



NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

Office of the Regulator of Oil and Gas Operations

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Ryan Munro, P.Eng.  
Manager, Abandonment Engineering  
Canadian Natural Resources Ltd.  
Suite 2100, 8800 – 2 ST SW  
CALGARY AB T2P 4J8

February 16, 2023

Dear Ryan Munro:

**Inspection: Arrowhead River J-74 (WID 1987) Well – ACW-2019-014-CNRL-J-74-WID1987**

Inspectors Michael Martin, Chief Safety Officer/Chief Conservation Officer, and Brandon Bradbury, Safety Officer/Conservation Officer inspected the abandonment of the North Arrowhead River J-74 (WID1987) well on February 8<sup>th</sup>, 2023.

The inspection was carried out to ensure Canadian Natural Resources Ltd. was adhering to the terms of the Well Approval for this operation (ACW-2019-CNRL-014-J-74-WID1987).

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.oroogo.gov.nt.ca](http://www.oroogo.gov.nt.ca).

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

Sincerely,

Michael Martin  
Chief Safety Officer  
Chief Conservation Officer

Encl. Arrowhead River J-74 (WID 1987) Operation Summary Inspection Report – February 8, 2023

- c. Department of Lands, Dehcho Region;  
Department of Environment and Natural Resources, Dehcho Region.  
Dale Duffy, Superintendent, Abandonments, CNRL

# OROGO Operations Inspection Summary Report

## Well Information

**Well name:** Arrowhead River J-74

**4 digit WID:** 1987

**Operator:** Canadian Natural  
Resources Ltd.

**Well status:** Suspended

**OROGO risk level:** Level 2

**Shallow wellbore plug?**  Yes  No

**24-hour operations?**  Yes  No

**Coordinates** (In decimal degrees; verified onsite)

Datum:  NAD 27  NAD 83  Unknown

Lat: 61° 33' 35.6" N

Long: 122° 58' 58.4" W

**Completed in H<sub>2</sub>S zone?** No

Estimated % of H<sub>2</sub>S: or

Measured % of H<sub>2</sub>S:

**Program step on arrival:** 42. Cut and Cap well as per OROGO Well Suspension and Abandonment Guidelines and Interpretation Notes section 6E – Surface Abandonment Requirements.

**Program step on departure:** 42. Cut and Cap well as per OROGO Well Suspension and Abandonment Guidelines and Interpretation Notes section 6E – Surface Abandonment Requirements.

## Inspection Date and Contact Information

**Date of inspection:** February 8, 2023

**Access method:** Vehicle

OROGO Inspectors:

- Michael Martin – Chief Safety Officer /

Conservation Officer

- Brandon Bradbury – Safety Officer/Conservation Officer

## Activity Inspected

**OA#:** OA-2018-00-CNRL

**Nature of activity:** Abandonment

**ACW#:** ACW-2019-CNRL-014-CNRL-J-74-WID  
1987 V #4

Contractor on site (if applicable): Yes

Name: N/A

Company: N/A

Rig Number: N/A

Phone: N/A

Email: N/A

## Inspection Results

### Rig Safety

Accumulator  
function test

Compliant

Non-Compliant

Corrected Non-Compliance

Comments: Rig and associated infrastructure had demobilized at the time of the inspection.

Equipment certifications	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Authorization / Approval available	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Boiler inspection	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non-Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Guards and covers on moving equipment	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Pump lines and hoses secured, intact and appropriate?	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Adequate lighting	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Wind indicators visible and functional	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Fire extinguishers	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Equipment spacing	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Engine kills	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Sufficient N <sub>2</sub> back-up?	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Flow turns	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
General housekeeping	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.

Other Rig Safety notes:  
N/A

### Personnel Safety

Valid safety tickets	<input type="checkbox"/> Compliant	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
<input type="checkbox"/> First Aid / CPR	<input type="checkbox"/> Non-Compliant	
<input type="checkbox"/> H2S	<input type="checkbox"/> Corrected Non- Compliance	
<input type="checkbox"/> WHIMS		
<input type="checkbox"/> TDG		
<input type="checkbox"/> BOP		
<input type="checkbox"/> Other (specify in comments)		
Safety meetings and documentation	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
SCBAs and/or supplied air available and visible	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
First Aid equipment and EMS on site and accessible	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Gas detection equipment on site and accessible	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Communication plans available	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Hazard identification and signage	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
ERP available upon request	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Safety Plan available upon request	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
BOP drills and documentation	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Function tests and documentation	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Other Personnel Safety notes: N/A		

### Blowout Prevention Equipment

BOP certifications	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
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BOP pressure rating	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Kill sheet in dog house	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Stabbing valves and cross-overs	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Flow lines and choke lines secured	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Other Blowout Prevention Equipment notes: N/A		

**Specific to Shallow Wellbore Plug (☒ Not Applicable)**

Snubbing unit in place	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: N/A.
Other Shallow Wellbore Plug notes: Click or tap here to enter text.		

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

Cross-over notes	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: N/A
Other 24-hour operations notes: Click or tap here to enter text.		

**Environment**

Rig matting	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Drip trays	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Materials handling and storage	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Spill response equipment on site and accessible	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Tubing laydown area protection	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Corrected Non- Compliance	Comments: Rig and associated infrastructure had demobilized at the time of the inspection.
Other Environment notes: Click or tap here to enter text.		

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**Safety Plan**

Compliant?  Yes  No

Comments: Rig and associated infrastructure had demobilized at the time of the inspection.

**Environmental Protection Plan**

Compliant?  Yes  No

Comments: Rig and associated infrastructure had demobilized at the time of the inspection.

**Emergency Response (Contingency) Plan**

Compliant?  Yes  No

Comments: Rig and associated infrastructure had demobilized at the time of the inspection.

**Authorization and Approvals**

Following program as approved?  Yes  No

Comments: Rig and associated infrastructure had demobilized at the time of the inspection.

Meeting all conditions?  Yes  No

Comments: Rig and associated infrastructure had demobilized at the time of the inspection.

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**Other Documents Requested / Received During Inspection**

Details:

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**Photographs**

Number of photographs attached: 1

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**Additional Comments / Observations**

At the time of the inspection the lease site was being reclaimed as required by Land Use Permit MV2019X0014.

As a reminder, as required by section 89 of the *Oil and Gas Drilling and Production Regulations*, Canadian Natural Resources Ltd. is required to submit a Well Operations Report 30 days following the cut and cap of this well which requires it to be submitted on or before February 23, 2023.

Overall, there were no major concerns noted during the inspection and the Inspectors were pleased with the well abandonment operation. Your cooperation to submit a Well Operations Report 30 days following the cut and cap of this well is anticipated and appreciated.

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

Name: Michael Martin

Designation: Chief Safety Officer

Date: 2023-02-16

Signature:



Name: Brandon Bradbury

Designation: Safety Officer

Date: 2023-02-16

Signature:







PHOTO #1: Site being recontoured. Well abandonment sign in place