



Well Operations Report

Well Name: EMILE LAKE A-77
UWI: 300/A-77-60.50-122.30/00
License #: WID1964
Field: FT LIARD (5501)
Profile: Vertical
Zone: Slave Point
Class: Level I

CNRL has performed the well abandonment operations within the last 30 days for this well as outlined in the approved program. Included in this document are the daily reports, and a wellbore schematic of the current state of the well. This well still has a SCVF that CNRL is monitoring with a Vent Nanny with the goal that the SCVF will die out from the remedial attempts performed. Additional documentation will follow in the summer once a gas migration test is complete with a change of well status form, and pictures of the cut and capped wellbore if the SCVF dies out.

Please advise if any additional information is required

Thank you,
Canadian Natural Resources Limited

A handwritten signature in black ink, appearing to read "T. Bernhard".

Terran Bernhard, P.Eng.
Abandonment Engineer

**Canadian Natural****Downhole Schematic (Gov't Submission)****ANADARKO EMILE LAKE A-77**

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090		Field Name FT LIARD			Province N.W.T																			
Well Profile Vertical	Fluid Type Deep Gas	Original KB Elevation (m)	630.80	KB-Ground Distance (m)	6.10	KB-Casing Flange Distance (m)	6.53	KB-Tubing Head Distance (m)	630.80																			
Latitude (°) 60° 46' 9.6" N	Longitude (°) 122° 43' 33.9" E	Orig Spud Date 3/2/2004	Orig RR Date 3/21/2004	C&C Date	GW Protected? Yes	BGWP (mKB) 606.10	Oilsand Area No																					
Directions To Well Refer to various maps and aerial photos attached.																												
H2S Classification Sour																												
Vertical - Original Hole, 3/6/2023 8:13:44 AM					SCVF & GM Tests (Last 2 Records)																							
MD (mKB)	TVD (mKB)	Vertical schematic (actual)			Test Date	Test Type	Failed?																					
8.1	8.1				7/29/2020	SCVF	Yes																					
606.1	606.1				9/12/2022	SCVF	Yes																					
Openhole Information																												
Section Des		Size (mm)		Top (mKB)		Bottom (mKB)																						
Surface		311.2		6.10		648.00																						
Intermediate 1		215.9		648.00		1,968.00																						
Main 1		155.6		1,968.00		2,265.00																						
Casing Strings																												
Csg Des			OD (mm)	Wt/Len (kg/m)	Grade	Top (mKB)	Set Depth (MD) (mKB)																					
Surface			244.5	59.527	L-80	6.10	648.00																					
Intermediate			177.8	38.692	L-80	6.10	1,968.00																					
Liner			114.3	17.263	L-80	1,864.8	2,264.50																					
Cement Stages																												
Description		Cementing Start Date		Top Depth (mKB)		Btm (mKB)	Vol Cement Re...																					
Surface Cement		3/5/2004		6.10		648.00	1.00																					
Comment																												
39.7 tonnes G + 1.0% CaCl2, 1.0m3 cement returns																												
Description		Cementing Start Date		Top Depth (mKB)		Btm (mKB)	Vol Cement Re...																					
Intermediate Cement		3/13/2004		6.10		1,968.00	4.00																					
Comment																												
22.0 tonnes (27.5m3) BR-II LT + 0.4% HR-5 + 0.6% Halad 344 tailed with 4.1 tonnes (3.24m3) Thermal -1 + 0.1% HR-5 + 0.6% Halad 344 + 0.54% CFR-3, 4.0m3 cement returns.																												
Description		Cementing Start Date		Top Depth (mKB)		Btm (mKB)	Vol Cement Re...																					
Liner Cement		3/18/2004		1,867.51		2,264.50																						
Comment																												
5.5 tonnes G + 40.0% Silica + 0.5% CFR-3 + 0.6% Halad 344 Exp, cement to liner top.																												
Perforations																												
Zone		Top (mKB)		Btm (mKB)		Current Status																						
Landry, Original Hole		1,936.00		1,938.00																								
Landry, Original Hole		1,936.00		1,938.00																								
Landry, Original Hole		1,970.00		1,972.00																								
Landry, Original Hole		1,970.00		1,972.00																								
Slave Point, Original Hole		1,997.00		2,010.00		Open - Not Flowing																						
Landry, Original Hole		2,209.00		2,214.00		Abandoned																						
Tubing Strings																												
Tubing - Production set at 1,987.03mKB on 3/31/2004 00:00																												
Tubing Description		String Max N...		Wt (kg/m)		String Grade																						
Tubing - Production		60.3		6.990		J55																						
Comment																												
Wellhead installed, no mention of pressure testing the seals. 3/21/2004.																												
Pressure tested packer to 10 MPa - 3/31/2004.																												
FSG plug in F profile, negative pressure test(?). Collar stop with G pack off set at 47 mCF and Slip Stop set above G packoff. BPV installed in dog nut - 5/21/2004.																												
Tubing Components																												
Item #	Jts	Item Des	OD (mm)	ID (mm)	Len (m)	Top (mKB)	Btm (mKB)																					
1-1	1	WCS NFT slick jt 47.5mm "F"	88.9	47.5	0.49	1,981.76	1,982.25																					
1-2	1	WCS QDG Packer	98.5	62.0	1.28	1,982.25	1,983.53																					
1-3	1	Tubing Pup Joint	60.3	50.7	3.04	1,983.53	1,986.57																					
1-4	1	F Nipple 46mm	60.3	46.0	0.28	1,986.57	1,986.85																					
1-5	1	Wireline Guide - 44.7mm No-Go	60.3	44.7	0.18	1,986.85	1,987.03																					
Other In Hole																												
Des		Run Date		Pull Date		Top (mKB)	Btm (mKB)																					
BPV (for visual)		5/21/2004		1/15/2023		5.80	6.00																					
Diesel				1/25/2023		6.10	8.10																					

**Canadian Natural****Downhole Schematic (Gov't Submission)****ANADARKO EMILE LAKE A-77**

Current Event (UWI)	Surface Legal Location	License #	Field Name	Province
300/A-77-60.50-122.30/00		NT004090	FT LIARD	N.W.T
Well Profile	Fluid Type	Original KB Elevation (m)	KB-Ground Distance (m)	KB-Casing Flange Distance (m)
Vertical	Deep Gas	630.80	6.10	6.53
Vertical - Original Hole, 3/6/2023 8:13:46 AM				
MD (mKB)	TVD (mKB)	Vertical schematic (actual)	Other In Hole	
8.1	8.1	Perforation; 1,936.00-1,938.00 mKB; 1/28/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 60	Des	Run Date
606.1	606.1	Perforation; 1,936.00-1,938.00 mKB; 1/28/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 1 Phasing:	Inhibited Water	1/25/2023
620.0	620.0	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Fresh water	1/25/2023
633.8	633.8	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 1 Phasing:	Slip Stop - G Pack - Collar Stop	5/21/2004
640.0	640.0	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Casing Expansion #6	1/18/2023
648.0	648.0	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 1 Phasing:	Casing Expansion #5	2/7/2023
662.0	662.0	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Casing Expansion #4	2/7/2023
1,020.0	1,019.9	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 1 Phasing:	Casing Expansion #3	2/6/2023
1,185.0	1,184.8	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 1 Phasing:	Casing Expansion #2	2/6/2023
1,699.4	1,699.1	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 1 Phasing:	Casing Expansion #1	2/6/2023
1,714.4	1,714.1	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Cement	1/29/2023
1,729.4	1,729.1	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Cement	1/29/2023
1,794.0	1,793.7	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Inhibited Water	1/25/2023
1,864.8	1,864.5	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Fresh water	1/29/2023
1,868.0	1,867.7	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Bridge Plug - Permanent 10K	1/26/2023
1,937.0	1,936.7	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	FSG Plug	5/21/2004
1,953.2	1,952.9	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	FSG Plug	1/24/2023
1,964.0	1,963.7	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Cement Plug	3/29/2004
1,968.0	1,967.7	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Bridge Plug - Perm - tested 10 MPa 10 mins	3/29/2004
1,972.0	1,971.7	Perforation; 1,970.00-1,972.00 mKB; 1/26/2023; Zone: Landry, Original Hole Current Status: Shot Dens: 20.0 Calculated Shot Total: 41 Phasing: 55	Plug Back	3/21/2004
1,978.2	1,977.9	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Formation Tops	
1,981.8	1,981.5	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Formation Name	Top (mKB)
1,983.5	1,983.2	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Base Ground Water	606.10
1,986.8	1,986.5	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Exshaw	662.00
1,997.0	1,996.7	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Kotcho	671.00
2,072.0	2,071.5	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Tetcho	1,020.00
2,190.0	2,187.6	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Trout River	1,099.00
2,198.5	2,195.9	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Kakisa	1,185.00
2,209.0	2,206.1	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Fort Simpson	1,210.00
2,234.0	2,230.4	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Muskwa	1,937.00
2,252.0	2,247.9	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Slave Point	1,964.00
2,264.0	2,259.6	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Watt Mountain	2,072.00
2,265.0	2,260.5	Perforated; 1,997.00-2,010.00 mKB; 3/29/2004; Zone: Slave Point, Original Hole Current Status: Open - Not Flowing Shot Dens: 13.0 Calculated Shot Total: 170 Phasing: 90	Sulphur Point	2,081.00
			Landry	2,204.00
			Ordovician	2,263.00
			Com	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 1.0

1/15/2023 08:00 to 1/15/2023 12:00

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location	License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective			Plug Back Depth (mKB)	
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa)	Tubing Pressure (kPa) 1,983
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Set Depth (MD) (mKB) 2,264.50

Daily Activities

Morning Ops @ 7am

SL: Pull G Pack off plug & Slip Stop

Daily Operations Summary

Move wellhead crew to location. Swept location with 4 head gas monitor with no LEL'S or H2S detected. Bubble test SCV = No Bubbles. SITP 1985 KpaDW. Rig in wellhead equipment pulled BPV from tbg hanger (no change in pressure) Shut in & secure well. Rig out all equipment. Travel to K77 Jan 16 - Move in ROKE & set up SCV vent nanny flow meter and test satelite system (good)

Time Log

Start Time	Dur (hr)	Com
08:00	1.50	Travel from camp to C-55 & get Stream Flo. Travel to above location. Move in Stream Flo, United Safety air hand,
09:30	0.50	Review CNRL hazard assessment and TIW plan. Service providers complete HA & JSA for tasks today. Held safety meeting with all personal reviewed hazards of spotting equipment and pulling BPV. Slips, trips, line fo fire, pinch points, backing up using spotters,
10:00	1.00	Moved in and spotted Stream flo unit. Check for hazards around wellhead. Had safety hand don air pack and checked for any H2S on tbg. No H2S. SITP 1983 KpaDW. Make up 50.8mm Lubricator & screw into BPV. Screw out BPV from Tubing hanger & Lubricate out 88.9mm back pressure valve from tbg hanger which is double check valve BPV. Shut in & secure well. Rig out Stream Flo crew
11:00	1.00	Travel to K-77.
12:00		Jan 16 - Move in ROKE and set up vent nanny flow meter on SCV and Satellite system to record flow & test (good)

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
				Jeffrey Willick	Abandonment Ops Mgr.
				Dale Duffy	Superintendent
				Phil Millard	Wellsite Supervisor
				Contractor	Rig Number
				Rig Manager	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 2.0

1/18/2023 07:00 to 1/18/2023 12:00

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location	License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa)	Tubing Pressure (kPa) 2,000
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Set Depth (MD) (mKB) 2,264.50

Daily Activities

Morning Ops @ 7am

SR: MIRUSR

Daily Operations Summary

Swept location with 4 head gas monitor with no LEL'S or H2S detected. Vent nanny in SCV. SITP 2000 KpaDW. Slickline pull upper slip stop from 34 mGL. Pull G Pack-off plug from 34 mGL (no change in pressure) Pull lower Slip stop from 47 mGL. Shut & Secure well. Rig out all equipment. Travel to next well A-68

Time Log

Start Time	Dur (hr)	Com
07:00	1.00	Travel from camp to location. Move in United Safety air hand, Reliance Slickline unit HD0164. Move in Poorboy Picker
08:00	0.50	Review CNRL hazard assessment and TIW plan. Service providers complete HA & JSA for tasks today. Held safety meeting with all personal reviewed hazards of spotting equipment and pulling BPV. Slips, trips, line to fire, pinch points, backing up using spotters, location slippery so make sure workers wearing traction aid.
08:30	3.00	MIRU Reliance slickline unit, BOP's and lubricator purged and pressure tested lubricator with N2 to 7 Mpa (good) RIH with equalizing prong to 34 mGL (13 M high) Jar down many times with no pressure change. RIH RB pulling tool & latch upper slip stop @ 34 mGL. Spang loose & POOH slip stop. RIH GS pulling tool to 36 mGL. Latch and pull G Pack-off plug. POOH with plug to surface. Found Kobe's knockout broken. RIH RB pulling tool & latch Slip Stop @ 47 mGL. POOH lower Slip Stop. Shut in & secure well with double master valves. Rig out Reliance Slickline unit & Picker.
11:30	0.50	Travel to next location A-68.

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
				Jeffrey Willick	Abandonment Ops Mgr.
				Dale Duffy	Superintendent
				Phil Millard	Wellsite Supervisor
				Contractor Reliance Oilfield Services	Rig Number HD0164
				Rig Manager Brent Belanger	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 3.0

1/22/2023 07:30 to 1/22/2023 19:30

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location	License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 10	Tubing Pressure (kPa) 2,060
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Set Depth (MD) (mKB) 2,264.50

Daily Activities

Morning Ops @ 7am

SR: Rig in slickline pull FSG plug.

Daily Operations Summary

MIRU rig and equipment. Checked SITP 2060kPa, SICP 10kPa. Checked for H2S zero. Bled gas head off to p-tank. Waited on boiler, bop's & catwalk. Unload spot and rigged in. Fired up boiler tarpped in wellhead with heater and bop's. SCV still tied into vent nanny. Secured well.

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	07:30 hrs. Serviced and started equipment. Filled out hazard assessment and reviewed with all personal. Discussed hazards of traveling on winter roads, Use road radios at all times, have equipment chained up and space out. Filled out TIWEP and post in dog house, wellsite trailer, testers trailer and on dash of medic and safety hands trucks..
08:00	2.50	Moved rig and equipment from C-55 to location.
10:30	0.25	Did walk around and checked for any hidden hazards on location. Vent nanny tied into scv on well. Discussed how to spot equipment on location. Filled out JSA's for task today. Line of fire, swing, path, high pressure lines, overhead loads, steam, pinch points, use 3 point contact, H2S, tag lines, spotters backing up any equipment. Discussed that vent nanny has to hooked up at all times don't obstruct view of solar panels.
10:45	8.75	Unlod and spot rig matting, spot dog house, pump tank, 64m3 tank and rental equipment. Spot rig on matting stood derrick and secured. Rigged in 2 pump lines, accumulator lines, ground lines. Rigged in p-tank and flare stack. Checked SITP 2060kPa, SICP 10kPa. Had safety hand don air pack and checked for H2S on tbg. No H2S. Rig testers line onto tbg bled tbg gas head off to zero. Waited on boiler, catwalk and bop's. Unload and spot equipment. Rig in steam lines and heaters fired up boiler. Tarped in wellhead and bop's placed steam heater in cellar to heat up scv over night. Secured well. 18:30hrs SDFN.

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Operational Supervisors	
				Contact	Title
Fresh Water				Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 4.0

1/23/2023 07:00 to 1/23/2023 21:00

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090		Field Name FT LIARD		Province N.W.T
WI (%) 100.00	Objective						Plug Back Depth (mKB)	
Job Start Date 1/15/2023		Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 0	Tubing Pressure (kPa)	Set Depth (MD) (mKB) 2,264.50	
Job End Date		Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Overcast	Temperature (°C) -16	

Daily Activities

Morning Ops @ 7am

SR: POOH with packer.

Daily Operations Summary

MIRU slickline rig up on well Purge and pressure tested lubricator to 7000kPa with N2. Ran in hole with 48.26mm gauge ring and tagged at 1981.30mKB. Fluid level at 290 GL. Run in hole pulled prong and mandrel tbg pressure increased to 2500kPa. Function tested bop's. Stump tested blind rams 1400kPa low and 34000kPa high all 10 min each. Pumped 9.0m3 water down tbg well on vacuum. Took 4 hrs to remove wellhead studs rusty and seized. Pumped 6m3 water down tbg on vacuum again. Removed wellhead install c/o sub with pup jt stabbing valve. Stripped on bop's, rigged in floor and tarpped in. Pressure tested ring gasket pipe rams 1400kPa low and 34000kPa high, annular 1400kPa low and 7000kPa high.

Time Log

Start Time	Dur (hr)	Com
07:00	0.50	07:30hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind. Smoking in designated area. Bump test personal LEL monitor. Don air packs when needed. Check equipment make in good condition and is full of air. Also discussed with all personal there is to be no drinking in camp and no smoking in rooms. If drinking in camp at night means you will not be fit for duty next day and will be disciplinary action taken.
07:30	3.00	Checked SITP 1200kPa, SICP zero kPa. Rig in floor and handrails. Spot and rig in slickline unit. Rig up on wellhead with swedge slickline bop's and lubricator. Purge and pressure tested lubricator to 7000kPa with N2. Ran in hole with 48.26mm gauge ring and tagged at 1981.30mKB. Fluid level at 290 GL. Run in hole with RB pulling tool to 1981.30mKB latched and pulled equalizing prong. Run in hole with RB pulling tool w/A swivel probe to 1981.30mKB. Latched and pulled 47.5mm FSG plug mandrel. Standby and wait for crew to kill well. Function tested bop's. Stump tested pump manifold, pump line, stabbing valve and blind rams 1400kPa low and 34000kPa high all 10 min each. All 100%.
10:30	0.50	Rigged pump line into csg pressure tested to 7000kPa. Opened csg valve pumped 5.0m3 fresh water down csg and pressure tested to 7000kPa 10 min held 100%. Bled pressure off switched line to tbg. Pressure tested line to 21000kPa. Opened tbg shut pressure was 4000kPa. Pumped 9.0m3 fresh water down tbg at 600L/min stop pumping checked tbg on vacuum. Rig out slickline.
11:00	9.00	Rigged out floor. Started working on wellhead studs rusty and seized. Tbg started to flow shut in and monitor while working on studs. Took 4 hrs to break all studs free. Checked SITP 3000kPa rigged pump line into tbg pumped 6.0m3 fresh water down tbg well on vacuum. Removed top section of wellhead found tbg hanger had 89mm hydril 533 threads. Installed c/o sub with 73mm pup jt and stabbing valve. Stripped on bop's rigged in floor, stairs, handrails and v door. Tarp in bop's and wellhead. Pressure test ring gasket, pipe rams 1400kPa low and 34000kPa high, annular 1400kPa low and 7000kPa high all 10 min each.
20:00	1.00	Picked up on tbg hanger unset QDG packer. Let elements relax for 20min. Tbg strong blow and csg slight vacuum. String weight 18000 dAN'S land tbg hanger. Drained equipment and secured well. 21:00hrs SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	20.00	0.00	20.00	Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 5.0

1/24/2023 07:30 to 1/24/2023 19:00

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090		Field Name FT LIARD		Province N.W.T
WI (%) 100.00	Objective						Plug Back Depth (mKB)	
Job Start Date 1/15/2023		Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 4,260	Tubing Pressure (kPa) 12,600	Set Depth (MD) (mKB) 2,264.50	
Job End Date		Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Clear	Temperature (°C) -22	

Daily Activities

Morning Ops @ 7am

SR: Punch hole in tbg

Daily Operations Summary

Checked SITP 12600kPa, SICP 4260kPa. bled down tbg pressure to 11600kPa started to make fluid shut in. Bull head 30m3 fresh water down csg at 550L/min 4500kPa. Stop pumping csg on slight vacuum. Bull head 9.0m3 fresh water down tbg. Tbg on vacuum csg started flowing shut in checked pressure at 4000kPa and increasing. Pumped 6.0m3 down csg pressure down to 450kPa. Had to close bag to set packer and use tongs to rotate tbg to set. Had 7000 dAN'S tension pulled into packer. Csg pressure increased to 7840kPa started bleeding off csg flowed back 9.0m3 fresh water pressure down to 7300kPa and started increasing. Pumped 10.0m3 down csg and pressure down to 4000 kPa stop pumping open csg bled off to 1200kPa flowed back 6.0m3 pressured started increasing again. Pumped 7.50m3 down csg pressured up to 14000kPa monitored for 15min held 100%. Started bleeding off csg flowed back 9.0m3 pressure down to 5500kPa started to increase. Shut in csg. Landed tbg hanger checked SITP 4320kPa. Rigged up on tbg purged and pressure test lubricator to 7000kPa with N2. Ran in hole with nipple brush and cleaned F profile at 1981.30mKB. Ran in hole with 47.5mm FSG plug and set in F profile at 1981.30mKB. SITP 5500kPa bled down too 100kPa slugging fluid. Shut in tbg and monitor. Tbg pressure increased to 1500kPa. Rigged in line to csg SICP 11320kPa bled down to 8250kPa recovered 2.0m3 pressure started to increase to 9600kPa started see hydrates shut in csg. Drained equipment and secured well

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	07:00hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind. Smoking in designated area. Bump test personal LEL monitor.
08:00	7.50	Checked SITP 12600kPa, SICP 4260kPa. Rig line into tbg started bleeding down slowly tbg pressure down to 11600kPa started to make fluid shut in. Rig line into csg bailed headed 30m3 fresh water down csg at 550L/min 4500kPa. Stop pumping csg on slight vacuum. Rig line onto tbg bullhead 9.0m3 fresh water down tbg. Tbg on vacuum csg started flowing shut in checked pressure at 4000kPa and increasing. Pumped 6.0m3 down csg pressure down to 450kPa. Had to close bag to set packer and use tongs to rotate tbg to set. Had 7000 dAN'S tension pulled into packer. Csg pressure increased to 7840kPa started bleeding off csg flowed back 9.0m3 fresh water pressure down to 7300kPa and started increasing. Pumped another 10.0m3 down csg and pressure down to 4000 kPa stop pumping open csg bled off to 1200kPa flowed back 6.0m3 pressured started increasing again. Pumped 7.50m3 down csg pressured up to 14000kPa monitored for 15min held 100%. Started bleeding off csg flowed back 9.0m3 pressure down to 5500kPa started to increase. Shut in csg. Landed tbg hanger checked SITP 4320kPa.
15:30	3.50	MIRU slickline held safety meeting. Rigged up on tbg purged and pressure test lubricator to 7000kPa with N2. Ran in hole with nipple brush and cleaned F profile at 1981.30mKB. Ran in hole with 47.5mm FSG plug and set in F profile at 1981.30mKB. SITP 5500kPa bled down too 100kPa slugging fluid. Shut in tbg and monitor. Tbg pressure increased to 1500kPa. Rigged in line to csg SICP 11320kPa bled down to 8250kPa recovered 2.0m3 pressure started to increase to 9600kPa started see hydrates shut in csg. Drained equipment and secured well. 19:00hrs SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Operational Supervisors	
				Contact	Title
Fresh Water	62.50	24.00	58.50	Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 6.0

1/25/2023 07:30 to 1/25/2023 20:30

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090		Field Name FT LIARD		Province N.W.T
WI (%) 100.00	Objective						Plug Back Depth (mKB)	
Job Start Date 1/15/2023		Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 2,060	Tubing Pressure (kPa) 11,233	Set Depth (MD) (mKB) 2,264.50	
Job End Date		Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Overcast	Temperature (°C) -14	

Daily Activities

Morning Ops @ 7am
SR: MIRU E-line run PBP
Daily Operations Summary
Checked SITP 2060kPa, SICP 11233kPa. Bled off tbg to zero. Pumped 2.40m3 down tbg and pressure tested plug to 7000kPa for 10min good test. Rig testers onto csg bled csg down to 200kPa. Rigged in slickline ran 58.42mm GR to 1980.60mKB. Ran in hole with mechanical tbg punch to 1980.60mKB. Pressured up tbg to 7000kPa. Punched hole in tbg and tbg went on vacuum. POOH. Circulated 42m3 down tbg csg was dead and started to flow again. Circulated well again with 37m3 monitored for 10min well dead. Come off packer with on/off pulled out total 211 jts with 1.20m pup with punched hole and on/off tool. Filled hole while tripping 2.80m3. Drain equipment secured well. Flared estimated 10m3 of sweet gas.

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	07:30hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind. Smoking in designated area. Bump test personal LEL monitor.
08:00	2.75	Checked SITP 2060kPa, SICP 11233kPa. Bled off tbg to zero. Pumped 2.40m3 down tbg and pressure tested plug to 7000kPa for 10min good test. Rig testers onto csg bled csg down to 200kPa and continue to flow recovered 3.0m3 fluid.
10:45	1.50	Rigged in slickline ran in hole with 58.42mm GR to 1980.60mKB tagged 73mm x 60.3mm swedge. Ran in hole with mechanical tbg punch to 1980.60mKB. Pressured up tbg to 7000kPa. Punched hole in tbg and tbg went on vacuum. POOH. Rigged out and released slickline.
12:15	4.75	Rigged pump line into tbg started pumping at 600L/min at zero pressure and increased to 7000kPa. Opened csg to p-tank. Circulated well with 42.0m3 fresh water. Stop pumping csg continue to flow. Pumped another 7.0m3 down tbg. Shut in csg for 15min built up to 1750kPa. Open csg bled off slowly to zero pressure. Monitored for 10min csg started flowing again. Shut in csg and monitored pressures built up to 4325kPa in 45min. Opened csg and started pumping down tbg at 560L/min at 6000kPa. Pumped total of 37m3 recovered 27. Monitored csg for 15 min well dead. Flared estimated 10m3 of sweet gas while circulating well dead.
17:00	3.50	Come off packer with on/off tool lay down tbg hanger. POOH with 176 jts with reg couplings and 35 jts with slim hole couplings. 1.21m pup jt with punched hole and on/off. Filled hole while tripping 2.80m3. Drained equipment and secured well. 20:30hrs. SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	89.00	48.00	99.50	Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 7.0

1/26/2023 07:30 to 1/26/2023 19:30

Current Event (UWI) 300/A-77-60.50-122.30/00	Surface Legal Location	License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective			Plug Back Depth (mKB)
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 0
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Tubing Pressure (kPa) Rough

Daily Activities

Morning Ops @ 7am

SR: Run packer in hole

Daily Operations Summary

MIRU wireline unit. Ran in hole with 97.0mm gauge ring to 1978.20mKB. Ran in hole with 114.3mm 10K PBP set c/e at 1978.0mKB. POOH. Filled csg with 1.50m3 pressure tested plug to 7120kPa for 10min final 7098kPa good test. RIH with 2.0m x 86mm 20spm 55Deg ERHSC logged on depth perforated at 1970.0-1972.0mKB times 2. No change on csg. Rig out wireline. Rig cementers slowrate line to csg to try and establish feedrate. Pressure tested line to 21000kPa. Started pumping down csg at 53L/min to 14000kPa, 473L pumped shut down. Start pumping at 4L/min 13500kPa to 18000kPa 156L. Waited for 20min. Started pumping 4L/min 17700kPa to 19000kPa 46L. Waited 20 min started pumping 4L/min 18600kPa to 19000kPa 19L. Started pumping 4L/min 19000kPa to 21000kPa 86L. Bled off to 14900kPa started pumping at 40L/min to 17500kPa 52L. Started pumping 4L/min 17290kPa to 21000kPa 111L. Had no changes bled pressure off to zero to rig tank. Rigged out C/A unit. Drain equipment.

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	07:30hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Reviewed hazards of wireline operations arming tools if had miss run stop at 75m from surface and hold tailgate meeting. Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind. Smoking in designated area. Bump test personal LEL monitor. CNRL 4 Pillars. Checked SICP was on vacuum.
08:00	6.00	<p>MIRU wireline unit. Installed c/o flange, bop's and lubricator. Ran in hole with 97.0mm gauge ring to 1978.20mKB. Ran in hole with 114.3mm 10K PBP coredlated on depth to IPS cement bond log dated Mar 26/2004. Set c/e at 1978.0mKB. POOH. Filled csg with 1.50m3 fresh water pressure tested plug to 7120kPa for 10min final 7098kPa good test. Picked up and ran in hole with 2.0m x 86mm 20spm 55Deg ERHSC logged on depth perforated at 1970.0-1972.0mKB. No change on csg. Ran second gun and perforated at 1970.0-1972.0mKB. No change on csg. Rig out wireline.</p> <p>Well killed and plug set in on-off. BP set above packer. Upcoming SCVF remedial attempt</p> <p>OROGO has approved CNRL's change to not cap the BP at 1980mKB with cement due to the perforation interval being in the same zone as the producing zone.</p> <p>1. Perforate the Slave Point interval from 1970-1972mKB 2. Establish feed rate with slow rate pumper</p> <p>Decision Point - Discuss with superintendent and Engineer which of the 2 options below will be used and what constitutes high vs low feed rate.</p> <p>Option 1 - Feed rate high 1. Set retainer at 1965mKB and pressure test to 7MPa for 10 minutes 2. Perform remedial cement squeeze as per Appendix 2 of approved program</p> <p>Option 2 - Feed rate low - More discussion with team/OROGO required to determine if another perf interval is required before balancing a cement plug and bradenhead squeezing.</p>
14:00	0.25	MIRU C/A unit. Held safety meeting filled out JSA and reviewed hazards.
14:15	4.75	Rig cementers slowrate line to csg to try and establish feedrate. Pressure tested line to 21000kPa. Started pumping down csg at 53L/min to 14000kPa, 473L pumped shut down. Start pumping at 4L/min 13500kPa to 18000kPa 156L. Waited for 20min. Started pumping 4L/min 17700kPa to 19000kPa 46L. Waited 20 min started pumping 4L/min 18600kPa to 19000kPa 19L. Started pumping 4L/min 19000kPa to 21000kPa 86L. Bled off to 14900kPa started pumping at 40L/min to 17500kPa 52L. Started pumping 4L/min 17290kPa to 21000kPa 111L. Had no changes bled pressure off to zero to rig tank. Rigged out C/A unit. Drain equipment. Secured well, 19:00hrs SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	1.50	0.00	101.00	Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 8.0

1/27/2023 07:30 to 1/27/2023 19:00

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location	License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 0	Tubing Pressure (kPa)
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Set Depth (MD) (mKB) 2,264.50

Daily Activities

Morning Ops @ 7am
SR: POOH with packer

Daily Operations Summary

Tallied in hole with packer and ccl 209 jts. Set packer at 1965.0mKB. P/T to 7000kPa. Rig in cemeters to do feed rate. Pressure tested line to 21000kPa. Started pumping down tbg at 50L/min 0 kpa to 18000kPa. Dropped rate to 5L/min stop at 21080kPa. 100L. Wait 10 min pressure at 19869kPa. Continued to do this several times. Pump at 5L/min to 21000kPa. Unset packer pulled 7 jts and set packer at 1900.0mKb. PT packer to 7000kPa. Rigged slow rate line to tbg. Pump at 5L/min pressure up to 21000kPa. Waited 10 min and bump up again at 5L/min to 21000kPa. Final slowrat pumping at 5L/min at average 20500kPa pumped for 30min and pumped 97L. Calgary monitoring vent nanny. Bled off pressure rigged out cementers. Unset packer drained equipment. Secured well.

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	07:30hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Hazards Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind. Smoking in designated area.
08:00	4.00	Made up 114.3mm mechanical ccl with 114.3 mm packer. Tallied in hole with 209 jts tbg. Located csg collar at 1966.90mKB. Set packer c/e at 1965.0mKB. Pressure tested csg to 7000kPa 10min. Good test.
12:00	0.25	Held safety meeting with charger crew and all personal. Filled out JSA and reviewed hazards of doing feedrate. Line fire, high pressure hose, slips, trips, swing path and steam.
12:15	7.25	MIRU cementers. Rig in slow rate line to tbg. Pressure tested line to 21000kPa. Started pumping down tbg at 50L/min 0 kpa to 18000kPa. Dropped rate to 5L/min stop at 21080kPa. 100L. Wait 10 min pressure at 19869kPa. Started pumping 5L/min stop pumping at 21132kPa. 8L. Slowrate line and valve on tbg started freezing off. Tried to bleed presure off tbg but hose was frozen. Thawed out hose and valve installed tee in line. Covered up valve and tbg with tarp placed steam hose under tarp to keep warm. Heated up water tank for slowrate pump. Opened tbg started pumping 17314kPa 5L/min stop at 21146kPa. 34L. Waited 10 min. Started pumping 20486kPa 5L/min stop at 21064kPa. 9L. Waited 10 min. Started pumping 20473kPa 5L/min stop at 21097kPa. 9L. Waited 10 min. Started pumping 20511kPa 5L/min stop at 21136kPa. 7L. Bled off pressure and unset packer. Pulled 7 jts set apcker at 1900.0mKB. Pressure tested csg to 7000kPa 10 min. Rig slowrate line onto tbg. Started to pump shut down had leak. Fixed the leak. Started pumping 0kPa 5L/min stop 21140kPa. 146L. Waited 10 min. Started pumping 20525kPa 5L/min stop at 21007kPa. 93L. Possibly had feedrate was pumping for 30min. Bled off pressure rigged out cementers. Unset packer drained equipment and secured well. 19:00hrs SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	2.00	0.00	103.00	Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 9.0

1/28/2023 07:30 to 1/28/2023 19:30

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090		Field Name FT LIARD		Province N.W.T
WI (%) 100.00	Objective						Plug Back Depth (mKB)	
Job Start Date 1/15/2023		Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa)	Tubing Pressure (kPa)	Set Depth (MD) (mKB) 2,264.50	
Job End Date		Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Clear	Temperature (°C) -26	

Daily Activities

Morning Ops @ 7am
SR: RIH with tbg rig in cementers
Daily Operations Summary
POOH with packer stood tbg in derrick. MIRU E-Line ran in hole WITH 86mm x 2m ERHSC gun with 20spm 25gr GH 60deg correlated on depth to perf at 1936.0-1938.0mKB. Had 2 miss runs. Ran in third time and perforated no change on csg. Ran in with second gun and perforated at same interval. No change on csg. POOH rigged out wireline. Rigged pump line into csg filled hole with 0.65m3 fresh water. Started pumping and pressured up to 19350kPa wait 10min 19297kPa. Bumped 21065kPa waited 10min 20888kPa. Cementers rolled in bled pressure off to 16000kPa. Held tailgate meeting with all personal. Spotted and rigged in cement unit. Pressure tested line to 21000kPa. SICP 15785kPa started pumping at 20L/min to 18070kPa 100L dropped rate to 5L/min. Pumped for 20min avg pressure 19950kPa and pumped 132L. Total 232L. Shut in well rig out cementers. Bled well off to zero. Drained equipment. Secured well.

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	07:30hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Hazards Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind. Smoking in designated area. Colder weather dress appropriately watch for frost bite. Warmup when have too.
08:00	3.00	Checked tbg and csg well dead. Pull out of hole with 51stands and rack tbg in derrick. Fill hole while tripping out.
11:00	5.75	MIRU E-Line. Rig up on wellhead with c/o flange wireline bop's and lubricator. RIH with 2 x 86mm ERHSC gun with 20spm, 25gr charges @ 60 deg phazing. Correalted on depth to Eclipse bridge plug setting log dated Jan 26/2023. Had miss run pooh to 75m held tailgate meeting pulling live guns to surface. Shots didn't fire but A-140 det low ordered. RIH with guns a gain logged on depth had second miss run. Stop 75m held tailgate meeting again. Ran diagnostics found nothing wrong everything working. Ran gun again logged on depth perforated at 1936.-1938.0mKB no change on csg. POOH all shots fired. Ran in hole with second guns logged on depth and perforated at 1936.0-1938.0mKB again no change on csg. POOH all shots fired. Rig out e-line and release. Perforated from 1970-1972 in the Slave point formation. Attempted to get a feed rate up to 21MPa and unable to achieve any significant feed rate but SCVF responded. Ran Packer and set directly above perforations, no change to feed rate or SCVF. Set packer above 1936 in liner and attempted feed rate. SCVF lowered. 1. Perforate Muskwa formation top from 1936-1938mKB. 2. Establish feed rate to 21 MPa 3. Balance cement plug from BP at 1977.8mKB up to 1750mKB (3.5m3 cement) 4. Perform bradenhead squeeze on perforations and monitor SCVF rate 5. Wait on cement 6. Tag cement top and pressure test to 7 MPa for 10 minutes This proposed plan would abandon the Slave point perforation, the Muskwa perforation, and the liner hanger. The liner hanger has been pressure tested already to 21MPa while attempting to get a feed rate on the Slave point perforation.
16:45	3.25	Rigged pump line into csg filled hole with 0.65m3 fresh water. Started pumping and pressured up to 19350kPa wait 10min 19297kPa. Bumped 21065kPa waited 10min 20888kPa. Cementers rolled in bled pressure off to 16000kPa. Held tailgate meeting with all personal. Spotted and rigged in cement unit. Pressure tested line to 21000kPa. SICP 15785kPa started pumping at 20L/min to 18070kPa 100L dropped rate to 5L/min. Pumped for 20min avg pressure 19950kPa and pumped 132L. Total 232L. Shut in csg rig out cementers. Rig pumpline onto csg and bled well off to zero. Drain equipment. Secured well. 19:30hrs SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
1/28/2023 14:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/28/2023 15:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	3.00	0.00	106.00	Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 10.0

1/29/2023 07:30 to 1/29/2023 19:00

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090		Field Name FT LIARD		Province N.W.T
WI (%) 100.00	Objective						Plug Back Depth (mKB)	
Job Start Date 1/15/2023		Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa)	Tubing Pressure (kPa)	Set Depth (MD) (mKB) 2,264.50	
Job End Date		Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Clear	Temperature (°C) -15	

Daily Activities

Morning Ops @ 7am
SR: Tag cement top pooh

Daily Operations Summary

RIH with 211 jts and 1 3.07m pup jt tagged PBP at 1978.0mKB pulled up 0.50m. Rigged in cementers on to tbg and pump line on to csg. Waited 1hr for tank truck with cold water. Filled lines and establish circulation with 5.0m3 water pressure testers surface iron to 25000kPa. Mixed up 2.0m3 of Thermal 40 + 0.5% CHRT-H 1800kg/m pumped down tbg at 300L/min at 3400kPa. Stop and shut in csg. Mixed up 1.0m3 Micro + 0.4% CHRT-H. Pumped at 500L/min at 1000kPa. Displaced at 600L/min at 2000kPa with 5.0m3 water. Pulled 25 jts tbg to 1738.37mKB. Backwashed tbg with 9.0m3 fresh water. Rigged slowrate line into csg. Started pumping at 25L/min up to 18000kPa reduced rate to 5L/min pumped 620L pressure at 21300kPa. Shut down waited 30min pumped another 12L pressured up to 21000kPa. Squeezed in 641L. Installed gauge on csg recorded pressure 19000kPa 1hr 18895kPa. Drained equipment secured well.

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	07:30hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Hazards Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind
08:00	3.00	RIH with 211 jts and 1 3.07m pup jt tagged PBP at 1978.0mKB pulled up 0.50m.
11:00	8.00	Rigged in cementers on to tbg and pump line on to csg. Waited 1hr for tank truck with cold water. Filled lines and establish circulation with 5.0m3 water pressure testers surface iron to 25000kPa. Mixed up 2.0m3 of Thermal 40 + 0.5% CHRT-H 1800kg/m pumped down tbg at 300L/min at 3400kPa. Stop and shut in csg. Mixed up 1.0m3 Micro + 0.4% CHRT-H. Pumped at 500L/min at 1000kPa. Displaced at 600L/min at 2000kPa with 5.0m3 water. shut down pump break off iron. Pulled 25 jts tbg to 1738.37mKB. Backwashed tbg with 9.0m3 fresh water. Rigged slowrate line into csg. Started pumping at 25L/min up to 18000kPa reduced rate to 5L/min pumped 620L pressure at 21300kPa. Shut down waited 30min pumped another 12L pressured up to 21000kPa. Squeezed in 641L. Pressure on line started increased transducer freezing and hose started freezing. Shut in well started steaming hose broke off pumped warm water though hose. Pressured up to 21000kPa opened csg valve pressure went up to 23130kPa. Shut in well rig out cemeters. Installed gauge on csg recorded pressure 19000kPa 1hr 18895kPa. Drained equipment secured well. 19:00hrs SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
1/28/2023 14:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/28/2023 15:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	0.00	3.00	103.00	Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 11.0

1/30/2023 07:30 to 1/30/2023 20:00

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)	
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 18,260	Tubing Pressure (kPa)	Set Depth (MD) (mKB) 2,264.50
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Light snow	Temperature (°C) -13

Daily Activities

Morning Ops @ 7am

SR: Rig out all equipment

Daily Operations Summary

Checked SICP 18260kPa, SITP 18260kPa. Bleed pressure off to rig tank. RIH to 1842.0mKB. Cement is soft pulled 6 stands. Pressure tested csg to 7000kPa 15min held 100%. Bleed off pressure. Wait on instructions from Calgary. RIH to 1804.0mKB cement still soft. POOH laying down tbg. Filled hole with 2.0m3 fresh water. Drained equipment secured well.

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	07:30hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Hazards Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind. Reviewed Focus on safety Line of fire with all personal on location.
08:00	1.00	Checked SICP 18260kPa, SITP 18260kPa. Bleed pressure off to rig tank. Ran in hole with 6 stands to 1842.0mKB. Cement is still soft pulled 6 stands. Rig into circulate. Filled hole broke circulation down tbg with 1.0m3 water make sure tbg was not plugged. Pressure tested csg to 7000kPa 15min held 100%. Bleed off pressure.
09:00	5.75	Wait on decision from Calgary and aproval from OROGOO.
14:45	5.75	Ran in 4 stands to 1805.0mKB cement still soft. Started pulling out of standing in derrick. Had change in plans lay down tbg. Topped off well with 2.0m3 fresh water. Drained equipment secured well. 20:00hrs SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
1/28/2023 14:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/28/2023 15:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	2.00	0.00	105.00	Roy Craft	Wellsite Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Ashley Marshall	Rig Manager
				Contractor Precision Well Servicing	Rig Number 119
				Rig Manager Ashley Marshall	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 12.0

1/31/2023 07:30 to 1/31/2023 12:00

Current Event (UWI) 300/A-77-60.50-122.30/00	Surface Legal Location	License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective			Plug Back Depth (mKB)
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Tubing Pressure (kPa)
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Set Depth (MD) (mKB) 2,264.50 Road Condition Rough Weather Cloudy Temperature (°C) -20

Daily Activities

Morning Ops @ 7am

WL: Wait on wireline

Daily Operations Summary

Rigged out rig and all equipment. Had picker remove bop's and install top section of wellhead. Cleaned up location. Vent nanny still connected to scv.

Time Log

Start Time	Dur (hr)	Comments
07:30	0.50	07:30hrs. Serviced and started equipment. Filled out JSA'S for tasks today and discussed hazards of each operation and reviewed sop's. Hazards Line of fire, swing path, over head loads, high pressure lines, hot steam lines. Discussed muster points dog house and lease entrance or up wind. Reviewed hazards of laying derrick over, removing bop's.
08:00	4.00	Rigged out rig and all equipment. Had vacuum truck clean out rig tank no entry. Had picker remove bop's from wellhead and install top section of wellhead. Cleaned up location. Secured well with vent nanny still connected to scv. Rigged out testers equipment. Transferred 35m3 fresh water to K-77. Had picker haul bop stack to lay down yard to load on truck to haul to GP. Well ready for wireline work. 12:00hrs.

Perforations Summary

Date	Zone	Top (mKB)	Btrn (mKB)	Type	Comments
1/28/2023 14:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/28/2023 15:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Operational Supervisors		
				Contact	Title	
Fresh Water			105.00	Roy Craft	Wellsite Supervisor	
				Dale Duffy	Superintendent	
				Jeffrey Willick	Abandonment Ops Mgr.	
				Ashley Marshall	Rig Manager	
				Contractor Precision Well Servicing	Rig Number 119	
				Rig Manager		
				Ashley Marshall		



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 13.0

2/3/2023 07:30 to 2/3/2023 19:30

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective				Plug Back Depth (mKB)	
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 0	Tubing Pressure (kPa)	Set Depth (MD) (mKB) 2,264.50
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Clear	Temperature (°C) -25

Daily Activities

Morning Ops @ 7am

WL: Run Specity Tools

Daily Operations Summary

Pre-Jsm Check pressures CSG= 0 kpa Remove well head install and secure adpater flange R/I Wireline RIH with 147mm G/Ring to CMT @ 1794 KB RIH with Bond tools H/S overview to CMT Log out of the hole.RIH to CMT @ 1794Kb pressure up to 7Mpa Log OOH with Tools R/O Wireline N/U well head SDFN.

Time Log

Start Time	Dur (hr)	Com
07:30	0.50	Conduct Pre-JSM with Services, Review Hazard Assessment, TIWP and Fire & Explosion, 4-Pillars of safety, Ensure personal have CNRL CSO Orientation and are fit for duty, Review Jsa's and sign off on services Hazard Assessment, Review Abandonment program and job scope, off load conley max heater and Gen Set Removal of well head installing adapter flange Hot Steam, Proper PPE Check pressures, Line of fire, swing path, Crush Zones high overhead loads, steam lines. Bump test personal 4 head monitor and H2S monitors. Slips & Trips Know muster points and plan escape routes. Use 3 point contact at all times. Traffic Moving Equip Blind Spots and Spotters Good Communication at all time.
08:00	4.00	Check Pressures 0-Kpa Removed Well head to Review a solid ice Plug Installed and secured well head R/I Steam from Vac Truck and Conley Max Heater to thaw out well head. Removed Well head 11am to inspect all good pulled 5 foot ice plug out, Steam off and install adapter.
12:00	0.50	Conduct Pre-JSM with Services, Review Hazard Assessment, TIWP and Fire & Explosion, 4-Pillars of safety, Ensure personal have CNRL CSO Orientation and are fit for duty, Review Jsa's and sign off on services Hazard Assessment, Review Abandonment program and job scope, R/I wireline and run CBL.
12:30	7.00	R/I Eclipse Wireline RIH with 147mm G/Ring to CMT @ 1794Mkb Surface Tools Make up & RIH with CBL Tools with High speed overview to CMT @ 1794Mkb POOH at 13-15 meters P/Min to surface. RIH to CMT with CBL Tools Pressure up well to 7mpa shut in pressure pump, POOH with Bond tools to surface R/O Wireline N/U Well Head and secure Travel back to camp SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
1/28/2023 14:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/28/2023 15:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Operational Supervisors	
				Contact	Title
Fresh Water	0.00	0.00	105.00	Mike Loveless	Well Site Supervisor
				Dale Duffy	Superintendent
				Jeffrey Willick	Abandonment Ops Mgr.
				Contractor	Rig Number
				Rig Manager	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 14.0

2/5/2023 07:30 to 2/5/2023 17:30

Current Event (UWI) 300/A-77-60.50-122.30/00	Surface Legal Location	License # NT004090	Field Name FT LIARD	Province N.W.T
WI (%) 100.00	Objective			Plug Back Depth (mKB)
Job Start Date 1/15/2023	Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 0
Job End Date	Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Tubing Pressure (kPa) Set Depth (MD) (mKB) 2,264.50

Daily Activities

Morning Ops @ 7am

WL: Run Expansion Tools

Daily Operations Summary

SICP = 0 kpa Remove well head install and secure adpater flange. Install 3K 179.2mm Orbit valve. Install 5 K W/L Adapter flange with night cap. Heat tools with Conley Max heater over night. SDFN.

Time Log

Start Time	Dur (hr)	Com
07:30	1.50	Travel camp to location. Hold Pre-Job Safety meeting with all Services, Review Hazard Assessment, TIWP and Fire & Explosion, 4-Pillars of safety, Ensure personal have CNRL CSO Orientation and are fit for duty, Review JSA's and sign off on services Hazard Assessment, Review Abandonment program and job scope, Removing wellhead & installing adapter flange, Steam, Proper PPE Check pressures, Line of fire, swing path, Crush Zones high overhead loads, steam lines. Slips & Trips Know muster points and plan escape routes. Use 3 point contact at all times. Traffic Moving Equip Blind Spots and Spotters Good Communication at all time.
09:00	4.50	Thaw out wellhead & Check SICP 0 Kpa Removed Wellhead THF & Install 279.4 x 179.2mm adapter flange. Install 3K Orbit valve & bolt down. Install Eclipse W/L 5K Adapter flange with night cap. Shut in & secure well.
13:30	4.00	Eclipse Wireline check all connections with Renegade expansion tool. Start heating tools with Conley Max dry heater & function test after 2 Hrs. Travel to all locations and check for Tubing & clean up. Travel to M-35 then back to camp SDFN

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
1/28/2023 14:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/28/2023 15:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Operational Supervisors	
				Contact	Title
Fresh Water	0.00	0.00	105.00	Jeffrey Willick	Abandonment Ops Mgr.
				Dale Duffy	Superintendent
				Phil Millard	Wellsite Supervisor
				Contractor	Rig Number
				Rig Manager	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 15.0

2/6/2023 06:30 to 2/6/2023 18:30

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090		Field Name FT LIARD		Province N.W.T
WI (%) 100.00	Objective						Plug Back Depth (mKB)	
Job Start Date 1/15/2023		Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 0	Tubing Pressure (kPa)	Set Depth (MD) (mKB) 2,264.50	
Job End Date		Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Overcast	Temperature (°C) -18	

Daily Activities

Morning Ops @ 7am
WL: Run Expansion Tools
Daily Operations Summary
SICP = 0 kpa. Heat Expansion tools with Conley Max heater over night. RIH w/ 152mm Gauge ring to tag cement top @ 1794.0 mKB. POOH with 900 M to go & jump top sheave. Clamp & fix ice on sheave. POOH Gauge ring. Spool out 900 M & cut E-line. Re-head E-line & check (good) RIH & log onto depth. Interval #1 - 3 Expansions @ 1730.0 mKB, 1729.4 mKB, 1729.7 mKB. Interval #2 - 3 Expansions @ 1715.0 mKB, 1714.4 mKB, 1714.7 mKB. Interval #3 - 3 Expansions @ 1700.0 mKB, 1699.4 mKB, 1699.7 mKB. POOH w/ Expansion tool & break down & service. SIW & secure. Leave heater on wellhead all night

Time Log

Start Time	Dur (hr)	Com
06:30	1.25	Travel from Camp to location. Move in Eclipse E-line truck #MM013 c/w 177.8mm Lubricator. Move in Poorboy Picker & Renegade tool hand.
07:45	0.50	Hold Pre-Job Safety meeting with all Services, Review Hazard Assessment, TIWP and Fire & Explosion, 4-Pillars of safety, Ensure personal have CNRL CSO Orientation. All workers fit for duty, Review JSA's and sign off on services Hazard Assessment, Review Procedures for Expansion tool. All required PPE. Check pressures, Line of fire, swing path, Crush Zones, high overhead loads, steam lines. Slips & Trips Know muster points and plan escape routes. Use 3 point contact at all times. Traffic Moving Equip Blind Spots and Spotters Good Communication at all time.
08:15	9.00	Rig up Eclipse Wireline check all connections with Renegade expansion tool (good) Make up 152mm Gauge ring c/w Pack-off. RIH with 152mm Gauge ring & tag cement top @ 1794.0 mKB. Start pull out and when we reached 900 M in hole discover that E-line jumped top sheave. Assess & install wireline clamp to secure. Lower sheave and clean off ice. Lift & take weight to remove wireline clamp. POOH with 152.0mm Gauge ring. Spool out 900 M of E-line & cut. Re-head E-line & check (good) Make up 177.8mm Expansion tool & function test (good) RIH with Casing Expansion tool 60 M minute in hole to 1755 mKB. Pull CCL strip & Correlate to RBL log, get on depth. Interval #1 - 3 Expansions dents @ 1730 mKB, 1729.4 mKB & 1729.7 mKB. Interval #2 - 3 Expansions dents @ 1715 mKB, 1714.4 mKB & 1714.7 mKB. Interval #3 - 3 Expansions dents @ 1700 mKB, 1699.4 mKB & 1699.7 mKB. Drop down to 1755 mKB & pull CCL strip through all Expansion on log. POOH with 177.8mm Expansion tools & lay down. Service tools & grease for AM. Shut in & secure well. Leave Conley Max heater on wellhead all night. SDFN.
17:15	1.25	Travel to Camp.

Perforations Summary

Date	Zone	Top (mKB)	Btm (mKB)	Type	Com
1/28/2023 14:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/28/2023 15:00	Landry, Original Hole	1,936.00	1,938.00	Perforation	
1/26/2023 14:00	Landry, Original Hole	1,970.00	1,972.00	Perforation	
1/26/2023 13:30	Landry, Original Hole	1,970.00	1,972.00	Perforation	
3/29/2004 00:00	Slave Point, Original Hole	1,997.00	2,010.00	Perforated	Supervisor: JOE GRAVES 250-261-4
3/27/2004 00:00	Landry, Original Hole	2,209.00	2,214.00	Perforated	Supervisor: JOE GRAVES 250-261-4 LANDRY FORMATION

Daily Fluids Summary

Daily Fluids Summary				Operational Supervisors	
Fluid	To well (m³)	From well (m³)	Left to recover (m³)	Contact	Title
Fresh Water	0.00	0.00	105.00	Jeffrey Willick	Abandonment Ops Mgr.
				Dale Duffy	Superintendent
				Phil Millard	Wellsite Supervisor
				Contractor Eclipse E-line Services Inc	Rig Number MM013
				Rig Manager Kevin Cage	



Canadian Natural

Daily Service Report (Gov't Submissions)

ANADARKO EMILE LAKE A-77

Job: Abandonment
Report #: 16.0

2/7/2023 06:30 to 2/7/2023 13:30

Current Event (UWI) 300/A-77-60.50-122.30/00		Surface Legal Location		License # NT004090		Field Name FT LIARD		Province N.W.T
WI (%) 100.00	Objective						Plug Back Depth (mKB)	
Job Start Date 1/15/2023		Ground Elevation (m) 624.70	Tubing Head Elevation (m) 0.00	KB-TH (m) 630.80	Casing Pressure (kPa) 0	Tubing Pressure (kPa)	Set Depth (MD) (mKB) 2,264.50	
Job End Date		Original KB Elevation (m) 630.80	Casing Flange Elevation (m) 624.27	KB-Casing Flange Distance (m) 6.53	Road Condition Rough	Weather Overcast	Temperature (°C) -18	

Daily Activities

Morning Ops @ 7am

SCVF: Monitor

Daily Operations Summary

SICP = 0 kpa. Heat Expansion tools with Conley Max heater 2.5 Hrs. RIH 177.8mm Expansion tool & log onto depth to RBL main pass.

Interval #4 - 3 Expansions @ 662.0 mKB, 661.4 mKB, 661.7 mKB.

Interval #5 - 3 Expansions @ 640.0 mKB, 639.4 mKB, 639.7 mKB.

Interval #6 - 3 Expansions @ 620.0 mKB, 619.4 mKB, 619.7 mKB.

POOH w/ Expansion tool & break down & service. P/test Casing to 7 Mpa 10 min. Start 7000 Kpa, End 7000 Kpa (good test) Bleed off & ND Orbit valve. NU 5K THF & secure. SIW. Tarp in leave heater on wellhead to monitor SCVF.

Time Log

Start Time	Dur (hr)	Com
06:30	1.25	Travel from Camp to location. Move in Eclipse E-line truck #MM013 c/w 177.8mm Lubricator. Move in Poorboy Picker & Renegade tool hand. Stream Flo crew & Combo Vac truck.
07:45	0.50	Hold Pre-Job Safety meeting with all Services, Review Hazard Assessment, TIWP and Fire & Explosion, 4-Pillars of safety, Ensure personal have CNRL CSO Orientation. All workers fit for duty, Review JSA's and sign off on services Hazard Assessment, Review Procedures for Expansion tool. All required PPE. Check pressures, Line of fire, swing path, Crush Zones, high overhead loads, steam lines. Slips & Trips Know muster points and plan escape routes. Use 3 point contact at all times. Traffic Moving Equip Blind Spots and Spotters Good Communication at all time.
08:15	4.00	Rig up Eclipse Wireline check all connections with Renegade expansion tool (good) Make up 177.8mm Expansion tool & function test (good) RIH with Casing Expansion tool 60 M minute in hole to 655 mKB. Pull CCL strip & Correlate to RBL log, get on depth. Interval #4 - 3 Expansions dents @ 662 mKB, 661.4 mKB & 661.7 mKB. Interval #5 - 3 Expansions dents @ 640 mKB, 639.4 mKB & 639.7 mKB. Interval #6 - 3 Expansions dents @ 620 mKB, 619.4 mKB & 619.7 mKB. Drop down to 655 mKB & pull CCL strip through all upper Expansions on log. POOH with 177.8mm Expansion tools & lay down. Service tools & grease. Lay down Eclipse W/L & rig out equipment. Rig out Renegade Expansion tools.
12:15	0.25	Fill hole to surface with Combo valve truck fresh water. P/test casing to 7 Mpa 10 min: Start 7000 Kpa, End 7000 Kpa (good test) Bleed off back to vac truck.
12:30	1.00	Stream Flo crew Remove 179.2mm x 3K Orbit valve. Remove 279.4mm x 179.2mm Dan's Adapter flange. Install 279.4mm x 5K Tubing head flange & bolt down. Close all valves on wellhead. Tarp in wellhead & continue heating with Conley Max dry heater to monitor SCVF vent nanny. 13:30 Hrs travel to next location K-77.

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