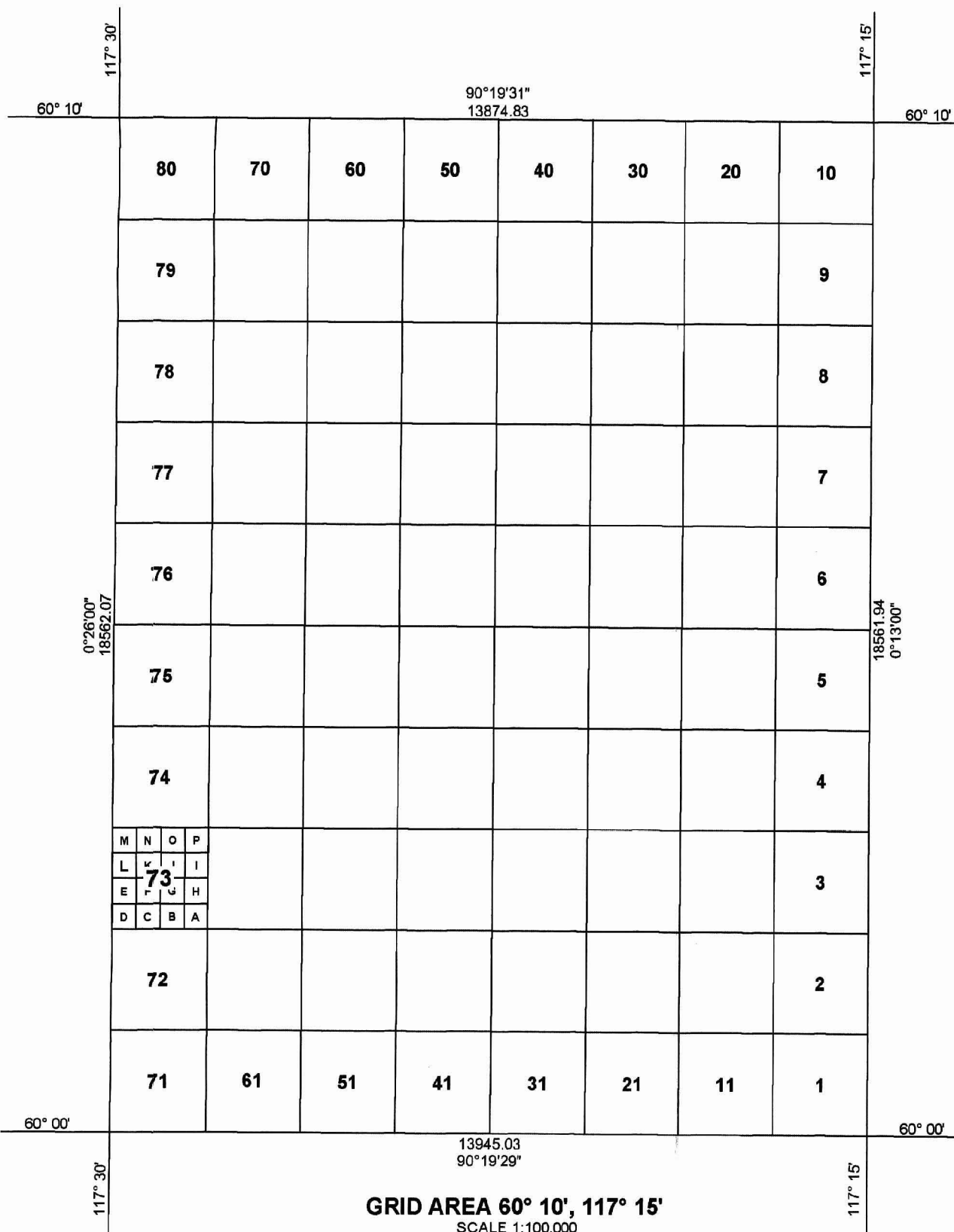
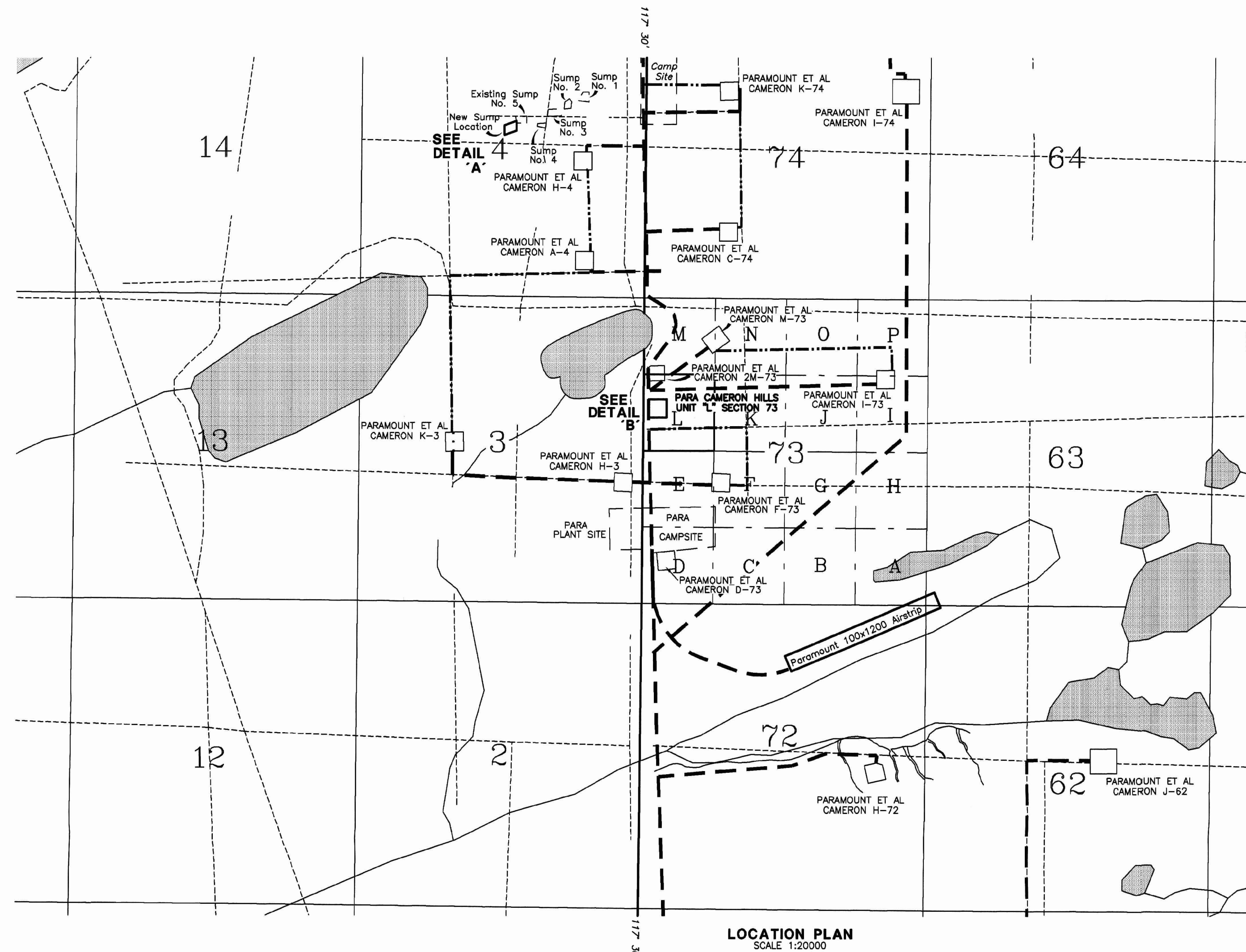
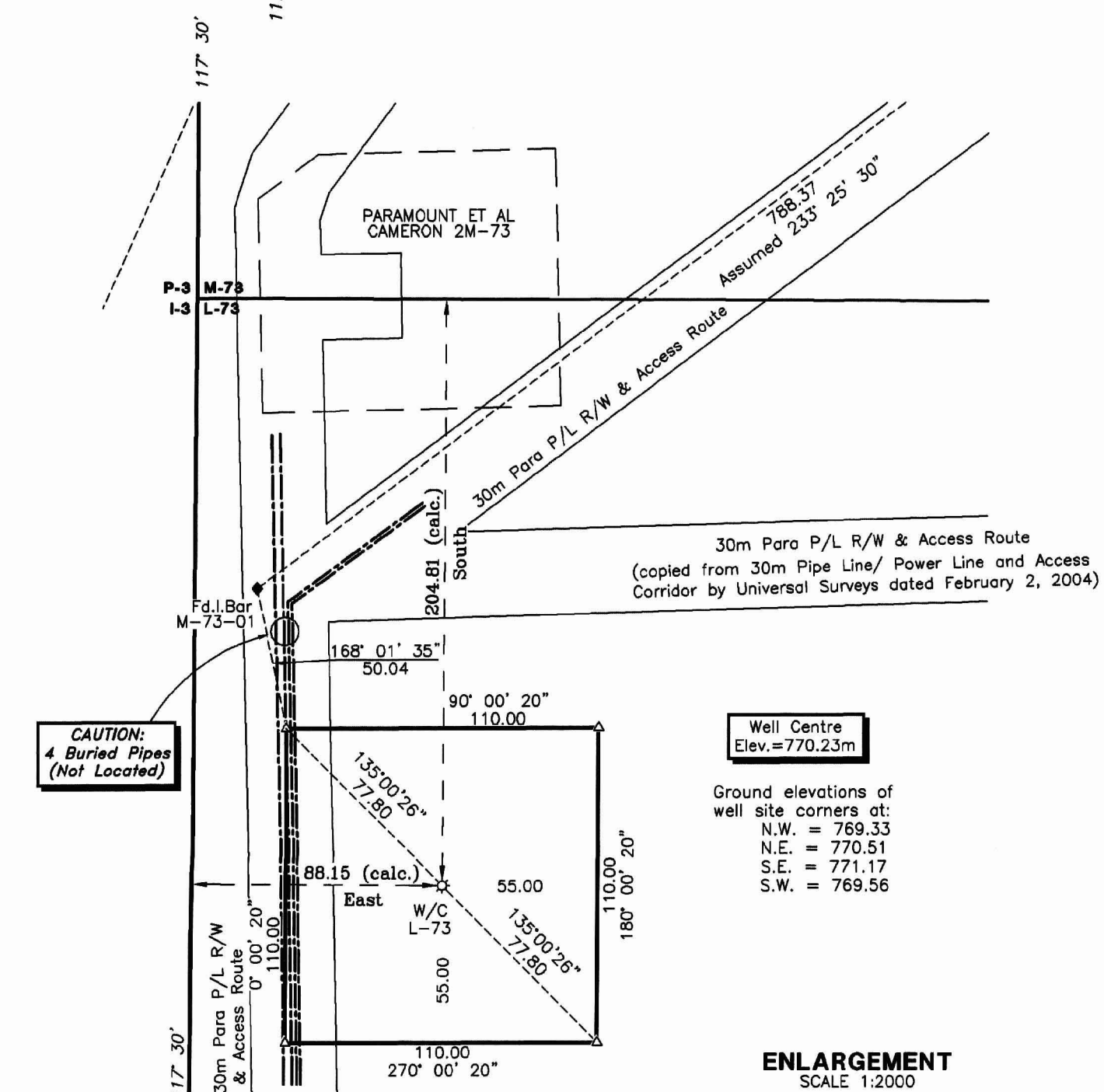
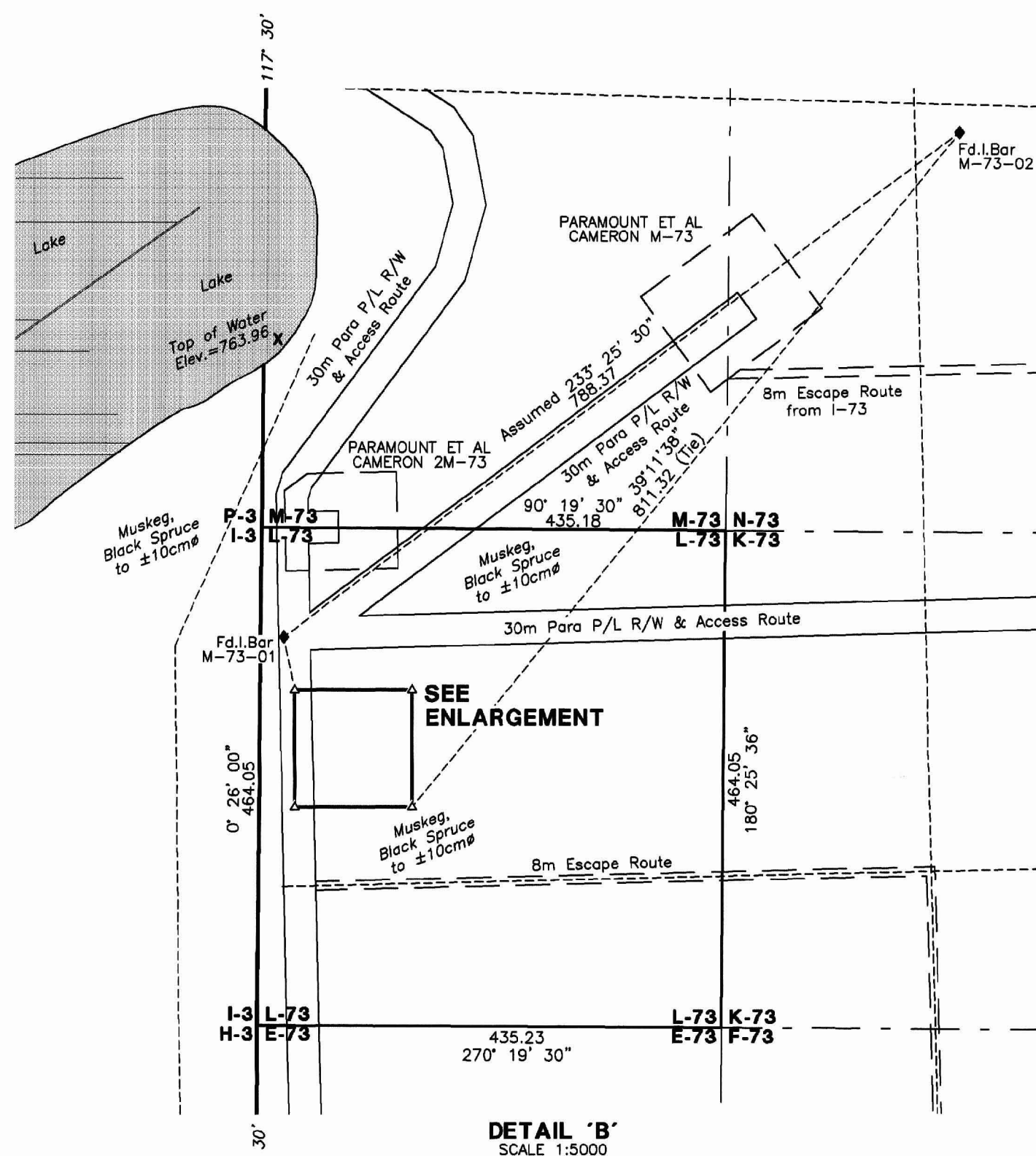
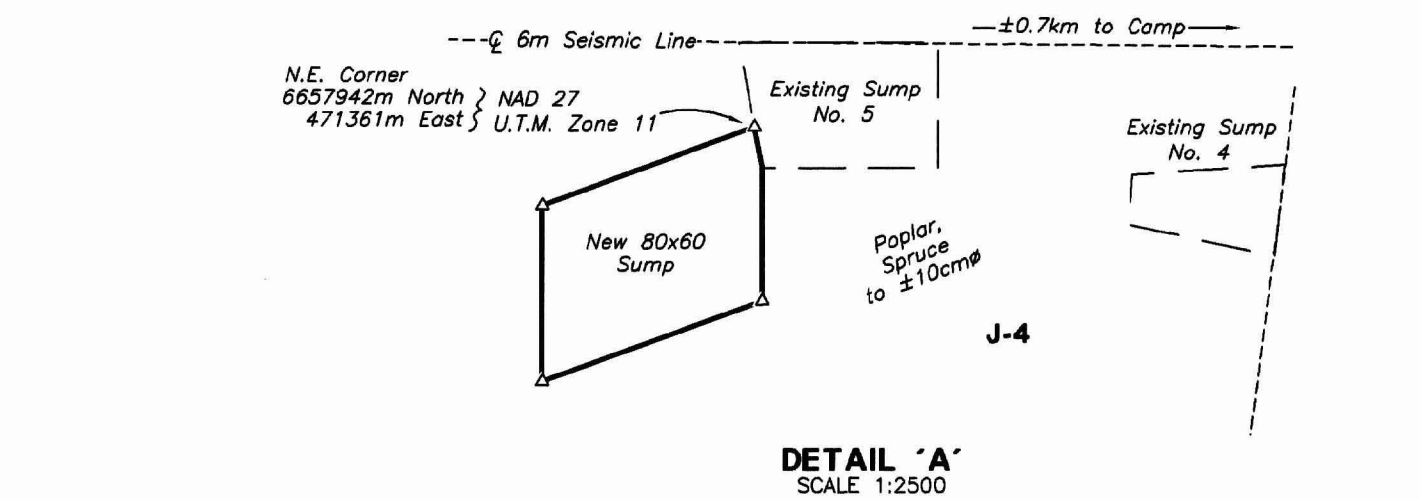
**Dol:** lt gy, lt brn, mot, tan, stnny, crmy, redsh brn, frm  
- crpld - modly hd, blk - sbblky, sm - grty, ptly rthy &  
chky, ratty, predly crpxl deb, mdst, ptly pkst, sily arg,  
abnt ls incl, locly grdg - dolc ls, calcar, foss, abnt of  
calc and anhy incl, trs of bits ptgs / some blk mnrls,  
trs of sh gr, tt intrxl por, ns.

**Dol:** lt brn, mot, tan, off wh, frm - crpld - modly hd, blk  
- sbblky, sm - grty, ptly rthy & chky, ratty, predly crpxl  
deb, predly mdst, ptly wkest, sily arg, abnt anhy incl /  
some ls, calcar, no vis intrxl por, ns.

**Anhy:** wh, off wh, hyaline, tan, iregly shaped, shp, ang,  
abnt of calc incl, trs of f xln ls / abnt of of brnsh gy - tan  
dol incl, trs of gnsh brn sh frags, trs of carb matl.

**Total depth**  
(TVD: 1450)  
(SSL: -679.20)





Well site control established using differentially corrected GPS observations.  
All transformations between NAD83 and NAD27 were completed using National Transformation Version 2 program.

GEOGRAPHIC AND UTM COORDINATES, (1983 NAD)					
Station	Latitude(N)	Longitude(W)	Northings	Eastings	Elev.
BEARING TREES					
M-73-1 (Fixed)	60°02'42.099"	117°30'03.654"	6656531.54	472092.71	768.74
M-73-2 (Adjusted)	60°02'57.431"	117°29'22.984"	6657001.10	472725.48	773.84
PROPOSED WELL					
L-73, WELL CENTRE	60°02'38.756"	117°29'59.379"	6656427.61	472158.06	770.23

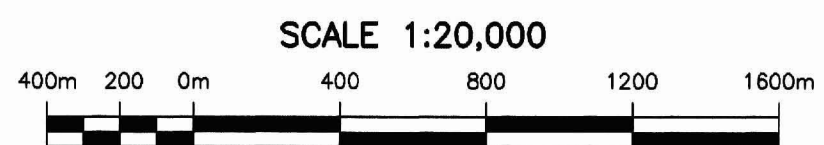
GRID AREA 60°10', 117°15'- GEOGRAPHIC AND UTM COORDINATES, (1927 NAD)					
N.E.	60°10'00"	117°15'00"	6669792.78	486125.26	
N.W.	60°10'00"	117°30'00"	6669871.56	472250.65	
S.W.	60°00'00"	117°30'00"	6651310.02	472110.25	
S.E.	60°00'00"	117°15'00"	6651230.97	486055.06	
L-73, N.W.	60°02'45.002"	117°30'00.000"	6656414.44	472148.86	
L-73, N.E.	60°02'45.027"	117°29'31.874"	6656411.97	472584.03	
L-73, S.E.	60°02'30.027"	117°29'31.874"	6655947.93	472580.58	
L-73, S.W.	60°02'30.001"	117°30'00.000"	6655950.40	472145.35	
PROPOSED WELL GEOGRAPHIC AND UTM COORDINATES, (1927 NAD)					
L-73 W/C (SURVEYED)	60°02'38.386"	117°29'54.302"	6656209.14	472235.47	
LEASE CORNERS					
N.E.	60°02'40.177"	117°29'50.772"	6656264.10	472290.49	
N.W.	60°02'40.150"	117°29'57.889"	6656264.11	472180.37	
S.E.	60°02'36.621"	117°29'50.720"	6656154.10	472290.48	
S.W.	60°02'36.595"	117°29'57.828"	6656154.11	472180.48	

BEARING TREES			
STATION	BEARING	DISTANCE	TREE
M-73-1	200° 39'	15.63	15 cm Spruce
	266° 41'	15.20	8 cm Spruce
	301° 12'	13.79	6 cm Spruce
M-73-2	342° 55'	9.35	9 cm Spruce
	225° 01'	14.54	13 cm Spruce
	179° 19'	17.87	16 cm Spruce

## AREA REQUIRED:

WELL SITE: 105m x 106m = 1.111 ha.

PLAN AND FIELD NOTES  
OF SURVEY OF  
**PROPOSED EXPLORATORY WELL**  
**PARA ET AL CAMERON L-73**  
IN UNIT L, SECTION 73  
GRID AREA 60° 10', 117° 15'  
NORTHWEST TERRITORIES  
CANADA OIL AND GAS REGULATIONS  
EXPLORATORY WELL, NORTHWEST TERRITORIES



SURVEYED FOR  
**PARAMOUNT RESOURCES LTD.**

**AFFIDAVIT**  
THIS SURVEY WAS EXECUTED ON THE DATE OF JULY 3rd, 2005  
BY JOHN E. LANDRY, C.L.S.

CERTIFIED CORRECT ON THE 31st DAY OF JANUARY, 2007

JOHN E. LANDRY  
CANADA LANDS SURVEYOR

John E. Landry  
Comm. No. 1287

**Paramount resources**

## LEGEND

UTM coordinates are computed for Zone 11, Central Meridian  
117° W. Bearings were derived from differentially corrected GPS  
Observations, and are referred to meridian 117° W.

Distances are expressed in metres and decimals thereof.

Distances shown in traverse are measured distances reduced to  
the horizontal at general level.

For the computation of coordinates measured distances have been  
reduced to the UTM plane by multiplying them by an average  
combined scale factor of 0.999492.

Distances shown on grid area subdivisions are UTM plane, NAD 27 Datum.  
All other dimensions are based on NAD83 Datum.

(CLS 77) Monuments placed are shown thus:   
(CLS 77) Monuments found are shown thus:   
Traverse stations placed are shown thus:   
Circ. point placed is shown thus:   
Portions Referred to shown thus:   
Buried pipe lines are shown thus:   
Seismic lines are shown thus:   
Access Roads are shown thus:   
Escape Routes are shown thus:

Survey was completed prior to drilling; therefore well as drilled  
may not necessarily agree with proposed location.

Pipe location data derived from Sketch Plan showing  
30m Pipe Line/ Power Line and Access Corridor by  
Universal Surveys dated February 2, 2004.

3	UPDATE PLAN (19209)	DON	Jan 29/07
2	REVISED WELL NAME	MLS	NOV. 2/05
1	REVISED WELL LOCATION (18991)	LAC, NB	JULY 25/05
0	PLAN ISSUED	JNP	OCT. 28/04
REV.	DESCRIPTION	BY	DATE
JOHN E. LANDRY CANADA LANDS SURVEYOR		Date:	OCT. 28, 2004
McELHANNY LAND SURVEYS LTD. PROFESSIONAL LAND SURVEYORS		Plan No.:	1 of 1
138, 14315-118 Avenue Edmonton, Alberta PH: (780) 451-3420 FAX: (780) 452-7033		Job No.:	321115815
		File No.:	15815
		JNP	