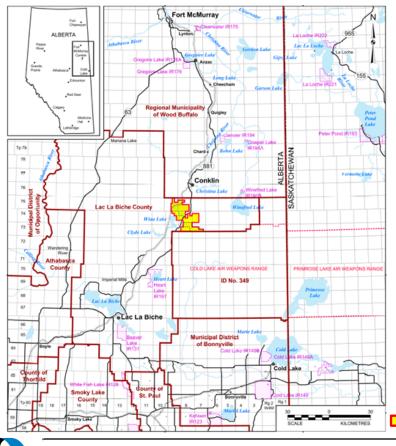


1. Kirby In Situ Oil Sand Project Location

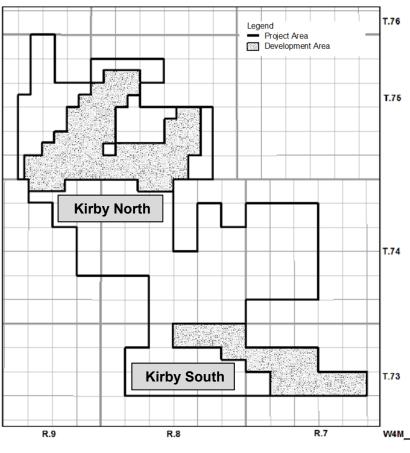


- Kirby South scheme approval granted September 2006
 - First steam October 2013
- Kirby Expansion (Kirby North) scheme approval granted May 2014
 - First steam May 2019

Approved Project Area

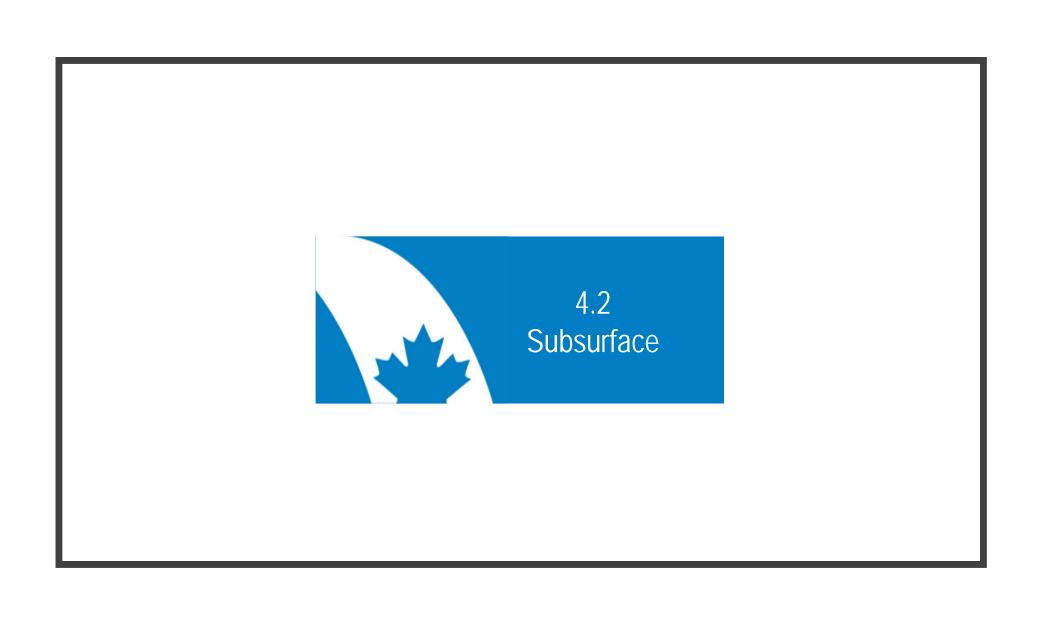


1. Kirby In Situ Oil Sands Project - Scheme Approval 11475NN

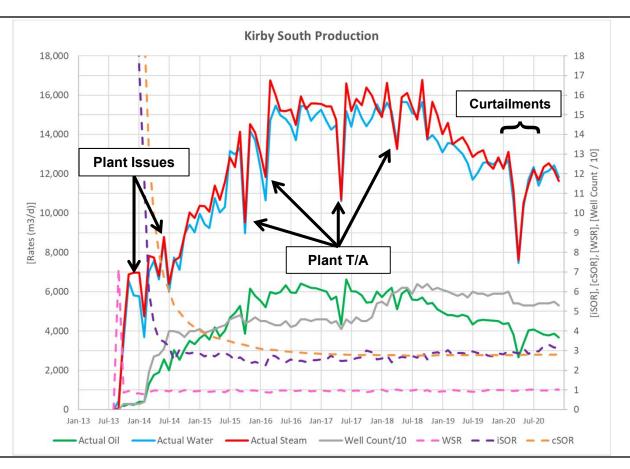


- The McMurray and Wabiskaw D formations are the bitumen-bearing sands and the target of steam injection in the Kirby Project operating areas.
- Recovery processes used is Steam Assisted Gravity Drainage (SAGD)
- The Kirby Project is split into the following two operating areas:
 - Kirby South
 - Kirby North



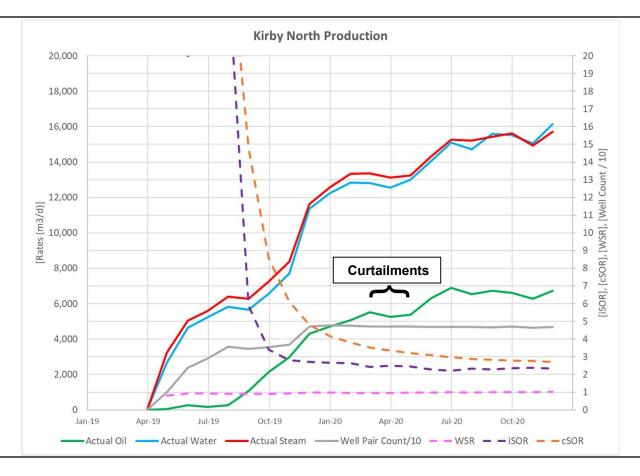


2. Kirby South Production Plot





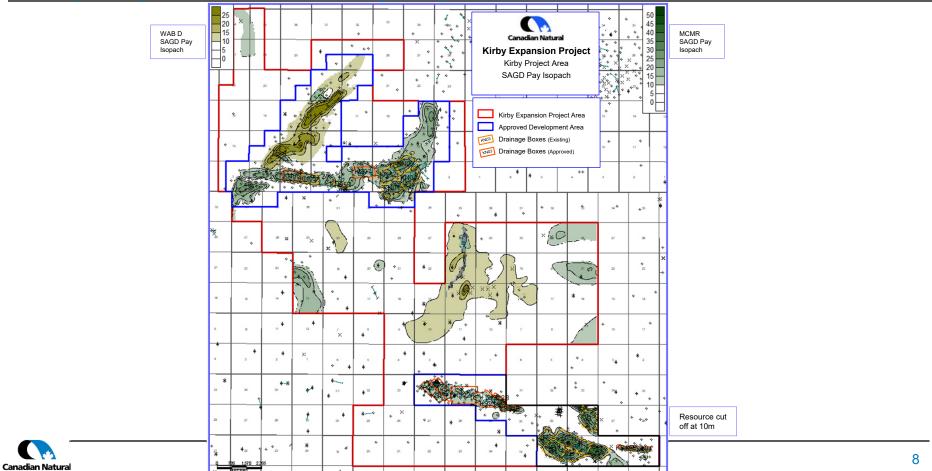
2. Kirby North Production Plot



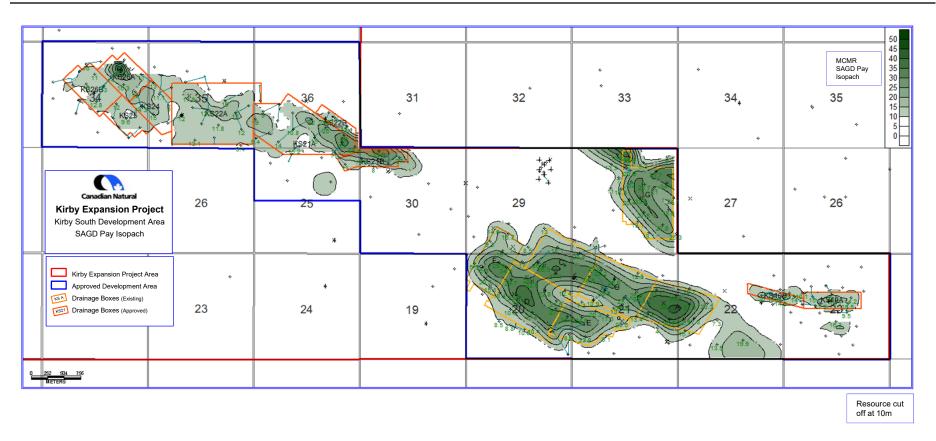


3 a). Drilled and Approved Drainage Areas

3 b). Project Area SAGD Pay Isopach

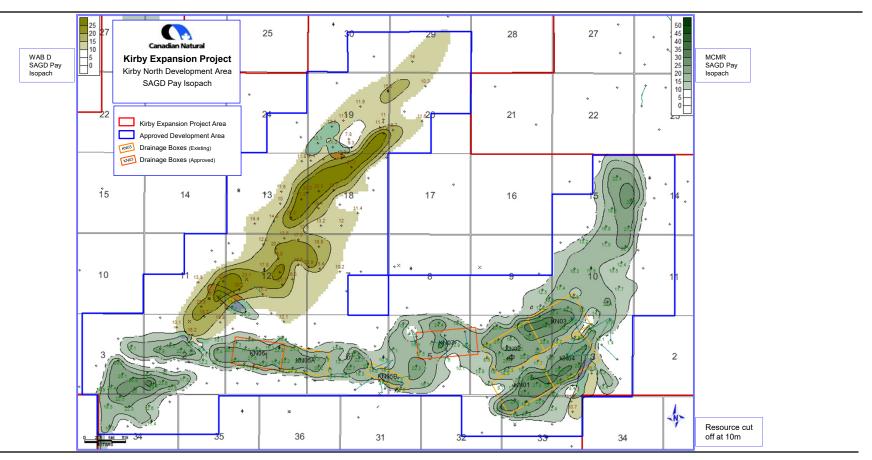


3 b). Kirby South SAGD Pay Isopach



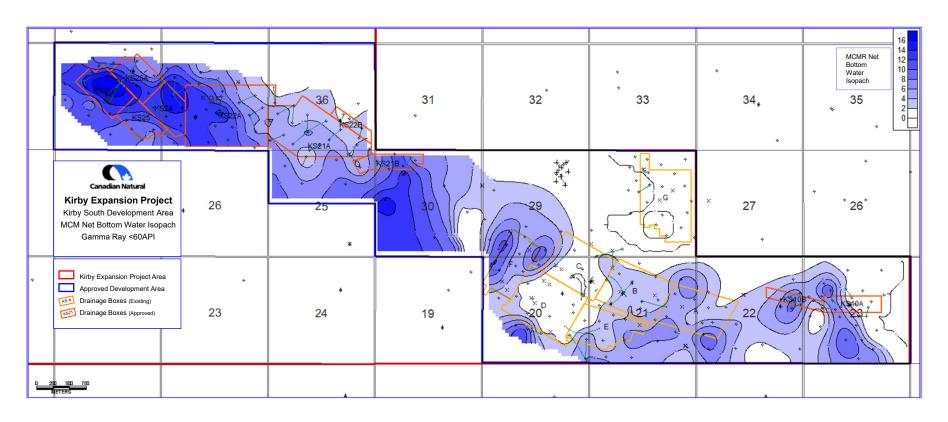


3 b). Kirby North SAGD Pay Isopach



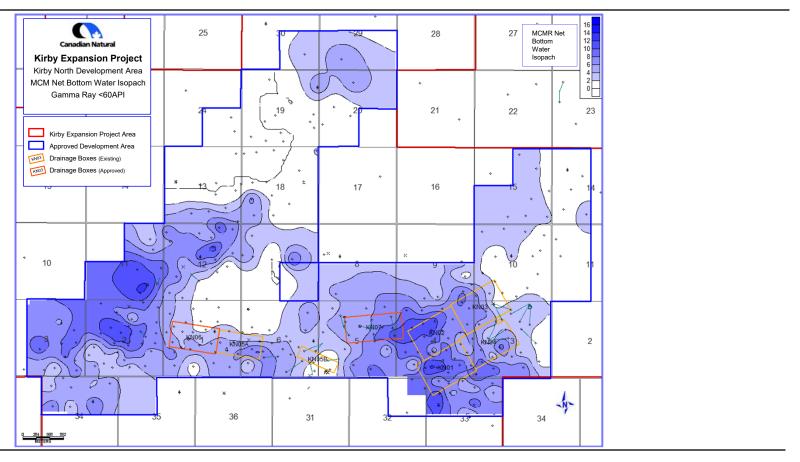


3 c). Kirby South McMurray Net Bottom Water Isopach



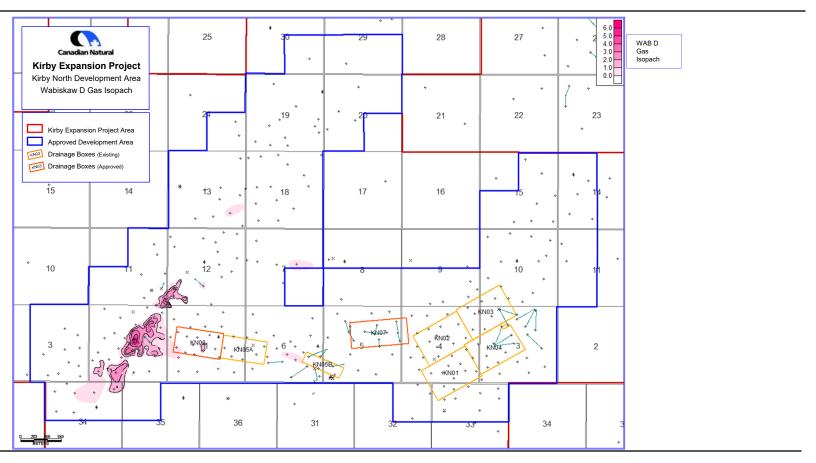


3 c). Kirby North McMurray Net Bottom Water Isopach





3 c). Kirby North Gas Isopach- Wabiskaw D



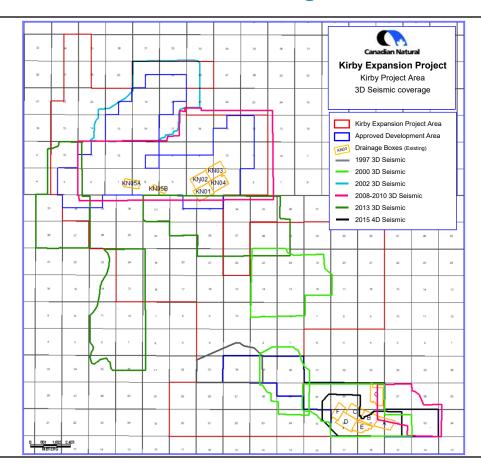


3 d). Geomechanical Anomalies

No known geomechanical anomalies at Kirby

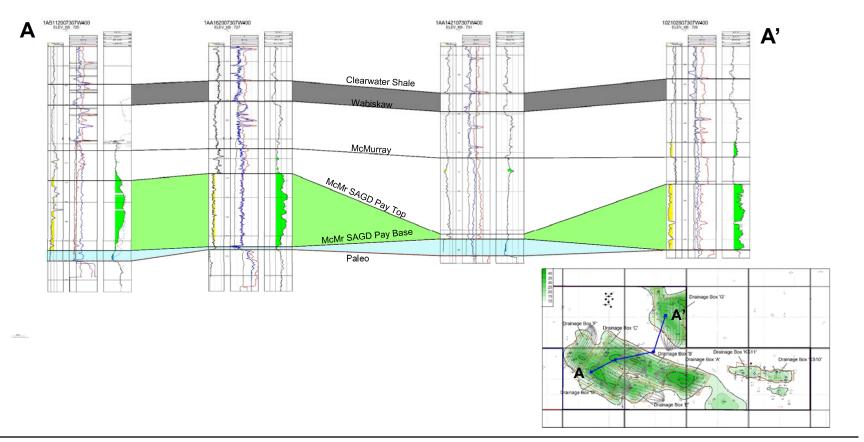


3 e). 3D/4D Seismic Coverage



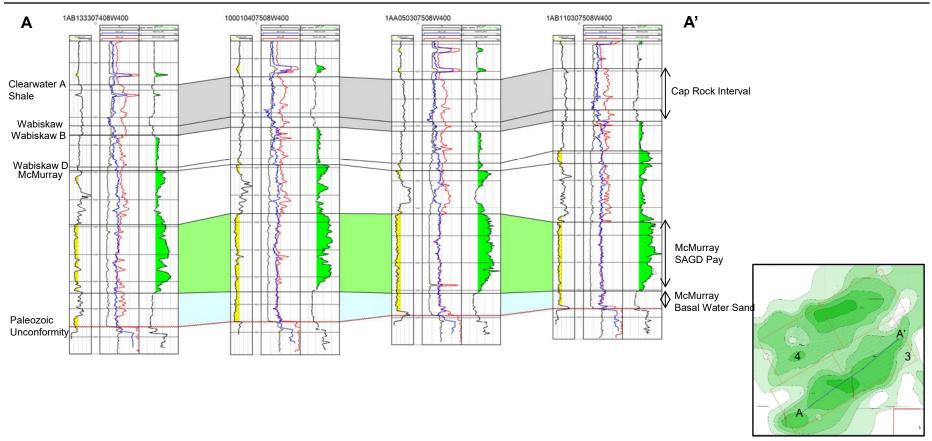


4. Kirby South Structural Cross-Section





4. Kirby North Structural Cross Section





5. Project, Development and Combined Active Well Pattern Volumetrics

	Average pay thickness (m)	Average oil saturation (%)	Average porosity (%)	Average Permeability (D)	Original bitumen in place (e3m3)	Cumulative % bitumen recovery
KS Combined Active Well Pattern	24.5	76.7	33.4	4.7	28,590	41.6%
KN Combined Active Well Pattern	21.2	81.2	33.3	5.3	22,415	11.3%
Kirby South Approved Development Area	19.7	76.3	33.7	4.5	48,919	N/A
Kirby North Approved Development Area (McMurray)	17.6	80.5	32.7	4.8	78,177	N/A
Kirby North Approved Development Area (Wabiskaw D)	15.6	77.5	33	3.5	44,185	N/A
Kirby Approved Project Area	14.7	78.6	32.9	4.6	270,323	N/A

Volumetric calculation = Area within 10m contour **x** SAGD thickness **x** avg. oil saturation **x** avg. porosity



6. Kirby South Drainage Area Volumetrics

Drainage Area	Area (m²)	Average pay thickness (m)	Average porosity (%)	Average oil saturation (%)	Average permeability (D)	OBIP/PBIP (e³m³)	Total recovery % of original bitumen in place	Ultimate recovery % of original bitumen in place
Α	625,017	28.3	33.3	67.9	4.6	4,000	32.0%	50-70%
В	669,345	23.4	32.8	75.4	4.1	3,880	47.3%	50-70%
С	629,989	25.4	33.4	78.3	4.8	4,180	56.5%	50-70%
D	809,000	26.3	33.3	79.5	4.4	5,610	35.5%	50-70%
E	502,828	23.1	34.2	75.5	4.5	3,000	47.3%	50-70%
F	462,018	21.0	33.3	77.6	4.6	2,510	36.8%	50-70%
G	822,445	23.9	33.2	82.9	5.7	5,410	38.6%	50-70%

Note: in Kirby, PBIP=OBIP

OBIP = Original Bitumen in Place
PBIP = Producible Bitumen In Place

Volumetric calculation = Area within drainage box boundary and 10m contour x SAGD thickness x avg. oil saturation x avg. porosity



6. Kirby North Drainage Area Volumetrics

Drainage Area	Area (m²)	Average pay thickness (m)	Average porosity (%)	Average oil saturation (%)	Average permeability (D)	OBIP/PBIP (e³m³)	Total recovery % of original bitumen in place	Ultimate recovery % of original bitumen in place
KN01	763,132	22.0	32.6	80.4	4.7	4,399	0.0%	50-70%
KN02	757,054	21.7	32.4	82.0	5.0	4,365	18.5%	50-70%
KN03	763,111	23.4	33.2	84.4	5.6	5,016	15.4%	50-70%
KN04	763,331	22.6	33.4	84.5	5.4	4,853	9.4%	50-70%
KN05a	443,745	19.9	33.5	81.1	5.3	2,398	16.9%	50-70%
KN05b	308,198	17.4	34.6	74.6	5.6	1,384	7.0%	50-70%

Note: in Kirby, PBIP=OBIP

OBIP = Original Bitumen in Place

PBIP = Producible Bitumen In Place

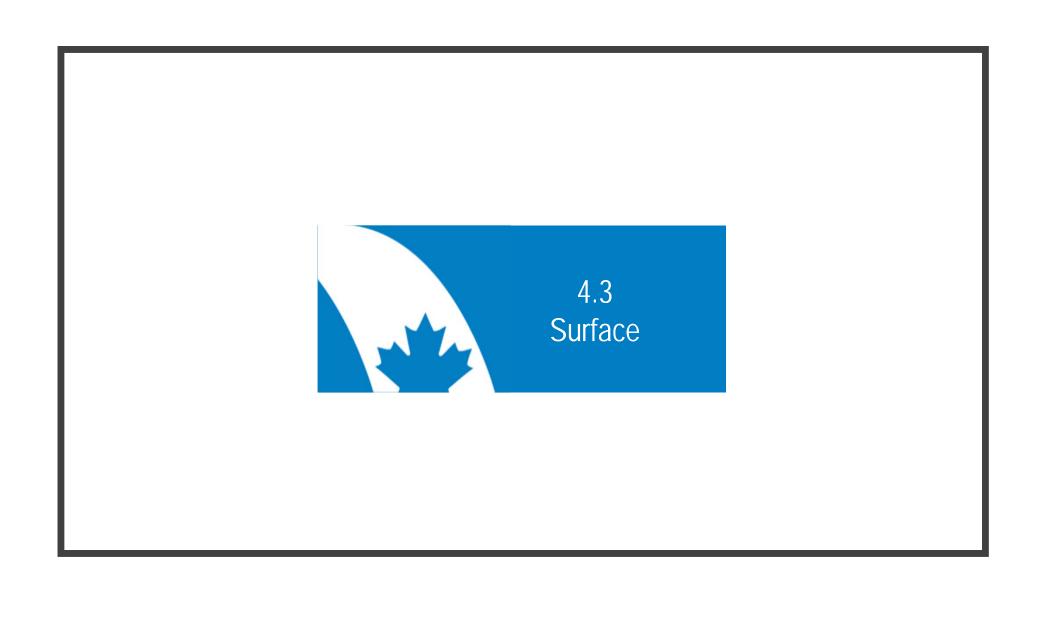
Volumetric calculation = Area within drainage box boundary and 10m contour x SAGD thickness x avg. oil saturation x avg. porosity



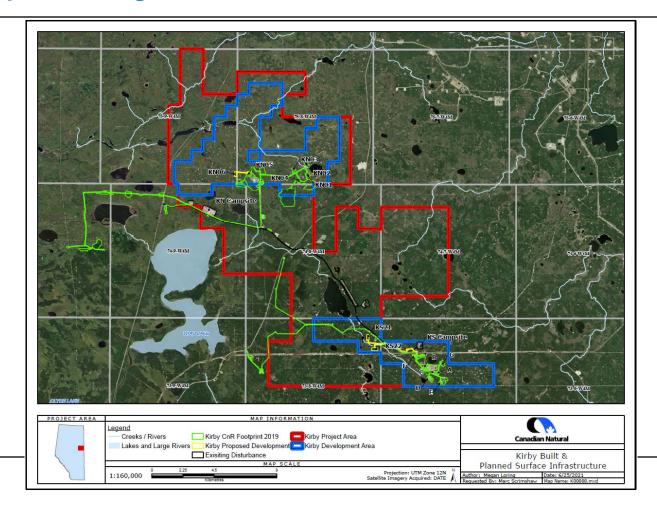
7. Co-Injection

• There were no co-injection activities that took place associated with Kirby Project Scheme Approval No. 11475 during 2020.





8 a). Map Including Built and Planned Surface Infrastructure





8 b). Kirby Project – Facility Modifications

 There were no facility modifications at the Kirby North CPF and Kirby South CPF between Q4-2019 and the end of 2020 that required AER approval



8 c). Kirby South - Annual Operational Bitumen and Steam Rates

Kirby South	Actual Operational	Facility Design	
Bitumen	3,740 m ³ /cd	7,532 m³/sd*	
Steam (Sm³/d)	12,298	18,720	

^{*} Note: Directive 056 Licence Limit



8 c). Kirby North - Annual Operational Bitumen and Steam Rates

Kirby North	Actual Operational	Facility Design	
Bitumen	6,001 m ³ /cd	8,368 m³/sd*	
Steam (Sm³/d)	14,316	18,720	

^{*} Note: Directive 056 Licence Limit





9. Suspension and Abandonment Activity

- No thermal in situ wells were suspended or abandoned during the reporting period
- No well patterns were suspended or abandoned during the reporting period
- No well patterns are on active blow-down or ramp down during the reporting period



10 a). Regulatory Scheme Approval Amendments September 2019 – December 2020

Application Description	Application Number	Submission Date	Approval Date
KS 21/22 Development Approval	1923016	07/25/2019	10/08/2019
KN07 Development Approval	1923252	08/06/2019	10/29/2019
ID 2001-3 Waiver for 2020	1924881	10/16/2019	11/20/2019
Kirby North SO ₂ and Gas Turbine	006-237382	12/19/2019	Under Review
Kirby Project EPEA Approval Renewal Application	007-237382	02/24/2020	Under Review
Authorization for one year Extension of EPEA Approval Expiry Date		July 2, 2020	July 6, 2020
Kirby South Pad Add Extension Project	1931490 009-237382	11/27/2020	Under Review



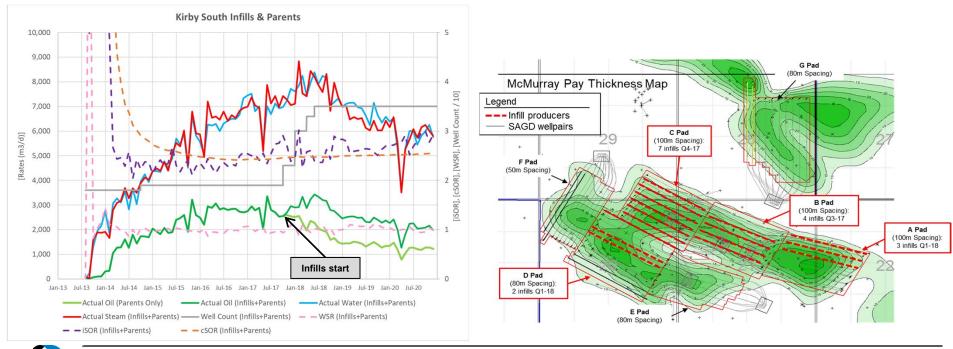
10 b). Events with Potential to Impact to Scheme Performance

- Scheme Performance:
 - Ramp up of Kirby North KN04 pad



10 c). Discussion of Lessons, Successes, or Failures Kirby South Infill Program

- 16 producer only infills were drilled in Kirby South in Q3.2017- Q1.2018
- Infills are forecasted to achieve 15-20% recovery
- Infills benefit from improved liner design and operating strategies from historical KS learnings





10 c). Discussion of Lessons, Successes, or Failures Kirby North Facility Operations

- Lessons Learned incorporated in Kirby North in 2019:
 - A list of changes were implemented at Kirby North to improve plant reliability and runtime of the plant using Kirby South lessons learned. Below are listed some of the changes:
 - Seals pumps upgrades
 - BFW HEX upgrades
 - Instrumentation added to monitor HEX and vessels/tanks performance
 - Boilers Upgrades, such as: Modification of the furnace floor and Header refractory installation
 - Evaporators retrofits and piping modifications to reduced the impact on the boiler feedwater during outages and cleanings
 - Improvements made at the skid filters and new filters installed at the well head to collect more solids at the disposal system
 - Second ISF addition to maintain quality of the produced water from the de-oiling train avoiding OIW excursions
- With these incorporated changes, Kirby North was able to reach 40,000 bbl/d, much sooner than Kirby South due to the incorporated lessons learned. The stabilized operations will help improve the asset life.



10 d). Regulatory and Operational Changes

 There have been no pilots or major technical innovations conducted at the Kirby Project associated with Scheme Approval No. 11475 during 2020



11. Compliance History 2020

- Reportable Incidents Releases
 - December 08, 2019: On lease Kirby South G pad 17 min H₂S release (Reference #: 361906)
 - January 18, 2020: On lease 1 m³ spill of methanol at 07-06-075-08W4 (Reference #: 362845)
 - May 3, 2020: Vapour release from cracked weld on casing bowl (Reference #: 366038)
 - November 22, 2020: Aboveground Pipeline release of 0.5 m³ of produced gas/steam/ emulsion at 12-21-073-07W4M (Ref.# 373876)
 - November 27, 2020: Aboveground Pipeline 0.1 m³ of produced gas/steam/ emulsion spilled at 07-21-073-07W4M (Ref.# 374045)
- All releases were recovered and associated remediation action were taken as necessary
- Voluntary Self Disclosures
 - No VSD during the reporting period



11. Compliance History 2020

- Contraventions Air Related
 - November/December 2019: Less than 90% operations time for NO2 analyzer at Kirby (North) Air Monitoring Station (Reference #: 363231/363232)
 - Sample pump was replaced in November 2019
 - Analyzer was replaced in December 2019
 - August 9, 2020: AAAQO 1 hr H2S Exceedence recorded at Kirby (North) Air Monitoring Station (Reference #: 370134)
 - Electrical Plant upset led to multiple vessels required to relieve pressure to flare. As a result of the increased flaring, the air quality monitoring trailer situated directly SE of the flare recorded 2 separate 1hr H₂S exceedences one at 2300hrs 13ppb and the second at 2400hrs 10ppb. 1hr average thresholds for H₂S are 10ppb. The flare was determined to be the source of the H₂S.
- Contraventions

 Water Related
 - None



12 a). Future Plans - Kirby South

- Pending favourable economic conditions, the following future plans are under evaluation for 2021:
 - Re-Drills:
 - Kirby South Re-drills Q2 2021
 - C6P and G7P redrills
 - New Drills:
 - KS A7I new drill Q2 2021
 - KS21/22 Pad
 - Earthworks Q4 2021
 - NCG Co-Injection:
 - Kirby South F Pad started Q2 2021

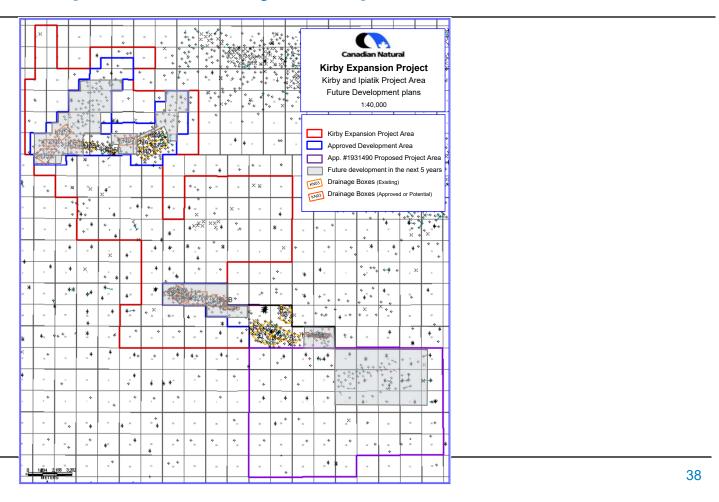


12 a). Future Plans - Kirby North

- The following future plans are under evaluation for 2021:
 - Re-Drills/New Drills:
 - None



12 b). Future Development Plans 5 year Map





12 c). Regulatory Applications Submitted or to be Submitted - 2021

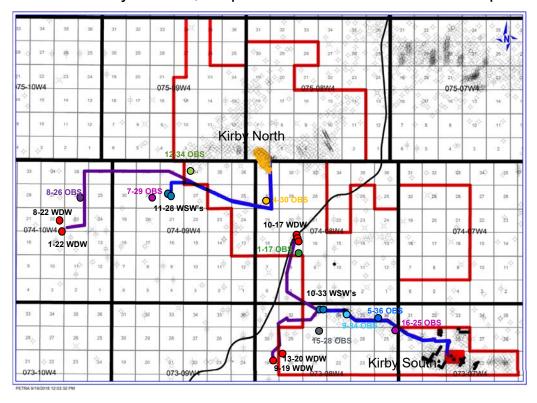
Application Description	Application	Submission	Approval Date
	Number	Date	
Basal McMurray Push/Pull Observation Well Amendment	1932077	01/28/2021	03/19/2021
Kirby South Pad F NCG	1932303	02/19/2021	03/19/2021
Kirby South Sulphur Management Compliance Assurance Plan	1932192	02/09/2021	03/31/2021
Kirby North Warm Hydrocarbon Start Up Trial	1932424	03/02/2021	04/21/2021
Kirby North KN06 Drainage Box Amendment	1932521	03/11/2021	Under Review
Kirby North NCG Co-Injection	1932699	03/30/2021	04/28/2021
Kirby South KS21B Amendment	1933401	06/18/2021	N/A
Kirby North KN08/KN09 McMurray Fm Development	N/A	Q3 2021	N/A
Kirby North KN51 Wab D Development	N/A	Q3 2021	N/A
Kirby South KSW Phase 2 Amendment	N/A	Q3 2021	N/A
Kirby North KN07 Drainage Box Amendment	N/A	Q3 2021	N/A
Kirby South Sulphur Management Compliance Assurance Application	N/A	10/15/2021	N/A



- Clauses 10, 11 and 12 of Scheme Approval No. 11475NN requires:
 - Monitoring data associated with the KN06 monitoring strategy required to be submitted prior to starting steam circulation (Clause 9)
 - surveillance graphs used to monitor the real time data, which includes in situ stresses for the bottomhole pressure trends, for start-up SAGD operations in Pad KN06,
 - Interpreted maps and/or cross sections of 4D seismic data, if available, to assist in monitoring the growth of the steam chamber within the McMurray, and identify any effects on the overlying gas zone in the Kirby Upper Mannville II Pool.
 - During SAGD operations at Pad KN06 submit the temperature and pressure data of the 00/10-01-075-09W4/0 well
 - Submit monitoring data for the Wabiskaw in the 00/10-01-075-09W4/0 well for communication between the McMurray and Wabiskaw through cement behind the production casing
- The information required in the clauses identified above will be provided following the steam in of the KN06 well pad.



McMurray Source, Disposal and Observation Well Map

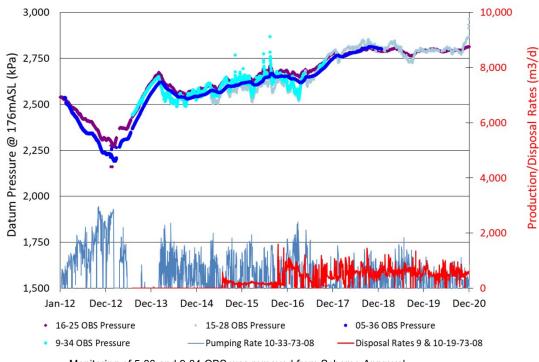


Legend

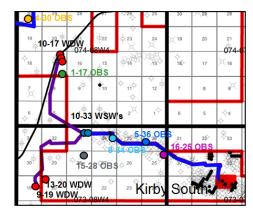
- McMurray Disposal well (WDW)
- McMurray Source well (WSW)
- McMurray Observation well (OBS; various colours)



McMurray Fm Basal Aquifer pressures Kirby South 10-33 well area



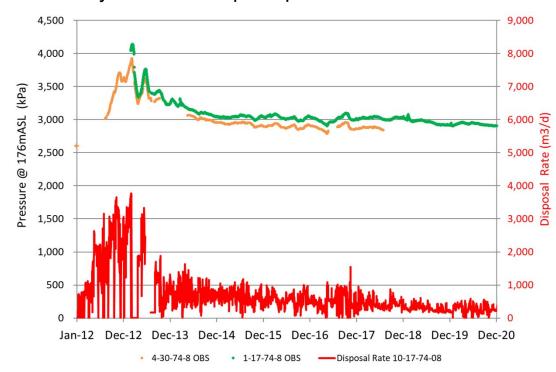
Monitoring of 5-36 and 9-34 OBS was removed from Scheme Approval Notifications of 15-28 data issues submitted to the AER as per Scheme Approval requirements



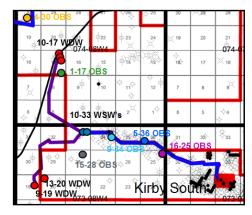
- Pressures in all observation wells above the initial pressures by ~ 250kPa
- Over the last two years, increased sourcing from McMurray aquifer has stabilized regional pressures around 2,800 kPa.
- Successful McMurray pressure balance system in Kirby South area



McMurray Fm Basal Aquifer pressure near 10-17-74-8 disposal area



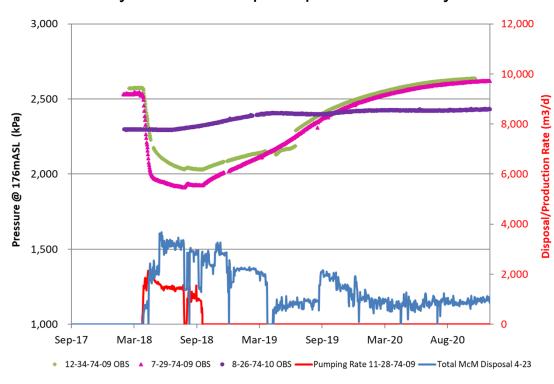
Monitoring of 4-30 OBS was removed from Scheme Approval

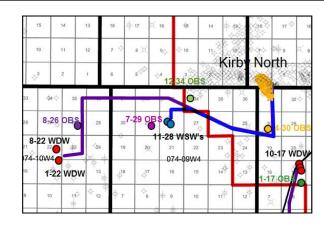


- Regional pressures at 1-17 OBS stabilized around ~3,000 kPa after cavern washing period (2012-2013).
- Over the last two years, lower disposal rates at 10-17 have resulted in pressures decreasing to 2,900 kPa
- Approximately 300 kPa above original static pressure



McMurray Fm Basal Aquifer pressures Kirby North





- Regional pressures recovered in 2019 after McMurray sourcing water at 11-28 source wells was stopped.
- Fluid disposal into 8-22 and 1-22 disposal wells is on-going.
- Minimal hydraulic connection between disposal and reservoir areas - pressure balance system in Kirby North area not required

Notifications of 12-34 data issues submitted to the AER as per Scheme Approval requirements



Chemistry analysis

All saline water source wells (annually)

	1F1/10-33-073-08W4 (McMurray) Kirby South	1F3/13-21-73-07W4 (Grand Rapids) Kirby South	1F1/13-05-075-08W4 (Clearwater) Kirby North	1F1/04-05-075-08W4 (Clearwater) Kirby North
Date	August 10, 2020	August 10, 2020	Not used	August 13, 2020
Total Dissolved Solids	14,600 mg/L	4,430 mg/L	Not used	5,630 mg/L

McMurray source wells in Kirby North were shut-in September 2018.

McMurray Observation wells (every five years)

	100/15-28-073- 08W4 Kirby South	100/01-17-074-08W4 Kirby South	100/08-26-074-10W4 Kirby North	100/07-29-074-09W4 Kirby North
Date	January 27, 2020	January 26, 2020	January 1, 2018	January 18, 2018
Total Dissolved Solids	16,900 mg/L	13,100 mg/L	10,900 mg/L	13,000 mg/L



Kirby South

- Based on a review of the regional pressure and chemistry data, the Kirby South
 McMurray pressure balancing system remained unchanged over the last two years.
- Model predictions would have remained constant from previous years results.
- As such, Kirby South McMurray pressure balance groundwater numerical model was not updated.

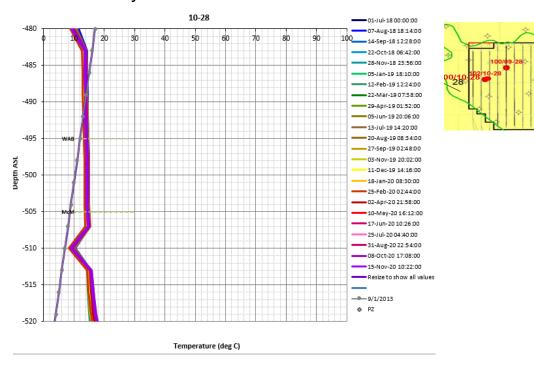
Kirby North

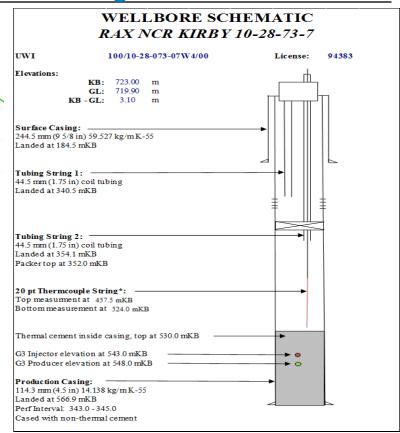
- Pressure data indicates that there is no hydraulic connection between Kirby North McMurray disposal area and the rest of the Kirby project.
- Due to lack of hydraulic communication with the disposal area, Canadian Natural is not operating a pressure balance system at Kirby North.
- Therefore, the Kirby North groundwater numerical model was not updated.



Scheme Approval No. 11475NN Kirby South Area 100/10-28-073-07W4 – Monitoring Results

Colony gas well to evaluate the ability of non-thermal cement to maintain hydraulic isolation in a thermal environment







Advisory

Special Note Regarding Forward-Looking Statements

Certain statements relating to Canadian Natural Resources Limited (the "Company") in this document or documents incorporated herein by reference constitute forward-looking statements or information (collectively referred to herein as "forward-looking statements") within the meaning of applicable securities legislation. Forward-looking statements can be identified by the words "believe", "anticipate", "respect", "project", "forecast", "goal", "guidance", "outlook", "effort", "seeks", "schedule", "proposed", "aspiration" or expressions of a similar nature suggesting future outcome or statements regarding and utlook. Disclosure related to expected future commodity pricing, forecast or anticipated production volumes, royalties, production expenses, capital expenditures, income tax expenses and other targets provided throughout this presentation and the Company's Management's Discussion and Analysis ("MD&A") of the financial condition and results of operations of the Company, constitute forward-looking statements. Disclosure of plans relating to and expected results of existing and future developments, including, without limitation, those in relation to the Company's assests at Horizon Oil Sands ("Horizon"), the Athabasca Oil Sands Project ("AOSP"), Primrose thermal oil projects, the Pelican Lake water and polymer flood projects, the Kirby Thermal Oil Sands Project, the Jackfish Thermal Oil Sands Project, the Jackfish Thermal Oil Sands Project ("AOSP"), Primrose thermal oil projects, the Pelican Lake water and polymer flood projects, the Kirby Thermal Oil Sands Project, the Jackfish Thermal Oil Sands Project ("AOSP"), Primrose thermal oil projects, the Pelican Lake water and polymer flood projects, the Kirby Thermal Oil Sands Project, the Jackfish Thermal Oil Sands Project ("AOSP"), Primrose thermal oil projects, the Pelican Lake water and polymer flood projects, the Kirby Thermal Oil Sands Project, the Jackfish Thermal Oil Sands Project ("AOSP"), Primrose thermal oil projects, the Pelican Lake water and polymer flo

In addition, statements relating to "reserves" are deemed to be forward-looking statements as they involve the implied assessment based on certain estimates and assumptions that the reserves described can be profitably produced in the future. There are numerous uncertainties inherent in estimating of development expenditures. The total amount or timing of actual future production may vary significantly from reserves and production estimates.

The forward-looking statements are based on current expectations, estimates and projections about the Company and the industry in which the Company operates, which speak only as of the earlier of the date such statements were made or as of the date of the report or document in which they are contained, and are subject to known and unknown risks and uncertainties include, among others: general economic and business conditions (including as a result of effects of the novel coronavirus ("COVID-19") pandemic and the actions of the Organization of the Petroleum Exporting Countries Plus ("OPEC+") which may impact, among other things, demand and supply for and market prices of the Company's products, and the availability and cost of resources required by the Company's operations; volatility of and assumptions regarding crude oil and natural gas and NGLs prices including due to actions of OPEC+ taken in response to COVID-19 or otherwise; fluctuations in the countries and regions in which the Company's current targets are based; economic conditions in the countries and regions in which the Company's current targets are based; economic conditions in the countries and regions in which the Company conducts business; political uncertainty, including actions of or against terrorists, insurgent groups or other conflict including conflict between states; industry capacity; ability of the Company to implement its business strategy, including exploration and development activities; impact of competition; the Company's defense of lawsuits; availability and cost of seismic, drilling and other equipment; ability of the Company and its subsidiaries to complete capital programs; the Company's and its subsidiaries and other difficulties inherent in the exploration for evelopment projects or capital expenditures; ability of the Company to transpet in plans with respect to explanate in plans with re

The Company's operations have been, and in the future may be, affected by political developments and by national, federal, provincial, state and local laws and regulations such as restrictions on production, changes in taxes, royalties and other amounts payable to governments or governmental agencies, price or gathering rate controls and environmental protection regulations. Should one or more of these risks or uncertainties materialize, or should any of the Company's assumptions prove incorrect, actual results may vary in material respects from those projected in the forward-looking statements. The impact of any one factor on a particular forward-looking statement is not determinable with certainty as such factors are dependent upon other factors, and the Company's course of action would depend upon its assessment of the future considering all information then available.

Readers are cautioned that the foregoing list of factors is not exhaustive. Unpredictable or unknown factors not discussed in this presentation or the Company's MD&A could also have adverse effects on forward-looking statements. Although the Company believes that the expectations conveyed by the forward-looking statements are reasonable based on information available to it on the date such forward-looking statements are made, no assurances can be given as to future results, levels of activity and achievements. All subsequent forward-looking statements, whether written or oral, attributable to the Company or persons acting on its behalf are expressly qualified in their entirety by these cautionary statements. Except as required by applicable law, the Company's estimates or opinions change.



