



NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

Office of the Regulator of Oil and Gas Operations

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

August 09, 2023

Dear John Hawkins:

**Inspection: Liard 2K-29 (WID 1980) Well – ACW-2022-PAR-2K-29-WID1980**

Inspector Brandon Bradbury, Safety Officer/Conservation Officer conducted an inspection of the abandonment of the Liard 2K-29 (WID 1980) well on August 1, 2023, which was accompanied by an AER Inspector Matthew Quail, Field Inspector.

The Inspection was carried out to ensure Paramount Resources Ltd was adhering to the terms of the Well Approval for this operation (ACW-2022-PAR-2K-29-WID1980).

Please see the attached Operations Summary Inspection Report for your reference. This report will be posted to the Office of the Regulator of Oil and Gas Operations' Public Registry at [www.oro.go.gov.nt.ca](http://www.oro.go.gov.nt.ca).

If you have any questions, please contact me at (867) 767-9097 or by email at [Brandon\\_Bradbury@gov.nt.ca](mailto:Brandon_Bradbury@gov.nt.ca).

Sincerely,

Brandon Bradbury  
Safety Officer  
Conservation Officer

Encl. Liard 2K-29 (WID 1980) Operation Summary Inspection Report – August 1, 2023

cc. Department of Environment and Climate Change, South Slave Region.

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# OROGO Operations Inspection Summary Report

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## Well Information

Well name: Liard 2K-29	Coordinates ( <i>In decimal degrees; verified onsite</i> )
4 digit WID: 1980	Datum: <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83 <input type="checkbox"/> Unknown
	Lat: N60 28' 40.8"
	Long: W123 35' 05.3"
Operator: Paramount Resources Ltd.	Completed in H <sub>2</sub> S zone? Yes
Well status: Suspended	<input type="checkbox"/> Estimated % of H <sub>2</sub> S: <a href="#">Click or tap here to enter text.</a> or
OROGO risk level: Level 1	<input checked="" type="checkbox"/> Measured % of H <sub>2</sub> S: 0.5
Shallow wellbore plug? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Well produces CO <sub>2</sub> ? Yes
24-hour operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Estimated % of CO <sub>2</sub> : <a href="#">Click or tap here to enter text.</a> or
Program step on arrival: #18 Continue in hole.	<input checked="" type="checkbox"/> Measured % of CO <sub>2</sub> : 0
	Program step on departure: 18: Continue in hole

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## Inspection Date and Contact Information

Date of inspection: 2023-08-01	OROGO Inspector: Brandon Bradbury – Safety Officer/Conservation Officer
Access method: Vehicle	AER Inspector: Matthew Quail – Field Inspector

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## Activity Inspected

OA#: POA	ACW#: ACW-2022-PAR-2K-29-WID1980
Nature of activity: Abandonment	Contractor on site (if applicable):
	Name: <a href="#">Click or tap here to enter text.</a>
	Company: Precision Well Servicing
	Rig Number: 829
	Phone: (800) 232-7219
	Email: <a href="#">Click or tap here to enter text.</a>

## Inspection Results

### Rig Safety

Accumulator function test	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance	Comments: Function test was conducted during the inspection and no concerns were noted since pressure never dropped below 8.4MPa and once recharged, did not bleed off. (Photo #1) <ul style="list-style-type: none"> <li>• Starting Pressure: 13.5 MPa</li> <li>• Blind Ram (Closed): 6 sec / 13.25 MPa</li> <li>• Pipe Ram (Closed): 3 sec / 13.0 MPa</li> <li>• Annular (Closed) : 23 sec / 10.5 MPa</li> <li>• Recharge: 37sec / 13.5 MPa</li> </ul>
Sufficient N <sub>2</sub> back-up?	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: N <sub>2</sub> located in the accumulator building were sufficient to provide a redundant pressure to the accumulator during actuation.
BOP drills and documentation	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments:
Function tests and documentation	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments:
Equipment certifications	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: All certifications were checked on site and matched the equipment in use.
BOP certifications	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: The Annular (S/N: CT06-001) and Double Gate (S/N: 65H45905) had valid certificates and was the equipment in use on site (Photo #2 and #3).
Authorization / Approval available	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Authorizations and approvals were in the doghouse and consultants' trailer
Boiler inspection	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance	Comments: No boiler onsite – Summer operations
Guards and covers on moving equipment	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments:
Adequate lighting	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Daylight operations
Wind indicators visible and functional	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Wind indicators located on the rig, rig tanks and flare.
Fire extinguishers	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: All fire extinguishers inspected were confirmed operable within the last 12 months.

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Equipment spacing	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: All equipment spacing at the time of the inspection were compliant: <ul style="list-style-type: none"> <li>Well Centre to Flare: 84m</li> <li>Well Centre to Doghouse: 32m</li> <li>Well Centre to Rig Tank: 50m</li> <li>Pump to Rig Tank: 8.6m</li> <li>Flare to Pressure Tank: 29m</li> <li>Pressure Tank to well: 45m</li> </ul>
Engine kills	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: The rig pump engine kill and 2 engine kills on the rig functioned as designed and no concerns were noted.
Pump lines and hoses secured, intact and appropriate?	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: All pump lines and hoses were secured and intact at the time of inspection (Photo #4)
Flow lines and choke lines secured	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Flow lines were secured and no concerns were noted. (Photo #5)
Flow turns	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: All required flow turns were in place and connected in the proper orientation during the inspection (Photo #5)
General housekeeping	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments:

**Other Rig Safety notes:**

The Inspectors were pleased with the rig safety and attention to detail by on site staff.

**Personnel Safety**

Valid safety tickets <input checked="" type="checkbox"/> First Aid / CPR <input checked="" type="checkbox"/> H2S <input type="checkbox"/> WHIMS <input type="checkbox"/> TDG <input checked="" type="checkbox"/> BOP <input type="checkbox"/> Other (specify in comments)	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: All tickets were valid and present on site during the inspection.
Safety meetings and documentation	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Safety meetings were held at the lease entrance or the briefing area at the beginning of each shift.
SCBAs and/or supplied air available and visible	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input checked="" type="checkbox"/> Corrected Non- Compliance	Comments: The testers (United) SCBA's (X5) were determined to be valid at the time of the inspection but the labels on the Regulators and Reducers were not legible for verification with the inspection sheet. 1 SCBA was pulled from service since it could not be verified with serial numbers on the inspection sheet. However, since there were redundant SCBA's and SABA on site, no major concerns were noted. Photos #6 through #8

Version: July 7, 2023

First Aid equipment and EMS on site and accessible	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: EMS was on site for the safety meeting at the beginning of the shift and was on standby near the wellsite.
Gas detection equipment on site and accessible	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: All personnel had an H <sub>2</sub> S monitor.
Communication plans available	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments:
Hazard identification and signage	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Hazard signage was present at the lease entrance, and near high pressure hose lines/and hazardous areas. Since wildlife has damaged and moved some signs during previous operations, drilling personnel ensured a visible sign was present on pump lines (Photo #9).
ERP available upon request	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments:
Safety Plan available upon request	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments:

Other Personnel Safety notes:  
Click or tap here to enter text.

### Blowout Prevention Equipment

BOP pressure rating	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: a 7 1/16" BOP was utilized for this operation and was function tested during the inspection.
Kill sheet in dog house	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments:
Stabbing valves and cross-overs	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: The stabbing valve was in the open position and no concerns were noted.

Other Blowout Prevention Equipment notes:  
Click or tap here to enter text.

### Specific to Shallow Wellbore Plug ( Not Applicable)

Snubbing or coiled tubing unit in place	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: On June 24 <sup>th</sup> , 2023 a coiled tubing unit was mobilized into the land use area to remove a shallow tubing plug at 50mKB.
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Other Shallow Wellbore Plug notes:

**ACW-2022-PAR-2K-29-WID1980 was approved on April 12, 2023.**

**Specific to 24-Hour Operations ( Not Applicable)**

Cross-over notes  Compliant  Non-Compliant  Corrected Non- Compliance  
Comments:

Other 24-hour operations notes:  
Click or tap here to enter text.

**Environment**

Rig matting  Compliant  Non-Compliant  Corrected Non- Compliance  
Comments: Rig matting was present under the service rig (Photo #10).

Drip trays  Compliant  Non-Compliant  Corrected Non- Compliance  
Comments: Drip trays were placed under parked equipment and no concerns were noted (Photo #11).

Fuel handling and materials storage  Compliant  Non-Compliant  Corrected Non- Compliance  
Comments: No concerns were noted with fuel handling and materials storage.

Spill response equipment on site and accessible  Compliant  Non-Compliant  Corrected Non- Compliance  
Comments: A 205l spill kit was placed in a visible area near the doghouse. (Photo #12).

Tubing laydown area protection  Compliant  Non-Compliant  Corrected Non- Compliance  
Comments:

Permafrost protection  Compliant  Non-Compliant  Corrected Non- Compliance  
Comments: N/A Summer operations

Other Environment notes:  
Click or tap here to enter text.

**Safety Plan**

Compliant?  Yes  No Comments:

**Environmental Protection Plan**

Compliant?  Yes  No Comments:

**Emergency Response (Contingency) Plan**

Compliant?  Yes  No Comments:

**Authorization and Approvals**

Following program as approved?  Yes  No  
Comments: **ACW-2022-PAR-2K-29-WID1980 Variation #1 was approved by the regulator on August 4, 2023**

Meeting all conditions?  Yes  No  
Comments:

**Other Documents Requested / Received During Inspection**

## Photographs

Number of photographs attached: 12

This inspection was conducted under the *Oil and Gas Operations Act* and associated regulations.

Name: Brandon Bradbury

Designation: Safety Officer

ID number: Click or tap here to enter text.

Date: August 09, 2023

Signature:



Photo #1: Accumulator repressurized after function test.



Photo #2: Annular BOP (Serial Number: CT06-001)



Photo #3: Double gate BOP (Serial Number: 65H45905)





Photo #4: Fire rated Kelly hoses were greater than 7 meters from the BOP stack.



Photo #5: Pump lines secured, flow turns are in the correct position.

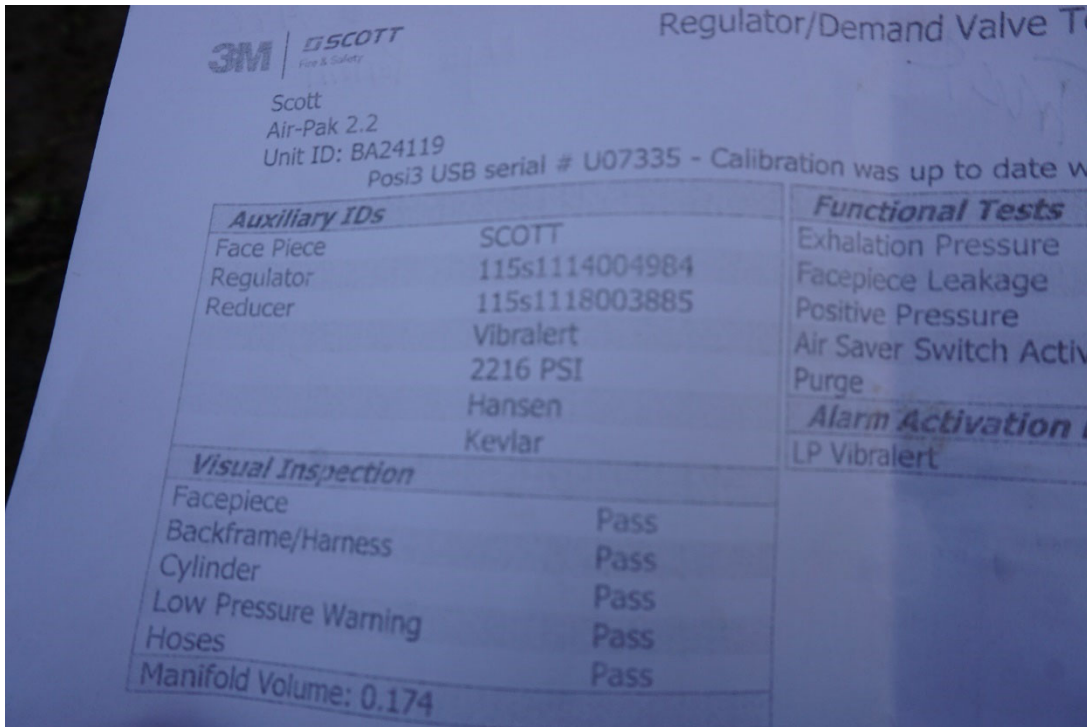


Photo #6: United SCBA that was pulled out of service since the serial numbers on the Inspection sheet for the Regulator/Reducer did not match the equipment on site.



Photo #7: The above noted inspection sheet was assigned to this reducer, but serial numbers did not match.



Photo #8: Verification of the SCBA's on site was done through a barcode system however, Serial numbers on United's equipment (reducer/regulator) were not legible or did not match to verify with the Inspection sheet serial numbers. Inspectors recommended replacing the white serial number stickers on the testers equipment so they can be easily confirmed on site during future inspections.



Photo #9: Temporary hazard signage was placed on pump lines after wildlife in the area misplaced them. No concerns were noted since signage was still made visible to all workers on site.



Photo #10: Rig matting placed below the rig during active operations.



Photo #11: Drip tray placed below parked equipment.



Photo #12: A 205l Spill Kit was present on site and no concerns were noted.