

# Daily Morning Report

## COPRC MIRROR LAKE N-20 65-00 126-45

Report #: 16  
Report Date: 2/16/2016  
Final Job Status:  
Final Report? No

### WELL HEADER INFORMATION

Country CANADA	State/Province N.W.T.	Region / Division WCBU	District NEW VENTURES	Field Name Mirror Lake	Field Code
Surface Legal Location N20 65-00 126-45		API / UWI 300/N20 65-00 126-45/0		License No. EL 470 WID 2079	
Orig KB/RT (m) 286.50	Ground Elevation (m) 281.30	KB-Grd (m) 5.20	KB-CF (m) 4.87	KB-TF (m) 4.32	Total Depth (mKB) 2,146.00
					PBTD (All) (mKB) Original Hole - 2,127.00

### JOB INFORMATION

Job Category ABANDONMENT	Primary Job Type ABANDONMENT P&A	Secondary Job Type SURFACE CASING VENT	Total Field Estimate (Cost) 658,560.31
Objective Abandon Cut and Cap			
Actual Start Date 1/16/2016 14:00	End Date	Abandon Date	Responsible Grp 1 coved
		Responsible Grp 2 lborbel	Responsible Grp 3 Michael Short

### AFE COST SUMMARY

AFE / RFE / Maint.# 10385949	Total AFE Amount (Cost) 1,310,000.00	Total AFE + Supp Amount (Cost) 1,310,000.00	Total Field Estimate (Cost) 658,560.31	AFE-Field Estimate (Cost) 651,439.69
AFE / RFE / Maint.# 10385945	Total AFE Amount (Cost) 946,350.00	Total AFE + Supp Amount (Cost) 946,350.00	Total Field Estimate (Cost)	AFE-Field Estimate (Cost) 946,350.00

### DAILY INFORMATION

Report Start Date 2/16/2016 07:30	Report End Date 2/16/2016 19:30	Daily Cost Total (Cost) 122,017.54	Cumulative Cost (Cost) 658,560.31	Personnel Regular Hours (hr) 175.00
Daily Contacts WS Superintendent, Derrick Cove, 780-831-1314; Abandonment Engineer, Louis Borbely, 403-650-3939; WS Supervisor, Michael Short, 403-348-7127				Rig C&J Energy Services, 217
Tubing Pressure (kPa) 0	Casing Pressure (kPa) 0	Weather overcast	Temperature (°C) -20	Lease Condition good

### Last 24hr Summary

Latch into retainer and pressure test. Perform 5.8m³ SqueezeCRETE cement retainer squeeze. Final squeeze pressure 12,776kPa. Backwash tubing and pull 25 joints of tubing.

### 24hr Forecast

Pull out of hole 60.3mm tubing. Perforate next squeeze interval. Get a breakdown/feed rate. Wireline set cement retainer.

### PROCESS SAFETY REPORTING

Start Date		End Date		Process Safety Event	Activity at Time of Event
Start Time	End Time	Dur (hr)	Time P-T-X	Operation	
07:30	08:00	0.50	P	Held pre-job safety and operations meeting with all services. Review CPC PJHA, tripping tubing hazards/ slippery lease conditions and use of traction control/ overhead loads/ hammering/wrenching/trapped pressure/ ice plugs/cold weather operations/ pinch points on floor/ pressure testing/ high pressure lines. Review transportation plan and muster areas with all workers. All workers safety certificates checked.	
08:00	10:00	2.00	P	Perform daily walk around inspections and checks. Inspect all equipment for leaks/spills. None found. Sweep for LEL's, no LEL's  Check well pressures: SICP- 0 SITP -0 Surface casing- vent nanny installed.  Pull tubing hanger, RIH 9 joints of 60.3mm tubing, 3.09m pup, 1.25m pup, 1 joint of 60.3mm tubing.  Sting into retainer. set 9,000daN. Pressure test annulus to 21MPa, test good. Pull to neutral and pressure test to 10MPa (test good) Rig off rig circulating equipment.  09:45 SLB cementers arrived on location. Review CPC PJHA, discuss rig in Cementing equipment/ hammering and wrenching/ overhead loads/tag lines.	
10:00	11:00	1.00	P	Spot and rig in SLB batch mixer and treating line. Line ran through flameless heater hose to avoid freezing during cementing operations. Sting into retainer from neutral position, set 11,000daN. Discuss job procedure and volumes with SLB supervisor.	
11:00	11:30	0.50	P	Review CPC PJHA, discuss cementing hazards/ PPE required/ high pressure lines/chemicals/ ice plugs/spills and leaks/ moving tubing/ backwashing/ vac truck grounding/bonding	

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Start Time	End Time	Dur (hr)	Time P-T-X	Operation
11:30	17:15	5.75	P	<p>Transfer 25°C potable water containing &lt;4000mg/L TDS to SLB C&amp;A unit. Prime pump and push fluid through line to warm. Shut in at hamer valve and pressure test treating line to 30MPa. (good test) 12:20- Begin pumping 8m³ 25°C potable water containing &lt;4000mg/L TDS to cool well prior to cementing. 300L/min@16.7MPa. 12:54pm- Begin mixing 6m³ slurry(5.8m³ actual) SqueezeCRETE cement. 1Hour and 20min to mix cement. Had some issues with line packing off with dry cement. Checked density with pressurized mud scale-1660kg/m³,1669kg/m³ on NRD on mixer.</p> <p>14:14hrs-Begin pumping squeezeCRETE cement as follows: Note densometer on C&amp;A unit reading 1616kg/m³ but slurry was checked against other densometer and by mud scale as above.</p> <p>4.0m³ slurry,200L/min@1,500kPa starting pressure 14:33hrs- End of 200L/min stage pressure at 6750kPa 100L cement under retainer</p> <p>14:34hrs-Slow rate to100L/min, pump 2.0m³ slurry@3780kPa starting pressure 14:50hrs- End of 100L/min stage pressure at 4255kPa 2.1m³ under retainer</p> <p>NOTE: At end of 50L/min stage tank volume pumped and volume pumped on computer out by 300L.Use tank volume pumped reading rather than computer readings for remainder of job.</p> <p>14:51hrs- Slow rate to 50L/min, pump 1.2m³ (Adjusted to tank volume pumped) water @ 3402kPa starting pressure 15:20hrs- end of 50L/min stage pressure at 6211kPa 3.3m³ under retainer</p> <p>15:21hrs- Slow rate to 20L/min pump lost prime at start of stage, re-circulate pump and catch prime, rate leveled out at 30L/min. Discuss with Louis Borbley, continue at this rate. Pump 2.15m³ water at 30L/min starting pressure @ 5450kPa 16:17hrs- 4.1m³ under retainer 30L/min @8550kPa 16:33hrs- 4.6m³ under retainer 30L/min @10,093kPa 16:50hrs- 5.1m³ under retainer 30L/min @11,608kPa 16:58hrs- 5.25m³ under retainer 30L/min @12,461kPa</p> <p>16:59- slow rate to 10L/min, had issues getting steady rate. Got rate to18L/min. Pumped 0.15m³ 17:10- Final Squeeze pressure 12,776kPa. 5.4m³ slurry under retainer.</p>
17:15	18:00	0.75	P	<p>Sting out of retainer. (1000daN overpull to pull out of retainer) Tubing on vaccum, indicating cement dropping out of tubing. (400L of slurry remained in tubing) Rig off SLB treating line. Pull 1 joint of tubing. End of tubing @ 1923mKB. (tubing pulled dry) Rig on circulating equipment and backwash tubing until clean. Returned 150L of slurry back to rig tank. Rig off circulating equipment.</p>
18:00	19:00	1.00	P	<p>Pull and lay down 4 joints of 60.3mm tubing. Stand 20 joints of tubing and land tubing hanger. Shut in and secure well for night. Drain and winterize equipment.</p>

### FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	28.00	0.00	14.50	0.00	34.60

### DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BP PUMP LTD	Q300	20.00
Service Rig	C&J ENERGY PRODUCTION SERVICES CANADA LTD	E120	14,209.00
Surface Completion Equipment Rental	CENTRAL MACKENZIE ENVIRONMENTAL LTD	Q300	40.00
Surface Completion Equipment Rental	CENTRAL MACKENZIE ENVIRONMENTAL LTD	Q300	60.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	175.00
Completion Fluids & Other Chem	HRN CONTRACTING LTD	G300	1,975.00
Completion Fluids & Other Chem	IMPERIAL OIL PRODUCTS & CHEMICALS DIVISION	G300	21.60
Completion Fluids & Other Chem	IMPERIAL OIL PRODUCTS & CHEMICALS DIVISION	G300	5,350.00
Wellsite Supervision & Engineering	MKH SHORT CONSULTING LTD	T130	1,620.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	325.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	325.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	75.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	75.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	75.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	185.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	185.00
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Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	185.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	125.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	G300	1,638.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,205.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Cementing Services & Materials	SCHLUMBERGER CANADA LIMITED	J200	89,108.74
Downhole Completion Equipment	SCHLUMBERGER CANADA LIMITED	C100	1,460.00
Completion Fluids & Other Chem	SRP NORTH VENTURES LTD	G300	3.60
Completion Fluids & Other Chem	SRP NORTH VENTURES LTD	G300	891.60
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	T130	1,620.00
Surface Completion Equipment Rental	TRUMPETER CAMP COMPANY PARTNERSHIP LTD	Q300	450.00
Surface Completion Equipment Rental	TRUMPETER CAMP COMPANY PARTNERSHIP LTD	Q300	350.00
Surface Completion Equipment Rental	TRUMPETER CAMP COMPANY PARTNERSHIP LTD	Q300	50.00

### CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
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### PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
2/8/2016	Basal Lower Canol, Ori...	2,068.00	2,070.00	17.5	Open - Not Flowing
3/27/2013	Basal Lower Canol, Ori...	2,059.00	2,060.00	20.0	Open - Not Flowing
3/28/2013	Middle Lower Canol, O...	2,023.00	2,024.00	20.0	Open - Not Flowing
2/8/2016	Basal Lower Canol, Ori...	2,015.00	2,017.00	17.5	Open - Not Flowing
3/28/2013	Upper Lower Canol, Or...	1,993.00	1,994.00	20.0	Open - Not Flowing
2/14/2016	Upper Lower Canol, Or...	1,938.00	1,940.00	17.5	Squeezed
2/14/2016	Upper Lower Canol, Or...	1,938.00	1,940.00	17.5	Squeezed