Lindbergh Project

2022 Annual Performance Report

STRATHCONA
RESOURCES LTD

Advisories

Special Note Regarding Forward-Looking Statements

Certain statements relating to Strathcona Resources Ltd. (the "Company") in this document 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", "expect", "plan", "estimate", "target", "continue", "could", "intend", "may", "potential", "predict", "should", "will", "objective", "project", "forecast", "goal", "guidance", "outlook", "effort", "seeks", "schedule", "proposed", "aspiration" or expressions of a similar nature suggesting future outcome or statements regarding an outlook. 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, constitute forward-looking statements. In particular, this document contains forward-looking statements pertaining to, without limitation, the following: plans relating to and expected results of existing and future developments, including, without limitation, those in relation to the Company's assets at Lindbergh; the development and deployment of technology and technological innovations; the financial capacity of the Company to complete its growth projects and responsibly and sustainably grow in the long term; the non-condensable gases ("NCG") co-injection strategies of the Company and the anticipated impacts and benefits thereof; regulatory matters, including the anticipated approval and undertaking of certain projects and facilities; expected regulatory and scheme amendments and the timing and impacts thereof; future development plans of certain assets and projects of the Company, including the timing and location thereof; and future events that may impact the performance of the Company.

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 quantities of proved and proved plus probable crude oil, natural gas and NGLs reserves and in projecting future rates of production and the timing 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, material factors and assumptions, 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. Although the Company believes the expectations, material factors and assumptions reflected in these forward-looking statements are reasonable as of the date hereof, there can be no assurance that these expectations, factors and assumptions will prove to be correct. These forward-looking statements are not guarantees of future performance and are subject to a number of known and unknown risks and uncertainties that could cause actual events or results to differ materially, including, but not limited to: general economic and business conditions; the actions of the Organization of the Petroleum Exporting Countries Plus ("OPEC+") and the impact thereof on the demand, supply and market prices of the Company’s products; the availability and cost of resources required by the Company's operations; price volatility of crude oil, natural gas NGLs and other commodities; fluctuations in currency and interest rates; industry capacity; the ability of the Company to implement its business strategy, including exploration and development activities; the impact of competition; the availability and cost of equipment required by the Company; the ability of the Company to complete capital programs; the Company’s ability to secure adequate transportation for its products; potential delays or changes in plans with respect to exploration or development projects or capital expenditures; the ability of the Company to attract the necessary labour required to build, maintain, and operate projects; operating hazards and safety issues; the availability and cost of financing; fluctuations in operating results; the Company's ability to meet its targeted production levels; timing and success of integrating the business and operations of acquired companies and assets; production levels; imprecision of reserves estimates and estimates of recoverable quantities of crude oil, natural gas and NGLs not currently classified as proved; actions by governmental authorities (including production curtailments mandated by the Government of Alberta); government regulations and the expenditures required to comply with them, including safety and environmental laws and regulations; the impact of climate change initiatives on capital expenditures and production expenses; changing public opinion in respect of the industry in which the Company operates; asset retirement obligations; the sufficiency of the Company's liquidity to support its growth strategy and to sustain its operations in the short, medium, and long term; the strength of the Company's balance sheet; the flexibility of the Company's capital structure; the adequacy of the Company’s provision for taxes; technology and cyber security risks; natural catastrophes; and other circumstances affecting revenues, expenses and operations.

Readers are cautioned that the foregoing list of factors is not exhaustive. Unpredictable or unknown factors not discussed in this document could also have adverse effects on forward-looking statements. 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 assumes no obligation to update forward-looking statements in this presentation, whether as a result of new information, future events or other factors, or the foregoing factors affecting this information, should circumstances or the Company’s estimates or opinions change.

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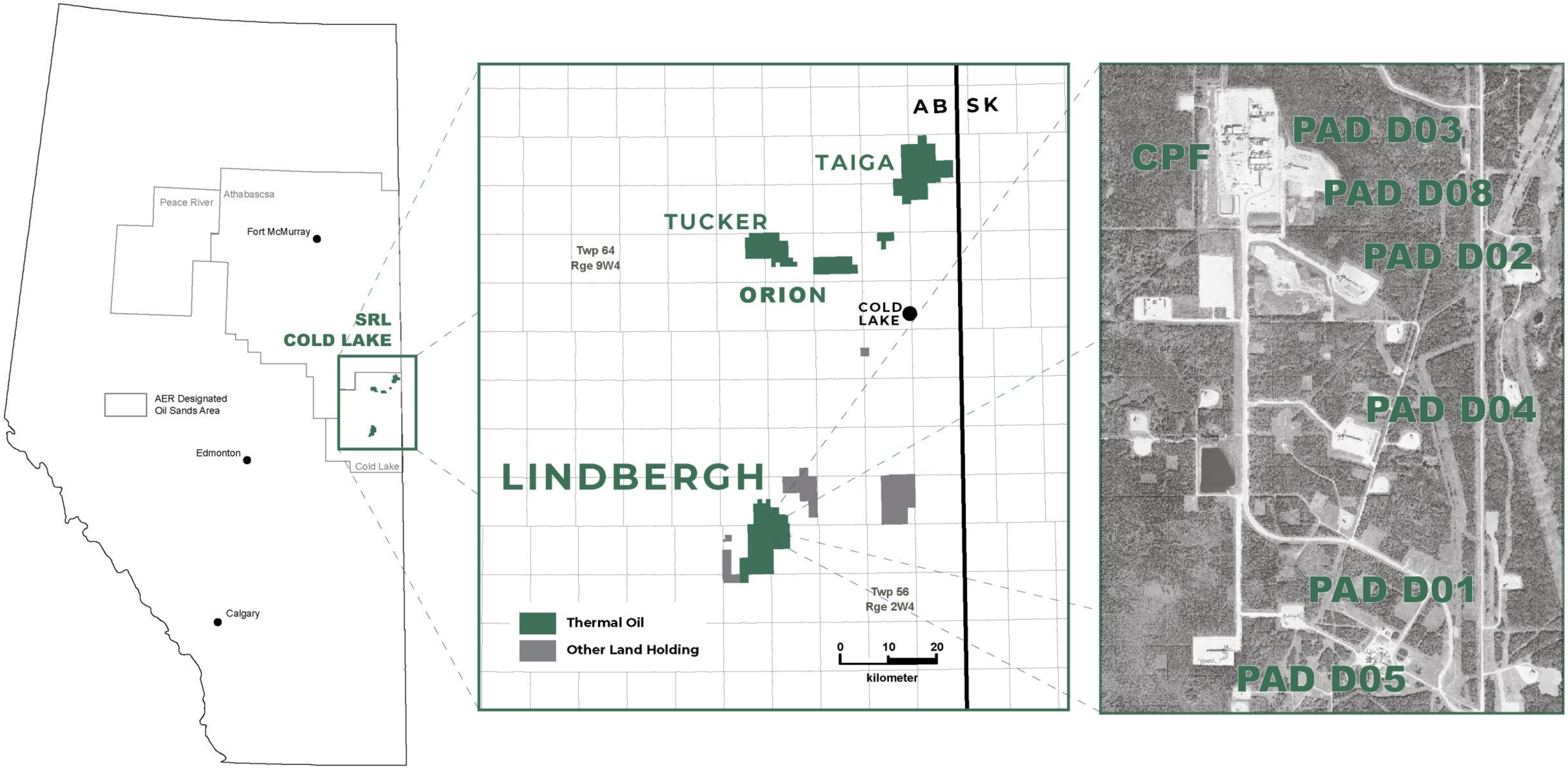
Introduction - Project Location



Lindbergh is an in-situ oil sands steam-assisted gravity drainage (SAGD) project consisting of a central processing facility (CPF) and six well pads situated in 04-25-058-05W4M, approximately 30 km south-east of Bonnyville, Alberta.

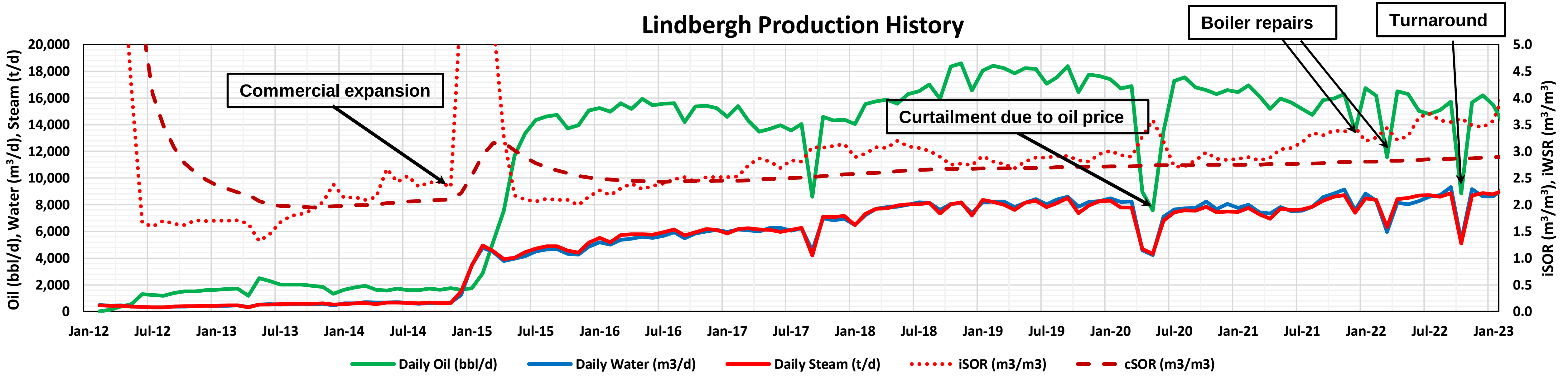
Project Overview and History

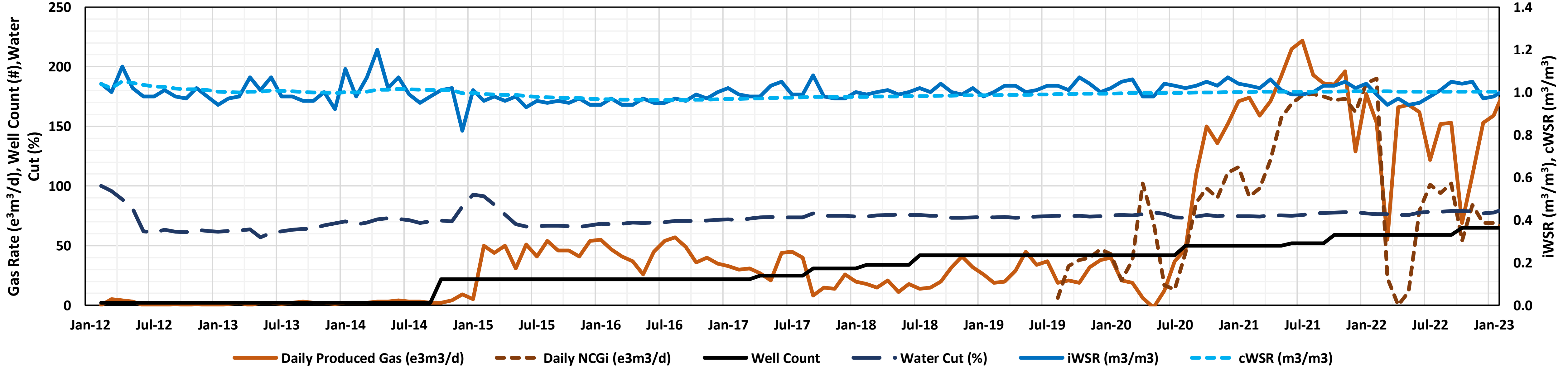
- Murphy Oil piloted and then commercialized Cyclic Steam Stimulation (CSS) production in the Lloydminster and Rex Formations in Section 13-058-05W4M between 1972 and 1999; Scheme Approval 6410 was granted in May 1991.
- Pengrowth Energy Corporation acquired the dormant Lindbergh project from Murphy Canada in April 2004.
  - CSS wells were abandoned
- The SAGD Pilot project was approved in July 2011 to evaluate the Lloydminster Formation using existing CPF infrastructure.
  - 2 pilot SAGD wells: steam circulation initiated in February 2012
- The 12,500 barrels per day (bpd) Phase 1 CPF was approved in August 2012 and was constructed in Q4 2014.
  - 20 new SAGD wells on Pads D02, D03 and D05: first steam in December 2014
- Phase 2 approval to increase production capacity to 30,000 bpd was received in May 2016 and subsequently approved to increase production to 40,000 bpd in June 2017.
  - 1 new SAGD well and 2 infill wells in Pad D01: first steam in June 2017
  - 9 new SAGD wells in Pad D04: first steam between September 2017 and February 2018
  - 8 infill wells in Pad D05: first steam in July 2018
  - 1 new SAGD well and 7 infill wells in Pad D03: first steam in September 2020
  - 4 new SAGD wells and 5 infill wells in Pad D02: first steam in October 2021
  - 6 new SAGD wells in Pad D08 under construction with first steam in January 2023
- Pilot SAGD CPF was decommissioned upon start-up of the Phase 1 CPF, and then recommissioned for the purpose of providing additional steam generation in April 2018.
- Strathcona's legacy Cona Resources Ltd. acquired the Lindbergh Thermal Project in 2020.

Subsurface

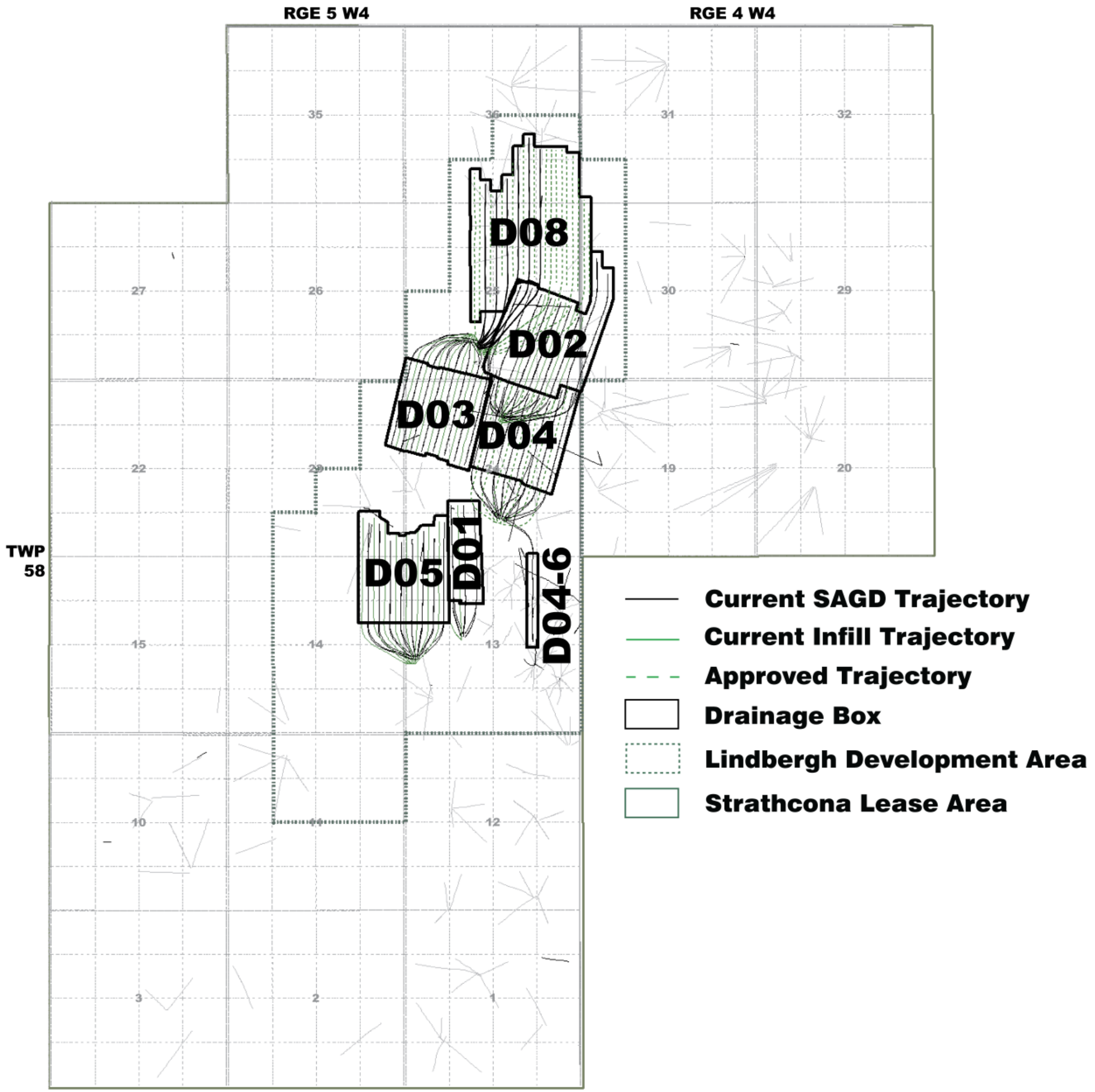
Lindbergh In Situ Oil Sands

Scheme Lifespan Production Plot





Drilled and Approved Drainage Patterns



Geoscience

Lindbergh In Situ Oil Sands

Project Area and Well Data

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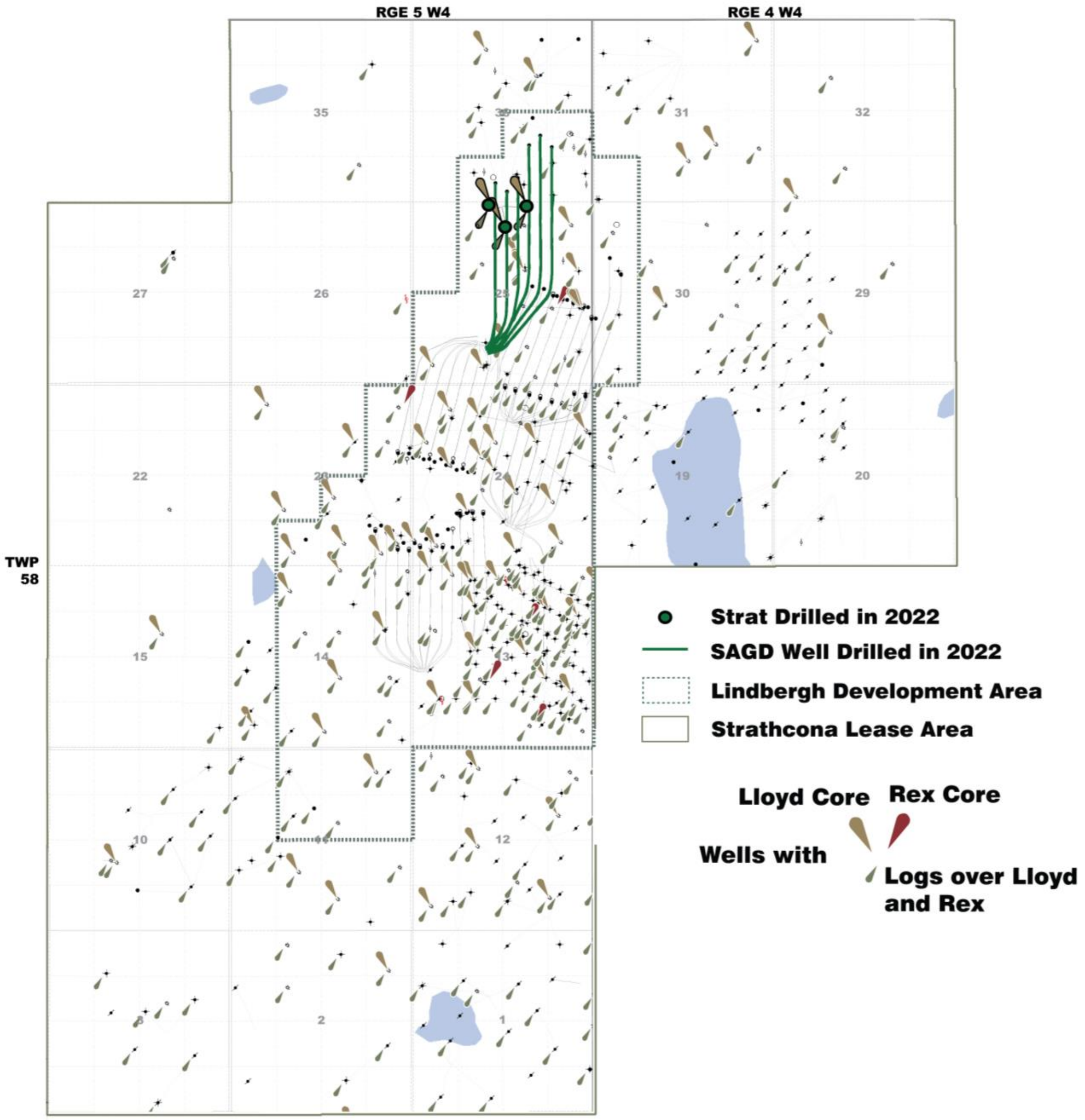
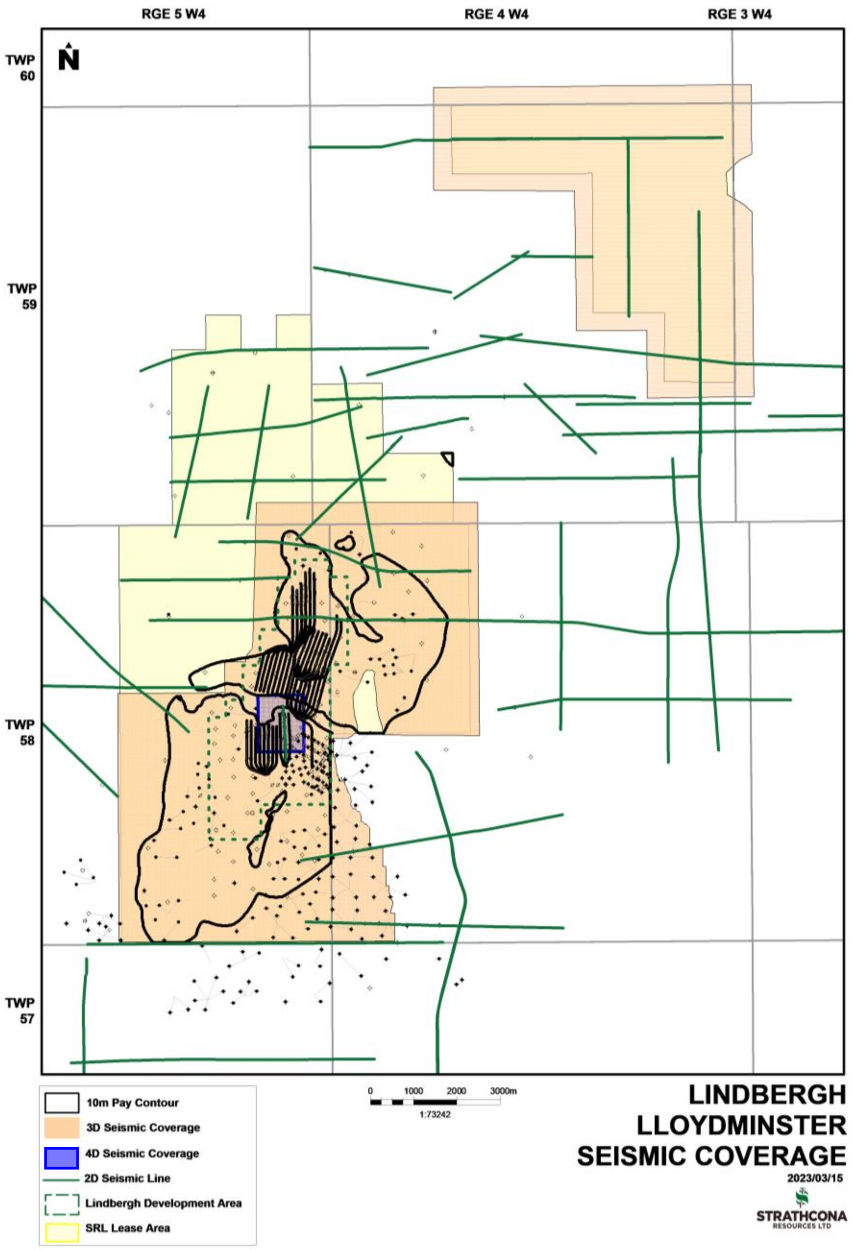
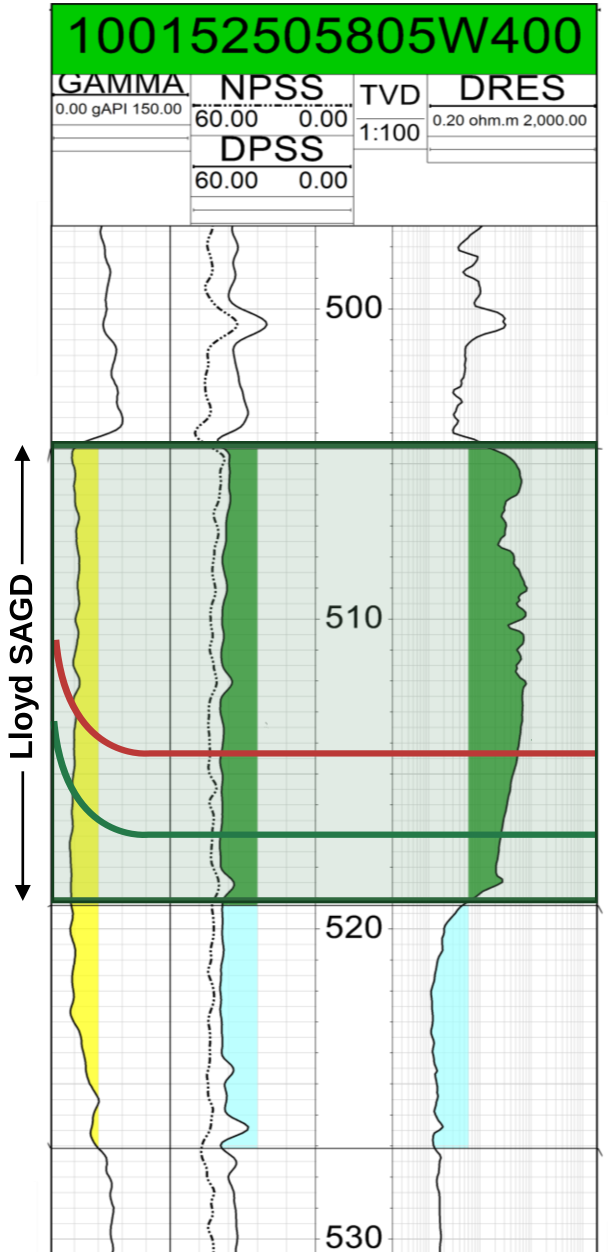


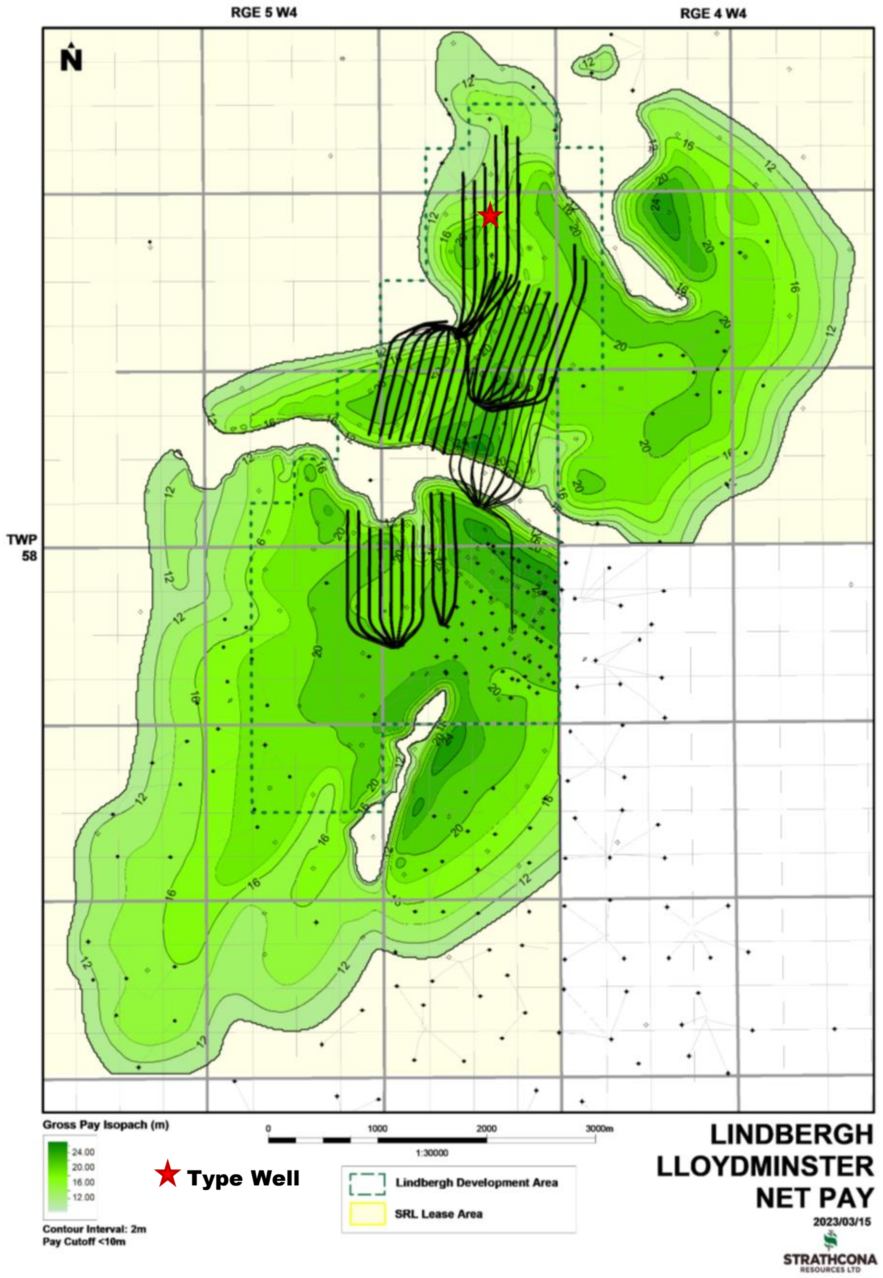
2D, 3D and 4D Datasets

- 55 2D lines with cumulative line length of 338 km.
- 102 km^2 of 3D data exist over most of the Lindbergh and Muriel Lake leases with exploitable resource.
- 1.32 km^2 of 4D Seismic over Pad D01.
  - Baseline acquired February 2012
  - First monitor acquired December 2013
  - Second monitor acquired December 2016
- No new seismic acquired since December 2016.



Lloydminster SAGD Reservoir Isopach and Type Well

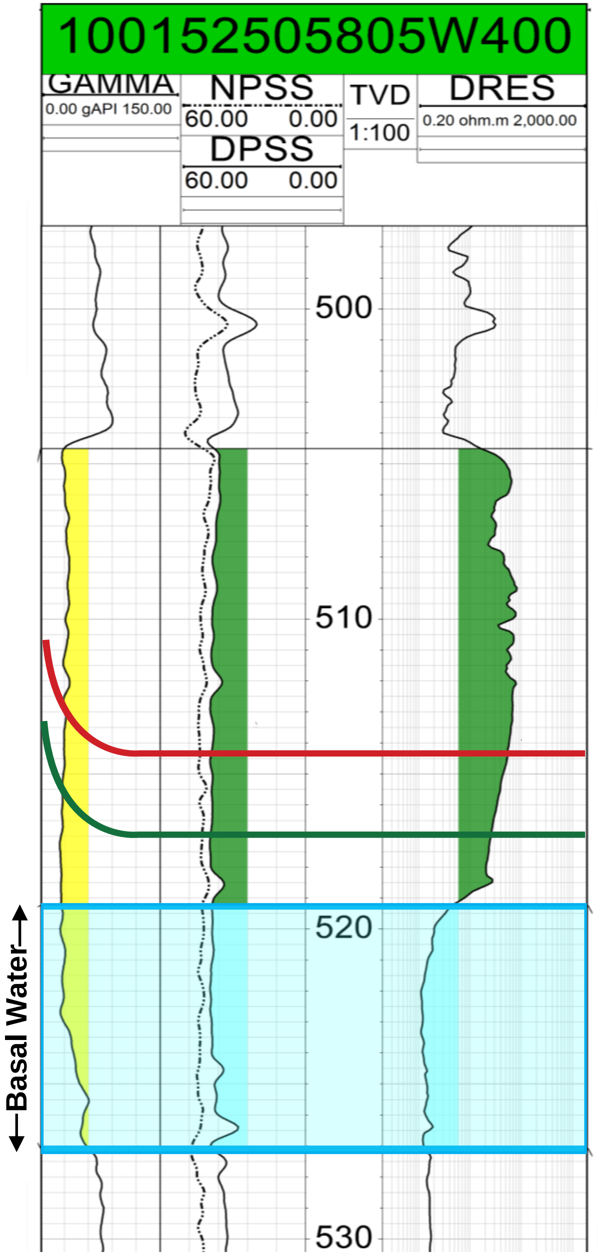


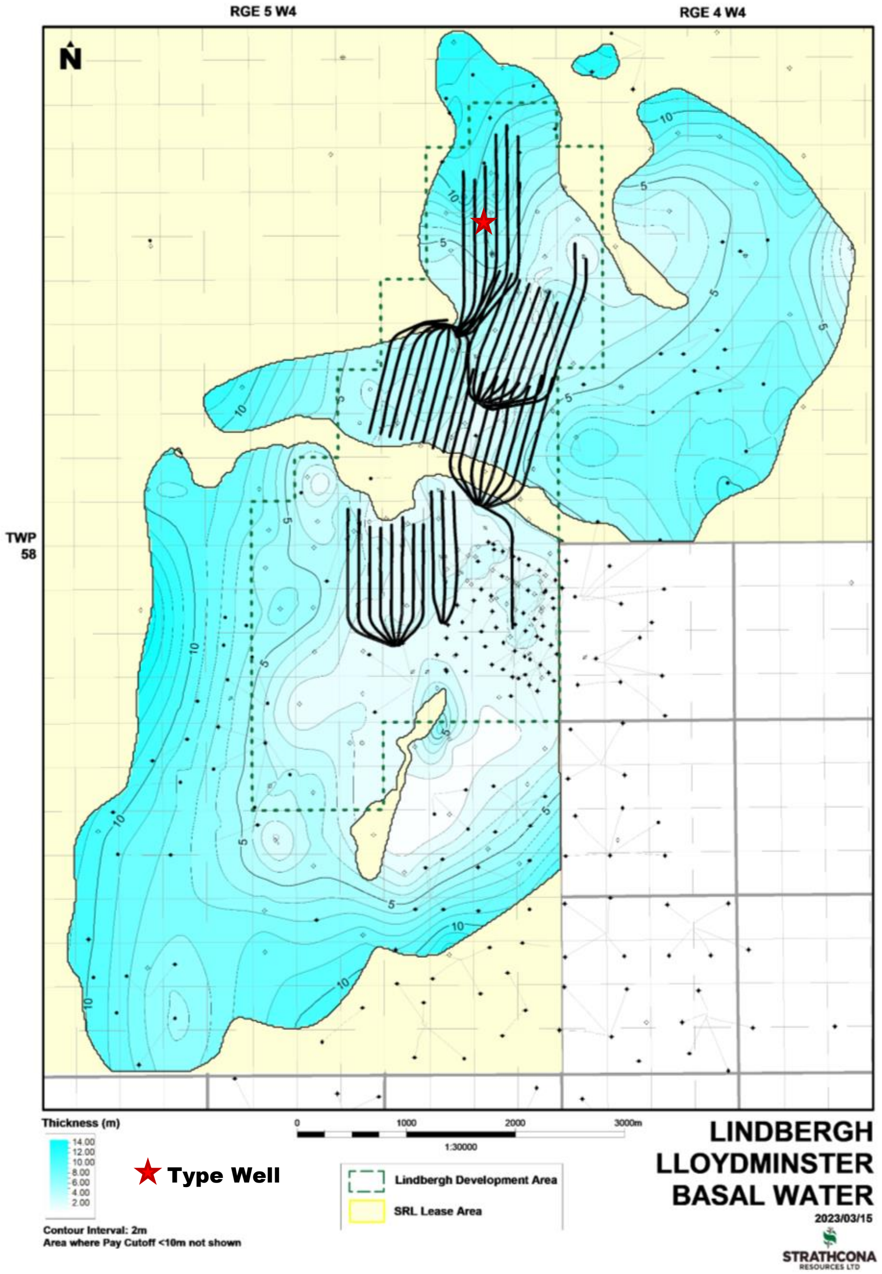


Reservoir Cut-Offs:

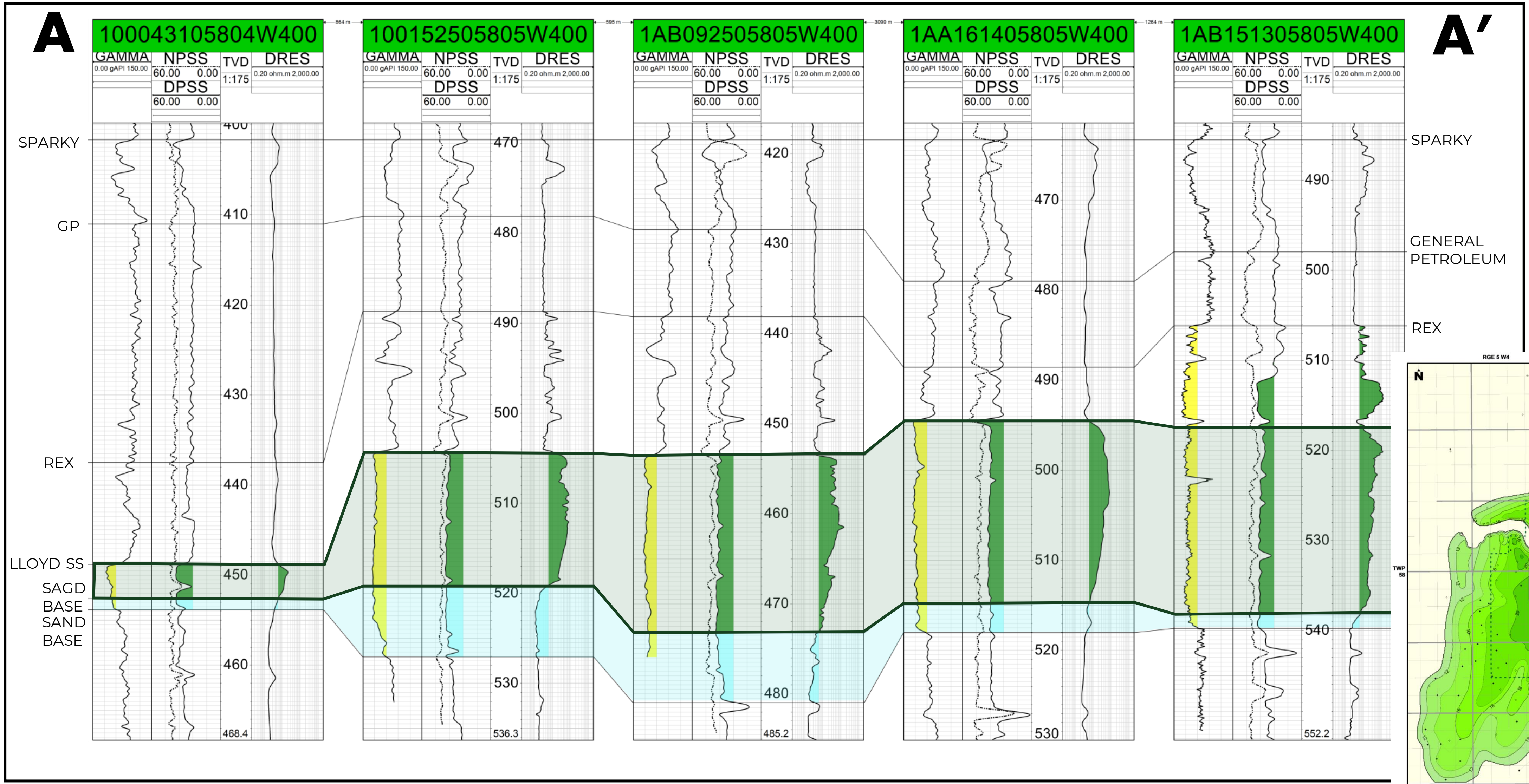
- **50% sand cutoff GR**
- **24% PhiD SS**
- **6 Ohms**

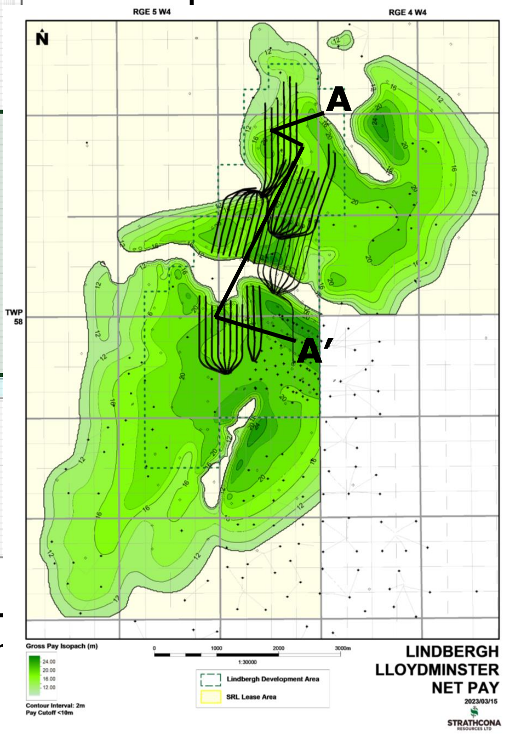
Lloydminster Reservoir Basal Water Isopach





Stratigraphic Cross Section





*** No gas cap preser**

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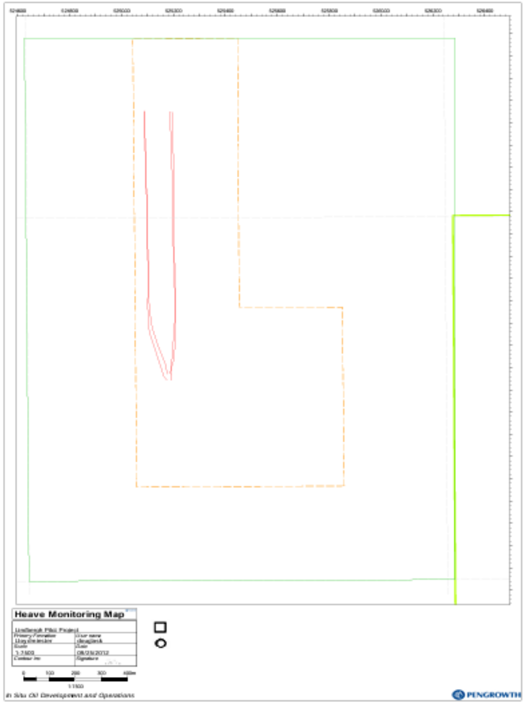
- Surface heave monitoring is not a condition of Commercial Scheme Approval No. 6410
- The Project is operating near reservoir pressure
- Surface heave monitoring was discontinued in 2014 as data confirmed the Project heave was minimal under SAGD operations

HEAVE MONUMENTS

- Baseline readings were taken in March 2012
- Most recent observations were taken in February and September of 2014
- Based on current analysis we do not anticipate additional monitoring within the next year

		Point Differences vs Observation 1		
		ΔN(m)	ΔE(m)	ΔElev(m)
Observation 6 (February 2014)	Control	0	0	0
		0	0	0
	WP01	0.051	-0.05	0.019
		-	-	0.002
		0.022	-0.003	0.003
	WP02	0.014	0.011	0.019
		0.046	-0.107	0.003
		-	-	0.0022
Observation 7 (September 2014)	Control	0	0	0
		0	0	0
	WP01	-	-	0.0019
		-	-	0.0029
		0.016	0.008	0.004
	WP02	0.012	0.021	0.011
		0.044	-0.09	0.005
		0	0.001	0.003



21 | TSX:PGF PENGROWTH

Reference: Pengrowth Energy Corporation – 2019 Annual D054 Presentation (Slide 20)

Reservoir Properties and Original Bitumen in Place (OBIP)

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OBIP and Recovery to Date [1]

Pad	Start Date	Operating Well Pairs	Well Length	Well Pair Spacing [2]	Area	Pay	Porosity	Oil Saturation	Total OBIP [3]	Current Recovery [4]	Estimated Ultimate Recovery	PBIP
Name	Date	#	m	m	m^2	m	%	%	10^3m^3	%	%	10^3m^3
Pad D01	February 2012	3 WP / 2 infill	837	100	296,003	20.3	37%	85%	1,880	57.8%	70–80	1,371
Pad D02	January 2015	9 WP / 5 infill	903	100	878,115	19.4	36%	83%	5,065	22.0%	65–75	4,021
Pad D03	December 2014	8 WP / 7 infill	765	100	645,922	19.0	36%	85%	3,737	47.5%	65–75	2,852
Pad D04	September 2017	9 WP	809	100	781,658	20.0	36%	83%	4,648	23.2%	60–70	3,416
Pad D05	January 2015	8 WP / 8 Infill	778	100	755,315	18.5	37%	83%	4,270	50.5%	65–75	3,901

Area	Total OBIP	Current Recovery Factor [4]
	10^3m^3	%
Total Active Well Pattern Area	19,602	36.8%
Total Development Area	66,101	10.9%
Total Project Area	157,708	4.6%

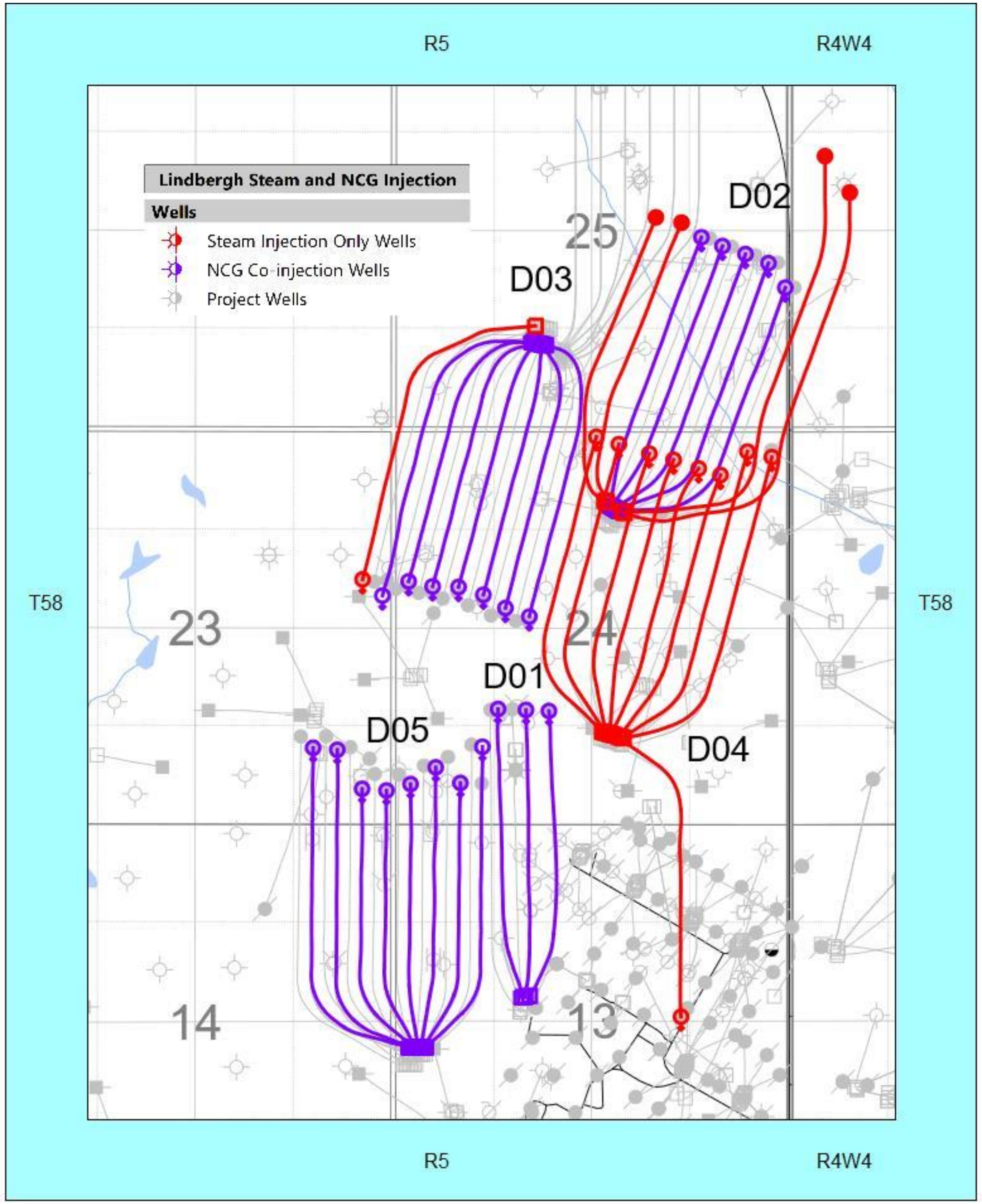
(1) As of December 31, 2022
(2) Approximate Well Pair Spacing, m
(3) OBIP=Area x Pad Thickness x Porosity x Oil Saturation : Bo (1.005)
(4) Recovery as of December 31, 2022, on OBIP basis

Development Area Reservoir Properties		
Depth	metres	425–550
Pay Thickness	metres	18–22
Average Porosity	%	36
Average Oil Saturation	%	83
Average Bitumen Weight	%	14
Horizontal Permeability	Darcies	2–6
Kv:Kh	X	0.8
Temperature	°C	20
Pressure	MPa	3.0
Oil Gravity	°API	10
Viscosity at 16°C	cP	300,000

Non-Condensable Gas (NCG) Co-Injection

- NCG rates are up to 3 mole% or 10 e^3m^3/d gas injection with steam per well:
  - Temporarily stopped NCG injection (March–May 2022) to manage SO_2 production from the plant and to increase gas retention in the reservoir; restarted NCG injection in June 2022 at 1–1.5 mole%
  - Received approval to increase NCG injection limits in July 2022 (100 mole% or 50 e^3m^3/d)

- Positive & Negative Impacts:
  - \+ Pad steam reductions of up to 20%
  - \+ Instantaneous steam-oil ratio (iSOR) reduction of up to 0.5 m^3/m^3
  - \+ Lower per barrel operating cost with reduced steam demand
  - \+ No negative impact on ultimate recovery observed
  - \+ No wellbore integrity issues observed
  - \+ No interaction with bottom water
  - \- Increased produced gas volumes
  - \- Lower heating value in produced gas decreases boiler burner efficiency



Surface Operations

Lindbergh In Situ Oil Sands

Facility Highlights

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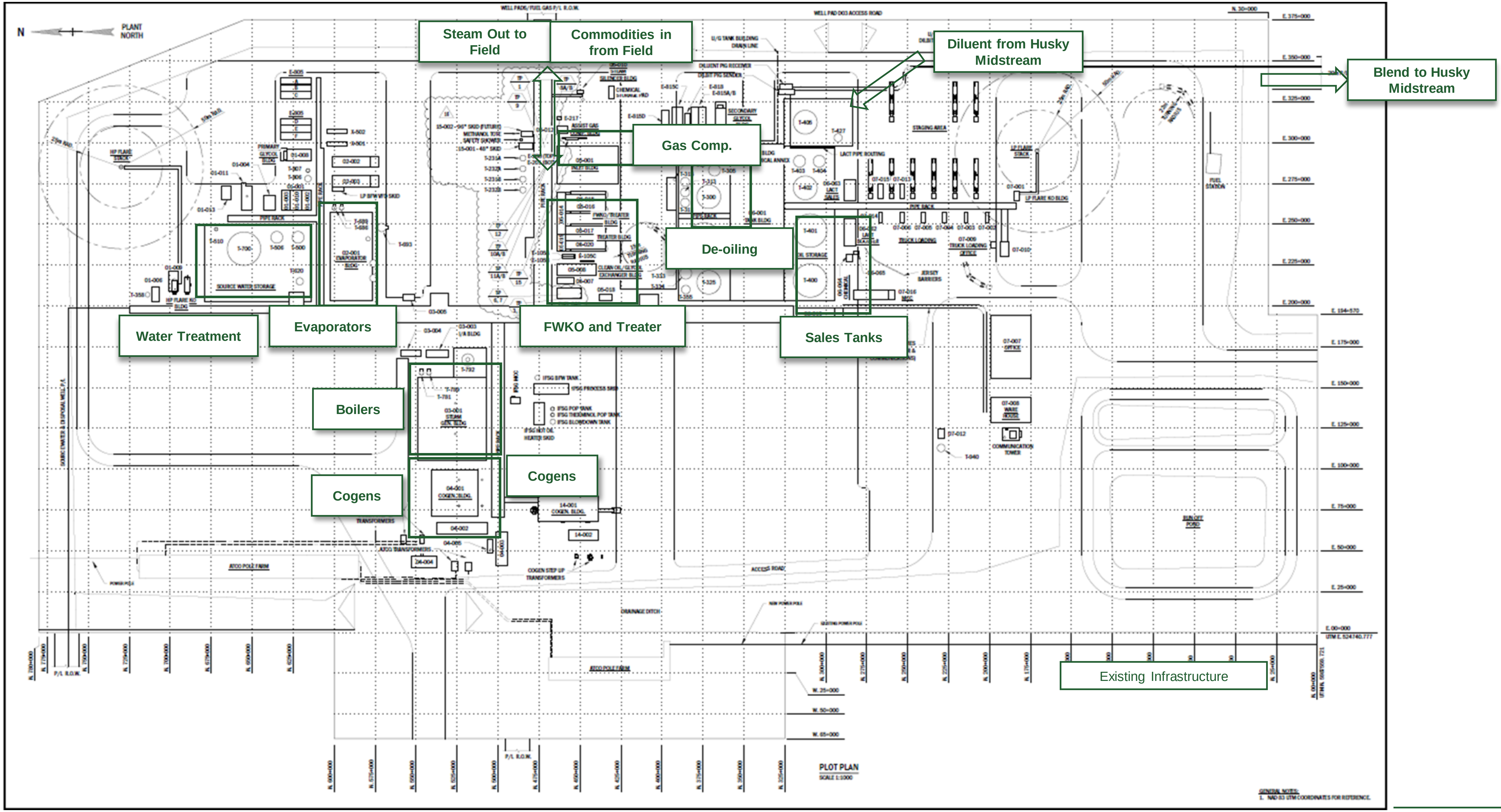
- No abandonment/suspension of producing wells was undertaken in 2022
- Commissioned continuous emission monitoring systems (CEMS) unit in July 2022
- Installation of Zeeco burners in H720 in October 2022
- Executed a full plant turnaround in October 2022
- Built and installed a new 7.5 MW/1,300 t/d cogeneration package (commissioned in December 2022)
- Tie-in of six (6) new SAGD well pairs (Pad D08 Phase 1) in the field

Lindbergh CPF Plot Plan



Lindbergh Pilot Plot Plan

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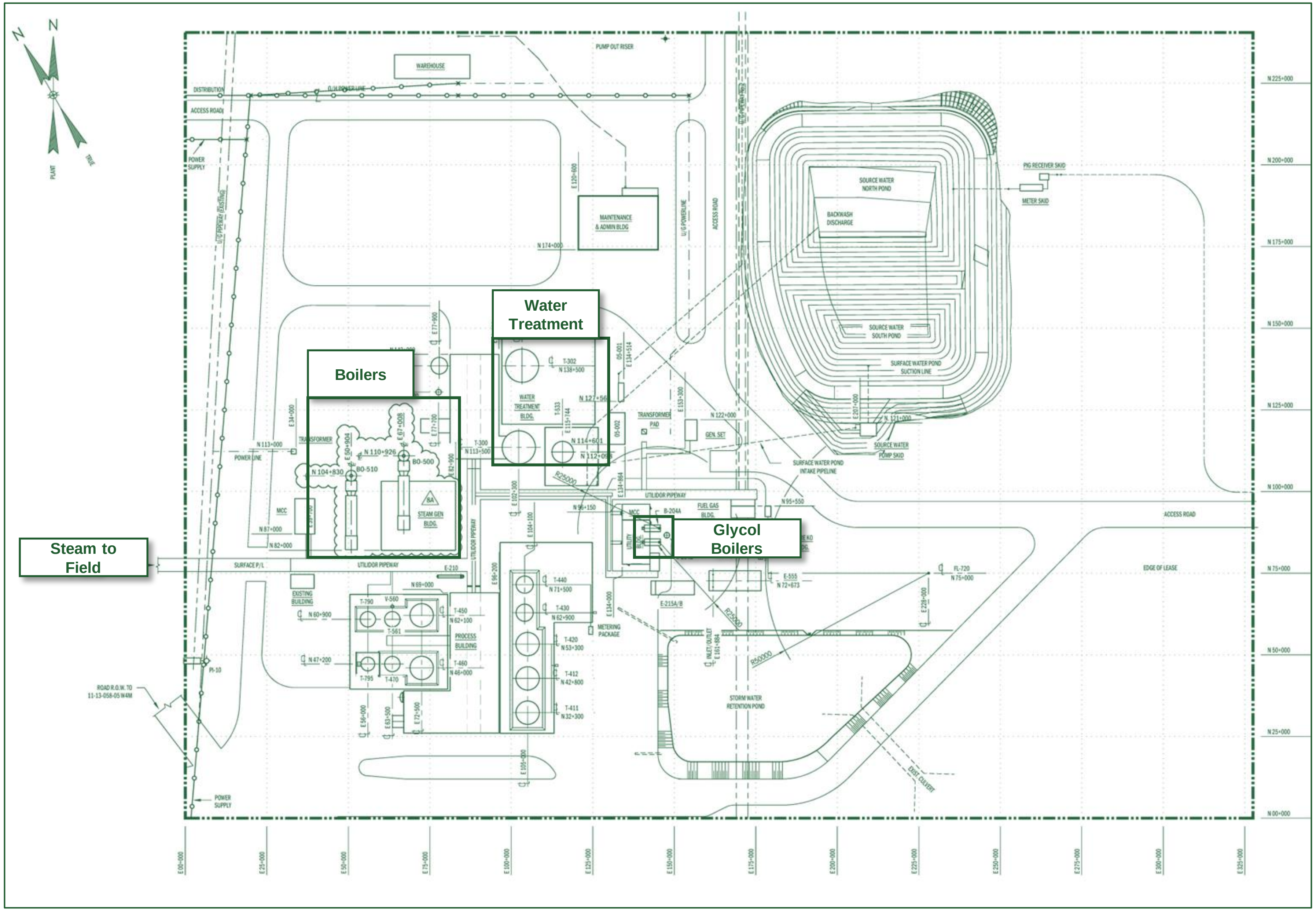
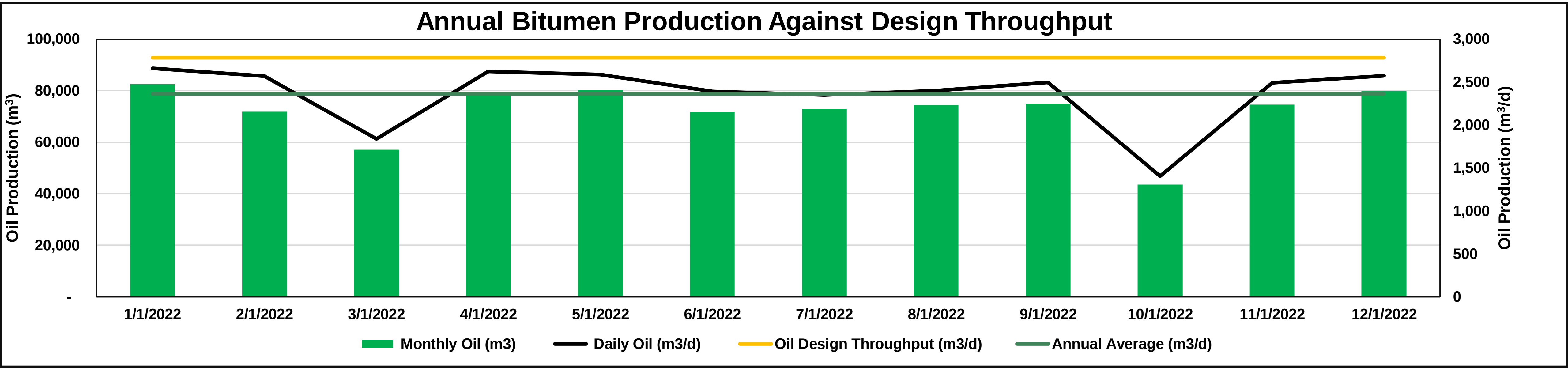
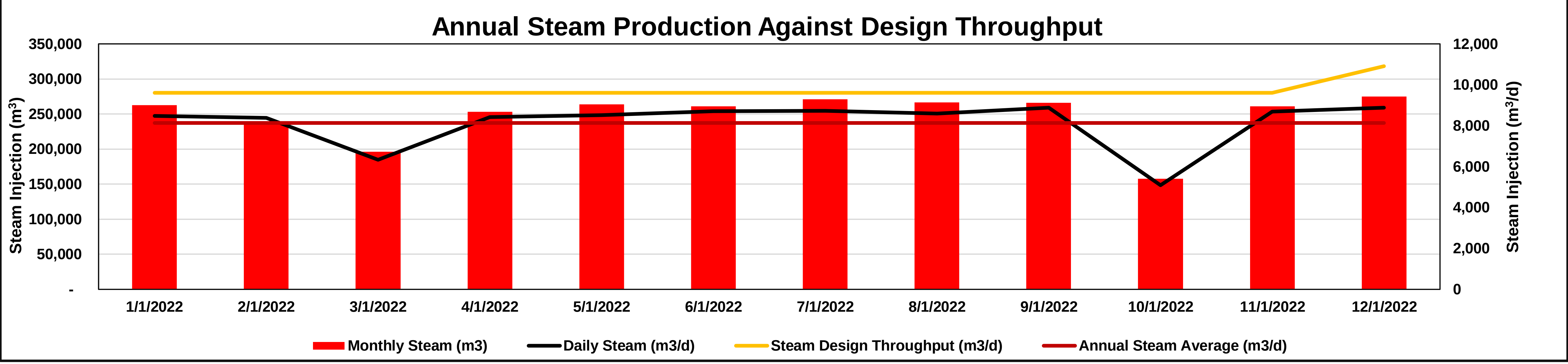


Lindbergh Bitumen and Steam Performance





Operational Changes / Key Learnings

- Installation of Zeeco burners in H720:
  - 10.8 kg/h NO_x target could not be achieved even with fuel gas conditioning and steam injection
- NCG injection:
  - Maintaining NCG co-injection has positive impact on lowering SOR while maintaining reservoir pressure
- Longer laterals:
  - Performance of well pairs with longer lateral lengths continued to meet or exceed expectations
  - Normalized production per meter of lateral did not show production degradation for longer laterals

2022 Scheme/EPEA Amendments

Scheme 6410/EPEA 1581 Amendments	Description	Submission / Approved Date
OSCA 6410 AA Application #1935208	Pad D08 Sustaining Wells and Infills	December 13, 2021 / May 2, 2023
OSCA 6410 BB Application #1938356	Non-Condensable Gas Injection Full Field	June 15, 2022 / July 18, 2023
OSCA 6410 CC EPEA 1581-02-09 Application #1938433, 1581- 018	Application to replace burners in Boilers H710 and H720	June 22, 2022 / October 21, 2022
OSCA 6410 DD Application #1941273	Modification of Condition 9b to remove producing well	December 2, 2022 / January 25, 2023
OSCA 6410 EE EPEA 1581-03-02 Application #1941021, 1581-021	Sulphur Recovery Unit and Sulphur management plan	November 14, 2022 / March 14, 2023
OSCA 6410 Application #1938520	Temporary ID 2001-03 Waiver	June 29, 2022 / July 26, 2022
OSCA 6410 Application #1937706	HIPVAP Trial Extension	May 12, 2022 / May 19, 2022
OSCA 6410 Application #1935435	Temporary Non-Condensable Gas Conditions Amendment	January 18, 2022

2022 Scheme Amendments

Scheme 6410/ EPEA 1581 Amendments	Description	Submission Date/ Approval Date
EPEA 1581-02-08 Application 1581-016	Request to temporarily extend existing Approval date to accommodate regulatory review renewal application	June 17, 2022 / June 27, 2022
EPEA 1581-03- 01 Application 1581-020	Temporary extension to delay lower emission limit amendment to accommodate equipment manufacture and installation	December 9, 2022 / December 20, 2022

2022 Compliance Summary

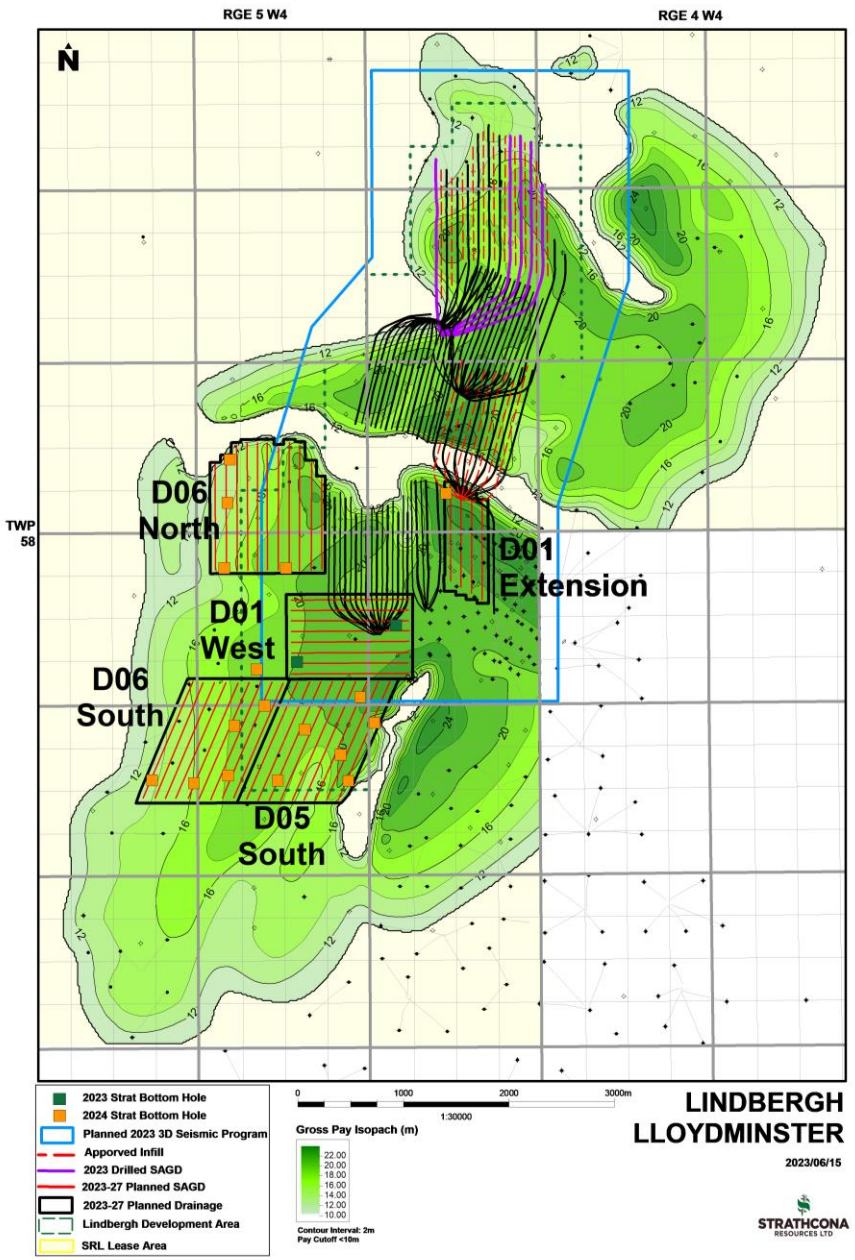
Approval Number	Compliance Reporting	Corrective Actions
EPEA 00001581	Failure to conduct commissioning manual stack surveys. Failure to submit *Assessment of Thermally-Mobilized Constituents in Groundwater for Thermal In Situ Operations*	-Arranged Manual Stack Surveys -Submitted Report
Water Act License 00029768	Compliant with all conditions of the approval	
Water Act License 00215352	Compliant with all conditions of the approval	
Water Act License 00479554	Compliant with all conditions of the approval	
Public Lands Act (various dispositions)	Compliant with all conditions of the approvals	
Directive 13/IEWCP Program	Compliant	Completed all required suspensions and abandonments
Reportable Incidents	EDGE 388442 - 2 hr NO_x limit exceedance EDGE 388616 FIS 20220618 - Failure to conduct commissioning stack tests EDGE 388617 FIS 20220619 - Steaming in proximity to thermally non-compliant well EDGE 389951 FIS 20220980 - CEMS uptime March not 90% EDGE 389979 FIS 20220979 - GW Thermal Directive Report not submitted March 31, 2020 EDGE 391129 FIS 20221258 TDG 23197 - Caustic Spill EDGE 406734 FIS 20222570 - PW Spill - Frozen Line to HipVap EDGE 407108, 409074, 409075 - 1hr NO_x exceedance	-Formalize procedure for boiler testing -Conducted stack tests -Abandoned appropriate wells and undertook broader assessment -Managed NCG Sub-Cool -Method 3 data replacement -Report prepared and submitted -Remediated to Tier 1 -Remediated to Tier 1 -Changed CEMS warning values -Worked with Operations to increase response time

Future Plans

Lindbergh In Situ Oil Sands

5 Year Development Plan: Summary and Map

- CPF:
  - NO_x emission limit: Optimizing burner efficiencies to meet EPEA emission limit.
  - SO_2 emission limit: Install a temporary scavenger unit to remove H_2S until a permanent unit is installed in 2024.
  - Increase steam capacity to ~20,000 t/d in 2027.
- Development wells are scheduled based on steam availability.
  - Planned development wells in 2023 and 2024
    - Pad D08–Phase 1 | 6 well pairs | First steam January 2023
    - Pad D08–Phase 2 | 5 well pairs | First steam Q4 2023
    - Pad D04 | 7 infill wells | First steam Q1 2024
- Plan to acquire ~15.8 km^2 of 4D seismic in 2024
- Future Directive 23 applications:
  - Pad D01-West
  - Pad D01-Extension
  - Pad D05-South
  - Pad D06-North
  - Pad D06-South



5 Year Development Plan: CPF Plot Plan

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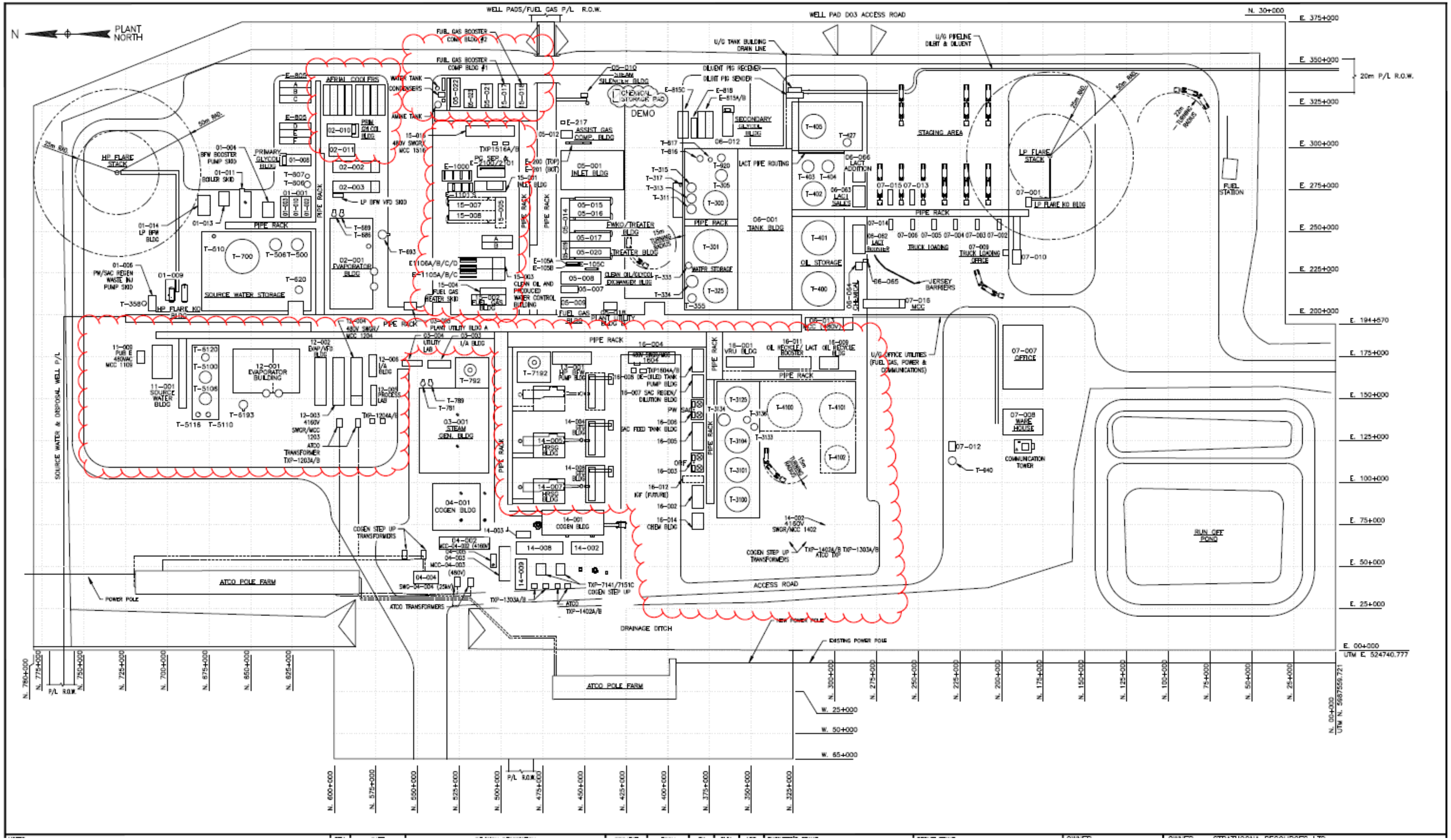

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