



Paramount
resources

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July 27, 2022

OROGO
Department of Industry, Tourism and Investment
Government of the Northwest Territories
P.O. Box 1320
Yellowknife NT
X1A 2L9
Canada

Attn: Ms. Pauline de Jong
Regulator

Re: Application to Alter the Condition of a Well (AACW)
Lac Manoir C-34 (WID 1995)

Paramount Resources Ltd. on behalf of its subsidiary MGM Energy plans to abandon the above well:

Please find the following in support of this application:

- A signed original Application to Alter the Condition of a Well (AACW)
- Details regarding the Application to Alter
- Abandonment program including downhole diagrams
- A signed original Information Disclosure Consent Form

A PDF version of the Application, including scanned copies of the above attachments will be provided to OROGO secure FTP site.

Should you require additional information regarding this application and project please contact me.

Furthermore, please accept this letter as permission to discuss this application and associated communications and operations with Paramount team members or Mr. Richard (Dick) Heenan of Heenan Energy Services Ltd. at (403) 818-4408 or dickheenan@shaw.ca if required.

Regards,

John Hawkins, P. Eng.
Director Asset Management
Paramount Resources Ltd.

APPROVAL TO ALTER THE CONDITION OF A WELL

This form is an application for a Well Approval under Section 10 of the *Oil and Gas Drilling and Production Regulations*.

INSTRUCTIONS:

1. Complete both pages.
2. Send one electronic copy of this form and supporting technical documentation by email to orogo@gov.nt.ca. If you wish to communicate with OROGO in hard copy, please do so using the courier address found at www.orogo.gov.nt.ca.

WELL INFORMATION

Well Name	<u>Lac Manoir C-34</u>	Operator	<u>MGM Energy</u>
Well Type	<u>Exploratory Well (if Other, specify _____)</u>	Contractor	<u>TBD</u>

RELATED LICENCES, PERMITS, AND AUTHORIZATIONS

Operating Licence No.	<u>NWT-OL-2014-009</u>	Operations Authorization	<u>OA-2019-002-MGM</u>
PRA Licence No.	Select <input type="text"/>	Station Keeping	<u>Not Applicable</u>
		Land Structure	<u>Conventional Land</u>
Land Use Permit No.	<u>S19A-004</u>	Issued by:	<u>Sahtu Land and Water Board</u>
Water Licence No.	<u>S19L-003</u>	Issued by:	<u>Sahtu Land and Water Board</u>

ACTIVITY INFORMATION


Current Well Status	<u>Suspended</u>	Anticipated Well Status	<u>Abandoned</u>
Well Path	<u>Select</u>	Elevation KB/RT	<u>628 m</u>
Approximate Start Date	<u>Jan 15 2024</u>	Ground Level / Seafloor	<u>623 m</u>
Est. Days on Location	<u>15 days</u>	Anticipated Total Depth	<u>945 m KB</u>

WELL OPERATION PROGRAM

Activity Type	Top to Bottom Interval (m KB)	Comments
Abandonment	876-905	Abandon with bridge plug & cement on top of extg. pkr
Select	-	Cut & cap 1m below grade
Select	-	
Select	-	

Additional
Information

"I certify that the information provided on this form is true and correct"

Name	John Hawkins	Phone	(403) 817-5074 Ext
Title	Director Asset Management	E-Mail	john.hawkins@paramountres.com
Operator	Paramount Resources		
Signature	 John Hawkins	Date	July 27, 2022
	Responsible Officer of Company		



**Application for Approval to
Alter the Condition of a Well
Lac Manoir C-34 Abandonment**

July 2022

Introduction

Apache Paramount Lac Manoir C-34 was drilled in 2004 by Apache Canada to a depth of 945m and cased and cemented to total depth. The Mount Clarke B and C were tested but due to test results and the remote location of the well it was suspended in 2004 with a retrievable tubing plug @ 888m and a Camco A-3 hookwall plug at 18mCF.

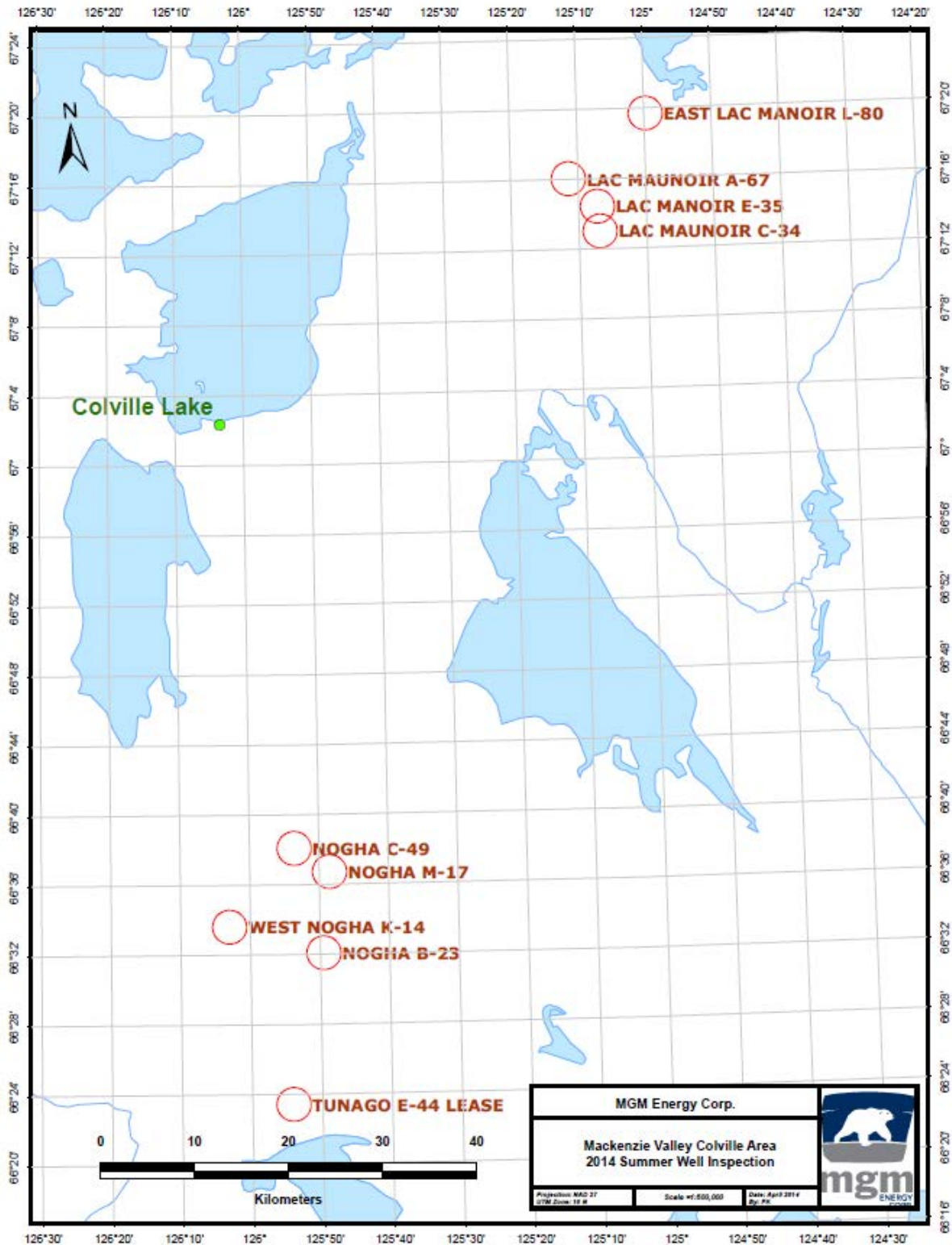
This well has been suspended for a significant period and there are no current plans to put it on production, MGM Energy (MGM), the current owner of record, intends to abandon it in compliance with the requirements of OROGO. Current plans are to abandon this well in conjunction with five others in the region in the winter of 2022. MGM has applied for an Operations Authorization for these wells. Circumstances and/or permitting issues may mean that it is more desirable to change the order and/or timing of the abandonments.

MGM intends to diligently pursue abandonment operations of these (and other) wells in OROGO jurisdiction, but to allow operational flexibility and minimize administrative overhead, MGM requests that the Well Approval be valid until April 30, 2023.

MGM Energy is a wholly owned subsidiary of Paramount Resources Ltd (Paramount). As indicated in the Application for Operations Authorization, operations will be performed using Paramount procedures, supervision, and contract personnel

For ease of review and completeness, this application will follow the format of the OROGO "Roadmap for applications".

Area of Application



General Requirements for a Well Approval

Obligation to Consult with Existing/Asserted Aboriginal Rights Holders

Paramount (for MGM) has consulted with the Aboriginal rights holders affected or potentially affected by these operations.

No concerns were raised by any of the parties involved.

The C-34 well is approximately 45km northeast of the Hamlet of Colville Lake and is only accessible by winter road.

The Engagement Plans and Engagement Records were supplied as part of the supporting information for the application for Operations Authorization for this project.

Well Approval Application Form (AACW)

The original of this form is supplied along with the covering letter.

Requirements of the Oil and Gas Drilling and Production Regulations (OGDPR)

Requirement for a Well Approval – OGDPR S.10

The operations contemplated under this program (well abandonment) require a Well Approval. This document is provided in support of MGM's application for a Well Approval for the abandonment of Lac Manoir C-34.

Application to Drill - OGDPR S.11

This application does not include any new drilling and thus this section of the OGDPR does not apply.

Application to Abandon a Well - OGDPR S.12

The following is a summary of the abandonment program for Lac Manoir C-34.

Retrieve existing tubing, leaving the existing packers and associated material in place.

1. Displace the current wellbore fluid (frac oil/diesel) to fresh water.
2. Set a permanent bridge plug above existing packer, pressure test & cap with cement.
3. Run a cement bond log and evaluate if remedial cementing is required to ensure sufficient zonal isolation.
4. Perform remedial cementing if required
5. Cut & cap per OROGO requirements.

A detailed program is provided with this application.

This approach (rather than removing the existing packers) was chosen as it retains a downhole barrier (in addition to the hydrostatic head of the fluid and the BOPs) between the perforations and the surface, and thus is safer than removing the existing packers. The abandonment plug would be at approximately 853mKB Vs the top perforation at 879 mKB. All three sets of perforations are within the Mount Clark formation, so there is no requirement to isolate them from each other.

Current plans are to start construction of a winter road in December (subject to weather conditions and completion of the GNWT road to Colville Lake).

Downhole abandonment operations are planned to start late January and are estimated to take about 7 days. As there are a total of six wells to be abandoned in the area, the exact order of operations and wells may vary but it is planned to abandon all six wells by the end of March.

Operations are subject to weather and site conditions, and to the availability of equipment and suitable personnel. For this reason, the timing, duration, and even order of the operations may change from those below.

Conditions for Abandonment- OGDPR S.56

The abandonment of this well, as described above and in the program supplied will comply with the requirements of OGDPR section 56.

Monitoring of Suspended Well - OGDPR S.57

The well site will be checked for indications of gas migration during the summer of 2021, in conjunction with regular shut-in well inspections. Prior to and during abandonment operations, the well and immediately surrounding area will be monitored for surface casing vent flows and gas migration outside of the casing. Neither event was observed during shut-in well inspections to date. If any indication of gas migration of surface casing vent flow is observed, operations will be suspended, the program will be modified to address the issue, and OROGO will be notified.

Once the well has been cut and capped and reported as permanently abandoned no further monitoring is anticipated at this time.

Offshore Well- OGDPR S.58

As this is not an offshore well, this section of the OGDPR does not apply.

Other Requirements

The Well Suspension and Abandonment Guidelines and Interpretation Notes

The abandonment of this well, as described above and in the program in Appendix 2 will comply with the *Well Suspension and Abandonment Guidelines and Interpretation Notes* provided by OROGO.

Information Disclosure Consent

This form for the Lac Manoir C-34 operations is supplied along with this application. The form for the information associated with the Operations Authorization is included with that application.



ABANDONMENT PROGRAM

OROGO Deadline April 1, 2022

OROGO LEVEL II WELLBORE

PARAMOUNT LAC MAUNOIR C-34

WID # 1995

POTENTIAL H₂S: 0.0%

PROCEDURE APPROVAL & DISTRIBUTION

DATE: July 26, 2022
WELL NAME: PARAMOUNT LAC MAUNOIR C-34
UWID: 300/C-34-6720-12500/0
OPERATIONS AREA: Coleville Lake PROVINCE: NWT
OBJECTIVE: Abandon Level II wellbore in accordance with OROGO abandonment guidelines.
AFE No: TBD
AMOUNT:
PRL Supplier Coding: PR210-9231-xxx (Abandonment program)

REGULATORY APPROVALS:

REQUIRED: YES

TYPE: OROGO Operations Authorization and ACW.

TYPE: Water License. Permit # TBD.

TYPE: Land Use Permit. Permit# TBD.

AUTHORIZATION RECEIVED by:

DATE:

PROCEDURE COMPLIES WITH CONDITIONS OF AUTHORIZATION: YES ☒ NO ☐

TYPE OF WORKOVER: (Abandonment):

PROCEDURE COMPLIES WITH PARAMOUNT RESOURCES LTD. POLICIES ON:

- 1) Paramount Well Control Manual
- 2) AER Servicing **BOP Class III** well.

DISTRIBUTION: FIELD:

CALGARY: Corey Thomson/Well Files

PREPARED BY: Richard Heenan – Consultant

DATE: July 19, 2022

REVIEWED: Corey Thomson – Engineer (ARO)

DATE: July 2022

APPROVED BY: Tim Wood - Manager (ARO)

DATE: July 2022

John Hawkins - Director (ARO)

DATE: July 2022

ABANDONMENT PROGRAM

OBJECTIVE

Suspended wellbore, OROGO Level II well bore. OROGO abandonment deadline April 1, 2022. Abandon the well as per approved ACW and OROGO guidelines. Cut and cap well.

REPORTING

- All rig calls and Daily Reports are to be directed to Corey Thomson (Superintendent/Engineer ARO)
 - Office: 403-261-1250
 - Cell: 403-835-4447
 - E-mail: corey.thomson@paramountres.com

PROGRAM SUMMARY

- Read & record SIP(s). Investigate status of SCVF/GM
- MIRU slick line unit. Pull A-3 tubing plug from 18mcf.
- Set X plug in profile @ 853mKB and P-test. Rig out slick line.
- MIRU Service Rig, P-tank and associated equipment – Rig up BOPs & test
- Release on-off connector @ 853mKB & circulate to fresh water
- RIH bit and scraper for 177.8mm casing on 73mm tubing string to PBTD. Circulate clean. Pull bit and scraper.
- Set permanent bridge plug @ +/- 853mKB & P-test
- Tag cement plug and record depth (Minimum of 15 meters above top perforation required). Pressure test to 7000 kPa for 10 minutes..
- Displace water from wellbore 100mKB to prevent freezing
- Cut and cap the casing strings with vented cap. Install well marker

SAFETY

A safety meeting is to be held with all service company personnel prior to each job. Wellsite supervisor must notify Contractors of known hazards of which Contractor(s) may be unaware. Wellsite supervisor must ensure that workers are aware of their responsibilities and duties under OH&S regulations and that workers comply with regulations. All service companies supplying materials will review Material Safety Data Sheets at this meeting for all products supplied and maintain these Material Safety Data Sheets available for worker's examination on location in compliance with WHIMIS regulations. All safety meetings will be recorded on the Paramount daily report and on the daily tour sheet.

Whenever possible, plan and conduct all workover procedures in a manner which will avoid the mixing of air & hydrocarbons in the well bore and connected surface piping. If mixing does occur, purge prior to pressurizing or exposing mixture to any other possible source of ignition.

Rig anchor locations if required will be approved by Paramount Wellsite Supervisor prior to installation.

REGULATIONS



All applicable regulations, including, but not limited to the specific approved OROGO ACW approval, OROGO Well Suspension and Abandonment Guidelines, Oil and Gas Occupational Safety and Health Regulations (NWT) and Occupational Health and Safety (OHS) Regulations (NWT) are to be strictly adhered to. Written instructions must be posted in doghouse or other conspicuous area prior to the wellsite supervisor leaving the lease. Wellsite supervisor must designate, in writing (see attached Form), a competent person to carry out principal contractor's responsibilities. All verbal notifications and approvals from government regulatory agencies will be recorded on Paramount's daily report tour sheet. The name of the individual contacted, and the subject matter of approval or notification should be recorded on same.

Paramount shall provide all staff and contractors for this program with the OROGO 24-hour incident reporting phone number (867-445-8551) prior to commencing any work or activity.

Paramount shall submit to OROGO an updated operator contact list for this program prior to any work or activity by email at orogo@gov.nt.ca.

Paramount shall submit to OROGO certificates and inspection documents for any service rig, well control and associated equipment (including boilers) at least 10 days prior to the rig commencing work by e mail at orogo@gov.nt.ca.

Paramount shall submit to OROGO all reports required under the Oil and Gas Drilling and Production Regulations in a timely manner to OROGO by email at orogo@gov.nt.ca.

Paramount shall submit to OROGO, completed Change of Well Status form 30 days after the service rig release date or when the abandonment operation has been finished.

WORK ORDERS/FIELD TICKETS

Delivery and field tickets for all work, services performed, or materials purchased must be signed by a Company wellsite supervisor. Record the AFE number and well location on all purchase and work tickets.

MATERIAL TRANSFERS

All materials shipped to this location that are not used must be transferred to an appropriate warehouse point. Transfers of any tubular materials must include complete tally. Company wellsite supervisor will complete such transfers and forward both copies to Calgary office for approval and further handling.



PARAMOUNT LAC MAUNOIR C-34 ABANDONMENT

WELL DATA AND WELLBORE CONFIGURATION

WELL DATA:

Surface Location:	LAT: 67°13'02.741" N LONG: 125°07'03.941" W NAD83
UWI:	300/C-34-6720-12500/0
Profile:	Slight Deviation (Refer to survey)
BGWP:	600m GL (Default)
WID#:	1995
OPERATING LICENCE#	NWT-OL-2014-009
OROGO OA#	TBD
OROGO ACW#	TBD
Spud Date:	January 20, 2004
Rig Release Date:	February 23, 2004
KB:	628.0m
GL:	622.8m
KB-GL:	6.8m
PBTD Original:	926.7m KB
TD:	945.0m KB

CONDUCTOR:

Hole size 445mm to 61.0m KB.

339.7mm, 101.71kg/m K-55 BT&C landed at 65m KB.
Cemented with 10tonne (7.4m³) Arctic Set cement + 2.0% CaCl₂. Top filled with additional 10tonne (7.4m³) Arctic Set cement through 25.4mm pipe from surface.

SURFACE:

311 mm to 451.0mKB

32 Joints. 244.5 mm, 59.53 kg/m, L-80, LT&C set at 451.0m KB.
Cemented with 8.5tonnes (7.5m³) Arctic Set + 0.5% D065 + 0.2% D046 + 1.0% D013at 1900kg/m³ tailed in with 17tonnes (13.9m³) Class 'G' + 2.0% CaCl₂ and displaced with 17.7m³ of fresh water. The plug was down at 0735hrs February 15,2004. 5m³ good cement returns to surface.

PRODUCTION:

Hole Size 216 mm to 945.0m KB.

78 Joints. 177.8 mm, 43.16kg/m, L-80, LT&C set at 945.0mKB. Cemented with 21Tonnes (18.8m³) 0:1:0 Class G Cement and displaced with 18.1m³ of fresh water. Trace cement returns observed at surface.

PERFORATIONS:

902.5 – 905.5mKB L. Mount Clark C (plugged)
891.0 – 894.0mKB U. Mount Clark C
876.5 – 879.5mKB Mount Clark B



Formation Tops

geoSCOUT Ref Elev(m):

+626.7

Formation	TVD (m)	Elev (m)	
Cfr_mtcyc	339.0	+287.7	
Csalin_rv	508.5	+118.2	
Csaln_sa	587.0	+39.7	
Csaln_cIL	607.0	+19.7	
Cmt_cap	700.0	-73.3	
Cmt_clark	870.0	-243.3	
preCamb	907.0	-280.3	

GEOLOGICAL MARKERS KB ELEVATION 628.0m. FROM GEOLOGICAL REPORT

Formation	Sample Depth (m)	Log Depth (m)	Log Subsea (m)
Franklin Mtn – Cyclic	339.0	339.0	289.0
Saline River – Shale	519.0	508.5	119.5
Saline River - Up salt	565.0	548.5	79.5
Saline River - Lower Shale	591.0	587.0	41.0
Saline River- Lower Salt	607.0	607.0	21.0
Mt. Cap - Upper Shale	705.0	700.0	-72.0
Mt. Cap – Chert	723.0	712.4	-84.4
Mt. Cap - Lower Zone	770.0	741.0	-113.0
Mt. Cap - Clastic Zone	822.0	770.0	-142.0
Mt. Cap – Basal	838.0	815.0	-187.0
Mt. Clarke - A Zone	870.0	870.0	-242.0
Mt. Clarke - B Zone	876.5	876.5	-248.5
Mt. Clarke - C Zone	886.5	889.9	-261.9
Proterozoic	905.5	907.0	-279.0
Total Depth	945.0	945.0	-317.0

SCVF: No vent flow present.

Tubing/Casing Data:

	Surface Casing	Prod. Casing	Production Tubing String	
Size O.D. (mm)	244.5	177.8	73.0	
Weight (kg/m)	59.53	43.16	9.67	
Grade	L-80	L-80	L-80	
Connection	LT&C	LT&C	EUE	
Drift I.D. (mm)	220.45	153.90	59.61	
I.D. (mm)	224.41	157.07	62.0	
Capacity (m ³ /m)	0.040326	0.019377	0.003019	
Collapse (MPa)	21.0	48.4	76.9	
Burst (MPa)	40.0	56.3	72.9	
Tension (daN)	323,000	261,100	64 500	
Annular Volume (m ³ /m)			0.015189	
Depth (mKB)	451.0	945.0	889.5	

Reservoir Data:

Formation	Mount Clark B	Mount Clark C	
Perforations	876.5 879.5	891.0 – 894.0 902.5 – 905.5	Plugged
Reservoir Pressure	6,431 kPa (est)	6,431 kPa	
Reservoir Temperature	12°C	12°C	
H ₂ S %	0	0	



GENERAL REQUIREMENTS

- **Daily reports shall be e-mailed to the Operator's office by 7:00am each day.**
- Before commencing operations, the Wellsite Supervisor will complete a list of nearest available emergency services. This list along with a detailed and accurate description of directions to the location is to be posted in a conspicuous and accessible location known to all personnel.
- Emergency contact list should be completed, posted and available to all on site.
- Ensure that all personnel receive a Paramount orientation, are briefed on the wellsite hazards, safety and first aid equipment locations, escape routes and muster points upon their arrival to the lease. All personnel must be signed in after receiving their briefing and all personnel must sign out when departing the work site.
- Safety and well plan meeting to be held with all service company personnel prior to each job and meetings must be recorded on the Paramount's daily report and on the daily tour sheet.
- All applicable regulations, including, but not limited to the specific approved OROGO ACW approval, OROGO Well Suspension and Abandonment Guidelines, Oil and Gas Occupational Safety and Health Regulations (NWT) and Occupational Health and Safety (OHS) Regulations (NWT) are to be strictly adhered to. Written instructions must be posted in doghouse or other commonly visited area prior to Wellsite Supervisor leaving lease.
- The Wellsite Supervisor is responsible for assessing all worker's competency and ability to perform work.
- All service companies supplying materials will provide Material Safety Data Sheets for all products supplied and maintain these Material Safety Data Sheets available for worker's examination on location in compliance with WHIMIS regulations.
- The Wellsite Supervisor will ensure that dangerous goods shipped or received are classified, packaged, marked, labelled and documented in compliance with the Transportation of Dangerous Goods Regulations. If required, placards must be attached to vehicles transporting dangerous goods. All shipping documents must be forwarded to the Calgary office for filing.
- All operations carried out on behalf of the Operator shall be conducted in a safe and efficient manner in compliance with the Operator's safety regulations and all applicable acts and regulations.
- The Operator expects that all operations conducted will be designed to protect and maintain the quality and integrity of the environment and comply with all environmental acts and regulations.
- BOP equipment will be tested at least once daily, and any equipment found defective should be made serviceable before operations are resumed. Blowout prevention and man-down drills are to be performed weekly and are to be recorded on both the morning reports and tour reports.
- Whenever possible, plan and conduct all completion / workover procedures in a manner which will avoid the mixing of air & hydrocarbons in the wellbore and connected surface piping. If mixing does occur, purge prior to pressurizing or exposing mixture to any other possible source of ignition.
- During the absence of the Wellsite Supervisor, a qualified and competent alternate shall be designated, in writing, to carry out the principal Contractor's responsibilities. Written instructions must be posted in a conspicuous and accessible location known to all personnel prior to the Wellsite Supervisor leaving the location.
- All verbal notifications and approvals received on location from any regulatory agency must be documented and recorded on both morning reports and tour reports and should include a contact name from the agency, phone number and details of the subject matter.
- All field tickets and other supporting documentation submitted for materials purchased and/or services rendered require a correct AFE#, G/L number and accurate identification of the well location along with the Wellsite Supervisor's signature indicating acceptance to the same.



PARAMOUNT LAC MAUNOIR C-34 ABANDONMENT

ABANDONMENT PROGRAM

1. **Submit certificates and inspection documents for any service rig, well control and associated equipment (including boilers) at least 10 days prior to the rig commencing work** by e mail at orogo@gov.nt.ca.
2. The Wellsite Supervisor is responsible to notify (or verify notification has been completed) the OROGO, a minimum of 24 hrs prior to any well servicing abandonment operation.
3. The Wellsite Supervisor is responsible to notify (or verify notification has been completed) the OROGO, a minimum of 24 hours prior to any planned flaring operation. When a permit is applicable for sour gas flaring, a copy of such permit must be on site during any flaring operation and requirements of such permit must be strictly adhered to
4. The Wellsite Supervisor is responsible to verify notifications have been completed to all applicable residents, industrial operators, trappers & guiders within the categorized radius and/or within the emergency planning zone (EPZ) if applicable a minimum of 24 hours prior to any flaring operation.
5. Paramount shall provide all staff and contractors for this program with the OROGO 24-hour incident reporting phone number (867-445-8551) prior to commencing any work or activity.
6. Complete lease access and well handover process. Complete lease inspection. Note the condition of the lease, record any clean-up operations required to address any spills and record any other noteworthy findings on the first morning report. Discuss the transportation arrangements for the tanks and fluid with respect to other activity in the surrounding field area.
7. Prepare location for wireline unit, Service Rig. P-Tank and flare stack & support equipment.
8. Perform SCVF bubble-test, **ensure SCV piping is exposed to determine if it is open and intact**, read and record SIP's. Fill-out the 'Surface Casing Vent Flow / Gas Migration Data Sheet' and examine surface casing vent for blow or suction. Check and monitor LEL and H₂S levels at wellhead and investigate for evidence of gas migration at surface.
9. Check for the presence of and confirm there is no H₂S.
10. Note: this well is not tied in to a flowline.
11. MIRU service rig complete with a 21 MPa Class III BOP stack. 73 mm rams, kill spool, rig pump, clean tank, and related auxiliary equipment (boiler) to OROGO, OH&S and PRL regulations and guidelines. Ensure Corporate Policies and Procedures are followed prior to commencing operations (see attached). Space out equipment in accordance with OROGO and OH&S requirements.
 - Ensure all necessary safety equipment is strategically positioned, on site and tested to ensure proper operating condition prior to commencing with the workover operations.
 - All personnel must be familiar with the operation of all emergency equipment. Safety and BOP drills are to be conducted on a regular basis and recorded on the "Daily Completion / Workover Report"
 - Conduct a complete inspection of the service rig per requirements of AER Directive 37 and PRL guideline policy. Identify and remediate any deficiencies prior to initiating completion operations
 - Conduct an operational and safety meeting prior to installing BOPs onto the wellhead and pressure testing.



12. If necessary, install temporary rig anchors and conduct pull tests on each anchor to 20000 lbs. Install escape line anchor and pull test to 3000 lbs. Ensure PRL ground disturbance procedures are followed.
13. Move in two 200bbl (32m³) tanks for wellbore displacement. Haul in approximately 20m³ fresh water. Ensure bits, scrapers and pressure test packers for 177.8mm and a few spare 73mm tubing joints are available.
14. Conduct daily pre-job safety meeting and equipment inspection.
15. MIRU slick line unit with lubricator and BOPs. Purge and pressure test the lubricator to 1400kPa (low) and 14MPa (high) with Nitrogen gas. Purge the lubricator each time before running in the hole with tools. Hang the wireline sheave in the derrick.
16. Pull slip stop, A-3 plug, and collar stop located at 18mcf.
17. Run blind box and tag PBTD and record depth. Confirm as a minimum access to X nipple at 853mKB.
18. Brush 58.75 mm profile at 853 mKB. Set X plug 58.75 mm profile at 853 mKB.
19. Fill tubing with fresh water. Monitor for pressure buildup/flow in the tubing for 10 minutes to ensure X plug is seated and holding. (Tubing is reported as full of frac oil. If correct the BHP inside the tubing is approximately equal to the formation pressure and no pressure response is anticipated in this "negative pressure test". Pressure test the X plug @ 853mKB to 7 MPa for 10 minutes.
20. Release slickline unit.
21. Install the working spool and BOPs onto the BOP test stump. If required warm up the BOP stack with steam. Function test the blind rams and pipe rams on the test stump. Close the blind rams and pressure test the working spool, the blind rams and BOP flange to 1.4 and 14MPa for 10 minutes each. Install a ported tubing pup and stabbing valve through the BOPs on the BOP test stump. Pressure test the pipe rams and stabbing valve to 1.4MPa and 14MPa for 10 minutes each. Pressure test annular preventer to 7000 KPa for 10 minutes.
22. Conduct an accumulator function test. Recharge the accumulator, shut off the pump and record the accumulator pressure. Close each ram and record the start and end pressures and the time to close each ram. Recharge the accumulator and record the time for the accumulator to recharge to the original pressure. Ensure that hand wheels are available and are the correct type and size for all the BOP rams. Record the number of turns to close each ram manually.
23. Tie in circulating lines with a return line tied into 'P' tank or rig tank as required. Properly stake surface lines and pressure test lines and manifold to 1,400kPa (low) and 14,000kPa (high) and hold each for ten (10) minutes.
24. Install a 73mm landing pup with an open stabbing valve. Close the stabbing valve. Strip the BOPs over the landing pup and nipple up the stack. Close the pipe rams on the landing pup and pressure test the BOP connection to the wellhead to 1.4MPa (low) and 14MPa (high) for 10 minutes each.
25. Release the XL-HD On-off connector at 853mKB by setting string in compression and turning left one – quarter turn.
26. Pull up 1 meter.
27. Forward circulate with fresh water to remove all diesel/frac oil from annulus (approximately 17 m³). Store diesel in tanks on surface and haul to approved disposal. Record on tour sheet and daily report "Displaced well to fresh (non-saline) water" – use this exact wording
28. Pull out of hole with the 73mm tubing while and visually inspect out of the hole for re use. Stand the tubing string.



29. RIH with bit and casing scraper for 177.8mm casing to PBTD (+/- 853m)
Pull out of hole and stand tubing string.
30. Set a permanent bridge plug (BP) as close as practical to PBTD, but at least 5m from a collar.
BP may be set with tubing of wireline as is most convenient.
31. Pressure test bridge plug to 7MPa for 10 minutes and POOH. Record on daily report.
32. RIH 73mm tubing to PBTD and pull 1 meter off bottom.
Prepare to set balanced cement plug.
33. Move in and rig up cementers. Pressure test the surface lines to **21Mpa**.
Make sure mix water is between **20 to 25 deg C**.
Mix water must be clean potable water.
34. RIH with 73mm, 9,67kg/m, EUE open ended tubing to PBTD and tag. Record depth. Come off bottom.
Establish circulation to surface.
35. Circulate a 1m³ balanced (+/- 50 meter) cement plug. Catch and retain samples. Monitor surface samples for "setting" conditions. Record and report same.
Pull tubing above cement top slowly. Circulate clean with fresh water.
36. Wait on cement until surface samples are firm. RIH w/ 73mm tubing and tag cement top.
Cement top must be 15m or more above top of bridge plug. A minimum of 1,800 decanewtons must be used to tag plug. Record results on daily report.
37. Pull out of hole and lay down the 73mm tubing. Ensure thread protectors are used.
38. Run a cement bond log from plug back depth (+/- 853 mKB) to surface.
Perform field evaluation regarding quality of bond and potential interval(s) for cement squeeze.
Transmit log to Calgary office for additional evaluation and confirmation of perforation intervals (if required).
39. If a perforate and cement squeeze is required, notify OROGO office in advance.
Perform squeeze as per program addendum supplied separately with this application.
40. RIH with tubing to 500m.
This will displace 2m³ of water to lower final fluid level to 100m to prevent freezing due to permafrost.
POOH. Do not fill hole.
41. Remove BOPs and rig out.
Cover exposed flange securely if well is not to be immediately cut and capped.
42. Prepare "as built" downhole abandonment diagram – using attached proposed diagram as a guide.



Surface Abandonment:

Cut and cap the casing strings at least 1 m below ground level with vented cap as per the procedure below or with Hydro jet vented cap system.

43. Confirm LEL and H2S are zero. Reconfirm no indications of gas migration.
44. Excavate a 2.5m deep bell hole around the wellhead ensuring that walls of the bell hole are sloped at a maximum of 45 degrees for safe entry and egress and to prevent sloughing in.
45. Confirm surface casing vent is open.
Cut a small hole 30 cm below the surface casing bowl and investigate for trapped gas and fluids. Check and monitor LEL and H2S levels.
Attach wellhead to lifting unit (rig, backhoe, picker, etc.). Pull slight tension
Weld cut three (3) windows in the surface casing to access the innermost casing string ensuring that 50% of the circumferential metal remains to prevent possible collapse of the surface casing from the weight of the wellhead. While exercising caution, weld cut the innermost string.

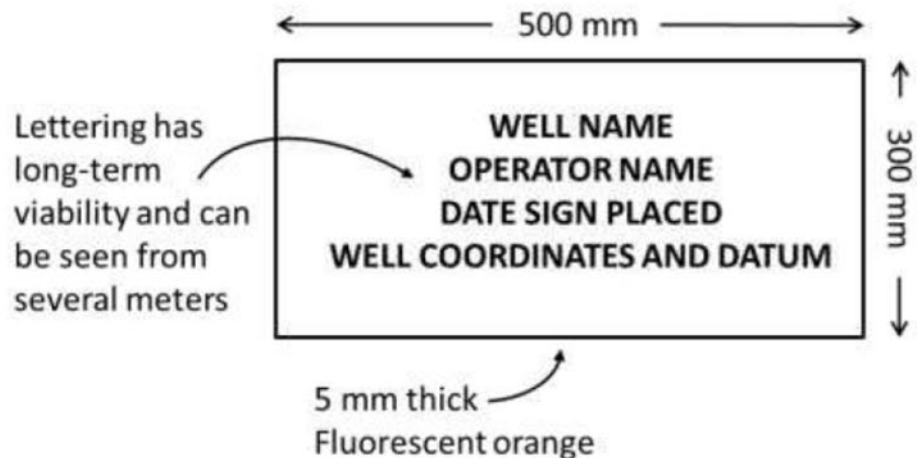
NOTE:

Innermost string can be expected to suddenly drop once completely cut.
Do not place pry bars, hands or fingers in the windows.

46. Complete weld cut of the surface casing, lift and remove wellhead from bell hole.
47. Stitch weld (non-sealing) steel plate "surface casing and production casing.
Weld inscribe the LSD on top of the steel plate and document with a digital photograph.
48. Install abandoned well sign as below.
Verify well coordinates (decimal format to 4 decimal places) in header with handheld GPS field measurement – use NAD 83 Datum
Record well coordinates on daily report.
A buried 5 gallon pail filled with cement may be helpful in supporting the well sign (as below)

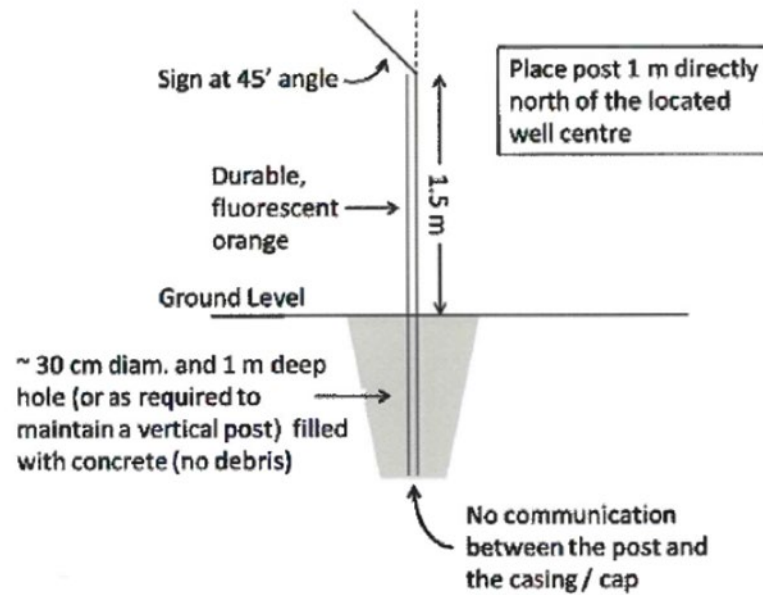
DO NOT WELD SIGNPOST TO CASING.

Sign Requirements



Well Suspension and Abandonment Guidelines and Interpretation Notes

Post Requirements



49. Prepare field sketch of lease indicating well location, signpost (1 meter north of well) and any relevant features. Submit with daily report.
50. Backfill and compact the excavation, clean up lease and rig out and release all services.



CORPORATE CONTACTS

Paramount Resources Ltd.
2800, 421 - 7th Avenue, SW
Calgary, AB
T2P 4KP

ARO (Calgary):

	<u>Business</u>	<u>Residence</u>	<u>Cellular</u>	<u>Fax</u>
Corey Thomson Engineer, Abandonments E-mail: corey.thomson@paramountres.com	(403) 261-1250		(403) 835-4447	(403) 261-1349
Tim Wood Manager, ARO E-mail: Tim.Wood@paramountres.com	(403) 290-2919		(403) 803-8410	(403) 261-1349

PRODUCTION (District Office):

	<u>Business</u>	<u>Residence</u>	<u>Cellular</u>	<u>Fax</u>
Completions Sub-Surface Foremen				
Martin Doll /	(780) 683-8037		403 926-7192	
Kent Gillett	(780) 683-8037		403 350-2730	

MORNING REPORTS (Calgary):

	<u>Business</u>	<u>Residence</u>	<u>Cellular</u>	<u>Fax</u>
Corey Thomson Abandonment Engineer E-mail: Corey.Thomson@paramountres.com	(403) 261-1250		(403) 835-4447	(403) 261-1349
Tim Wood Abandonment Manager E-mail: Tim.Wood@paramountres.com	(403) 290-2919		(403) 803-8410	(403) 261-1349
Richard Bean Abandonment Superintendent E-mail: Richard.Bean@paramountres.com	(403) 303-1929		(403) 793-4586	(403) 261-1349



CORPORATE POLICY & PROCEDURES

- All operations carried out on behalf of the Operator shall be conducted in a safe and efficient manner in compliance with the Operator's safety regulations and all applicable acts and regulations.
- The Operator expects that all operations conducted will be designed to protect and maintain the quality and integrity of the environment and comply with all environmental acts and regulations.
- All contractors on location must have as a minimum a valid H₂S ticket (if necessary), WHMIS, and be fully covered by the NWT Worker's Compensation Board (WCB) where applicable, carry a minimum of \$5,000,000 liability insurance.
- Before commencing operations, the Wellsite Supervisor will complete a list of nearest available emergency services. This list along with a detailed and accurate description of directions to the location is to be posted in a conspicuous and accessible location known to all personnel.
- Any excavation or installation of anchors (if required) on location shall follow Paramount's Ground Disturbance Requirements:
 - a. Contact 1st Call (Review Paramount's Grey book)
 - b. Prior to excavation – obtain Ground Disturbance Permit
 - i. If pipeline in area, arrange for Hydrovac and hand expose lines within 5 meters of excavation.
- Prior to commencing operations, the Wellsite Supervisor shall:
 - Read and record SIP(s). Examine surface casing vent for blow or suction, record and report findings. Check and monitor LEL and H₂S levels at wellhead and investigate for evidence of gas migration at surface.
- Before commencing operations, the Wellsite Supervisor in conjunction with the Rig Manager will conduct an initial rig inspection using a CAODC or equivalent inspection form. A detailed rig inspection is to be completed weekly thereafter. Confirmation of these inspections is to be recorded on both the morning report and tour report.
- Have on-site access to the AER Drilling/ Servicing Regulations - Directive 36, Workplace Health and Safety Regulations, NWT Oil and Gas Operations Act, NWT Drilling and Production Regulations, OROGO Well Suspension and Abandonment Guidelines.
- The Wellsite Supervisor and Rig Manager will conduct daily walk-around inspections and complete a daily rig inspection report in an effort to identify deficiencies regarding well control and safety related items.
- The Wellsite Supervisor must ensure that all pertinent data (tubulars, logs, tests etc.) are properly recorded on the tour sheets and that samples, where required are collected as required by well licence. Also, the Wellsite Supervisor must ensure that trip sheets are properly completed and maintained.
- During cold weather operations, the Wellsite Supervisor must ensure that Precautions are taken to prevent freezing of the bleed-off and kill lines
- The Wellsite Supervisor must ensure that all personnel are advised and instructed not to trespass off the demised property.
- Safety meetings are to be held every day with wellsite personnel and recorded on both the morning reports and tour reports. Pre-job safety/orientation meetings are to be held prior to commencing new or non-routine work at which time the Wellsite Supervisor shall advise all personnel of known hazards, special precautions and procedures. Hazard assessments must be conducted in accordance to Workplace Health and Safety Regulations and documented accordingly.
- BOP equipment will be function tested at least once daily and any equipment found defective should be made serviceable before operations are resumed. Blowout prevention drills are to be performed weekly and are to be recorded on both the morning reports and tour reports. **All appropriate Certifications for equipment used will be on-site and available for review.** Communicate this information with the contracted services.



- The Wellsite Supervisor will ensure that service companies supplying products and/or materials that require Material Safety Data Sheets review and advise wellsite personnel with the potential hazards associated and the appropriate emergency response to be undertaken when handling the same. As well, in compliance with WHMIS regulations, all MSDS are to be posted in a conspicuous and accessible place known to all personnel for their information and emergency reference. Site Specific Orientation to all personnel on-site must be given for all chemicals and materials used.
- The Wellsite Supervisor will ensure that dangerous goods shipped or received are classified, packaged, marked, labeled and documented in compliance with the Transportation of Dangerous Goods Regulations. If required, placards must be attached to vehicles transporting dangerous goods. All shipping documents must be forwarded to the Calgary office for filing.
- The Operator expects full compliance with all conditions detailed on the Land Use Permit and Water Permit, OA and ACW.
- During the absence of the Wellsite Supervisor, a qualified and competent alternate shall be designated, in writing, to carry out the principal Contractor's responsibilities. Written instructions must be posted in a conspicuous and accessible location known to all personnel prior to the Wellsite Supervisor leaving the location.
- All verbal notifications and approvals received on location from any regulatory agency must be documented and recorded on both morning reports and tour reports and should include a contact name from the agency, phone number and details of the subject matter.

Daily reports shall be prepared by the Wellsite Supervisor and e-mailed (faxed) to the Operator's Calgary office by 07:00Hrs. every morning.

- All field tickets and other supporting documentation submitted for materials purchased and/or services rendered require a correct AFE# and accurate identification of the well location along with the Wellsite Supervisor's signature indicating acceptance to the same.
- All rental equipment must be accounted for and returned promptly upon conclusion of operations. Rental Sheets must be utilized.
- All surplus material and/or equipment must be accounted for and either returned for credit or material transferred to the appropriate warehouse point accordingly. Disposition of scrap material must be documented.
- All Accidents or Incidents shall be reported immediately to the Calgary Office - Attention: Corey Thomson or Richard Bean. Complete the Paramount Safe Incident Report and conduct the necessary Investigations immediately. Fax copy to Calgary within 6 hours of incident.
- Ensure that all garbage and debris has been removed from the location. and that any environmental concern has been addressed. Contact the Construction foreman with any concerns.
- Prepare a final wellbore diagram with all pertinent information recorded.
- Forward all paperwork including field logs and computer data files to the Calgary office including copies of all field logs. A paper and digital copy of all Paramount operation reports should be provided. All field tickets, Material Transfers, Incident Reports, well test reports, rig inspection reports and service reports shall be included with the operation report package.



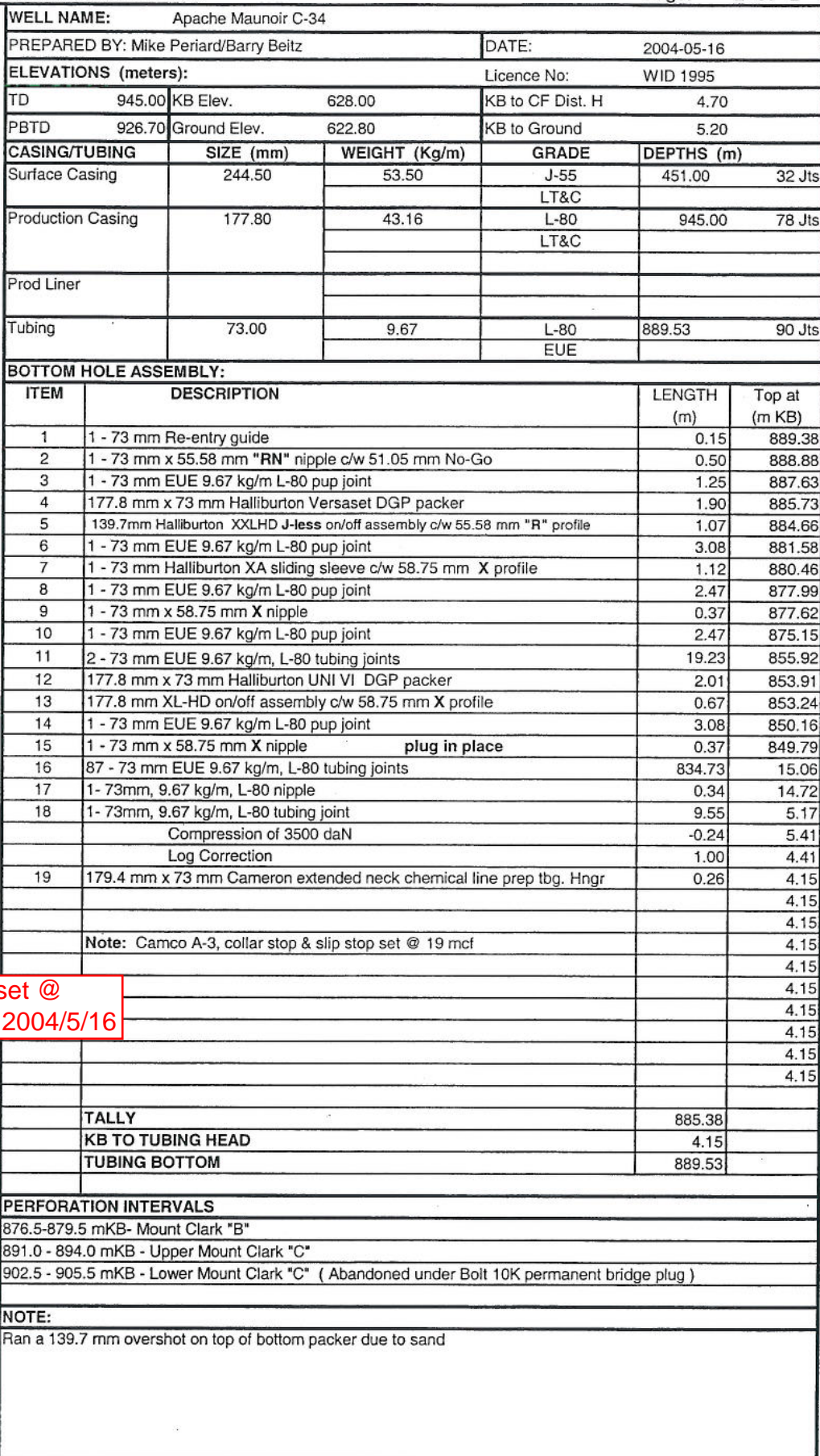
Alternate Cut and Cap Operation

If available, a proprietary Hydrojet cut and cap system may be used to cut the casing(s) a minimum of 1 m below ground level and install a vented (non-sealing) cap on the casing stub below ground level once all downhole operations have been completed and tested as per the program.

In summary the steps are:

- Remove wellhead from the top of the well (down to surface casing bowl flange)
- Place the hydraulic pipe cutter inside the innermost casing
- Apply high-pressure water and abrasive to the cutting tip (typically 1-2m below grade).
- Rotate the cutting tip to sever the casing from the inside out.
(Typically it takes 20 minutes to an hour to complete the cut)
- Remove tool and pull the casing stub out of the ground.
- Compression fit vented cap to the below-ground casing strings.
(Welded options are available for jurisdictions where this is required)
- Backfill the hole (typically about the diameter of the surface casing drill bit)
- Install independent well signpost as per OROGO requirements (detailed above)





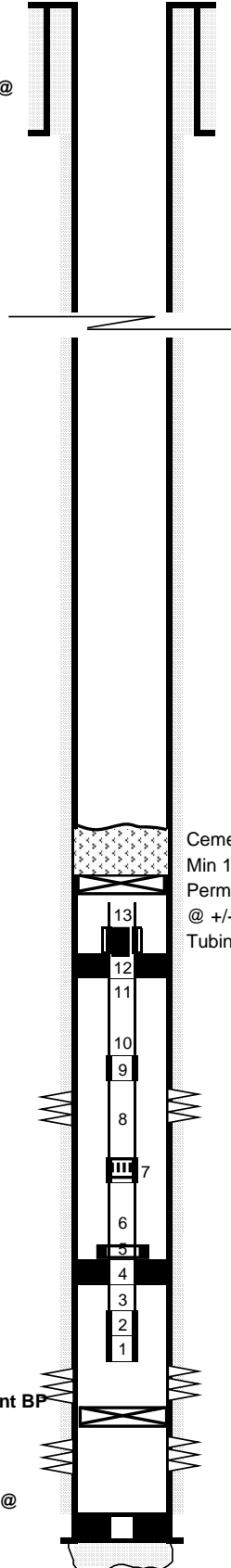
Lac Manoir C-34

WELL DIAGRAM - Proposed Abandonment - 2022

Page: 1

ALL DEPTHS ARE mKB

Surf. Csg. @
451.0



TD @ 945 m

WELL NAME: Lac Manoir C-34

PREPARED BY: R. Heenan (data from Apache 20040516)

DATE: 7/23/2022

ELEVATIONS (meters):

Licence No: WID 1995

TD 945.00

KB Elev.

628.00

KB to CF Dist. H 4.70

PBTD 927.00

Ground Elev.

623.00

KB to Ground 5.20

CASING/TUBING

SIZE (mm)

WEIGHT (Kg/m)

GRADE

DEPTHS (m)

Surface Casing

244.50

53.50

J-55

451.00

32 Jts

Production Casing

177.80

43.16

L-80

945.00

78 Jts

Prod Liner

Tubing

73.00

9.67

9.67

889.53

90Jts

EUE

BOTTOM HOLE ASSEMBLY:

ITEM	DESCRIPTION	LENGTH (m)	Top at (m KB)
1	1 - 73.0 mm Wireline Re-entry Guide		889.38
2	1 - 73.0 mm Otis "RN" nipple w/55.58 mm profile & 51.05 mm no-go		888.88
3	1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt		887.63
4	177.8 mm x73 mm Halliburton Versaset DGP packer		885.73
5	139.7mm Halliburton XXLHD J-less on/off assembly c/w 55.58 mm "R" profile		884.66
6	1 - 73 mm EUE 9.67 kg/m L-80 pup joint		881.58
7	1 - 73 mm Halliburton XA sliding sleeve c/w 58.75 mm X profile		880.46
8	1 - 73 mm EUE 9.67 kg/m L-80 pup joint		877.99
9	1 - 73 mm x 58.75 mm X nipple		877.62
10	1 - 73 mm EUE 9.67 kg/m L-80 pup joint		875.15
11	2 - 73 mm EUE 9.67 kQ/m, L-80 tubing joints		855.92
12	177.8 mm x 73 mm Halliburton UNI VI DGP packer		853.91
13	77.8 mm XL-HD on/off assembly c/w 58.75 mm X profile		853.24

Cement cap

Min 15m

Permanent Bridge Plug

@ +/-853 mKB

Tubing Plug in X profile

Mount Clark

876.5-876.5

Mount Clark

891.0 - 894.0

Mount Clark

902.5-905.5

Permanent BP

@ 901 m

PBTD @

927.0

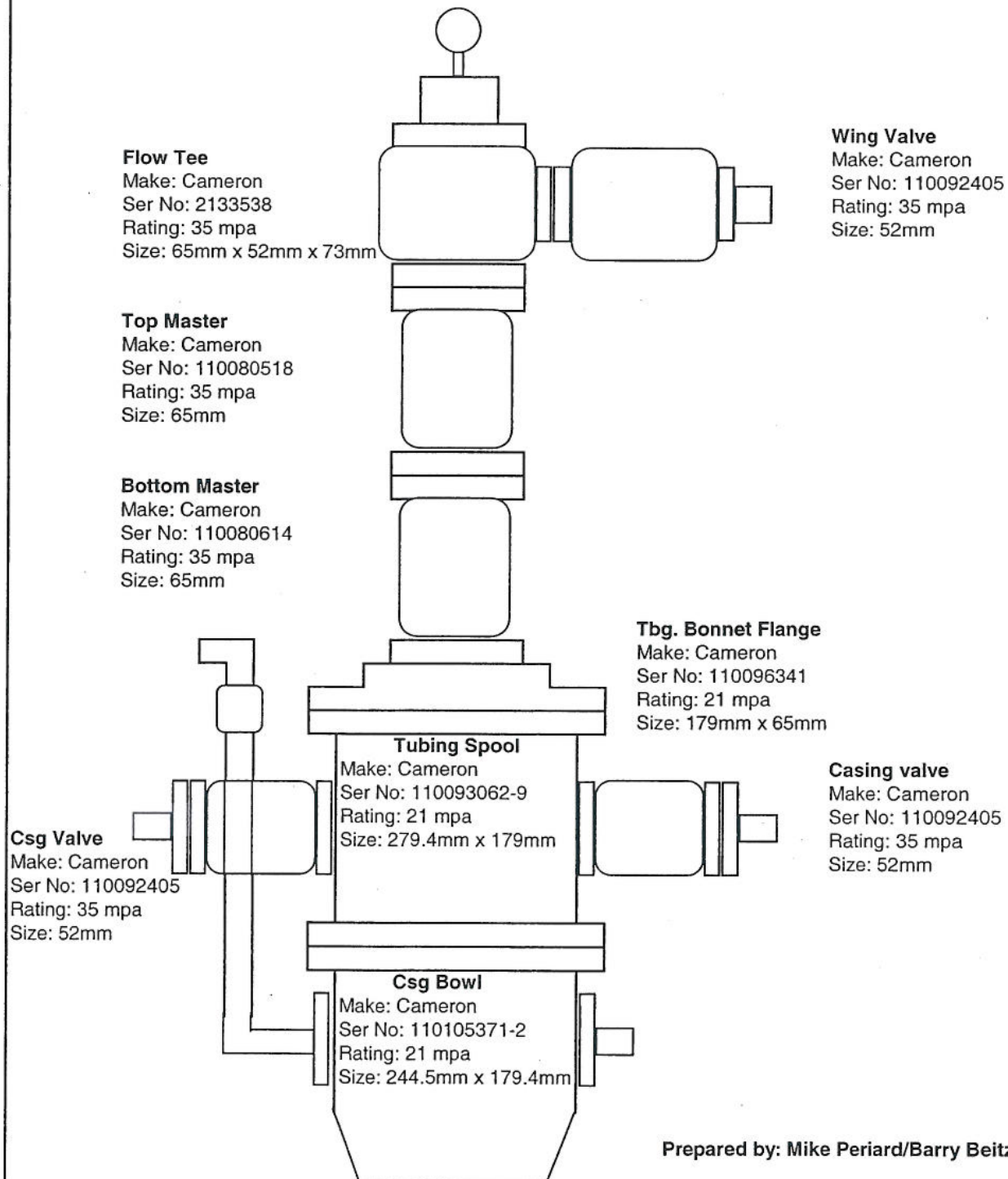
Prod Csg @

945.0

PERFORATION INTERVALS

Mount Clark 876.5-876.5, 891.0 - 894.0, 902.5-905.5 mKB

Packers were set using diesel fuel. Packer and casing were P/T to 7.0 Mpa for 15 min - ok



**Supplement -- Cement Squeeze Procedure
including perforations and acid (if required)
Applicable to MGM Central Mackenzie Valley Wells
B-23, C-34, C-49, E-35, I-78, K-14, M-17
(as and if required)**

This procedure will be utilized if the bond log indicates insufficient isolation between zones or insufficient protection of uphole potable ground water in the subject well.
The interval to be perforated will be provided after evaluation of the bond log on site and discussion with Calgary office.

Ensure OROGO is informed if squeeze is required and of planned squeeze interval before commencing operations.

1) Perforation

- a) Conduct a pre-job safety/orientation meeting with all personnel on location detailing the planned operations, personnel responsibilities, and safety precautions.
Ensure radios and sources of electrical interference are turned off and perforating unit is properly grounded.
- b) Makeup and RIH with 127mm x 0.6m UZI **circulation** gun with 6 gm charges at 118 spm (Owen HSC-2500-302S Circulation charges penetration = 0.375 inches and EH diameter = 0.19 inch).
Note the gun comes in 0.3m lengths.
Perforation interval **TBD** _____ mKB. Correlate to the bond log previously run and ensure gun is not positioned across a collar.
(Note: ensure spare guns are on lease for use if required).
Ensure circulation charges are used.
- c) POOH with perf assembly and confirm shots fired..

2) Injection Test

- a) Conduct a pre-job treatment safety/orientation meeting with all personnel on location detailing the program, pressure limitations, personnel responsibilities and safety precautions.
Pressure test surface lines and equipment to 1,400kPa (low) and 21,000kPa (high) and hold each for 10 mins.
- b) Fill casing with fresh water and attempt to squeeze/circulate outside the casing with fresh water.
Begin at as low a rate as practical (e.g. 50 lpm depending on equipment capability.)
- c) Establish circulation to surface if possible – monitor surface casing vent for indications of flow or communication.
Monitor injection pressure - Do not exceed estimated parting pressure - BHP of 18 kPa/m at perforations – equaling a surface pressure of (**TBD** _____ kPa with fresh water and perforations at **TBD** _____ mKB).

If flow/returns are noted at the surface casing, rig for circulation and continue to circulate until returns are clean. Circulating rate may be increased as desired, not exceeding pressure above or if returns decrease/slow down decrease surface pressure/pumping rate

- d) If there are no indications of communication to surface (the expected result based upon cementing data available) perform step rate injection test.

Attempt injection at slow rate (e.g. 50 lpm) – continue injection until pressure stabilizes (minimum 5 minutes). Monitor pressure buildup and do not exceed estimated parting pressure calculated above (_____ kPa surface pressure).

- e) If stabilized pressure/injection rate is established at slow rate, perform step rate injection test, increasing at approximately 100 lpm (depending on equipment) per step for approximately 5 minutes.

Stop increasing steps when one of the following is reached.

- 500 lpm injection rate with water (considered unlikely)
- estimated parting pressure indicated above (_____ kPa)
- a discernable "break" (decrease) in pressure Vs injection rate

This is the maximum injection pressure to be used in squeezing cement.

If pressure at lowest injection rate reaches estimated parting pressure with negligible injection rate, shut down pump and observe bleed-off rate. After 50% bleed-off, pressure up again to determine the volume bled of and calculate the bleed-off rate.

Note: if lower pump rates are available they may be used to determine injection rate(s)

If no bleed off (less than 100 kPa in 15 minutes) contact Calgary office for instructions.

Target feed rate is 30liters/minute or more. If this cannot be achieved proceed to acidize as below.

30 lpm allows up to 1m³ fluid to be squeezed in ½ hour – actual squeeze rate of cement would be anticipated to be slower due to increased viscosity and solids content.

If feed rate is 30 liters/minute or more skip to set cement retainer.

3) Acidizing Procedure (if required)

- a) RIH with 73mm tubing to 1m below perforations.
- b) Rig for acid job, including shower truck and provision for neutralizing and disposing of spent acid.
- c) Conduct a pre-job treatment safety/orientation meeting with all personnel on location detailing the program, pressure limitations, personnel responsibilities and safety precautions.
Pressure test surface lines and equipment to 1,400kPa (low) and 21,000kPa (high) and hold each for 10 mins.
- d) "Pickle" the tubing.
Circulate one tubing volume of acid to end of tubing
15% HCl (or "Synthetic acid" – e.g. Stingray HCR 2000/7000) – do not over displace.
Wait 30 minutes.
Reversed circulate the spent acid, neutralize for disposal.
- e) Mix 1m³ 15% HCl (or "Synthetic acid" – e.g. Stingray HCR 2000/7000).
Circulate acid to bottom of tubing.
Close pipe rams and squeeze acid into perforations.
Do not exceed 18kPa/m gradient (_____ kPa as calculated above)
Reverse out any spent acid & neutralize for disposal at approved facility.
POOH.

4) Cement Squeeze Procedure

- a) RIH on wireline with cement retainer and correlated to the bond log.
Set retainer within +/- 2.0m above the perforations.
Ensure retainer is not positioned across a casing collar.
Fill casing with fresh water and pressure test casing and retainer to 7.0MPa and hold for 10.0mins. Rig out wireline unit.
- b) Pick up and RIH with stinger on tallied 73mm work string sting into retainer and perform function and pressure tests.
Sting into retainer and open – confirm feed into formation with fresh water.
Pull out of retainer and close – pressure test to 7MPa surface pressure.

- c) Tie in cementers with squeeze manifold and chart recorder.
Conduct a pre-job treatment safety/orientation meeting with all personnel on location detailing the program, pressure limitations, personnel responsibilities, and safety precautions.
Pressure test surface lines and equipment to 1,400kPa (low) and 21,000kPa (high) and hold each for 10 mins.

- d) Mix, pump and circulate cement design to tubing bottom.
Cement volumes anticipated to be 0.25 m³ "Microfine cement" and 1.5m³ Class G.
Target API fluid loss +/- 100cc (calculated from generic testing is acceptable – specific batch testing not required).
Microfine may be eliminated if good injection rates are obtained - Confirm with Calgary office and cement company.

Confirm minimum 3 hours setting time for cement at estimated temperature based on estimated well temperature.

Catch and retain cement samples and monitor for "setting" conditions.

Record and report same. (Downhole setting will be faster due to temperature.)

- e) Sting back into the retainer and squeeze cement – maximum 1.0 m³ into formation.

Hypothetically this volume would result in 30m height in 311/244 mm annulus and 100m height in 216/178mm annulus – these volumes are not realistic as the annulus is unlikely to be completely void of cement and the injection of 1.0 m³ is optimistic – the cement volumes selected were chosen to provide a realistic minimum volume to ensure quality cement is delivered to the perforation interval rather than annular height.

Target final squeeze pressure is 7MPa at surface (minimum per OROGO).

Use hesitation technique if needed to achieve this pressure (not anticipated).

- f) Pull out of retainer & set balanced cement plug with remaining cement.
Ensure a minimum of 0.5m³ cement remains in the casing (25 vertical meters) – top up with additional cement if needed.
- g) Pull out of stinger and backwash string with clean with fresh water.
- h) When surface samples have set, pressure test plug to 7MPa for 10 minutes.
RIH and tag cement top – minimum set down weight 1800Dan – minimum 15m cement above retainer. (Top up if needed.)
Record results in Daily Report and in Tour Book

- 5) POOH and continue with program.

DH 20220712

INFORMATION DISCLOSURE CONSENT FORM

Pursuant to subsection 91(3) of the *Petroleum Resources Act* (PRA)

Subject to its obligations under section 91 of the PRA and the objectives expressed by the Government of the Northwest Territories Oil and Gas Regulator (Regulator) in its *Information Disclosure Guidelines*, issued under section 18 of the *Oil and Gas Operations Act* (OGOA) on May 10, 2016, the Regulator wishes to facilitate public access to information about the regulation of oil and gas works and activities under OGOA, while protecting an applicant's right to maintain privilege over certain information.

Paramount Resources Ltd (the Applicant), requires authorizations, approvals, orders, or other consents from the Regulator in respect of the following works or activities: South Liard Well Abandonment

The Applicant (please mark box or boxes):

- ☐ **Does not consent** to the public disclosure of any information with respect to the above-noted works or activities, other than information or documentation that the Regulator is already permitted to disclose under section 91 of the PRA, and has provided a rationale for non-disclosure in the space provided on the reverse of this form.

or

Consents to the public disclosure of all the information indicated by the Applicant below with respect to the above-noted works or activities, with the exception of any information noted in the space provided on the reverse of this form where accompanied by a rationale for non-disclosure:

- ☒ This completed *Information Disclosure Consent* form
- ☐ A brief project description (approximately 1-5 pages) that includes the name of the applicant, the scope, purpose, location, timing and nature of the proposed work or activity. This project description may be used for the purposes of a preliminary screening under Part V of the *Mackenzie Valley Resource Management Act*.
- ☒ The contents of an application for an Authorization under section 10(1)(b) of OGOA, including but not limited to:
- The completed application for the Authorization;
 - All required documentation supporting the application, including the safety plan and environmental protection plan where applicable;
 - Correspondence and Information Requests between the Regulator and the Applicant;

- The approved Authorization, including any conditions imposed by the Regulator;
- The completed application for any associated approvals (such as well approvals);
- Any associated approvals issued, including any conditions imposed by the Regulator;
- Subsequent amendments to any authorizations or approvals issued by the Regulator; and
- Any requests to vary or seek exemption from a regulatory requirement under section 54 of OGOA.

Classes of information or documentation obtained by the Regulator as a result of carrying on a work or activity that is authorized under OGOA, as described in subsection 91(8) of PRA, remain privileged for the periods of time described in that subsection.

By providing its consent to the disclosure of the above information, the Applicant hereby releases OROGO, its officers, agents or employees from any claims, demands, losses or liability arising out of or related to the disclosure of the information.

This consent remains in effect until it is revoked or amended by written notice to OROGO, in which case the amended consent would apply to information provided to the Regulator after the date of the written notice.

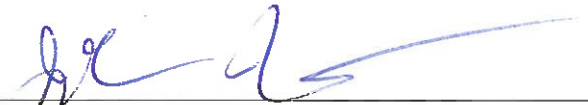
The Applicant hereby affirms that it has read and fully understands this Information Disclosure Consent Form and release of liability.

Paramount Resources Ltd

Name of Applicant Company

Date

September 17, 2021



Signature of Officer, on behalf of Applicant

John Hawkins, Director Asset Management

Name of Officer (print)

Information the Applicant Does Not Consent to Disclose:

Rationale for Non-Disclosure (use additional paper if necessary):
