



NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

Office of the Regulator of Oil and Gas Operations

P.O. Box 1320, Yellowknife, NT X1A 2L9

Tel: 867-767-9097 • Fax: 867-920-0798 • Web: [www.oro.go.gov.nt.ca](http://www.oro.go.gov.nt.ca)

Courier Address: 4th floor, 5201 – 50th Avenue, Yellowknife, NT X1A 3S9

John Hawkins  
Director, Asset Management  
Paramount Resources Ltd.  
SUITE 2800, 421 – 7 AVE SW  
CALGARY AB T2P 4K9

October 5, 2022

Dear John Hawkins:

**Information Request No. 1:  
Liard K-29A Well Abandonment (ACW-2022-PAR-K-29A-WID2030)**

On August 15, 2022, the Office of the Regulator of Oil and Gas Operations (OROGO) received a complete application to Alter the Condition of a Well (ACW) from Paramount Resources Ltd. (Paramount) for the abandonment of the Liard K-29A well (WID2030) in the Fort Liard area of the Northwest Territories.

OROGO has reviewed the information provided by Paramount in its original application and requires additional information to complete its review of Paramount's ACW application, as set out in the attached Information Request No. 1.

Please send your written responses and any associated correspondence to OROGO at [oro.go@gov.nt.ca](mailto:oro.go@gov.nt.ca) or through OROGO's secure file transfer site, on or before 4:00 pm on October 19, 2022. If you are unable to respond within this timeframe or have any questions, please contact OROGO at 867-767-9097 or by email at [oro.go@gov.nt.ca](mailto:oro.go@gov.nt.ca).

Sincerely,

Pauline de Jong  
Regulator

Encl. Information Request No. 1

**Information Request No. 1**  
**Liard K-29A Well Abandonment**  
**ACW-2022-PAR-K-29A-WID2030**

**1.1 Level I Well**

**Preamble:**

Page 1 of the abandonment program submitted on August 15, 2022, indicates that the Liard K-29A well produces a mixture of H<sub>2</sub>S (0.5%) and CO<sub>2</sub> (20%). Section 2 of the *Well Suspension and Abandonment Guidelines and Interpretation Notes* (Guidelines) indicates that acid gas wells are Level I wells and defines acid gas wells as wells that produce any amount of H<sub>2</sub>S and CO<sub>2</sub>.

Section 6A of the Guidelines contains abandonment requirements for Level I wells which differ from the requirements for Level II wells. The revised abandonment program submitted on August 26, 2022, refers to the requirements for a Level II well.

**Request:**

Submit an updated well abandonment program that meets the requirements of the Guidelines for Level I wells.

**1.2 Existing Wellbore Diagram**

**Preamble:**

The existing wellbore diagram submitted on August 15, 2022, appears to be missing the following information:

- Permanent bridge plugs in the intermediate casing set at 2467 mKB, 2401.4 mKB, and 1859.12 mKB (as described on page 4 of the well abandonment program);
- A Weatherford DB-10K permanent bridge plug with 8 meters of thermal cement cap set at 2250 mKB (as shown in the attached wellbore diagram dated March 15, 2008); and
- A DB-10K bridge plug set at 57 mKB (as shown in the attached wellbore diagram dated March 15, 2008).

**Request:**

Please submit an updated existing wellbore diagram that reflect all plugs in the well.

**1.3 Shallow Wellbore Plug**

**Preamble:**

The March 15, 2008, wellbore diagram attached shows a bridge plug at 57 mKB in the wellbore. If this is correct, the Safety Bulletin issued by the Chief Safety Officer in April 2021 on shallow

wellbore plugs (OROGO-SB-01) applies to this operation. The Safety Bulletin sets out the requirements for operations on wells with known or suspected shallow wellbore plugs. The well abandonment program submitted on August 15, 2022, does not meet the requirements of OROGO-SB-01.

**Request:**

Submit an updated well abandonment program that meets the requirements of OROGO-SB-01.

#### **1.4 Pressure Testing**

**Preamble:**

Steps 17 to 19 of the abandonment program submitted on August 15, 2022, indicate that Paramount intends to place cement over the existing permanent bridge plug at 1734.75 mKB without pressure testing the plug.

Section 6A of the Guidelines states that bridge plugs must be pressure tested to 7,000 kPa for 10 minutes.

**Request:**

Submit an updated well abandonment program that meets the pressure testing requirements in Section 6A of the Guidelines.

#### **1.5 Abandonment of the Original Wellbore**

**Preamble:**

The well history information submitted on August 15, 2022, does not describe or confirm the abandonment of the original wellbore from 1853 to 2567 mKB prior to drilling the side track at 2295 mKB.

**Request:**

Submit updated well history information that describes the abandonment of the original wellbore.

#### **1.6 Well Name Correction**

**Preamble:**

Page 1 of the abandonment program submitted on August 15, 2022, identifies the well name as Liard K-25A, rather than Liard K-29A.

**Request:**

Submit an updated well abandonment program with the correct well name.

## **1.7 Abandoned Well Marker**

### **Preamble:**

The abandoned well marker diagram included with the abandonment program submitted on August 15, 2022, does not reflect the changes made in the revised Guidelines, issued in May 2022.

### **Request:**

Submit an updated abandonment program that includes the abandonment well marker requirements found in Section 6E of the May 2022 Guidelines.