MONTHLY UPDATE
PRIMROSE OIL SANDS FLOW TO SURFACE

February 11, 2014

1 Introduction

Primrose/Wolf Lake Oil Sands Project (PAW) is a thermal in situ operation located approximately 65 km north of Bonnyville and about 350 km northeast of Edmonton, primarily inside the Cold Lake Air Weapons Range. The approved project area covers 288 sections or 73,728 hectares.

Bitumen production from this project employs cyclic steam stimulation (CSS) technology whereby steam is injected into the oil sands formation (at approx. 500 metres depth) through wells to reduce the viscosity of the bitumen. After steaming, bitumen then flows through the same wells and is processed at project facilities.

In May and June of 2013, Canadian Natural discovered four sites in the Primrose project area where bitumen emulsion had flowed to surface (FTS). Measures were immediately taken to address the incidents in order to clean up, investigate, remediate and address the causes of the events.

The legal descriptions of the four FTS sites are:

- 02-22-067-03 W4M (2-22)
- 10-01-067-03 W4M (10-1)
- 10-02-067-03 W4M (10-2)
- 09-21-067-04 W4M (9-21)

The prompt and thorough management of environmental impacts is of the highest priority for Canadian Natural. In the Primrose/Wolf Lake Oil Sands Project flow to surface incident, the most immediate concern was the containment and clean-up of the bitumen emulsion from the terrestrial and aquatic environments. Also of urgent concern was managing the impacts to wildlife, soil, water quality, and vegetation.

The land disturbances associated with the Primrose flow to surface incident will be reclaimed and restored. This includes the surrounding areas and any disturbances associated with the investigation of the incident (roads, well sites, equipment storage, etc.). All aspects of environmental response and management are the responsibility of Canadian Natural and subject to the oversight and regulation of provincial and federal authorities.

Canadian Natural is working with the Alberta Energy Regulator (AER) and Alberta Environment and Sustainable Resource Development (ESRD) to investigate and remediate the affected locations and investigate the root cause of the bitumen emulsion seepage to surface. We appreciate AER and ESRD's ongoing support as we continue to manage these events.

In the fall of 2013, Canadian Natural evaluated the best technical approach to access the fissure below the shallow water body at the 9-21 site. In consultation with ESRD, multiple options were considered. Canadian Natural decided the best option was to move the water from its original position and temporarily store it in two near-by locations, allowing access to the underlying fissure.

The water is scheduled to be returned from its temporary storage locations to its original position in the spring of 2014. This technical option was chosen as it would be the least environmentally impactful and provide the best approach to contain the entire fissure. You can find weekly photographs documenting this process on our corporate website, at www.cnrl.com.

The best regulatory option to do this work in a timely manner was through an Environmental Protection Order (EPO-2013-33/NR), which we requested and then received on September 24, 2013. The requirement to conduct this work prior to freeze-up was also an essential component of pursuing this regulatory option. Monthly progress reports can be on our corporate website, at www.cnrl.com.

Our efforts to date focused on ensuring each surface location is secured, and that recovery and reclamation activities progress. In August 2013, we began applying for approvals to advance our investigation and requested an Enforcement Order. On October 21, 2013 we received the Enforcement Order (EO-2013/05-NR) that allows us to continue mitigation and investigation activities.

Canadian Natural's plan consists of eight separate plans requiring ESRD and AER approval prior to any earthworks or drilling activity, as described below. Investigative drilling is ongoing and will continue throughout the winter season.

2 Summary of Activities to Date

2.1. Surface Site Containment, Delineation and Remediation Plan

This plan covers site containment, delineation and remediation plans for each site.

- The bitumen surface releases at all sites are fully contained within clay berms.
- Clean-up is complete on 3 terrestrial sites and 90 per cent complete at 9-21.
- Bitumen emulsion recovered to date: 1,177m3 as of February 5, 2014.
- Current seepage rate: less than 1m3/month from all sites.
- As of February 5, 2014, 80,324 tonnes of impacted soil and vegetation has been removed from all flow to surface sites.

Status at each site:

2.1.1 2-22 (Terrestrial Site)

- Discovered June 8, 2013.
- Clean up is complete and 7,384 tonnes of impacted material have been removed for disposal at the Tervita Class II landfill in Bonnyville, Alberta.
- Bitumen emulsion impacted area is 0.31 hectares.
- Under the Enforcement Order we have been approved to conduct investigative activities in an area that totals 26 hectares. We may not use the entire area, and as of February 5, 2014 we have developed on 8.9 hectares.
- 99m3 of bitumen emulsion has been recovered as February 5, 2014.
- Bitumen emulsion seepage from the fissures has slowed to an almost imperceptible rate and is contained within clay berms.
- There were no excavation activities during the reporting period.

- We are inspecting all wildlife deterrents, wildlife fences and silt fences weekly.
- Construction of the investigative areas began early January and is ongoing.
- A containment structure is being built over the fissures as part of a drilling pad to be used for investigative drilling purposes.
- Reclamation will be initiated on a portion of the 2-22 site this winter.

2.1.2 10-1 (Terrestrial Site)

- Discovered May 20, 2013.
- Clean up is complete and 25,367 tonnes of impacted material have been removed for disposal at the Tervita Class II landfill in Bonnyville, Alberta.
- Bitumen emulsion impacted area is 0.55 hectares.
- Under the Enforcement Order we have been approved to conduct investigative activities in an area that totals 7.75 hectares. We may not use the entire area, and as of February 5, 2014 we have developed on 3.7 hectares.
- 350 m3 of bitumen emulsion has been recovered as of February 5, 2014.
- Bitumen emulsion seepage from the fissures has slowed to an almost imperceptible rate and is contained within clay berms.
- There were no excavation activities at this site during the reporting period.
- We are inspecting all wildlife deterrents, wildlife fences and silt fences weekly.
- Construction of the investigative areas began early January and is ongoing.
- A containment structure is being built over the fissures as part of a drilling pad to be used for investigative drilling purposes.

2.1.3 10-2 (Terrestrial Site)

- Discovered May 20, 2013.
- Clean up is complete and 17,390 tonnes of impacted material were removed for disposal at the Tervita Class II landfill in Bonnyville, Alberta.
- Bitumen emulsion impacted area is 0.57 hectares.
- Under the Enforcement Order we have been approved to conduct investigative activities in an area that totals 36.74 hectares. We may not use the entire area, and as of February 5, 2014 we have developed on 12.5 hectares.
- 559 m3 of bitumen emulsion has been recovered as of February 5, 2014.
- The rate of bitumen flow has slowed to an almost imperceptible rate and the fissures are contained within clay berms
- There were no excavation activities during the reporting period.
- We are inspecting all wildlife deterrents, wildlife fences and silt fences weekly.
- Construction of the investigative areas began early January and is ongoing.
- A containment structure is being built over the fissures as part of a drilling pad to be used for investigative drilling purposes.

2.1.4 9-21 (Water Body Site)

- Discovered June 24, 2013.
- The impacted area has been reduced from over 20 hectares to less than 6 hectares and cleanup is 90% completed as of February 3, 2014.
- Under the Enforcement Order we have been approved to conduct investigative activities in an area that totals 26.91 hectares. We may not use the entire area, and as of February 5, 2014 we have developed 5.8 hectares.
- 154 m3 of bitumen emulsion has been recovered as of February 5, 2013.
- On September 24, 2013 we received an Environmental Protection Order for the 9-21 site to allow us to isolate, excavate and contain the fissure below the water body.
- To facilitate this work, the water from the area was removed and stored in two near-by, temporary storage areas.
- Work is currently underway to remove impacted soil from beneath the water body.
- The flow to surface will be contained within berms and a retaining wall.
- The water will be returned to the water body in spring of 2014 as per Alberta Environment and Sustainable Resource Development's requirements.

From January 1-January 24, 2014, the following activities were carried out as part of the plan to identify and characterize the bitumen emulsion release point:

- A combination of ARGOs, snowmobiles and Sno-Cat® vehicles were used around Basins 1, 2 and 3 of the water body to compact the snow cover and drive frost deeper to increase ice thickness to allow access for larger equipment. Testing of ice thickness was suspended in January as temperatures measured below -15 and the ice was over 30 cm thick.
- Excavation at the western shore of the water body, in the area of the suspected fissures, resumed in January after the holiday season.
- Due to frozen conditions, no surface water was collected between January 1-24.
- The containment structure plan has been approved by AESRD and will be installed prior to drilling activity.

2.2. Geology and Regional Ground Water Delineation, Monitoring and Remediation Plan

This plan covers ground water delineation, monitoring and remediation in and around the FTS sites.

- The plan was approved by AESRD December 9, 2013.
- A multi stage groundwater drilling investigation is planned for all 4 sites.
- Construction of site access, pad surfaces and structures over fissures has been initiated.
- Once the locations are prepared, monitoring wells will be installed in accordance with the Ground Water Investigation Plan.
- Hydrogeology drilling activity is expected to begin February 12.

2.3. Source/Flow Pathways Investigation Plan

This plan outlines the investigation activities that will be undertaken at and around the four FTS sites and may be adapted depending on the outcome of the investigation activities.

The objectives of the plan are to locate and delineate the FTS flow path from its source in the Clearwater, and identifying the root cause(s) of FTS.

- The plan was approved by AESRD December 9, 2013.
- 8 Cretaceous investigation wells were drilled between December 15-January 14.
- These wells were drilled from pre-disturbed areas requiring minimal preparation.
- Performed remedial operations on 8 abandoned wellbores in the area.
- Currently have three drilling rigs drilling cretaceous investigation wells.
- Construction of the investigative areas began early January and is ongoing.

2.4. Surface Water Management and Monitoring Plan

This plan covers site surface water management and monitoring plans for the FTS sites.
In general, surface water was managed and monitored at the FTS sites through the following measures:

- Precipitation between January 1 and January 24, 2014 was in the form of snow rather than rain; therefore, no surface water quality sampling was undertaken.
- Water management in terms of surface water diversion and collection during excavation at the 10-1, 10-2 and 2-22 sites did not occur during the January reporting period. This was mainly due to freezing conditions stopping the flow of surface water from entering the terrestrial FTS excavation.
- Water was not encountered during excavation activities at the 9-21 site during January 2014.
- Once thawing begins and water is again encountered, it will be tested and hauled away for disposal or pumped into the borrow pit adjacent to the 9-21 water body.

2.5. Wildlife Management Plan

This plan addresses wildlife deterrents, capture and treatment of impacted wildlife and rehabilitation/release options.

- Wildlife deterrents are being removed from the areas as construction progresses.
- Once the containment structures are complete over the FTS areas, wildlife deterrents will no longer be required and will all be removed.
- Perimeter fences are visited daily to ensure intactness and being removed/relocated to accommodate construction activities.
- Wildlife Activity in the vicinity of the FTS sites continues to be minimal due to the freezing conditions and snow. Additionally, frozen conditions at each location have helped to minimize the risk of wildlife exposure to possible contamination.
- Canadian Natural will comply with all federal and provincial legislation that apply to the conservation and management of wildlife.
- We inspect all wildlife deterrents, wildlife fences and silt fences weekly.

2.6. Waste Management Plan

This plan outlines the waste management activities that will be undertaken by Canadian Natural at the 4 FTS sites. The Waste Management activities may be adapted as the needs of the investigation and clean-up change, which will be shared with AESRD and AER.

It is Canadian Natural's goal to manage the waste resulting from this bitumen release in a manner that will mitigate environmental impact, minimize waste volumes and utilize recycling opportunities where possible.

Drilling waste from investigation drilling is being managed using remote sumps in accordance with Directive 50.

2.7. Reclamation Plan

While the final reclamation plan will not be submitted to AESRD/AER until June 2014 (in accordance with Enforcement Order EO-2013/05-NR), the initial plan covers Pre-Disturbance Assessments (PDA) and Conservation and Reclamation plan.
The purpose of the PDA and C & R plan is to identify:

- Annual reclamation procedures and progress reporting will begin November 1, 2014 and continue annually until advised otherwise by AESRD.
- No update for this reporting period.

2.8. Communications Plan

This plan summarizes our planned weekly and monthly communication with stakeholders, regulators, Government officials and the general public.

- Canadian Natural's website will be updated on a regular basis.
- We will continue to address government, media and public inquiries.
- We will provide written summaries and meet with stakeholders as needed to provide updates.

3 Summary

Significant progress on the surface clean-up has been made at all four sites. While the surface clean-up can mitigate the environmental impact of these events, there are also issues that need to be investigated in the subsurface.

Canadian Natural's efforts to investigate and mitigate these events in the subsurface require access to suitable surface locations. To minimize the environmental impact associated with the investigation, Canadian Natural intends to complete activities on existing leases and previously disturbed lands wherever possible.