



**Paramount**  
resources ltd.

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June 25, 2010

National Energy Board  
444 7<sup>th</sup> Ave SW  
Calgary, AB  
T2P 0X8

Attn: John McCarthy  
Chief Conservation Officer – National Energy Board

Re: Paramount Resources Ltd – Cameron Hills Project  
Well Reports

Mr. McCarthy,

Enclosed please find well reports for Paramount Resources Ltd drilling project in the Cameron Hills in the winter of 2010.

For the newly drilled wells (drilled under an Authorization to Drill a Well), a well report, incorporating the requirements of section 88 and 89 of Canada Oil and Gas Drilling and Production Regulations is enclosed for the following wells.

- Para et al Cameron 2B-09 60 10 117 30
- Para et al Cameron F-77 60 10 117 15
- Para et al Cameron H-06 60 10 117 30
- Para et al Cameron M-74 60 10 117 15
- Para et al Cameron N-06 60 10 117 30

For the suspended wells (cased hole work performed under Authorization to Alter the Condition of a Well), a Well Operations Report as per section 89 of Canada Oil and Gas Drilling and Production Regulations is enclosed for the following wells.

- Para et al Cameron 2F-73 60 10 117 15
- Para et al Cameron C-50 60 10 117 30
- Para et al Cameron F-73 60 10 117 15
- Para et al Cameron L-29 60 10 117 30
- Para et al Cameron M-49 60 10 117 30

Two hard copies and a disk with digital copies of each report have been submitted.

MAIL ROOM  
SALLE DE COURIER  
2010 JUN 28 A 9:31  
NEB/ONE

These are in addition the Well Termination Reports, previously submitted.

If you have any questions, please contact Dick Heenan @ (403) 818-4408 or [dick.heenan@shaw.ca](mailto:dick.heenan@shaw.ca), or Andre Poitras @ (403) 290-3895 or [andre.poitras@paramountres.com](mailto:andre.poitras@paramountres.com).

Regards,

A handwritten signature in cursive script that reads "Dick Heenan".

Dick Heenan, P. Eng.  
Drilling Consultant



**Paramount Resources Ltd**

## **Well Operations Report**

**Paramount et al Cameron M-49 60 10 117 30**

**WID 1974**

**Prepared by  
Dick Heenan  
June 23 2010**

*D Heenan*  
2010/06/25

Paramount Resources Limited hereby submits the Well Operations Report on the subject well as required by Section 89 of the Canada Oil and Gas Drilling and Production Regulations

### **Objective**

This program was performed to suspend the subject well as proposed in the letter from Mr. Tom Hong of Paramount to the Chief Conservation Officer of the National Energy Board, 2009-11-26.

### **Summary of Operations**

The Concord 41 service rig was moved in and rigged up, along with safety equipment and P-tank and flare for blow-down of the well. The well contained a packer and a tubing plug and slip-stop @ 15m (not recorded) in the tubing. The on-off connector sheared off and the QDG packer was left in the hole @ 1373. A drillable bridge plug was set @ 1369 and pressure tested to 17Mpa. 30 m of class G cement was dump bailed on top of the plug. Dispersible inhibitor was added to the well and the wellhead re-installed.

A copy of the Daily Reports as submitted to the NEB per Section 83 of the Canada Oil and Gas Drilling and Production Regulations is enclosed in Appendix 3.

### **Completion Fluid Properties**

The well was filled with fresh water with BJ Techni-Hib 606W @ 5000ppm “packer fluid” – a combination of oxygen scavenger and corrosion inhibitor as show in the well schematic supplied with the Well Termination Report.

### **Well Schematic & Tubular Goods**

A copy of the downhole well schematic and tubular goods, as supplied with the Well Termination Report, is enclosed in Appendix 1.

### **Christmas Tree**

A copy of the Christmas tree and wellhead diagram is enclosed in Appendix 2.

### **Production Control System**

The well is shut-in and not connected to any production system at present.

### **Details of Any Impact of any Well Operation That May Effect Recovery**

As per the Application to Alter the Condition of a Well (AACW), and the above description, this operation was performed to suspend a non-economic well. The well configuration was left to allow the well to be abandoned as per Section 56 of the Canada

Oil and Gas Drilling and Production Regulations, or to allow the cement and plug to be drilled out, and the well put back on production at a later date. The bridge plug above the packer is not the optimum solution if the well is to be put back on production, but on a risk weighted economic basis, it is an acceptable situation.

This well was shut-in as it is not an economic producer. For this reason, the operation will not further affect the recovery of hydrocarbons from the wellbore.

**Rig Release Date**

As per the previously submitted Daily Reports, the rig was released 20100209.

## **Appendices**

Appendix 1    Downhole Diagram

Appendix 2    Wellhead Configuration

Appendix 3    Daily Reports

# PARA ET AL CAMERON M-49

60° 10' 117° 30'

WID : 1974

As suspended 20100208

KB: 709.28 m

GL: 705.06 m

KB - GL = 4.85 m

KB - TF = 4.0 m

426

219.1 mm, 35.7 kg/m, J-55 casing set at 425 mKB. Cemented with 32 t class 'G' cement + 2% CaCl<sub>2</sub>. 4.0 m<sup>3</sup> cement returns to surface.

139.7 mm, 20.8 kg/m, J-55 casing set at 1505 mKB. Cemented with 23.5 t Fill Lite 2-125 + 3% A-9 + 0.6% R-3 followed by 6.5 t 'G' cement + 0.1% R-3 + 0.4% FL-77. 4.0 m<sup>3</sup> cement returns to surface.

Inhibited water

BJ Techni-Hib 606W @ 5000ppm

30 m cement (top @ 1339m KB)

Drillable bridge plug @ 1369m KB

On-off w/ 58.75 mm 'X' profile @ 1372

QDG packer @ 1373

58.75 mm 'XN' nipple w/ 56.0 mm NoGo

& re-entry guide @ 1377

1379.0 - 1381.0

1395.0 - 1400.0

*Sulphur Point Perforations*

1440

8 m cement plug

Bridge plug

1445.0 - 1450.0

1452.0 - 1456.0

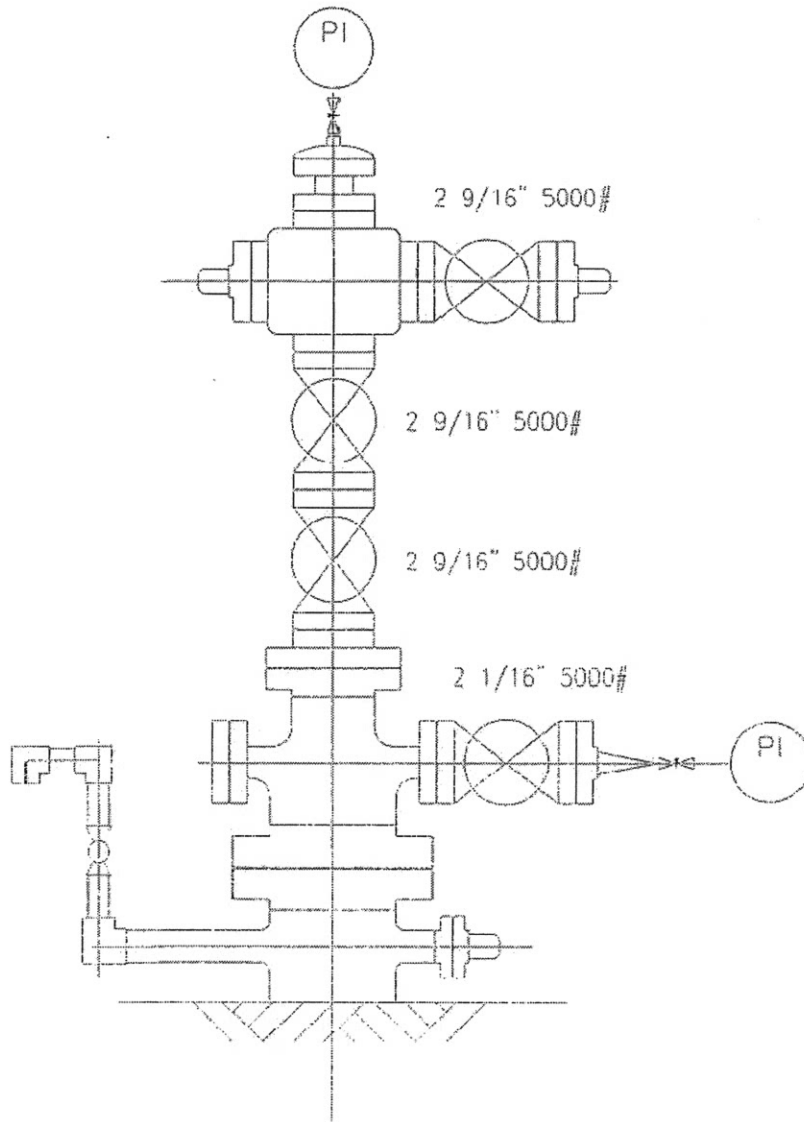
1457.0 - 1461.5

*Keg River Perforations*

PBTD = 1496 mKB

Total Depth = 1505 mKB

Casing set at 1505 mKB



# WELLHEAD DETAILS

WELL NAME \_\_\_\_\_  
 LOCATION M-49

Date: 09/09/03  
 By: KW  
 Rev: A FOR INFO.

Wellhead  
 Last Review Date:





## Daily Completion and Workover

PARA ET AL CAMERON M-49

Rig:

Business Unit: NE BC & NWT COU

Report Date: 2/6/2010

Report #: 1.0

Total AFE Amount:

AFE Number: Cameron

Daily Cost Total: 33,118

Cum Cost to Date: 33,118

API/UWI 300/M-49/6010-11730/2	Surface Legal Location	Field Name Cameron Hills	License No. 0001974
Well Configuration Type	Casing Flange Elevation (m)	Ground Elevation (m)	Original KB Elevation (m)
Last Casing String	PBTD (All) (mKB)	Casing Pressure (kPa) 651	Tubing Pressure (kPa) 8,230

### Objective

Suspend Sulphur Point .

### Operations Summary

Move concord rig # 41 and equipment to M - 49 , rig up equipment . Kill well , nipple up class III BOP stack .

### Operations Next Report Period

Set bridge plug with e - line truck

Road Condition Rough	Weather Cloudy	Start Date 2/6/2010	End Date
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### Daily Contacts

Title	Job Contact	Mobile
P Engineer Consultant Rig Manager	Dick Heenan Kim MacLeod Dwayne Palmer	403 818 - 4408 780 833 - 3843 403 357 - 6841

### Time Log

Start Time	End Time	Dur (hrs)	Cum Dur (hrs)	Comment
07:00	07:30	0.50	0.50	Held pre - job safety meeting on moving equipment in hours of darkness .
07:30	12:00	4.50	5.00	Move rig and equipmen from Cameron C - 50 to Cameron M - 49 , spot equipment on location . Spot 60m3 with bed truck , spot rig mats , cat walk and pipe racks with picker .
12:00	15:00	3.00	8.00	Spot and rig up rig , pump , tank and boiler . Rig in vent vessel and flare stack , check pressure on well . SITP @ 8,230 kPa , SICP @ 651 kPa . Rig up testers to well head , bleed off to vessel .
15:00	17:30	2.50	10.50	Rig up pump lines to well head , pump 2m3 down tubing @ 10,000 kPa . Bleed off gas head to vessel , monitor 15 minutes tubing dead . Lag bolt's seized . Well head bolts seized , remove with 36" pipe wrench . Continue working on lag bolts .
17:30	20:00	2.50	13.00	Finish removing well head , stump test class III BOP stack . Good test , nipple up class III BOP stack . Function and pressure test class III BOP stack .
20:00	21:30	1.50	14.50	Finish pulling out seized lag bolts , replace lag bolts . Confirm fully opened .
21:30	22:00	0.50	15.00	Drain lines , close and lock pipe rams . Secure well and location .

### Report Fluids Summary

Fluid	To well (m³)	From well (m³)	Cum from Well (m³)	Left to recover (m³)
Water	2.00	0.00	0.00	0.00

### Perforations

Date	Zone	Top (mKB)	Btm (mKB)	Current Status
2/8/2010	Sulphur Point, Original Hole	1,379.00	1,381.00	
2/8/2010	Sulphur Point, Original Hole	1,395.00	1,400.00	

### Tubing Components

Item Description	Top (mKB)

### Casing Strings

Casing Description	Grade	Wt (kg/m)	Set Depth (mKB)



# Daily Completion and Workover

PARA ET AL CAMERON M-49

Rig:

Business Unit: NE BC & NWT COU

Report Date: 2/7/2010

Report #: 2.0

Total AFE Amount:

AFE Number: Cameron

Daily Cost Total: 20,564

Cum Cost to Date: 53,682

API/UWI 300/M-49/6010-11730/2	Surface Legal Location	Field Name Cameron Hills	License No. 0001974
Well Configuration Type	Casing Flange Elevation (m)	Ground Elevation (m)	Original KB Elevation (m)
Last Casing String	PBTD (All) (mKB)	Casing Pressure (kPa) 0	Tubing Pressure (kPa) 0

## Objective

Suspend Sulphur Point .

## Operations Summary

Released cardium packer , pulled 2 - joint's . Tubing wet , order and wait on slickline truck . Run into hole gauge ring .

## Operations Next Report Period

Rig up slickline find problem .

## Road Condition

Rough

## Weather

Sunny

## Start Date

2/6/2010

## End Date

## Daily Contacts

Title	Job Contact	Mobile
P Engineer	Dick Heenan	403 818 - 4408
Consultant	Kim MacLeod	780 833 - 3843
Rig Manager	Dwayne Palmer	403 357 - 6841

## Time Log

Start Time	End Time	Dur (hrs)	Cum Dur (hrs)	Comment
07:00	07:30	0.50	0.50	Held pre - job safety meeting on tripping tuning in derrick , watch pinch when opening and closing elevators .
07:30	08:00	0.50	1.00	Un - lock pipe rams , check pressure on well . SITP @ 0 kPa , SICP @ 0 kPa . Un - set cardium packer .
08:00	09:30	1.50	2.50	Pulled 4 - joint's 73mm tubing , tubing pulling wet . Rig up pump line pressured up tubing to 21,000 kPa . NO leak off , bleed off tubing to vessel . Pump 10m3 down casing , casing on slight vacuum . Confirm with clagary .
09:30	12:30	3.00	5.50	Run back into hole with tubing , set cardium packer @ 1373m . Try releaseing on / off on packer , no luck . Continue working on / off tool . Sheared off , tubing blowing . Rig in test line bleed off gas head . Rig out test line , rig up pump line . Pumped 2m3 down tubing pressured up to 21,000 kPa . Pump down casing 7m3 KCL water , casing pressured up to 14,000 kPa . Bleed off casing , and monitor pressures . Tubing builds to 14,930 kPa in 30 min , bleed off tubing to vessel . Monitor tubing for 30 min SITP @ 12,765 kPa , bleed off to vessel . Leave open to vessel for 1 - hour .
12:30	15:30	3.00	8.50	Continue monitor tubing and bleeding off to vessel , batch into tubing 100L methanol . Pressure on tubing building to 359 kPa in 30 minutes
15:30	20:30	5.00	13.50	Wait on slickline to arrive on location .
20:30	22:00	1.50	15.00	Rig up Pure energy slickline truck , held safety meeting with all personal on location . First run with 68.58mm gauge ring to 15m tag obstruction , pull out of hole . Run into hole with 48.26mm gauge ring to 15m hit obstruction , pull out of hole . Run into hole with 38.1mm tag at 15m , try working through . No luck , pull out of hole . Rig down slickline , stand - by on location .
22:00	22:30	0.50	15.50	Close and lock pipe rams , drain pump lines . Secure well and location .

## Report Fluids Summary

Fluid	To well (m³)	From well (m³)	Cum from Well (m³)	Left to recover (m³)
Water	15.00	0.00	0.00	0.00

## Perforations

Date	Zone	Top (mKB)	Btm (mKB)	Current Status
2/8/2010	Sulphur Point, Original Hole	1,379.00	1,381.00	
2/8/2010	Sulphur Point, Original Hole	1,395.00	1,400.00	

## Tubing Components

Item Description	Top (mKB)

## Casing Strings

Casing Description	Grade	Wt (kg/m)	Set Depth (mKB)



# Daily Completion and Workover

PARA ET AL CAMERON M-49

Rig:

Business Unit: NE BC & NWT COU

Report Date: 2/8/2010

Report #: 3.0

Total AFE Amount:

AFE Number: Cameron

Daily Cost Total: 43,579

Cum Cost to Date: 97,261

API/UWI 300/M-49/6010-11730/2	Surface Legal Location	Field Name Cameron Hills	License No. 0001974
Well Configuration Type	Casing Flange Elevation (m)	Ground Elevation (m)	Original KB Elevation (m)
Last Casing String	PBTD (All) (mKB)	Casing Pressure (kPa) 0	Tubing Pressure (kPa) 0

## Objective

Suspend Sulphur Point .

## Operations Summary

Pull out of hole plug and slip stop , pull tubing . Run into hole bridge plug , bail cement .

## Operations Next Report Period

Finish rigging out equipment

## Road Condition

Rough

## Weather

Sunny

## Start Date

2/6/2010

## End Date

## Daily Contacts

Title	Job Contact	Mobile
P Engineer	Dick Heenan	403 818 - 4408
Consultant	Kim MacLeod	780 833 - 3843
Rig Manager	Dwayne Palmer	403 357 - 6841

## Time Log

Start Time	End Time	Dur (hrs)	Cum Dur (hrs)	Comment
07:00	07:30	0.50	0.50	Held pre - job safeting meeting on slickline procedures . Check pressure on well , un - lock pipe rams .
07:30	08:30	1.00	1.50	Pull and lay down 1 - joint 73mm tubing , rig in flow tee . Rig up slickline truck , run into hole tag @ 6m . Pull out of hole , close safety valve . Pull tubing up 6m , start steaming tubing @ 6m .
08:30	10:00	1.50	3.00	Rig in kelly hose and monitor pressure @ vessel while steamin gtubing . Tubing built up to 4,200 kPa , bleed off to vessel . Continue heating out side of tubing .
10:00	12:30	2.50	5.50	Rig up slickline truck , run into hole with impression block and pull . Marks show slip stop ???? . Run into hole 2 - runs , latch onto slip stop and pull . Run into hole to pull prong on plug , tag @ 27m . No latching action , pull out of hole . SITP @ 4,200 kPa , bleed off to vessel and plug came to surface . Run into to 27m 2 - runs latch onto collar stop and pull out of hole .
12:30	13:30	1.00	6.50	Rig up pump line to well head , pump 8m3 down tubing to confirm no obstructions and well control . Rig out slickline truck and release .
13:30	15:30	2.00	8.50	Pull out of hole tubing laying down onto ground , 1 - joint tubing , 2 - pup joint's , 141 - joint's 73mm tubing , sliding sleeve C / W profile , 1 - pup joint , on / off tool . Clear up work floor
15:30	17:30	2.00	10.50	Rig up Pure Energy e - line truck , held safety meeting with all personal on location . Turn off all phones . Run into hole with permanent bridge plug , set at 1369mKB . Pull out of hole . Rig in pump line , fill casing 3m3 KCL water . Pressure test to 17,000 kPa , monitor for 15 minutes good test .
17:30	20:30	3.00	13.50	Make up cement bailer , make 4 - runs with bailer for total of 30m on top of bridge plug . Rig down and release Pure Energy e - line truck .
20:30	21:30	1.00	14.50	Rig down tubing equipment and work floor and tarps around floor . Nipple down class III BOP stack , nipple up well head . pump 200L deisel , pressure test well seal to 7,000 kPa . Good test
21:30	22:00	0.50	15.00	Drain lines , secure well and location .

## Report Fluids Summary

Fluid	To well (m³)	From well (m³)	Cum from Well (m³)	Left to recover (m³)
Water			0.00	0.00

## Perforations

Date	Zone	Top (mKB)	Btm (mKB)	Current Status
2/8/2010	Sulphur Point, Original Hole	1,379.00	1,381.00	
2/8/2010	Sulphur Point, Original Hole	1,395.00	1,400.00	

## Tubing Components

Item Description	Top (mKB)

## Casing Strings

Casing Description	Grade	Wt (kg/m)	Set Depth (mKB)



# Daily Completion and Workover

PARA ET AL CAMERON M-49

Rig:

Business Unit: NE BC & NWT COU

Report Date: 2/9/2010

Report #: 4.0

Total AFE Amount:

AFE Number: Cameron

Daily Cost Total: 1,537

Cum Cost to Date: 98,798

API/UWI 300/M-49/6010-11730/2	Surface Legal Location	Field Name Cameron Hills	License No. 0001974
Well Configuration Type	Casing Flange Elevation (m)	Ground Elevation (m)	Original KB Elevation (m)
Last Casing String	PBTD (All) (mKB)	Casing Pressure (kPa)	Tubing Pressure (kPa)

## Objective

Suspend Sulphur Point .

## Operations Summary

Finish rigging down rig and equipment .

## Operations Next Report Period

Hand over to production

Road Condition Rough	Weather Sunny	Start Date 2/6/2010	End Date
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## Daily Contacts

Title	Job Contact	Mobile
P Engineer	Dick Heenan	403 818 - 4408
Consultant	Kim MacLeod	780 833 - 3843
Rig Manager	Dwayne Palmer	403 357 - 6841

## Time Log

Start Time	End Time	Dur (hrs)	Cum Dur (hrs)	Comment
07:00	07:30	0.50	0.50	Held pre - job safety meeting on rigging down rig in hours of darkness , walk around rig and equipment .
07:30	09:30	2.00	2.50	Rig down rig , pump , tank and boiler . Rig out vent vessel and flare stack , rig out air trailer .

## Report Fluids Summary

Fluid	To well (m³)	From well (m³)	Cum from Well (m³)	Left to recover (m³)
Water			0.00	0.00

## Perforations

Date	Zone	Top (mKB)	Btm (mKB)	Current Status
2/8/2010	Sulphur Point, Original Hole	1,379.00	1,381.00	
2/8/2010	Sulphur Point, Original Hole	1,395.00	1,400.00	

## Tubing Components

Item Description	Top (mKB)

## Casing Strings

Casing Description	Grade	Wt (kg/m)	Set Depth (mKB)