

ACL NOGHE  
300/K-14-66-40-126-0<sup>0</sup><sub>2</sub>/0

N.E.B. COPY

Completion Report

6

6

4

0

1

2

6

0

0





File: WID# 2006, 2007  
14 January 2004

300K146640126/00/0

Mr. Greg Hladun  
Senior Staff Drilling Engineer  
Apache Canada Ltd.  
1000, 700 - 9<sup>th</sup> Avenue SW  
Calgary, AB T2P 3V4

Dear Mr. Hladun:

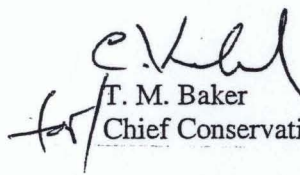
**Approval to Drill a Well (ADW) for:  
Apache Paramount Tunago Lake E-44 (2007) & Apache Paramount West Nogha K-14 (2006)**

Please be advised that your application for an "Approval to Drill a Well", pursuant to section 83 of the *Canada Oil and Gas Drilling Regulations* is approved for the wells "Apache Paramount Tunago Lake E-44" and "Apache Paramount West Nogha K-14". Please note well name change for E-44. Attached is a signed "Approval to Drill a Well" form for both E-44 and K-14, of which one copy is to be posted in a conspicuous place at the drill site as per the *Canada Oil and Gas Drilling Regulations*.

Any changes or deviation from the program will require the additional specific approval of the Chief Conservation Officer. Please be reminded that all oil and gas activities are, at minimum, to meet the requirements of the *Canada Oil and Gas Drilling Regulations*, the *Oil and Gas Occupational Safety and Health Regulations* and the *Canada Labour Code, Part II*. Conditions of approval are attached.

If you have any questions, please do not hesitate to contact Chris Knoechel at 299-3866.

Yours truly,

  
T. M. Baker  
Chief Conservation Officer

Attachment

c.c. M. Fortier - DIAND

444 Seventh Avenue SW  
Calgary, Alberta T2P 0X8

444, Septième Avenue S.-O.  
Calgary (Alberta) T2P 0X8

Canada

Telephone/Téléphone : (403) 292-4800  
Facsimile/Télécopieur : (403) 292-5503  
<http://www.neb.gc.ca>



14 January 2004

**Approval to Drill a Well for:  
Apache Paramount Tunago Lake E-44  
Apache Paramount West Nogha K-14**

1. Daily drilling reports are to be faxed by 8:30 am to the attention of the Chief Conservation Officer (fax number (403) 292-5876). Please contact Trena Barnes (phone number (403) 299-3192) should there be any difficulty in delivery of the daily drilling reports.
2. Geological reports are to be submitted daily which include sample descriptions, strip logs and gas detection readings.
3. Please provide immediate copies of any log run as well as two copies of all final prints and digital files in LASII format of all logs run.
4. Information to be submitted to the Chief Conservation Officer includes all logs run, drill chips samples, core and fluid samples collected, descriptions and analyses performed on any core, DST results and any pressure and temperature data collected. Actual samples collected are to be submitted to the Core and Sample Repository at the Geological Survey of Canada - Calgary. The "unwashed" samples must have any oil emulsion fluid removed prior to delivery. Additionally, a copy of the core and sample transmittal letter should be forwarded to the Chief Conservation Officer.
5. As per section 122 of the *Canada Oil and Gas Drilling Regulations* formation leak-off tests are to be conducted after the drilling out of surface casing. The leak-off test data and plot are to be faxed in with the accompanying daily drilling report.
6. Well suspension operations are required to meet the requirements of the *Canada Oil and Gas Drilling Regulations*. Upon program termination and well suspension/abandonment a "Well Termination Record" is required to be submitted and a wellbore schematic is to be included.
- ~~7. A copy of the *Canada Oil and Gas Drilling Regulations* as well as the *Oil and Gas Occupational Safety and Health Regulations* are to be kept at the drill site and available on request by any person at the drill site (section 102 of the *Canada Oil and Gas Drilling Regulations* and paragraph 125.(1)(e) of the *Canada Labour Code, Part II*, respectively).~~
8. Please note the following provisions taken from the *Canada Oil and Gas Operations Act* regarding the powers of a Conservation Officer. Conservation Officers are normally trained in various industry oil and gas safety courses. Please note that while neither the Act nor regulations require a Conservation Officer to possess any industry safety courses to enter and inspect a drilling site, however, we do ensure that our inspectors are fully trained and have all the prerequisite training to enter any site. Conservation Officers appointed by the Board are only required to provide the person in charge of a drill site proof of their certificate of designation.
9. Apache shall implement or cause to be implemented all of the policies, practices, mitigative measures, recommendations and procedures for the protection of the environment referred to in its application.

Attachment

14 January 2004

**Approval to Drill a Well for:  
Apache Paramount Tunago Lake E-44  
Apache Paramount West Nogha K-14**

10. Within 30 days of the completion the well Apache shall file with the Chief Conservation Officer a confirmation, by an officer of the company, that the approved Project was completed in compliance with all applicable conditions in the Approval to Drill a Well. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Chief Conservation Officer details as to why compliance cannot be confirmed.
11. Apache shall meet the Guideline for Ambient Air Quality Standards in the Northwest Territories when conducting any flaring associated with the Coville Lake Drilling Program.





DEC 17 2003

Exploratory ☒  
Development ☐Delineation ☐  
Service ☐

## APPROVAL TO DRILL A WELL

This application is submitted under Section 82 of the Canada Oil and Gas Drilling Regulations. When approved under Section 83 of the Regulations, it is the requisite approval for the commencement of drilling operations.

Well Name: APACHE PARAMOUNT WEST NOGHA K-14  
Operator: APACHE CANADA LTD Drilling Program No.:  
Contractor: AKITA DRILLING LTD. Interest Identifier: SAHTU SETTLEMENT  
Drilling Rig or Unit: AKITA RIG #51 Estimated Well Cost: \$4,500,000  
Location-Unit: K Section: 14 Grid: 66° 40' 126° 00'  
Coordinates: Lat: 66° 33' 39.042" Long.: 126° 03' 02.842"  
Area: NOGHA Field / Pool: N/A  
Elevation-KB/RT: 312.44mKB (ASL) GL / Seafloor: 307.54  
Approx. Spud Date: FEBRUARY 15, 2004 Est. Days on Location: 30  
Anticipated Total Depth: 1355 M Target: MT. CLARK

## EVALUATION PROGRAM

~~FIVE~~ SURFACE TO TOP MOUNT CAP CLASTICS  
~~Ten-metre sample~~  
~~TWO POINT FIVE~~ TOP MOUNT CAP CLASTICS TO BASE MOUNT CAP CLASTIC  
~~Five-metre sample~~  
~~FIVE METRE~~ BASE MOUNT CLASTIC TO TOP MOUNT CLARK SAND 'A'  
~~Core sample intervals~~  
~~TWO POINT FIVE METRE SAMPLE~~ TOP MT. CLARK 'A' SAND TO TOP PROTEROZOIC  
~~Conventional core at~~  
~~FIVE METRE SAMPLE~~ TOP PROTEROZOIC TO T.D.  
~~Logs and Tests~~

## CASING AND CEMENTING PROGRAM

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m KB)	Cementing
339.7mm	101 kg/m	K-55	60 M	10TARCTICSET
244.5mm	59.53 kg/m	L-80	550 M	8TARCTICSET
				23TCLASS'G'
137.8mm	43.16 kg/m	L-80	1355 M	23TCLASS'G'

B.O.P. Equipment: SHAFFER SPHERICAL 279mm 21MPa, 1- SHAFFER LWS 279mm  
21MPa DOUBLE GATE RAM, 1- SHAFFER LWS 279mm 21MPa SINGLE GATE,  
VALVECON 318L 21MPa 5 STATION Accum., ELECTRIC REMOTE, CAMERON  
Other Information: WKM 51mm x 76mm 21 MPa CHOKE MANIFOLD.

CORING: POSSIBLE 18m CORE CAMBRIAN MOUNT CLARK  
LOGS: DSI ARRAY SONIC - GR- CAL, AIT- GR- X/YCAL,  
LDT- TLD- PE- CNL- X/YCAL

Signed: [Signature] Title: SR. DRILLING SUPT.  
Name: BOB PHILLIPS Company: APACHE CANADA LTD.  
Date: DEC 5/03 Phone: (403) 261-1316

## APPROVAL

An approved copy of this notice is to be posted at each wellsite.

Date: January 14/04  
File: 9211-A074-1-2  
WID: 2006  
UWT: 300K145640126000

Signed: [Signature]  
Chief Conservation Officer



National Energy  
Board



Office national  
de l'énergie

File: WID# 1995, 1998, 2006 & 2007  
10 August 2004

Mr. Greg D. Hladun  
Senior Staff Drilling Engineer  
Apache Canada Ltd.  
1000, 700 - 9<sup>th</sup> Avenue SW  
Calgary, AB T2P 3V4

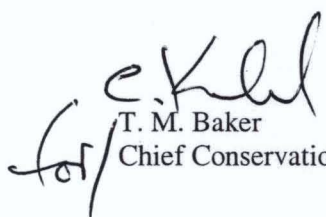
Dear Mr. Hladun:

**Well Termination Record for Apache Paramount Lac Maunoir C-34 (1995), Apache Paramount Nogha B-23 (1998), Apache Paramount West Nogha K-14 (2006) & Apache Paramount Tunago Lake E-44 (2007)**

Thank you for your submission of the Well Termination Record forms for the said wells. Please note that the spud date is the date when a particular drilling unit (which has been approved to drill) first penetrates the earth. Although an approved Approval to Drill a Well is required to set conductor pipe with a rat hole rig, spud-in occurs when the approved drilling unit begins the drilling of a proposed well. We have made changes to the Well Termination Record forms that have been submitted to reflect the above. Additionally, a few minor corrections were made to the forms.

If you have any questions, please do not hesitate to contact Chris Knoechel at 299-3866.

Yours truly,

  
T. M. Baker  
Chief Conservation Officer

Attachment

c.c. Mimi Fortier - DIAND

444 Seventh Avenue SW  
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<http://www.neb-one.gc.ca>





AUG 04 2004

## WELL TERMINATION RECORD

This record is submitted in compliance with Section 184 of the Canada Oil and Gas Drilling Regulations.

Well Name: Apache Paramount West Naylor K-14 Area: Naylor  
Grid Area: 66° 40' 126° 00' Field / Pool: N/A  
Interest Identifier: Saltwater Settlement Final Coordinates: Lat: 66° 33' 39.092" Long: 126° 03' 02.842"  
Drilling Unit: Akita Rig #51 Elevations-KB/RT: 313.2 (ASL) GL/Seafloor: 307.54  
Spud Date: Mar 4/2004 surface R.R.: Mar 21, 2004 Total Depth: 1404

O.D. (mm)	Weight (kg/m)	Grade	Depth Set (m KB)	Cement (m³)
<u>339.7</u>	<u>101.2</u>	<u>K-55</u>	<u>65</u>	<u>7.4 m³ Arctic Set</u>
<u>244.5</u>	<u>59.53</u>	<u>L-80</u>	<u>548</u>	<u>18.1 m³ class G</u>
<u>177.8</u>	<u>43.16</u>	<u>L-80</u>	<u>1404</u>	<u>22.7 m³ class G</u>

*5.9 m³ Arctic Set topped up set. with 8.4 m³ Arctic*

## PLUGGING PROGRAM

Approval of the following program was obtained by (person)

from (person)

of the

by means of

on

Type of Plug

Interval (m KB)

Felt

Cement (m³)

Well is cased to T.D. Cemented full length.

Lost Circulation/Overpressure Zones:

Equipment left on Seafloor (Describe):

Provision for Re-entry (Describe and attach sketch): 50% lost circ from 247-277 100% lost circ 277-548

Cores:

Type: N/AIntervals: Drilled blind from 277 to 548m

Other Downhole Completion/Suspension Equipment:

## CERTIFICATION

I certify on the basis of personal knowledge of operations undertaken at the above named well that the above information is accurate.

Signed: Greg Hladun P.Eng.Title: Senior Staff Drilling EngineerName: Greg D HladunDate: June 24, 2004Company: Apache Canada Ltd.

Well Status

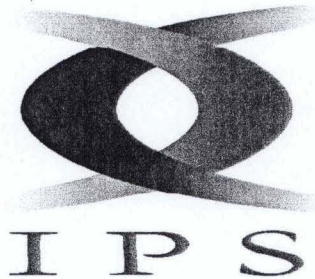
Suspended ☐Completed ☐Abandoned ☐Acknowledged by: [Signature]

for Chief Conservation Officer

Date: Aug 10/04File: 9211-A075-1-2UWI: 300K146640126000WID: 2006



# INTEGRATED PRODUCTION SERVICES



## Project Management & Engineering

*CLEAN UP/SWAB*

*APACHE CANADA LIMITED*

*Well Name: APACHE PARAMOUNT WEST NOGHA K-14*

*UWI: 300\_K-14-66-39 126-03-0*

*FIELD: COLVILLE LAKE*

*FORMATION: MOUNT CLARK 'C'*

*TEST DATE: April 3-5, 2004*

***DISTRIBUTION:*** *Walter Stock, Calgary, AB*  
*via email: walterf.stock@apachecorp.com*

***PREPARED BY:*** *Roberta (Robbie) Lailey*

Project Management & Engineering, A Division of Integrated Production Services  
Property Management Production Optimization Exploitation / Engineering Services Pressure Transient Analysis  
1000, 840 - 7<sup>th</sup> Avenue S. W. Calgary, Alberta T2P 3G2 Tel: (403) 266-0909 Fax: (403) 269-4136  
Website: [www.ipsadvantage.com](http://www.ipsadvantage.com)





# EXTENDED GAS ANALYSIS

V0003386 - 1

2006

52136-2004-1387

CONTAINER IDENTITY

METER ID

WELL LICENSE NUMBER

LABORATORY FILE NUMBER

Apache Canada Ltd.

OPERATOR

PAGE

K-14-66-39-126-3-0

Apache Paramount West Nogha K14-66-39-126-3-0

313.2

308.4

LOCATION (UWI)

WELL NAME

KB ELEV (m)

GR ELEV (m)

Nogha

Mount Clark B C

IPS

FIELD OR AREA

POOL OR ZONE

SAMPLER

TEST TYPE AND NO.

TEST RECOVERY

Wellhead

POINT OF SAMPLE

SAMPLE POINT ID

PUMPING

FLOWING

GAS LIFT

SWAB

1369.7 - 1379.0

WATER

m<sup>3</sup>/d

OIL

m<sup>3</sup>/d

GAS

m<sup>3</sup>/d

TEST INTERVAL or PERFS (meters)

575

@

°C

20

@

22

°C

SEPARATOR

RESERVOIR

OTHER

CONTAINER  
WHEN SAMPLEDCONTAINER  
WHEN RECEIVED

SEPARATOR

-10

OTHER

Temperatures, °C

at 18:15 hrs

Pressures, kPa (gauge)

2004 04 02

2004 04 20

2004 04 27

CM

@

°C

DATE SAMPLED (Y/M/D)

DATE RECEIVED (Y/M/D)

DATE ANALYZED (Y/M/D)

ANALYST

AMT. AND TYPE CUSHION

MUD RESISTIVITY

COMPONENT	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	mL/m <sup>3</sup> AIR FREE AS RECEIVED
H <sub>2</sub>	0.0010	0.0010	
He	0.0036	0.0037	
N <sub>2</sub>	0.1469	0.1497	
CO <sub>2</sub>	0.0182	0.0000	
H <sub>2</sub> S	0.0000	0.0000	
C <sub>1</sub>	0.7858	0.8003	
C <sub>2</sub>	0.0389	0.0396	138.1
C <sub>3</sub>	0.0040	0.0041	14.7
iC <sub>4</sub>	0.0005	0.0005	2.2
C <sub>4</sub>	0.0003	0.0003	1.3
iC <sub>5</sub>	Trace	Trace	Trace
C <sub>5</sub>	Trace	Trace	Trace
C <sub>6</sub>	Trace	Trace	Trace
C <sub>7</sub>	0.0002	0.0002	1.2
C <sub>8</sub>	0.0006	0.0006	3.3
C <sub>9</sub>	Trace	Trace	Trace
C <sub>10+</sub>	0.0000	0.0000	0.0
Total	1.0000	1.0000	160.8

CALCULATED GROSS HEATING VALUE MJ/m <sup>3</sup> @ 15°C & 101.325 kPa (abs.)		CALCULATED VAPOR PRESSURE kPa (abs.) @ 40 °C	
32.90	33.50	9.1	
MOISTURE FREE	MOISTURE & ACID GAS FREE	PENTANES PLUS	
CALCULATED TOTAL SAMPLE PROPERTIES (AIR=1) @ 15°C & 101.325 kPa MOISTURE FREE AS SAMPLED			
0.804	kg/m <sup>3</sup>	0.657	19.0
DENSITY	RELATIVE DENSITY	RELATIVE MOLECULAR MASS	
CALCULATED PSEUDOCRITICAL PROPERTIES			
AS SAMPLED		ACID GAS FREE	
4461.4	kPa (abs.)	188.0	K
4407.2	kPa (abs.)	185.8	K
pPc	pTc	pPc	pTc
C <sub>7+</sub> PROPERTIES @ 15°C & 101.325 kPa		MOLE FRACTION	LOCATION
760.6	kg/m <sup>3</sup>	101.2	0.0000000
DENSITY	MOLECULAR WEIGHT	Field	Kitagawa
HYDROGEN SULPHIDE			

## REMARKS:

H2S was not detected in the field by Kitagawa.  
Sample and Duplicate were air contaminated.

NOTE: THE GROSS HEATING VALUE HAS BEEN CALCULATED IN ACCORDANCE TO  
AGA REPORT #5 AND ALL PROPERTIES HAVE BEEN CALCULATED UTILIZING  
GPA 2145 - 00 PHYSICAL CONSTANTS.



APACHE CANADA LIMITED  
300k-14-66-39 126-03-0  
Start Test Date: 2004/04/03  
Final Test Date: 2004/04/05

# Integrated Production Services

## Field Measurements

APACHE PARAMOUNT WEST NOGHA K-14  
Formation: MOUNT CLARK 'C'

Job Number: GP04-217

	Clock									Gas	Cum	Fld		Oil	Cum	H2O	Cum			
Date	Time	Tbg	Csg	WHT	Orifice	Static	Diff	Temp	Rate	Gas	Vol	BSW	Gain	Oil	Gain	H2O	pH	Salinity	API	
yyyy/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 <sup>3</sup> m <sup>3</sup> /	10 <sup>3</sup> m <sup>3</sup>	m <sup>3</sup>	%	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>		ppm	° API	
1	2004/04/03	19:00:00	NEW REPORT STARTED FOR MOUNT CLARK 'C' ZONE																	
2			HOLD SAFETY MEETING																	
3		19:15:00	RIG OUT WIRELINE, RIG IN TO SWAB																	
4			BLEED OFF TO TEST VESSEL																	
5			SWAB #1 TAG AT SURFACE PULL 582 m RETURNS ARE FRAC OIL CUT 3.0% ACID																	
6		19:30:00	0								1.380	3.0	1.339	1.339	0.041	0.041	1	12000	52.2	
7			SWAB #2 TAG 394 m PULL 943 m FRAC OIL CUT 3.0% ACID																	
8		19:50:00	0								1.540	3.0	1.494	2.832	0.046	0.088	1	12000		
9			SWAB #3 TAG 943 m PULL 1157 m FRAC OIL CUT 1.5% SEDIMENT																	
10		20:20:00	0								0.290	1.5	0.286	3.118	0.004	0.092				
11			SWAB #4 TAG 1030 m PULL 1320 m FRAC OIL CUT 2.0% SEDIMENT																	
12		20:45:00	0								0.370	2.0	0.363	3.481	0.007	0.099				
13			SWAB #5 TAG ? PULL 1320 m FRAC OIL CUT 12.0% SEDIMENT																	
14		21:00:00	0								0.080	12.0	0.070	3.551	0.010	0.109				
15			SWAB #6 TAG ? PULL 1320 m FRAC OIL CUT 50.0% ACID 3.0% SEDIMENT																	
16		21:20:00	0								0.230	53.0	0.108	3.659	0.122	0.231	1	10000	52.8	
17			SWAB #7 TAG ? PULL 1320 m																	
18		21:45:00	DRY SWAB																	
19			SWAB #8 TAG ? PULL 1320 m																	
20		22:15:00	DRY SWAB																	
21			SWAB #9 TAG ? PULL 1320 m																	
22		23:15:00	DRY SWAB																	
23	2004/04/04	00:15:00	SWAB #10 TAG ? PULL 1320 m																	
24		00:15:00	DRY SWAB																	
25		00:15:00	SHUT IN WELL, RECORD BUILD UPS																	
26		00:30:00	0																	
27		01:00:00	0																	
28		02:00:00	0																	
29		03:00:00	0																	
30		04:00:00	0																	
31		05:00:00	0			0.00	0	0.0	0.0	0.000	0.000	0.000	0.0	0.000	3.659	0.000	0.231			



APACHE CANADA LIMITED  
300k-14-66-39 126-03-0  
Start Test Date: 2004/04/03  
Final Test Date: 2004/04/05

# Integrated Production Services

## Field Measurements

APACHE PARAMOUNT WEST NOGHA K-14  
Formation: MOUNT CLARK 'C'

Job Number: GP04-217

	Clock									Gas	Cum	Fld		Oil	Cum	H2O	Cum			
	Date	Time	Tbg	Csg	WHT	Orifice	Static	Diff	Temp	Rate	Gas	Vol	BSW	Gain	Oil	Gain	H2O	pH	Salinity	API
	yyyy/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 <sup>3</sup> m <sup>3</sup> /	10 <sup>3</sup> m <sup>3</sup>	m <sup>3</sup>	%	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>		ppm	° API
32	2004/04/04		SWAB #11 TAG ? PULL 1320 m RETURNS ARE T.S.T.M. FRAC FLUID CUT TRACE ACID																	
33		06:00:00	0																	
34			SWAB #12 TAG ? PULL 1320 m RETURNS ARE T.S.T.M. FRAC FLUID CUT 40.0% ACID																	
35		06:15:00	0															1	12000	
36			SWAB #13 TAG ? PULL 1320 m RETURNS ARE T.S.T.M. FRAC FLUID CUT 40.0% ACID																	
37		06:35:00	0															1	12000	
38			RUN IN TO SWAB																	
39			SWAB # 1 TAG ? PULL 1320 DRY SWAB																	
40		07:40:00	0																	
41			RIG UP WIRE LINE TO SET COLLAR STOP																	
42			RUN IN TO SWAB																	
43			SWAB #2 TAG ? PULL 1320 m DRY SWAB																	
44		09:20:00	0																	
45			RIG IN WIRE LINE TO PULL COLLAR STOP AND RECORDERS																	
46			WIRE LINE OUT OF HOLE RIG OUT LUBRICATOR RIG IN DEAD WEIGHT RECORD PRESSURES																	
47		10:40:00	0																	
48		11:00:00	5																	
49		12:00:00	0																	
50			SCHLUMBERGER ON LOCATION TO PUMP OIL TO FORMATION SHUT IN RIG OUT DEAD WEIGHT																	
51			RIG OUT SCHLUMBERGER PREPARE TO FLOW BACK FRAC OIL																	
52		14:15:00	90			0.00	0	0.0	0.0	0.000	0.000	0.000	0.0	0.000	3.659	0.000	0.231			
53			OPEN TO P-TANK ON 12.7 MM CHOKE																	
54		14:22:00	18									0.230	0.0	0.230	3.889	0.000	0.231			
55			RIG UP TO SWAB																	
56			RUN IN TO SWAB																	
57			SWAB #3 TAG SURFACE PULL 400 m																	
58		14:40:00	0									1.030	0.0	1.030	4.919	0.000	0.231			
59			SWAB #4 TAG 400m PULL 855m																	
60		14:55:00	0									1.220	0.0	1.220	6.139	0.000	0.231			
61			SWAB #5 TAG 765m PULL 1320m																	
62		15:10:00	0									1.070	0.0	1.070	7.209	0.000	0.231			



APACHE CANADA LIMITED  
300k-14-66-39 126-03-0  
Start Test Date: 2004/04/03  
Final Test Date: 2004/04/05

# Integrated Production Services

## Field Measurements

APACHE PARAMOUNT WEST NOGHA K-14  
Formation: MOUNT CLARK 'C'

Job Number: GP04-217

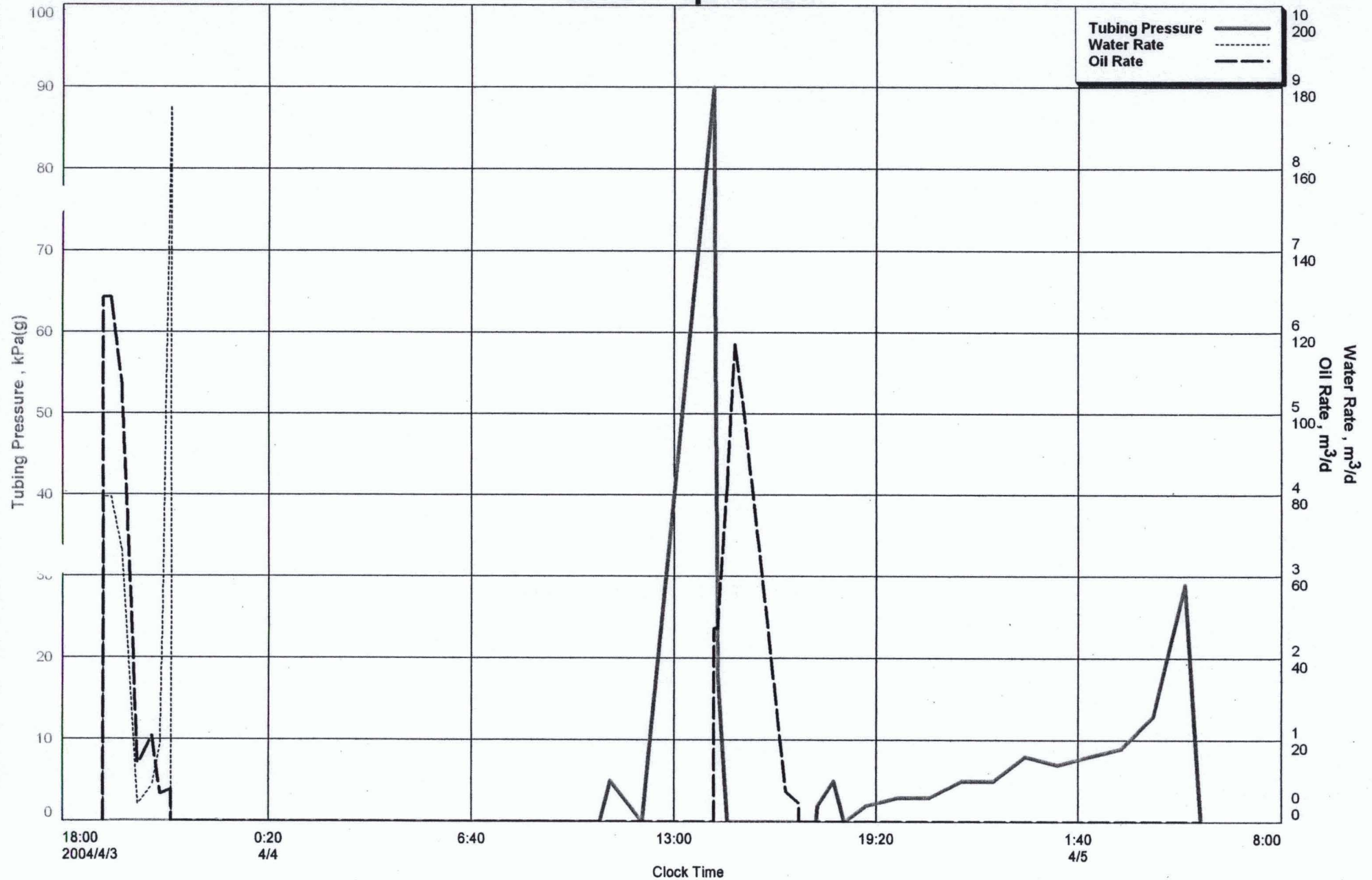
	Clock									Gas	Cum	Fld		Oil	Cum	H2O	Cum			
	Date	Time	Tbg	Csg	WHT	Orifice	Static	Diff	Temp	Rate	Gas	Vol	BSW	Gain	Oil	Gain	H2O	pH	Salinity	API
	yyyy/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 <sup>3</sup> m <sup>3</sup> /	10 <sup>3</sup> m <sup>3</sup>	m <sup>3</sup>	%	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>		ppm	° API
63	2004/04/04		SWAB #6 TAG 1070m PULL 1320m																	
64		15:30:00	DRY SWAB																	
65			SWAB #7 TAG 1200m PULL 1320m																	
66		16:30:00	0									0.410	0.0	0.410	7.619	0.000	0.231			
67			SWAB #8 TAG ? PULL 1320m																	
68		16:55:00	0									0.080	0.0	0.080	7.699	0.000	0.231			
69			SHUT IN @ CHOKE MANIFOLD TO RECORD PRESSURE BUILDUPS																	
70		17:00:00	-22			0.00	0	0.0	0.0	0.000	0.000	0.000	0.0	0.000	7.699	0.000	0.231			
71		17:30:00	2																	
72		18:00:00	5																	
73			RUN IN TO SWAB																	
74			SWAB #9 TAG ? PULL 1320m DRY SWAB																	
75		18:20:00	DRY SWAB																	
76		18:30:00	SHUT IN RIG OUT SWAB EQUIPMENT RECORD BUILD UP PRESSURES																	
77		19:00:00	2																	
78		20:00:00	3																	
79		21:00:00	3																	
80		22:00:00	5																	
81		23:00:00	5																	
82	2004/04/05	00:00:00	8																	
83		01:00:00	7																	
84		02:00:00	8																	
85		03:00:00	9																	
86		04:00:00	13																	
87		05:00:00	29																	
88			SAMPLES TAKEN FROM WELLHEAD CORE CONTAINERS (V0006983, V0001429)																	
89			WIRE LINE RIG UP TO RUN PLUG																	
90			END OF CLEAN UP/SWAB FOR MOUNT CLARK 'C ZONE																	
91			SECURE WELL AND RIG OUT TEST EQUIPMENT																	
92		05:30:00	0	0	0.0	0.00	0	0.0	0.0	0.000	0.000	0.000	0.0	0.000	7.699	0.000	0.231			



APACHE CANADA LIMITED  
 300\_K-14-66-39 126-03-0  
 Start Test Date: 2004/04/03  
 Final Test Date: 2004/04/05

APACHE PARAMOUNT WEST NOGHA K-14  
 Formation: MOUNT CLARK 'C'  
 Job Number: GP04-217

## Clean Up/Swab





<b>WELL NAME:</b>	ACL NOGHA 300-K-14			Licence No:	WID 2006	<b>PAGE No:</b>	1	of	1
<b>LOCATION:</b>	300-K-14-66°-39'-126°-03'-0					<b>AFE No.</b>	NT-04-0335		
<b>OBJECTIVE:</b>	Complete lower & upper Mount Clark for gas production					<b>AFE Amount:</b>	\$1,076,000.00		
						<b>Rig In Date:</b>	2004-03-29		
<b>Formation:</b>	<b>Perforations (mMD):</b>	<b>Formation:</b>	<b>Perforations (m):</b>			<b>Rig Out Date:</b>	yyyy-mm-dd		
	to		to			<b>Rig Contractor / No.:</b>	Nabors # 203		
	to		to			<b>Csg. Dia (mm):</b>	177.80	<b>Set At (m):</b>	
	to		to			<b>Liner (mm):</b>	N/A	<b>Top At (m):</b>	N/A
	to		to			<b>Liner Bot. (mMD):</b>	N/A	<b>PBTD (mMD):</b>	
	to		to			<b>Tbg. O.D. (mm):</b>		<b>Landed (m):</b>	
	to		to			<b>Anchor (mm):</b>	N/A	<b>Set At (m):</b>	N/A

BOP Press. Test (Yes / No):	Satisfactory (Yes / No):	Function Test (Yes / No):	Safety Meeting:	7:00	2004-03-29
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24 Hr. Ops. Summary:	Load, move and spot equipment. Rig up as per regulations. Remove wellhead & install BOP's.
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Tomorrow's Plan:	Test BOP's, bond log, run in bit scraper & 73mm tbq, circulate over to oil & pull out. Perforate well & run final string.
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<b>EUB NOTIFICATIONS:</b>	Rig Move		Flaring		
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<b>OPERATION SUMMARY</b>			<b>COST SUMMARY</b>
SCV (KPa)	Closed	SICP (KPa)	
		SITP (KPa)	

[illegible]

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Packer set at (m):	0.00
Gas: E <sup>3</sup> m <sup>3</sup> /d			Amount Used (m <sup>3</sup> ):	Casing annulus volume (m <sup>3</sup> ):	0.00
Oil / Condensate: m <sup>3</sup> /d			Recovered (m <sup>3</sup> ):	Tubing volume (m <sup>3</sup> ):	0.00
Water: m <sup>3</sup> /d			Cum. Recovered (m <sup>3</sup> ):	Bottom to perf. Volume (m <sup>3</sup> ):	0.00
Swab / Flow Time: Hrs			Left To Recover (m <sup>3</sup> ):	<b>TOTAL WELL VOLUME (m<sup>3</sup>):</b>	<b>0.00</b>

Man Down Drill				BOP TESTS				BOP Drill			
Service Rig Hours.		Personnel on Location		Component	Low	High	Time	Weather Conditions: Clear, -10 oC,			
Daily:	24.0	Rig:	10	Annular				Road Conditions: icy			
Cumulative:	24.0	Service:	14	Pipe				Engineer:	Bruce Beveridge	Phone No:	403-261-1385
Downtime:	0.0	ACL:	2	Blind	1.4	14	10 min	Reported To:	Walter Stock	Phone No:	403-531-8146
Cum. Downtime:	0.0	Total:	26	Valves				Reported By:	Mike Periard	Phone No:	926-0118



<b>WELL NAME:</b>	ACL NOGHA 300-K-14			Licence No:	WID 2006	<b>PAGE No:</b>	1	of	1
<b>LOCATION:</b>	300-K-14-66°-39'-126°-03'-0					<b>AFE No.</b>	NT-04-0335		
<b>OBJECTIVE:</b>	Complete lower & upper Mount Clark for gas production					<b>AFE Amount:</b>	\$1,076,000.00		
						<b>Rig In Date:</b>	2004-03-29		
<b>Formation:</b>	<b>Perforations (mMD):</b>	<b>Formation:</b>	<b>Perforations (m):</b>			<b>Rig Out Date:</b>	yyyy-mm-dd		
	to		to			<b>Rig Contractor / No.:</b>	Nabors # 203		
	to		to			<b>Csg. Dia (mm):</b>	177.80	<b>Set At (m):</b>	1,404.00
	to		to			<b>Liner (mm):</b>	N/A	<b>Top At (m):</b>	N/A
	to		to			<b>Liner Bot. (mMD):</b>	N/A	<b>PBTD (mMD):</b>	1,386.80
	to		to			<b>Tbg. O.D. (mm):</b>	73.00	<b>Landed (m):</b>	
	to		to			<b>Anchor (mm):</b>	N/A	<b>Set At (m):</b>	N/A

BOP Press. Test (Yes / No):	Satisfactory (Yes / No):	Function Test (Yes / No):	Safety Meeting:	7:00	2004-03-30
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24 Hr. Ops. Summary:	Test BOP's, run in bit scraper & 73mm tbg, circulate over to oil & test csg 7 mpa/OK. Rig won't power up.
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Tomorrow's Plan:	Fix problem with rig, pull tbq. Log & perforate.
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<b>EUB NOTIFICATIONS:</b>	Rig Move		Flaring		
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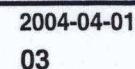
<b>OPERATION SUMMARY</b>			<b>COST SUMMARY</b>
SCV (KPa)	Open	SICP (KPa)	SITP (KPa)

[illegible]

Reservoir Fluid Summary		Daily	Cumulative	Load Fluid Type: <b>OIL</b>	Packer set at (m):	0.00
Gas:	E <sup>3</sup> m <sup>3</sup> /d			Amount Used (m <sup>3</sup> ): 25.00	Casing annulus volume (m <sup>3</sup> ):	20.90
Oil / Condensate:	m <sup>3</sup> /d			Recovered (m <sup>3</sup> ):	Tubing volume (m <sup>3</sup> ):	4.10
Water:	m <sup>3</sup> /d			Cum. Recovered (m <sup>3</sup> ):	Bottom to perf. Volume (m <sup>3</sup> ):	0.00
Swab / Flow Time:	Hrs			Left To Recover (m <sup>3</sup> ): 25.00	<b>TOTAL WELL VOLUME (m<sup>3</sup>):</b>	<b>25.00</b>

Man Down Drill			BOP TESTS				BOP Drill			
Service Rig Hours.		Personnel on Location	Component	Low	High	Time	Weather Conditions: Snow,Low-20 oC, High -10 oC, wind 25 km/h			
Daily:	24.0	Rig:	10	Annular	1.4	7	10 min	Road Conditions: icy		
Cumulative:	48.0	Service:	10	Pipe	1.4	14	10 min	Engineer:	Bruce Beveridge	Phone No: 403-261-1385
Downtime:	0.0	ACL:	2	Blind	1.4	14	10 min	Reported To:	Walter Stock	Phone No: 403-531-8146
Cum. Downtime:	0.0	Total:	22	Valves	1.4	14	10 min	Reported By:	Mike Perlard	Phone No: 926-0118





Man Down Drill		BOP TESTS				BOP Drill			
Service Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: Snow,Low-22 oC, High -20 oC, wind 25 km/h			
Daily: 24.0	Rig: 10	Annular				Road Conditions: icy			
Cumulative: 72.0	Service: 10	Pipe				Engineer:	Bruce Beveridge	Phone No:	403-261-1385
Downtime: 0.0	ACL: 2	Blind				Reported To:	Walter Stock	Phone No:	403-531-8146
Cum. Downtime: 0.0	Total: 22	Valves				Reported By:	Mike Periard	Phone No:	926-0118





**APACHE CANADA LTD.**  
**DAILY OPERATIONS WELL ACTIVITY**

**DATE:** 2004-04-02  
**REPORT No.:** 04

<b>WELL NAME:</b>	ACL NOGHA 300-K-14		Licence No:	WID 2006	<b>PAGE No:</b>	1	of	4
<b>LOCATION:</b>	300-K-14-66°-39'-126°-03'-0		<b>AFE No.</b> NT-04-0335					
<b>OBJECTIVE:</b>	Complete lower & upper Mount Clark for gas production		<b>AFE Amount:</b> \$1,076,000.00					
<b>Formation:</b>		<b>Perforations (mMD):</b>	<b>Formation:</b>	<b>Perforations (m):</b>	<b>Rig In Date:</b> 2004-03-29			
Mount Clark "A"	1,360.8	to 1,363.2		to	<b>Rig Out Date:</b> yyyy-mm-dd			
Mount Clark "B"	1,369.7	to 1,372.5		to	<b>Rig Contractor / No.:</b> Nabors # 203			
Mount Clark "C"	1,375.0	to 1,379.0		to	<b>Csg. Dia (mm):</b>	177.80	<b>Set At (m):</b>	1,404.00
		to		to	<b>Liner (mm):</b>	N/A	<b>Top At (m):</b>	N/A
		to		to	<b>Liner Bot. (mMD):</b>	N/A	<b>PBTD (mMD):</b>	1,386.80
		to		to	<b>Tbg. O.D. (mm):</b>	73.00	<b>Landed (m):</b>	1,369.42
		to		to	<b>Anchor (mm):</b>	N/A	<b>Set At (m):</b>	N/A

**BOP Press. Test (Yes / No):** YES **Satisfactory (Yes / No):** YES **Function Test (Yes / No):** YES **Safety Meeting:** 7:00 2004-04-01

**24 Hr. Ops. Summary:** Finish swabbing, space out. Strip off BOP's, install wellhead & test. Swab well down, bullhead acid. Swab well down, set recorders on bottom at 2014 hrs. Pull dry swabs, one hour build-ups.

**Tomorrow's Plan:** One hour build-ups.

**EUB NOTIFICATIONS:** Rig Move Flaring

**OPERATION SUMMARY** SCVP (KPa) SICP (KPa) SITP (KPa)

**Operations for 2004-04-01**

**07:00 Hrs:** Safety/procedure meeting. DWA. Checked ESD's. Finish swabbing back oil. Rigged out swab equip. Spaced out. Landed string in 5000 daNs compression. Press. tested seals down tbg to 7000 kpa. R/D floor & BOPs. N/U wellhead.

**10:30 Hrs:** R/U S-line. Held safety meeting. Pulled prong & plug from R nipple.

**12:00 Hrs:** R/U swab equip. Swab tbg. down. R/D swab gear.

**14:00 Hrs:** R/U Schlumberger. Safety/procedure meeting.

Acidized the Bottom 2 intervals as follows:

Spaced 2.4 m3 15% HCL acid followed by 0.4 m3 frac oil to catch press.

Initial break @ 29.5 mpa. Feed rate 0.09 m3/min @ 24.0 mpa. No change in press. after acid hit formation. Final feed rate of 0.09 m3/min @ 24.0 mpa. Over displaced acid with 0.50 m3 frac oil. ISIP = 23.9 mpa. 5 min bled down to 22.0 mpa. Shut in well & R/D Schlumberger.

**16:35 Hrs:** SITP = 13 kpa. R/U swab equip. start swabbing.

**19:00 Hrs:** Crew change. Safety/procedure meeting. Turned over to night shift. R/D swab equip. R/U S-Line. RIH with dart & set in "RN" nipple, RIH recorders. Recorders set on bottom at 2014 hrs.

**20:30 Hrs:** Rig to swab, recovered 0.04m3 frac oil, try another swab, pulled dry. Went to hour for two hours and then one hour build-ups. Recovered 4.01m3 oil, API 53.7. **Refer to Swab Report.**

**07:00 Hrs:** Turn well over to day crew.

**COST SUMMARY**

Contractor	Invoice #	Code	Amount
Supervision	9999	70021	\$3,000.00
Nabors # 203	9999	70019	\$14,110.00
IPS	9999	70035	\$3,215.00
IPS	9999	70049	\$12,561.00
Mackenzie Valley Logistics	9999	70064	\$4,000.00
Total, Sahtu, tanks	9999	71051	\$200.00
SRP	9999	70031	\$1,000.00
Northridge	9999	70031	\$200.00
Northern Services	9999	70031	\$340.00
EMS Sahtu	9999	70017	\$900.00
Eveready Trucking	9999	70074	\$1,400.00
Hodgson	9999	70074	\$1,400.00
Northridge	9999	70074	\$3,500.00
Halliburton	9999	71032	\$37,482.00
Hodgson	9999	70064	\$720.00
Schlumberger	9999	70034	\$19,685.00
IPS	9999	70049	\$473.00
<b>Daily Cost:</b>	<b>\$104,186.00</b>		
<b>Previous Cost:</b>	<b>\$402,120.00</b>		
<b>Cum. Cost:</b>	<b>\$506,306.00</b>		

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	OIL	Acid	Packer set at (m):	0.00
Gas: E <sup>3</sup> m <sup>3</sup> /d			Amount Used (m <sup>3</sup> ):	5.80	2.40	Casing annulus volume (m <sup>3</sup> ):	20.90
Oil / Condensate: m <sup>3</sup> /d			Recovered (m <sup>3</sup> ):	4.01		Tubing volume (m <sup>3</sup> ):	4.10
Water: m <sup>3</sup> /d			Cum. Recovered (m <sup>3</sup> ):	4.01		Bottom to perf. Volume (m <sup>3</sup> ):	0.00
Swab / Flow Time: Hrs			Left To Recover (m <sup>3</sup> ):	1.79	2.40	<b>TOTAL WELL VOLUME (m<sup>3</sup>):</b>	<b>25.00</b>

Man Down Drill		BOP TESTS				BOP Drill	
Service Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: overcast ,Low-22 oC, High -0 oC, wind 10 km/h	
24.0	Rig: 10	Annular				Road Conditions: icy	
Cumulative: 96.0	Service: 10	Pipe				Engineer: Bruce Beveridge	Phone No: 403-261-1385
Downtime: 0.0	ACL: 2	Blind				Reported To: Walter Stock	Phone No: 403-531-8146
Cum. Downtime: 0.0	Total: 22	Valves				Reported By: Mike Periard	Phone No: 926-0118











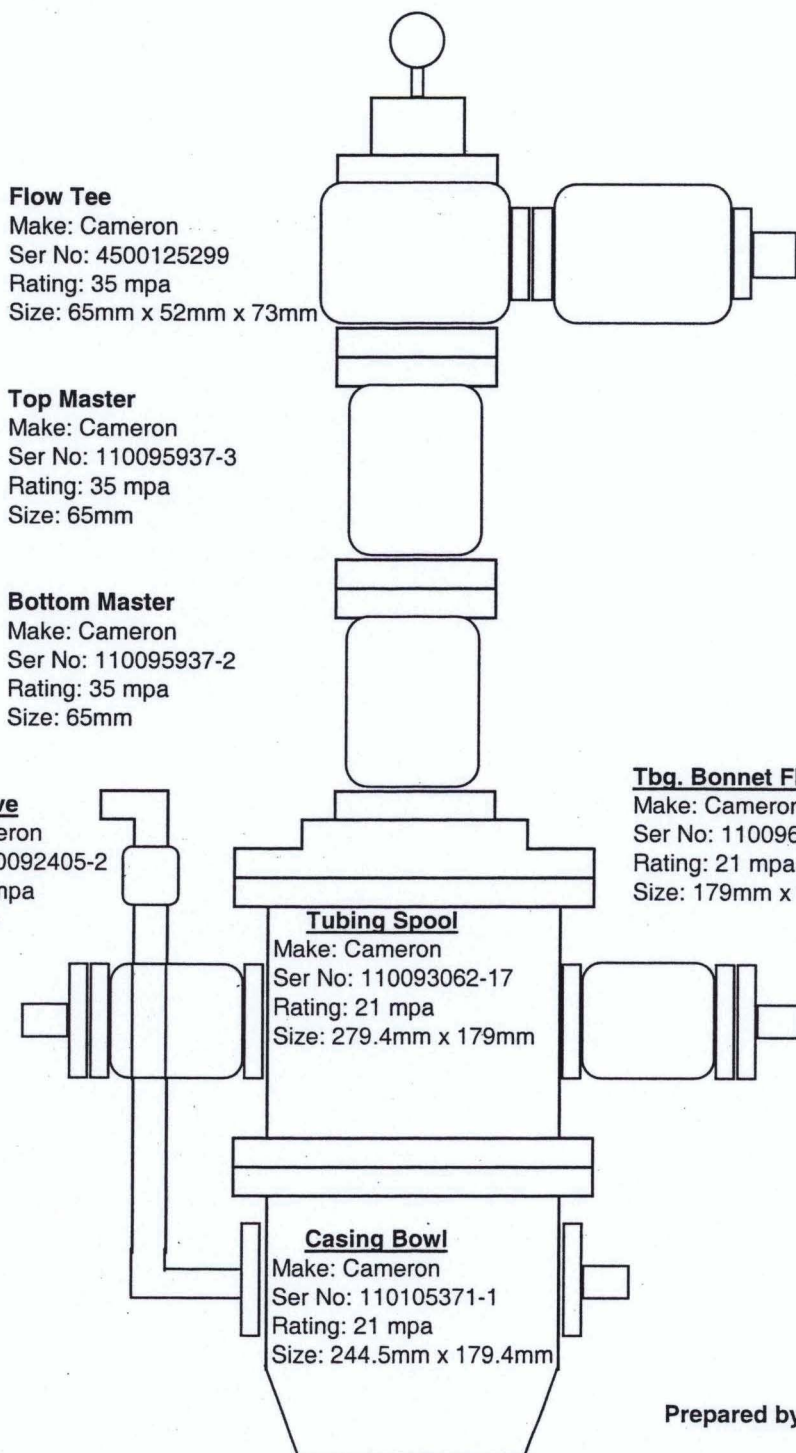
WELL:

ACL NOGHA 300-K-14

DATE: 2004-04-01

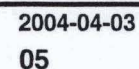
Report No. 4

Page: 4 OF 4



Prepared by: Mike Periard/Barry Beitz





WELL NAME:		ACL NOGHA 300-K-14		Licence No: WID 2006		PAGE No:		1 of 3	
LOCATION:		300-K-14-66°-39'-126°-03'-0				AFE No.		NT-04-0335	
OBJECTIVE:		Complete lower & upper Mount Clark for gas production				AFE Amount:		\$1,076,000.00	
						Rig In Date:		2004-03-29	
Formation:		Perforations (mMD):		Formation:		Perforations (m):		Rig Out Date:	
Mount Clark "A"		1,360.8 to 1,363.2				to		yyyy-mm-dd	
Mount Clark "B"		1,369.7 to 1,372.5				to		Rig Contractor / No.:	
Mount Clark "C"		1,375.0 to 1,379.0				to		Nabors # 203	
		to				to		Csg. Dia (mm): 177.80 Set At (m): 1,404.00	
		to				to		Liner (mm): N/A Top At (m): N/A	
		to				to		Liner Bot. (mMD): N/A PBTD (mMD): 1,386.80	
		to				to		Tbg. O.D. (mm): 73.00 Landed (m): 1,369.42	
		to				to		Anchor (mm): N/A Set At (m): N/A	
BOP Press. Test (Yes / No): YES		Satisfactory (Yes / No): YES		Function Test (Yes / No): YES		Safety Meeting:		7:00 2004-04-02	
24 Hr. Ops. Summary:		One hour build-ups. Pull two swabs, build-ups while waiting for slickline. Set plug & test. Open sleeve & pump 2m3 oil into Mount Clark "A". Set recorders and swab tbg dry, two- one hour swabs.							
Tomorrow's Plan:		Monitor tbg pressure.							
EUB NOTIFICATIONS:		Rig Move		Flaring					
OPERATION SUMMARY		SCV (KPa)		SICP (KPa)		SITP (KPa)		COST SUMMARY	
Operations for 2004-04-02								Contractor	
07:00 Hrs: Safety/procedure meeting. DWA. Checked ESD's.								Invoice #	
One hour build-ups.								Code	
08:00 Hrs: SITP = 386. Bled off well. Burnable gas to surface.								Amount	
Pulled 2 swabs. Recovered 0.16m3 fracoil total = 4.17 m3. Sand in sample.								Supervision	
Shut in for build ups while waiting on wireline to run plug.								9999	
Press built from 4 kpa to 631 kpa. Gas bombs V0003386 & V0002433. Refer to Swab Report # 1								70021	
19:00 Hrs: Crew change. Safety/procedure meeting. Turned over to night shift.								\$3,000.00	
20:30 Hrs: R/U slickline, run in and set plug in "R" profile at 1365.36 mKB, fluid level at 1140m. Schlumberger pressure test line, fill tbg 3.3m3 oil and test plug to 30 mpa/OK.								Nabors # 203	
10:15 Hrs: Slickline run in and open sleeve(8 hits).								9999	
11:00 Hrs: Pressure test treating line 30 mpa. Pump 100 lts to catch fluid. Pump at 0.08m3/min @ 28 mpa, after 300 lts pumped pressure starts to drop gradually. Final pressure 26 mpa @ 0.07m3/min. Pressure after 5 mins- 19 mpa.								70019	
24:00 Hrs: R/D pump line, check tbg pressure- 16.2 mpa. Open to testers, well dead. R/U slickline(SITP- 2784 kpa) and run recorders, couldn't get past "X" at 1349.50 mKB. Try different running tool, set recorders in "X" profile @ 1357.77 mKB at 0155 hrs.								\$14,110.00	
02:00 Hrs: R/U to swab, fluid at surface. Pull 5 swabs, recover 3.84m3 oil, pulled two dry swabs, wait for one hour swab. Pull two- one hour swabs, dry. Shut in well and monitor build-ups. Refer to Swab Report # 2								IPS	
07:00 Hrs: Turn well over to day crew.								9999	
								70049	
								\$3,215.00	
								IPS	
								9999	
								70049	
								\$4,000.00	
								Mackenzie Valley Logistics	
								9999	
								70064	
								\$200.00	
								Total, Sahtu, tanks	
								9999	
								71051	
								\$200.00	
								SRP	
								9999	
								70031	
								\$1,000.00	
								Northridge	
								9999	
								70031	
								\$340.00	
								Northern Services	
								9999	
								70031	
								\$900.00	
								EMS Sahtu	
								9999	
								70017	
								\$1,400.00	
								Eveready Trucking	
								9999	
								70074	
								\$1,400.00	
								Hodgson	
								9999	
								70074	
								\$1,400.00	
								Northridge	
								9999	
								70074	
								\$3,500.00	
								Schlumberger	
								9999	
								70034	
								\$27,640.00	
								IPS	
								9999	
								70049	
								\$5,878.00	

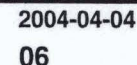


Load Fluid to Recover:	1.79	m3 Oil	Load Recovered:	0.16	m3 Oil	Load Left to Recover:	1.63	m3 Oil
	2.40	m3 Water			m3 Water		2.40	m3 Water
Oil Prod. Today		m3	m3 Cumm.		Water Prod. Today		m3	m3 Cumm.









Man Down Drill		BOP TESTS				BOP Drill		
Service Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: clear ,Low-12 oC, High -3 oC, wind 5 km/h		
Daily: 24.0	Rig: 10	Annular				Road Conditions: icy		
Cumulative: 148.0	Service: 10	Pipe				Engineer: Bruce Beveridge Phone No: 403-261-1385		
Downtime: 0.0	ACL: 2	Blind				Reported To: Walter Stock Phone No: 403-531-8146		
Cum. Downtime: 0.0	Total: 22	Valves				Reported By: Mike Periard Phone No: 926-0118		





# APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-04  
Page No: 2 of 3

Well Name & Location: ACL NOGHA K-14  
Zone: Mount Clark "A"  
Perfs: 1360.8-1363.2 mKB

Test Date: 2004-04-03 Report No. 6  
Page: 1  
Supervisor: M. Periard / B. Beitz

Swab No.	Time Out	Fluid Level mkb	Swab Depth mkb	Total Fluid		Water Cut %	Solids Cut %	Water Volume		Oil Volume		Solids Volume		Remarks Salinity, PH, H2S etc
				This Run m3	Cum m3			This Run m3	Cum. m3	This Run m3	Cum. m3	This Run m3	Cum. m3	
	7:00													Shut well in monitor pressure
	7:00													tbg- 5 kpa
	8:00													tbg - 20 kpa
	8:40													Pulled recorders BHT = 1844 kpa. BHT- 24.
	9:38													Continue build ups
	9:38													tbg - 34 kpa
	10:00													tbg - 49 kpa
	11:00													tbg - 81 kpa
	12:00													tbg - 105 kpa
	13:00													tbg - 141 kpa
	14:00													tbg - 198 kpa
	15:00													tbg - 216 kpa
	15:10													tbg - 222 kpa
	15:10													Bled off well. Burnable gas to surface
1	19:30	Surf	582	1.38	1.38					1.38	1.38			Sal- 12%, PH-1, API- 52.2
2	19:50	394	943	1.54	2.92	3		0.05	0.05	1.49	2.87			Sal- 12%, PH-1
3	20:20	943	1157	0.29	3.21	3		0.01	0.05	0.28	3.16			
4	20:45	1030	1320	0.37	3.58	1.5		0.01	0.06	0.36	3.52			
5	21:00		1320	0.08	3.66	2		0.00	0.06	0.08	3.60			
6	21:20	1250	1320	0.23	3.89	50	3	0.11	0.17	0.12	3.71	0.01	0.01	Sal- 10%, PH-1, API- 52.8
7	21:45		1320	0.00	3.89				0.17	0.00	3.71		0.01	Dry swab
8	22:15		1320	0.00	3.89				0.17	0.00	3.71		0.01	Dry swab
9	23:15		1320		3.89				0.17		3.71		0.01	Dry swab
10	0:15		1320		3.89				0.17		3.71		0.01	Dry swab
	1:00				3.89				0.17		3.71		0.01	Tbg- 0 kpa
	2:00				3.89				0.17		3.71		0.01	Tbg- 0 kpa
	3:00				3.89				0.17		3.71		0.01	Tbg- 0 kpa
	4:00				3.89				0.17		3.71		0.01	Tbg- 0 kpa
					3.89				0.17		3.71		0.01	Carried forward to next page

Load Fluid to Recover:	9.96	m3 Oil	Load Recovered:	m3 Oil	Load Left to Recover:	9.96	m3 Oil
		m3 Water		m3 Water			m3 Water
Oil Prod. Today		m3	m3 Cum.	Water Prod. Today		m3	m3 Cum.







WELL NAME: ACL NOGHA 300-K-14				Licence No: WID 2006				PAGE No: 1 of 2							
LOCATION: 300-K-14-66°-39'-126°-03'-0								AFE No. NT-04-0335							
OBJECTIVE:				Complete lower & upper Mount Clark for gas production				AFE Amount: \$1,076,000.00							
								Rig In Date: 2004-03-29							
Formation:		Perforations (mMD):		Formation:		Perforations (m):		Rig Out Date: yyyy-mm-dd							
Mount Clark "A"		1,360.8 to 1,363.2				to		Rig Contractor / No.: Nabors # 203							
Mount Clark "B"		1,369.7 to 1,372.5				to		Csg. Dia (mm): 177.80 Set At (m): 1,404.00							
mount Clark "C"		1,375.0 to 1,379.0				to		Liner (mm): N/A Top At (m): N/A							
		to				to		Liner Bot. (mMD): N/A PBTD (mMD): 1,386.8							
		to				to		Tbg. O.D. (mm): 73.00 Landed (m): 1,369.42							
		to				to		Anchor (mm): N/A Set At (m): N/A							
BOP Press. Test (Yes / No): YES Satisfactory (Yes / No): YES Function Test (Yes / No): YES Safety Meeting: 7:00 2004-04-04															
24 Hr. Ops. Summary:		Wait one hour to pull swab, squeezed fracoil, swabbed well dry, shut in for build ups. At 0500 hrs tbg- 29 kpa, take two gas samples.													
		Run in recorders.													
Tomorrow's Plan:		Run in and set plug, bleed off tbg & fill with diesel. Rig out equipment.													
EUB NOTIFICATIONS:		Rig Move				Flaring									
OPERATION SUMMARY		SCV (KPa)		SICP (KPa)		SITP (KPa)		COST SUMMARY							
<p><b>Operations for 2004-04-04</b></p> <p><b>07:00 Hrs:</b> Safety/procedure meeting. DWA. Checked ESD's. Wait one hour to pull swab. Pulled dry swab. R/U S-line. RIH &amp; set collar stop @ 1339 mkb. R/D S-line. RIH with swab &amp; tagged collar stop for depth control. Sandline tally good. Pulled swab. Dry swab. R/D swab equip. R/U S-line. Pulled collar stop &amp; recorders. BHP = 1835 kpa. BHT = 24.47 oC. Fluid level 1160 m.</p> <p><b>11:00 Hrs:</b> Waited on Schlumberger.</p> <p><b>13:00 Hrs:</b> R/U Schlumberger. Safety/procedure meeting. PT line 35 mpa. Squeezed 2.0m3 fracoil into formation. Initial beak 22.4 mpa. Feed rate 0.10 m3/min @ 19.8 mpa.. 5 min bled down to 18.9 mpa. R/D Schlumberger.</p> <p><b>14:00 Hrs:</b> R/U swab equip. Pulled 7 swabs. Recovered 4.04 m3. Dry swab.</p> <p><b>18:20 Hrs:</b> Shut in for build ups untill A.M.</p> <p><b>19:00 Hrs:</b> Crew change. Safety/procedure meeting. Turned over to night shift. Monitor tbg pressure until 0500 hrs, tbg- 29 kpa. Take two gas samples # V0006983 &amp; # V0001429. Refer to Swab Report.</p> <p><b>05:30 Hrs:</b> Slickline run in and set recorders at 1357.77 mKB, on bottom at 0640 hrs;</p> <p><b>07:00 Hrs:</b> Turn well over to day crew.</p>								Contractor		Invoice #		Code		Amount	
								Supervision		9999		70021		\$3,000.00	
								Nabors # 203		9999		70019		\$14,300.00	
								IPS		9999		70035		\$3,215.00	
								IPS		9999		70049		\$6,050.00	
								Mackenzie Valley Logistics		9999		70064			
								Total, Sahtu, tanks		9999		71051		\$200.00	
								SRP		9999		70031		\$1,000.00	
								Northridge		9999		70031		\$200.00	
								Northern Services		9999		70031		\$340.00	
								EMS Sahtu		9999		70017		\$900.00	
								Eveready Trucking		9999		70074		\$1,400.00	
								Hodgson		9999		70074		\$1,400.00	
								Northridge		9999		70074		\$3,500.00	
								Schlumberger		9999		70034		\$13,070.00	
								Communications		9999		70008		\$6,000.00	
Daily Cost:						\$54,575.00									
Previous Cost:						\$634,700.00									
Cum. Cost:						\$689,275.00									
Reservoir Fluid Summary		Daily		Cumulative		Load Fluid Type: Mt Clark B&C		Mt Clark A		Packer set at (m): 1353.62 1365.84					
Gas: E³ m³/d						Amount Used (m³): 8.20 19.80				Casing annulus volume (m³): 20.90					
Oil / Condensate: m³/d						Recovered (m³): 0.00 4.04				Tubing volume (m³): 4.10					
Water: m³/d						Cum. Recovered (m³): 4.17 11.76				Bottom to perf. Volume (m³): 0.00					
Swab / Flow Time: Hrs						Left To Recover (m³): 4.03 8.04				TOTAL WELL VOLUME (m³): 25.00					
Man Down Drill				BOP TESTS				BOP Drill							
Service Rig Hours.		Personnel on Location		Component		Low High Time		Weather Conditions: clear ,Low-12 oC, High -3 oC, wind 5 km/h							
24.0		Rig: 10		Annular				Road Conditions: icy							
Cumulative: 172.0		Service: 10		Pipe				Engineer: Bruce Beveridge Phone No: 403-261-1385							
Downtime: 0.0		ACL: 2		Blind				Reported To: Walter Stock Phone No: 403-531-8146							
Cum. Downtime: 0.0		Total: 22		Valves				Reported By: Mike Periard Phone No: 926-0118							





**APACHE CANADA LTD.**  
**SWAB REPORT**

Date: 2004-04-05

Page No: 2 of 2

Well Name & Location: ACL NOGHA K-14

Test Date: 2004-04-04 Report No. 7

Zone: Mount Clark "A"

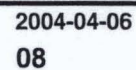
Page: 1

Perfs: 1360.8-1363.2 mKB

Supervisor: M. Periard / B. Beitz

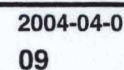
Swab No.	Time Out	Fluid Level mkb	Swab Depth mkb	Total Fluid		Water Cut %	Solids Cut %	Water Volume		Oil Volume		Solids Volume		Remarks Salinity, PH, H2S etc
				This Run m3	Cum m3			This Run m3	Cum. m3	This Run m3	Cum. m3	This Run m3	Cum. m3	
					3.89				0.17		3.71		0.01	Fluid carried forward
	7:00				3.89				0.17		3.71		0.01	Wait one hour to pull swab
1	7:40		1320		3.89				0.17		3.71		0.01	Dry swab
	7:55				3.89				0.17		3.71		0.01	Wireline set collar stop
2	9:00		1340		3.89				0.17		3.71		0.01	Tagged collar stop Dry swab
	9:30				3.89				0.17		3.71		0.01	Pulled collar stop & recorders
	10:40				3.89				0.17		3.71		0.01	Build ups
	11:00				3.89				0.17		3.71		0.01	tbg - 5 kpa
	12:40				3.89				0.17		3.71		0.01	Frac oil squeeze, used 6.0m3 oil
	14:10				3.89				0.17		3.71		0.01	Rigged out pumper
	14:20			0.23	4.12				0.17	0.23	3.94		0.01	tbg - 90 kpa open to vessel
3	14:40	surf	400	1.03	5.15				0.17	1.03	4.97		0.01	
4	14:55	400	855	1.22	6.37				0.17	1.22	6.19		0.01	
5	15:10	765	1320	1.07	7.44				0.17	1.07	7.26		0.01	
6	15:30	1070	1320		7.44				0.17		7.26		0.01	Dry swab
7	16:30	1200	1320	0.41	7.85				0.17	0.41	7.67		0.01	
8	16:55		1320	0.08	7.93				0.17	0.08	7.75		0.01	
9	18:20		1320		7.93				0.17		7.75		0.01	Dry swab, shut in for build-ups
	19:00				7.93				0.17		7.75		0.01	Tbg- 2 kpa
	20:00				7.93				0.17		7.75		0.01	Tbg- 3 kpa
	21:00				7.93				0.17		7.75		0.01	Tbg- 3 kpa
	22:00				7.93				0.17		7.75		0.01	Tbg- 5 kpa
	23:00				7.93				0.17		7.75		0.01	Tbg- 5 kpa
	0:00				7.93				0.17		7.75		0.01	Tbg- 8 kpa
	1:00				7.93				0.17		7.75		0.01	Tbg- 7 kpa
	2:00				7.93				0.17		7.75		0.01	Tbg- 8 kpa
	3:00				7.93				0.17		7.75		0.01	Tbg- 9 kpa
	4:00				7.93				0.17		7.75		0.01	Tbg- 13 kpa
	5:00				7.93				0.17		7.75		0.01	Tbg- 29 kpa, take two gas samples
					7.93				0.17		7.75		0.01	# V0006983 & # V0001429
Load Fluid to Recover:				12.08	m3 Oil	Load Recovered:		4.04	m3 Oil	Load Left to Recover:		8.04	m3 Oil	
					m3 Water				m3 Water				m3 Water	
Oil Prod. Today					m3	m3 Cumm.			Water Prod. Today	m3			m3 Cumm.	





WELL NAME:		ACL NOGHA 300-K-14		Licence No: WID 2006		PAGE No:		1 of 1	
LOCATION:		300-K-14-66°-39'-126°-03'-0				AFE No.		NT-04-0335	
OBJECTIVE:		Complete lower & upper Mount Clark for gas production				AFE Amount:		\$1,076,000.00	
Formation:		Perforations (mMD):		Formation:		Perforations (m):		Rig In Date:	
Mount Clark "A"		1,360.8 to 1,363.2				to		2004-03-29	
Mount Clark "B"		1,369.7 to 1,372.5				to		Rig Out Date:	
Mount Clark "C"		1,375.0 to 1,379.0				to		yyyy-mm-dd	
		to				to		Rig Contractor / No.:	
		to				to		Nabors # 203	
		to				to		Csg. Dia (mm): 177.80 Set At (m): 1,404.00	
		to				to		Liner (mm): N/A Top At (m): N/A	
		to				to		Liner Bot. (mMD): N/A PBTD (mMD): 1,386.80	
		to				to		Tbg. O.D. (mm): 73.00 Landed (m): 1,369.42	
		to				to		Anchor (mm): N/A Set At (m): N/A	
BOP Press. Test (Yes / No): YES		Satisfactory (Yes / No): YES		Function Test (Yes / No): YES		Safety Meeting:		7:00 2004-04-05	
24 Hr. Ops. Summary:		Run in and set plug, bleed off tbg & fill with diesel. Rig out equipment.							
Tomorrow's Plan:									
EUB NOTIFICATIONS:		Rig Move		Flaring					
OPERATION SUMMARY		SCV (KPa)		SICP (KPa)		SITP (KPa)		COST SUMMARY	
Operations for 2004-04-05								Contractor	
07:00 Hrs: Safety/procedure meeting. DWA. Checked ESD's.								Invoice #	
Run in and set plug at 1352.95 mKB. Filled tbg. With diesel. R/D wireline.								Code	
09:00 Hrs: Finished rigging out rig & equip.								Amount	
Cleaned wellhead & lease.								Supervision	
Moved rig & equip to Norman Wells.								9999	
								70021	
								\$3,000.00	
								Nabors # 203	
								9999	
								70019	
								\$14,300.00	
								IPS	
								9999	
								70035	
								\$3,215.00	
								IPS	
								9999	
								70049	
								\$27,610.00	
								Mackenzie Valley Logistics	
								9999	
								70064	
								Total, Sahtu, tanks	
								9999	
								71051	
								\$200.00	
								SRP	
								9999	
								70031	
								\$1,000.00	
								Northridge	
								9999	
								70031	
								\$200.00	
								Northern Services	
								9999	
								70031	
								\$340.00	
								EMS Sahtu	
								9999	
								70017	
								\$900.00	
								Eveready Trucking	
								9999	
								70074	
								\$1,400.00	
								Hodgson	
								9999	
								70074	
								\$1,400.00	
								Northridge	
								9999	
								70074	
								\$3,500.00	
								North Wright Air	
								9999	
								70002	
								\$5,000.00	
								North Ridge	
								9999	
								70017	
								\$17,008.00	





WELL NAME:		ACL NOGHA 300-K-14				Licence No: WID 2006		PAGE No:		1 of 1	
LOCATION:		300-K-14-66°-39'-126°-03'-0						AFE No.		NT-04-0335	
OBJECTIVE:		Complete lower & upper Mount Clark for gas production						AFE Amount:		\$1,076,000.00	
								Rig In Date:		2004-03-29	
Formation:		Perforations (mMD):		Formation:		Perforations (m):		Rig Out Date:		yyyy-mm-dd	
Mount Clark "A"		1,360.8 to 1,363.2				to		Rig Contractor / No.:		Nabors # 203	
Mount Clark "B"		1,369.7 to 1,372.5				to		Csg. Dia (mm):		177.80 Set At (m): 1,404.00	
Mount Clark "C"		1,375.0 to 1,379.0				to		Liner (mm):		N/A Top At (m): N/A	
		to				to		Liner Bot. (mMD):		N/A PBTD (mMD): 1,386.80	
		to				to		Tbg. O.D. (mm):		73.00 Landed (m): 1,369.42	
		to				to		Anchor (mm):		N/A Set At (m): N/A	
BOP Press. Test (Yes / No):		YES		Satisfactory (Yes / No):		YES		Function Test (Yes / No):		YES Safety Meeting: 7:00	
24 Hr. Ops. Summary:		Move rig, equip & camp									
Tomorrow's Plan:											
EUB NOTIFICATIONS:		Rig Move				Flaring					
OPERATION SUMMARY		SCV (KPa)		SICP (KPa)		SITP (KPa)		COST SUMMARY			
Move rig, equip & camp to Norman Wells Costs include rooms & meals @ Mackenzie Hotel. Also supervision to move in camps & rigs.		Contractor		Invoice #		Code		Amount			
		Supervision		9999		70021		\$10,500.00			
		Makenzie Hotel		9999		70005		\$20,000.00			
		Makenzie Valley Logistics		9999		70064		\$458,210.00			
		Daily Cost:		\$488,710.00							
Previous Cost:		\$768,348.00									
Cum. Cost:		\$1,257,058.00									
Reservoir Fluid Summary		Daily		Cumulative		Load Fluid Type: Mt Clark B&C		Mt Clark A		Packer set at (m): 1353.62 1365.84	
Gas: E³ m³/d						Amount Used (m³): 8.20		23.20		Casing annulus volume (m³): 20.90	
Oil / Condensate: m³/d						Recovered (m³): 0.00		0.00		Tubing volume (m³): 4.10	
Water: m³/d						Cum. Recovered (m³): 4.17		11.76		Bottom to perf. Volume (m³): 0.00	
Swab / Flow Time: Hrs						Left To Recover (m³): 4.03		11.44		TOTAL WELL VOLUME (m³): 25.00	
Man Down Drill				BOP TESTS				BOP Drill			
Service Rig Hours.		Personnel on Location		Component		Low		High		Time	
Daily:		Rig:		Annular						Weather Conditions:	
Cumulative: 172.0		Service:		Pipe						Road Conditions: icy	
Downtime: 0.0		ACL:		Blind						Engineer: Bruce Beveridge Phone No: 403-261-1385	
Cum. Downtime: 0.0		Total: 0		Valves						Reported To: Walter Stock Phone No: 403-531-8146	
										Reported By: Mike Periard Phone No: 926-0118	





APACHE CANADA LTD.  
DAILY OPERATIONS WELL ACTIVITY

DATE:                      yyyy-mm-dd  
REPORT No.:            ##

WELL NAME:	ACL NOGHA 300-K-14	Licenec No.	WID 2006	PAGE No:	2	of	#
LOCATION:	300-K-14-66o-39'-126o-03'-0			AFE No. / Location Code:			



LOCATION APACHE NOGHA K-14		DATE 2004-04-05	SOUR WELL <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
CONTRACTOR	Nabors, IPS, Eveready, EMS Sahtu	NO.OF MEN	

Services must conform to their inter-company safety policies as well as NEB / OH & S / Apache / ERP safety policies. All services must follow guidelines & information discussed in all pre-job safety & procedure meetings. This permit is valid until job completion unless otherwise stated.

DESCRIPTION OF WORK General rig operations & all related services.

Set plug, bleed off tbg and fill with diesel.

Rig out equipment.

		Print & initial
	1	22
	2	23
	3	24
	4	25
SAFETY PRECAUTIONS		26
Wind direction	6	27
Pinch points	7	28
PPE: Safety glasses, coveralls, gloves Etc.	8	29
Heavy equipment	9	30
Overhead lifting	10	31
No running	11	32
Use good communication	12	33
Be careful	13	34
Frost bite	14	35
Stay away from slickline sheaves	15	36
	16	37
	17	38
	18	39
	19	40
	20	41
SAFETY CHECKLIST		42

EQUIPMENT	EQUIPMENT (cont'd)	PROCEDURES	HAZARD IDENTIFICATION
<input checked="" type="checkbox"/> SAFETY TRAILER	<input checked="" type="checkbox"/> PROPER PERSONAL PROTECTIVE EQUIPMENT	<input checked="" type="checkbox"/> GAS FREE AREA TEST	<input checked="" type="checkbox"/> FIRE
<input checked="" type="checkbox"/> SAFETY PERSONNEL	<input type="checkbox"/> _____	<input checked="" type="checkbox"/> OXYGEN CONTENT TEST	<input type="checkbox"/> H2S
<input checked="" type="checkbox"/> FIRST AID KIT	<input type="checkbox"/> _____	<input type="checkbox"/> FLAMMABLE MATERIAL CHECK	<input checked="" type="checkbox"/> EXPLOSION
<input checked="" type="checkbox"/> STRETCHER	<input type="checkbox"/> TRAINING	<input checked="" type="checkbox"/> HAZARDOUS AREAS IDENTIFIED	<input checked="" type="checkbox"/> HIGH PRESSURE LINES
<input checked="" type="checkbox"/> EYE/SKIN WASH/SHOWER	<input checked="" type="checkbox"/> REVIEWED SAFETY ORIENTATION BOOKLET	<input checked="" type="checkbox"/> OVERHEAD CLEARANCES	<input checked="" type="checkbox"/> HEAVY EQUIPMENT
<input type="checkbox"/> RESUSCITATOR(S)	<input checked="" type="checkbox"/> EMERGENCY RESPONSE PLAN REVIEWED	<input checked="" type="checkbox"/> UNDERGROUND HAZARDS IDENTIFIED	<input checked="" type="checkbox"/> NOISE
<input checked="" type="checkbox"/> BREATHING APPARATUS	<input checked="" type="checkbox"/> SAFETY MEETING	<input type="checkbox"/> LOCK-OUT PROCEDURES REQUIRED	<input type="checkbox"/> POWER LINES
<input type="checkbox"/> RESPIRATOR	<input checked="" type="checkbox"/> DRILLS (MAN DOWN/H2S/FIRE)	<input checked="" type="checkbox"/> ESCAPE ROUTES IDENTIFIED (UPWIND)	<input type="checkbox"/> PIPELINES
<input checked="" type="checkbox"/> H2S DETECTOR	<input checked="" type="checkbox"/> BOP CERTIFICATION	<input checked="" type="checkbox"/> MUSTER AREAS IDENTIFIED	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> COMBUSTIBLE GAS DETECTOR	<input checked="" type="checkbox"/> FIRSTAID	<input checked="" type="checkbox"/> FIRE WATCH REQUIRED	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> OXYGEN DETECTOR	<input checked="" type="checkbox"/> H2S CERTIFICATION (ALIVE/RESCUE)	<input checked="" type="checkbox"/> SAFETY PERSON	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> FIRE EXTINGUISHER	<input checked="" type="checkbox"/> WHMIS	<input checked="" type="checkbox"/> ENVIRONMENTAL CONSIDERATIONS	<input type="checkbox"/> _____
<input type="checkbox"/> LIGHTING	<input checked="" type="checkbox"/> TDG	<input checked="" type="checkbox"/> CONFINED SPACE - CODE OF PRACTICE	<input type="checkbox"/> _____
<input type="checkbox"/> SAFETY BELTS	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> SIGNS POSTED	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

FOREMAN'S SIGNATURE	Mike Periard	CONTRACTOR'S SIGNATURE
FOREMAN'S SIGNATURE	Barry Beitz	





APACHE CANADA LTD.  
PIPE TALLY REPORT

DATE:

004-03-30

Report No.

#

PAGE No.:

## of ##

Well Name: ACL NOGHA 300-K-14

Pipe Size 73 mm / EUE

Date: 2003-04-30

Location: 300-K-14-660-39'-1260-03'-0

Wt. / Grd. 9.67 kg/m, L-80

Checked By: Mike Periard

No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	Tally Summary		Cumm.
1	9.62	9.62	41	9.63	394.81	81	9.60	777.47	121	9.62	1159.63	161		1341.83	1>10	96.37	96.37
2	9.61	19.23	42	9.43	404.24	82	9.64	787.11	122	9.53	1169.16	162		1341.83	11>20	96.51	192.88
3	9.61	28.84	43	9.65	413.89	83	9.61	796.72	123	9.63	1178.79	163		1341.83	21>30	95.88	288.76
4	9.67	38.51	44	9.65	423.54	84	8.75	805.47	124	9.58	1188.37	164		1341.83	31>40	96.42	385.18
5	9.63	48.14	45	9.66	433.20	85	9.60	815.07	125	9.59	1197.96	165		1341.83	41>50	96.02	481.20
6	9.65	57.79	46	9.43	442.63	86	9.61	824.68	126	9.60	1207.56	166		1341.83	51>60	96.10	577.30
7	9.63	67.42	47	9.65	452.28	87	9.62	834.30	127	9.62	1217.18	167		1341.83	61>70	95.34	672.64
8	9.67	77.09	48	9.63	461.91	88	9.62	843.92	128	9.19	1226.37	168		1341.83	71>80	95.23	767.87
9	9.63	86.72	49	9.65	471.56	89	9.65	853.57	129	9.60	1235.97	169		1341.83	81>90	95.32	863.19
10	9.65	96.37	50	9.64	481.20	90	9.62	863.19	130	9.61	1245.58	170		1341.83	91>100	95.33	958.52
Tot.	96.37	96.37	Tot.	96.02	481.20	Tot.	95.32	863.19	Tot.	95.57	1245.58	Tot.	0.00	1341.83	Total	958.52	958.52

No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	Tally Summary		Cumm.
11	9.68	106.05	51	9.63	490.83	91	9.63	872.82	131	9.61	1255.19	171		1341.83	101>110	95.72	1054.24
12	9.67	115.72	52	9.63	500.46	92	8.82	881.64	132	9.64	1264.83	172		1341.83	111>120	95.77	1150.01
13	9.66	125.38	53	9.44	509.90	93	9.60	891.24	133	9.62	1274.45	173		1341.83	121>130	95.57	1245.58
14	9.61	134.99	54	9.64	519.54	94	9.63	900.87	134	9.63	1284.08	174		1341.83	131>140	96.25	1341.83
15	9.64	144.63	55	9.61	529.15	95	9.62	910.49	135	9.63	1293.71	175		1341.83	141>150	0.00	1341.83
16	9.66	154.29	56	9.62	538.77	96	9.62	920.11	136	9.62	1303.33	176		1341.83	151>160	0.00	1341.83
17	9.64	163.93	57	9.64	548.41	97	9.64	929.75	137	9.63	1312.96	177		1341.83	161>170	0.00	1341.83
18	9.63	173.56	58	9.64	558.05	98	9.51	939.26	138	9.62	1322.58	178		1341.83	171>180	0.00	1341.83
19	9.66	183.22	59	9.63	567.68	99	9.63	948.89	139	9.61	1332.19	179		1341.83	181>190	0.00	1341.83
20	9.66	192.88	60	9.62	577.30	100	9.63	958.52	140	9.64	1341.83	180		1341.83	191>200	0.00	1341.83
	96.51	192.88	Tot.	96.10	577.30	Tot.	95.33	958.52	Tot.	96.25	1341.83	Tot.	0.00	1341.83	Total	383.31	1341.83

No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	Pups	Length	Cumm.
21	9.65	202.53	61	8.93	586.23	101	9.58	968.10	141		1341.83	181		1341.83	1		0.00
22	9.01	211.54	62	9.66	595.89	102	9.63	977.73	142		1341.83	182		1341.83	2		0.00
23	9.67	221.21	63	9.63	605.52	103	9.41	987.14	143		1341.83	183		1341.83	3		0.00
24	9.65	230.86	64	9.61	615.13	104	9.62	996.76	144		1341.83	184		1341.83	4		0.00
25	9.65	240.51	65	9.61	624.74	105	9.63	1006.39	145		1341.83	185		1341.83	5		0.00
26	9.66	250.17	66	9.63	634.37	106	9.63	1016.02	146		1341.83	186		1341.83	6		0.00
27	9.68	259.85	67	9.62	643.99	107	9.61	1025.63	147		1341.83	187		1341.83	7		0.00
28	9.67	269.52	68	9.42	653.41	108	9.61	1035.24	148		1341.83	188		1341.83	8		0.00
29	9.62	279.14	69	9.61	663.02	109	9.63	1044.87	149		1341.83	189		1341.83	9		0.00
30	9.62	288.76	70	9.62	672.64	110	9.37	1054.24	150		1341.83	190		1341.83	10		0.00
Tot.	95.88	288.76	Tot.	95.34	672.64	Tot.	95.72	1054.24	Tot.	0.00	1341.83	Tot.	0.00	1341.83	Tot.	0.00	0.00

No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	Additional Equipment		
31	9.66	298.42	71	9.62	682.26	111	9.63	1063.87	151		1341.83	191		1341.83			
32	9.66	308.08	72	9.60	691.86	112	9.62	1073.49	152		1341.83	192		1341.83			
33	9.62	317.70	73	9.34	701.20	113	9.62	1083.11	153		1341.83	193		1341.83			
34	9.67	327.37	74	9.62	710.82	114	9.63	1092.74	154		1341.83	194		1341.83			
35	9.61	336.98	75	9.02	719.84	115	9.65	1102.39	155		1341.83	195		1341.83			
36	9.65	346.63	76	9.61	729.45	116	9.63	1112.02	156		1341.83	196		1341.83			
37	9.63	356.26	77	9.61	739.06	117	9.61	1121.63	157		1341.83	197		1341.83			
38	9.67	365.93	78	9.59	748.65	118	9.16	1130.79	158		1341.83	198		1341.83			
39	9.60	375.53	79	9.61	758.26	119	9.60	1140.39	159		1341.83	199		1341.83			
	9.65	385.18	80	9.61	767.87	120	9.62	1150.01	160		1341.83	200		1341.83			
Tot.	96.42	385.18	Tot.	95.23	767.87	Tot.	95.77	1150.01	Tot.	0.00	1341.83	Tot.	0.00	1341.83			

Drlg. Rig K.B(T.H.) 4.15  
Serv. Rig K.E(T.H.) 2.4

K.B. Diff: 1.75

Log Correction: 1.02 m

Total 01> 100: 958.52  
Total 101> 200: 383.31  
Total 01> 200: 1341.83



PRODUCTION HRS (This Report):	_____ Hrs.	PRODUCTION HRS (Total):	_____ Hrs.	LOAD FLUID PRODUCED (This Report):	_____ m <sup>3</sup>
GAS FLARED (This Report):	_____ E <sup>3</sup> m <sup>3</sup>	GAS FLARED (Total):	_____ E <sup>3</sup> m <sup>3</sup>	LOAD FLUID PRODUCED (Total):	_____ m <sup>3</sup>
COND/OIL PRODUCED (This Report):	_____ m <sup>3</sup>	COND/OIL PRODUCED (Total):	_____ m <sup>3</sup>	LOAD FLUID LEFT:	_____ m <sup>3</sup>
WATER PRODUCED (This Report):	_____ m <sup>3</sup>	WATER PRODUCED (Total):	_____ m <sup>3</sup>	LOAD FLUID TYPE:	_____