

### **Blackrod Insitu Oil Sands Pilot Project**

Scheme Approval No. 11522H

2020 Annual Performance Presentation

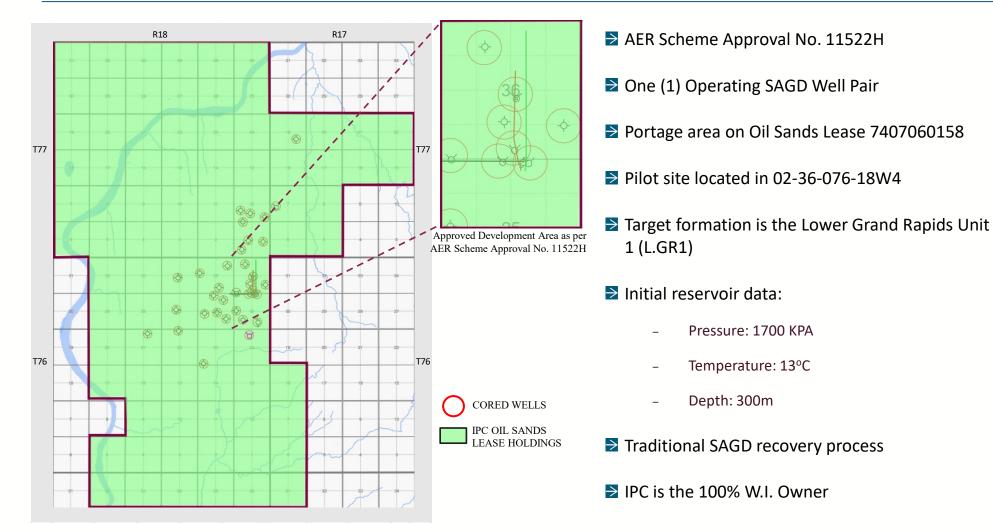


## Introduction

Directive 54: Section 4.1

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### Overview





#### → Project History:

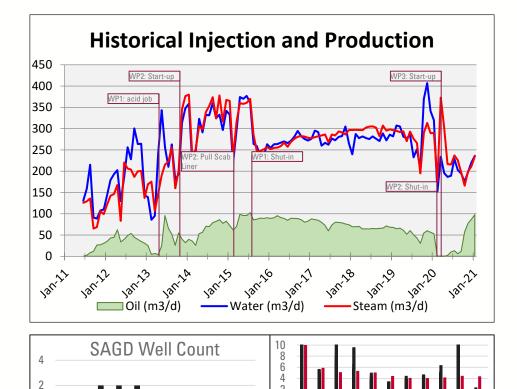
- 2011 Constructed Blackrod facility and start Well Pair 1 (WP1)
- 2013 Commission Well Pair 2 (WP2) facility expansion and start WP2
- 2015 Shut-in WP1
- 2019 Drill and complete Well Pair 3 (WP3)
- 2020 Shut-in WP2 and start WP3



## Subsurface

Directive 54: Section 4.2

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2 Λ

Jan-21

Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16

ISOR

Jan-18 Jan-19 Jan-20

Jan-21

Jan-17

CSOR

# 2020 Highlights

- February Shut-In WP2 and commence WP3 circulation phase
- September Converted WP3 to production phase

an-13 an-14 Jan-15 Jan-16

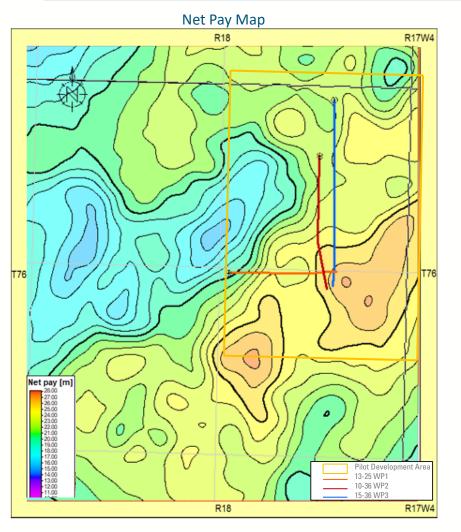
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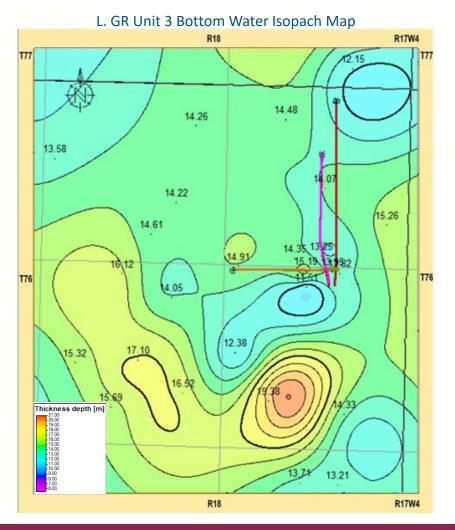
## **Development Maps**



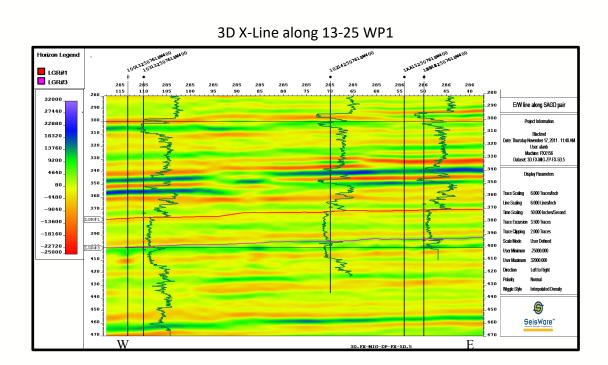
#### LOG CUTOFFS

- Gamma Ray <75 API
- Resistivity >20 Ohm.m
- Porosity >33%

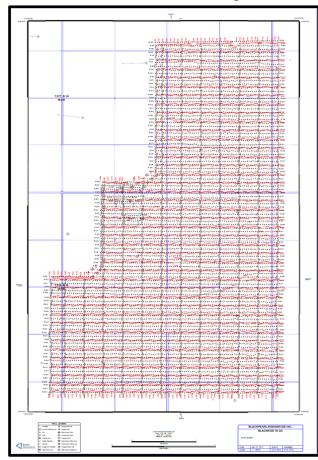
### **Development Maps**



- No major gas intervals in communication with pay within the development area
- No geomechanical anomalies within the development area



3D Seismic Area Coverage





#### Development Area OBIP

• 19972 Mm<sup>3</sup>

Well	Area (m²)	Net Pay thickness (m)	Porosity (%)	S <sub>o</sub> (%)	Horizontal Permability (D)	Vertical Permability (D)	OBIP (Mm³)	PBIP (Mm³)	Cumulative Oil Prod. (Mm <sup>3</sup> )	Current Recovery (%)	Estimated Ultimate Recvovery (%)
WP3	155000	25	0.63	0.34	3450	3024	830	730	8	1%	55%

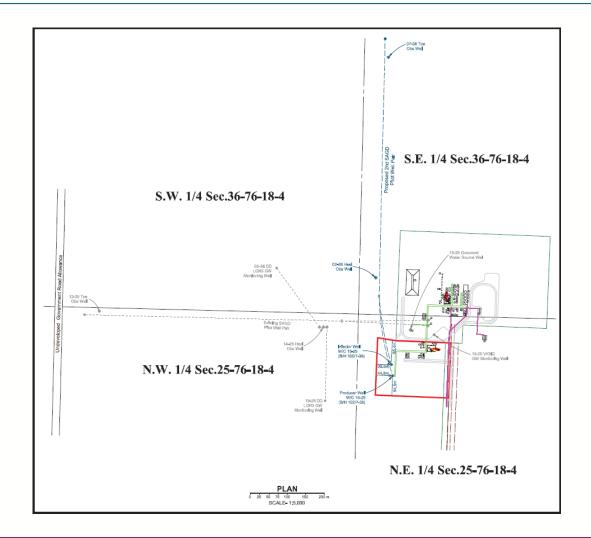
► No Co-Injection has been implemented

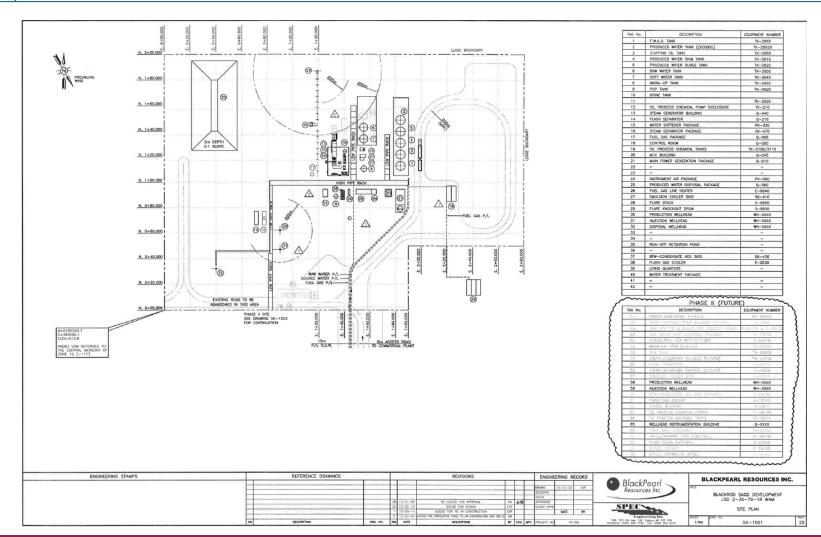


## Surface

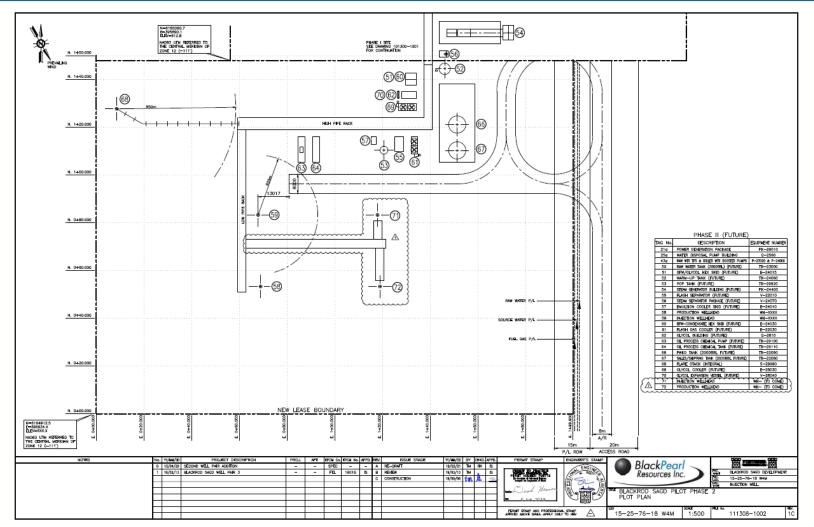
Directive 54: Section 4.3

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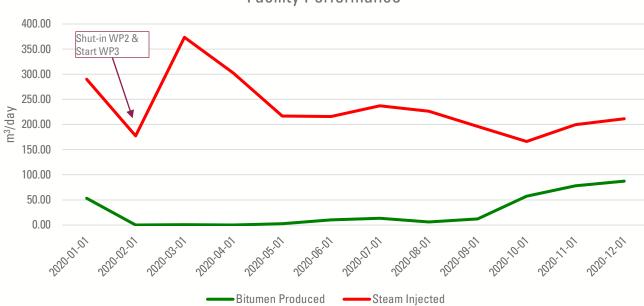


### Plot plan



### Facility performance

- ▶ No modifications to the facility that required an AER application approval
- ► Facility Design
  - Steam 440m3/d
  - Bitumen 160m3/d



Facility Performance



# **History and Upcoming Activity**

Directive 54: Section 4.4

### Suspended/abandoned wells

- 10-36-76-18W4 (WP2) Suspended
- Estimated remaining reserves 160 Mm<sup>3</sup>
- WP2 was shut-in to begin circulating WP3
- WP2 will be re-started with initial commercial well pairs

### **Recent Regulatory and Operational Changes**

- ▶ No new applications or amendments made in 2020
- → Technical Innovations
  - Trial new produced water treatment technology
    - Made progress on reducing OIW through minor equipment modification and chemical optimization
    - Expecting to re-start trial in July 2021.

### **Compliance History**

- No reportable incidents, self-disclosures, contraventions or corresponding remediation
- To the best of IPC's knowledge, the Blackrod SAGD Pilot Project is currently in full compliance with all conditions and regulatory requirements related to AER Scheme Approval No. 11522H

### Future Plans

Approved Commercial SAGD Application No. 1728831

- 80,000 bbl/d (12,720 m3/d) to be developed in phases, with the first phase planned for 20,000 bbl/d; two additional phases of 30,000 bbl/d each to follow
- No planned activity expected to significantly alter performance, or material balance of the scheme
- No applications expected to be submitted in the next year

