



Williston Waterflood Assets

Bowman County, North Dakota & Harding County, South Dakota

May 2022



Unique Opportunity

Operated, shallow-decline, high-margin waterfloods with an operated water supply system providing additional cashflow.

Consistent Production

Gross and net daily oil production of 1,490 BOPD and 1,040 BOPD respectively (~80% from 15 unitized waterfloods). Water production approximately 8,000 BWPD from EOR units.

Robust Cashflow

July estimated EBITDA of \$2.15MM with a 75% profit margin. NTM PDP operating net cashflow of \$23.0MM. Wholly owned midstream contributes \$80,000-\$90,000/month.

Long Life Assets

4,604 MBbls Net Oil PDP reserves representing a 12.1-year R/P ratio. 1P reserves of 5,646 MBbls for a 14.9-year R/P ratio. Near-term declines less than 5.5% for operated waterfloods.

Concentrated Acreage

Over 40,000 net acres, including nearly 30,000 net acres in 15 unitized secondary recovery units. Minimal federal acreage in a favorable regulatory environment.

Upside

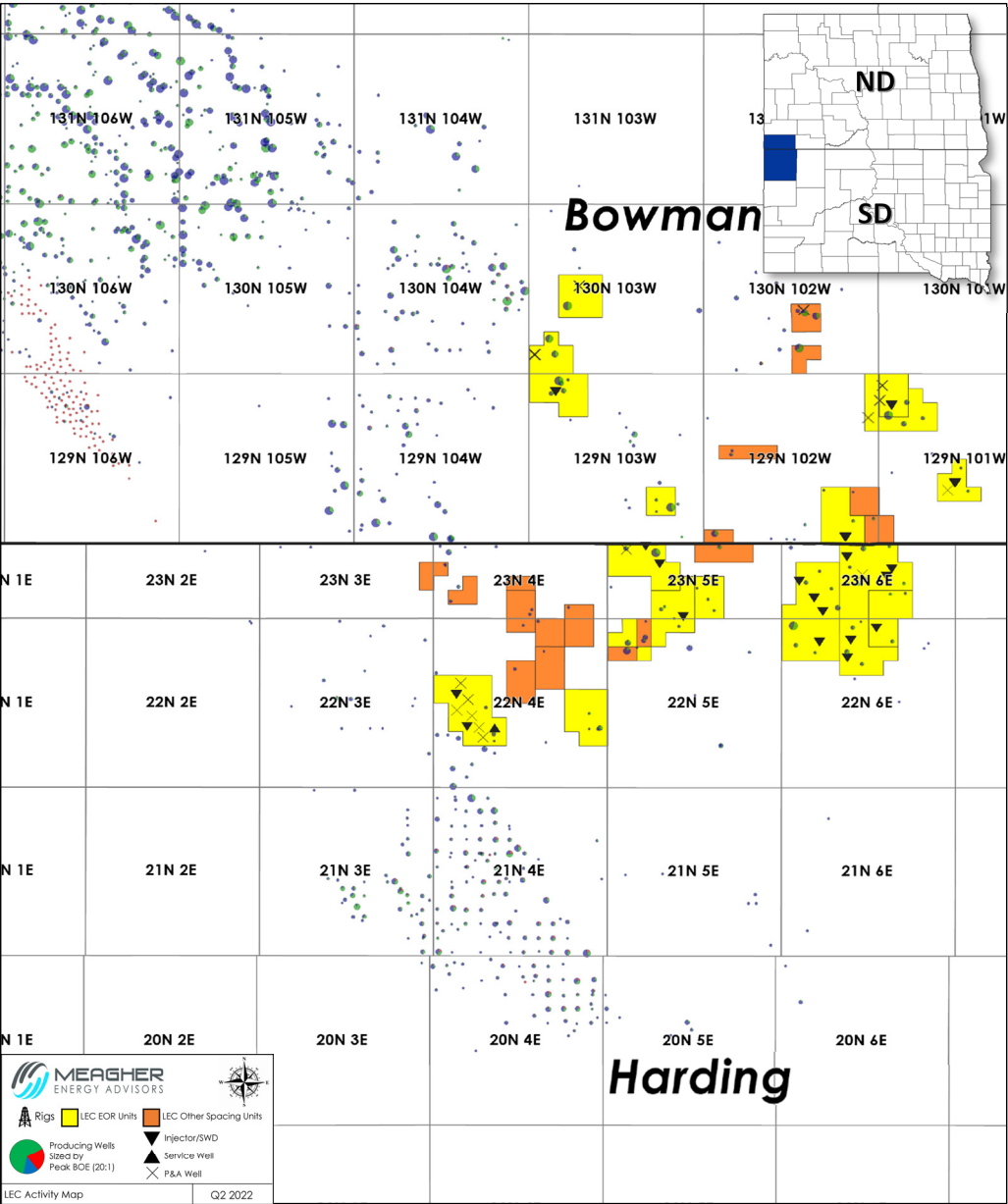
2 production optimization candidates (ESP installations), 7 infill drilling and 2 horizontal re-entries adding incremental 1,042 MBbls net reserves. Tertiary recovery potential with CO₂ miscible flooding utilized in offsetting fields.

¹ As of July 1, 2022. 5/10/22 NYMEX

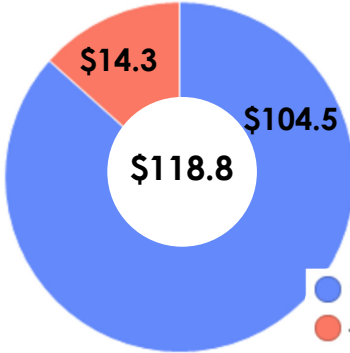
Asset Overview



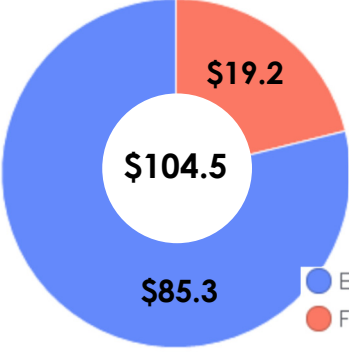
Bowman, ND & Harding, SD Activity Map



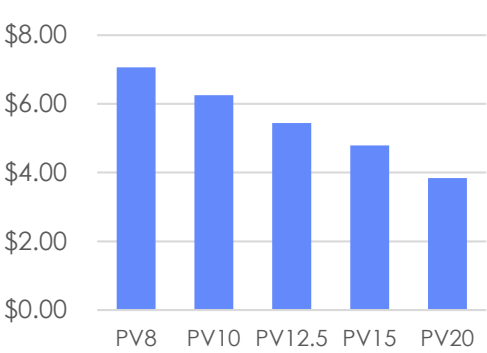
PV10¹ (MM\$) by Reserve Category



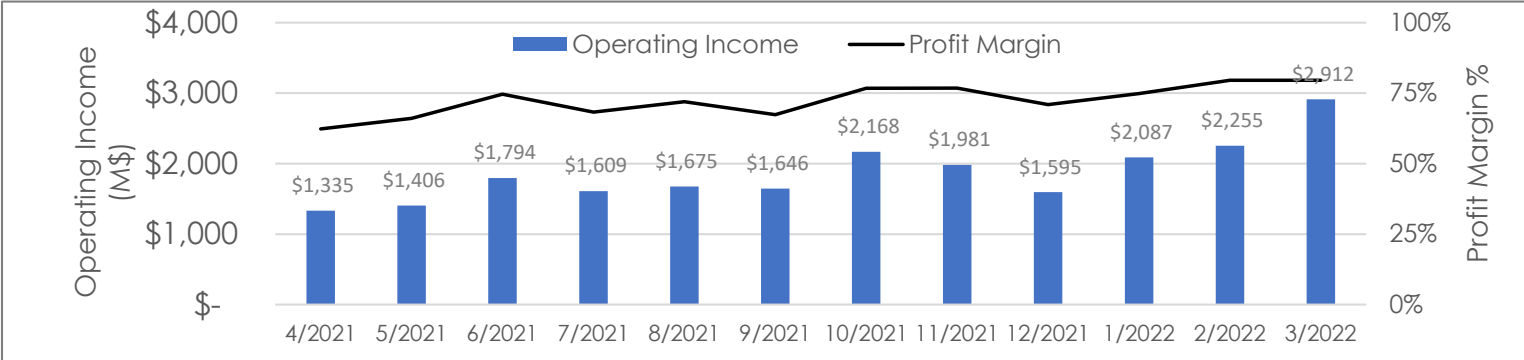
PDP PV10¹ (MM\$) by Unit or Field



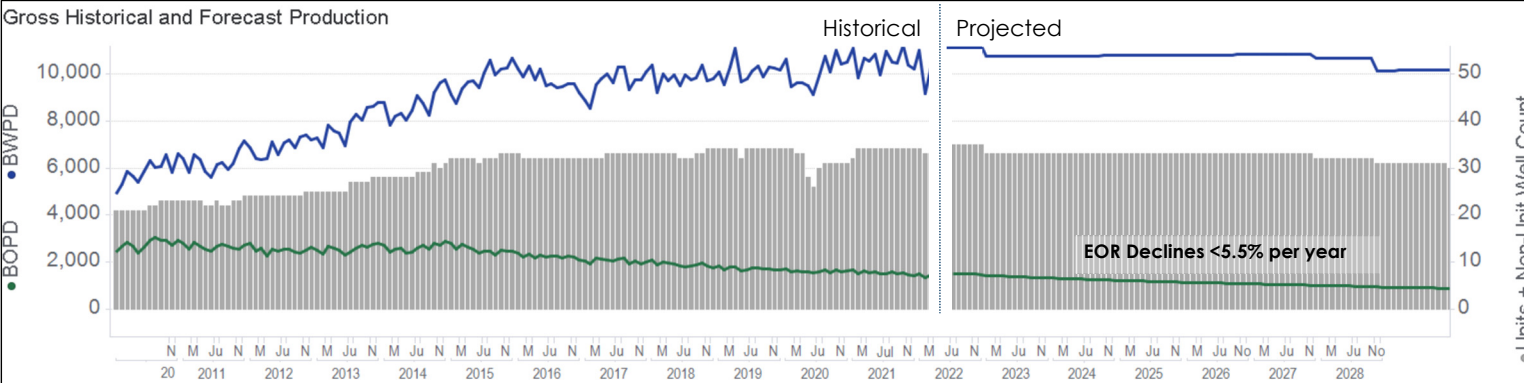
Midstream Present Values¹ (MM\$)



Historical Operating Income and Profit Margin – All Operated Properties



Historical and Forecast Gross PDP Oil and Water Volumes



¹ As of 7/1/2022. 5/10/22 NYMEX

Highlights

- \$2.15MM July 2022 forecast net cashflow from the wells and units. NTM net cashflow of \$23.0MM.
- Wholly owned Luff Water System (LWS) adds \$80,000-\$90,000 net cashflow per month.
- 1,010 BOPD July 2022 forecast net production rate. NTM produced net reserves of 367 MBO. No gas sales with these assets.
- Secondary recovery units contribute most of the value with shallow rates and consistent cashflow. The 15 EOR units consist of 43 operated producing wells. 3 wells currently shut-in with reactivation potential. An additional 19 operated wells (17 horizontal) reside outside Luff EOR units.
- Luff identifies 2 production optimization candidates through ESP installation, 5 infill-drilling PUDs, 2 new unit water injectors, and 2 re-entry candidates adding an incremental 1,042 MBO in net reserves.

Economic Summaries – Upstream and Midstream

Proved Reserve Category	Well Count PR/WIW/WSW	Net Reserves MBO	12-Mo Forecast Net Oil (BOPD) ¹	12-Mo Forecast Operating Income (M\$) ¹	12-Mo Forecast Capital (M\$)
Producing (PDP)	62/25/2	4,604	1,006	\$23,031	\$412
Upside	9	1,042	0	0	\$8,452
TOTAL UPSTREAM*	71/25/2	5,646	1,006	\$23,031	\$8,864

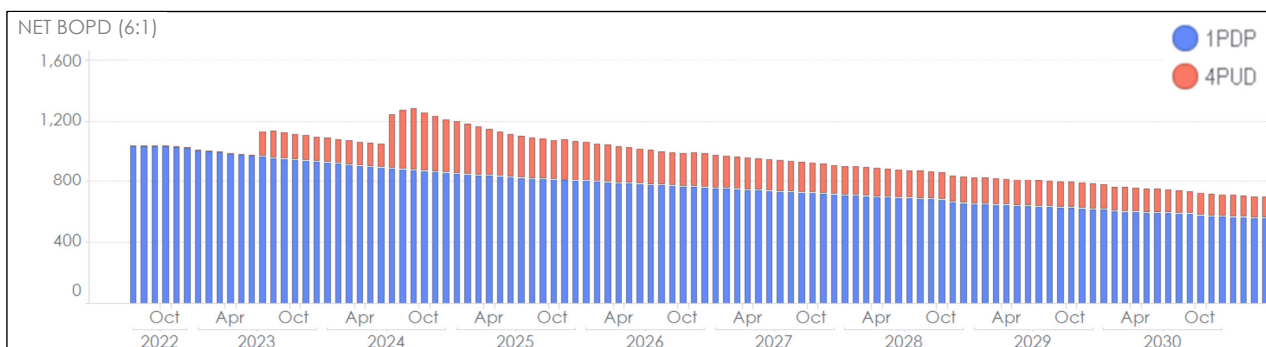
Luff Water System (Gather, Inj., SWD)	Number of Service Wells	Approx. Net Makeup Wtr. MBbls ²	12-Mo Forecast Makeup Wtr. (BWPD) ¹	12-Mo Forecast Operating Income (M\$) ¹	12-Mo Forecast Capital (M\$)
TOTAL MIDSTREAM	6	18,500	2,601	\$1,011	\$187

Present Values By Discount Rate – Upstream and Midstream

Proved Reserve Category	PV9 (M\$)	PV10 (M\$)	PV12.5 (\$M)	PV15 (M\$)	PV20 (M\$)
Producing (PDP)	\$109,389	\$104,497	\$94,131	\$85,825	\$73,389
Upside	\$15,700	\$14,305	\$11,353	\$9,002	\$5,548
TOTAL UPSTREAM	\$125,089	\$118,802	\$105,484	\$94,827	\$78,937

Luff Water System (Gather, Inj., SWD)	PV9 (M\$)	PV10 (M\$)	PV12.5 (\$M)	PV15 (M\$)	PV20 (M\$)
TOTAL MIDSTREAM	\$6,638	\$6,254	\$5,439	\$4,790	\$3,836

Forecast Net BOPD - Upstream

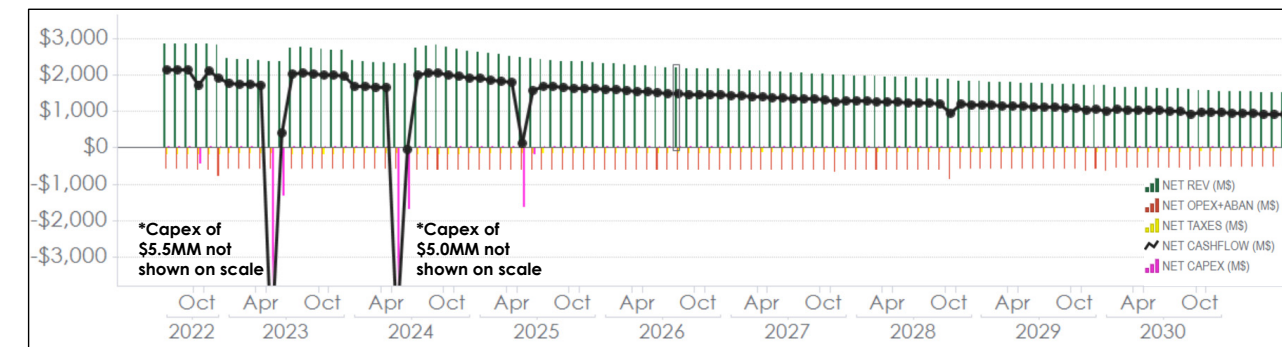


¹ As of July 1, 2022. 5/10/22 NYMEX

² Only "Makeup Water" billable on LWS

*3 opportunities in 3 existing wellbores. Total well count represents number of wellbores.

Forecast Net Monthly Cashflow - Upstream



Financials and Economics

PDP: Trailing 6-Month Financials, July 2022 & NTM Projection

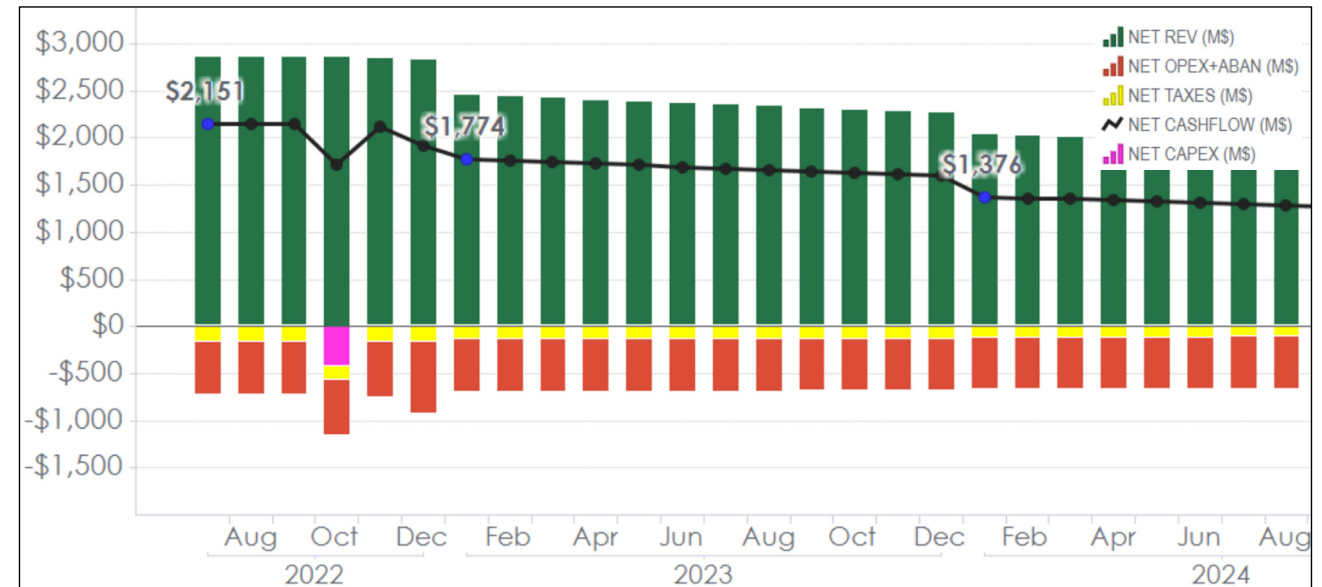
	¹ Trailing 6-Mo Avg	July PDP Forecast	NTM Avg. PDP
All Net to LEC Interest			
Oil (Avg. BOPD)	1,354	1,010	1,006
Approx. Producer Water (BWPD)	10,500	11,000	11,000
Oil Revenue (M\$)	\$2,489	\$2,856	\$2,628
Midstream Revenue (M\$)	\$130	\$111	\$114
Total Revenue (M\$)	2,616	2,967	2,742
Upstream LOE+Workover (M\$) ²	\$545	\$552	\$552
Midstream LOE (M\$)	\$31	\$30	\$30
Midstream R&M Expenses (M\$)	\$7	\$6	\$6
Total Tax (M\$)	\$123	\$153	\$141
Upstream Capital – Excl. Workover (M\$)	\$0	\$0	\$0
Midstream Capital (M\$)	\$0	\$0	\$121
Total Operating Cashflow (M\$)	\$1,913	\$2,226	\$1,892

*As-Of July 1, 2022. 5/10/2022 NYMEX

¹October 2021 through March 2022

²Excludes Luff COPAS

PDP Monthly Cashflows (M\$)



PDP Net Financial Forecasts – By Ownership Type

RESCAT	REV (M\$)	OPEX (M\$)	TAXES (M\$)	CAPEX (M\$)	ABAN. (M\$)	CASHFLOW (M\$)
WI ONLY	\$332,980	\$124,917	\$17,678	\$412	\$4,910	\$185,063
ORRI/RI ONLY	\$6,313	\$0	\$331	\$0	\$0	\$5,982
ALL	\$339,293	\$124,767	\$18,010	\$412	\$4,910	\$191,194

PDP Net Present Values by Discount Rate – By Ownership Type

RESCAT	PV9 (M\$)	PV10 (M\$)	PV12.5 (M\$)	PV15 (M\$)	PV20 (M\$)
WI ONLY	\$106,051	\$101,320	\$91,296	\$83,261	\$71,225
ORRI/RI ONLY	\$3,267	\$3,109	\$2,777	\$2,514	\$2,123
ALL	\$109,389	\$104,497	\$94,131	\$85,825	\$73,389

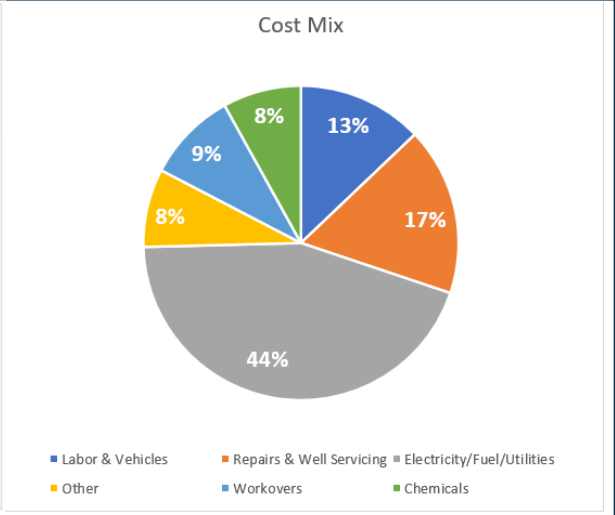
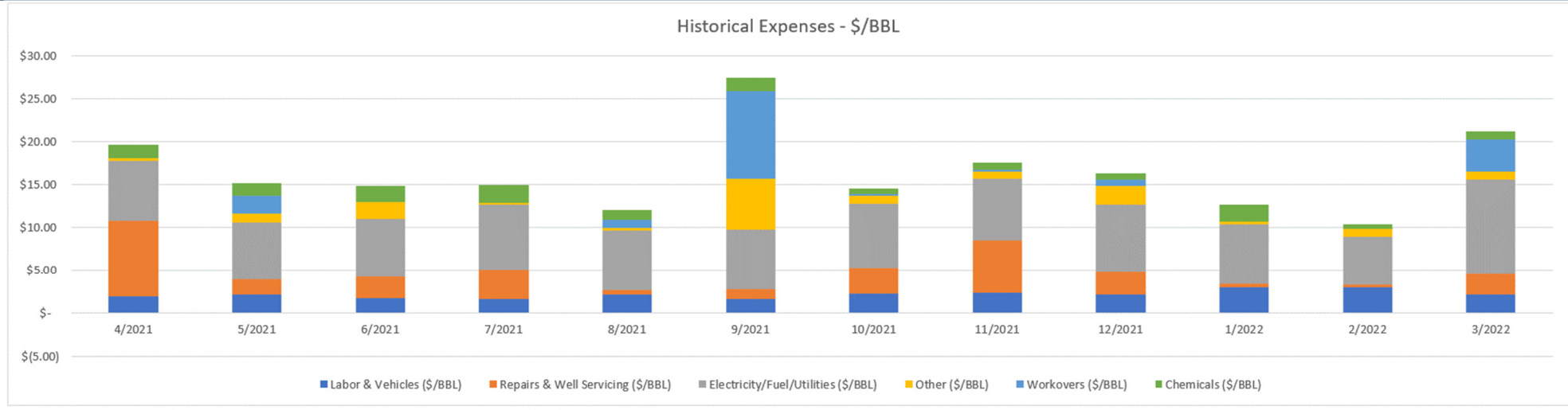
Waterflood Operations

- Overview
 - The Luff waterfloods consist of 15 independently unitized EOR units. 14 units produce from the Red River B formation exclusively and the other is Red River D. The North Buffalo Red River Unit and Pete’s Creek Red River Unit account for 25% and 21% of the net PDP reserves, respectively.
- Luff Personnel and Offices
 - Luff operates their assets units with 14 field personnel (13 full-time). All personnel are Luff employees expensed to the properties.
 - The Bowman field office and yard includes a 3,720 sq-ft office building, a 1,160 sq-ft metal office building, and a 900 sq-ft dry storage building. Luff will include the 1.74 surface acres associated with these buildings/yards as well as any vehicles and equipment in inventory (tubing, pumping units, inj. pumps, etc).
- Oil Hauling and Pricing
 - Luff has a long-term relationship with a large crude oil marketer. The wellhead price differentials are reasonable, and Luff’s barrels are always taken.
 - Average wellhead oil differential over the past 6 months is -\$4.10, and more specifically, -\$2.93 for piped and -\$4.70 for trucked volumes. No gas processing/sales associated with the assets.
- Water Disposal/Injection
 - For most units, produced water is transferred to the Luff Water System pipeline, where it is injected/disposed to various EOR water injection units or to one of the four produced-water disposal wells in the system.
 - Oil cuts are >10% and consistent.

Tank Batteries and Artificial Lift

- The pumping units (BPUs) and electrical submersible pumps (ESPs on 7 wells) are kept in excellent working order and periodically inspected by the manufacturers’ representatives.
- Idle wells with no plans for future use have been plugged and abandoned. The other three shut-ins have reactivation potential.
- Production and injection is optimized using state-of-the-art artificial lift control equipment, telemetry and software.
- Detailed failure reports, well work reports, and well monitoring data available in the VDR.

12-Month Expenses per Bbl for the SD-SLRRU



Operations – Luff Water System

Luff Water System Operations

• Overview

- The Luff Water System (LWS), separate from the LEC upstream asset, generates ~\$80,000/month cashflow. Projected PV12.5⁽¹⁾ is \$5.4MM.
- Over 80 miles of installed water transfer pipelines and provides both SWD service and waterflood make-up water service.

• Luff LWS Assets

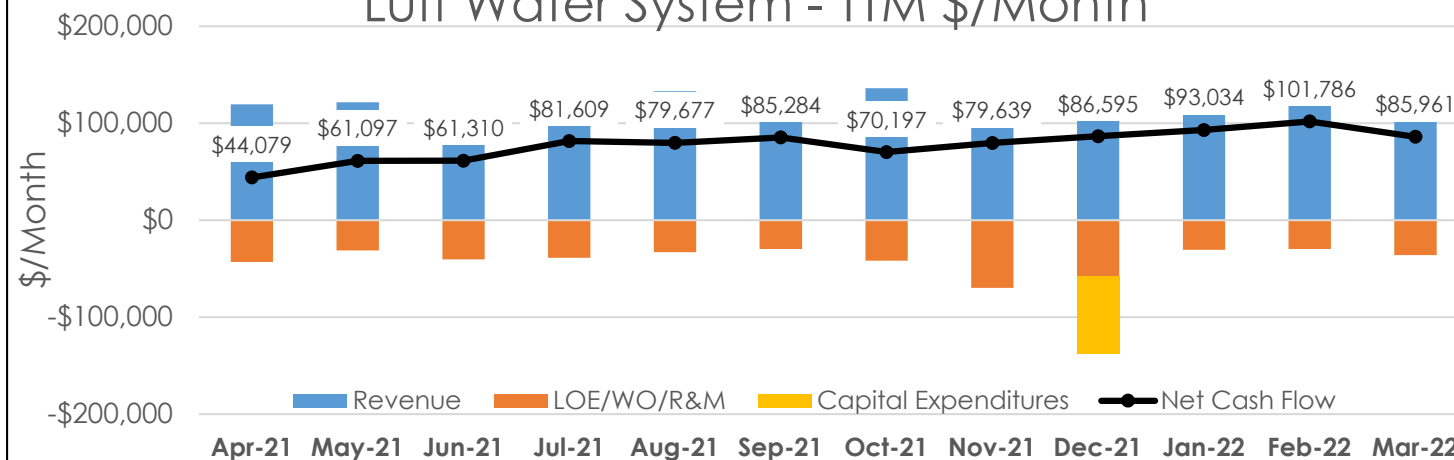
- The LWS also owns service wells, including 4 produced water disposal wells and 2 Dakota water supply wells.
- All equipment associated with the LWS has been inspected and is in turn-key condition.

• Water Disposal/Injection

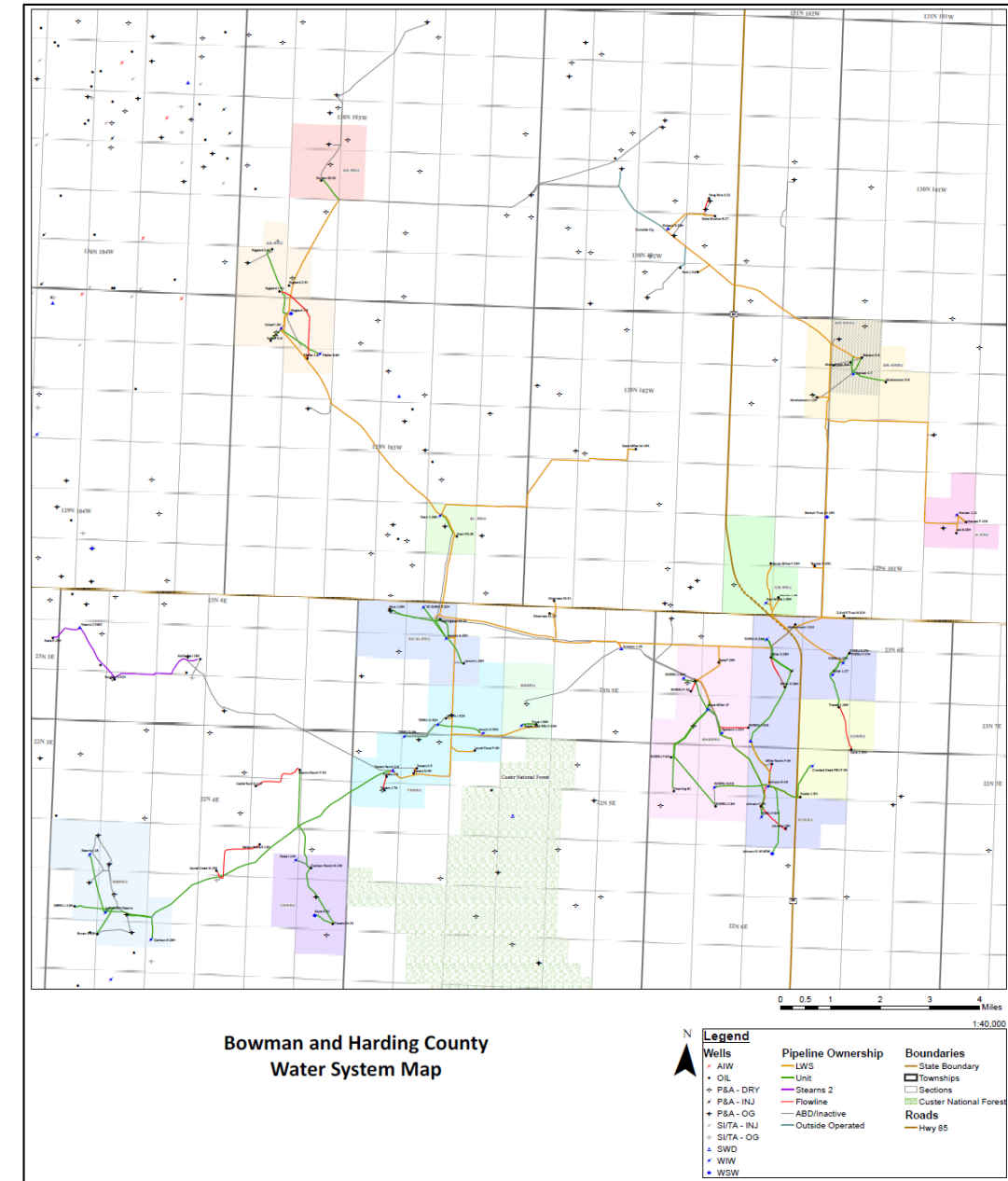
- Luff keeps variable water cost very low, and in some cases eliminated them completely from the unit/well when no “Make-Up” water is required.
- The majority of the LWS revenue comes from “make-up” water charges, where the unit has not produced adequate injection volumes from producing wells.

12-Month Revenue, LOE, CAPEX, and Net Cash Flow

Luff Water System - TTM \$/Month



¹ As of July 1, 2021. 5/10/22 NYMEX



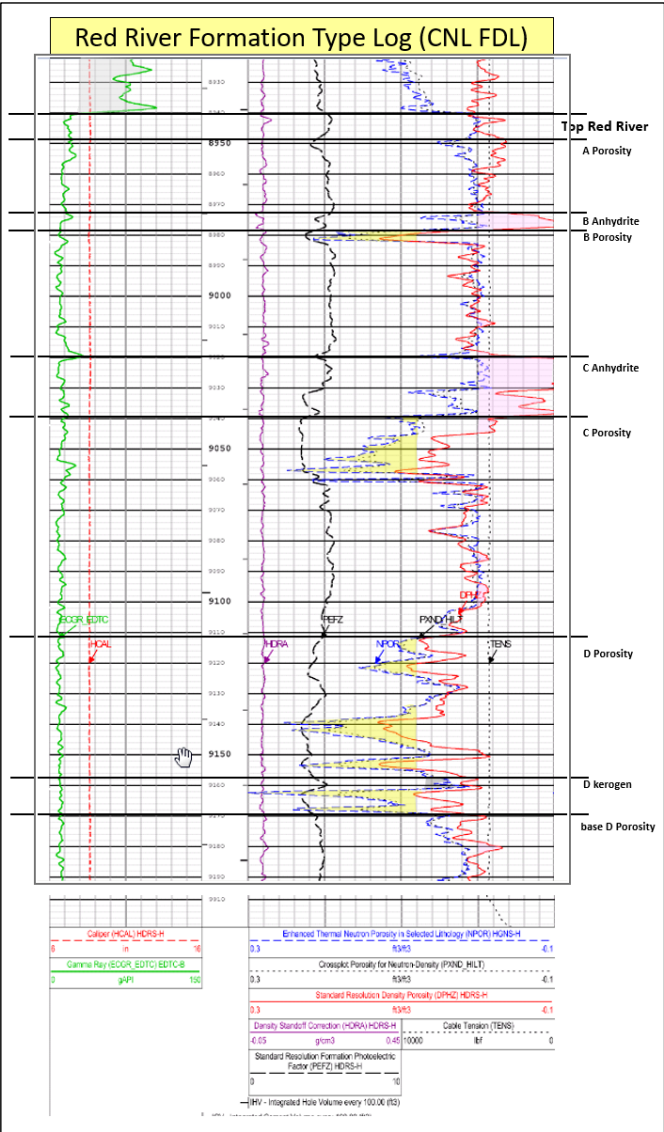
Formation Overview

- Luff Exploration and Kenneth D. Luff explored and developed the Red River formation in Bowman County, ND and Harding County, SD for nearly 50 years. Luff-operated properties produced over 30MMBO.
- The producing formation is the upper Ordovician Red River and consists of four para-cycles (“A”, “B”, “C”, and “D”), at a true vertical depth of 8,500 to 9,500’.
- Entrapment of oil involves a combination of structure and stratigraphy. Red River structure is identified by 2D and 3D seismic control, aided by formation tops identified in wellbores.
- Stratigraphy in the “D” is imaged by 3D seismic amplitude. Stratigraphy in the “B” is predicted by a geologic conceptual model using well data, supplemented with stratigraphic changes and identification of bed boundaries observed from drill cuttings in laterals.
- Over 90% of Luff Exploration’s production is produced out of the “B” porosity zone.
- Reservoir thickness in the “B” averages 4’ and porosity is typically between 15% and 20%.
- Best mode of development in the “B” is well completion through open-hole laterals. The “B” zone responds exceptionally well to secondary recovery efforts. Best mode of development in the “D” is perforations in casing in vertical wells.
- Luff acquired more than 160 square miles of 3D seismic data and more than 800 linear miles of 2D seismic data. The data is reprocessed with advanced processing seismic software.
- Luff conducted several DOE studies on the Red River formation in Bowman and Harding counties, and prepared or commissioned other studies involving special core analysis, facies stratigraphy and reservoir development, source rock evaluation, gas analysis, and rock-type identification.
- There are clearly defined opportunities to develop additional oil reserves through drilling new wells, as well as drilling re-entry laterals at existing wells. These opportunities are enhanced by additional secondary recovery potential.

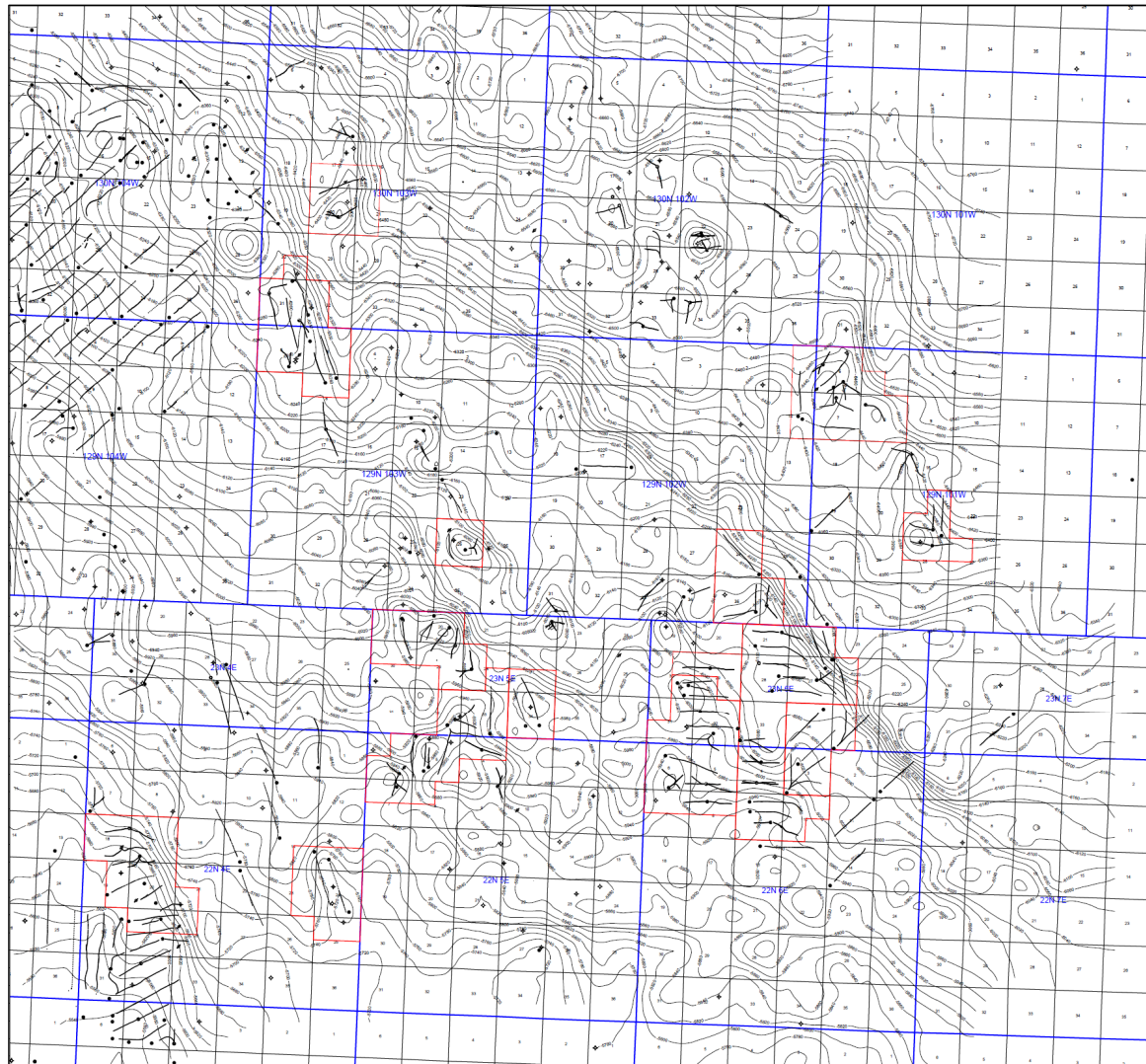
Average Reservoir Properties

Formation	Porosity	Sw	Net Pay	Bubble Point Pressure	Original Reservoir Pressure	Oil Gravity
Red River	20%	20% - 45%	4’ – 14’	1,000 psi – 1,550 psi	3,800 psi – 4,000 psi	33°API – 36.5°API

Red River Type Log

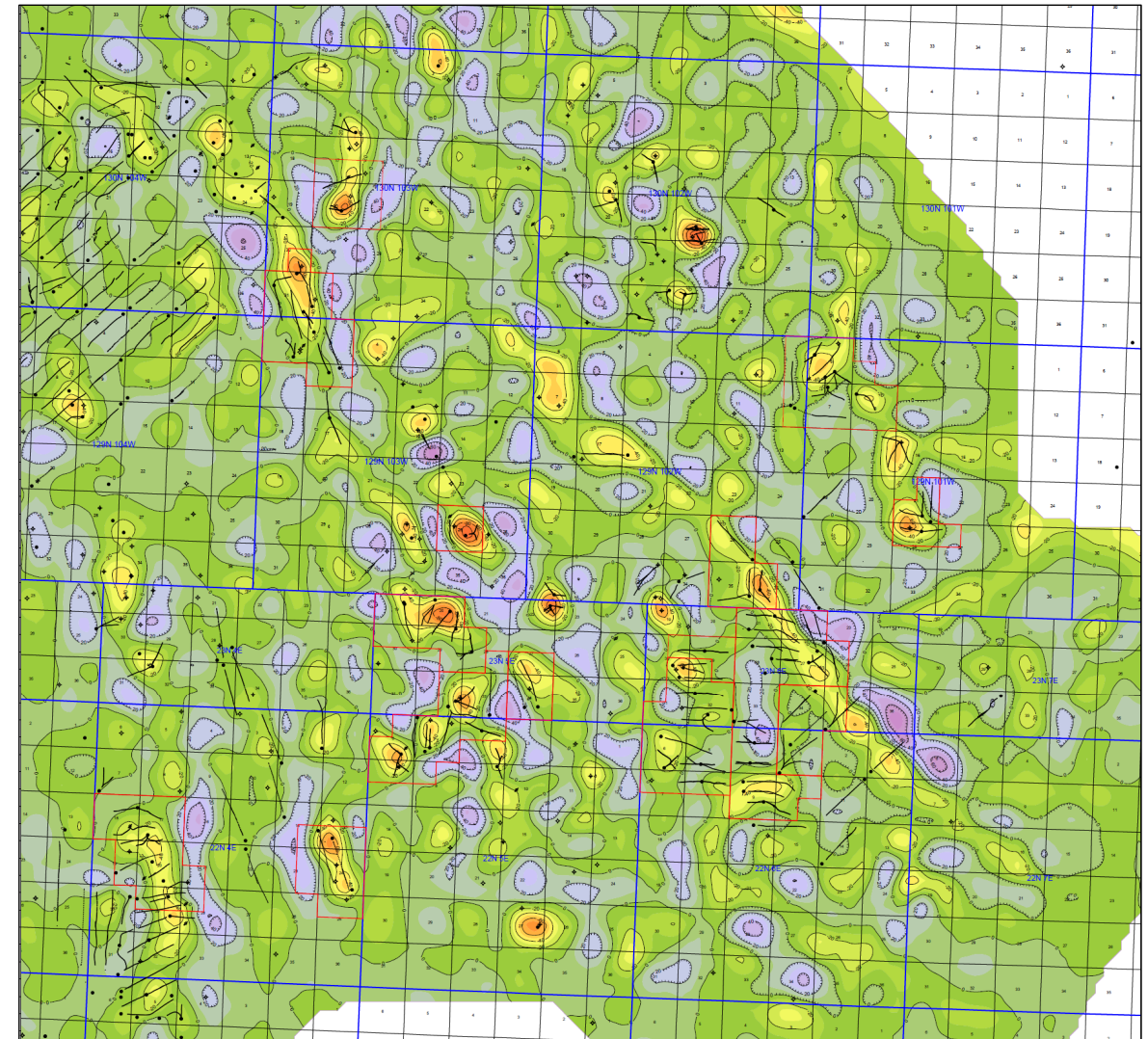


Red River B Computed Subsea Depth



Luff Exploration Company
Portions of Harding County SD and Bowman County ND
Red River B Computed Subsea Depth CI = 20 feet

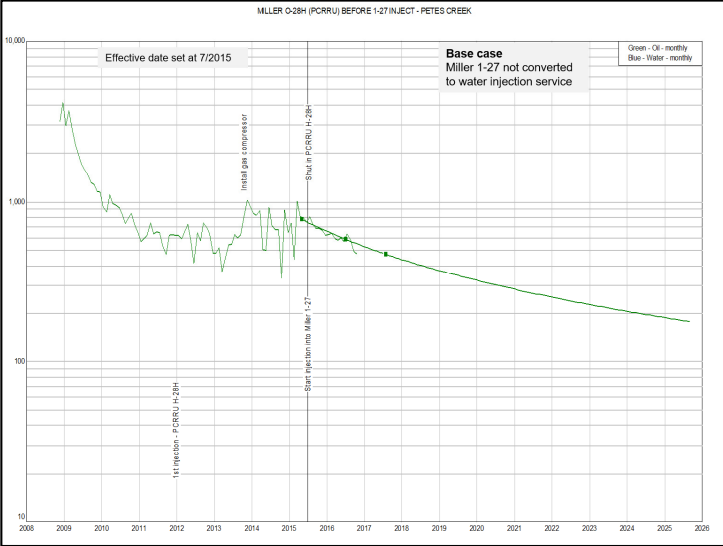
Red River B Depth Residual



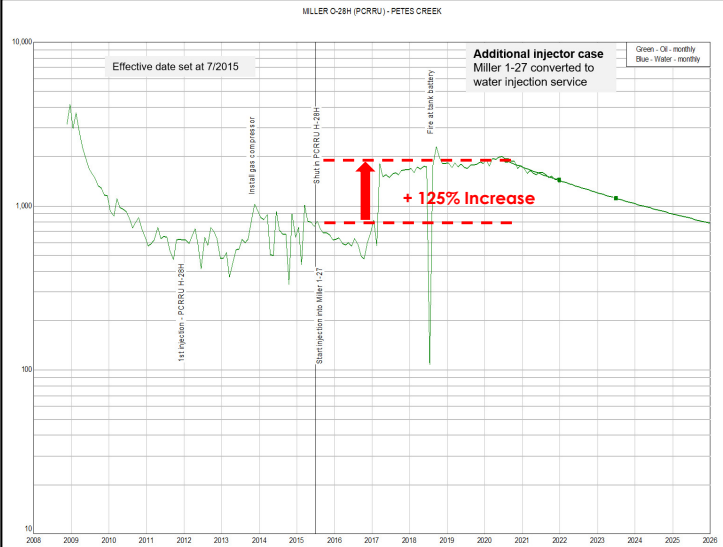
Luff Exploration Company
Portions of Harding County SD and Bowman County ND
Red River B Depth Residual CI = 20 feet

Miller O-28H Analogous case (PCRRU)

Before:

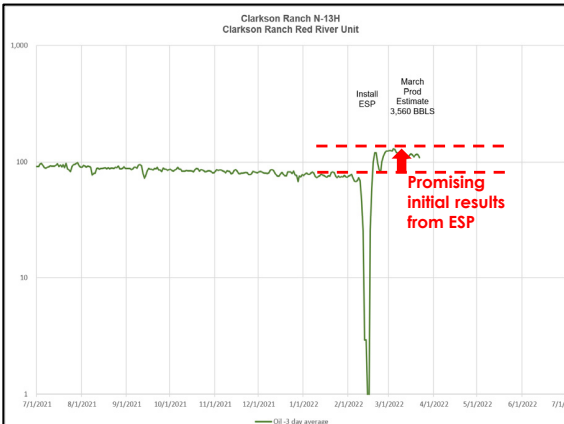
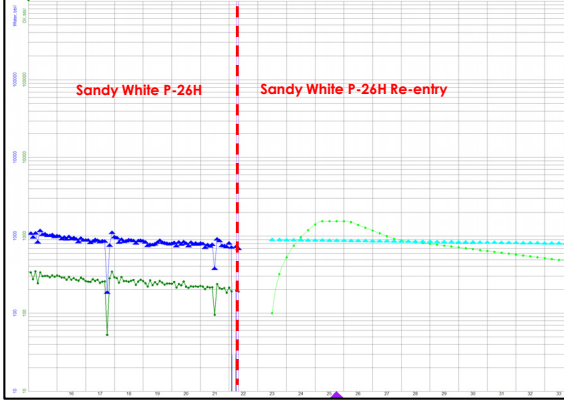


After:



- Luff identifies 2 undeveloped water injection, 5 undeveloped producers, and 2 re-entry (1 inj, 1 prod) candidates in their upside.
- Since the formations are conventional, no fracture treatments are required.
- The water injection incremental production projection is based off analogous units with similar rock and volumetric potential. Results of the Miller O-28H injector before and after the conversion of Miller 1-27 to injection in PCRRU have de-risked these potential new injectors by adding an average of over 170 MBBL of reserves.
- LEC recently installed an ESP in the Clarkson Ranch N-13H. Initial results are promising.
- Future potential exists for tertiary oil recovery using CO₂. A significant effort to implement CO₂ miscible flooding is underway at nearby fields in the same Red River reservoirs.

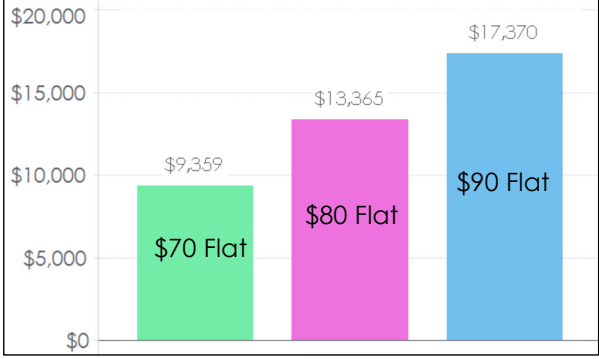
Re-entry/ESP Optimization



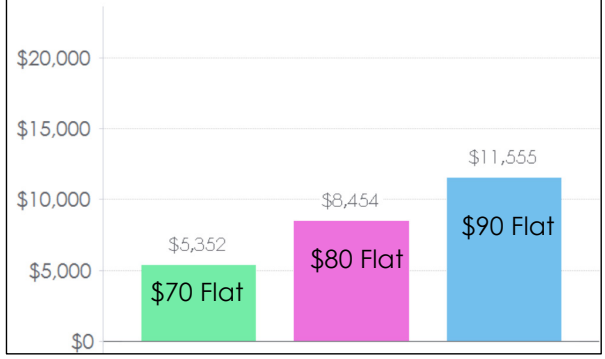
Upside Location Details

Upside Economics							
Well	Well Type	Gross Capex (\$M)	EUR Oil MBbls	IRR	PV10 ⁽¹⁾ (\$M)	PV12.5 ⁽¹⁾ (\$M)	PV15 ⁽¹⁾ (\$M)
CCRRU Z-2H	Shared Inj	\$3,212	202	16%	\$393	\$187	\$32
TRRRU G-32H	Shared Inj	\$3,469	202	17%	\$557	\$280	\$79
CCRRU F-3H-RE	Inj Re-entry	\$1,242	102	23%	\$875	\$608	\$399
CRRRU A-25H	Infill PUD	\$3,834	326	59%	\$4,208	\$3,561	\$3,032
FREY J-23H	Infill PUD	\$3,343	184	36%	\$1,249	\$982	\$770
STAADT CREEK F-15H	Infill PUD	\$3,727	221	44%	\$2,124	\$1,741	\$1,429
TEPEE BUTTES P-29H	Infill PUD	\$3,543	184	29%	\$589	\$447	\$334
TEPEE SPRINGS M-2H	Infill PUD	\$3,667	185	31%	\$1,636	\$1,297	\$1,018
SANDY WHITE P-26H-RE	PDP Re-entry	\$1,179	151	64%	\$2,674	\$2,250	\$1,909

Upside Locations PV10 by Price



Upside Locations PV15 by Price

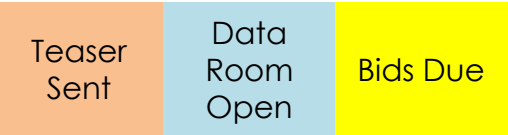


¹ As of July 1, 2021. 5/10/22 NYMEX

Confidentiality Agreement and Technical Questions

- No Confidentiality Agreement required
- Upon receipt, access will be granted to the VDR and can be downloaded at www.meagheradvisors.com.
- Technical questions necessary for valuation purposes should be directed to Simon Cohn at scohn@meagheradvisors.com.
- Presentations/Q&A may be requested and held virtually. Format is a review of the Executive Summary with a question-and-answer session. Meagher requests questions be provided prior to meeting.
- Updates and a Q&A log will be posted throughout the process, typically weekly.

Key Dates



May						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Effective Date:
7/1/2022

Bid Date:
6/23/2022

June						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2

PSA Execution:
7/8/2022

Closing:
8/29/2022

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Forward Looking Statements

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For the purposes of this report, neither a field inspection of the properties has been performed nor has the mechanical operation or condition of the wells and their related facilities been examined. MEA has not investigated any possible environmental liability related to the properties; therefore, these estimates do not include any costs, which may be incurred due to such possible liability. Also, these estimates do not include any salvage value for the lease and well equipment or the cost of abandoning the properties. This is a common practice in industry.

In evaluating the information at MEA's disposal, MEA excluded from consideration all matters as to which legal or environmental, rather than accounting, engineering and geological, interpretation may be controlling. As in all aspects of oil and gas evaluation, there are uncertainties inherent in the interpretation of accounting, engineering and geological data; therefore, the conclusions necessarily represent only informed professional judgments.

The titles to the properties have not been examined by MEA, nor has the actual degree or type of interest owned been independently confirmed. The data used in these estimates were obtained from the company and public information sources and were accepted as accurate. MEA does not own an interest in these properties.

This Executive Summary contains certain confidential, proprietary and non-public information regarding LEC and certain of its assets and operations. Accordingly, this Executive Summary and materials shall be maintained in confidence, and shall not be disclosed to any person or entity or reproduced or otherwise disseminated, in whole or in part, except (i) to your officers, directors, employees, agents and third-party advisors who reasonably have a need to see the materials and who have been informed of, or otherwise made aware of, the confidential and non-public nature of the materials or (ii) with the prior and express, written consent of LEC or MEA.