Enhance Energy Inc.
Approval No. 12832M
Clive D-3A Enhanced Oil Recovery Project

2023 Annual Report

Enhance Energy Inc. I 2000-500 4 Ave SW, Calgary AB T2P 2V6 I Phone: 403.984-0202 I Fax: 403.984.0226

May 2nd, 2024

Alberta Energy Regulator
Compliance Verification | Compliance & Liability Management
Suite 1000, 250 – 5 Street SW
Calgary, Alberta
T2P 0R4

Attn: Ashley Zemlak

Re: Approval No. 12832M 2023 Annual Report

Enhance Energy Inc. submits the attached 2023 Annual Report for Approval No. 12832M. The Clive D-3A Enhanced Oil Recovery Project.

If you have any comments, questions, or concerns about the Annual Technical Report, please contact the undersigned at (403) 984-0207 or by e-mail at cmarkwart@enhanceenergy.com

Sincerely,

Chris Markwart, P.Tech.(Eng.)
Reservoir Engineering Specialist
Enhance Energy Inc.

10) The Operator must submit annual progress reports and make presentations on the CO_2 EOR scheme to the Compliance Verification Group in the AER Compliance & Liability Management Branch, with the first to occur after one year commencement of the miscible fluid injection. These reports and presentations shall include the following information in metric units:

- ***a) a summary of the scheme operations including:***
  - ***i) any new project wells drilled in the reporting period, any workovers/treatments done on the injection and monitoring wells including the reasons for and results of the workovers/treatments,***
  - ***ii) changes in injection equipment and operations,***
  - ***iii) identification of problems, remedial action taken, and impacts on scheme performance, and***
  - ***iv) a table of analysis data including baseline values and testing results. The table must include the unique well indicators, sample dates, test dates and results for all soil, CBM, water and deep monitoring wells, and wells for vent flowing tests.***

This is the fourth annual progress report and covers the significant development activities in the Part 1 Area of the Clive D-3A CCUS project during 2023. The Part 2 Expansion area was approved under Approval No. 12832M on November 17th, 2023, and will be incorporated into next year's report.

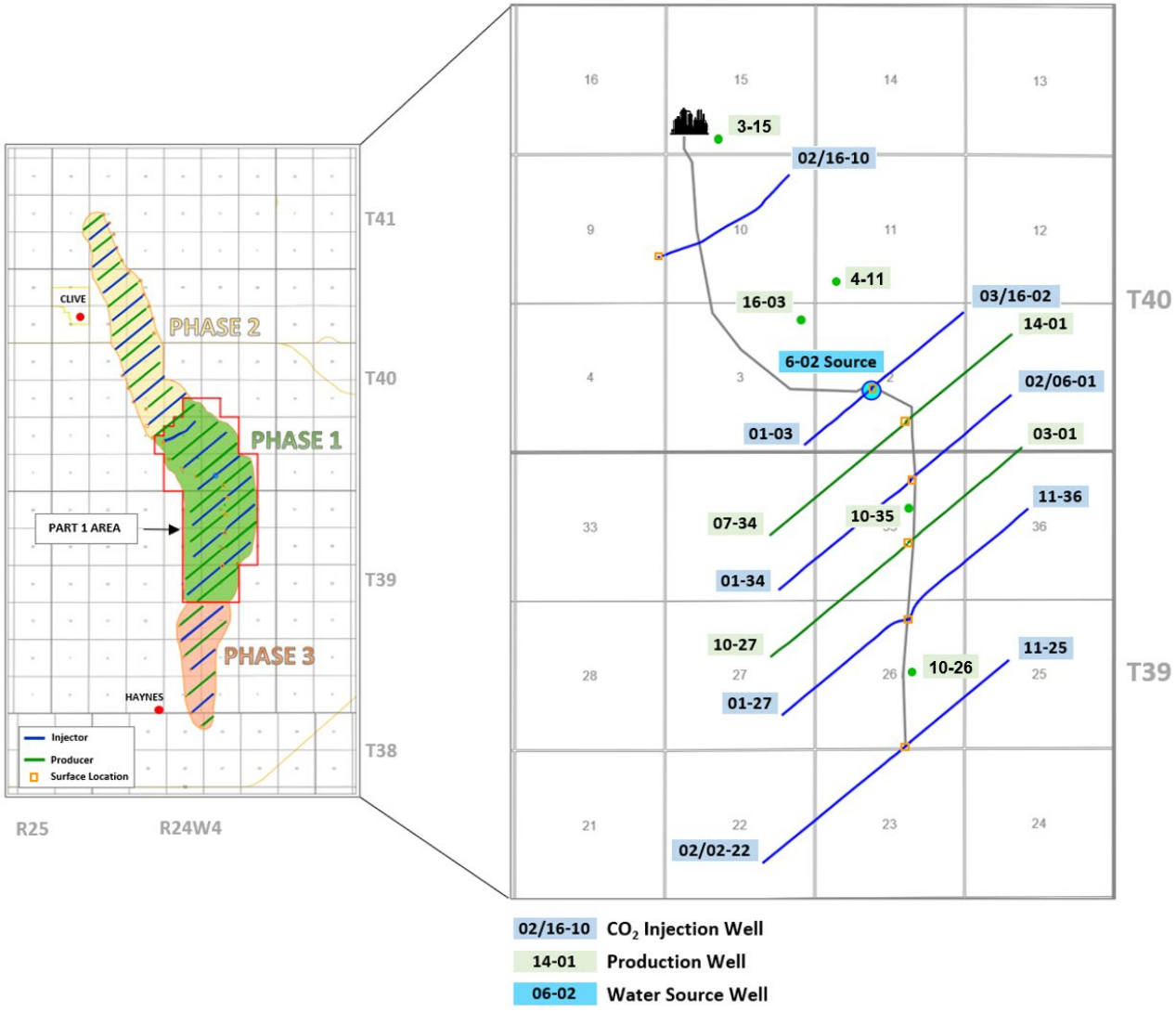
During 2023, Enhance permanently sequestered 1.5 Mt of CO_2 into the Clive D-3A reservoir. As of March 2024, the Clive CCUS project has safely stored over 5 Mt of CO_2, making the Enhance Clive Sequestration Facility a world-class, safe, and trusted CCUS project in Alberta, Canada. With Enhance's storage capacity, capture from two large emitter partners and common transportation infrastructure, the Alberta Carbon Trunk Line Project is one of the world's most successful CCUS projects.

A key driver to the success of any CCUS project is its energy efficiency. Throughout 2023, Enhance remained dedicated to improving energy efficiency, particularly evident in our key initiatives. With a strategic emphasis on improving compression efficiency, we pursued innovative approaches to enhance our operational performance by fine-tuning operating conditions and conducting comprehensive testing on our gas recycling infrastructure. On a total Horsepower used per MMcf/d of Recycle (Hp/MMcf/d) basis, we have reduced our energy consumption below our original design basis by approximately 30%. During 2023 Enhance also converted the 100/07-34-039-24W4/00 Hz well from ESP and equipped the newly drilled 104/10-26-039-24W4/00 as flowing wells using the CO_2 in the reservoir to lift the oil to the surface. Initial results have been very successful. We will continue to evaluate their production performance without artificial lift in 2024 and look for other suitable conversions.

In 2023, Enhance continued to evaluate the effectiveness of WAG (Water Alternating Gas) vs SGI (Straight Gas Injection) in the Clive D-3A reservoir. All four of the approved WAG injectors 100/01-03-040-24W4/00, 100/01-34-039-24W4/00, 102/06-01-040-24W4/00 and 103/16-02-040-24W4/00 were WAG cycled during 2023 (Figure 1).

The 102/02-02-040-24W4/00 vertical well was re-completed in July 2023 using sliding sleeves to evaluate vertical conformance in the Clive D-3A reservoir. As is common in Carbonate reservoirs, the Clive D-3A reservoir has numerous vertical baffles, local barriers, and high permeability vuggy facies that can affect CO_2 conformance. To further our understanding of the vertical conformance, a new vertical producer was drilled at 104/10-26-039-24W4/00 during October 2023 and completed using sliding sleeves.

Figure 1: Clive D-3A Part 1 Area Activity Map

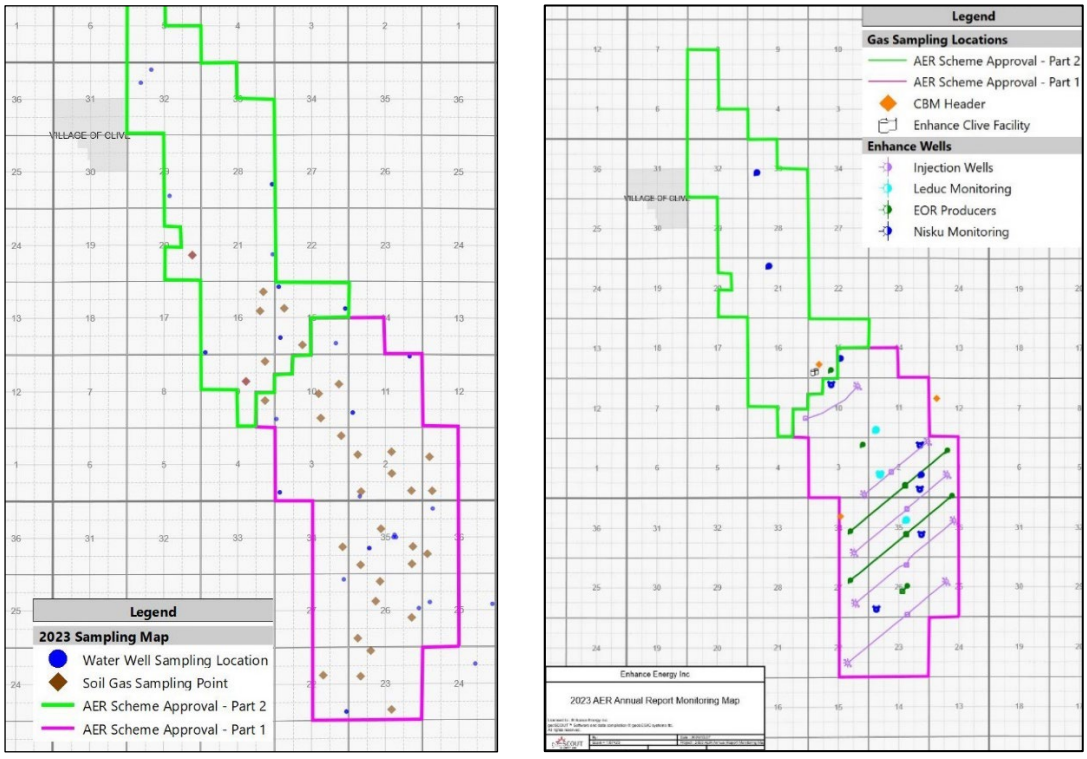


In 2019 the Clive D-3A CO_2 EOR - Part 1 - MMV baseline and monitoring program was initiated. In 2020 Enhance Energy began annual monitoring programs. Details of the 2019 to 2023 soil and groundwater baseline monitoring program, sampling procedures, test dates and results are included in Attachment 1 (MMV Soil & Groundwater Monitoring 2024 Annual Report). Details of the 2019 to 2023 Surface Casing Vent Flow (SCVF) baseline monitoring program, test dates and results are included in Attachment 2 (2019-2023 SCVF Baseline Monitoring Program). Data collected during the 2023 monitoring, measurement and verification program indicate that CO_2 remains within the Leduc formation.

b) a full discussion of the pressures of the Leduc and Nisku formations, including stabilized shut-in formation pressures and on how the pressure compares with the formation pressure expected for the cumulative volume of the CO_2 injected, along with an updated estimate of what the actual cumulative injection volume will be at the maximum shut-in formation pressure specified in clause 6, subclause a,

In 2023, pressure surveys were carried out on three Leduc monitoring wells located at 100/10-35-039-24W4/00, 100/05-02-040-24W4/00, and 100/04-11-040-24W4/00. An additional Leduc pressure survey was conducted at 102/02-02-040-24W4/00 after recompletion. Furthermore, four pressure surveys were conducted on Nisku Monitoring wells at 100/04-26-039-24W4/02, 100/08-35-039-24W4/02, 100/16-02-040-24W4/02 and 100/14-10-040-24W4/02 (Figure 2).

Figure 2: Clive D-2A and D-3A 2023 Monitoring Wells



The discovery pressure of the Clive Leduc D-3A reservoir was 17,593 kPa at the pool datum depth of 1,017.8 meters sub-sea. Under the current approval, the maximum Leduc reservoir pressure cannot exceed 17,500 kPag and must not be less than 13,000 kPag. The current average reservoir pressure of the four Leduc wells surveyed in the Part 1 Area in 2023 is 13,560 kPa, which is approximately 23% lower than the 1952 discovery pressure (Table 1&2).

Table 1: Summary of Clive D-3 A Part 1 Area Monitoring Well Pressures

	Clive D-3 A Monitoring Wells (Pressures at 1,017.8 mss)			Clive D-2 A Monitoring Wells (Pressures at 982.5 mss)					
	100/10-35	100/05-02	100/04-11	100/04-26	100/08-35	100/12-01	100/01-02	100/16-02	100/14-10
Mar-19									
May-19									
Jun-19									
Oct-19						11,256		9,573	
Oct-20									
Nov-20	13,317	13,426	13,166	12,713	12,677		12,705	9,559	
May-21	13,340	13,478							
Jun-21				12,764	12,762		12,761	9,629	
Aug-21	13,363	13,488	13,248						
Aug-22									12,856
Nov-22			13,251	12,864	12,898			9,779	
May-23	13,502								
Jun-23		13,893							
Sep-23			13,357	13,031	13,016			9,944	12,946

Table 2: Summary of Clive D-3 A Part 1 Area Additional Well Pressures

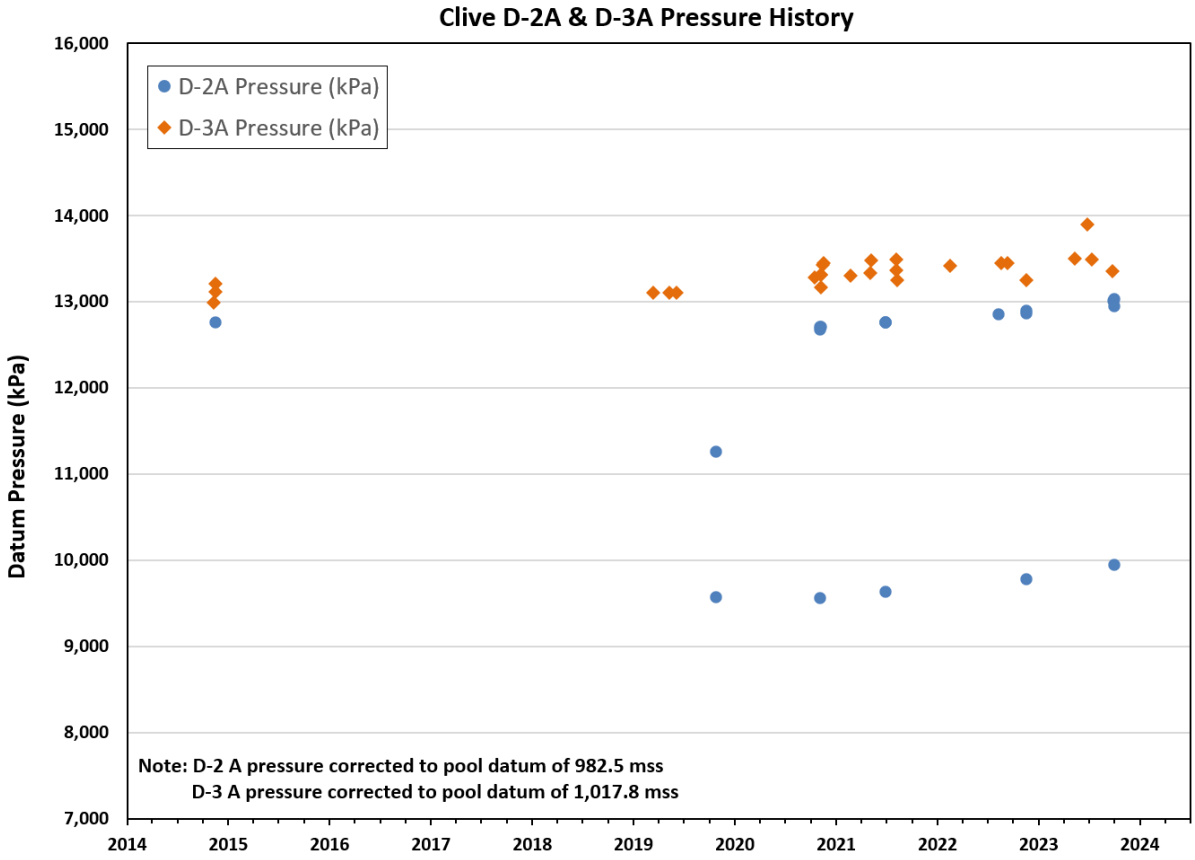
	Clive D-3 A Additional Pressures (Pressures at 1,017.8 mss)							
	100/01-34	100/10-27	100/14-01	102/11-36	103/16-02	100/11-25	102/02-22	102/02-02
Mar-19					13,101			
May-19	13,110							
Jun-19				13,107				
Oct-19								
Oct-20		13,286						
Nov-20			13,450					
Feb-21							13,300	
Feb-22	13,413							
Aug-22						13,451		
Sep-22	13,449							
Jul-23								13,486

The discovery pressure of the Clive Nisku D-2A reservoir was 17,097 kPa at the pool datum depth of 982.5 meters sub-sea. Pressures from the Nisku monitoring wells at 100/04-26-039-24W4/02, 100/08-35-039-24W4/02, and 100/14-10-040-24W4/02 averaged 12,998 kPa in 2023, which is approximately 24% lower than the discovery pressure (Table 1).

Due to the more heterogeneous nature of the Clive D-2A reservoir's geology, there is more variability in Nisku reservoir pressures across the Part 1 Area as seen in Figure 3. Pressure from the Nisku 100/16-02-040-24W4/00 well is currently 9,944 kPa. Based on previous pressure survey results on this well, this diminished pressure in comparison to the rest of the Nisku deep monitoring wells suggests that a portion of the Nisku pool around the 100/16-02-040-24W4/00 well is partially hydraulically isolated from the lower part of the Nisku pool (represented by 100/04-26-039-24W4/02, 100/08-35-039-24W4/02 and 100/01-02-040-24W4/02). A review of the 100/16-02-040-24W4/02 well log reveals that there is a one-meter-thick impermeable layer of anhydrite at 1,889 m, which is the probable cause of the partial hydraulic isolation.

A graphical plot of reservoir datum pressures for the Clive D-2A and D-3A reservoirs from 2014-2023 is presented below in Figure 3.

Figure 3: Clive D-2A and D-3A Datum Pressure 2014-2023



The average reservoir pressure in the Clive D-3A Part 1 Area has increased by 454 kPa since the project started (Figure 3). The average reservoir pressure of the Clive D-3A Part 1 Area increased by 109 kPa to 13,560 kPa during 2023. Reservoir simulation models predicted an average reservoir pressure of approximately 15,000 kPa during CO_2 injection. Due to the greater than expected transmissivity of the Clive D-3A reservoir and the underlying Bashaw Platform water leg, the average stabilized reservoir pressure is not expected to increase significantly because the pressure will continue to be dissipated into the Leduc reservoir and Bashaw Platform water leg.

Pressure communication amongst the Leduc and Nisku pools of the Bashaw Reef Complex via the water leg has been documented as early as 1966 and discussed by Springer & Tsang in (CIM 83-34-24) Innisfail-Clive-Nevis Reef Chain Revisit (Attachment 3). Because of this connectivity, it is not expected that the maximum shut-in formation pressure of 17,500 kPag specified in clause 6, subclause a, will be encountered over the lifespan of the project. Enhance Energy continues to closely watch reservoir pressures and will report any changes to this assessment as the project progresses.

The Clive D-2A monitoring well pressure continues to be stable in 2023 and shows no evidence of direct pressure communication with the underlying Leduc reservoir. However, as previously discussed above, the Nisku and Leduc pools in the Clive area are directly connected hydraulicly via the Bashaw Platforms water leg. It is not surprising, therefore, that the average Clive D-2A monitoring well pressures have also increased by about 125 kPa as pressure in the aquifer is dissipated.

c) a discussion of the overall performance of the scheme, including the incremental oil recovery and the volume of incremental oil produced as a result of the miscible fluid injection, how the reservoir pressure is changing over time; updated geological maps; and updated CO_2 plume extent and pressure distribution models, if needed. The updated geological maps should be based on all new data obtained since the commencement of the injection to the end of the reporting period,

The injection and production capacity of the Clive D-3A pool has exceeded our initial expectations. Having good reservoir processing capacity is key to EOR performance. The extremely high processing capacity of the reservoir makes it possible to keep both injection and production pressure above minimum miscibility pressure (determined by Slim Tube tests to be between 11.4-12.5 MPa). After 46 months of gas injection, the average reservoir pressure is approximately 13.6 MPa, below the reservoir discovery pressure of 17.5 MPa, above the minimum miscibility pressure of less than 12.5 MPa, and above the approved minimum operating pressure of 13.0 MPa.

As planned Enhance injected an initial slug of CO_2 before bringing on production, and as predicted by the simulation model breakthrough of CO_2 in 2020 was expected. Enhance had an existing 8 MMcf/d battery compressor ready to manage gas volumes at the commencement of production. While CO_2 breakthrough was predicted, initial recycle rates were higher than expected. A larger 52 MMcf/d recycle compressor had already been pre-ordered and was running by mid-January 2021 to manage the actual CO_2 recycle volumes. Yearly average gas production climbed from 48.5 MMcf/d in 2022 to 67.5 MMcf/d in 2023 and exited in December 2023 at 88.3 MMcf/d.

In 2023, Enhance continued to evaluate the effectiveness of WAG (Water Alternating Gas) vs SGI (Straight Gas Injection) in the Clive D-3A reservoir. All four of the approved WAG injectors 100/01-03-040-24W4/00, 100/01-34-039-24W4/00, 102/06-01-040-24W4/00 and 103/16-02-040-24W4/00 were WAG cycled during 2023. As expected, due to the viscosity differences between water and CO_2, the bottom-hole injection pressure under water was approximately 2,500 kPa higher than CO_2 at similar injection rates. The WAG response displayed several positive signs in that the water injected under WAG was seen in the offsetting horizontal producers and the produced gas decreased under WAG. However, there was only a minimal improvement in oil production under WAG. Results suggest that SGI (Straight Gas Injection) is the optimal recovery mechanism for Clive.

The 102/02-02-040-24W4/00 vertical well was re-completed in July 2023 using sliding sleeves to evaluate vertical conformance in the Clive D-3A reservoir. As is common in Carbonate reservoirs, the Clive D-3A reservoir has numerous vertical baffles, local barriers, and high permeability vuggy facies that can affect CO_2 conformance. To further our understanding of the vertical conformance, a new vertical producer was drilled at 104/10-26-039-24W4/00 during October 2023 and completed using sliding sleeves. Further testing will be undertaken in 2024 to quantify the results.

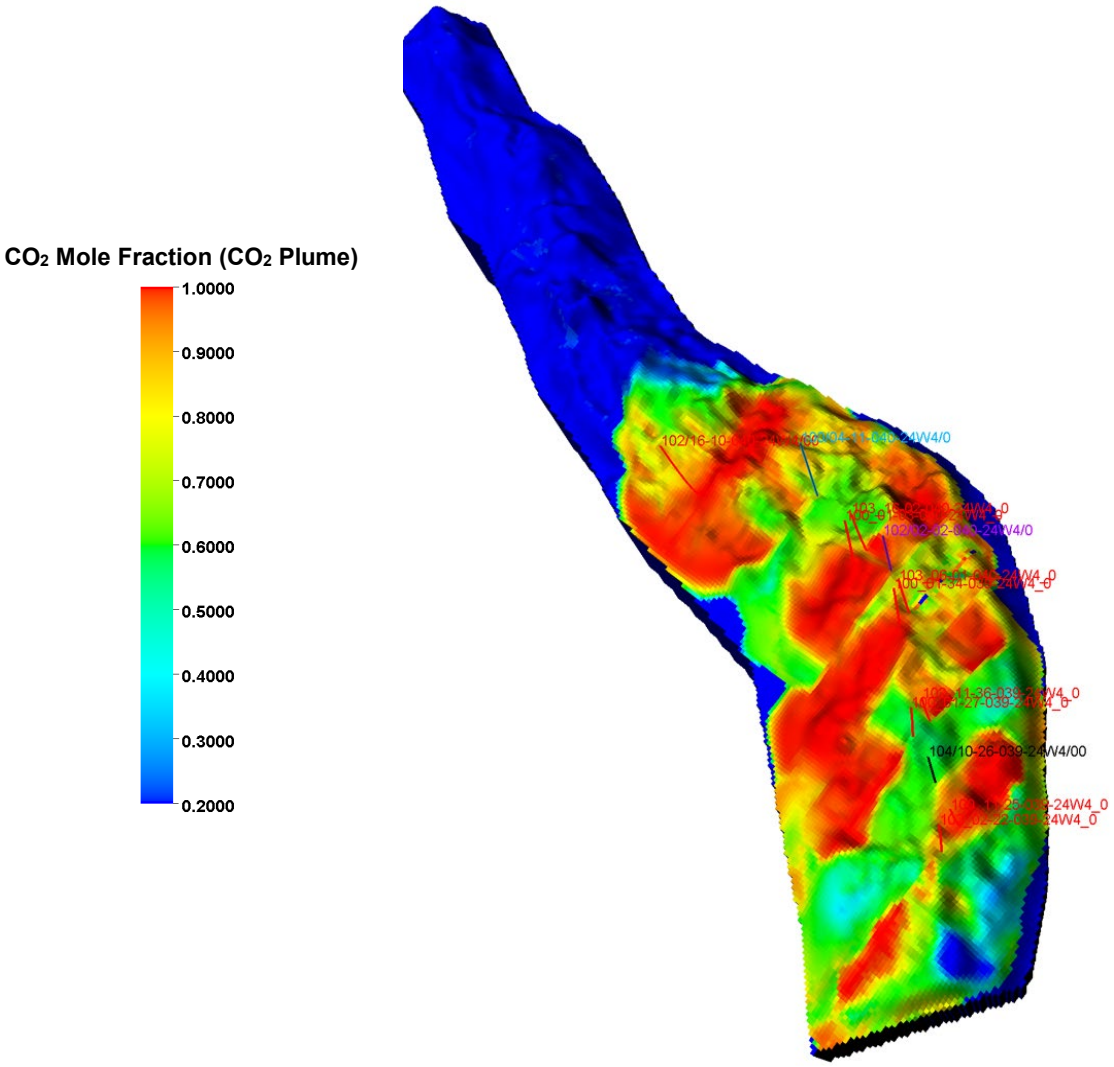
Simulation modeling continues to be a valuable tool for Enhance to predict and monitor CO_2 plume behavior and enhanced oil recovery performance. Before the commencement of CO_2 injection, Enhance built a robust reservoir simulation model of the Leduc Formation in Clive. The geological model was constructed on a framework of geomodelling which captured the complex relationships that recorded constantly fluctuating conditions during carbonate platform growth at Clive distilled from detailed core studies and petrophysical work. The simulation model was history matched to over 50 years of production and injection history and was used to aid in the design of CO_2 injection plans and the development of the MMV Plan for the Clive Part 1 and Part 2 areas.

During 2022 Enhance continued to introduce further refinements to the geomodelling techniques used in characterizing the Clive Leduc reservoir and its hydraulic connection to the Bashaw platform. Enhance Energy built a much larger simulation model to manage the project's expansion Northward and to accurately capture the CO_2 plumes movement and storage in the reservoir.

Enhance used the expanded simulation model to update this year's annual report. The movement of CO_2 in the reservoir was as expected (Figure 4). As the CO_2 flood advances,

the simulation model area will continue to grow in size and complexity. In 2023, Enhance began working on an expanded Bashaw Platform-sized geomodel that we anticipate to be completed in late 2024 to refine our understanding of pressure response in the regional aquifer.

Figure 4: 2023 Simulation Study CO_2 Plume Forecast

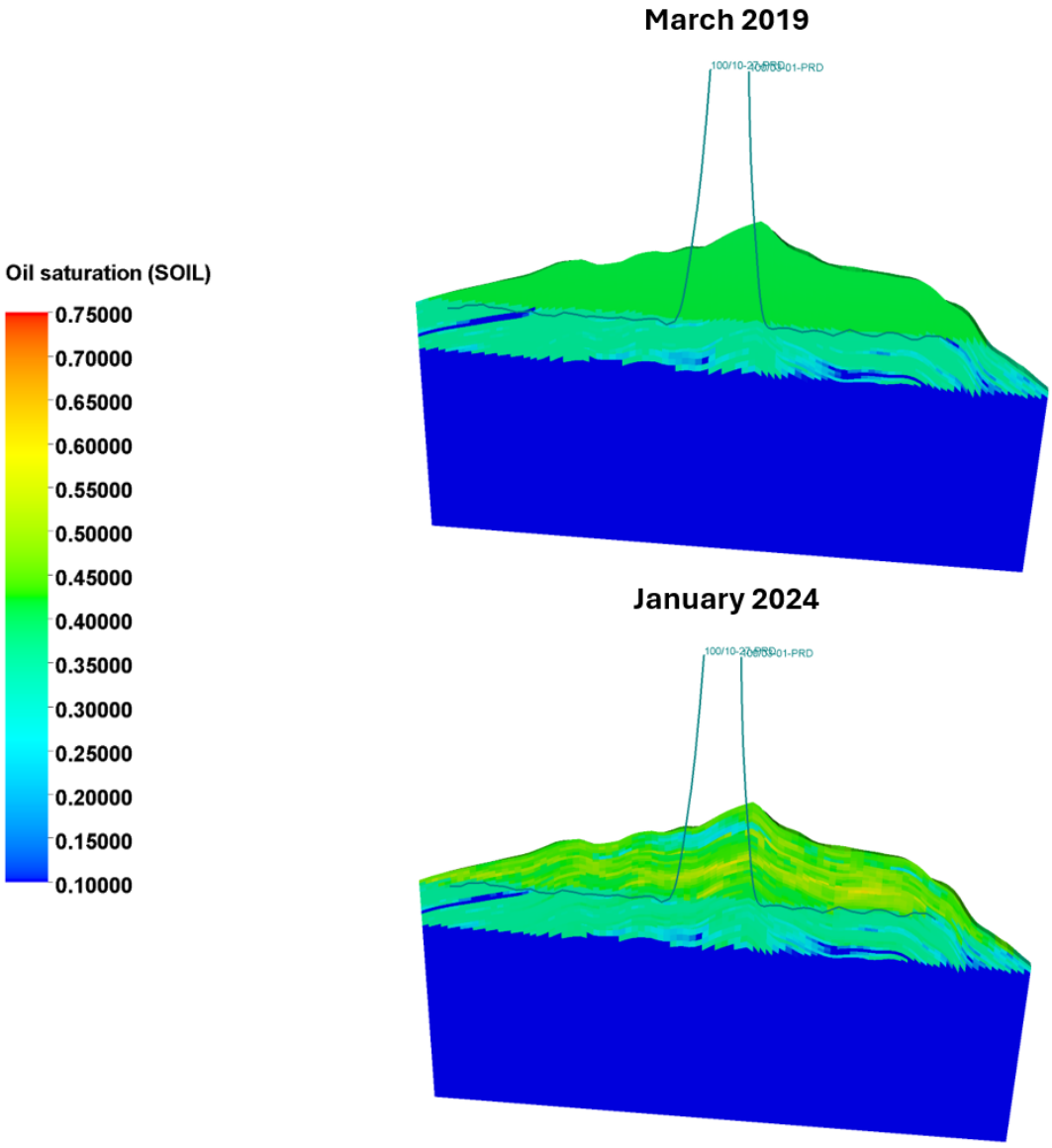


No unexpected movement of CO_2 was detected during the 2023 MMV monitoring program (Attachment 1), and no new Surface Casing Vent Flows were seen in the MMV area during the 2023 reporting period (Attachment 2).

The oil saturation modeled in the vicinity of the CO_2 injectors has continued to decline, showing that CO_2 is being miscibly absorbed into the oil. This results in oil swelling, viscosity reduction, and mobilization of the residual oil with CO_2. Figure 5 below shows the

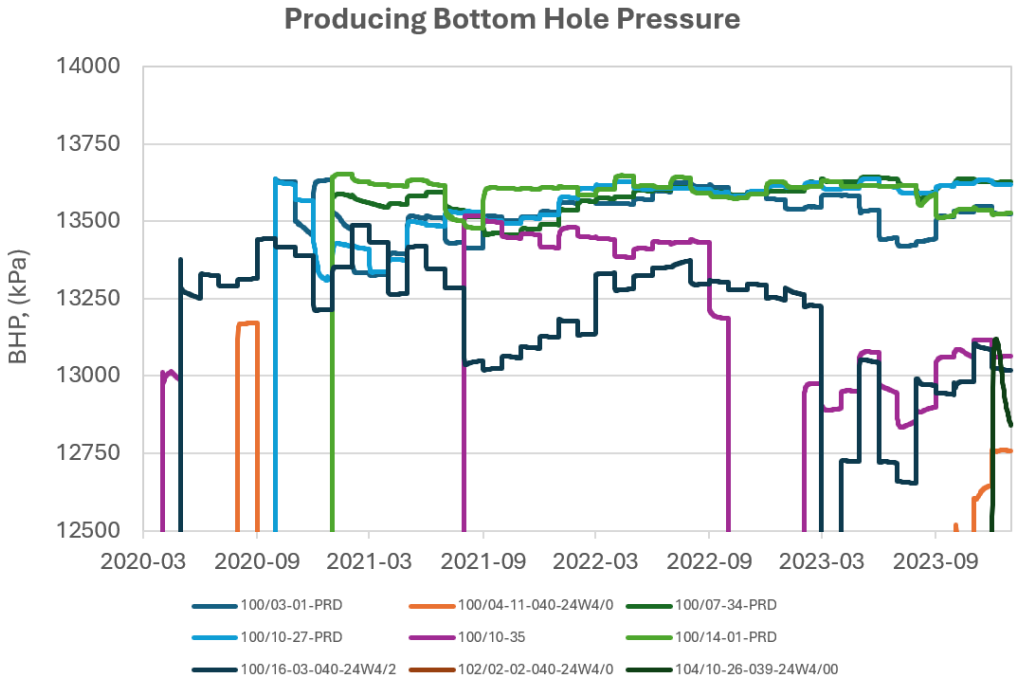
oil saturation along a cross-sectional slice at the 100/10-27-039-24W4/00 injector and the 100/03-01-040-24W4/00 injector before injection and after 46 months of CO_2 injection.

Figure 5: 2023 Simulation Study Oil Saturation Forecast



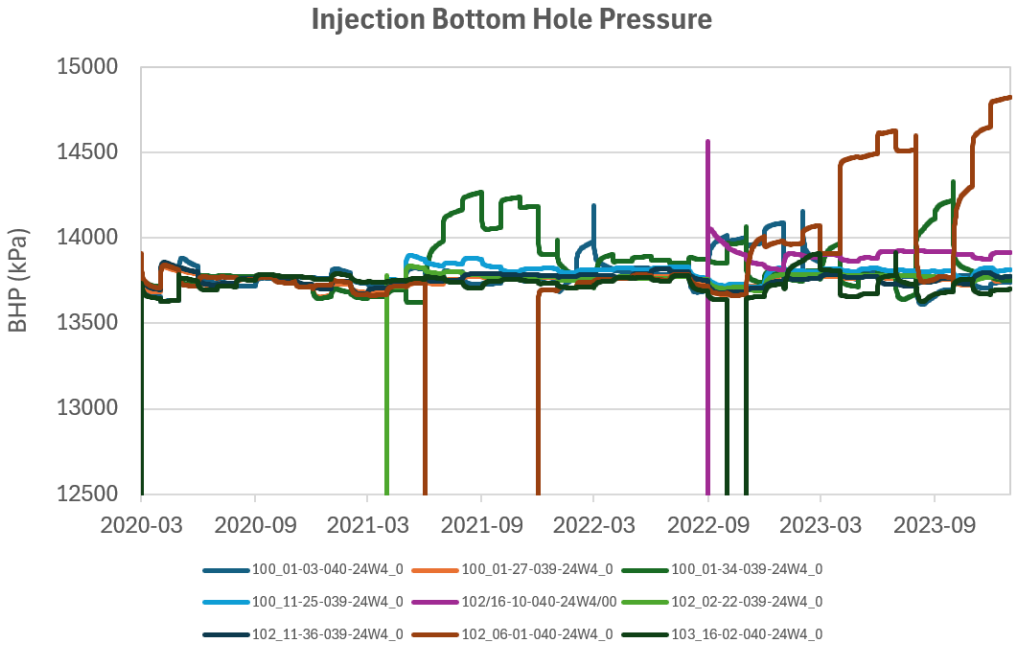
Producing bottom hole pressures during 2023 averaged 13.1 MPa, and fluid withdrawal rate is limited by bottom hole pump capacity and flow line pressures. The 2023 Simulation Study prediction of bottom hole producing pressures for the production wells can be seen below in Figure 6.

Figure 6: 2023 Simulation Study Producing Bottom Hole Pressure Forecasts



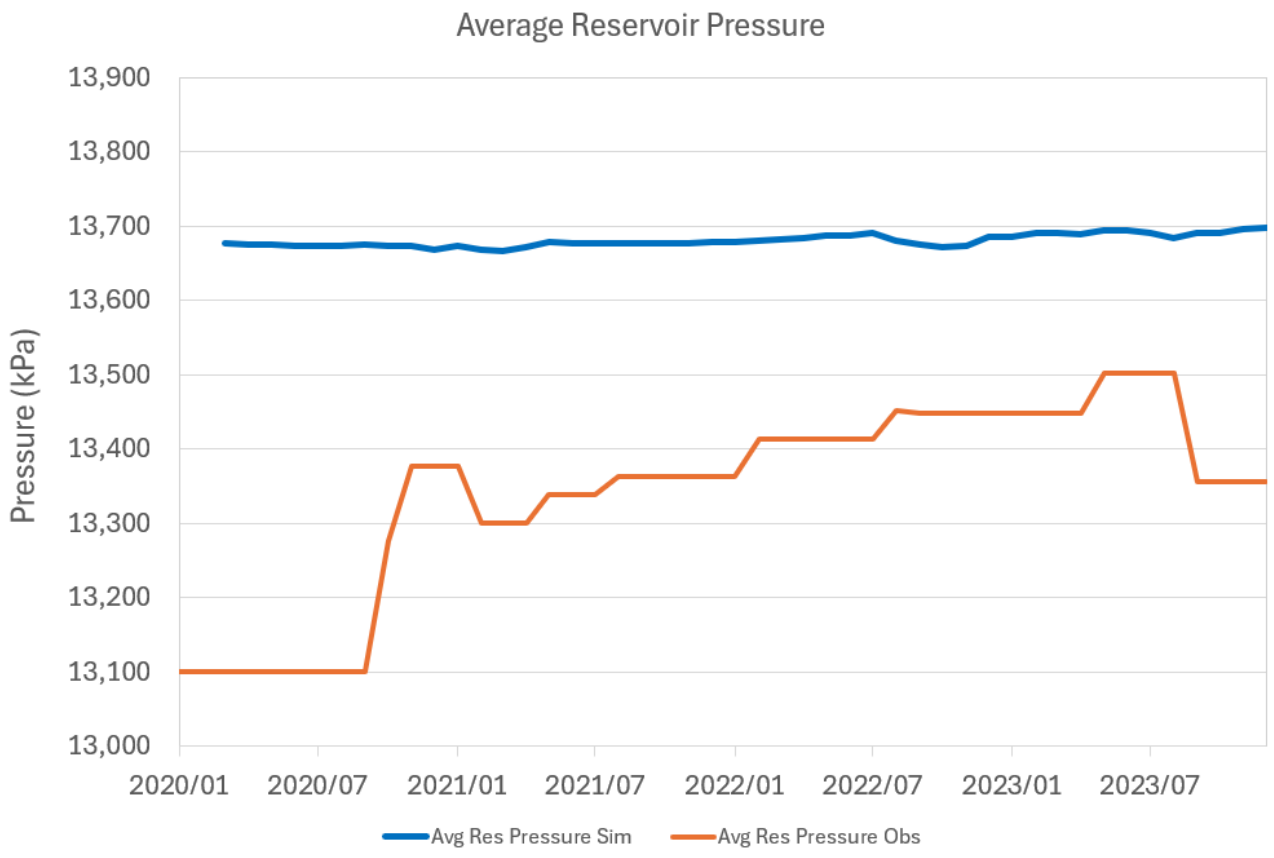
Estimated average bottom hole injection pressures in 2023 have ranged from 13.7-15.1 MPa (Table 5) with injection rates limited by wellbore design. The higher injection pressures are associated with water injection as expected. The 2023 Simulation Study prediction of bottom hole injection pressures for the injection wells is below in Figure 7.

Figure 7: 2023 Simulation Study Bottom Hole Injection Pressure Forecasts



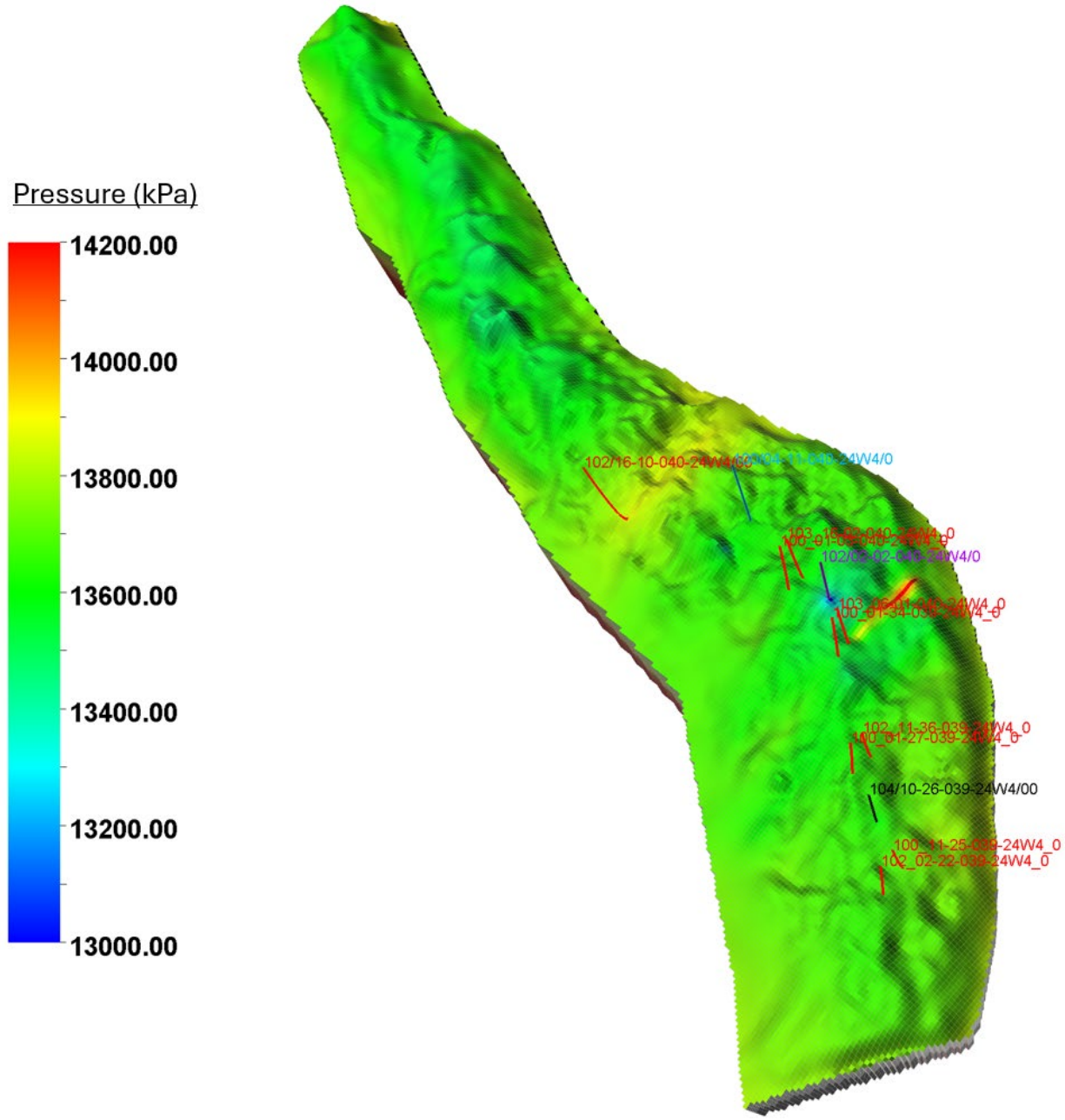
The simulation studies Average Reservoir Pressure prediction is in close agreement to pressure survey observations and is approximately 340 kPa higher than the actual field observation of approximately 13,357 kPa as of December 2023 (Figure 8).

Figure 8: 2023 Simulation Study Average Reservoir Pressure Forecast vs Actual



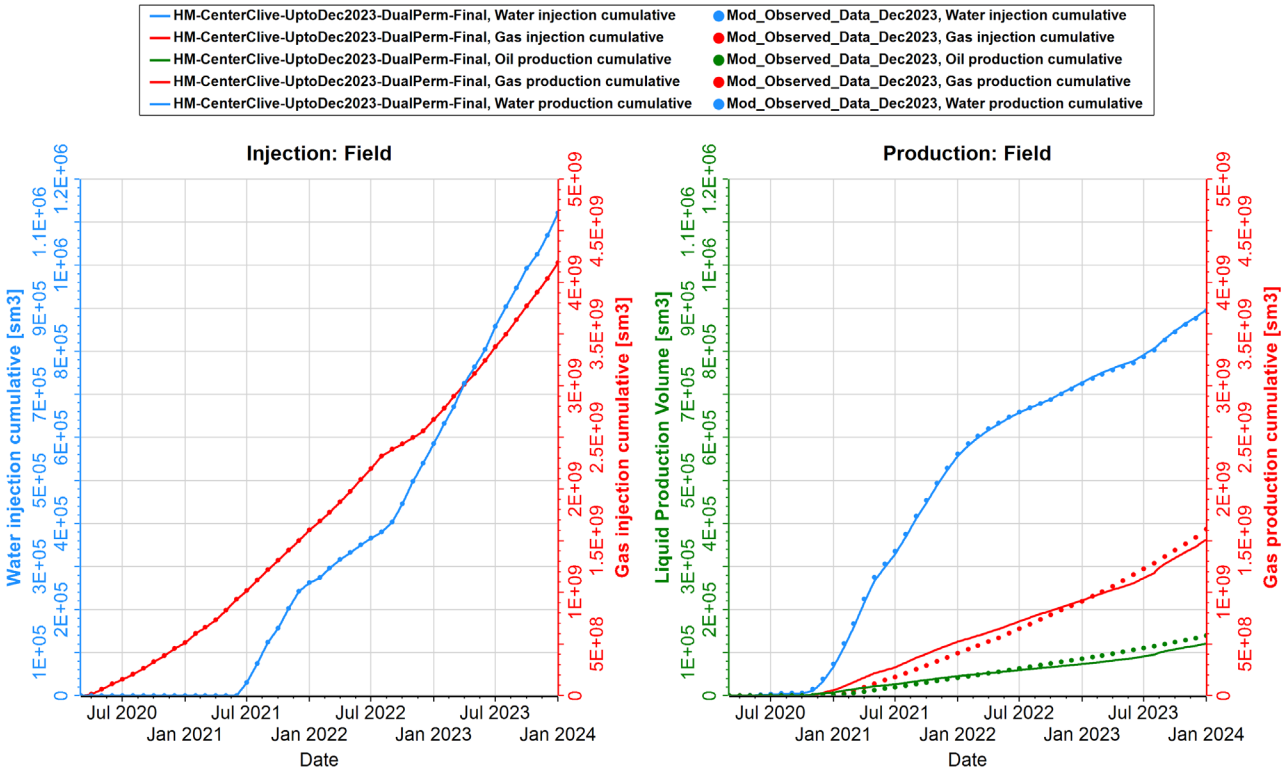
A graphical depiction of the simulation models Average Reservoir Pressure is in Figure 9 below. Pressure propagates almost uniformly across the reservoir boundary, which confirms the high deliverability of the Leduc formation in the Clive field.

Figure 9: 2023 Simulation Study Total Model Average Reservoir Pressure Forecast



A history match of the 2023 Simulation Study is displayed below (Figure 10). The results are in close agreement with field production and injection history based on injection and production cumulative volumes.

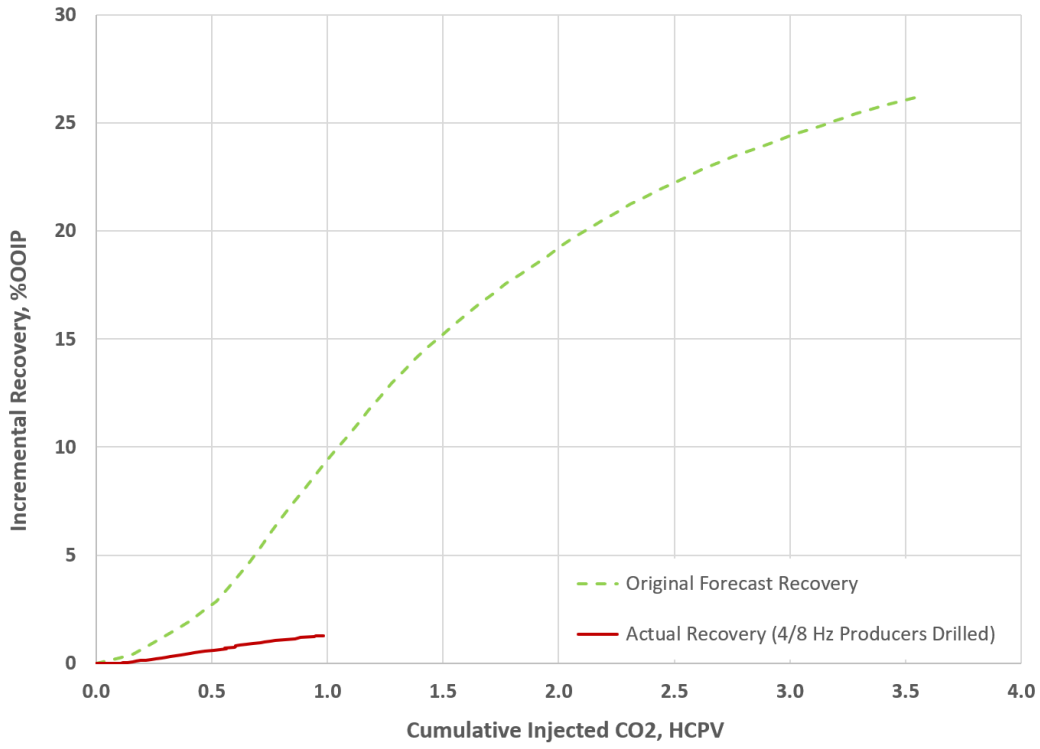
Figure 10: 2023 Simulation Study History Match



Due to battery start-up constraints in Q4 2020, only two production wells were initially brought onstream. All four drilled producers were online by mid-January 2021 when the main recycle compressor was commissioned. The graph below shows an updated recovery factor curve for oil production from our simulation model in comparison to CO_2 HCPV injected for Central Clive.

However, it must be noted that the Original Forecast Recovery Curve below (Figure 11) includes four additional horizontal producers (8 Total) in Central Clive. Enhance has not drilled the remaining four producers yet due to facility recycle capacity constraints and is evaluating optimal design and recovery strategies. A second recycle compressor and new production wells are planned for the second half of 2024.

Figure 11: HCPV CO_2 Injected vs Incremental Recovery Factor



d) ***a discussion on how an increase pressure due to the miscible fluid injection could have an adverse effect on hydraulic fracturing of the target formation or caprock, and the displacement of brine upward out of the target formation via a conduit such as fracture or fault, and wellbores within the area of influence. In addition, a list of all wells that penetrated the injection target formation surrounding the*** **injection well where the pressure increase could also have an adverse effect,**

The average reservoir pressure in the Clive D-3A Part 1 Area has increased by 257 kPa since the project started (Figure 3). Because of the reservoir's connectivity to the Bashaw Reef Complex via the water leg, it is not anticipated that the maximum shut-in formation pressure of 17,500 kPa specified in clause 6, subclause (a), will be encountered over the lifespan of the project.

Containment assurance is a top priority for Enhance Energy and a detailed wellbore containment study was undertaken, reviewed by the AER, and submitted in Directive 065 application no. 1923727 (Approval 12832B). Enhance Energy has also implemented a comprehensive MMV program over the area to monitor for any sign of a containment breach and live reservoir injection and production pressures are monitored via SCADA.

e) ***results and evaluation of all monitoring done during the reporting period including but not limited to: pressure surveys, corrosion protection, fluid analyses, logs and any other data collected that would help in determining the success of the scheme,***

Pressure surveys for the reporting period are included in Attachment 4, and Fluid Analyses are included in Attachment 5.

f) a table showing the following data for each month of the reporting period:

i) a representative composition for the injected fluids,

Average composition of the injected fluids is summarized in attached Table 3.

ii) a representative composition for the re-injection streams,

Average composition of the re-injected fluids is summarized in attached Table 4.

iii) mole fraction of the CO_2 and impurities in the injection stream,

Monthly mole fractions of CO_2 and impurities in the injection and re-injection streams are summarized in attached Table 3 and 4, respectively.

iv) standard volume of the CO_2 injected,

v) cumulative volume of the CO_2 injected at standard conditions following the commencement of the scheme,

vi) CO_2 stream formation volume factor,

vii) volume of the CO_2 injected at reservoir conditions,

viii) cumulative volume of the CO_2 injected at reservoir conditions following the commencement of the scheme,

ix) hours on injection, the net amount of the CO_2 injected in the reservoir, in reservoir cubic meters and in standard cubic meters, the difference between total CO_2 injected into and that produced from the scheme,

x) maximum daily injection rate at standard conditions,

xi) average daily injection rate at standard conditions,

xii) maximum wellhead injection pressure and corresponding wellhead injection temperature,

xiii) average wellhead injection pressure and corresponding average wellhead injection temperature,

xiv) estimated or measured average reservoir pressure in the target formation, and

xv) estimated average bottomhole injection pressure.*

**** Include a discussion in detail on how the hydrostatic head of the miscible fluid in the wellbore, friction losses in the tubing, and pressure losses in the reservoir are accounted for in the determination of the average reservoir pressure.***

Monthly tabular data for items 10.f (iv-xv) are attached in Table 5.

To improve our understanding of operating reservoir pressures, Enhance Energy has installed real-time bottom hole production well monitoring sensors on all pumping horizontal oil wells which have continuous monitoring at the pump intake and are tied directly into SCADA. Enhance Energy has also equipped two of our injection wells 100/01-34-039-24W4/00, and 100/11-25-039-24W4/00 with real-time bottom hole injection pressure and temperature sensors tied into SCADA. This creates an additional level of confidence that we are operating the scheme well under the maximum shut-in formation pressure of 17,500 kPag as specified in clause 6, subclause a, of AER Approval 12832M.

Production Wells:

- 100/10-27-039-24W4/00 – BHG landed at reservoir depth (no correction factor)
- 100/07-34-039-24W4/00 – BHG landed at reservoir depth (no correction factor)
- 100/03-01-040-24W4/00 – BHG landed at reservoir depth (no correction factor)
- 100/14-01-040-24W4/00 – BHG landed at reservoir depth (no correction factor)

Injection Wells:

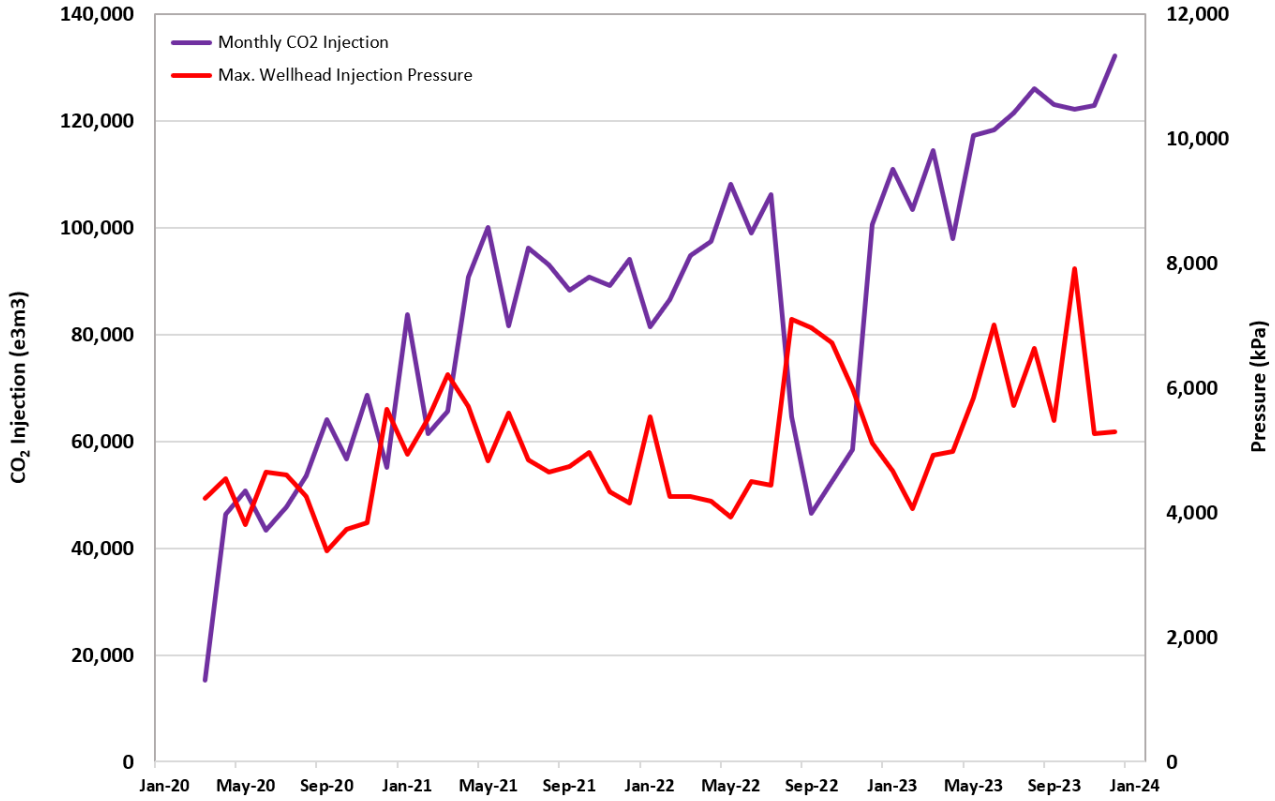
- 100/01-34-039-24W4/00 – BHG landed 60 m above reservoir depth
- 100/11-25-039-24W4/00 – BHG landed at reservoir depth (no correction factor)

Enhance landed the bottom hole gauges at 90 degrees in the horizontal entry point/'midpoint of perfs' in five of six wells. These gauges are tied directly back to SCADA and have an accuracy of +/-70 kPa based on the manufacturer's specs. No correction factor to a reservoir datum needs to be applied as it would only be a few meters depending on the well. The 100/01-34-039-24W4/00 well gauges were hung 60 m above the midpoint perfs. The estimated average bottom hole injection pressure for this well was calculated by determining the average pressure gradient between the wellhead tubing pressure and the downhole pressure sensor. This pressure gradient (kPa/m) plus 100 kPa was then applied to the 60 m offset distance between the recorder and the reservoir sand face and then added to the downhole pressure sensor's recorded pressure. This method accounts for actual frictional pressure losses in the tubing, temperature gains, and viscosity and density changes of the CO_2 over the 1,839 mMD distance from the injection wellhead to the downhole pressure sensor and only extrapolates the pressure for the final 60 m representing only 3.3% of the total distance from the injection wellhead to the reservoir sand face.

g) a plot showing ongoing monthly injection volumes and the maximum wellhead injection pressure versus time. The plot must display the scheme on an ongoing basis and not just for the reporting period,

A plot of monthly CO_2 injection volume vs max wellhead injection pressure is displayed below in Figure 12.

Figure 12: Monthly CO_2 Injection Volume vs Max Wellhead Injection Pressure



h) a table showing the calculated net tonnes of the CO_2 injected in reservoir and in standard conditions, which is a difference between the miscible fluid injected into and that produced from the scheme:

i) on a monthly basis for the reporting period, and
ii) on an annual basis since the commencement of injection.

Monthly tabular data for item 10.h is attached in Table 6.

i) a table and plot of the calculated voidage replacement ratios both on a monthly and cumulative basis from the start of scheme operations, and

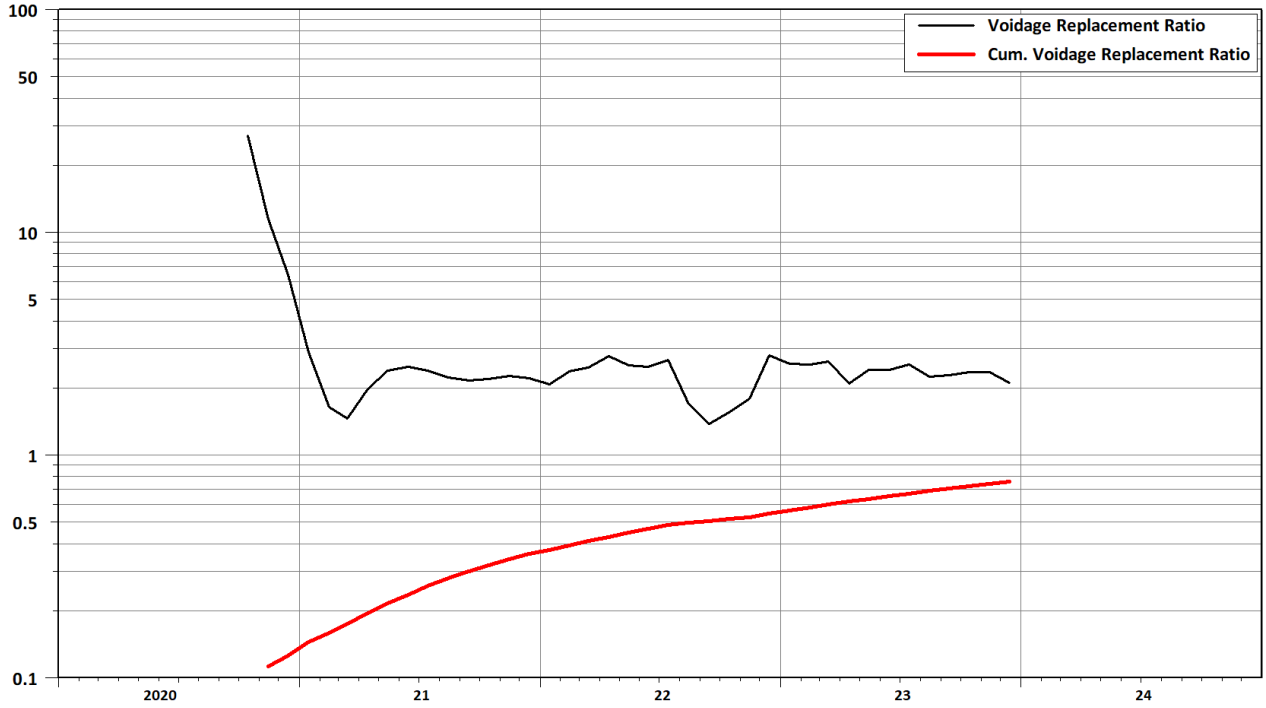
Monthly tabular data of the instantaneous and cumulative voidage replacement ratio is attached in Table 7. Injection of CO_2 into the Part 1 Area began in March 2020 and production did not start until October 2020. Production was restricted due to an initial recycle capacity limitation of 8 MMcf/d at the Battery. Due to the eight month delay between initial injection and production, voidage replacement calculations are not very meaningful for this period.

6) The Operator must conduct the miscible fluid injection in the well(s) referred to in clause 3 in
accordance with the following requirements:

d) a voidage replacement ratio must not exceed 1.0 on the basis of cumulative production and injection volumes following commencement of production,

The cumulative voidage replacement ratio for the Part 1 Area is 0.76 (Figure 13).

Figure 13: Monthly Reservoir Voidage for Clive Part 1 Area



j) verification that all conditions of this approval have been met during the reporting period. All non-compliance events should be summarized, and should be voluntarily self- disclosed as soon as they occur to the Resource Compliance in the AER Environment & Operational Performance Branch.

Enhance Energy confirms that all conditions of Approval No. 12832M have been satisfied during the reporting period based on the facts as we know them at the time of this submission.

TABLES

Table 3: Composition of Injection Stream for Clive D-3A CO_2 Enhanced Oil Recovery Project

		Components Mole %														
	Month	H2	He	N2	CO2	H2S	C1	C2	C3	iC4	nC4	iC5	nC5	C6	C7+	Total
2020	January															
	February															
	March	1.77	0.00	0.27	97.94	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
	April	1.21	0.00	0.04	98.59	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
	May	1.55	0.00	0.06	98.25	0.00	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
	June	1.51	0.00	0.02	98.28	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
	July	2.13	0.00	0.08	97.66	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
	August	2.13	0.00	0.13	97.61	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
	September	0.67	0.00	0.04	99.20	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
	October	1.04	0.00	0.06	98.67	0.02	0.18	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	100.00
	November	1.14	0.00	0.15	97.62	0.22	0.66	0.07	0.05	0.01	0.03	0.01	0.01	0.01	0.03	100.00
	December	0.99	0.00	0.11	97.76	0.22	0.65	0.08	0.06	0.01	0.03	0.01	0.01	0.01	0.03	100.00
	2020 Average	1.41	0.00	0.10	98.16	0.05	0.23	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.01	100.00

	Month	H2	He	N2	CO2	H2S	C1	C2	C3	iC4	nC4	iC5	nC5	C6	C7+	Total
2021	January	0.87	0.00	0.21	97.13	0.34	1.02	0.14	0.12	0.02	0.06	0.02	0.03	0.03	0.01	100.00
	February	1.22	0.00	0.45	95.20	0.63	1.73	0.25	0.21	0.03	0.11	0.03	0.05	0.04	0.05	100.00
	March	0.82	0.00	0.52	93.70	1.03	2.66	0.38	0.33	0.06	0.19	0.06	0.08	0.09	0.08	100.00
	April	0.89	0.00	0.22	96.18	0.45	1.54	0.21	0.18	0.03	0.09	0.03	0.04	0.03	0.10	100.00
	May	1.09	0.00	0.15	96.48	0.45	1.32	0.21	0.14	0.02	0.07	0.02	0.02	0.02	0.01	100.00
	June	1.95	0.00	0.17	96.56	0.28	0.76	0.10	0.08	0.01	0.04	0.01	0.01	0.01	0.01	100.00
	July	1.05	0.00	0.16	96.49	0.37	1.43	0.17	0.15	0.02	0.07	0.02	0.02	0.02	0.02	100.00
	August	1.28	0.00	0.23	95.91	0.41	1.61	0.19	0.17	0.03	0.08	0.02	0.03	0.02	0.01	100.00
	September	1.28	0.00	0.22	95.56	0.57	1.72	0.22	0.19	0.03	0.10	0.03	0.04	0.02	0.01	100.00
	October	0.61	0.00	0.58	95.21	0.86	1.89	0.28	0.23	0.05	0.13	0.04	0.05	0.04	0.03	100.00
	November	0.66	0.00	0.36	95.36	0.76	2.10	0.32	0.22	0.04	0.11	0.03	0.03	0.02	0.01	100.00
	December	0.70	0.00	0.27	95.18	0.88	2.20	0.29	0.24	0.04	0.11	0.03	0.04	0.02	0.01	100.00
	2021 Average	1.03	0.00	0.29	95.75	0.59	1.66	0.23	0.19	0.03	0.10	0.03	0.04	0.03	0.03	100.00

	Month	H2	He	N2	CO2	H2S	C1	C2	C3	iC4	nC4	iC5	nC5	C6	C7+	Total
2022	January	0.79	0.00	0.86	94.82	0.64	2.04	0.26	0.22	0.04	0.11	0.03	0.04	0.03	0.12	100.00
	February	0.72	0.00	0.38	94.55	0.68	2.72	0.34	0.28	0.05	0.13	0.04	0.04	0.03	0.04	100.00
	March	0.63	0.00	0.23	95.65	0.71	2.03	0.26	0.22	0.04	0.11	0.03	0.04	0.02	0.03	100.00
	April	0.60	0.00	0.28	95.73	0.65	2.10	0.24	0.19	0.03	0.08	0.02	0.03	0.02	0.04	100.00
	May	0.39	0.00	0.26	95.45	0.69	2.45	0.26	0.22	0.04	0.10	0.02	0.03	0.02	0.05	100.00
	June	0.72	0.00	0.36	93.62	0.73	3.42	0.39	0.35	0.06	0.18	0.05	0.06	0.03	0.04	100.00
	July	0.77	0.00	0.72	94.39	0.64	2.69	0.32	0.22	0.04	0.10	0.03	0.04	0.02	0.02	100.00
	August	0.56	0.01	0.58	91.40	1.15	4.67	0.52	0.47	0.09	0.25	0.06	0.08	0.06	0.10	100.00
	September	0.58	0.01	0.57	89.27	1.62	5.02	0.69	0.66	0.13	0.42	0.18	0.26	0.24	0.36	100.00
	October	0.74	0.01	0.74	90.17	1.67	4.97	0.65	0.51	0.09	0.24	0.06	0.07	0.04	0.04	100.00
	November	0.64	0.01	0.45	91.46	1.21	4.64	0.56	0.44	0.11	0.24	0.06	0.07	0.05	0.06	100.00
	December	0.75	0.00	0.28	94.53	1.11	2.45	0.33	0.26	0.04	0.13	0.03	0.04	0.02	0.03	100.00
	2022 Average	0.66	0.00	0.48	93.42	0.96	3.27	0.40	0.34	0.06	0.17	0.05	0.07	0.05	0.08	100.00

	Month	H2	He	N2	CO2	H2S	C1	C2	C3	iC4	nC4	iC5	nC5	C6	C7+	Total
2023	January	0.74	0.00	0.46	94.30	0.80	2.64	0.34	0.31	0.05	0.15	0.04	0.06	0.04	0.07	100.00
	February	0.58	0.00	0.51	94.60	0.71	2.76	0.32	0.25	0.05	0.12	0.02	0.03	0.02	0.02	100.00
	March	0.56	0.00	0.99	94.60	0.95	2.22	0.26	0.22	0.04	0.09	0.02	0.02	0.01	0.03	100.00
	April	0.54	0.00	0.55	93.43	0.90	3.58	0.36	0.30	0.05	0.14	0.04	0.04	0.03	0.03	100.00
	May	0.62	0.00	0.38	94.16	1.00	2.88	0.35	0.28	0.05	0.15	0.04	0.04	0.02	0.01	100.00
	June	0.63	0.00	0.35	94.35	0.86	2.92	0.34	0.25	0.04	0.12	0.03	0.04	0.02	0.04	100.00
	July	0.47	0.00	0.27	94.78	0.80	2.81	0.29	0.24	0.04	0.11	0.03	0.04	0.03	0.07	100.00
	August	0.63	0.00	0.48	93.50	0.95	3.27	0.39	0.33	0.05	0.15	0.05	0.06	0.04	0.10	100.00
	September	0.80	0.01	0.54	92.36	1.29	3.72	0.45	0.37	0.07	0.17	0.04	0.05	0.03	0.10	100.00
	October	0.81	0.01	0.45	92.62	1.36	3.49	0.44	0.34	0.05	0.16	0.04	0.05	0.04	0.15	100.00
	November	0.73	0.01	1.11	92.25	1.04	3.76	0.44	0.33	0.05	0.15	0.03	0.04	0.02	0.02	100.00
	December	0.67	0.01	0.39	92.96	1.09	3.75	0.44	0.33	0.05	0.15	0.04	0.04	0.03	0.04	100.00
	2023 Average	0.65	0.00	0.54	93.66	0.98	3.15	0.37	0.30	0.05	0.14	0.03	0.04	0.03	0.06	100.00

Table 4: Composition of Recycle Stream for Clive D-3A CO_2 Enhanced Oil Recovery Project

		Components Mole %														
	Month	H2	He	N2	CO2	H2S	C1	C2	C3	iC4	nC4	iC5	nC5	C6	C7+	Total
2020	January															
	February															
	March															
	April															
	May															
	June															
	July															
	August															
	September															
	October	0.51	0.01	1.90	68.29	4.49	19.70	2.09	1.53	0.25	0.70	0.18	0.21	0.10	0.07	100.00
	November	0.49	0.01	1.54	80.22	3.82	10.23	1.20	0.90	0.15	0.45	0.14	0.20	0.18	0.47	100.00
	December	0.67	0.00	0.78	85.03	2.80	7.50	1.01	0.80	0.14	0.43	0.14	0.18	0.17	0.37	100.00
	2020 Average	0.56	0.01	1.41	77.84	3.70	12.48	1.43	1.08	0.18	0.53	0.15	0.20	0.15	0.30	100.00

	Month	H2	He	N2	CO2	H2S	C1	C2	C3	iC4	nC4	iC5	nC5	C6	C7+	Total
2021	January	0.71	0.00	0.72	89.76	1.68	4.87	0.67	0.59	0.10	0.30	0.10	0.14	0.13	0.21	100.00
	February	0.69	0.00	0.64	90.44	1.67	4.53	0.67	0.54	0.09	0.29	0.09	0.12	0.10	0.13	100.00
	March	0.72	0.00	0.79	90.22	1.65	4.22	0.61	0.54	0.10	0.31	0.10	0.14	0.14	0.47	100.00
	April	0.65	0.00	0.51	91.20	1.31	4.27	0.59	0.52	0.09	0.27	0.08	0.11	0.10	0.30	100.00
	May	0.69	0.00	0.46	90.25	1.73	4.89	0.80	0.55	0.09	0.27	0.07	0.09	0.06	0.05	100.00
	June	0.67	0.00	0.44	90.97	1.82	4.35	0.61	0.52	0.09	0.26	0.07	0.09	0.05	0.06	100.00
	July	0.66	0.00	0.54	89.42	1.56	5.75	0.72	0.61	0.10	0.31	0.08	0.10	0.07	0.08	100.00
	August	0.87	0.00	0.59	89.93	1.41	5.26	0.66	0.58	0.11	0.27	0.08	0.10	0.06	0.09	100.00
	September	0.69	0.00	0.58	90.09	1.71	4.94	0.67	0.58	0.10	0.30	0.09	0.11	0.05	0.11	100.00
	October	0.73	0.00	0.59	89.34	2.27	4.94	0.68	0.59	0.11	0.32	0.09	0.11	0.08	0.16	100.00
	November	0.81	0.01	0.68	87.64	2.28	6.28	0.95	0.65	0.12	0.32	0.08	0.10	0.05	0.06	100.00
	December	0.72	0.00	0.58	89.25	2.15	5.33	0.70	0.59	0.09	0.28	0.08	0.10	0.06	0.08	100.00
	2021 Average	0.72	0.00	0.59	89.87	1.77	4.97	0.69	0.57	0.10	0.29	0.08	0.11	0.08	0.15	100.00

	Month	H2	He	N2	CO2	H2S	C1	C2	C3	iC4	nC4	iC5	nC5	C6	C7+	Total
2022	January	0.70	0.00	1.55	88.47	1.78	5.40	0.71	0.61	0.11	0.32	0.09	0.11	0.06	0.10	100.00
	February	0.73	0.01	0.65	89.11	1.52	5.94	0.75	0.62	0.10	0.29	0.08	0.09	0.05	0.07	100.00
	March	0.67	0.00	0.57	89.59	1.91	5.30	0.70	0.59	0.10	0.28	0.08	0.09	0.05	0.07	100.00
	April	0.72	0.01	0.86	85.99	2.40	7.67	0.88	0.69	0.11	0.31	0.08	0.09	0.06	0.13	100.00
	May	0.63	0.01	0.70	86.13	2.27	7.90	0.86	0.72	0.12	0.33	0.08	0.10	0.06	0.09	100.00
	June	0.61	0.01	0.68	87.26	1.60	7.38	0.85	0.74	0.12	0.38	0.10	0.12	0.07	0.08	100.00
	July	0.63	0.01	0.66	87.83	1.72	7.05	0.86	0.60	0.11	0.26	0.08	0.10	0.05	0.04	100.00
	August	0.61	0.01	0.70	86.57	1.88	7.61	0.85	0.76	0.14	0.40	0.10	0.13	0.09	0.15	100.00
	September	0.59	0.01	0.63	87.59	1.89	5.86	0.81	0.77	0.15	0.49	0.21	0.30	0.28	0.42	100.00
	October	0.61	0.01	0.65	89.70	1.82	5.40	0.71	0.55	0.10	0.26	0.06	0.07	0.03	0.03	100.00
	November	0.63	0.01	0.60	87.37	1.87	7.14	0.86	0.68	0.15	0.33	0.09	0.11	0.07	0.09	100.00
	December	0.61	0.00	0.59	89.32	2.42	5.20	0.68	0.56	0.09	0.27	0.07	0.08	0.05	0.06	100.00
	2022 Average	0.64	0.01	0.74	87.91	1.92	6.49	0.79	0.66	0.12	0.33	0.09	0.12	0.08	0.11	100.00

	Month	H2	He	N2	CO2	H2S	C1	C2	C3	iC4	nC4	iC5	nC5	C6	C7+	Total
2023	January	0.60	0.01	0.66	89.16	1.81	5.86	0.74	0.60	0.09	0.26	0.06	0.07	0.04	0.04	100.00
	February	0.65	0.01	0.89	88.34	1.70	6.51	0.77	0.59	0.09	0.25	0.05	0.07	0.04	0.04	100.00
	March	0.66	0.01	2.27	87.36	2.43	5.56	0.67	0.55	0.08	0.23	0.05	0.06	0.03	0.04	100.00
	April	0.62	0.01	0.97	86.01	2.06	8.11	0.83	0.68	0.11	0.31	0.08	0.09	0.06	0.06	100.00
	May	0.62	0.01	0.70	88.71	2.08	5.89	0.73	0.59	0.11	0.32	0.08	0.09	0.04	0.03	100.00
	June	0.69	0.01	0.65	88.50	1.90	6.36	0.74	0.56	0.09	0.26	0.06	0.08	0.05	0.05	100.00
	July	0.71	0.01	0.76	84.90	2.51	8.68	0.90	0.72	0.12	0.33	0.09	0.11	0.07	0.09	100.00
	August	0.67	0.01	0.76	87.78	1.97	6.70	0.81	0.66	0.10	0.29	0.08	0.09	0.03	0.05	100.00
	September	0.64	0.01	0.62	88.78	2.07	5.87	0.72	0.60	0.10	0.28	0.07	0.08	0.05	0.11	100.00
	October	0.62	0.01	0.61	89.07	2.22	5.65	0.71	0.55	0.09	0.25	0.06	0.07	0.04	0.05	100.00
	November	0.61	0.01	1.89	87.51	1.79	6.36	0.73	0.56	0.09	0.25	0.06	0.07	0.03	0.04	100.00
	December	0.62	0.01	0.69	88.03	1.96	6.66	0.79	0.60	0.09	0.27	0.07	0.08	0.06	0.07	100.00
	2023 Average	0.64	0.01	0.96	87.85	2.04	6.52	0.76	0.61	0.10	0.27	0.07	0.08	0.05	0.06	100.00

Table 5: Monthly Report of Reservoir and Production Data for Clive D-3A CO_2 Enhanced Oil Recovery Project

	Month	Monthly CO_2 Injection (e3m3)	Cumulative CO_2 Injection (e3m3)	Gas Inj. Formation Vol. Factor (m3/m3)	Reservoir Volume of CO_2 Injected (m3)	Cum. Reservoir Volume of CO_2 Injected (m3)	Hours on Gas Injection (hours)	Net CO_2 Injection (e3m3)	Net Reservoir CO_2 Injection (m3)	Maximum Injection Rate (e3m3/d)	Average Injection Rate (e3m3/d)	Maximum Wellhead Pressure (kPag)	Maximum Wellhead Temperature (˚C)	Average Wellhead Pressure (kPag)	Average Wellhead Temperature (˚C)	Average Reservoir Pressure (kPag)	Estimated Average Bottom Hole Injection Pressure (kPag)
2020	January																
	February																
	March	15,320.9	15,320.9	0.005450	83,574.8	83,574.8	257.8	15,320.9	83,574.8	868.1	418.5	4,221	42.0	2,345	-13.3	13,100	13,281
	April	46,293.6	61,614.5	0.004060	187,796.4	271,371.2	449.7	46,184.2	186,920.5	1,029.1	764.3	4,538	36.1	2,553	-12.6	13,100	13,350
	May	50,706.1	112,320.6	0.004380	222,129.3	493,500.5	744.0	50,706.1	222,129.3	1,204.7	714.9	3,799	13.8	2,286	-14.1	13,100	13,373
	June	43,364.4	155,685.0	0.004140	179,696.6	673,197.0	720.0	43,364.4	179,696.6	987.2	512.0	4,647	15.0	2,572	-11.9	13,100	13,474
	July	47,701.4	203,386.4	0.004180	199,429.8	872,626.8	744.0	47,701.4	199,429.8	988.2	581.6	4,601	7.7	2,603	-11.6	13,100	13,497
	August	53,501.6	256,888.0	0.004230	226,139.3	1,098,766.1	744.0	53,501.6	226,139.3	997.8	582.2	4,260	5.9	2,647	-11.2	13,100	13,506
	September	64,089.8	320,977.8	0.003990	255,783.3	1,354,549.4	720.0	64,089.8	255,783.3	1,001.6	715.0	3,391	3.3	2,593	-11.4	13,100	13,544
	October	56,769.1	377,746.9	0.004290	243,421.4	1,597,970.8	744.0	56,769.0	243,420.8	988.9	642.0	3,736	8.6	2,622	-11.3	13,277	13,518
	November	68,613.8	446,360.7	0.004110	281,924.8	1,879,895.5	720.0	68,609.0	281,905.2	1,014.6	803.4	3,843	0.4	2,835	-9.3	13,378	13,485
	December	55,029.0	501,389.7	0.004080	224,254.1	2,104,149.6	744.0	55,007.5	224,167.4	1,029.3	678.5	5,663	5.2	3,076	-8.1	13,378	13,445
2021	January	83,785.7	585,175.4	0.004090	342,758.9	2,446,908.5	744.0	67,504.9	277,473.0	1,196.7	919.2	4,935	7.5	3,383	-4.4	13,378	13,505
	February	61,351.6	646,527.0	0.004250	260,473.7	2,707,382.2	672.0	36,963.6	157,800.4	1,322.3	748.7	5,502	13.6	3,796	-1.6	13,300	13,499
	March	65,645.7	712,172.7	0.004240	278,122.5	2,985,504.6	744.0	33,096.9	148,903.5	1,210.9	729.7	6,207	17.5	4,516	4.6	13,300	13,531
	April	90,714.2	802,886.9	0.004140	375,134.9	3,360,639.5	720.0	58,896.5	246,273.3	1,402.7	916.0	5,699	15.6	3,770	-0.9	13,300	13,690
	May	100,084.1	902,971.0	0.004140	413,897.0	3,774,536.5	744.0	68,099.3	282,759.4	1,435.9	922.2	4,829	18.4	3,509	-2.7	13,340	13,894
	June	81,691.5	984,662.5	0.004230	345,865.5	4,120,402.0	720.0	55,432.3	232,688.3	1,419.8	923.8	5,601	14.8	3,727	-0.9	13,340	14,145
	July	96,169.1	1,080,831.6	0.004140	397,979.9	4,518,381.9	744.0	64,587.1	265,651.4	1,400.1	1,052.9	4,844	9.0	3,986	1.9	13,340	14,465
	August	92,962.0	1,173,793.6	0.004210	391,283.1	4,909,664.9	744.0	58,868.8	246,727.9	1,183.7	1,020.9	4,649	7.2	4,053	2.2	13,363	14,737
	September	88,299.1	1,262,092.7	0.004210	371,793.7	5,281,458.6	720.0	54,926.3	231,961.8	1,531.3	1,020.9	4,744	17.4	4,078	2.3	13,363	14,414
	October	90,820.8	1,352,913.5	0.004150	376,921.9	5,658,380.5	744.0	55,523.2	235,025.5	1,403.4	1,046.2	4,965	9.9	4,032	1.1	13,363	14,630
	November	89,235.6	1,442,149.1	0.004160	371,640.0	6,030,020.5	720.0	56,138.6	239,251.9	1,387.5	1,015.7	4,327	2.9	3,649	-2.6	13,363	14,563
	December	94,166.2	1,536,315.3	0.004160	391,839.0	6,421,859.5	744.0	58,220.2	249,133.3	1,282.3	858.1	4,152	1.5	3,338	-5.9	13,363	14,139
2022	January	81,413.9	1,617,729.2	0.004170	339,181.7	6,761,041.2	744.0	48,340.2	204,902.5	1,266.8	740.1	5,543	7.9	3,455	-5.9	13,363	13,718
	February	86,463.3	1,704,192.5	0.004170	360,515.8	7,121,556.9	672.0	52,789.9	228,852.8	1,410.2	921.8	4,261	6.4	3,276	-7.0	13,413	13,887
	March	94,830.3	1,799,022.8	0.004080	387,276.0	7,508,832.9	744.0	59,862.2	250,550.8	1,725.7	932.4	4,263	3.9	3,193	-8.0	13,413	14,020
	April	97,333.9	1,896,356.7	0.004100	398,644.6	7,907,477.5	720.0	66,978.6	279,044.8	1,612.9	1,000.1	4,185	3.8	3,168	-8.4	13,413	14,046
	May	108,182.2	2,004,538.9	0.004080	441,889.3	8,349,366.8	744.0	69,840.9	293,508.5	1,333.4	1,020.7	3,934	-1.3	3,446	-5.5	13,413	14,056
	June	98,967.3	2,103,506.2	0.004220	418,098.1	8,767,464.9	720.0	61,035.1	269,024.6	4,492.9	979.3	4,504	18.7	3,727	-2.3	13,413	14,076
	July	106,273.0	2,209,779.2	0.004230	449,732.7	9,217,197.6	744.0	69,164.1	299,812.8	1,189.5	1,008.6	4,437	6.8	3,821	-0.9	13,413	14,032
	August	64,614.2	2,274,393.4	0.004300	277,688.6	9,494,886.2	744.0	25,111.1	121,651.4	1,190.3	690.2	7,104	22.4	4,832	7.2	13,451	13,954
	September	46,485.9	2,320,879.3	0.004180	194,259.2	9,689,145.4	536.0	7,015.7	39,141.5	2,681.2	576.3	6,960	21.5	4,771	8.8	13,449	13,799
	October	52,401.1	2,373,280.4	0.004380	229,765.0	9,918,910.4	744.0	11,694.5	68,567.0	3,303.0	772.7	6,732	19.4	4,615	7.2	13,449	13,940
	November	58,417.5	2,431,697.9	0.004300	251,309.5	10,170,219.9	720.0	21,699.6	107,742.4	3,087.0	723.5	5,984	8.9	3,958	1.4	13,449	13,741
	December	100,508.7	2,532,206.6	0.004140	416,080.2	10,586,300.1	744.0	64,227.5	274,220.5	3,375.5	1,024.1	5,121	6.7	3,443	-2.7	13,449	13,936
2023	January	110,865.8	2,643,072.4	0.004100	455,096.5	11,041,396.7	744.0	66,836.3	284,702.3	2,608.5	818.8	4,659	9.4	3,376	-2.6	13,449	13,674
	February	103,401.6	2,746,474.0	0.004120	426,288.2	11,467,684.9	672.0	62,245.1	267,423.9	2,301.1	844.1	4,068	8.5	3,387	-2.3	13,449	13,906
	March	114,379.7	2,860,853.7	0.004130	472,401.5	11,940,086.3	744.0	70,282.7	302,628.1	2,656.6	843.3	4,922	9.1	3,333	-1.5	13,449	14,329
	April	97,868.6	2,958,722.3	0.004180	409,258.5	12,349,344.8	720.0	49,811.4	221,835.3	3,299.3	750.3	4,982	7.7	3,231	1.6	13,449	14,149
	May	117,233.2	3,075,955.5	0.004110	482,138.3	12,831,483.0	744.0	67,024.8	288,835.8	2,561.6	866.4	5,839	22.9	4,131	5.3	13,502	14,029
	June	118,300.1	3,194,255.6	0.004120	486,928.2	13,318,411.3	720.0	68,420.0	294,889.8	3,112.6	902.5	7,007	25.5	4,372	9.9	13,502	14,011
	July	121,553.1	3,315,808.7	0.004060	493,614.7	13,812,026.0	744.0	76,190.9	320,331.0	3,261.4	895.3	5,722	28.2	4,264	10.2	13,502	14,137
	August	125,996.4	3,441,805.1	0.004130	520,980.3	14,333,006.3	744.0	71,163.9	312,068.5	3,109.7	934.6	6,637	21.5	4,210	8.4	13,502	15,079
	September	123,063.8	3,564,868.9	0.004200	517,222.4	14,850,228.7	720.0	68,721.9	307,462.7	3,214.9	949.3	5,479	12.4	3,877	4.9	13,357	14,981
	October	122,217.8	3,687,086.7	0.004160	508,904.3	15,359,133.1	744.0	69,732.1	309,458.7	3,210.6	911.0	7,915	20.5	4,443	6.3	13,357	14,328
	November	122,841.3	3,809,928.0	0.004300	527,899.1	15,887,032.2	720.0	66,785.8	312,085.5	3,030.2	948.2	5,267	8.0	3,693	1.3	13,357	14,126
	December	132,182.8	3,942,110.8	0.004190	553,742.3	16,440,774.5	744.0	71,722.3	321,574.0	3,399.1	1,027.9	5,290	9.3	3,866	1.8	13,357	14,085

Table 6: Monthly Net CO_2 Report for the Clive D-3A CO_2 Enhanced Oil Recovery Project

	Month	Average Reservoir Pressure (kPag)	Gas Formation Vol. Factor (m3/m3)	Monthly Gas Production (e3m3)	Monthly CO_2 Concentration (%)	Monthly CO_2 Production (e3m3)	Monthly CO_2 Injection (e3m3)	Net CO_2 Injection (e3m3)	Net CO2 Injection (Tonne)	Reservoir Volume of CO_2 Produced (m3)	Reservoir Volume of CO_2 Injected (m3)	Net Reservoir Volume of CO_2 Injected (m3)	Net Reservoir CO_2 Injection (Tonne)
2020	January												
	February												
	March	13,100	0.008010				15,320.9	15,320.9	28,521.5	0.0	83,574.8	83,574.8	28,521.5
	April	13,100	0.008010	142.2	76.90%	109.4	46,293.6	46,184.2	85,977.1	875.9	187,796.4	186,920.5	85,977.1
	May	13,100	0.008010	0.0			50,706.1	50,706.1	94,395.0	0.0	222,129.3	222,129.3	94,395.0
	June	13,100	0.008010	0.0			43,364.4	43,364.4	80,727.6	0.0	179,696.6	179,696.6	80,727.6
	July	13,100	0.008010	0.0			47,701.4	47,701.4	88,801.4	0.0	199,429.8	199,429.8	88,801.4
	August	13,100	0.008010	0.0			53,501.6	53,501.6	99,599.1	0.0	226,139.3	226,139.3	99,599.1
	September	13,100	0.008010	0.0			64,089.8	64,089.8	119,310.2	0.0	255,783.3	255,783.3	119,310.2
	October	13,277	0.004270	0.2	68.29%	0.1	56,769.1	56,769.0	105,681.7	0.6	243,421.4	243,420.8	105,681.7
	November	13,378	0.004060	6.0	80.22%	4.8	68,613.8	68,609.0	127,723.2	19.5	281,924.8	281,905.2	127,723.2
	December	13,378	0.004030	25.3	85.03%	21.5	55,029.0	55,007.5	102,402.5	86.7	224,254.1	224,167.4	102,402.5
	2020	13,173	0.00415	173.7	78.19%	135.8	501,389.7	501,253.9	933,139.2	982.7	2,104,149.6	2,103,166.9	933,139.2
2021	January	13,378	0.004010	18,137.3	89.76%	16,280.8	83,785.7	67,504.9	125,667.9	65,285.9	342,758.9	277,473.0	125,667.9
	February	13,300	0.004210	26,965.9	90.44%	24,388.0	61,351.6	36,963.6	68,811.9	102,673.3	260,473.7	157,800.4	68,811.9
	March	13,300	0.003970	36,077.6	90.22%	32,548.8	65,645.7	33,096.9	61,613.4	129,218.9	278,122.5	148,903.5	61,613.4
	April	13,300	0.004050	34,887.8	91.20%	31,817.7	90,714.2	58,896.5	109,642.4	128,861.6	375,134.9	246,273.3	109,642.4
	May	13,340	0.004100	35,440.2	90.25%	31,984.8	100,084.1	68,099.3	126,774.4	131,137.6	413,897.0	282,759.4	126,774.4
	June	13,340	0.004310	28,865.8	90.97%	26,259.2	81,691.5	55,432.3	103,193.3	113,177.2	345,865.5	232,688.3	103,193.3
	July	13,340	0.004190	35,318.7	89.42%	31,582.0	96,169.1	64,587.1	120,236.0	132,328.5	397,979.9	265,651.4	120,236.0
	August	13,363	0.004240	37,912.5	89.93%	34,093.2	92,962.0	58,868.8	109,590.8	144,555.1	391,283.1	246,727.9	109,590.8
	September	13,363	0.004190	37,043.8	90.09%	33,372.8	88,299.1	54,926.3	102,251.4	139,831.9	371,793.7	231,961.8	102,251.4
	October	13,363	0.004020	39,511.5	89.34%	35,297.6	90,820.8	55,523.2	103,362.5	141,896.3	376,921.9	235,025.5	103,362.5
	November	13,363	0.004000	37,766.9	87.64%	33,097.0	89,235.6	56,138.6	104,508.1	132,388.1	371,640.0	239,251.9	104,508.1
	December	13,363	0.003970	40,276.1	89.25%	35,946.0	94,166.2	58,220.2	108,383.3	142,705.7	391,839.0	249,133.3	108,383.3
	2021	13,343	0.004172	408,204.1	89.82%	366,667.8	1,034,925.6	668,257.8	1,244,035.4	1,504,060.2	4,317,709.9	2,813,649.7	1,244,035.4
2022	January	13,363	0.004060	37,384.5	88.47%	33,073.7	81,413.9	48,340.2	89,990.6	134,279.2	339,181.7	204,902.5	89,990.6
	February	13,413	0.003910	37,789.4	89.11%	33,673.4	86,463.3	52,789.9	98,274.2	131,662.9	360,515.8	228,852.8	98,274.2
	March	13,413	0.003910	39,030.8	89.59%	34,968.1	94,830.3	59,862.2	111,440.1	136,725.2	387,276.0	250,550.8	111,440.1
	April	13,413	0.003940	35,299.3	85.99%	30,355.3	97,333.9	66,978.6	124,688.1	119,599.8	398,644.6	279,044.8	124,688.1
	May	13,413	0.003870	44,515.6	86.13%	38,341.3	108,182.2	69,840.9	130,016.5	148,380.8	441,889.3	293,508.5	130,016.5
	June	13,413	0.003930	43,470.3	87.26%	37,932.2	98,967.3	61,035.1	113,623.6	149,073.5	418,098.1	269,024.6	113,623.6
	July	13,413	0.004040	42,250.8	87.83%	37,108.9	106,273.0	69,164.1	128,756.6	149,919.9	449,732.7	299,812.8	128,756.6
	August	13,451	0.003950	45,631.4	86.57%	39,503.1	64,614.2	25,111.1	46,747.1	156,037.3	277,688.6	121,651.4	46,747.1
	September	13,449	0.003930	45,062.4	87.59%	39,470.2	46,485.9	7,015.7	13,060.6	155,117.7	194,259.2	39,141.5	13,060.6
	October	13,449	0.003960	45,380.8	89.70%	40,706.6	52,401.1	11,694.5	21,770.6	161,198.0	229,765.0	68,567.0	21,770.6
	November	13,449	0.003910	42,025.8	87.37%	36,717.9	58,417.5	21,699.6	40,396.1	143,567.2	251,309.5	107,742.4	40,396.1
	December	13,449	0.003910	40,619.4	89.32%	36,281.2	100,508.7	64,227.5	119,566.5	141,859.7	416,080.2	274,220.5	119,566.5
	2022	13,424	0.004182	498,460.5	87.90%	438,131.8	995,891.3	557,759.5	1,038,330.6	1,727,421.1	4,164,440.7	2,437,019.6	1,038,330.6
2023	January	13,449	0.003870	49,382.6	89.16%	44,029.5	110,865.8	66,836.3	124,423.1	170,394.3	455,096.5	284,702.3	124,423.1
	February	13,449	0.003860	46,588.8	88.34%	41,156.5	103,401.6	62,245.1	115,876.0	158,864.3	426,288.2	267,423.9	115,876.0
	March	13,449	0.003850	50,477.3	87.36%	44,097.0	114,379.7	70,282.7	130,839.0	169,773.3	472,401.5	302,628.1	130,839.0
	April	13,449	0.003900	55,874.0	86.01%	48,057.2	97,868.6	49,811.4	92,729.3	187,423.2	409,258.5	221,835.3	92,729.3
	May	13,502	0.003850	56,598.4	88.71%	50,208.4	117,233.2	67,024.8	124,774.0	193,302.5	482,138.3	288,835.8	124,774.0
	June	13,502	0.003850	56,361.7	88.50%	49,880.1	118,300.1	68,420.0	127,371.3	192,038.4	486,928.2	294,889.8	127,371.3
	July	13,502	0.003820	53,430.2	84.90%	45,362.2	121,553.1	76,190.9	141,837.7	173,283.8	493,614.7	320,331.0	141,837.7
	August	13,502	0.003810	8,019.2	87.78%	54,832.5	125,996.4	71,163.9	132,479.4	208,911.8	520,980.3	312,068.5	132,479.4
	September	13,357	0.003860	7,775.6	88.78%	54,341.9	123,063.8	68,721.9	127,933.4	209,759.7	517,222.4	307,462.7	127,933.4
	October	13,357	0.003800	7,321.1	89.07%	52,485.7	122,217.8	69,732.1	129,814.0	199,445.7	508,904.3	309,458.7	129,814.0
	November	13,357	0.003850	7,542.1	87.51%	56,055.5	122,841.3	66,785.8	124,329.1	215,813.7	527,899.1	312,085.5	124,329.1
	December	13,357	0.003840	16,666.3	88.03%	60,460.5	132,182.8	71,722.3	133,519.0	232,168.3	553,742.3	321,574.0	133,519.0
	2023	13,436	0.004152	416,037.3	87.85%	600,967.2	1,409,904.2	808,937.0	1,505,925.3	2,311,178.9	5,854,474.3	3,543,295.4	1,505,925.3

Table 7: Monthly Report of Reservoir Voidage for Clive D-3A CO_2 Enhanced Oil Recovery Project

	Month	Average Reservoir Pressure (kPag)	Monthly Oil Production (m3)	Oil Formation Vol. Factor (m3/m3)	Reservoir Volume of Oil Produced (m3)	Monthly Gas Production (e3m3)	Monthly CO2 Production (e3m3)	Gas Formation Vol. Factor (m3/m3)	Solution Gas/Oil Ratio (m3/m3)	Reservoir Volume of Gas Produced (m3)	Reservoir Volume of CO2 Produced (m3)	Monthly Water Production (m3)	Water Formation Vol. Factor (m3/m3)	Reservoir Volume of Water Produced (m3)	Monthly Water Injection (m3)	Reservoir Volume of Water injected (m3)	Monthly Gas Injection (e3m3)	Monthly CO_2 Injection (e3m3)	Gas Inj. Formation Vol. Factor (m3/m3)	Reservoir Volume Gas Injected (m3)	Cumulative Reservoir Volume Injected (m3)	Reservoir Volume Produced (m3)	Cumulative Reservoir Volume Produced (m3)	Voidage Replacement Ratio	Cum. Voidage Replacement Ratio	Part 1 Area Cum. Voidage Replacement Ratio
2020	January	13,100.0	0.0	1.38697	0.0	0.0	0.0	0.00801	131.4	0.0	0.0	0.0	1.02004	0.0							0.0	0.0	0.0			0.00
	February	13,100.0	0.0	1.38697	0.0	0.0	0.0	0.00801	131.4	0.0	0.0	0.0	1.02004	0.0							0.0	0.0	0.0			0.00
	March	13,100.0	0.0	1.38697	0.0	0.0	0.0	0.00801	131.4	0.0	0.0	0.0	1.02004	0.0			323.6	15,320.9	0.00545	85,340.0	85,340.0	0.0	0.0			0.01
	April	13,100.0	130.4	1.38697	180.9	142.2	0.0	0.00801	131.4	1,002.0	0.0	697.9	1.02004	711.9			662.9	46,293.6	0.00406	190,485.6	275,825.6	1,894.7	1,894.7	100.53	145.58	0.02
	May	13,100.0	0.0	1.38697	0.0	0.0	0.0	0.00801	131.4	0.0	0.0	0.0	1.02004	0.0			899.5	50,706.1	0.00438	226,069.7	501,895.3	0.0	1,894.7		264.89	0.03
	June	13,100.0	0.0	1.38697	0.0	0.0	0.0	0.00801	131.4	0.0	0.0	0.0	1.02004	0.0			762.5	43,364.4	0.00414	182,856.3	684,751.6	0.0	1,894.7		361.40	0.04
	July	13,100.0	0.0	1.38697	0.0	0.0	0.0	0.00801	131.4	0.0	0.0	0.0	1.02004	0.0			1,143.1	47,701.4	0.00418	204,208.8	888,960.4	0.0	1,894.7		469.18	0.05
	August	13,100.0	0.0	1.38697	0.0	0.0	0.0	0.00801	131.4	0.0	0.0	0.0	1.02004	0.0			1,314.6	53,501.6	0.00423	231,695.8	1,120,656.2	0.0	1,894.7		591.46	0.07
	September	13,100.0	0.0	1.38697	0.0	0.0	0.0	0.00801	131.4	0.0	0.0	0.0	1.02004	0.0			515.9	64,089.8	0.00399	257,842.3	1,378,498.4	0.0	1,894.7		727.55	0.08
	October	13,276.7	86.5	1.39010	120.2	0.2	0.0	0.00427	132.8	0.0	0.0	8,450.8	1.02001	8,619.9			597.4	56,769.1	0.00429	245,983.0	1,624,481.5	8,740.2	10,634.9	28.14	152.75	0.10
	November	13,377.5	215.5	1.39188	300.0	6.0	0.0	0.00406	133.6	0.0	0.0	23,743.1	1.02000	24,218.0			766.3	68,613.8	0.00411	285,073.4	1,909,554.8	24,517.9	35,152.8	11.63	54.32	0.11
	December	13,377.5	486.9	1.39188	677.7	25.3	0.0	0.00403	133.6	0.0	0.0	33,902.8	1.02000	34,580.8			844.8	55,029.0	0.00408	227,696.8	2,137,251.7	35,258.6	70,411.3	6.46	30.35	0.13
2021	January	13,377.5	2,046.0	1.39188	2,847.8	18,137.3	0.0	0.00401	133.6	71,602.3	0.0	46,563.2	1.02000	47,494.4			2,477.9	83,785.7	0.00409	352,895.7	2,490,147.4	121,944.5	192,355.9	2.89	12.95	0.15
	February	13,300.4	2,753.9	1.39052	3,829.3	26,965.9	0.0	0.00421	133.0	111,928.5	0.0	49,553.4	1.02001	50,544.9			3,082.2	61,351.6	0.00425	273,559.5	2,763,706.8	166,302.8	358,658.6	1.64	7.71	0.16
	March	13,300.4	3,496.7	1.39052	4,862.2	36,077.6	0.0	0.00397	133.0	141,350.4	0.0	55,981.8	1.02001	57,102.0			4,424.1	65,645.7	0.00424	296,866.1	3,060,572.9	203,314.6	561,973.2	1.46	5.45	0.17
	April	13,300.4	3,514.8	1.39052	4,887.4	34,887.8	0.0	0.00405	133.0	139,485.7	0.0	50,852.3	1.02001	51,869.8			3,594.7	90,714.2	0.00414	390,000.2	3,450,573.2	196,242.9	758,216.1	1.99	4.55	0.19
	May	13,339.5	3,768.8	1.39121	5,243.2	35,440.2	0.0	0.00410	133.3	143,076.2	0.0	30,213.1	1.02000	30,817.5			3,648.0	100,084.1	0.00414	428,983.3	3,879,556.4	179,136.9	937,353.1	2.39	4.14	0.22
	June	13,339.5	2,908.1	1.39121	4,045.8	28,865.8	0.0	0.00431	133.3	122,728.9	0.0	29,796.0	1.02000	30,392.1	31,069.8	31,691.3	2,909.5	81,691.5	0.00423	358,183.7	4,269,431.5	157,166.8	1,094,519.8	2.48	3.90	0.24
	July	13,339.5	3,555.9	1.39121	4,947.0	35,318.7	0.0	0.00419	133.3	145,976.0	0.0	38,553.9	1.02000	39,325.2	42,883.4	43,741.3	3,497.2	96,169.1	0.00414	412,452.5	4,725,625.2	190,248.1	1,284,768.0	2.40	3.68	0.26
	August	13,363.1	3,780.3	1.39163	5,260.8	37,912.5	0.0	0.00424	133.5	158,632.3	0.0	41,151.6	1.02000	41,974.7	48,342.0	49,308.9	3,968.1	92,962.0	0.00421	407,985.1	5,182,919.2	205,867.8	1,490,635.7	2.22	3.48	0.28
	September	13,363.1	3,560.0	1.39163	4,954.2	37,043.8	0.0	0.00419	133.5	153,165.8	0.0	37,005.2	1.02000	37,745.4	32,847.2	33,504.2	4,098.4	88,299.1	0.00421	389,050.5	5,605,473.9	195,865.4	1,686,501.1	2.16	3.32	0.30
	October	13,363.1	3,774.7	1.39163	5,253.0	39,511.5	0.0	0.00402	133.5	156,954.6	0.0	38,824.2	1.02000	39,600.7	44,826.1	45,722.7	4,575.8	90,820.8	0.00415	395,912.2	6,047,108.8	201,808.3	1,888,309.4	2.19	3.20	0.32
	November	13,363.1	3,559.3	1.39163	4,953.2	37,766.9	0.0	0.00400	133.5	149,338.0	0.0	35,206.1	1.02000	35,910.3	40,048.9	40,849.9	4,349.4	89,235.6	0.00416	389,753.9	6,477,712.6	190,201.5	2,078,510.9	2.26	3.12	0.34
	December	13,363.1	3,635.7	1.39163	5,059.5	40,276.1	0.0	0.00397	133.5	157,938.3	0.0	32,254.6	1.02000	32,899.7	19,744.2	20,139.1	4,746.1	94,166.2	0.00416	411,588.2	6,909,440.0	195,897.6	2,274,408.6	2.20	3.04	0.36
2022	January	13,363.1	3,337.3	1.39163	4,644.3	37,384.5	0.0	0.00406	133.5	149,931.3	0.0	23,141.9	1.02000	23,604.8	11,543.7	11,774.6	4,440.7	81,413.9	0.00417	357,682.3	7,278,896.8	178,180.3	2,452,588.9	2.07	2.97	0.37
	February	13,412.9	3,445.4	1.39251	4,797.8	37,789.4	0.0	0.00391	133.9	145,884.7	0.0	19,337.4	1.01999	19,724.0	23,520.3	23,990.6	4,978.4	86,463.3	0.00417	381,273.6	7,684,161.0	170,406.5	2,622,995.3	2.38	2.93	0.39
	March	13,412.9	3,644.6	1.39251	5,075.1	39,030.8	0.0	0.00391	133.9	150,543.0	0.0	16,427.0	1.01999	16,755.5	19,876.3	20,273.7	4,281.1	94,830.3	0.00408	404,759.5	8,109,194.3	172,373.6	2,795,368.9	2.47	2.90	0.41
	April	13,412.9	3,386.5	1.39251	4,715.7	35,299.3	0.0	0.00394	133.9	137,277.1	0.0	13,241.2	1.01999	13,506.0	16,206.4	16,530.5	4,346.1	97,333.9	0.00410	416,444.6	8,542,169.3	155,498.8	2,950,867.7	2.78	2.89	0.43
	May	13,412.9	3,984.6	1.39251	5,548.6	44,515.6	0.0	0.00387	133.9	170,043.3	0.0	13,854.1	1.01999	14,131.1	17,404.7	17,752.7	5,144.6	108,182.2	0.00408	462,903.3	9,022,825.4	189,723.0	3,140,590.7	2.53	2.87	0.45
	June	13,412.9	3,782.0	1.39251	5,266.5	43,470.3	0.0	0.00393	133.9	168,857.1	0.0	11,750.4	1.01999	11,985.3	15,779.6	16,095.1	6,747.6	98,967.3	0.00422	446,604.0	9,485,524.5	186,108.9	3,326,699.6	2.49	2.85	0.47
	July	13,412.9	3,670.6	1.39251	5,111.3	42,250.8	0.0	0.00404	133.9	168,542.3	0.0	9,621.7	1.01999	9,814.1	13,935.1	14,213.7	6,319.9	106,273.0	0.00423	476,477.6	9,976,215.9	183,467.7	3,510,167.3	2.67	2.84	0.49
	August	13,451.4	3,950.7	1.39319	5,504.1	45,631.4	0.0	0.00395	134.2	177,985.4	0.0	9,381.9	1.01999	9,569.4	22,339.8	22,786.4	6,048.5	64,614.2	0.00430	303,682.9	10,302,685.1	193,058.9	3,703,226.2	1.69	2.78	0.50
	September	13,448.8	3,847.9	1.39314	5,360.7	45,062.4	0.0	0.00393	134.1	174,898.7	0.0	9,220.2	1.01999	9,404.5	42,836.7	43,693.0	5,572.3	46,485.9	0.00418	217,545.2	10,563,923.4	189,663.9	3,892,890.1	1.38	2.71	0.51
	October	13,448.8	3,833.3	1.39314	5,340.3	45,380.8	0.0	0.00396	134.1	177,812.1	0.0	12,942.1	1.01999	13,200.8	48,895.7	49,873.1	5,694.8	52,401.1	0.00438	254,735.2	10,868,531.7	196,353.2	4,089,243.3	1.55	2.66	0.52
	November	13,448.8	3,495.7	1.39314	4,870.0	42,025.8	0.0	0.00391	134.1	162,627.5	0.0	11,681.0	1.01999	11,914.5	44,395.7	45,283.2	5,440.4	58,417.5	0.00430	274,713.9	11,188,528.8	179,412.0	4,268,655.3	1.78	2.62	0.53
	December	13,448.8	3,347.2	1.39314	4,663.1	40,619.4	0.0	0.00391	134.1	156,916.0	0.0	11,846.4	1.01999	12,083.2	44,291.0	45,176.4	5,841.4	100,508.7	0.00414	440,262.1	11,673,967.3	173,662.4	4,442,317.7	2.80	2.63	0.55
2023	January	13,448.8	3,932.1	1.39314	5,478.0	49,382.6	0.0	0.00387	134.1	189,165.9	0.0	12,056.0	1.01999	12,297.0	45,853.6	46,770.2	6,704.7	110,865.8	0.00410	482,618.9	12,203,356.4	206,940.9	4,649,258.6	2.56	2.62	0.56
	February	13,448.8	3,760.6	1.39314	5,239.1	46,588.8	0.0	0.00386	134.1	178,027.6	0.0	10,538.6	1.01999	10,749.3	41,887.5	42,724.8	5,907.8	103,401.6	0.00412	450,644.0	12,696,725.2	194,016.0	4,843,274.5	2.54	2.62	0.58
	March	13,448.8	4,120.4	1.39314	5,740.3	50,477.3	0.0	0.00385	134.1	192,446.2	0.0	9,509.4	1.01999	9,699.5	47,450.7	48,399.3	6,522.9	114,379.7	0.00413	499,341.8	13,244,466.2	207,886.0	5,051,160.5	2.63	2.62	0.60
	April	13,448.8	4,344.6	1.39314	6,052.7	55,874.0	0.0	0.00390	134.1	215,816.3	0.0	8,616.8	1.01999	8,789.1	44,244.9	45,129.4	6,851.5	97,868.6	0.00418	437,909.5	13,727,505.0	230,658.0	5,281,818.6	2.09	2.60	0.62
	May	13,502.1	4,443.5	1.39409	6,194.6	56,598.4	0.0	0.00385	134.6	215,390.5	0.0	7,483.6	1.01998	7,633.1	39,584.3	40,375.3	7,262.4	117,233.2	0.00411	512,005.9	14,279,886.3	229,218.3	5,511,036.8	2.41	2.59	0.64
	June	13,502.1	4,333.7	1.39409	6,041.6	56,361.7	0.0	0.00385	134.6	214,572.3	0.0	14,513.4	1.01998	14,803.4	50,264.8	51,269.3	7,088.2	118,300.1	0.00412	516,103.6	14,847,259.1	235,417.3	5,746,454.1	2.41	2.58	0.65
	July	13,502.1	4,191.5	1.39409	5,843.3	53,430.2	0.0	0.00382	134.6	201,810.2	0.0	15,518.4	1.01998	15,828.5	48,629.2	49,601.0	6,688.8	121,553.1	0.00406	520,777.2	15,417,637.3	223,482.0	5,969,936.1	2.55	2.58	0.67
	August	13,502.1	4,755.5	1.39409	6,629.6	8,019.2	54,832.5	0.00381	134.6	28,117.3	208,926.6	22,456.5	1.01998	22,905.3	42,388.1	43,235.2	8,772.8	125,996.4	0.00413	557,254.8	16,018,127.3	266,578.7	6,236,514.8	2.25	2.57	0.69
	September	13,357.0	4,747.4	1.39152	6,606.1	7,775.6	54,341.9	0.00386	133.4	27,534.4	209,495.3	19,292.2	1.02000	19,678.1	40,223.6	41,028.2	10,170.9	123,063.8	0.00420	559,969.5	16,619,124.9	263,313.9	6,499,828.8	2.28	2.56	0.71
	October	13,357.0	4,535.5	1.39152	6,311.2	7,321.1	52,485.7	0.00380	133.4	25,551.4	199,683.4	16,778.4	1.02000	17,114.0	37,388.7	38,136.6	9,736.8	122,217.8	0.00416	549,447.5	17,206,709.0	248,660.1	6,748,488.8	2.36	2.55	0.73
	November	13,357.0	4,596.9	1.39152	6,396.7	7,542.1	56,055.5	0.00385	133.4	26,669.0	215,756.4	14,121.2	1.02000	14,403.7	44,436.4	45,325.2	10,323.7	122,841.3	0.00430	572,264.3	17,824,298.5	263,225.7	7,011,714.5	2.35	2.54	0.74
	December	13,357.0	5,723.2	1.39152	7,963.9	16,666.3	60,460.5	0.00384	133.4	61,107.1	232,321.7	17,287.2	1.02000	17,633.0	50,928.8	51,947.5	16,434.7	132,182.8	0.00419	622,590.8	18,498,836.8	319,025.7	7,330,740.2	2.11	2.52	0.76

ATTACHMENTS

ATTACHMENT 1

MMV Soil & Groundwater Monitoring 2023 Annual Report

Clive CO_2 Injection & Enhanced Oil Recovery Project

MMV Soil & Groundwater Monitoring

2023 Annual Report

Prepared for

Enhance Energy Inc.

Integrated Sustainability

15 April 2024

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Document Number:	CP23-EEI-02-00-RPT-WR-2023_GWSG_Report-Rev1
Document Path:	\\iscfil01\projects\EEI\CP23-EEI-02-00\5.0_Tech_Exec\5.6_GeoSci\5.0 Report\Rev 1\CP23-EEI-02-00-RPT-WR-2023_GWSG_Report-Rev1.docx
Document Revision Number:	1

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Any questions concerning the information, or its interpretation should be directed to Emily Guzman.

Document Revision History

Rev No.	Rev Description	Author	Reviewer	Approver	Rev Date
A	Issued for Review	Jon Fennell / Joseph Cruz	Vance Matthews	Emily Guzman	13-Feb-2024
0	Issued as Final	Jon Fennell / Joseph Cruz	Vance Matthews	Emily Guzman	11-Mar-2024
1	Issued as Final	Jon Fennell / Joseph Cruz	Vance Matthews	Emily Guzman	15-Apr-2024

INTEGRATED SUSTAINABILITY

Table of Contents

DISCLAIMER ..... **II**

EXECUTIVE SUMMARY ..... **VI**

1 INTRODUCTION **1**

1.1 Project Background 1

1.2 Scope of Report 2

1.3 Program changes and execution 2

2 GEOSPHERE MONITORING **3**

2.1 Gas Composition 3

2.2 Isotopic Character 4

2.3 Data Trends 5

3 HYDROSPHERE MONITORING **8**

3.1 Data Trends 11

4 BIOSPHERE MONITORING **11**

4.1 Data trends 15

5 ATMOSPHERE MONITORING **17**

6 SUMMARY AND CONCLUSIONS **17**

7 CLOSURE **20**

8 BIBLIOGRAPHY **21**

Tables within Text

TABLE A. COMPARISON OF GAS COMPOSITIONS IN VARIOUS BEDROCK FORMATIONS **3**

TABLE B. COMPARISON OF ISOTOPE COMPOSITIONS IN VARIOUS GAS FRACTIONS AND RELATED FORMATIONS **4**

TABLE C. SUMMARY OF SELECTED GROUNDWATER PARAMETERS, ASSESSMENT CRITERIA, AND % EXCEEDANCES OF ASSESSMENT CRITERIA **9**

TABLE D. SUMMARY OF SOIL GAS MEASUREMENTS INCLUDING THOSE MADE IN 2023 ..... **11**

TABLE E. FILTERED CO_2 TREND RESULTS, PROBABILITY > 95% AND NORMALIZED SLOPE > ± 10%/YEAR **15**

TABLE F. FILTERED CH_4 TREND RESULTS, PROBABILITY > 95% AND NORMALIZED SLOPE > ± 10%/YEAR **15**

TABLE G. FILTERED H_2S TREND RESULTS, PROBABILITY > 95% AND NORMALIZED SLOPE > ± 10%/YEAR **16**

TABLE H. FILTERED $\delta^{13}C_{CO2}$ TREND RESULTS, PROBABILITY > 95% AND NORMALIZED SLOPE > ± 10%/YEAR 16
TABLE I. SUMMARY ATMOSPHERIC GAS MEASUREMENTS INCLUDING 2023 17

Figures within Text

FIGURE A. LOCATIONS OF GEOSPHERE MONITORING VII
FIGURE B. TIME SERIES PLOT OF IN CO_2 CONCENTRATIONS IN THE NISKU AND LEDUC FORMATIONS 6
FIGURE C. HISTORICAL CONCENTRATIONS OF CO_2, CH_4, AND H_2S IN CBM MONITORING WELLS 7
FIGURE E. SOIL GAS MEASUREMENTS FOR CO_2 AND CH_4 VERSUS OTHER GAS SOURCES 12
FIGURE F. COMPARISON OF CO_2 CONCENTRATIONS AND $\delta^{13}C_{CO2}$ FOR SOIL GASES AND VARIOUS OTHER GAS SAMPLES 13
FIGURE G. COMPARISON OF $F14C_{CO2}$ AND $\delta^{13}C_{CO2}$ FOR SOIL GASES AND OTHER POTENTIAL SOURCES 14

Tables

TABLE 1A GROUNDWATER ANALYTICAL RESULTS: FIELD PARAMETERS

TABLE 1B GROUNDWATER ANALYTICAL RESULTS: GENERAL, MAJOR IONS, NUTRIENTS,

TABLE 2 GROUNDWATER ANALYTICAL RESULTS: DISSOLVED METALS

TABLE 3 GROUNDWATER ANALYTICAL RESULTS: ISOTOPIC ABUNDANCE

TABLE 4 GROUNDWATER ANALYTICAL RESULTS: MICROBIOLOGICAL PARAMETERS

TABLE 5 SOIL GAS ANALYTICAL RESULTS: MENTHANE ISOTOPE ABUNDANCE

Figures

FIGURE 1 MMV PLAN AREA

FIGURE 2 GAS SAMPLING LOCATIONS

FIGURE 3 MONITORING WELL NETWORK

FIGURE 4 GROUNDWATER TIME SERIES CONCENTRATION PLOT - NORTH 1 DATA

FIGURE 5 GROUNDWATER TIME SERIES CONCENTRATION PLOT - SOUTH DATA

FIGURE 6 GROUNDWATER TIME SERIES CONCENTRATION PLOT - NORTH 2 DATA

FIGURE 7 GROUNDWATER TIME SERIES CONCENTRATION PLOT - NORTH 3 DATA

FIGURE 8 SOIL GAS PROBE NETWORK

FIGURE 9 SOIL GAS PROBE NETWORK CO2 SPRING AND FALL 2023 RESULTS

FIGURE 10 SOIL GAS PROBE NETWORK CH4 SPRING AND FALL 2023 RESULTS

FIGURE 11 SOIL GAS PROBE NETWORK D13C-CO2 SPRING AND FALL 2023 RESULTS

FIGURE 12 SOIL GAS PROBE NETWORK F14C-CO2 SPRING AND FALL 2023 RESULTS

FIGURE 13 TIME SERIES CONCENTRATION PLOT - NORTH 1 DATA

FIGURE 14 TIME SERIES CONCENTRATION PLOT - SOUTH DATA

FIGURE 15 TIME SERIES CONCENTRATION PLOT - NORTH 2 DATA

FIGURE 16 TIME SERIES CONCENTRATION PLOT - NORTH 3 DATA

Appendices

APPENDIX 1: ADDITIONAL GAS ANALYSIS

APPENDIX 2: PROGRAM METHODOLOGY & SAMPLING SCHEDULES

APPENDIX 3: SOIL GAS PROBE LITHOLOGY

EXECUTIVE SUMMARY

Enhance Energy Inc. (Enhance) currently operates an enhanced oil recovery and storage (CCUS) project near the town of Clive, Alberta. Carbon dioxide (CO_2) is captured from two facilities located in Sturgeon County northeast of Edmonton, Alberta. The CO_2 is transported via pipeline to Enhance's facility where it is injected into wells completed in the Leduc Formation. The injection zone is located at a depth of roughly 1,800 to 1,900 m below ground level.

Enhance routinely assesses gases in the bedrock formations, referred to in this report as Geosphere monitoring. This is the first line of defense in the monitoring system to ensure that the injected CO_2 is contained within the storage complex. This monitoring activity is focussed on the Leduc Formation and the Nisku Formation located immediately above the Ireton Formation caprock is also monitored at a number of locations. The purpose of the Nisku monitoring is to confirm geological containment of the injected CO_2 as that interval would show any anomalous changes if the primary geological seal was breached.

Geosphere monitoring locations are shown in Figure A below. How the Leduc and Nisku bedrock intervals have been responding to CO2 injection activities is shown in Figure B within the report. As expected, CO_2 concentrations have been increasing in the Leduc Formation since the start of activities back in March of 2020. In contrast, no departures from normal variability of CO_2 levels have been identified in the overlying Nisku interval – a clear indication the injected CO_2 is remaining secured within the storage complex.

As a second line of defense, Enhance monitors other shallower bedrock formations in the area to detect if any changes in CO_2 levels are occurring. This includes production wells completed in the Mannville Group formations for coal bed methane extraction and/or conventional gas production. No anomalous detections have been made, further confirming containment of the CO_2 in the Leduc Formation.

A third line of defence is offered by the Hydrosphere Monitoring Program. This includes the collection of groundwater samples from private water wells in and around the project area. In some instances, elevated CO_2 and CH_4 concentrations have been detected in the groundwater, which has been linked to well maintenance issues. This has been confirmed through forensic analysis using stable isotopes of carbon in CO_2 and CH_4 fractions ($\delta^{13}C_{CO2}$ and $\delta^{13}C_{CH4}$, respectively), as well as stable sulphur isotopes in the sulphate present in the water ($\delta^{34}S_{SO4}$). So far, the results have indicated conditions favourable for bacterially-mediated sulphate-reduction and methanogenesis via CO_2 reduction given the elevated bacterial counts. However, contributions from off-gassing of coal lenses known to be present in the shallow bedrock cannot be ruled out.

One final line of defense to ensure that the injected CO2 is being contained is from the Biosphere and Atmosphere monitoring that form part of this program. This includes the sampling of soil gases and atmospheric gases at dedicated locations throughout the project area and measurement of CO2, CH4, and H2S levels. Analysis of this data along with diagnostic gas compositions and isotopic fingerprints for gases sourced from the deeper

bedrock formations continues to confirm that the CO2 being injected remains contained within the Leduc storage complex.

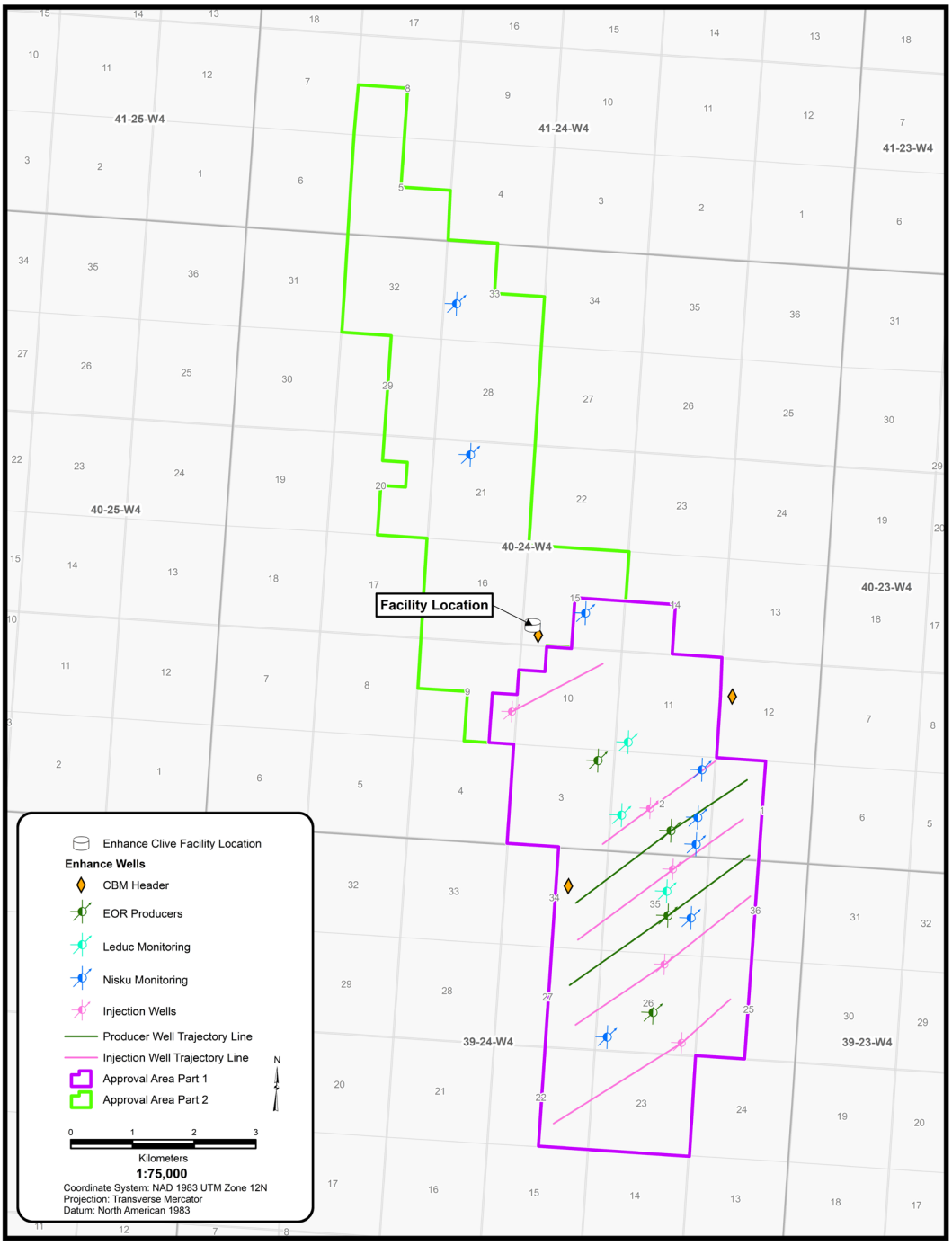

Figure A. Locations of Geosphere Monitoring

With respect to Hydrosphere monitoring, no notable changes from previous baseline conditions were identified in 2023. A number of the water wells still exhibit elevated levels of bacteria suspected to be linked to lack of well maintenance, plus elevated concentrations of related dissolved constituents such as iron and manganese supporting the occurrence of reducing conditions. Notable chloride and nitrate levels in some wells also suggests a possible problem with their sanitary seals. As for trends, the majority (83%) of wells indicate declining trends of various magnitudes.

No anomalous detections were noted over the 2023 monitoring season for soil gas measurements when compared to prior years. Previously, detections of CO_2, CH_4, and H_2S were noted in a couple of locations but this has since been attributed to surface casing vents flows (SCVFs) from shallow gas wells at the same locations where a comparison of the soil gas isotope profiles with the geosphere samples collected from various bedrock formations. The source of gas has been attributed to the Lower Mannville formations (Cretaceous age) based on stable carbon isotopes of various gas fractions (i.e. CH_4 and C_2H_6).

As for temporal changes in soil gas measurements, most statistically-significant trends in CO_2 (with a 95% confidence, or better) indicate downward movement towards lower values over the entire baseline monitoring period. This is the same for CH_4, with only two locations (04-01-040-24W4 and 12-26-039-24W4) indicating increasing trends of minor significance (i.e. approximately 2 parts per million volume [ppmv] per year). With respect to H_2S, several locations have also been showing declining trends of minor significance (0.5 ppmv, or less, per year).

Therefore, the results from the 2023 monitoring program indicate that the injected CO_2 is being contained by the Leduc Formation as required and that changes in Hydrosphere and Biosphere results are due to natural variability or some isolated influences from gas migration upward from Cretaceous bedrock intervals.

1 INTRODUCTION

1.1 Project Background

Enhance Energy Inc. (Enhance) is an Alberta-based company that specializes in enhanced oil recovery (EOR) and carbon capture, utilization and storage (CCUS) by injecting carbon dioxide (CO_2) captured from industrial sources. Enhance operates the Clive Project (the Project) located in Lacombe County, Alberta - about 30 km northeast of the City of Red Deer (Figure 1). The Project receives CO_2 captured from two sources via the Alberta Carbon Trunk Line. These include Nutrien Ltd. (Nutrien) and Northwest Redwater Partnership (NWR).

The CO_2 delivered to the site is injected into the Devonian-aged Leduc Formation at a depth of roughly 1,800 to 1,900 m below ground surface (mbgs). The Leduc Formation is capped by the Ireton Formation shale, a caprock that is broken into an Upper Ireton that consists of shale and limestone, and the Lower Ireton that consists of limestone with shale partings, that separates the Leduc Formation from the overlying Nisku Formation (both also Devonian in age) as well as other shallower Cretaceous-aged Mannville and Colorado Group formations. This also includes the coal-bearing Horseshoe Canyon Formation from which coal bed methane gas is being extracted.

Overlying the bedrock formations is a mantle of unconsolidated glacial deposits of Quaternary age and surficial soils of Holocene age that cover the area. These till deposits have been sourced from local and regional bedrock materials, including the Horseshoe Canyon Formation and other bedrock formations located further to the north.

Enhance has been monitoring the Project area since 2019 pursuant to a regulatory approved Monitoring, Measurement & Verification (MMV) plan. This plan and the monitoring infrastructure put into place has been designed to provide containment assurance of the injected CO_2 in the Leduc Formation. This containment has been demonstrated through multiple lines of evidence including a review of gas compositions in the deeper bedrock formations (Geosphere), freshwater aquifers in upper 50 m or so of surface (Hydrosphere) and in the upper 1 m or so of the soil profile (Biosphere). Samples of atmospheric gases have been collected for comparison with soil gas results to ensure that seals isolating the soil gas probes from the surface remain in competent condition.

Surveillance programs completed since 2019 have developed a useful baseline of soil gas and groundwater quality conditions across the Project area to define the range of natural variability regarding CO_2, CH_4, and H_2S levels, and identify any changes or trends to confirm CO_2 containment within the Leduc Formation.

1.2 Scope of Report

This represents the fifth assessment report completed for the Project's MMV program. The key objectives of this report are to:

- Summarize results of the most recent field campaigns (summer and fall 2023).
- Assess temporal trends of monitoring data to determine if any changes outside of anticipated baseline conditions is evident.
- Investigate anomalous conditions detected in the soil and/or groundwater and assess the source and cause of such detections using geochemical forensics (i.e. gas composition and isotopic signatures).
- Document the findings and update understanding of the baseline conditions in the Geosphere, Hydrosphere, and Biosphere intervals.
- Demonstrate CO_2 containment in the Leduc Formation is being achieved.

1.3 Program changes and execution

Some modifications and refinements were made to the MMV program in 2023. These included:

- Soil gas sampling locations were based on pursuant direction from Enhance, as sufficient baseline data has been collected.
- Soil gas samples were unable to be collected at the following locations:
  - 05-36-039-24 W4M: Soil gas probe was flooded
  - 11-35-039-24 W4M: Soil gas probe was flooded
  - 03-15-040-24 W4M: Unable to access the soil gas probe due to operating equipment on top of the access point
  - 12-36-039-24 W4M: Unable to locate the soil gas probe
- The removal of 10 landowner water well locations, as per direction from Enhance, as sufficient baseline data has been collected.
- The addition of two more landowner water wells to the existing annual schedule for groundwater sampling and analysis, as one landowner was unable to be contacted and a replacement landowner well was sampled, and one landowner who requested an analysis was accommodated (previously sampled but not included in the 2023 program).
  - New land located at 25-039-24 W4M
  - Requested analysis located at 32-040-24 W4M
- The Enhance monitoring wells located at 10-35-039-24 W4M, were sampled in both the summer and fall of the 2023 program as directed by Enhance.

Soil gas sampling included 29 locations in the Spring of 2023 and 30 locations in Fall. Sampling locations which have been deemed to be approaching sufficient baseline

data collection were either sampled once in the Spring or Fall of 2023 or removed from the program as directed by Enhance. 4 soil gas sampling locations were unable to be sampled, 2 locations due to flooding, 1 location due to equipment overlying the soil gas sampling well and 1 location was unable to be located. All soil gas samples were for gas composition and carbon isotopes as per the approved MMV program.

2 GEOSPHERE MONITORING

2.1 Gas Composition

Enhance measures the composition of CO_2 that they inject into the Leduc Formation as part of the Clive CCUS Project. This is done on a monthly basis at three different sample points. The CO_2 received from Nutrien and NWR comprises 95 to 100 mole% CO_2 with a minor component of methane (up to 20 ppm or so). Stable carbon isotope values (i.e. $\delta^{13}C_{CO2}$) from the Nutrien facility are quite unique and range from -42 ‰ to -41‰. In contrast, the CO_2 received from the NWR facility is considerably different with $\delta^{13}C_{CO2}$ values between -27‰ and -25‰. The combined stream, however, yielded a value of -28.6‰ in 2023 indicating a greater contribution of CO_2 from the NWR facility as opposed to Nutrien.

Enhance also measures the composition gas in the Leduc Formation, the overlying Nisku Formation, as well as from selected Cretaceous aged formations in the Project area (Figure 2). These gases, which include CH_4 and ethane (C_2H_6) among others, are also monitored to identify any changes that may require further investigation. This is particularly important for the Nisku Formation because this is the first interval that would experience an increase in CO_2 if a breach of containment in the Leduc Formation were to occur.

Table A provides a summary of compositional ranges (in mole %) for relevant gas fractions being tracked in each of the Geosphere intervals.

Table A. Comparison of gas compositions in various bedrock formations

Formation	CO_2 mole %	CH_4 mole %	C_2H_6 mole %	H_2S mole %
Injected CO_2	95 to 100	≤ 0.2	≤ 0.05	0
Leduc	2 to 98	<1 to 75	<1 to 8	<1 to 17
Nisku	<1 to 12	<1 to 97	<1 to 21	<1 to 41
Mannville	0.3 to 0.5	88 to 91	3 to 4	< 0.002
CBM	≤ 1	95 to 99	≤ 1	0

One particularly useful gas to monitor for is hydrogen sulphide (H_2S) as this tends to exist at quite elevated concentrations in the Nisku and Leduc formations compared to any other Geosphere interval. Sulphur isotopes are also useful given the characteristically enriched $\delta^{34}S$ values of the H_2S in the Devonian formations due to bacterial sulphate reduction. If notable detections of this gas were to be made in shallower bedrock intervals it would suggest the possible upward migration of this gas through a connected pathway - the most likely being a poorly sealed production well. The presence of a natural geological pathway is highly unlikely given that natural gas deposits have remained in place for millions of years in their respective formations. Detections of H_2S in the shallower bedrock formations may also be possible if the right geochemical conditions exist (i.e. sulphate-reducing conditions). Any detections made are subject to investigative review and data comparisons to understand the source and cause to ensure it is not coming from a Devonian bedrock interval.

So far, low to non-detectable concentrations of H_2S have been recorded in the Mannville and CBM wells sampled to date. This supports the conclusion that geological isolation exists between the deeper Devonian intervals (and the Leduc Formation in particular) and the shallower bedrock intervals (or anything shallower).

2.2 Isotopic Character

Isotopes of carbon and sulphur have proven useful in determining the source of hydrocarbons and CO_2 gases, as well as identifying some of the physical, chemical, and biological processes affecting them in the subsurface. $\delta^{13}C$ values for both CO_2 and methane (CH_4) fractions, and $\delta^{34}S$ values for H_2S or dissolved SO_4 in the groundwater have proven particularly useful in understanding the source and cause of anomalous soil or bedrock gas detections as well as groundwater quality conditions.

Since 2019, Enhance has collected a considerable amount of data relating to the isotopes mentioned for both free gas in the bedrock formations and soil gas probes sampled, as well as dissolved or free gas in the groundwater samples collected from the Project area. This includes data for the CO_2 injected into the Leduc Formation as part Enhance's project.

Table B summarizes the characteristic ranges of values for key gases highlighting the similarities and differences between the various formation monitored.

Table B. Comparison of isotope compositions in various gas fractions and related formations

Formation	$\delta^{13}C_{CO2}$ (‰)	$\delta^{13}C_{CH4}$ (‰)	$\delta^{13}C_{C2H6}$ (‰)	$\delta^{34}S$ (‰)	$F14C_{CO2}$
Injected CO_2	-42.8 to -28.6	-39.9 to -29.9	-31.5 to -29.6	--	<0.002 to 0.051
Leduc	-28.3 to 0.5	-40.5 to -32.6	-34.3 to -31.4	15.1 to 17.2	<0.001

Formation	$\delta^{13}C_{CO2}$ (‰)	$\delta^{13}C_{CH4}$ (‰)	$\delta^{13}C_{C2H6}$ (‰)	$\delta^{34}S$ (‰)	$F14C_{CO2}$
Nisku	-13.2 to 3.7	-57.1 to -30.9	-33.9 to -26.3	14.6 to 16.0	<0.002
Mannville	-13.7 to -1.6	-47.2 to -46.0	-28.4 to -27.4	--	--
CBM	-13.8 to 24.5	-58.3 to -52.8	-39.0 to -37.1	--	--

Sulphurous gases contained in the Devonian formations of the Alberta Basin have uniquely positive $\delta^{34}S$ values. This is due to bacterial sulphate reduction that has occurred over the millions of years these gases have been trapped in those formations. $\delta^{34}S$ values measured in the Nisku and Leduc range from about 15‰ to 17‰. In contrast, based on previous studies, shallower groundwater in the upper 50 m or so of the geological strata sampled from water wells in the central portion of Alberta have yielded $\delta^{34}S$ values ranging from -10.3‰ to 0.1‰, with and average of 5.4‰ (Cheung et al. 2010). Fennell and Bentley (1996) also found that shallow surficial sediments in the upper 10 m or so of the soil column in the south-central Alberta Plains yielded average $\delta^{34}S$ values of SO_4 in the groundwater of around -15‰.

The significant contrast between $\delta^{34}S$ values measured in the deeper Devonian intervals and the shallower Hydrosphere and Biosphere intervals has provided Enhance with an additional indicator to validate containment of the injected CO_2 within the deeper bedrock formations (including CO_2 injected into the Leduc Formation). This information is being used to enhance interpretations of measured gas compositions.

A completed listing of historical gas composition and isotope measurements for the various bedrock intervals assessed as part of this MMV program, as well as the CO_2 being injected into the Leduc Formation, is provided in Appendix 1.

2.3 Data Trends

Figure B provides a temporal history of mole% CO_2 measurements collected from the various Nisku and Leduc wells located in the MMV area since the start of CO_2 injection around March 2020. The sharp increase of CO_2 levels in the Leduc interval after initiation of injection operations, and lack of change in the Nisku interval since that time, is direct evidence that CO_2 containment is being achieved and maintained.

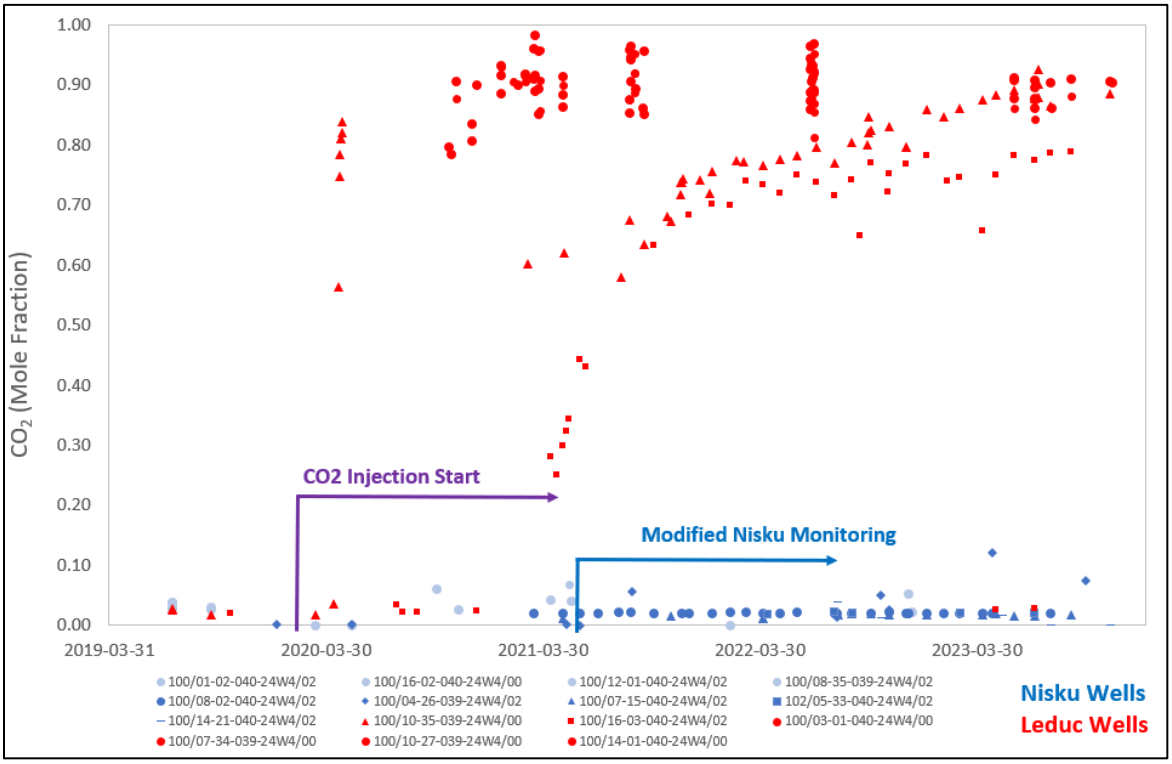

Figure B. Time Series Plot of in CO_2 concentrations in the Nisku and Leduc formations

Similarly, the lack of change in gas composition in other Geosphere intervals being monitored (i.e. Mannville and CBM wells) confirms that the injected CO_2 is contained within the Leduc interval. The results of this monitoring are shown in Figure C for CBM wells.

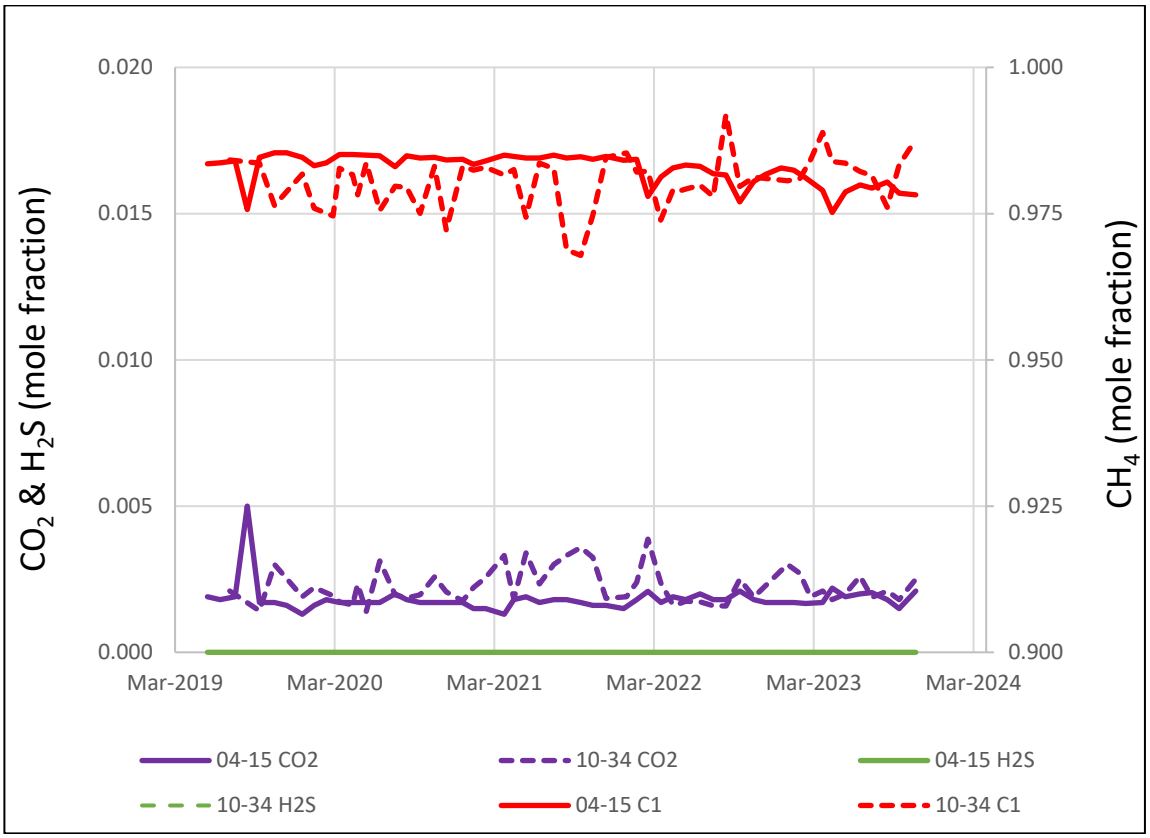

Figure C. Historical concentrations of CO_2, CH_4, and H_2S in CBM monitoring wells

3 HYDROSPHERE MONITORING

Enhance also collects groundwater samples as part of the MMV program. These are collected from local landowner wells located throughout the project area. The majority of these wells are completed in the upper bedrock deposits of the Edmonton Group formations, such as the coal-bearing Horseshoe Canyon Formation. Locations of the landowner wells in relation to the MMV plan area is shown in Figure 3. Details outlining the sampling process and laboratory analysis are provided in Appendix 2.

Groundwater sampling results are included in the following tables:

- Table 1A - Field Measured Parameters
- Table 1B - General, Major Ions, Nutrients
- Table 2 – Groundwater Analytical Results: Dissolved Metals
- Table 3 – Groundwater Analytical Results: Isotopic Abundance
- Table 4 – Microbiological Parameters

Based on the analysis of the groundwater samples collected in the study area the groundwater can generally be described as fresh, low in mineralization (total dissolved solid = 537 ± 150 mg/L), alkaline (pH = 7.2 ± 0.7), and very hard (208 ± 147 mg/L as $CaCO_3$). Most of the samples collected are dominated by calcium and bicarbonate ions except for those that have been naturally softened. Those water samples tend to be more dominated by sodium and bicarbonate ions.

Table C provides a summary of groundwater quality noted in 2023 with ranges of values for various constituents of interest. Bacterial concentrations and isotopic compositions are provided as well. Comparisons have been made to established drinking water guidelines, as well as selected criteria and percentage exceedances thereof.

Table C. Summary of selected groundwater parameters, assessment criteria, and % exceedances of assessment criteria

Parameter	Measurement in 2023	Drinking Water Guideline or Screening Criteria [1]	Historical range	% Above guideline historically	% Above guideline in 2023
Total dissolved solids, TDS (mg/L)	371 to 956	500	236 to 950	46	48
pH-field (standard units)	5.8 to 8.7	7.0 to 10.5	7.9 to 9.5	4	27
Hardness (as mg/L $CaCO_3$)	4.8 to 436	80-100 [1]	0.7 to 442	70	65
Chloride, Cl (mg/L)	<1 to 58	10 [1]	<1 to 111	30	22
Nitrate, NO_3 (as mg/L N)	<0.01 to 4.8	10	<0.1 to 7.9	1	0
Iron, Fe (mg/L)	<0.01 to 5.26	0.30	<0.10 to 11.30	15	28
Manganese, Mn (mg/L	<0.01 to 0.68	0.12	<0.01 to 0.59	33	33
SFB (cfu/mL)	10 to 67,000	0	<1 to 67,000	90	100
IRB (cfu/mL)	<1 to 9000	0	<1 to 9,000	92	89
SRB (cfu/mL)	<1 to 115,000	0	<1 to 115,000	42	50
CO_2 (ppmv)		--	1 to 18,500	--	--
CH_4 (ppmv)		--	<10 to 400	--	--
$\delta^{13}C_{DIC}$ (‰)	-15.9 to -11.8	--	-15.0 to -11.1	--	--
$\delta^{13}C_{CO2}$ (‰)	ND	--	-22.0 to -12.1	--	--
$\delta^{13}C_{CH4}$ (‰)	ND	--	-88.8 to -32.7	--	--
$\delta^{34}S_{SO4}$ (‰)	-9.6 to 13.5	--	-9.6 to 2.2	--	--

Note: SFB = slime-forming bacteria; IRB = iron-reducing bacteria; SRB = sulphate-reducing bacteria; ND = not detected

Of the parameters listed in Table C, most were found to fall within the historical range of values documented since initiation of the program in 2019. Based on these water quality results there is no indication that further investigation is warranted at this time.

The presence of dissolved gases was confirmed in only one well sampled in 2023. That well (Landowner 1) yielded CO_2 concentrations ranging from 1,600 to 13,000 ppmv during the June sampling visit and 2,600 to 19,000 ppmv in the following September. Variability of CO_2 concentrations are to be expected due to soil conditions, seasonal variations in microbial activity in the soil horizon, etc. As for CH_4, only one detection was made from the September sampling event, and that occurred at the same well. The concentration was 106 ppmv. Free gas was observed in 2022, with a CH_4 concentration of 56 ppmv. No methane isotope analysis was conducted for this sample and no detections of H_2S were made during either sampling visit.

With respect to the isotopes measured, $\delta^{13}C$ values of the dissolved inorganic carbon fraction (DIC) ranged from -15.9‰ to -11.8‰ (average = -13‰ ± 0.8‰) - consistent with hydration of dissolved CO_2 and subsequent formation of bicarbonate (HCO_3^-) and/or carbonate (CO_3^{2-}) ions (Clark and Fritz 1997). No detections of ethane (C_2H_6) or H_2S were documented, therefore influences from deeper bedrock sources are not evident.

Additional testing of 14 wells for $\delta^{34}S_{SO4}$ yielded values ranging from -9.6‰ to 13.5‰ (Average = -0.2 ± 5.0‰). This range is consistent with waters sourced from upper bedrock formations and/or soils beneath central Alberta (Cheung et al. 2010; Fennell and Bentley 1998). The highest measurement, 13.5‰, was associated with one sample (Landowner 21) and is anomalous compared to the other measurements (range = -9.6‰ to 2.0‰). The suspected cause is sulphate-reduction given the lack of any other signs pointing to a deeper bedrock source.

The occurrence of CO_2-reducing and SO_4-reducing conditions in a number of the wells (greater than 50%) sampled since initiation of the MMV monitoring program may be due to the presence of all three types of bacteria assessed, that being slime-forming, iron-reducing, and sulphate-reducing genera. The presence of these bacteria is not uncommon in groundwater wells and is dealt with via routine maintenance and disinfection.

Careful consideration is therefore warranted when these, and future, monitoring results are assessed because well maintenance issues can alter the geochemical conditions in a well and affect the local chemistry of the groundwater. This includes the production of CO_2 and CH_4 (as well as H_2S), which may be mistaken for impact from a deeper bedrock source. If encountered, the protocol is to review other parameters including the isotope measurements to confirm the source and cause.

3.1 Data Trends

Trends in the various water quality parameters were assessed to determine significant changes over time. The majority of water wells sampled exhibited no statistically-significant trends in the parameters reviewed. Some showed declining trends in select parameters, while others showed increasing trends in isolated situations.

Temporal trend charts for selected indicators (i.e. pH, TDS, Chloride, and $\delta^{13}CCO_2$) have been provided in Figures 4 to 7. Also shown in those charts is the upper and lower range of expected baseline values. Review of the charts indicates a general lack of significant change since initiation of monitoring.

4 BIOSPHERE MONITORING

The network of soil gas monitoring stations was assessed twice in 2023, once in the Spring and later in the Fall. Upwards of 30 soil gas sampling stations were assessed. Locations of those stations are shown in Figure 8, and details of the sampling and analytical activities are provided in Appendix 2.

Soil gas sampling results are included in the following table:

- Table 5 - Soil Gas Analytical Results: Menthane Isotope Abundance

Table D provides a summary of soil gas composition and isotopic measurements made in 2023. The historical range of values, median, and 95th percentile values have also been provided for context.

Table D. Summary of Soil Gas Measurements including those made in 2023

Parameter	Units	Measurements in 2023	Historical range	Median	95th Percentile
Soil gases					
Lab CO_2	ppmv	1,270 to 87,300	1,270 to 120,000	22,400	76,860
Lab CH_4	ppmv	0.5 to 2.0	<1 to 23,100	1.0	16.3
Lab C_2H_6	ppmv	<1	<1 to 5000	5	50
Lab H_2S	ppmv	ND	ND to 554	0.5	4.8
$\delta^{13}C_{CO2}$	‰	-26.4 to -17.4	-25.6 to -10.8	-20.7	-17.6
$\delta^{13}C_{CH4}$	‰	Insufficient gas	-51.3 to -44.2	-51.3	-44.9
$\delta^{13}C_{C2H6}$	‰	Insufficient gas	-30.6 to -29.4	-30.1	-29.4
$F14C_{CO2}$	fraction	0.20 to 0.95	0.24 to 0.96	0.73	0.94

Notes: ND = not detected

Compared to the historical range of values collected since 2019, no departures from baseline conditions were detected in 2023. From a review of the historical ranges, it is evident that detections for elevated CH_4, as well as C_2H_6 and H_2S, have been made in the past. Surface casing vent flow monitoring systems connected to this production well did not identify vent gasses.

The spatial distribution of soil gas CO_2 values, both in the spring/summer (green symbols) and fall (red symbols) seasons is provided in Figure 9. None of the measurements made in 2023 fell outside of the historical range documented since the start of the MMV program in 2019. For comparison, the range of atmospheric CO_2 values recorded in 2023 was 397 to 435 ppmv.

As for soil gas CH_4, the spatial distribution of laboratory measured values are provided in Figure 10. Measured values of 2 ppmv or less were noted in soil gas samples collected in both the June and September sampling programs. This is consistent with atmospheric values of around 2 ppmv that were also recorded in 2023.

Concentrations of CO_2 and CH_4 measured during the 2023 sampling programs are plotted in Figure E along with possible source gases responsible for higher concentrations.

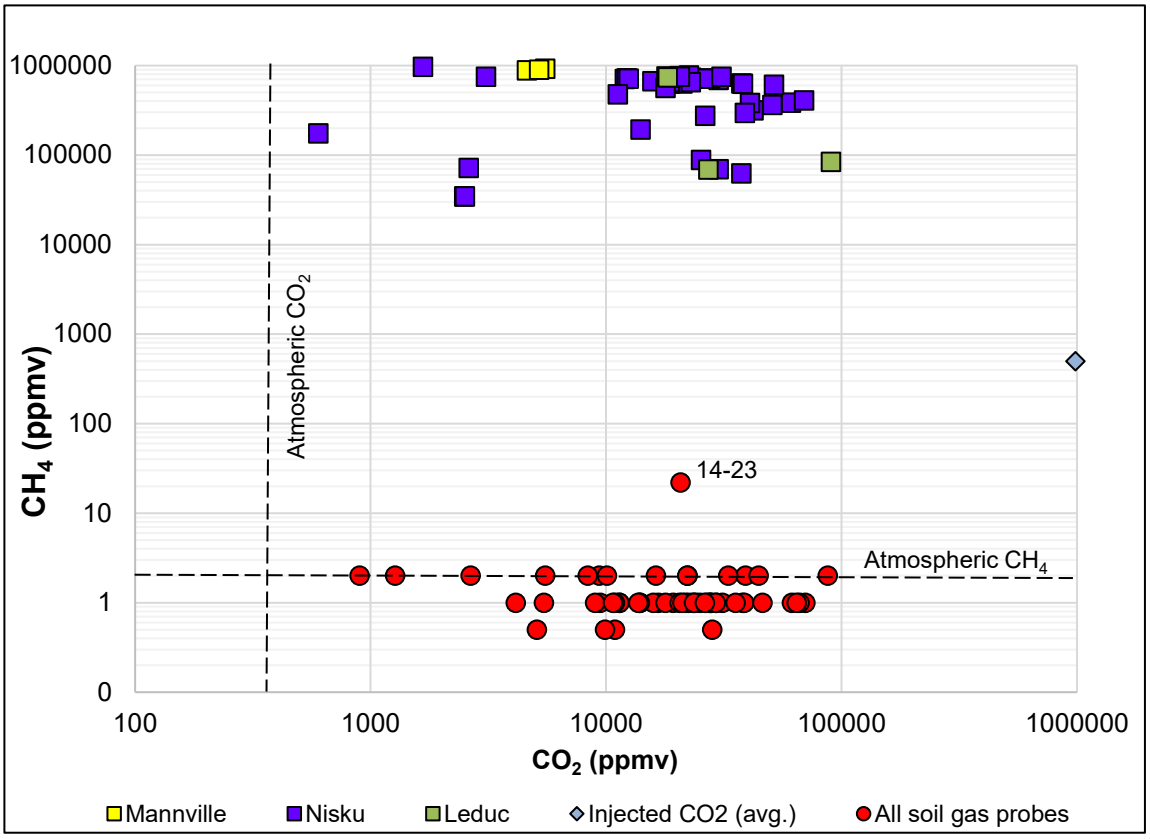

Figure E. Soil Gas Measurements for CO_2 and CH_4 versus Other Gas Sources

With the possible exception of the 14-23 soil gas probe measurement all the other soil gas probes exhibited concentrations within expected baseline conditions. The 14-23 location was previously flagged as a location where a SCVF from the Lower Mannville is suspected and will continue to be monitored to verify the source.

Figure F is a graph of CO_2 versus $\delta^{13}C_{CO2}$ values for soil gas samples collected in 2023, plus Geosphere gas samples collected as part of the program. What is most evident is that none of the soil gas samples exhibit $\delta^{13}C_{CO2}$ values consistent with either a deeper hydrocarbon source or more importantly the injected CO_2.

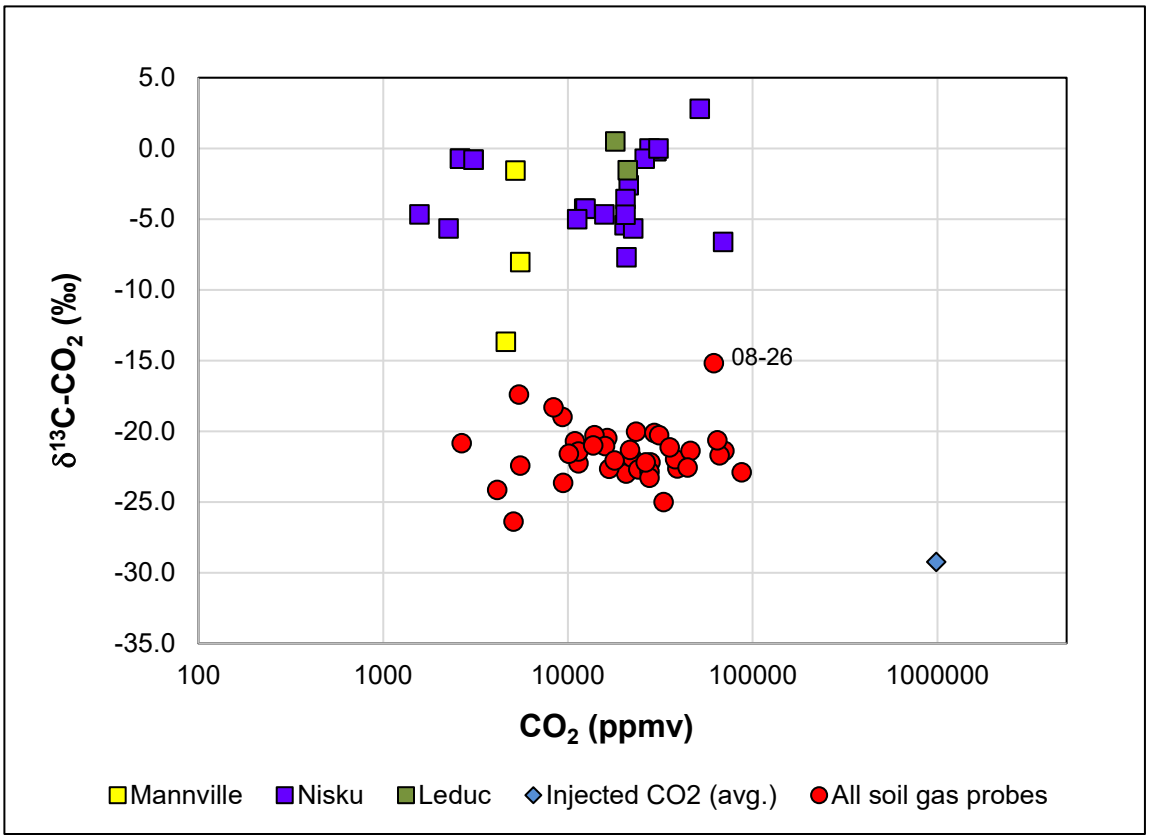

Figure F. Comparison of CO_2 Concentrations and $\delta^{13}C_{CO2}$ for Soil Gases and Various Other Gas Samples

The evidence collected to date indicates that the $\delta^{13}C_{CO2}$ with less negative (i.e. greater than -17‰) values is not being sourced from deeper bedrock intervals but is associated with other mechanisms listed below:

- Microbial reduction of plant-derived CO_2 to methane.
- CO_2 hydration and conversion to bicarbonate and/or carbonate ions.
- Degassing of CO_2 from bedrock layers or coal layers in the bedrock or fragments incorporated in surficial deposits.

Only one soil gas monitoring location (08-26) yielded an anomalous $\delta^{13}C_{CO2}$ value. However, no anomalous CH_4 value was noted at that location. Future monitoring will confirm results.

Also important to note is that none of the soil gas monitoring locations yielded $\delta^{13}C_{CO2}$ values anywhere close to that of the injected CO_2, which is further evidence that containment in the Leduc Formation is being maintained.

Figure G shows the relationship between fraction of radiogenic Carbon-14 in the CO_2 ($F14C_{CO2}$) and $\delta^{13}C_{CO2}$ values. Most of the soil gas measurements made in 2023 yielded $F14C_{CO2}$ values of 0.50 or higher, which is consistent with expected baseline conditions. However, soil gas sampled from three locations, 05-36, 14-23 and 11-26, yielded much lower $F14C_{CO2}$ values indicating a possible influence from an older source, or sources, of CO_2. An elevated methane concentration at 14-23 (22 ppmv) was noted, but previous assessment has indicated that this is likely related to a SCVF. In contrast, results from the other two locations do not suggest a deeper bedrock source based on $\delta^{13}C_{CO2}$ measurements of -22‰ or less as opposed to bedrock values of -14‰ and higher. As such these readings are concluded to reflect natural conditions.

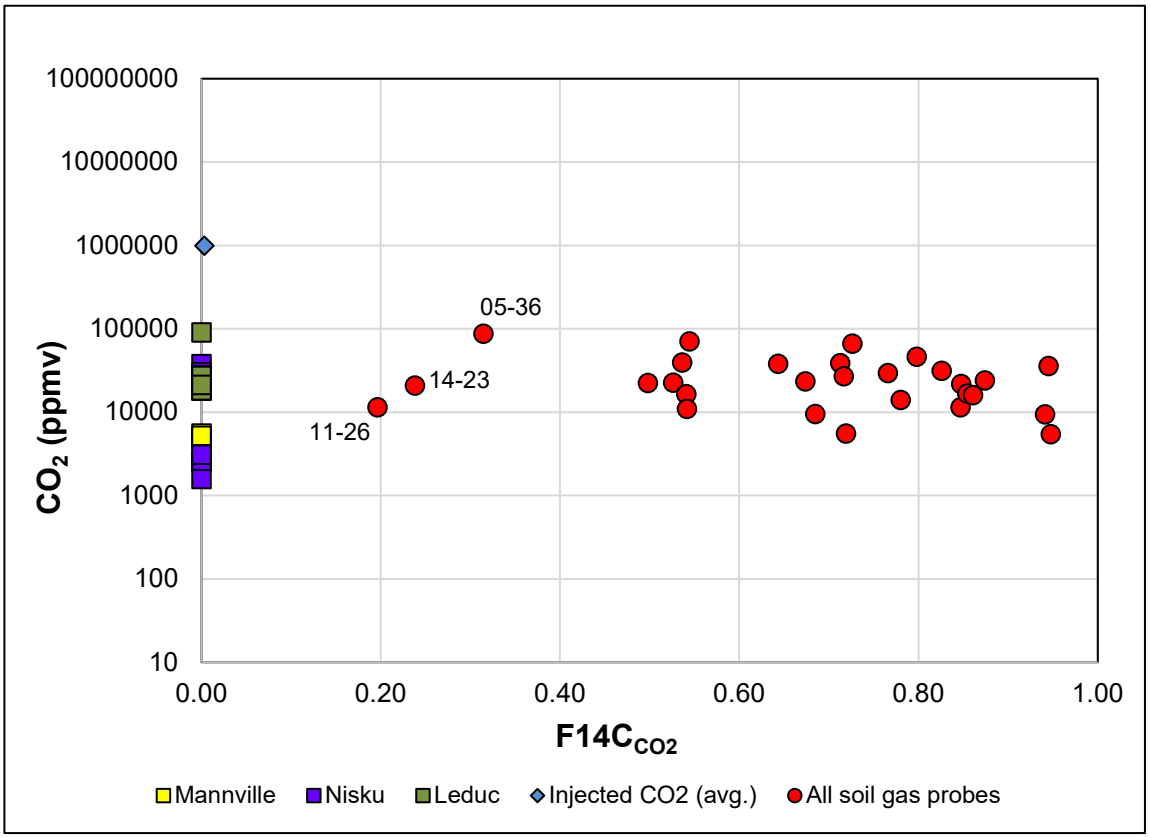

Figure G. Comparison of $F14C_{CO2}$ and $\delta^{13}C_{CO2}$ for Soil Gases and Other Potential Sources

The distribution of Spring and Fall measurements for $\delta 13C_{CO2}$ and $F14C_{CO2}$ are provided in Figures 11 and 12., respectively, for review.

4.1 Data trends

Statistics were once again calculated to assess the occurrence of any significant increasing concentrations of CO_2, CH_4, H_2S, and $\delta^{13}C_{CO2}$. This was done using the Mann-Kendall (Mann 1945; Kendall 1975) and Theil-Sen's slope estimator (Sen 1968; Theil 1950) methods. Statistically-significant trends were noted as having a greater than 95% confidence and a change of ±10% or more per year. The results are summarized in Table E-H.

Summary of Statistics for Soil Gas Probe Locations with Statistically-significant trends

Table E. Filtered CO_2 Trend Results, Probability > 95% and Normalized Slope > ± 10%/Year

Location	Count	Mann-Kendall S	Probability	Slope (ppmv/year)	Normalized Slope (%/year)
11-35-039-24W4	8	-20	0.99	-8854.6523	-40
12-02-040-24W4	6	-13	0.98	-10445.8327	-72
07-10-040-24W4	5	-10	0.98	-7175.3965	-108
04-02-040-24W4	8	-18	0.98	-17986.9550	-103
16-09-040-24W4	6	-11	0.96	-4925.4288	-72
09-10-040-24W4	5	-8	0.95	-50409.3669	-72
11-26-039-24W4	5	-8	0.95	-14252.5577	-2399

Table F. Filtered CH_4 Trend Results, Probability > 95% and Normalized Slope > ± 10%/Year

Location	Count	Mann-Kendall S	Probability	Slope (ppmv/year)	Normalized Slope (%/year)
14-23-039-24W4	8	-22	0.99	-145.1259	-290
04-01-040-24W4	12	30	0.98	1.8957	190
12-36-039-24W4	6	11	0.97	2.2271	74

Table G. Filtered H_2S Trend Results, Probability > 95% and Normalized Slope > ± 10%/Year

Location	Count	Mann-Kendall S	Probability	Slope (ppmv/year)	Normalized Slope (%/year)
16-09-040-24W4	6	-11	0.98	-0.5016	-100
12-23-039-24W4	6	-11	0.98	-0.5002	-100
01-02-040-24W4	6	-11	0.98	-0.4922	-98
05-36-039-24W4	5	-8	0.96	-0.4982	-100
12-02-040-24W4	5	-8	0.96	-0.4528	-91
10-02-040-24W4	7	-12	0.95	-0.2376	-48
04-02-040-24W4	7	-12	0.95	-0.2508	-50

Table H. Filtered $\delta^{13}C_{CO2}$ Trend Results, Probability > 95% And Normalized Slope > ± 10%/Year

Location	Count	Mann-Kendall S	Probability	Slope (‰/year)	Normalized Slope (%/year)
04-26-039-24W4	9	-22	0.98	-2.4863	13
08-34-039-24W4	9	-17	0.95	-2.6624	15

Filtered $F14C_{CO2}$ Trend Results, Probability > 95% And Normalized Slope > ± 10%/Year

No trends

With the exception of two locations showing increasing trends for CH_4 (04-01 and 12-36) all other soil gas probe locations have been exhibiting declining trends of CO_2, CH_4, H_2S and $\delta^{13}C_{CO2}$. The increasing trends at those two locations are considered minor at around 2 ppmv/year. And, given the associated $\delta^{13}C_{CO2}$ values of -20‰ and $F14C_{CO2}$ values generally greater than 0.70 this does not support a deeper bedrock source for the CH_4.

Time-series plots have been provided in Figures 13 to 16 demonstrating the range of natural variability recorded since initiation of monitoring activities.

5 ATMOSPHERE MONITORING

As part of the MMV program atmospheric air samples are collected and analyzed for a similar set of parameters as the soil gas samples. The data generated by this monitoring is routinely used as a check for the integrity of the soil gas probes and the data they generate (i.e. ensure a proper seal and no interference with the surface environment). The data are also used to assess if there are any fugitive emissions from surrounding gas production wells. Table I provides a summary of atmosphere gas composition and isotopic measurements made in 2023. The historical range of values, median, and 95th percentile (P95) values have been provided for context.

Table I. Summary Atmospheric Gas Measurements including 2023

Parameter	Units	Measurements in 2023	Historical range	Median	P95
Lab CO_2	ppmv	397 to 435	361 to 407	377	407
Lab CH_4	ppmv	2	2 to 4	2	3.7
Lab H_2S	ppmv	ND			
$\delta^{13}C_{CO2}$	‰	-23.4* to -7.3	-12.3 to -6.9	-8.4	-7.1
$\delta^{13}C_{CH4}$	‰	Insufficient gas			
$F14C_{CO2}$	fraction	0.99 to 1.005	1.002 to 1.005	1.003	1.004

Notes: * = outlier value; ND = not detected

6 SUMMARY AND CONCLUSIONS

The 2023 monitoring program was a continuation of the MMV process to ensure CO_2 containment in the Leduc Formation. The program included the monitoring of various bedrock formations (Geosphere), local water wells (Hydrosphere), and soil gas monitoring locations (Biosphere). Sampling of the air in several locations was also completed (Atmosphere) to provide data to check the integrity of soil gas probes and provide data for comparison against measure values from other locations and sampling media (gas versus water).

The analysis performed included gas composition (either as mole % or ppmv) including CO_2, CH_4, C_2H_6 and other gases, stable isotopes for carbon ($\delta^{13}C_{CO2}$, $\delta^{13}C_{CH4}$, and $\delta^{13}C_{C2H6}$, among others), stable sulphur ($\delta^{34}S$ of $H_2S_{(g)}$ in the Devonian formations and SO_4 in groundwater), and radiogenic carbon. The following conclusions can be drawn:

Geosphere Monitoring:

- Lack of increasing CO_2 concentrations in the overlying Nisku Formation (and other shallower bedrock intervals) indicates that the Ireton Formation caprock is structurally intact and containing the injected CO_2 in the Leduc Formation.
- Evidence provided by other shallower bedrock monitoring (i.e. Mannville and CBM intervals) supports the above conclusion.
- Collection of gas compositions and isotopic fingerprints for the various bedrock formations is now providing a useful database for forensic investigation of any anomalous groundwater and/or soil gas detections.

Hydrosphere Monitoring:

- Groundwater sampled from the private water wells around the project area is typical of bedrock waters in Alberta, with low mineralization, alkaline conditions, and generally elevated hardness.
- No major anomalies were noted for parameters currently listed in the Guidelines for Canadian Drinking Water Quality (2023). Notable exceptions include some instances of elevated iron and manganese concentrations, likely due to well maintenance issues and the presence of detectable bacteria.
- Dissolved gases were identified in one well indicating a CO_2 value of 11,300 ppmv and a CH_4 value of 106 ppmv. However, no detections for C_2H_6 or H_2S were made. As such no evidence exists for a deeper hydrocarbon source.
- $\delta^{13}C_{DIC}$ values measured in the water samples collected are consistent with natural mineralization of soil organic carbon followed by conversion of the dissolved $CO_2(g)$ to carbonate-based ions (HCO_3^- and CO_3^{2-}). There is no evidence to support a deeper hydrocarbon influence.
- Assessment of the data collected since 2019 indicates that a number of trends in certain parameters are occurring. This, however, is only happening in a small number of wells (4 or less), with none of the parameters linking back to the CO_2 injection activities. These trends are therefore believed to be an artifact of the wells themselves.

Biosphere Monitoring:

- All soil gas monitoring locations assessed in 2023 continue to exhibit CO_2 values within established baseline for the area and expected seasonal fluctuations.
- Seasonal variation in soil gas CO_2 levels is evident, and expected, with higher values occurring during the spring/summer months. Increased soil respiration processes during the active growing season are the likely reason.
- The source of anomalous CH_4 at the 14-23 location is aligned with a biogenic source emanating from coal layers or coal fragments in the underlying sediments (Appendix 3) based on the $\delta^{13}C_{CH4}$ measurement (-69.4‰).
- Of the locations identified with statistically-significant trends, the majority are showing declining CO_2 levels, and a small number with slightly increasing CH_4 levels

(around 2 ppmv/year). With respect to isotopes, there are two locations (04-26 and 08-34) that are showing declining $\delta^{13}C_{CO2}$ trends on the order of 3‰/year. The observed trends are suspected to be due to natural variability, but further monitoring will verify this.

7 CLOSURE

Integrated Sustainability would like to thank Enhance Energy Inc. for the opportunity to support the Clive MMV program. We trust that this report meets your needs and expectations. If you have any questions, please contact the undersigned at your convenience.

Sincerely,

Integrated Sustainability

Joseph Cruz, B.Sc., P.Geo.
Senior Hydrogeologist

Jon Fennell, M.Sc., Ph.D., P.Geol.
Principal Hydrogeologist & Geochemist

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The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

8 BIBLIOGRAPHY

Cheung K., Klassen P., Mayer B., Goodarzi F., and Aravena R. 2010. Major ion and isotope geochemistry of fluids and gases from coalbed methane and shallow groundwater wells in Alberta, Canada. Applied Geochemistry, 25, p. 1307 – 1329.

Clark, I. and Fritz, P., 1997. Environmental Isotopes in Hydrogeology. CRC Press, Taylor & Francis Group, ISBN 1-56670-249-6, 343 pp.

Fennell J. and Bentley L.R., 1998. Distribution of sulphate and organic carbon in a prairie till setting: Natural versus industrial sources. Water Resources Research, Vol. 34, No. 7, pp. 1781-1794.

Kendall M.G. 1975. Rank Correlation Methods 4th ed. Charles Griffin, London.

Mann H.B. 1945. Nonparametric tests against trend. Econometrica 13 pp. 245-259.

Sen P.K. 1968. Estimates of the regression coefficient based on Kendall's tau. J. Amer. Statist. Assoc., 63 pp. 1379-1389.

Theil H. 1950. A rank-invariant method of linear and polynomial regression analysis. Proc. Koninalijke Nederlandse Akademie Van Wetenschatpen A53 part 3, pp. 1397-1412.

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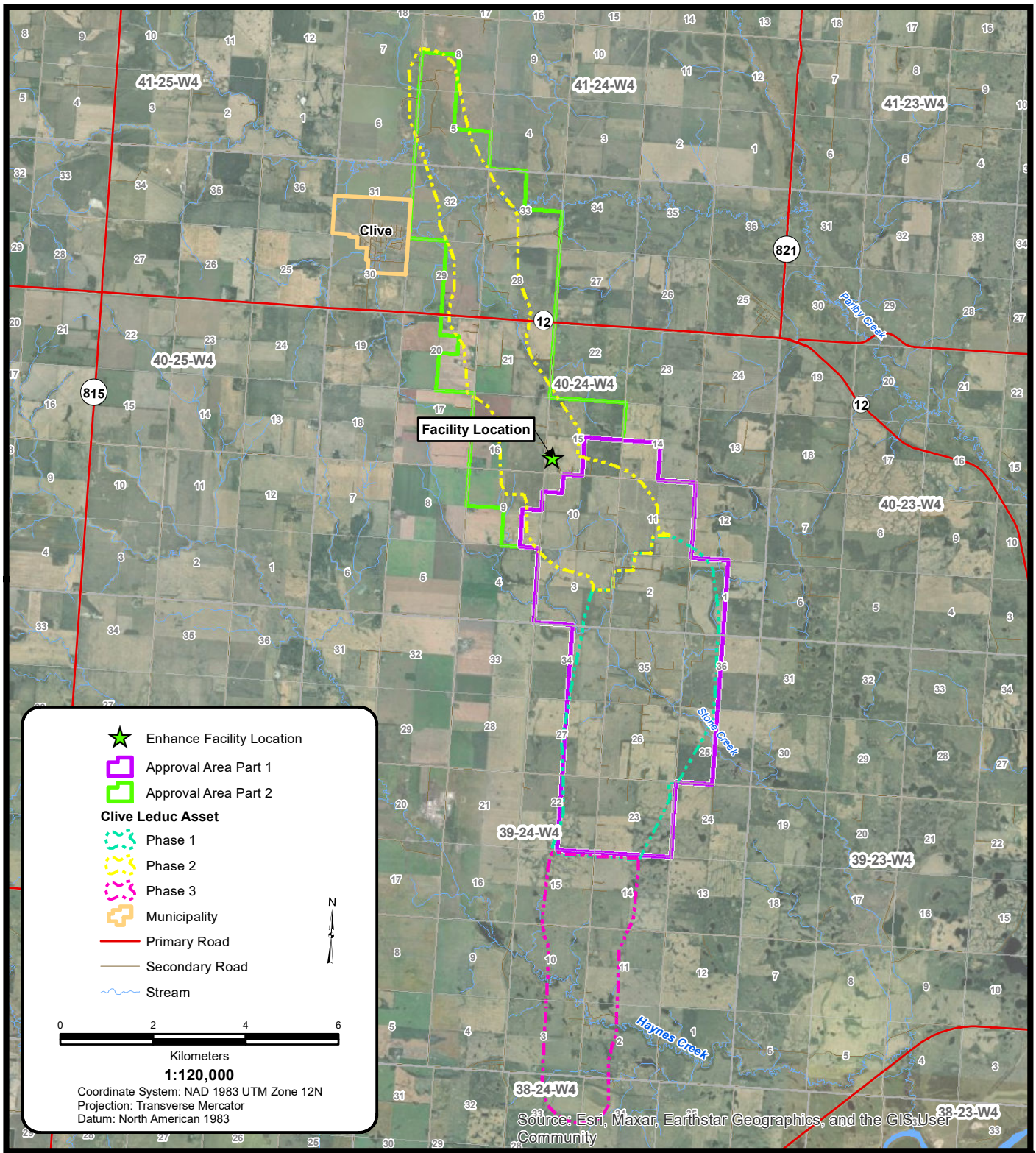
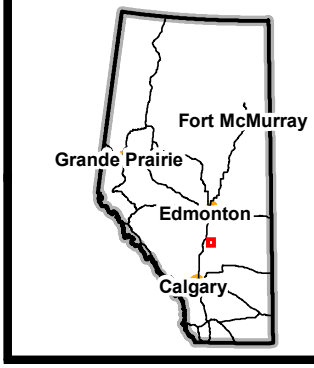
Figures





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ENHANCE ENERGY INC.
MMV SOIL & GROUNDWATER MONITORING 2023 ANNUAL REPORT
MMV PLAN AREA

DRAWN BY:	CHECKED BY:	APPROVED BY:
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PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	1	1

NOTES: 3-APR-24
Source: Roads and Urban Areas from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams from Government of Alberta.
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

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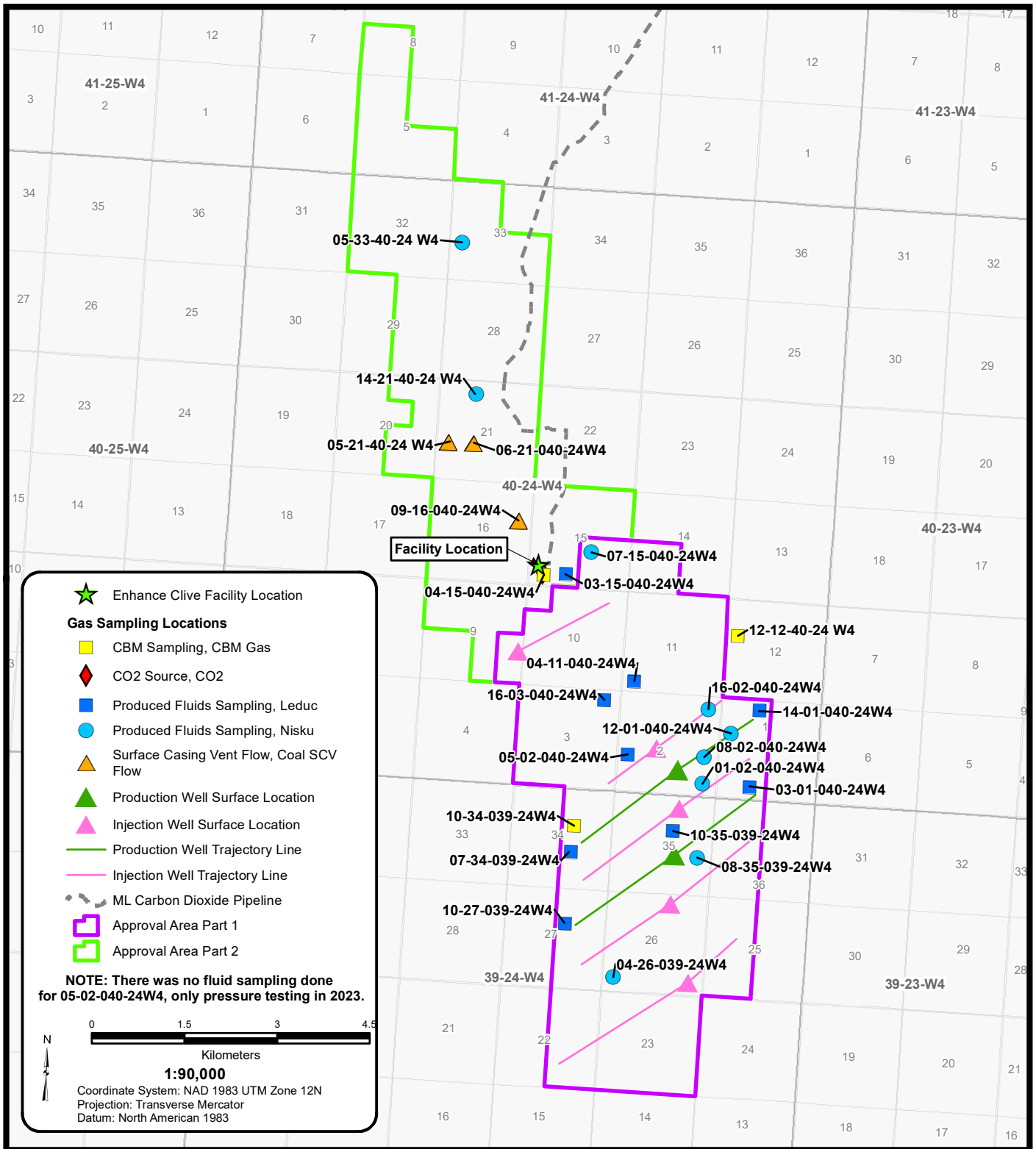

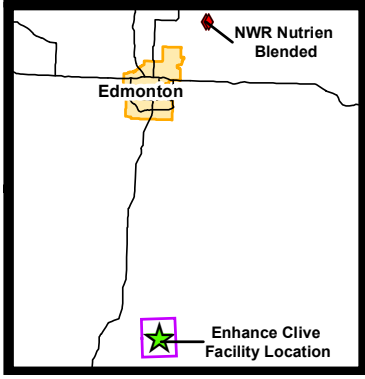

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GAS SAMPLING LOCATIONS

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K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	2	1

NOTES: 2-APR-24
Source: MMV Plan Area provided by Enhance. Production and Injection data, georeferenced in from Enhance_Final_2020HMP_MAR2021_PublicVersion.pdf. Pipelines providedd by the Government of Alberta.

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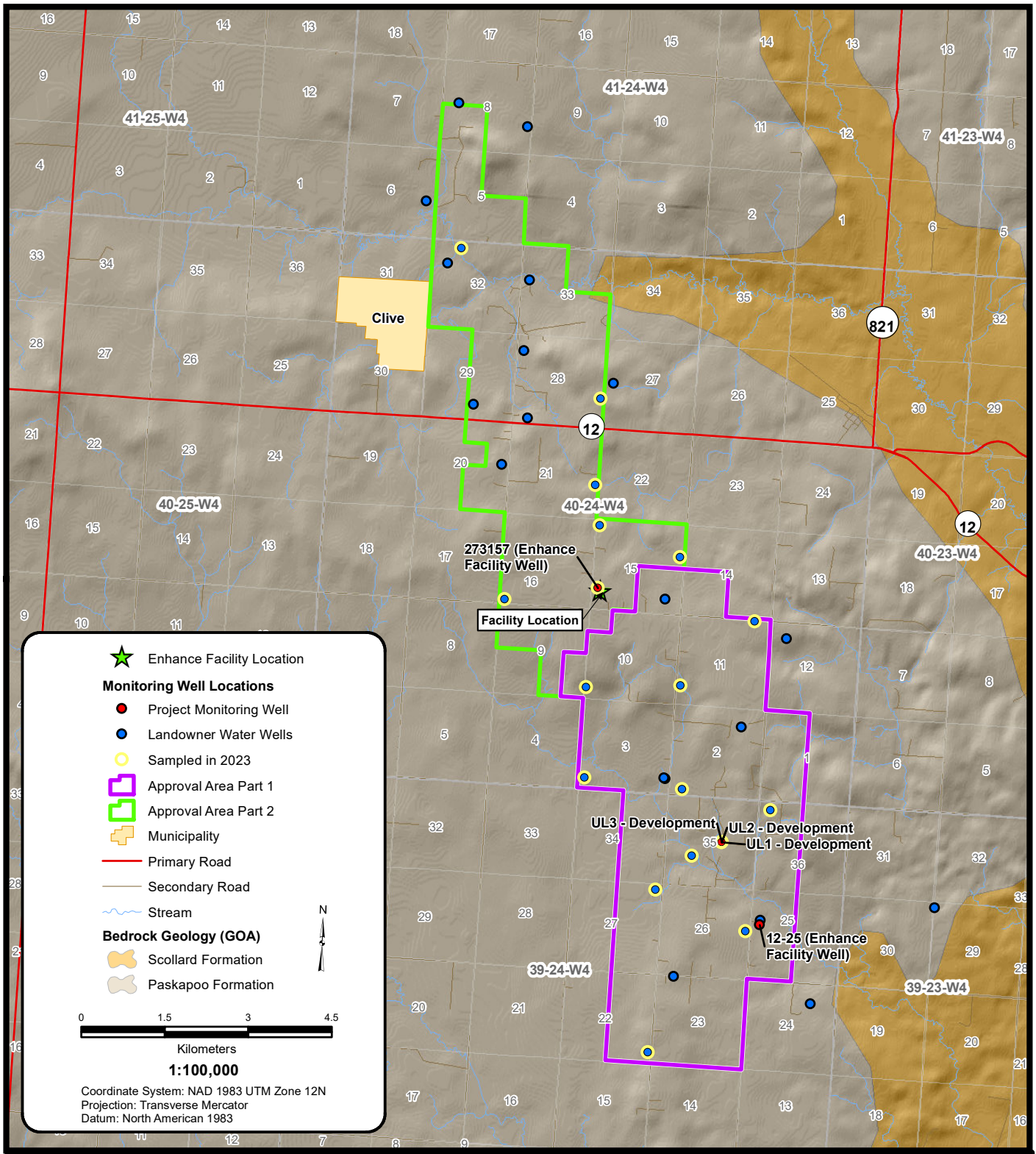

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MMV SOIL & GROUNDWATER MONITORING 2023 ANNUAL REPORT
MONITORING WELL NETWORK

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K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	3	1

NOTES: 3-APR-24
Source: Roads and Urban Areas from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams and Bedrock Geology from Government of Alberta.

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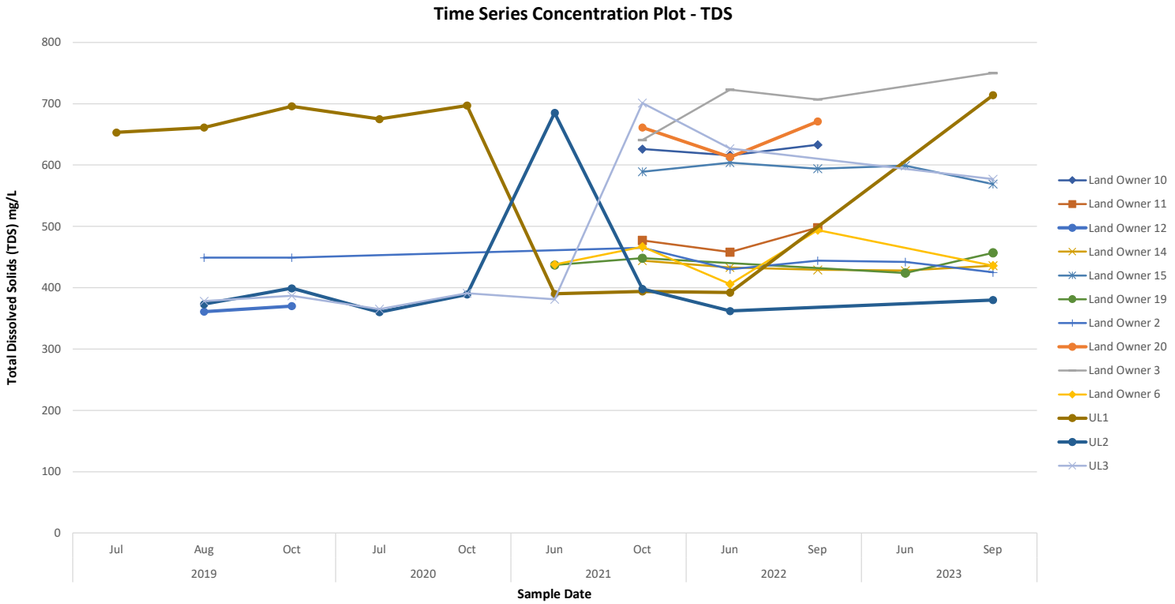

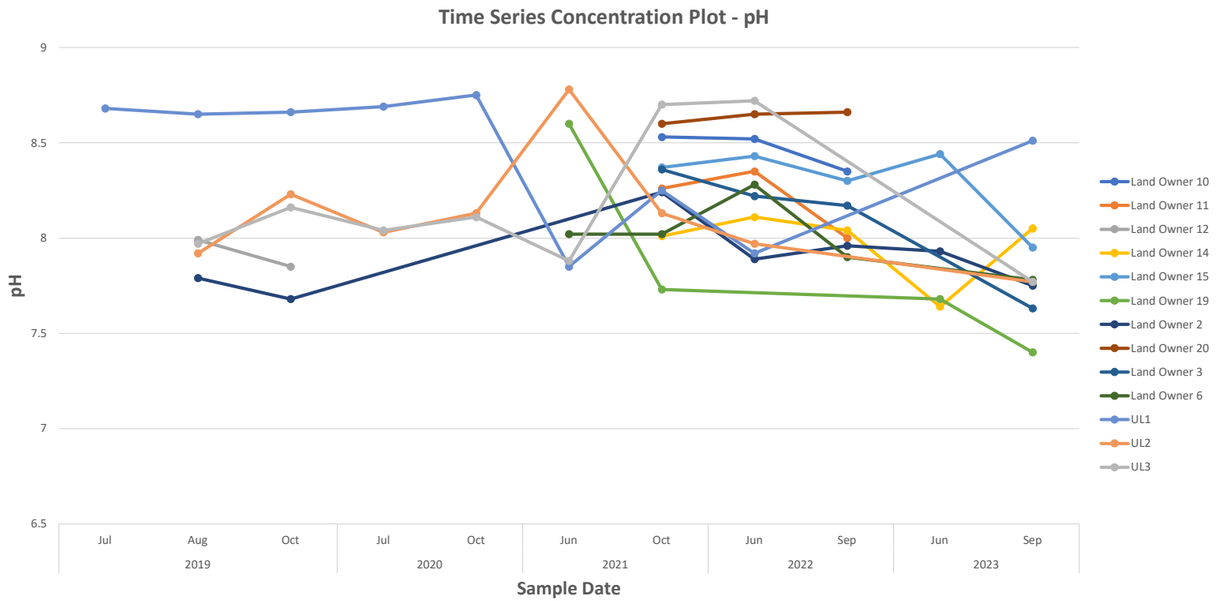

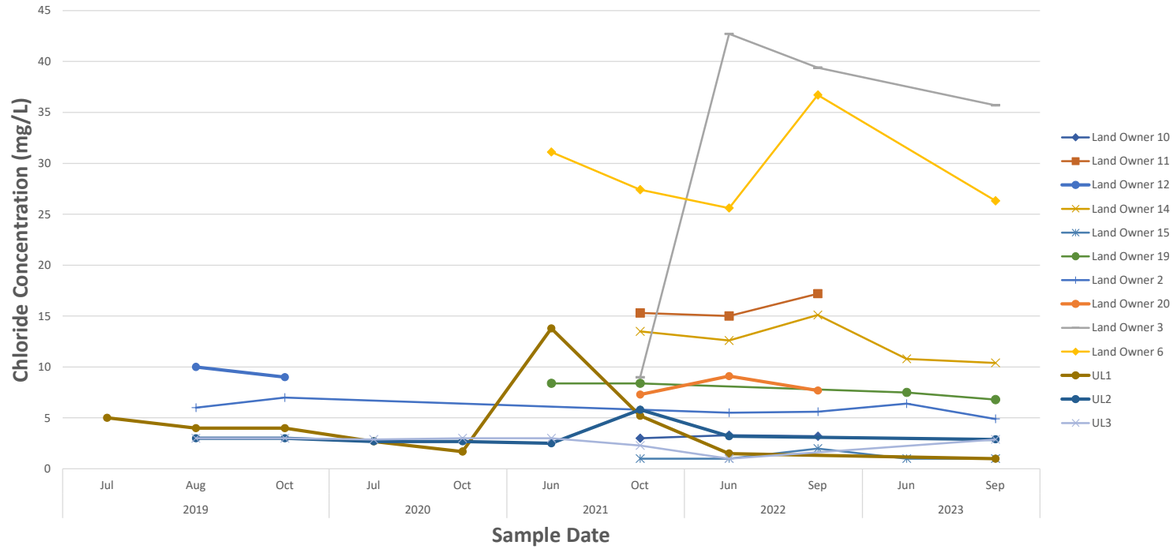

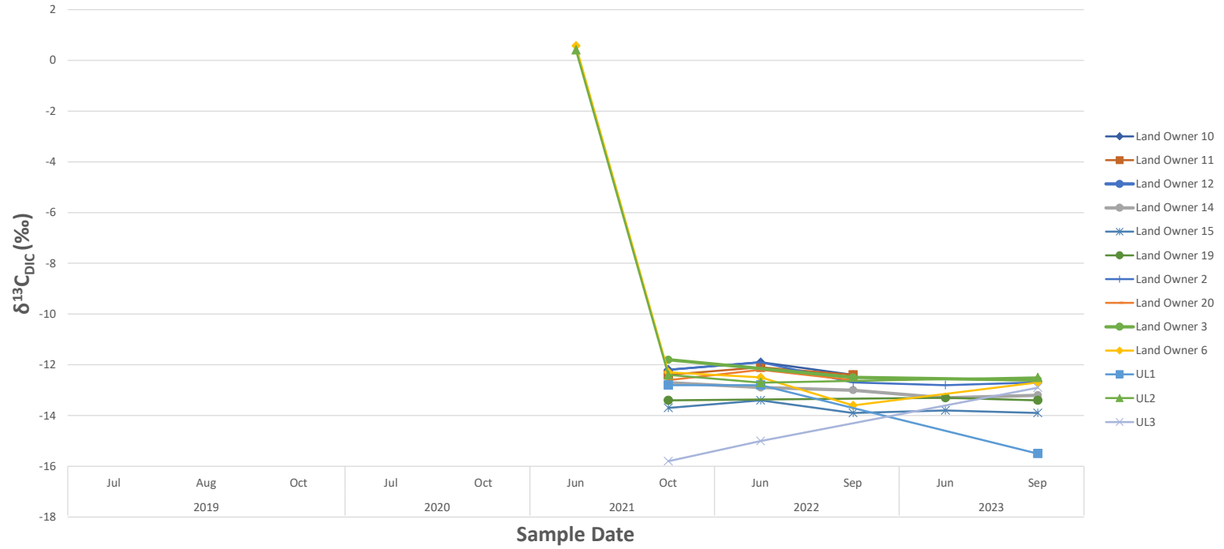

Notes: 1.The Guidelines for Canadian Drinking Water Quality standard for the Maximum Allowable Concentration for pH is between 7.0 – 10.5
2. The Guidelines for Canadian Drinking Water Quality standard for the Aesthetic Objective (AO) for TDS is <500 mg/L
3. The Guidelines for Canadian Drinking Water Quality standard for the Aesthetic Objective (AO) for chloride is <250 mg/L

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Groundwater Time Series Concentration Plot - North 1 Data

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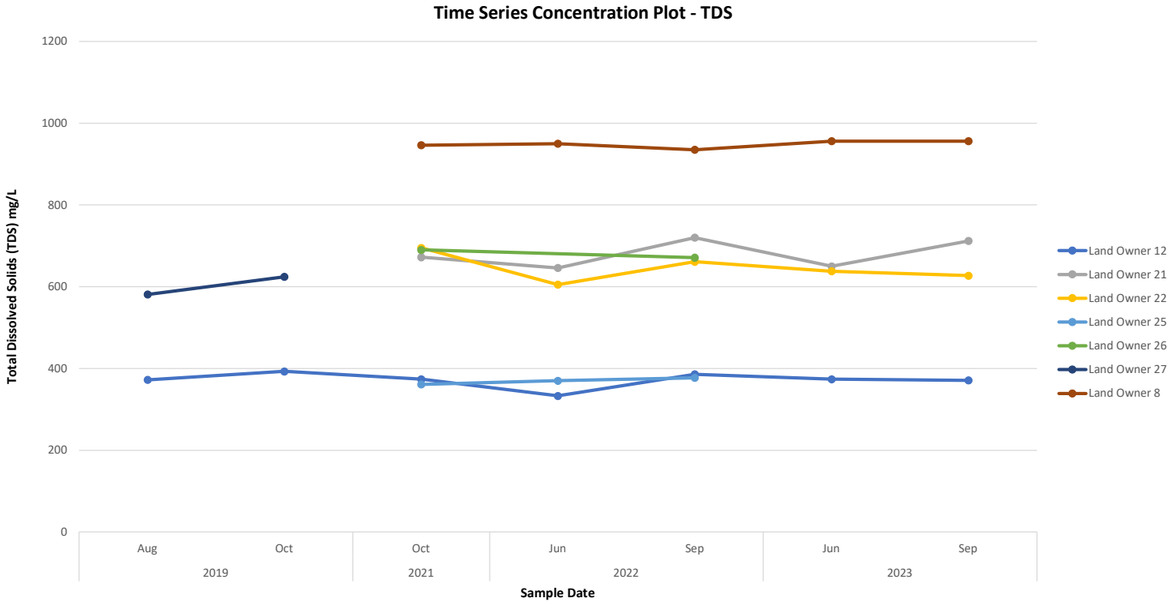
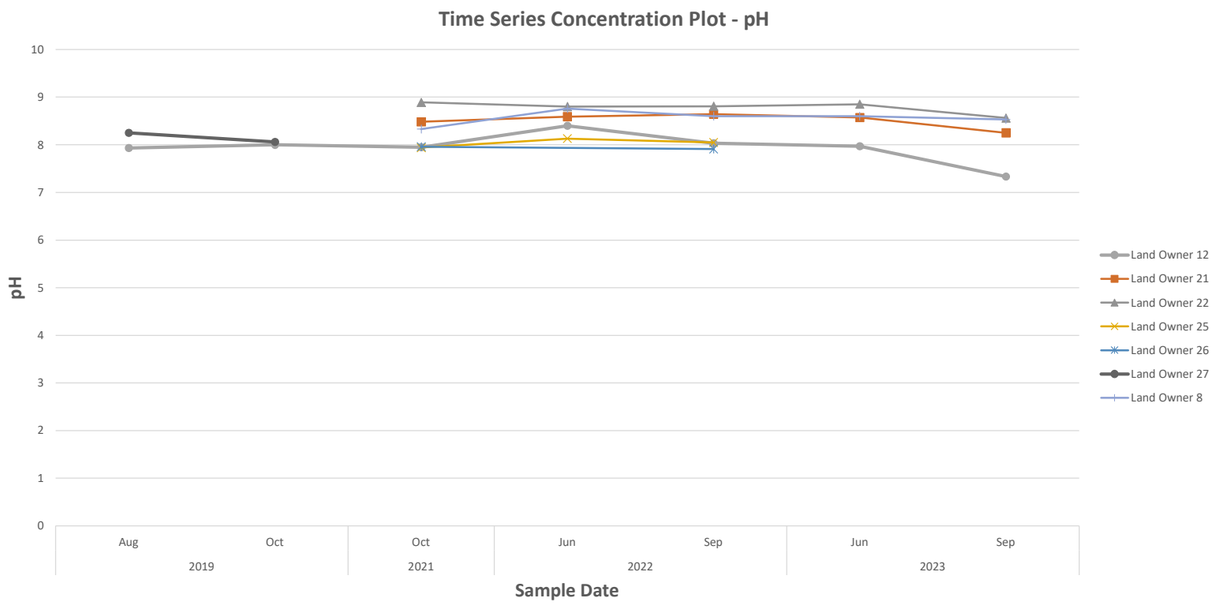
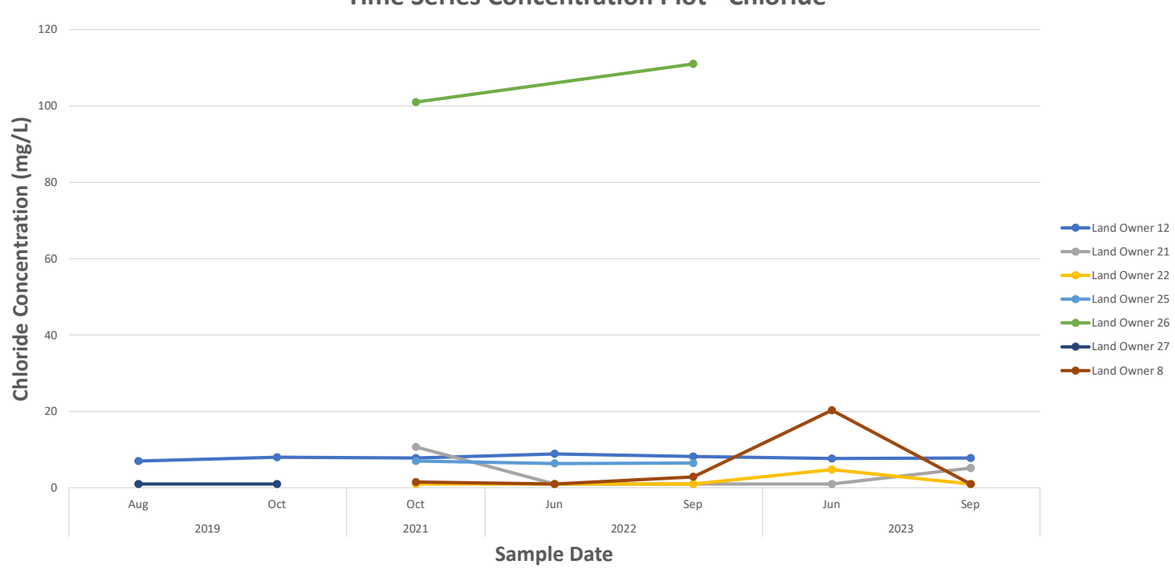
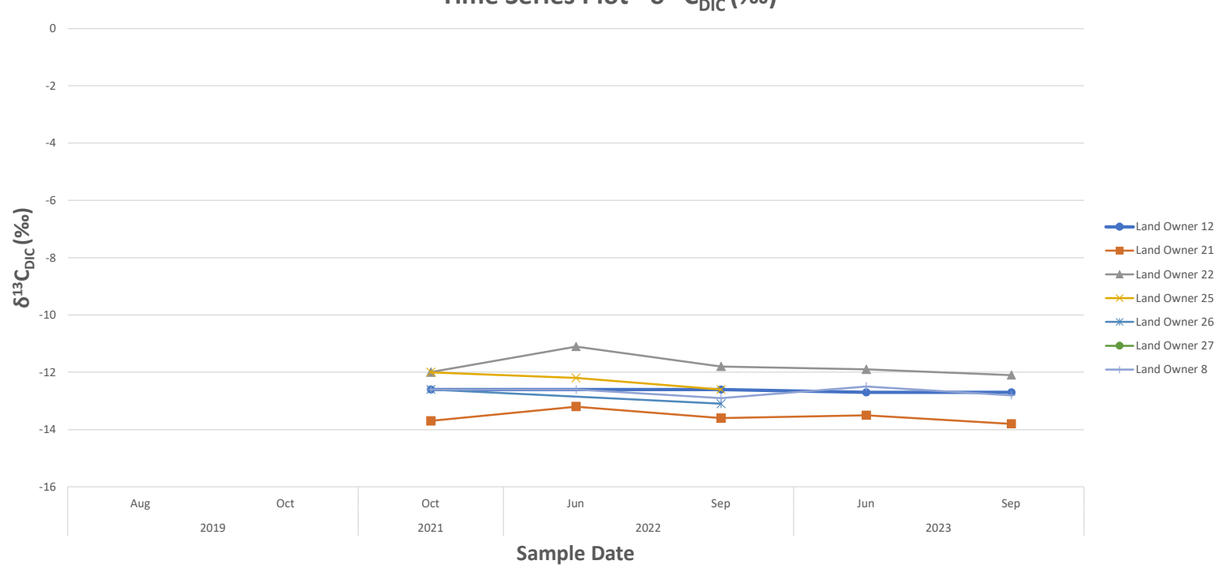
J. Cruz	J. Fennell	E. Guzman	April 4, 2024

SCALE	PROJECT NO:	FIGURE NO:	REVISION
-	CP23-EEI-02-00	FIGURE 4	1









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Groundwater Time Series Concentration Plot - North 2 Data

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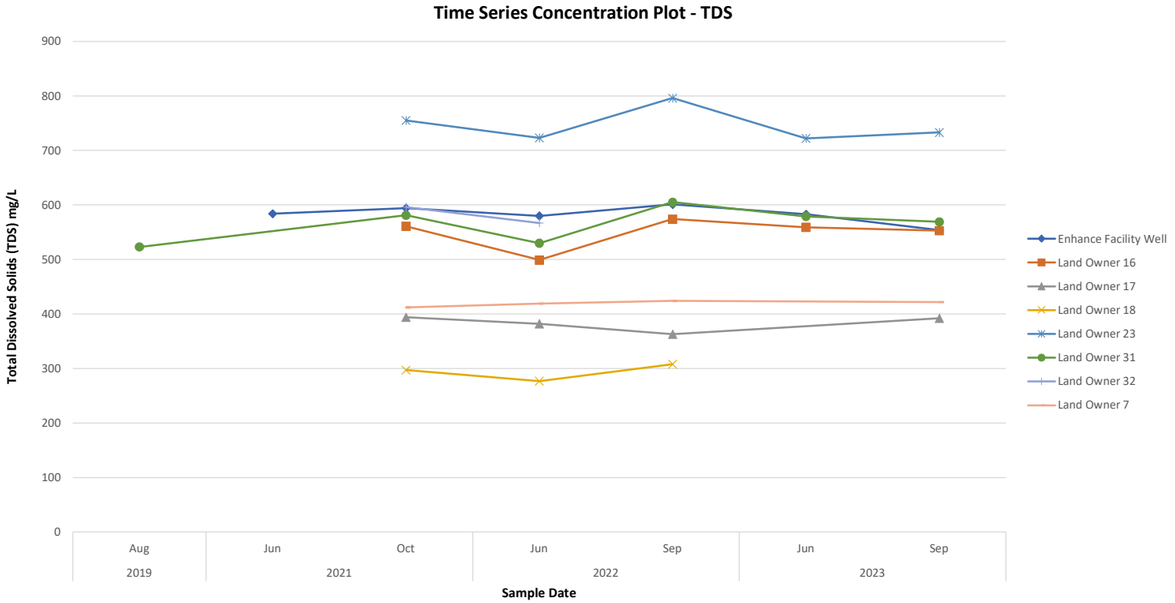
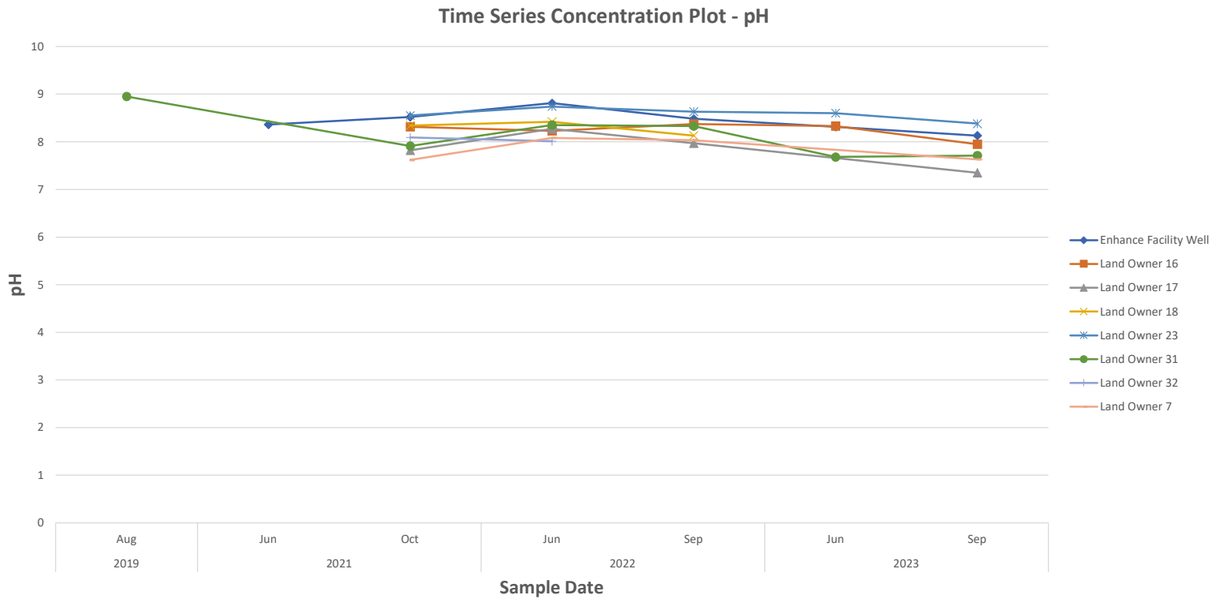
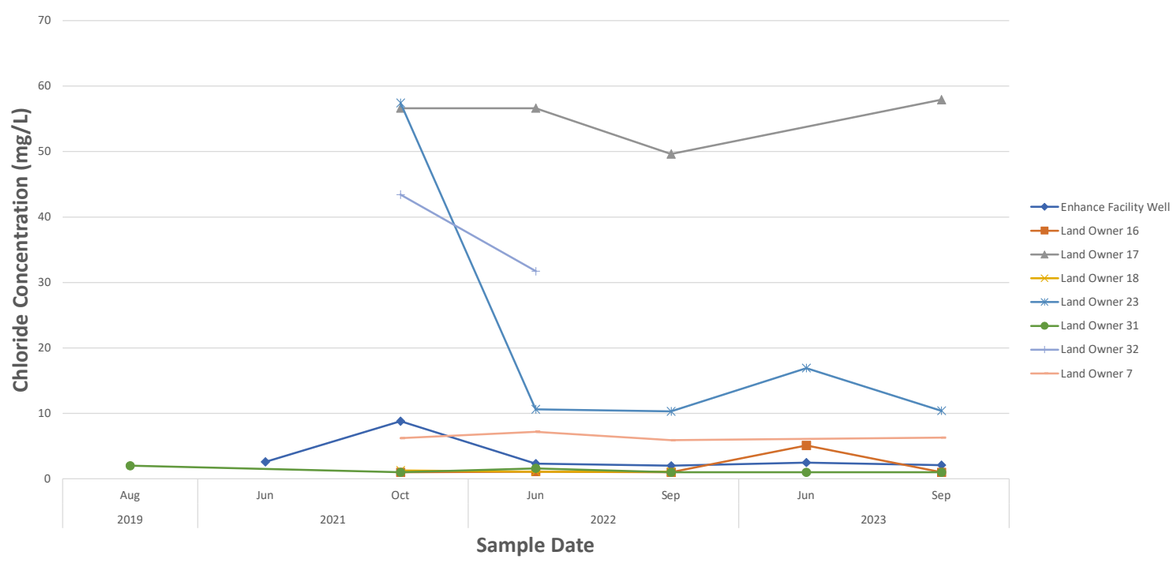
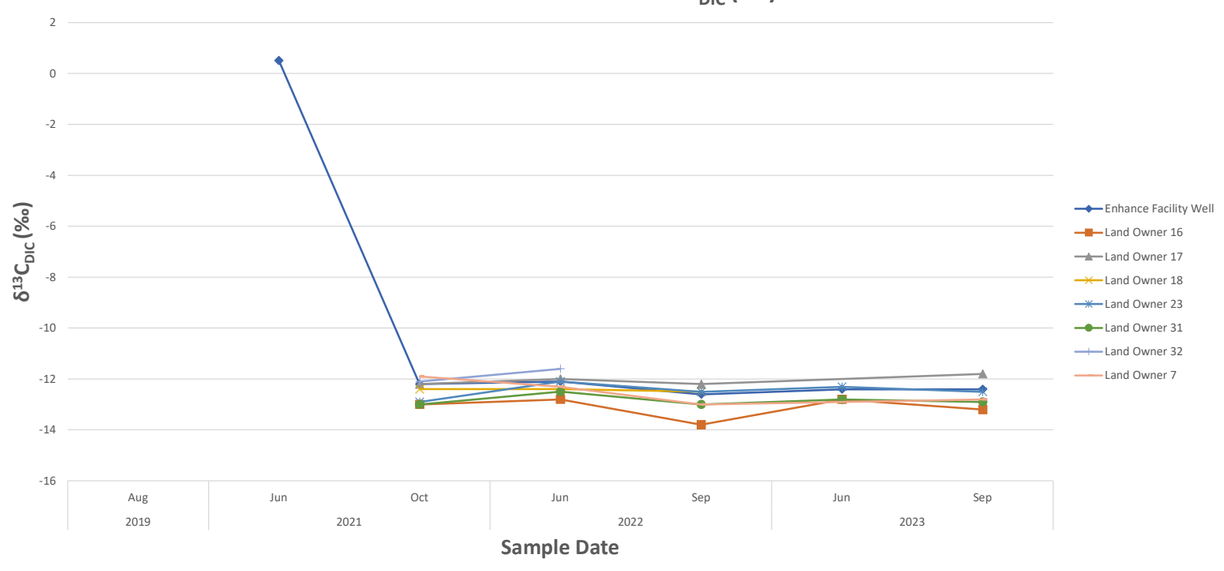
-	CP23-EEI-02-00	FIGURE 5	1









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Clive CO_2 Injection & Enhanced Oil Recovery Project
MMV Soil & Groundwater Monitoring 2023 Annual Report
Groundwater Time Series Concentration Plot - North 3 Data

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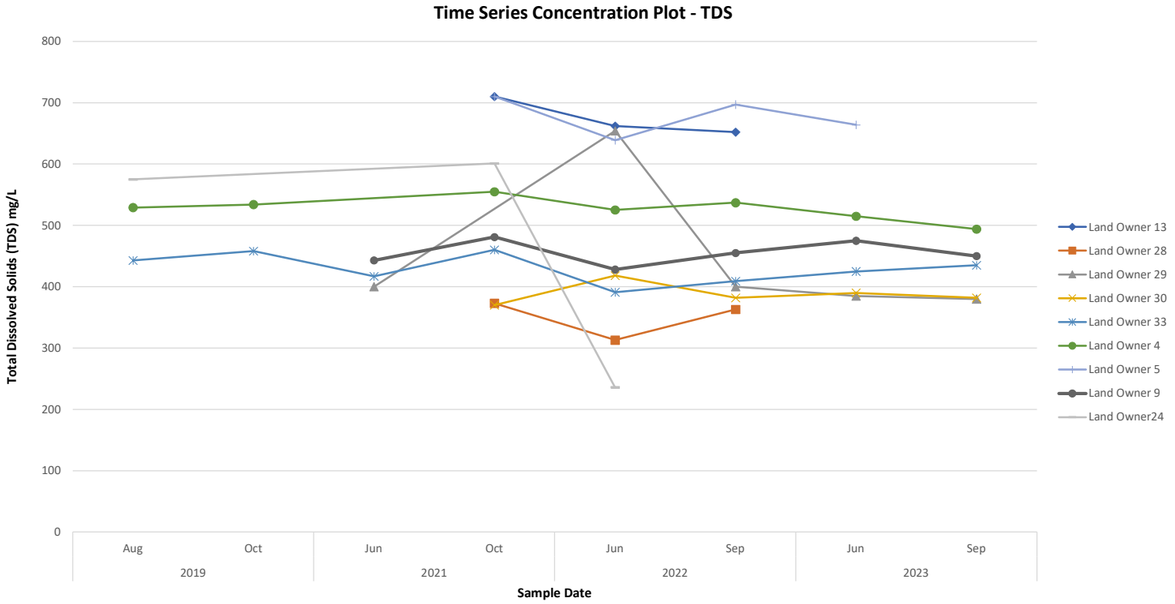
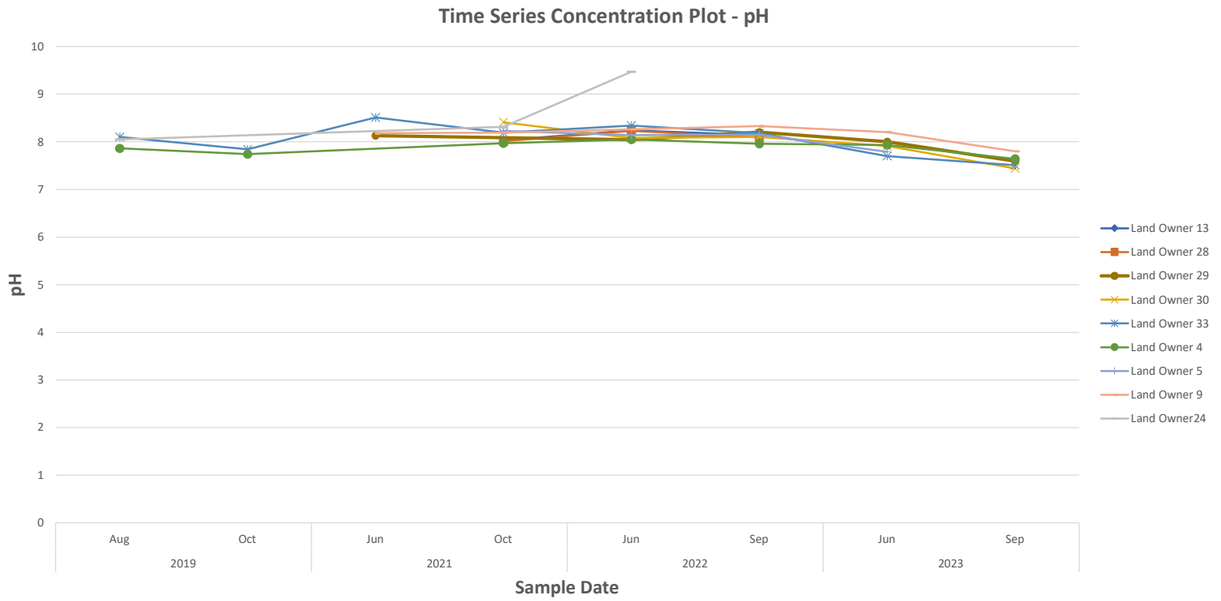
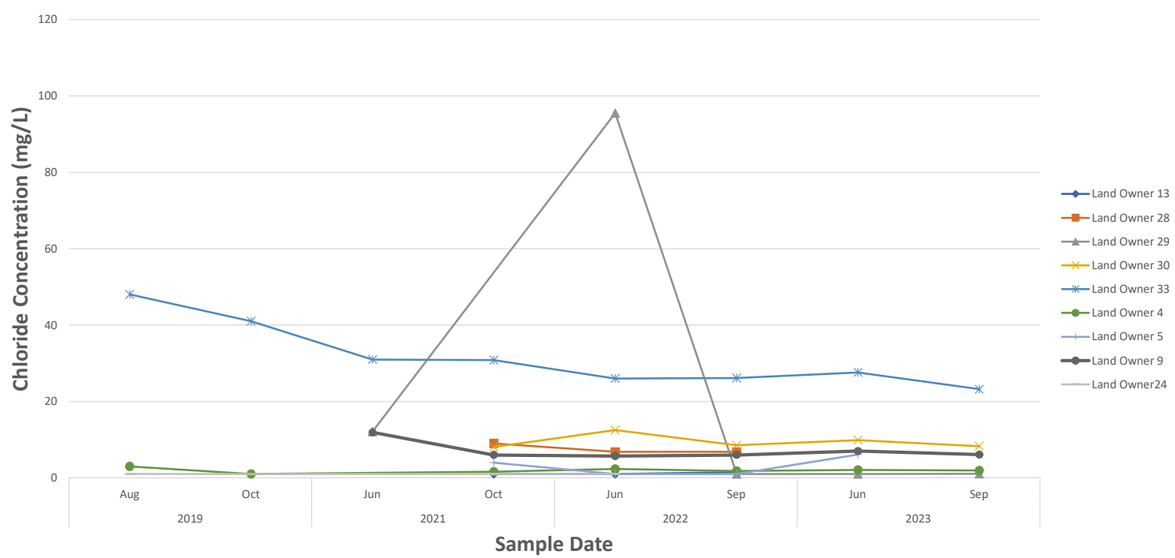
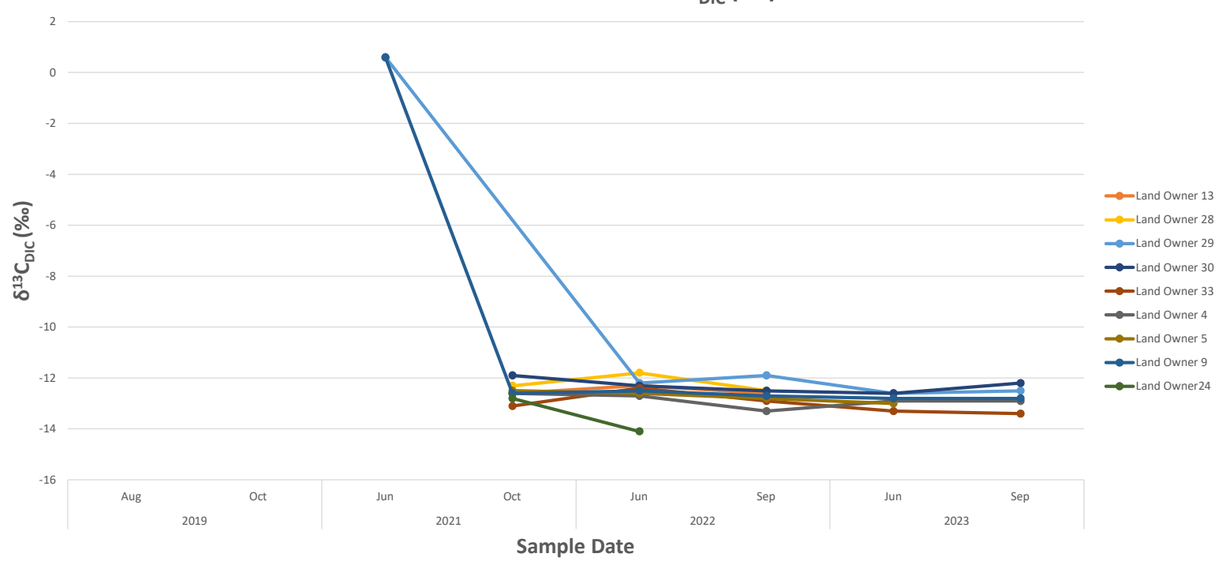
-	CP23-EEI-02-00	FIGURE 6	1









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Clive CO_2 Injection & Enhanced Oil Recovery Project
MMV Soil & Groundwater Monitoring 2023 Annual Report
Groundwater Time Series Concentration Plot - South Data

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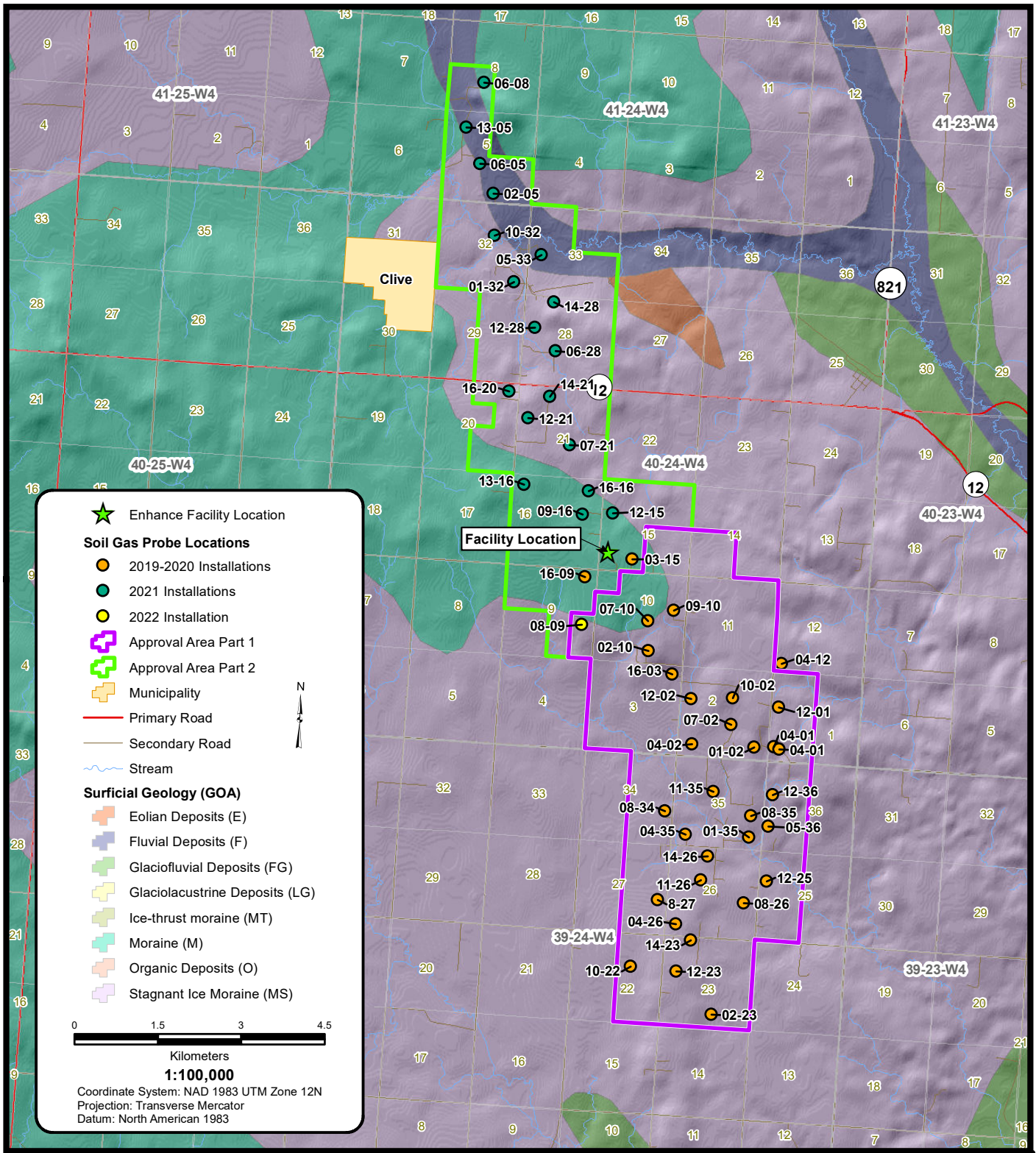
J. Cruz	J. Fennell	E. Guzman	April 4, 2024

SCALE	PROJECT NO.	FIGURE NO.	REVISION
-	CP23-EEI-02-00	FIGURE 7	1



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ENHANCE ENERGY INC.
MMV SOIL & GROUNDWATER MONITORING 2023 ANNUAL REPORT
SOIL GAS PROBE NETWORK

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K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP2-EEI-02-00	8	1

NOTES: 3-APR-24
Source: Roads and Urban Areas from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams and Surficial Geology from Government of Alberta.

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41-25-W4
41-24-W4
41-23-W4
40-25-W4
40-24-W4
40-23-W4
39-24-W4
39-23-W4
North 3 Data
North 2 Data
North 1 Data
South Data
Clive
821
12
408 38600
26800 10900
409
5080 11400
16300
8980 5510
1270
9350 (Dup-3) 8360
0
13900 13900
13700 16700
22400 21100
15900
10900 397
66300 64400
44400
2 4140 9430
28000 46100
414
35500 29400
19300 29400
21700
2660 24000
25000 22200
435 87300
31200 22100
432
9890 5440
26300 38000
28200
11400 10100
61600 39100
27600 27600
897 20700
29200 33000
399 23600 70200
17900 23400

Spring = Green
Fall = Red

- Soil Gas Probe Locations
- Atmosphere Sample
- Enhance Facility Location
- Approval Area Part 1
- Approval Area Part 2
- North 3 Data
- North 2 Data
- North 1 Data
- South Data
- Primary Road
- Secondary Road
- Stream
- Municipality

NOTE: Units are in ppmv.

0 1 2
Kilometers

N

1:52,000

Coordinate System: NAD 1983 UTM Zone 12N

PREPARED BY:
INTEGRATED SUSTAINABILITY

CLIENT:
enhance

ENHANCE ENERGY INC.
SOIL GAS PROBE NETWORK
CO2 SPRING AND FALL 2023 RESULTS

DRAWN BY:	CHECKED BY:	APPROVED BY:
K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	9	1

NOTES: 3-APR-24
Source: Roads and Urban Areas from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams from Government of Alberta.

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41-25-W4
41-24-W4
41-23-W4
40-25-W4
40-24-W4
40-23-W4
39-24-W4
39-23-W4
North 3 Data
North 2 Data
North 1 Data
South Data
Clive
821
12
2 (Dup-3)
1 (Dup-2)
1 (Dup-1)

Spring = Green
Fall = Red

- Soil Gas Probe Locations
- Atmosphere Sample
- Enhance Facility Location
- Approval Area Part 1
- Approval Area Part 2
- North 3 Data
- North 2 Data
- North 1 Data
- South Data
- Primary Road
- Secondary Road
- Stream
- Municipality

NOTE: Units are in ppmv.

0 1 2
Kilometers

N

1:52,000

Coordinate System: NAD 1983 UTM Zone 12N

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Grande Prairie
Fort McMurray
Edmonton
Calgary

PREPARED BY:
INTEGRATED SUSTAINABILITY

CLIENT:
enhance

ENHANCE ENERGY INC.
SOIL GAS PROBE NETWORK
CH4 SPRING AND FALL 2023 RESULTS

DRAWN BY:	CHECKED BY:	APPROVED BY:
K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP22-EEI-01-00	10	1

NOTES: 3-APR-24
Source: Roads and Urban Areas from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams from Government of Alberta.

41-24-W4

41-23-W4

40-23-W4

39-24-W4

39-23-W4

North 3 Data

North 2 Data

North 1 Data

South Data

Clive

821

12

-5.82 -21.61

-22.17 -20.7 -12.47

-26.39 -21.44

-20.49 -18.1

-22.42 -23.11

-18.31 -18.99 (Dup-3) 0

-20.28 -23.15

-22.65 -21 -20.93 (Dup-2) -23.43 -20.57 -21.7 (Dup-1) -22.85 -21.7 -21.04 -22.56 -20.65

-23.66 -24.15

-21.38 -22.21 -22.2 -20.12 -21.14 -16.98 -20.12

-21.33

-22.7 -20.85 -22.52 -21.87 -6.4 -22.91

-21.17 -20.28 -17.4 -21.32 -7.28

-22.27 (Dup-1) -22.2 -21.97

-21.58 -22.28

-22.64 -15.19

-22.85 (Dup-2) -23.28 -23 -25.2

-25 -22.53 -12.48 -21.38 -22.91

-20.04 -22.07

Spring = Green

Fall = Red

- Soil Gas Probe Locations
- Atmosphere Sample
- Enhance Facility Location
- Approval Area Part 1
- Approval Area Part 2
- North 3 Data
- North 2 Data
- North 1 Data
- South Data
- Primary Road
- Secondary Road
- Stream
- Municipality

NOTE: Wells with no values, indicate a 0 reading.
Units are in ‰

0 1 2
Kilometers

N

1:52,000

Coordinate System: NAD 1983 UTM Zone 12N

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PREPARED BY: INTEGRATED SUSTAINABILITY

CLIENT: enhance

ENHANCE ENERGY INC.
SOIL GAS PROBE NETWORK
D13C-CO2 SPRING AND FALL 2023 RESULTS

DRAWN BY:	CHECKED BY:	APPROVED BY:
K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	11	1

NOTES: 3-APR-24
Source: Roads and Urban Areas from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams from Government of Alberta.

41-24-W4

41-23-W4

North 3 Data

Clive

821

12

North 2 Data

40-24-W4

40-23-W4

0.71

0.72

0.54

0.85

0.54

0.72

0.94

0.95 (Dup-3)

0.95

0.78

North 1 Data

0.85

0.53

0.86

0.73

0.73 (Dup-1)

0.68

0.80

0.95

0.77

0.85

0.8739

0.50

0.31

0.83

0.95

0.64

0.20

South Data

0.54

39-24-W4

39-23-W4

0.24

0.54

0.67

Spring = Green

Fall = Red

- Soil Gas Probe Locations
- Enhance Facility Location
- Approval Area Part
- Approval Area Part
- North 3 Data
- North 2 Data
- North 1 Data
- South Data
- Primary Road
- Secondary Road
- Stream
- Municipality

0 1 2

Kilometers

N

1:52,000

Coordinate System: NAD 1983 UTM Zone 12N

Fort McMurray

Grande Prairie

Edmonton

Calgary

PREPARED BY:

INTEGRATED SUSTAINABILITY

CLIENT:

enhance

ENHANCE ENERGY INC.
SOIL GAS PROBE NETWORK
F14C CO2 SPRING AND FALL 2023 RESULTS

DRAWN BY:	CHECKED BY:	APPROVED BY:
K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	12	1

NOTES: 3-APR-24

Source: Roads and Urban Areas from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams from Government of Alberta.

Saved: 4/3/2024 2:56:53 PM

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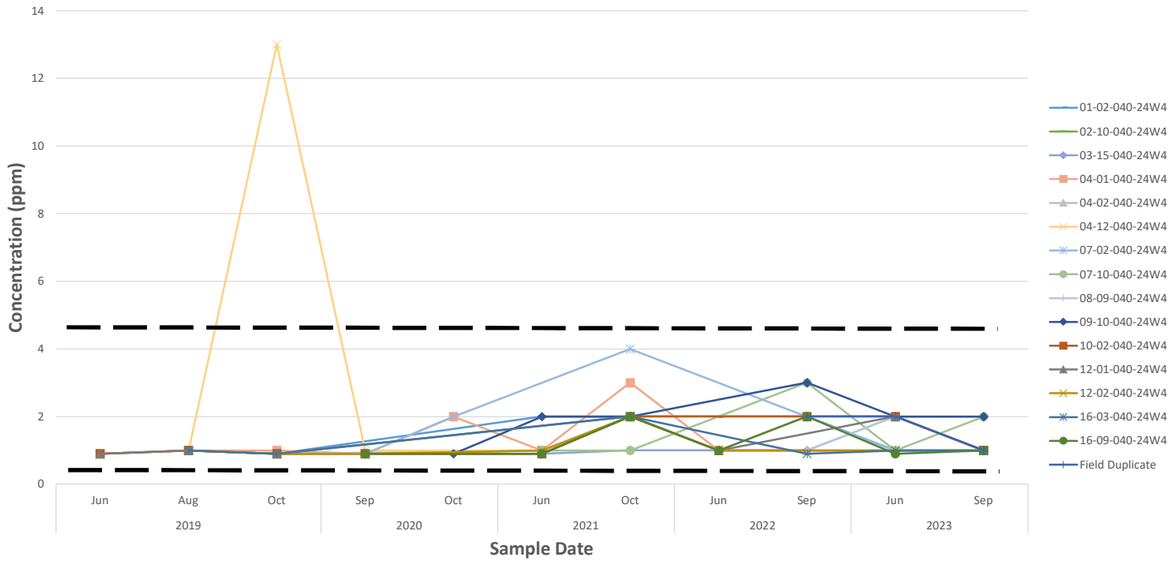
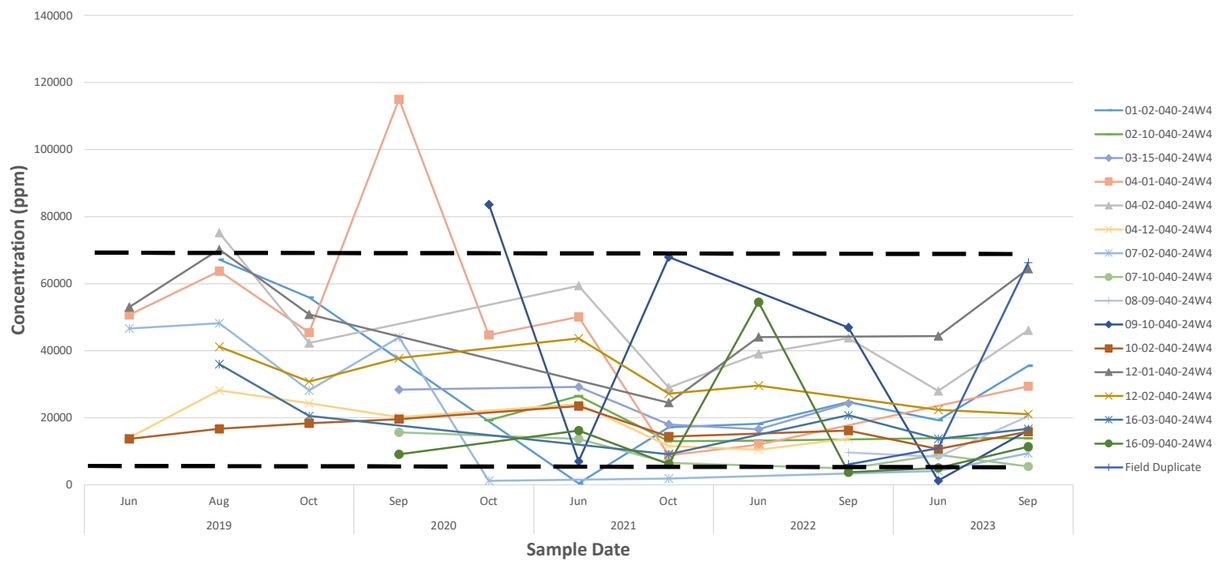
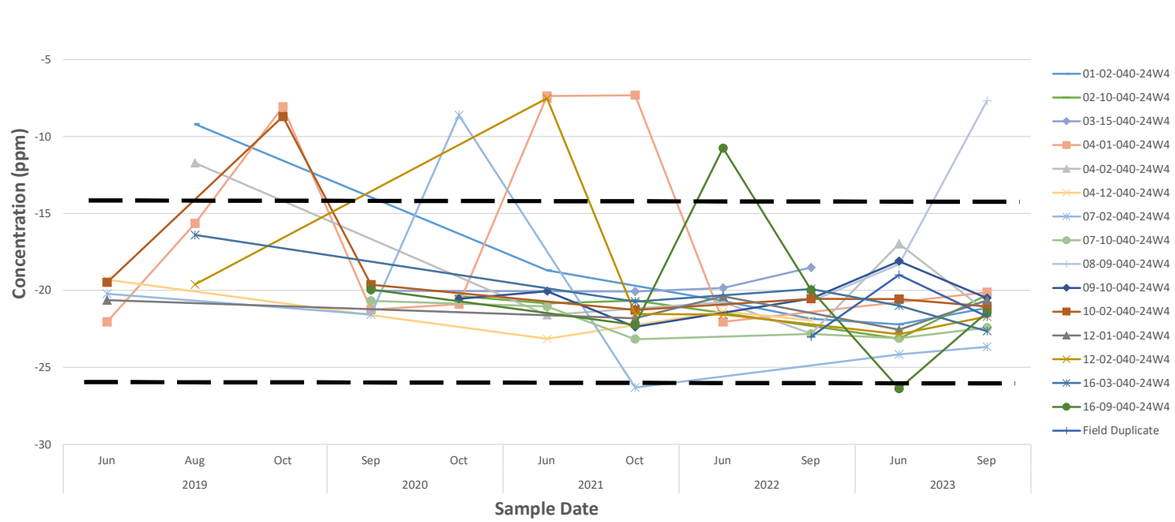
Time Series Plot - CH4



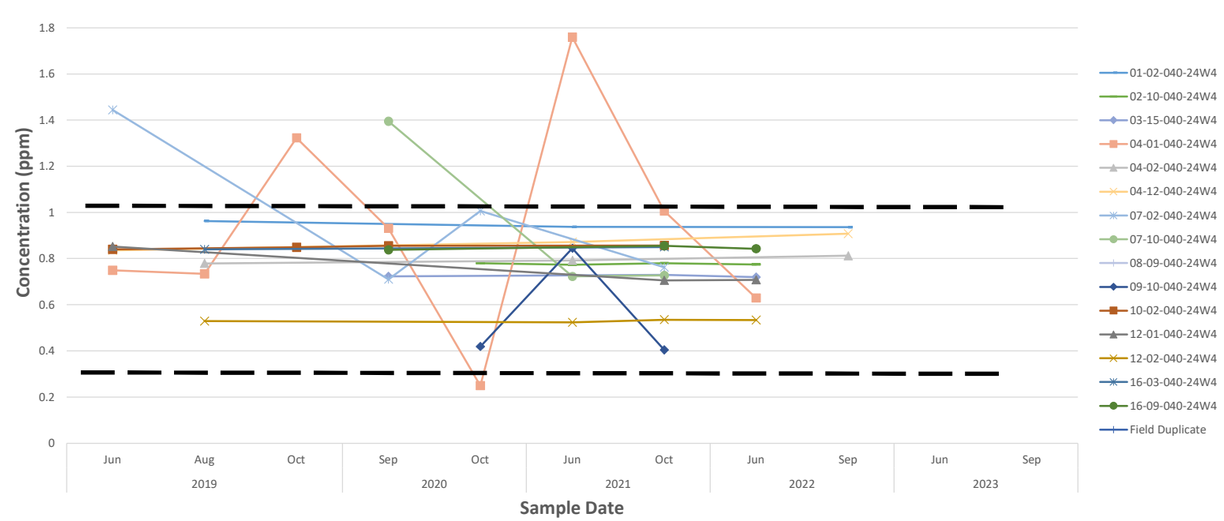
Time Series Concentration Plot - CO2



Time Series Concentration Plot - $\delta^{13}C$ in CO2



Time Series Concentration Plot - F14C in CO2



Notes:
1. **---- Represents the range of baseline conditions**
2. **CH4 Concentrations measured below the laboratory detection limit of 1 ppm are reported as 0.5 ppm**

PREPARED BY: INTEGRATED SUSTAINABILITY

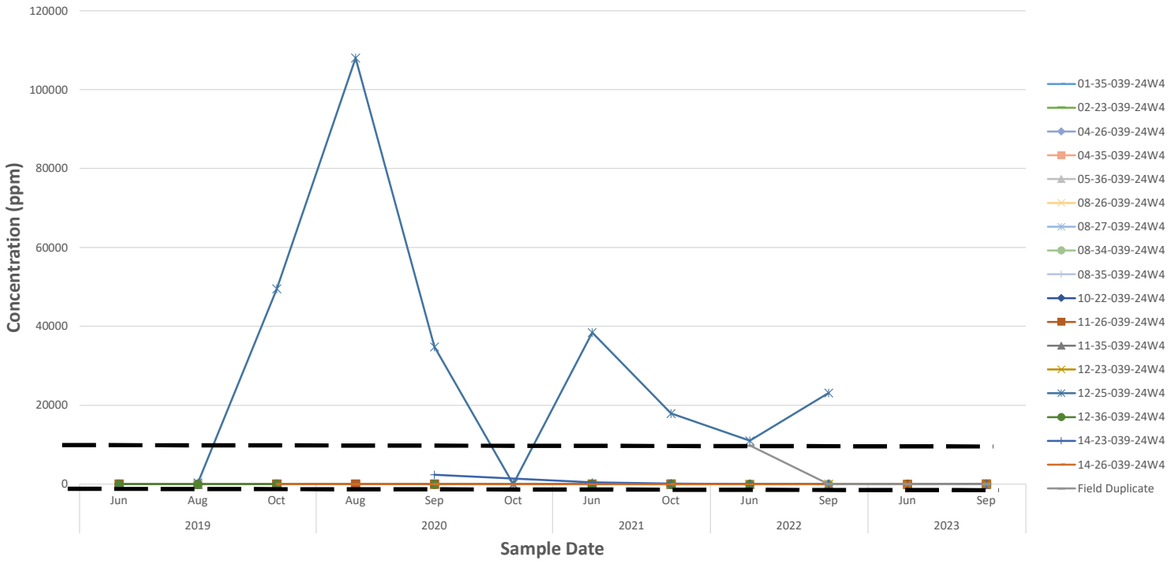
CLIENT: enhance

Clive CO_2 Injection & Enhanced Oil Recovery Project
MMV Soil & Groundwater Monitoring 2023 Annual Report
Time Series Concentration Plot - North 1 Data

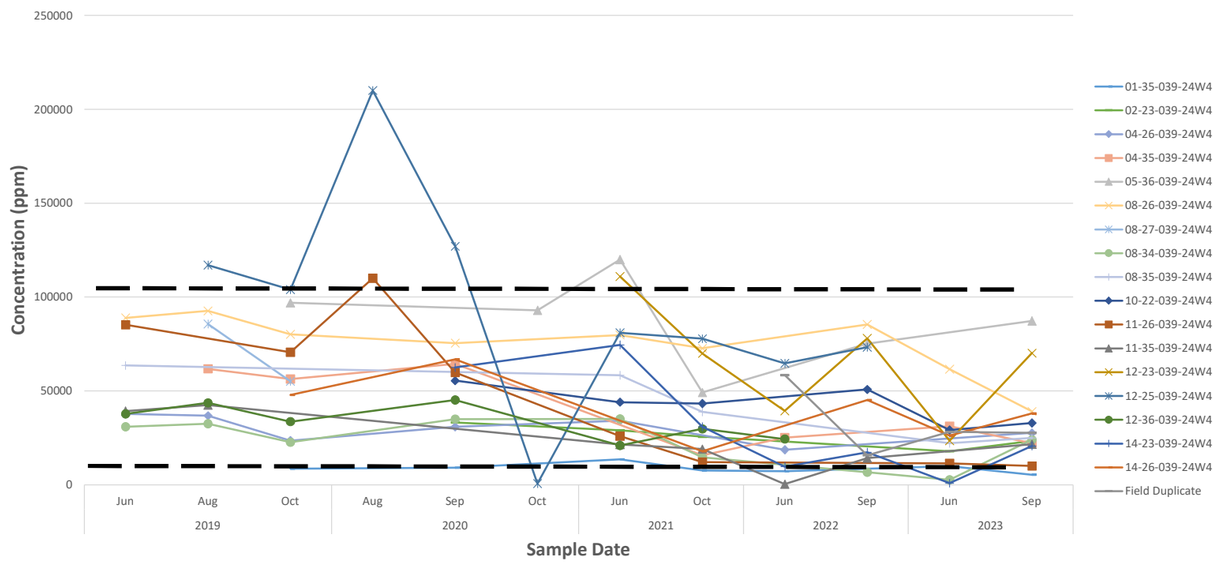
DRAWN BY	CHECKED BY	APPROVED BY:	DATE
J. Cruz	J. Fennell	E. Guzman	April 4, 2024

SCALE	PROJECT NO.	FIGURE NO:	REVISION
-	CP23-EEI-02-00	FIGURE 13	1

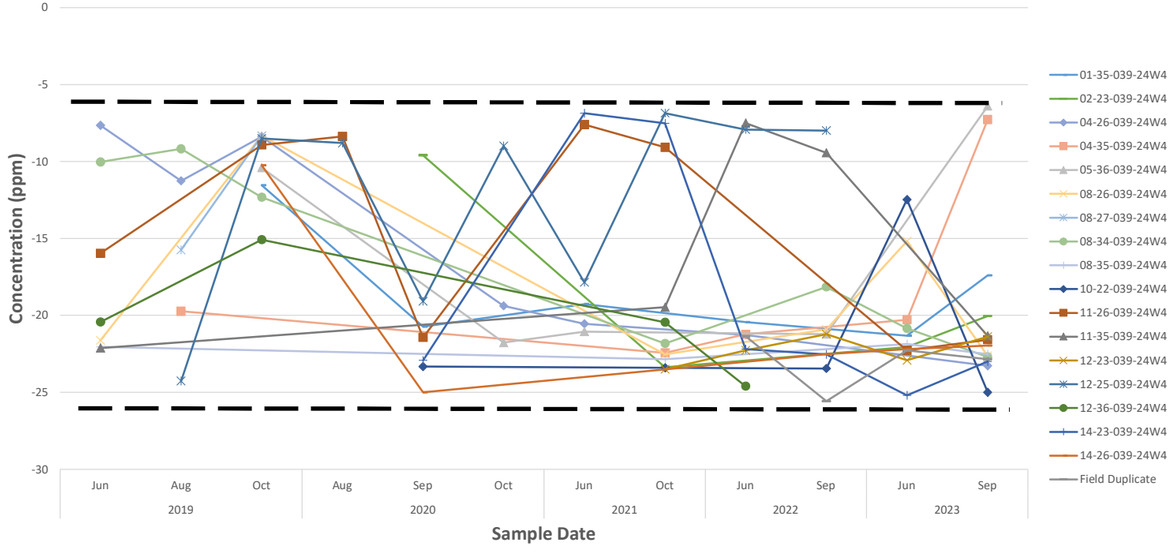
Time Series Plot - CH4



Time Series Concentration Plot - CO2



Time Series Concentration Plot - $\delta^{13}C$ in CO2



Time Series Concentration Plot - F14C in CO2

Notes:
1. **---- Represents the range of baseline conditions**
2. **CH4 Concentrations measured below the laboratory detection limit of 1 ppm are reported as 0.5 ppm**

PREPARED BY: INTEGRATED SUSTAINABILITY

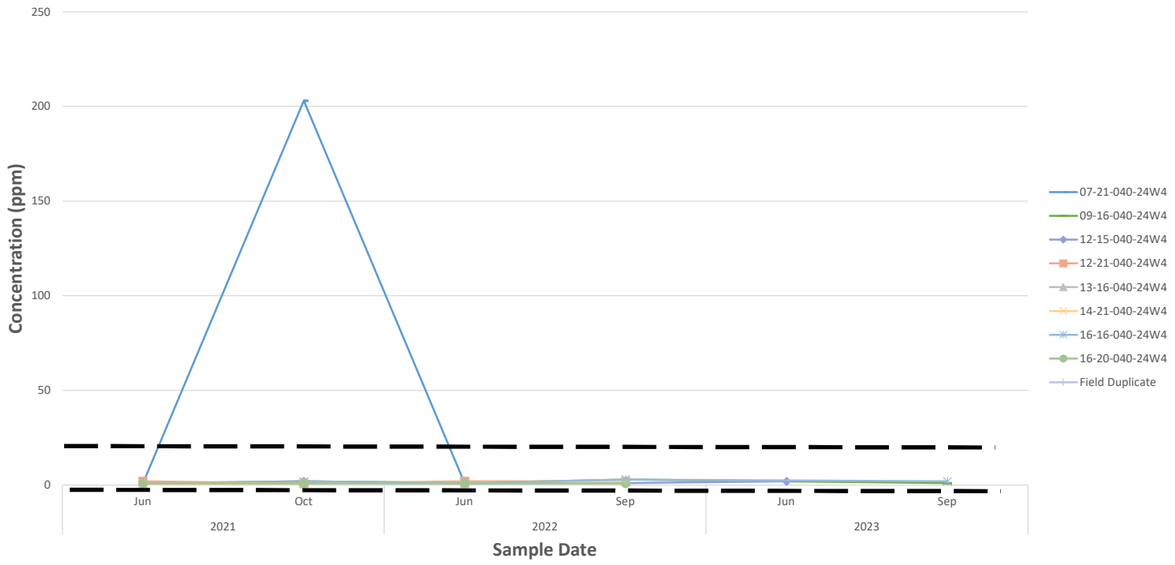
CLIENT: enhance

Clive CO_2 Injection & Enhanced Oil Recovery Project
MMV Soil & Groundwater Monitoring 2023 Annual Report
Time Series Concentration Plot - South Data

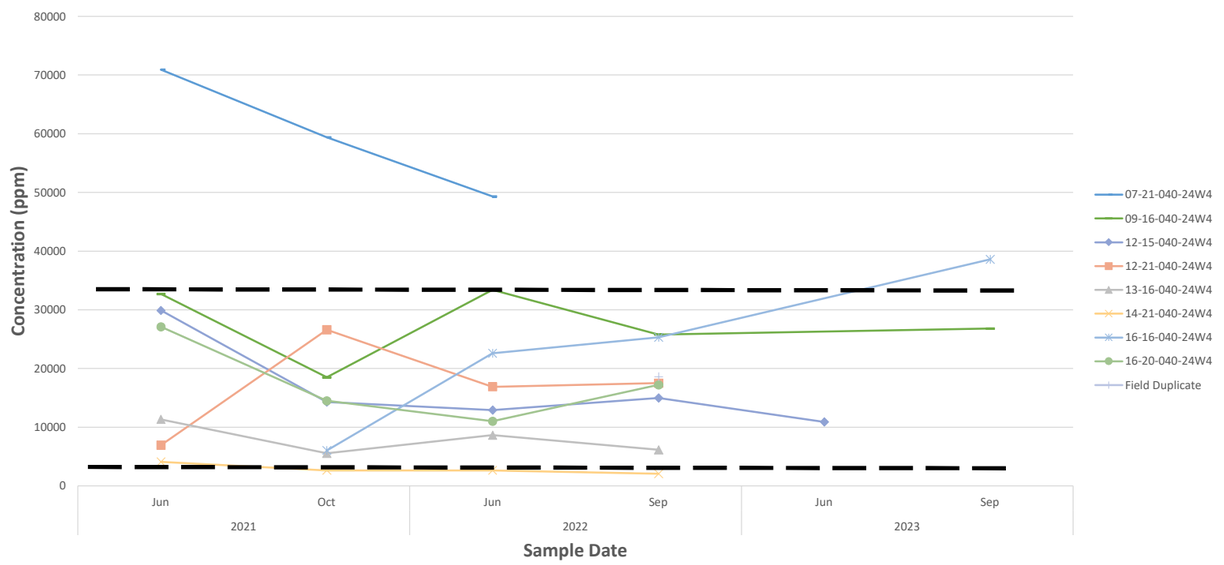
DRAWN BY	CHECKED BY	APPROVED BY:	DATE
J. Cruz	J. Fennell	E. Guzman	April 4, 2024

SCALE	PROJECT NO.	FIGURE NO.	REVISION
-	CP23-EEI-02-00	FIGURE 14	1

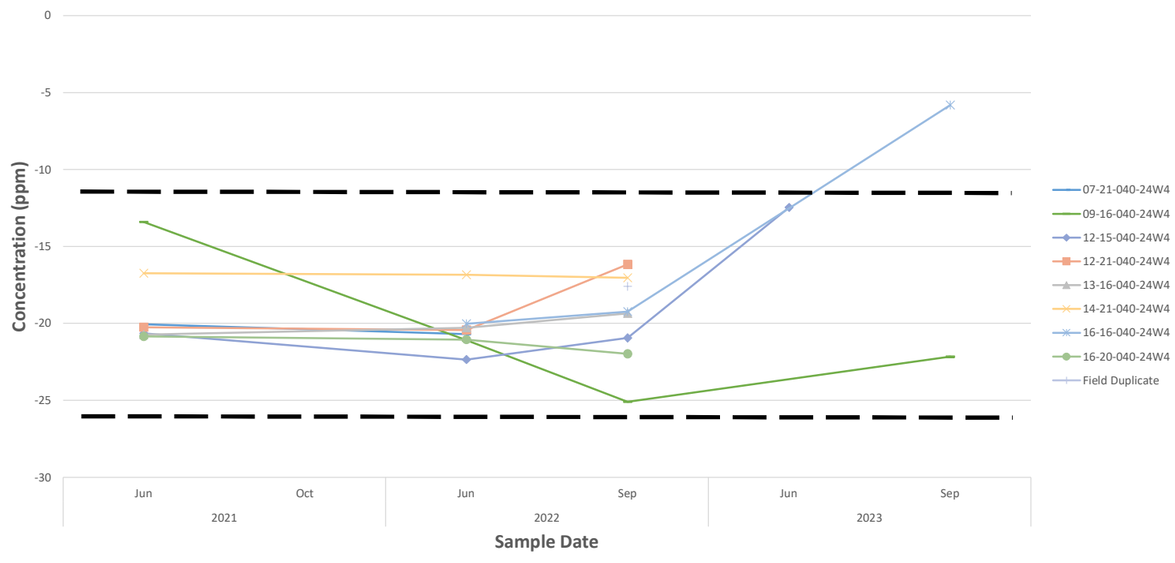
Time Series Plot - CH4



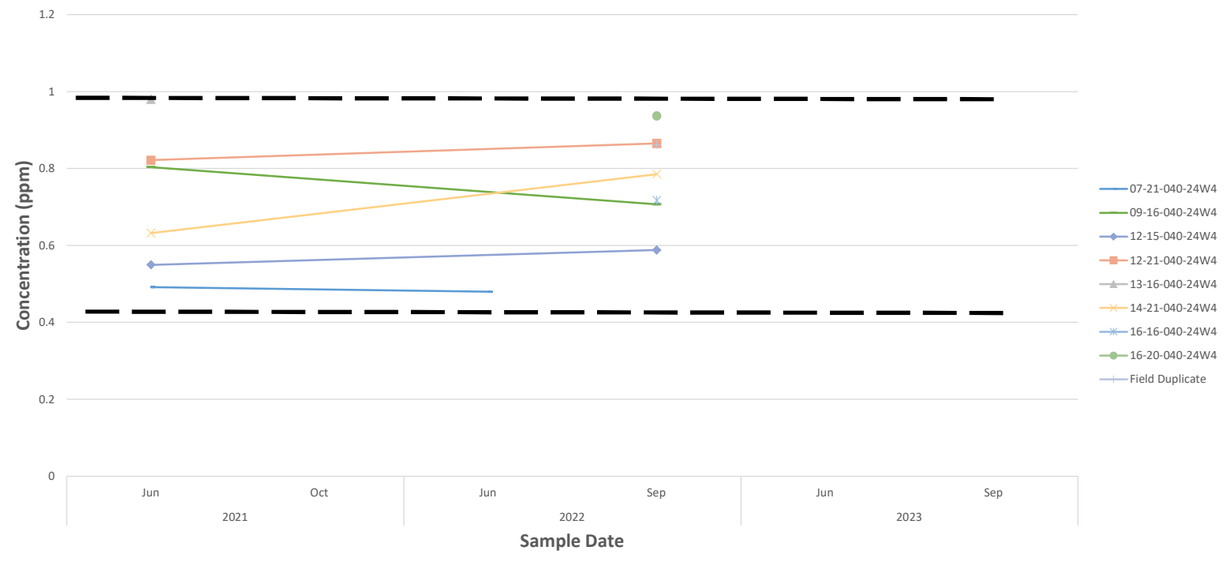
Time Series Concentration Plot - CO2



Time Series Concentration Plot - $\delta^{13}C$ in CO2



Time Series Concentration Plot - F14C in CO2



Notes:
1. ---- Represents the range of baseline conditions
2. CH4 Concentrations measured below the laboratory detection limit of 1 ppm are reported as 0.5 ppm

PREPARED BY: INTEGRATED SUSTAINABILITY

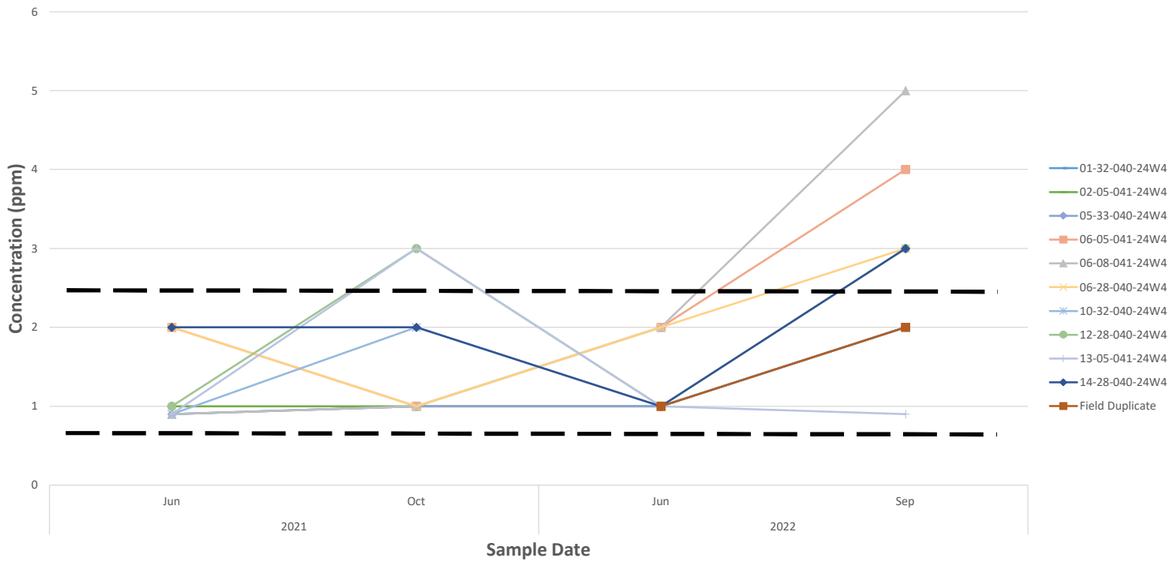
CLIENT: enhance

Clive CO_2 Injection & Enhanced Oil Recovery Project
MMV Soil & Groundwater Monitoring 2023 Annual Report
Time Series Concentration Plot - North 2 Data

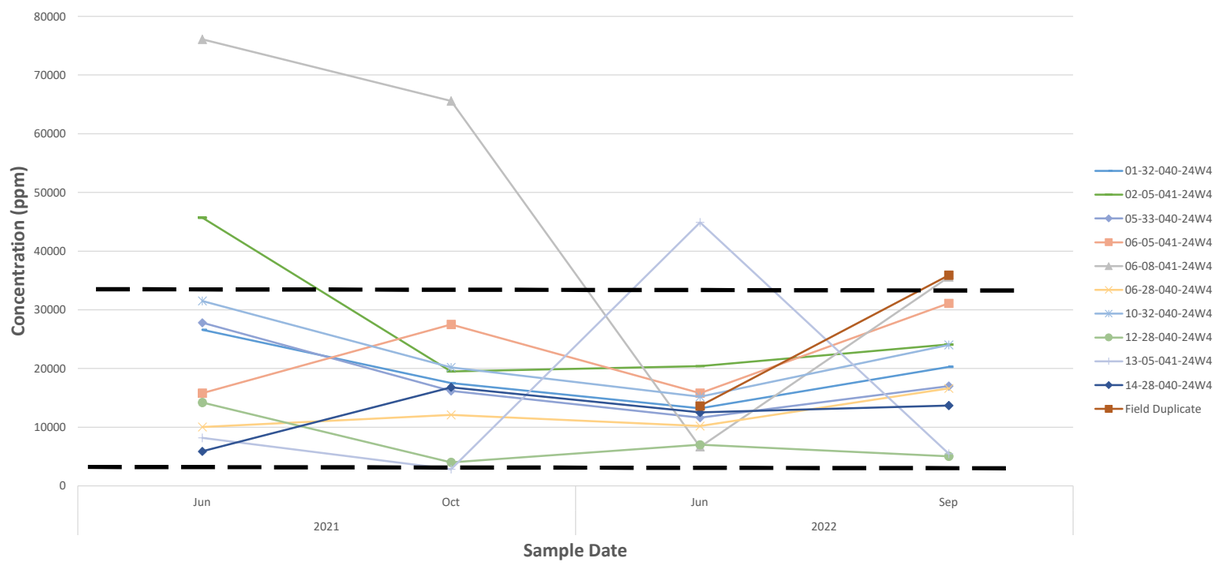
DRAWN BY	CHECKED BY	APPROVED BY:	DATE
J. Cruz	J. Fennell	E. Guzman	April 4, 2024

SCALE	PROJECT NO.	FIGURE NO.	REVISION
-	CP23-EEI-02-00	FIGURE 15	1

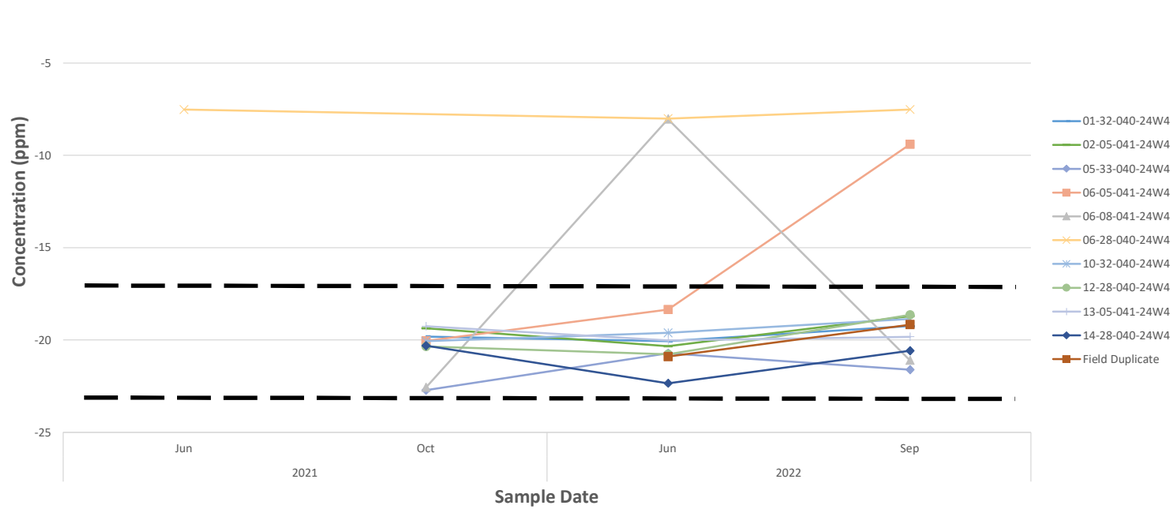
Time Series Plot - CH4



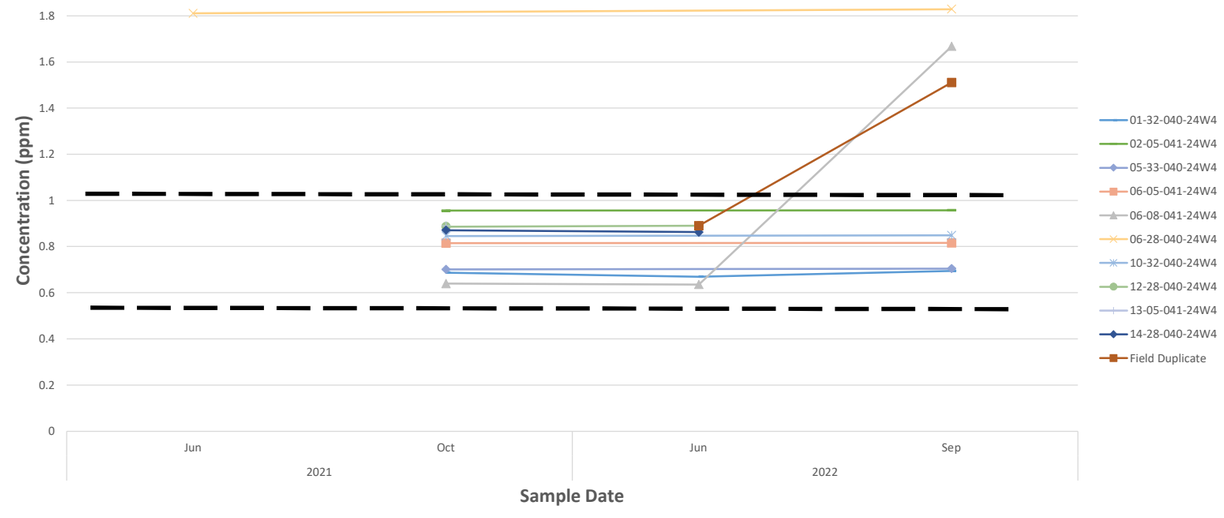
Time Series Concentration Plot - CO2



Time Series Concentration Plot - $\delta^{13}C$ in CO2



Time Series Concentration Plot - F14C in CO2



Notes:
1. **---- Represents the range of baseline conditions**
2. **CH4 Concentrations measured below the laboratory detection limit of 1 ppm are reported as 0.5 ppm**

PREPARED BY: INTEGRATED SUSTAINABILITY

CLIENT: enhance

Clive CO_2 Injection & Enhanced Oil Recovery Project
MMV Soil & Groundwater Monitoring 2023 Annual Report
Time Series Concentration Plot - North 3 Data

DRAWN BY	CHECKED BY	APPROVED BY:	DATE
J. Cruz	J. Fennell	E. Guzman	April 4, 2024

SCALE	PROJECT NO.	FIGURE NO.	REVISION
-	CP23-EEI-02-00	FIGURE 16	1

INTEGRATED SUSTAINABILITY

Tables

INTEGRATED SUSTAINABILITY

Table 1A: Field Measured Parameters

Client Name: Enhance Energy

Project Number: CP23-EEI-02-00

Date: February 9, 2023

Landowner ID	Date (dd-mmm-yy)	pH pH Units	EC uS/cm	DO %	Temperature deg c
Landowner 2	7-Oct-21	7.55	513	29.7	9.47
Landowner 2	15-Jun-22	6.7	517	43.5	13.7
Landowner 2	20-Sep-22	7.79	540.35	117.58	11.4
Landowner 2	21-Jun-23	6.64	731	38.8	8.71
Landowner 2	13-Sep-23	7.31	740	21.7	7.8
Landowner 1	7-Oct-21	7.80	454	N/A	9.62
Landowner 1	17-Jun-22	7.56	476	25.7	11.65
Landowner 1	19-Sep-22	7.72	439	92.16	11.37
Landowner 1	22-Jun-23	7.03	648	30	9.2
Landowner 1	13-Sep-23	7.38	654	12.1	10.6
Landowner 25	6-Oct-21	7.55	448	69.4	7.6
Landowner 33	16-Jun-21	6.82	532	78.1	7.69
Landowner 33	7-Oct-21	N/A	492	N/A	7.78
Landowner 33	15-Jun-22	7.87	359	80.1	11.4
Landowner 33	21-Sep-22	7.8	592.15	117.53	13.9
Landowner 33	15-Jun-22	7.60	522	102.2	10.65
Landowner 33	21-Jun-23	7.09	742	63	8.4
Landowner 33	19-Sep-23	7.35	737	46.9	7.8
Landowner 4	8-Oct-21	7.58	601	53.5	8.95
Landowner 4	18-Jun-22	7.37	647	33.4	11.41
Landowner 4	19-Sep-22	7.19	662.89	115.24	13.94
Landowner 4	21-Jun-23	7.12	742	63	8.4
Landowner 4	13-Sep-23	7.24	873	22.5	10.2
Landowner 31	8-Oct-21	8.03	660	30.1	8.77
Landowner 31	17-Jun-22	7.53	703	125	13.4
Landowner 31	19-Sep-22	7.41	641.64	46.24	11.42
Landowner 31	19-Sep-22	7.41	641.64	46.24	11.42
Landowner 31	27-Jun-23	7.44	951	56.6	8.92
Landowner 31	14-Sep-23	7.49	941	16.2	8.9

INTEGRATED SUSTAINABILITY

Table 1A: Field Measured Parameters

Client Name: Enhance Energy

Project Number: CP23-EEI-02-00

Date: February 9, 2023

Landowner ID	Date (dd-mmm-yy)	pH pH Units	EC uS/cm	DO %	Temperature deg c
Landowner 24	7-Oct-21	7.74	321	88.1	7.9
Landowner 24	17-Jun-22	9.06	938	53	7.5
Landowner 24	22-Sep-22	9.82	400.12	53	14.49
UL1 - Development	14-Jun-21	7.43	646	41.8	7.43
UL1 - Development	5-Oct-21	7.44	455	24.9	7.68
UL1 - Development	26-Jun-22	8.13	502	27.2	10.85
UL1 - Development	20-Jun-23	7.85	1135	45.00	8.6
UL1 - Development	21-Sep-23	8.64	1109	13.9	8.4
UL2 - Development	14-Jun-21	7.21	685	34.1	10.42
UL2 - Development	5-Oct-21	7.82	446	138.1	7.68
UL2 - Development	26-Jun-22	8.31	503	25	13.12
UL2 - Development	20-Jun-23	6.85	665	67.00	7.4
UL2 - Development	12-Sep-23	7.24	1452	21.4	13.3
UL3 - Development	14-Jun-21	10.02	1230	26.9	12.42
UL3 - Development	5-Oct-21	8.83	732	110.5	6.8
UL3 - Development	26-Jun-22	8.81	835	160	10.43
UL3 - Development	20-Jun-23	7.20	353	42.00	7.5
UL3 - Development	12-Sep-23	7.31	1593	25.4	14.7
Landowner 19	16-Jun-21	7.11	539	52.4	7.86
Landowner 19	8-Oct-21	7.49	275	111.2	8.4
Landowner 19	24-Jun-23	7.08		63.6	
Landowner 19	18-Sep-23	7.14	775	29.7	7.7
Landowner 29	23-Jun-22	7.71	453	70.4	8.99
Landowner 29	24-Jun-22	7.71	453	70.4	8.99
Landowner 29	24-Sep-22	7.90	603	40.60	12.48
Landowner 29	29-Jun-23	6.37	684	20.30	11.16
Landowner 29	14-Sep-23	7.32	644	13.9	10.1

INTEGRATED SUSTAINABILITY

Table 1A: Field Measured Parameters

Client Name: Enhance Energy

Project Number: CP23-EEI-02-00

Date: February 9, 2023

Landowner ID	Date (dd-mmm-yy)	pH pH Units	EC uS/cm	DO %	Temperature deg c
273157 (Enhance Facili	14-Jun-21	8.11	982	16.9	16.91
273157 (Enhance Facili	5-Oct-21	8.30	378	250.3	12.64
273157 (Enhance Facili	14-Jun-22	8.18	642	38.5	9
273157 (Enhance Facili	19-Sep-22	8.17	761	71.39	14.75
273157 (Enhance Facili	21-Jun-23	8	950	33.7	10.13
273157 (Enhance Facili	13-Sep-23	8.17	933	27.2	15.7
Landowner 14	6-Oct-21	7.43	514	20	8.52
Landowner 14	18-Jun-22	7.5	490	87.8	7.81
Landowner 14	21-Sep-22	7.72	567	96.73	10.65
Landowner 14	27-Jun-23	6.44	744	24.8	8.45
Landowner 14	14-Sep-23	7.38	759	18.4	9.4
Landowner 26	8-Oct-21	7.41	767	29.7	7.07
Landowner 26	23-Jun-22	7.71	453	70.4	8.99
Landowner 26	21-Sep-22	7.47	864	32.64	9.37
Landowner 7	16-Oct-21	7.63	456	24.3	6.8
Landowner 7	16-Jun-22	7.65	258	47.6	9.5
Landowner 7	20-Sep-22	7.55	544	105.92	12.74
Landowner 7	15-Sep-23	7.35	7.3	17.2	17.2
Landowner 11	6-Oct-21	7.50	577	33.6	9.59
Landowner 11	15-Jun-22	7.22	502	127	12.33
Landowner 11	20-Sep-22	7.82	607	98.69	11.3
Landowner 16	6-Oct-21	8.13	624	33.5	8.34
Landowner 16	16-Jun-22	8.57	651	172.6	10.82
Landowner 16	20-Sep-22	8.22	679.66	35.2	11.37
Landowner 16	23-Jun-23	7.51	924	35.2	10.4
Landowner 16	14-Sep-23	8.05	897	20.1	8.4

Table 1A: Field Measured Parameters

Client Name: Enhance Energy
Project Number: CP23-EEI-02-00
Date: February 9, 2023

Landowner ID	Date (dd-mmm-yy)	pH pH Units	EC uS/cm	DO %	Temperature deg c
Landowner 9	16-Jun-21	7.11	264	45.6	8.91
Landowner 9	6-Oct-21	7.48	504	84.2	6.6
Landowner 9	15-Jun-22	7.76	564	96.6	11.5
Landowner 9	19-Sep-22	7.92	546.35	48.99	11.7
Landowner 9	19-Sep-22	7.92	785	48.99	10.59
Landowner 9	21-Jun-23	7.34	766	28	8.7
Landowner 3	6-Oct-21	8.09	674	174.2	7.24
Landowner 3	17-Jun-22	7.5	828	53	9.47
Landowner 3	21-Sep-22	7.61	878.29	62.22	12.29
Landowner 3	6-Oct-21	7.99	756	44.3	11.4
Landowner 3	19-Sep-23	7.43	1166	9.6	9.1
Landowner 20	14-Oct-21	8.00	328	93.9	6.38
Landowner 20	23-Jun-22	7.94	699	101.3	10.16
Landowner 20	21-Sep-22	8.08	767	63.36	13.48
Landowner 20	27-Jun-23	7.04	993	28.9	11.8
Landowner 20	13-Sep-23	7.61	9.9	27.7	27.7
Landowner 28	8-Oct-21	7.67	429	99.2	8.43
Landowner 28	15-Jun-22	8.18	474	44.8	13.27
Landowner 28	19-Sep-22	7.62	459	119.3	12.08
Landowner 8	8-Oct-21	8.85	527	20	9.37
Landowner 8	15-Jun-22	8.53	1015	-	9
Landowner 8	21-Sep-22	8.71	1153	32.19	12.62
Landowner 8	23-Jun-23	8.16	1495	58	10.3
Landowner 8	15-Sep-23	8.60	1485	17.6	10
Landowner 30	7-Oct-21	7.56	404	4.11	5.32
Landowner 30	18-Jun-22	7.22	533	56	12.56
Landowner 30	19-Sep-22	7.50	458	85.23	10.01
Landowner 30	29-Jun-23	5.84	663	22.1	7.7
Landowner 30	19-Sep-23	7.28	648	6.1	6.9

INTEGRATED SUSTAINABILITY

Table 1A: Field Measured Parameters

Client Name: Enhance Energy

Project Number: CP23-EEI-02-00

Date: February 9, 2023

Landowner ID	Date (dd-mmm-yy)	pH pH Units	EC uS/cm	DO %	Temperature deg c
Landowner 21	14-Oct-21	8.84	747	10.1	7.42
Landowner 21	16-Jun-22	8.88	800	130.1	14.76
Landowner 21	20-Sep-22	8.79	798	37.25	10.86
Landowner 21	22-Jun-23	8.33	1118	23.9	10.63
Landowner 21	14-Sep-23	8.56	10.1	18.8	18.8
Landowner 13	17-Oct-21	7.77	682	33.3	7.15
Landowner 13	16-Jun-22	7.74	480	94.2	13.07
Landowner 13	21-Sep-22	7.88	787	44.48	11.53
Landowner 23	6-Oct-21	8.65	919	16	11.7
Landowner 23	16-Jun-22	8.63	913	20.67	12.02
Landowner 23	20-Sep-22	8.75	938.57	37.41	11.01
Landowner 23	22-Jun-23	8.44	1205	35.6	11.27
Landowner 23	13-Sep-23	8.58	1206	18.8	9.8
Landowner 20	6-Oct-21	8.78	750	25.3	10.11
Landowner 20	16-Jun-22	8.84	-	11.27	19.3
Landowner 20	23-Sep-22	8.94	828.22	119.58	12.94
Landowner 10	8-Oct-21	8.40	732	114.2	10.76
Landowner 10	18-Jun-22	7.78	681	52.4	10.57
Landowner 10	20-Sep-22	8.32	725	29.68	10.77
Landowner 5	14-Oct-21	7.70	1057	15.1	7.62
Landowner 5	17-Jun-22	7.6	7610	33.2	10.81
Landowner 5	22-Sep-22	8.12	774	114.34	16.09
Landowner 5	23-Jun-23	6.66	1043	63.5	10.2
Landowner 17	8-Oct-21	7.56	430	35.5	6.63
Landowner 17	18-Jun-22	8.1	474	10.82	9.31
Landowner 17	21-Sep-22	7.72	494	99.06	10.62
Landowner 17	19-Sep-23	7.22	714	10.8	8.9

INTEGRATED SUSTAINABILITY

Table 1A: Field Measured Parameters

Client Name: Enhance Energy

Project Number: CP23-EEI-02-00

Date: February 9, 2023

Landowner ID	Date (dd-mmm-yy)	pH pH Units	EC uS/cm	DO %	Temperature deg c
Landower 32	7-Oct-21	7.57	648	88.5	6.95
Landower 32	18-Jun-22	7.65	607	93	9.92
Landowner 25	14-Oct-21	7.76	336	156.3	9.77
Landowner 25	17-Jun-22	7.46	522	59.9	16.52
Landowner 25	20-Sep-22	6.69	637	112.6	13.77
Landowner 18	16-Oct-21	7.80	342	21.2	7.58
Landowner 18	15-Jun-22	7.91	363	45	9.97
Landowner 18	19-Sep-22	7.78	387	116.49	11.84
Landowner 6	17-Jun-21	6.49	748	73.6	7.68
Landowner 6	4-Oct-21	7.33	529	56.2	7.72
Landowner 6	14-Jun-22	7.32	502	44.5	7.67
Landowner 6	19-Sep-22	7.6	600.83	117.12	10.44
Landowner 6	15-Sep-23	7.14	782	26.3	7.5
Landowner 34	22-Sep-23	8.44	1347	84.8	8.87
Enhance Monitoring W	20-Jun-23	6.92	746	39	10.8
Enhance Monitoring W	13-Sep-23	6.95	1259	22.8	14
Landowner 35	22-Sep-23	6.95	825	22.8	7
Landowner 22	7-Oct-21	8.93	935	N/A	11.6
Landowner 22	15-Jun-22	7.63	773	93.9	12.85
Landowner 22	20-Sep-22	9.06	769	90.56	10.64
Landowner 22	22-Jun-23	8.71	1089	26.9	11.4
Landowner 22	13-Sep-23	8.92	1047	22.7	10.8

Notes

1. - in detail data row(s) denotes parameter not analyzed
2. < in detal data row(s) denotes parameter below laboratory detection limit

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 1B: GroundWater Analytical Results: General, Major Ions, Nutrients

Area	Land Owner Number	Date (dd-mmm-yy)	pH pH Units	Electrical Conductivity uS/cm	p - Alkalinity (as CaCO3) mg/L	T - Alkalinity (as CaCO3) mg/L	Bicarbonate mg/L	Nitrate mg/L	Nitrate-N mg/L	Nitrite mg/L	Nitrite-N mg/L	Sulfate mg/L	Dissolved Calcium mg/L	Dissolved Iron mg/L	Dissolved Magnesium mg/L	Dissolved Manganese mg/L	Dissolved Potassium mg/L	Dissolved Sodium mg/L	Sodium Adsorption Ratio None	Calculated TDS mg/L	Hardness mg/L	Hydroxide mg/L	Bromide mg/L	Carbonate mg/L	Hydroxide mg/L	Chloride mg/L	Fluoride mg/L	Dissolved Calcium mg/L	Dissolved Inorganic Carbon mg/L
Active Groundwater Sampling Locations																													
North 1	Landowner 2	8/Aug/19	7.79	796	< 5	350	426	21.8	4.92	< 0.05	< 0.01	54	-	< 0.1	34.2	< 0.005	-	31.4	0.72	449	364	< 5	< 0.1	< 5	< 5	6	0.14	-	78
	Landowner 2	9/Oct/19	7.68	761	< 5	359	438	21.8	4.92	< 0.05	< 0.01	54	-	< 0.1	32.5	< 0.005	-	31.7	0.74	449	343	< 5	< 0.1	< 5	< 5	7	0.18	-	69
	Landowner 2	7/Oct/21	8.05	749	< 5	347	424	18.9	4.27	< 0.05	< 0.01	52.4	-	< 0.1	36.3	< 0.005	-	36.5	0.79	465	407	< 5	< 0.1	< 5	< 5	5.8	0.16	-	-
	Landowner 2	7/Oct/21	8.24	746	< 5	343	418	19.0	4.29	< 0.05	< 0.01	52.4	-	< 0.1	33.3	< 0.005	-	33.9	0.76	449	378	< 5	< 0.1	< 5	< 5	5.7	0.14	-	-
	Landowner 2	15/Jun/22	7.89	705	< 5	337	420	18.2	4.11	< 0.05	< 0.01	48.7	84.2	< 0.1	31.8	< 0.005	2.5	31.0	0.77	430	341	< 5	< 0.1	< 5	< 5	5.5	0.18	84.2	-
	Landowner 2	20/Sep/22	7.96	702	< 5	347	432	18.1	4.09	< 0.05	< 0.01	52.8	84.8	< 0.1	34.4	< 0.005	2.9	33.0	0.76	444	353	< 5	< 0.1	< 5	< 5	5.6	0.14	84.8	-
	Landowner 2	21/Jun/23	7.93	752	< 5	356	434	20.7	4.68	< 0.05	< 0.01	56.9	82.0	0.003	29.9	0.00010	2.78	29.9	0.72	442	328	< 5	< 0.1	< 5	< 5	6.4	0.11	82.0	-
	Landowner 2	13/Sep/23	7.75	757	< 5	337	412	15.6	3.52	< 0.05	< 0.01	55.3	82.9	0.003	30.5	0.00015	2.71	30.4	0.73	425	333	< 5	< 0.1	< 5	< 5	4.9	0.14	82.9	-
North 1	Land Owner 12	8/Aug/19	7.99	690	< 5	310	380	0.2	0.05	< 0.05	< 0.01	25	-	1.1	28.7	0.426	-	47.6	1.26	361	270	< 5	< 0.1	< 5	< 5	10	0.2	-	82
	Land Owner 12	8/Oct/19	7.85	669	< 5	335	409	0.1	0.02	< 0.05	< 0.01	28	-	1.1	26.3	0.443	-	46.5	1.28	370	251	< 5	< 0.1	< 5	< 5	9	0.17	-	67
North 2	Landowner 1	7/Aug/19	7.91	700	< 5	300	360	7.2	1.63	< 0.05	< 0.01	36	-	< 0.1	29.1	0.014	-	38.6	0.98	368	294	< 5	< 0.1	< 5	< 5	7	0.14	-	84
	Landowner 1	7/Aug/19	7.93	700	< 5	300	370	7.2	1.63	< 0.05	< 0.01	36	-	< 0.1	29.1	0.014	-	38.3	0.97	372	293	< 5	< 0.1	< 5	< 5	7	0.14	-	76
	Landowner 1	9/Oct/19	8	686	< 5	338	413	7.7	1.74	< 0.05	< 0.01	42	-	< 0.1	26.6	0.015	-	37.6	0.99	393	272	< 5	< 0.1	< 5	< 5	8	0.15	-	66
	Landowner 1	7/Oct/21	7.95	714	< 5	311	379	4.3	0.97	< 0.05	< 0.01	36.4	-	< 0.1	29.3	0.011	-	37.5	0.95	374	293	< 5	< 0.1	< 5	< 5	7.8	0.16	-	-
	Landowner 1	17/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Landowner 1	17/Jun/22	8.40	601	6	260	302	4.3	0.97	< 0.05	< 0.01	34.4	65.3	< 0.1	25.6	0.008	2.9	34.7	0.92	333	268	< 5	< 0.1	8	< 5	8.9	0.17	65.3	-
	Landowner 1	29/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Landowner 1	19/Sep/22	8.03	623	< 5	328	408	4.0	0.90	< 0.05	< 0.01	36.7	65.3	< 0.1	29.2	< 0.005	3.0	39.4	1.02	386	283	< 5	< 0.1	< 5	< 5	8.2	0.17	65.3	-
	Landowner 1	10/Oct/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Landowner 1	22/Jun/23	7.97	677	< 5	329	401	< 0.5	< 0.02	< 0.05	< 0.01	37.7	66.1	0.002	25.4	0.00944	2.88	36.7	0.97	374	270	< 5	< 0.1	< 5	< 5	7.7	0.13	66.1	-
	Landowner 1	13/Sep/23	7.33	681	< 5	317	397	3.0	0.68	< 0.05	< 0.01	37.6	64.3	0.013	25.1	0.00889	2.91	34.6	0.93	371	264	< 5	< 0.1	< 5	< 5	7.8	0.15	64.3	-
North 1	Landowner 25	7/Aug/19	7.93	680	< 5	280	340	19.7	4.45	< 0.05	< 0.01	35	-	< 0.1	29	< 0.005	-	33.5	0.84	371	301	< 5	< 0.1	< 5	< 5	11	0.06	-	74
	Landowner 25	9/Oct/19	8	671	< 5	305	372	20	4.52	< 0.05	< 0.01	40	-	< 0.1	27.3	< 0.005	-	32.2	0.84	379	278	< 5	< 0.1	< 5	< 5	7	0.17	-	62
	Landowner 25	6/Oct/21	8.00	722	< 5	332	405	< 0.5	< 0.02	< 0.05	< 0.01	39.6	-	0.7	28.5	0.128	-	58.3	1.48	398	293	< 5	< 0.1	< 5	< 5	< 1.0	0.09	-	-
South	Land Owner 33	7/Aug/19	8.1	850	< 5	310	380	18.4	4.16	< 0.05	< 0.01	29	-	< 0.1	44.1	< 0.005	-	40.1	0.91	443	368	< 5	0.3	< 5	< 5	48	0.04	-	84
	Land Owner 33	8/Oct/19	7.76	814	< 5	344	419	18.2	4.11	< 0.05	< 0.01	30	-	< 0.1	39.8	< 0.005	-	38.3	0.91	445	338	< 5	0.3	< 5	< 5	41	0.01	-	70
	Land Owner 33	8/Oct/19	7.84	812	< 5	358	436	18.1	4.09	< 0.05	< 0.01	32	-	< 0.1	41.7	< 0.005	-	39.7	0.93	458	345	< 5	0.2	< 5	< 5	41	0.06	-	68
	Land Owner 33	16/Jun/21	8.51	740	11	305	352	17	3.84	< 0.05	< 0.01	28.3	-	< 0.1	40	< 0.005	-	40	0.94	417	344	< 5	0.2	14	< 5	31	0.05	-	93
	Land Owner 33	7/Oct/21	8.19	790	< 5	344	428	18.1	4.09	< 0.05	< 0.01	28.9	-	< 0.1	45.1	< 0.005	-	42.1	0.93	460	390	< 5	0.2	< 5	< 5	30.8	0.16	-	-
	Land Owner 33	15/Jun/22	8.34	744	5	306	360	16.8	3.80	< 0.05	< 0.01	25.7	64.4	< 0.1	36.5	< 0.005	1.9	35.6	0.88	390	311	< 5	0.2	6	< 5	25.9	0.14	64.4	-
	Land Owner 33	15/Jun/22	8.33	735	< 5	303	359	16.8	3.80	< 0.05	< 0.01	25.7	66.4	< 0.1	36.7	< 0.005	1.9	36.0	0.88	391	317	< 5	< 0.1	5	< 5	26.0	0.11	66.4	-
	Land Owner 33	21/Sep/22	8.18	723	< 5	312	387	17.7	4.00	< 0.05	< 0.01	27.5	67.9	< 0.1	39.1	< 0.005	1.9	38.6	0.92	409	331	< 5	0.2	< 5	< 5	26.1	0.09	67.9	-
	Land Owner 33	10/Oct/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 33	21/Jun/23	7.70	768	< 5	334	415	21.1	4.77	< 0.05	< 0.01	32.6	64.3	0.001	35.8	0.00014	2.08	37.4	0.93	425	308	< 5	0.2	< 5	< 5	27.6	0.08	64.3	-
	Land Owner 33	19/Sep/23	7.49	756	< 5	350	438	16.8	3.80	< 0.05	< 0.01	28.4	67.7	0.005 0.006	39.7	0.00006	2.15	41.7	1.00	435	333	< 5	0.1	< 5	< 5	23.2	0.08	67.7	-
	Land Owner 33	19/Sep/23	7.51	756	< 5	349	437	16.7	3.77	< 0.05	< 0.01	28.5	68.6	0.001	39.6	< 0.00005	2.20	41.4	0.99	435	334	< 5	0.1	< 5	< 5	23.1	0.08	68.6	-
North 2	Land Owner 27	9/Aug/19	8.25	1000	< 5	467	570	< 0.1	< 0.02	< 0.05	< 0.01	74	-	0.3	10.3	0.095	-	184	7.34	581	119	< 5	< 0.1	< 5	< 5	< 1	0.08	-	115
	Land Owner 27	9/Aug/19	5.93	< 5	< 5	< 5	< 5	< 0.1	< 0.02	< 0.05	< 0.01	< 1	-	< 0.1	< 0.2	< 0.005	-	< 0.6	0	< 0.6	< 1	< 5	< 0.1	< 5	< 5	< 1	< 0.01	-	< 1
	Land Owner 27	9/Aug/19	6.23	< 5	< 5	< 5	< 5	< 0.5	< 0.02	< 0.20	< 0.01	< 1	-	< 0.1	< 0.2	< 0.005	-	< 0.6	0	< 0.6	< 1	< 5	< 0.2	< 5	< 5	< 1	< 0.06	-	< 1
	Land Owner 27	8/Oct/19	8.06	1060	< 5	505	616	0.4	0.09	< 0.05	< 0.01	79	-	2.4	5.9	0.182	-	213	10.6	624	76	< 5	< 0.1	< 5	< 5	< 1	0.25	-	116

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 1B: GroundWater Analytical Results: General, Major Ions, Nutrients

Area	Land Owner Number	Date (dd-mmm-yy)	pH pH Units	Electrical Conductivity uS/cm	p - Alkalinity (as CaCO3) mg/L	T - Alkalinity (as CaCO3) mg/L	Bicarbonate mg/L	Nitrate mg/L	Nitrate-N mg/L	Nitrite mg/L	Nitrite-N mg/L	Sulfate mg/L	Dissolved Calcium mg/L	Dissolved Iron mg/L	Dissolved Magnesium mg/L	Dissolved Manganese mg/L	Dissolved Potassium mg/L	Dissolved Sodium mg/L	Sodium Adsorption Ratio None	Calculated TDS mg/L	Hardness mg/L	Hydroxide mg/L	Bromide mg/L	Carbonate mg/L	Hydroxide mg/L	Chloride mg/L	Fluoride mg/L	Dissolved Calcium mg/L	Dissolved Inorganic Carbon mg/L
South	Land Owner 4	8/Aug/19	7.86	950	< 5	410	500	1.9	0.43	< 0.05	< 0.01	85	-	1.4	46.2	0.15	-	58.3	1.26	529	407	< 5	< 0.1	< 5	< 5	3	0.05	-	100
	Land Owner 4	8/Oct/19	7.74	917	< 5	447	545	< 0.1	< 0.02	< 0.05	< 0.01	82	-	2.1	44.2	0.174	-	55.7	1.24	534	384	< 5	< 0.1	< 5	< 5	1	< 0.01	-	94
	Land Owner 4	8/Oct/21	7.97	950	< 5	443	541	0.7	0.16	< 0.05	< 0.01	79.5	-	< 0.1	49.9	0.214	-	60.6	1.25	555	442	< 5	< 0.1	< 5	< 5	1.6	0.08	-	-
	Land Owner 4	18/Jun/22	8.05	818	< 5	447	553	< 0.5	< 0.02	< 0.05	< 0.01	75.4	79.5	< 0.1	41.7	0.172	2.1	51.6	1.17	525	370	< 5	< 0.1	< 5	< 5	2.3	0.08	79.5	-
	Land Owner 4	29/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 4	19/Sep/22	7.96	843	< 5	446	553	< 0.5	< 0.02	< 0.05	< 0.01	75.3	80.8	1.1	47.4	0.182	2.1	57.7	1.26	537	397	< 5	< 0.1	< 5	< 5	1.8	0.09	80.8	-
	Land Owner 4	21/Jun/23	7.93	893	< 5	439	536	< 0.5	< 0.02	< 0.05	< 0.01	78.1	78.5	1.08	40.6	0.179	2.21	50.0	-	515	363	< 5	< 0.1	< 5	< 5	2.1	0.03	78.5	-
	Land Owner 4	13/Sep/23	7.64	895	< 5	417	509	< 0.5	< 0.02	< 0.05	< 0.01	77.6	73.8	0.987	39.0	0.172	2.16	49.4	1.16	494	345	< 5	< 0.1	< 5	< 5	1.9	0.10	73.8	-
North 3	Land Owner 31	8/Aug/19	8.95	886	38	402	397	0.4	0.09	< 0.05	< 0.01	85	-	0.1	35.1	0.036	-	148	5.01	523	166	< 5	< 0.1	46	< 5	2	0.07	-	96
	Land Owner 31	8/Oct/21	7.91	969	< 5	392	478	< 0.5	< 0.02	< 0.05	< 0.01	119	-	< 0.1	40.1	0.615	-	136.0	3.51	581	284	< 5	< 0.1	< 5	< 5	< 1.0	0.12	-	-
	Land Owner 31	17/Jun/22	8.35	927	6	375	443	< 0.5	< 0.02	< 0.05	< 0.01	114	45.9	< 0.1	35.5	0.595	2.5	106	2.86	530	261	< 5	< 0.1	7	< 5	1.6	0.15	45.9	-
	Land Owner 31	29/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 31	19/Sep/22	8.33	906	< 5	443	542	< 0.5	< 0.02	< 0.05	< 0.01	111	40.0	5.4	38.2	0.498	2.6	136	3.69	594	257	< 5	< 0.1	< 5	< 5	< 1.0	0.16	40.0	-
	Land Owner 31	19/Sep/22	8.25	912	< 5	442	548	< 0.5	< 0.02	< 0.05	< 0.01	115	40.3	4.2	38.7	0.502	2.6	139	3.75	605	260	< 5	< 0.1	< 5	< 5	< 1.0	0.13	40.3	-
	Land Owner 31	27/Jun/23	7.68	1000	< 5	413	518	< 0.5	< 0.02	< 0.05	< 0.01	120	46.6	5.26	35.4	0.521	2.44	120	3.23	579	262	< 5	< 0.1	< 5	< 5	< 1.0	0.09	46.6	-
	Land Owner 31	14/Sep/23	7.71	960	< 5	408	498	< 0.5	< 0.02	< 0.05	< 0.01	118	52.6	4.93	35.9	0.682	2.46	115	3.00	569	279	< 5	< 0.1	< 5	< 5	< 1.0	0.12	52.6	-
South	Land Owner 24	8/Aug/19	8.05	981	< 5	451	550	1.6	0.36	< 0.05	< 0.01	82	-	1.6	18.7	0.241	-	143	4.23	575	216	< 5	< 0.1	< 5	< 5	1	0.19	-	108
	Land Owner 24	7/Oct/21	8.31	1000	< 5	456	549	< 0.5	< 0.02	< 0.05	< 0.01	85.2	-	3.3	20.7	0.324	-	154	4.19	601	256	< 5	< 0.1	< 5	< 5	< 1.0	0.16	-	-
	Land Owner 24	8/Oct/21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 24	17/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 24	17/Jun/22	9.47	466	49	222	151	< 0.5	< 0.02	< 0.05	< 0.01	< 1.0	1.4	< 0.1	1.8	< 0.005	2.5	96.6	12.7	236	10.9	< 5	< 0.1	59	< 5	< 1.0	< 0.01	1.4	-
	Land Owner 24	29/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 24	10/Oct/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North 1	UL1 - Development	11/Jul/19	8.68	1160	19	482	541	3.4	0.77	< 0.05	< 0.01	113	-	< 0.1	2.3	0.011	-	233	20.5	653	24	< 5	< 0.1	23	< 5	5	1.19	-	113
	UL1 - Development	15/Jul/19	8.31	698	< 5	351	424	1.5	0.34	< 0.05	< 0.01	40	-	< 0.1	31.4	0.485	-	47.3	1.19	402	298	< 5	< 0.1	< 5	< 5	3	0.11	-	79
	UL1 - Development	15/Jul/19	8.27	678	< 5	344	420	0.2	0.05	< 0.05	< 0.01	40	-	0.2	29	0.266	-	47.2	1.23	393	280	< 5	< 0.1	< 5	< 5	3	0.16	-	80
	UL1 - Development	6/Aug/19	8.65	1170	15	466	531	< 0.1	< 0.02	0.55	0.17	114	-	< 0.1	1.7	0.005	-	255	25.1	661	19	< 5	< 0.1	18	< 5	4	1.35	-	125
	UL1 - Development	6/Aug/19	8.65	1170	16	454	514	0.1	0.02	0.64	0.19	112	-	< 0.1	1.7	< 0.005	-	256	24.9	653	20	< 5	< 0.1	19	< 5	4	1.33	-	121
	UL1 - Development	7/Oct/19	8.66	1150	18	515	584	< 0.1	< 0.02	0.14	0.04	120	-	< 0.1	1.6	0.006	-	255	25.6	696	19	< 5	< 0.1	22	< 5	4	1.67	-	123
	UL1 - Development	7/Oct/19	8.65	1150	17	517	589	< 0.1	< 0.02	0.17	0.05	116	-	< 0.1	1.6	0.006	-	248	24.9	686	19	< 5	< 0.1	21	< 5	4	1.61	-	119
	UL1 - Development	21/Jul/20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	UL1 - Development	21/Jul/20	8.69	1220	21	508	567	< 0.5	< 0.02	< 0.05	< 0.01	88	-	< 0.1	1.2	0.01	-	273	31.5	675	14	< 5	< 0.1	26	< 5	2.7	1.32	-	108
	UL1 - Development	28/Oct/20	8.75	1160	38	527	551	< 0.5	< 0.02	< 0.05	< 0.01	79.3	-	0.2	0.9	0.008	-	288	34.2	691	13	< 5	< 0.1	45	< 5	1.7	1.43	-	110
	UL1 - Development	28/Oct/20	8.74	1160	36	539	569	< 0.5	< 0.02	< 0.05	< 0.01	79.5	-	0.2	0.9	0.009	-	288	35.2	697	13	< 5	< 0.1	43	< 5	1.6	1.44	-	108
	UL1 - Development	15/Jun/21	7.85	678	< 5	307	384	< 0.5	< 0.02	< 0.05	< 0.01	37.8	-	< 0.1	30.3	0.528	-	51.9	1.33	390	287	< 5	< 0.1	< 5	< 5	13.8	0.1	-	92
	UL1 - Development	5/Oct/21	8.25	692	< 5	345	421	< 0.5	< 0.02	< 0.05	< 0.01	34.9	-	< 0.1	31.3	0.631	-	44.8	1.13	394	300	< 5	< 0.1	< 5	< 5	5.2	0.10	-	-
	UL1 - Development	26/Jun/22	7.92	637	< 5	302	369	< 0.5	< 0.02	< 0.05	< 0.01	67.1	63.5	< 0.1	30.6	0.005	2.4	45.6	1.18	392	285	< 5	< 0.1	< 5	< 5	1.5	0.09	63.5	-
	UL1 - Development	21/Sep/23	8.51	1140	17	549	642	< 0.5	< 0.02	< 0.05	< 0.01	72.3	2.58	0.009	0.34	0.00848	0.77	301	46.7	714	7.8	< 5	< 0.1	21	< 5	< 1.0	1.55	2.58	-
	UL1 - Development	21/Sep/23	8.50	1140	16	543	640	< 0.5	< 0.02	< 0.05	< 0.01	69.5	2.74	0.016	0.36	0.00511	1.07	291	43.8	698	8.3	< 5	0.3	19	< 5	< 1.0	1.34	2.74	-
South	Land Owner 35	22/Sep/23	8.06	909	< 5	411	512	< 0.5	< 0.02	< 0.05	< 0.01	85.4	59.0	0.766	37.3	1.01	2.49	74.7	1.87	511	301	< 5	< 0.1	< 5	< 5	< 1.0	0.12	59.0	-AK104

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 1B: GroundWater Analytical Results: General, Major Ions, Nutrients

Area	Land Owner Number	Date (dd-mmm-yy)	pH pH Units	Electrical Conductivity uS/cm	p - Alkalinity (as CaCO3) mg/L	T - Alkalinity (as CaCO3) mg/L	Bicarbonate mg/L	Nitrate mg/L	Nitrate-N mg/L	Nitrite mg/L	Nitrite-N mg/L	Sulfate mg/L	Dissolved Calcium mg/L	Dissolved Iron mg/L	Dissolved Magnesium mg/L	Dissolved Manganese mg/L	Dissolved Potassium mg/L	Dissolved Sodium mg/L	Sodium Adsorption Ratio None	Calculated TDS mg/L	Hardness mg/L	Hydroxide mg/L	Bromide mg/L	Carbonate mg/L	Hydroxide mg/L	Chloride mg/L	Fluoride mg/L	Dissolved Calcium mg/L	Dissolved Inorganic Carbon mg/L
North 1	UL2 - Development	7/Aug/19	7.92	700	< 5	310	380	< 0.1	< 0.02	< 0.05	< 0.01	38	-	0.2	30.2	0.318	-	47.8	1.23	373	286	< 5	< 0.1	< 5	< 5	3	0.16	-	85
	UL2 - Development	7/Oct/19	8.23	675	< 5	362	441	< 0.1	< 0.02	< 0.05	< 0.01	44	-	0.4	27.7	0.283	-	45.6	1.22	399	263	< 5	< 0.1	< 5	< 5	3	0.12	-	75
	UL2 - Development	22/Jul/20	8.03	724	< 5	315	384	< 0.5	< 0.02	< 0.05	< 0.01	36.2	-	0.5	28.7	0.295	-	43.6	1.17	360	262	< 5	< 0.1	< 5	< 5	2.7	0.12	-	67
	UL2 - Development	22/Jul/20	6.05	< 5	< 5	< 5	< 5	< 0.5	< 0.02	< 0.05	< 0.01	< 1.0	-	< 0.1	< 0.2	< 0.005	-	< 0.6	0	< 0.6	< 1	< 5	< 0.1	< 5	< 5	< 1.0	< 0.01	-	< 1
	UL2 - Development	27/Oct/20	8.13	678	< 5	340	414	< 0.5	< 0.02	< 0.05	< 0.01	35.9	-	0.4	30.8	0.289	-	48.4	1.23	389	291	< 5	< 0.1	< 5	< 5	2.7	0.1	-	71
	UL2 - Development	15/Jun/21	8.78	1170	21	488	556	< 0.5	< 0.02	< 0.05	< 0.01	85.5	-	< 0.1	0.9	0.007	-	293	36.5	685	12	< 5	< 0.1	25	< 5	2.5	1.25	-	114
	UL2 - Development	5/Oct/21	8.13	687	< 5	344	419	< 0.5	< 0.02	< 0.05	< 0.01	38.8	-	0.5	30.6	0.344	-	46.9	1.19	398	294	< 5	< 0.1	< 5	< 5	5.8	0.11	-	-
	UL2 - Development	26/Jun/22	7.97	630	< 5	306	373	0.9	0.20	< 0.05	< 0.01	33.4	61.4	< 0.1	29.8	0.248	2.1	47.3	1.24	362	276	< 5	< 0.1	< 5	< 5	3.2	0.10	61.4	-
	UL2 - Development	12/Sep/23	7.77	689	< 5	328	400	< 0.5	< 0.02	< 0.05	< 0.01	37.8	59.6	0.1	30.5	0.275	2.2	50.3	1.32	380	274	< 5	< 0.1	< 5	< 5	2.9	0.09	59.6	-
North 1	UL3 - Development	7/Aug/19	7.97	710	< 5	320	390	< 0.1	< 0.02	< 0.05	< 0.01	38	-	< 0.1	31.5	0.548	-	45.8	1.16	378	294	< 5	< 0.1	< 5	< 5	3	0.14	-	100
	UL3 - Development	7/Oct/19	8.16	682	< 5	348	424	< 0.1	< 0.02	< 0.05	< 0.01	39	-	0.1	29.7	0.599	-	43.4	1.14	387	276	< 5	< 0.1	< 5	< 5	3	0.1	-	75
	UL3 - Development	22/Jul/20	8.02	768	< 5	327	399	< 0.5	< 0.02	< 0.05	< 0.01	35.6	-	< 0.1	29.3	0.549	-	40.9	1.09	365	266	< 5	< 0.1	< 5	< 5	2.9	0.12	-	67
	UL3 - Development	22/Jul/20	8.04	730	< 5	320	391	< 0.5	< 0.02	< 0.05	< 0.01	35.5	-	< 0.1	29.7	0.554	-	41.7	1.1	364	271	< 5	< 0.1	< 5	< 5	2.9	0.13	-	67
	UL3 - Development	28/Oct/20	8.11	683	< 5	340	415	< 0.5	< 0.02	< 0.05	< 0.01	35.5	-	< 0.1	32.2	0.564	-	46	1.15	391	301	< 5	< 0.1	< 5	< 5	3	0.11	-	71
	UL3 - Development	28/Oct/20	5.44	< 5	< 5	< 5	< 5	< 0.5	< 0.02	< 0.05	< 0.01	< 1.0	-	< 0.1	< 0.2	< 0.005	-	< 0.6	0	< 0.6	< 1	< 5	< 0.1	< 5	< 5	< 1.0	< 0.01	-	< 1
	UL3 - Development	15/Jun/21	7.88	674	< 5	312	388	< 0.5	< 0.02	< 0.05	< 0.01	39.1	-	< 0.1	29.5	0.288	-	50.7	1.3	381	286	< 5	< 0.1	< 5	< 5	3	0.12	-	91
	UL3 - Development	5/Oct/21	8.70	1180	26	564	624	< 0.5	< 0.02	< 0.05	< 0.01	66.9	-	< 0.1	0.3	< 0.005	-	290	53.9	701	5	< 5	< 0.1	32	< 5	2.3	1.38	-	-
	UL3 - Development	26/Jun/22	8.72	1080	27	495	537	< 0.5	< 0.02	< 0.05	< 0.01	34.6	2.7	< 0.1	0.49	0.515	1.1	282	41.4	627	8.8	< 5	< 0.1	41	< 5	1.0	1.69	2.7	-
	UL3 - Development	12/Sep/23	7.77	665	< 5	316	386	< 0.5	< 0.02	< 0.05	< 0.01	33.9	59.9 60.6	0.066 < 0.1	30.9 30.7	0.471 0.457	4.48 4.2	256 255	6.66	577	278	< 5	< 0.1	< 5	< 5	2.9	0.10	59.9 60.6	-
Baseline Groundwater Sampling Points																													
North 1	Land Owner 19	16/Jun/21	8.6	773	17	376	428	25.1	5.67	< 0.05	< 0.01	19.7	-	< 0.1	47.5	< 0.005	-	14.6	0.31	437	419	< 5	< 0.1	20	< 5	8.4	0.19	-	101
	Land Owner 19	8/Oct/21	7.73	822	< 5	375	457	24.9	5.62	< 0.05	< 0.01	19.7	-	< 0.1	52.8	< 0.005	-	15.7	0.32	448	465	< 5	< 0.1	< 5	< 5	8.4	0.18	-	-
	Land Owner 19	24/Jun/23	7.67	817	< 5	401	490	< 0.5	< 0.02	0.36	0.11	18.8	86.4	0.003	46.4	0.00066	1.52	13.5	0.29	415	407	< 5	0.3	< 5	< 5	7.5	0.20	86.4	-
	Land Owner 19	24/Jun/23	7.68	818	< 5	408	497	< 0.5	< 0.02	< 0.05	< 0.01	18.4	89.8	< 0.001	48.4	0.00069	1.58	14.2	0.30	424	424	< 5	< 0.1	< 5	< 5	7.5	0.20	89.8	-
	Land Owner 19	19/Sep/23	7.40	796	< 5	414	518	17.5	3.95	< 0.05	< 0.01	19.9	91.6	0.004	50.3	0.00028	1.63	14.7	0.31	457	436	< 5	< 0.1	< 5	< 5	6.8	0.22	91.6	-
South	Land Owner 29	17/Jun/21	8.13	682	< 5	336	410	0.7	0.16	< 0.05	< 0.01	40.7	-	0.7	26.8	0.121	-	52	1.37	400	271	< 5	< 0.1	< 5	< 5	12.1	0.05	-	96
	Land Owner 29	23/Jun/22	8.04	647	< 5	316	385	< 0.5	< 0.02	< 0.05	< 0.01	35.5	67.8	< 0.1	25.9	0.123	2.3	49.6	1.30	370	276	< 5	< 0.1	< 5	< 5	< 1.0	0.04	67.8	-
	Land Owner 29	23/Jun/22	8.02	643	< 5	314	383	< 0.5	< 0.02	< 0.05	< 0.01	35.5	67.4	< 0.1	27.3	0.124	2.2	49.0	1.27	370	281	< 5	< 0.1	< 5	< 5	< 1.0	0.05	67.4	-
	Land Owner 29	24/Jun/22	7.86	1150	< 5	389	474	< 0.5	< 0.02	3.34	1.02	71.1	96.3	< 0.1	46.9	0.332	2.3	105	2.19	654	434	< 5	< 0.1	< 5	< 5	95.5	0.11	96.3	-
	Land Owner 29	24/Sep/22	8.20	684	< 5	357	443	< 0.5	< 0.02	< 0.05	< 0.01	38.1	58.9	0.6	27.5	0.118	2.4	55.0	1.48	400	260	< 5	< 0.1	< 5	< 5	< 1.0	0.06	58.9	-
	Land Owner 29	29/Jun/23	8.00	698	< 5	333	406	1.5	0.34	< 0.05	< 0.01	50.9	58.2	0.484	23.7	0.117	2.17	48.9	1.36	385	243	< 5	< 0.1	< 5	< 5	< 1.0	0.15	58.2	-
	Land Owner 29	14/Sep/23	7.59	668	< 5	329	402	< 0.5	< 0.02	< 0.05	< 0.01	35.1	63.3	0.537	25.4	0.124	2.20	55.1	1.48	380	263	< 5	< 0.1	< 5	< 5	1.1	0.07	63.3	-
North 3	273157 (Enhance Facility Well)	15/Jun/21	8.36	985	< 5	398	482	< 0.5	< 0.02	< 0.05	< 0.01	93.3	-	< 0.1	4.7	0.039	-	226	13.7	584	51	< 5	< 0.1	6	< 5	2.6	0.14	-	104
	273157 (Enhance Facility Well)	5/Oct/21	8.52	1000	12	446	516	< 0.5	< 0.02	< 0.05	< 0.01	83.0	-	0.2	4.7	0.046	-	216	13.1	594	52	< 5	< 0.1	14	< 5	8.8	0.14	-	-
	273157 (Enhance Facility Well)	14/Jun/22	8.81	907	27	436	477	< 0.5	< 0.02	< 0.05	< 0.01	81.9	11.3	< 0.1	4.7	0.035	1.3	212	13.4	580	47.6	< 5	-	32	< 5	2.3	0.15	11.3	-
	273157 (Enhance Facility Well)	19/Sep/22	8.48	914	10	446	530	< 0.5	< 0.02	< 0.05	< 0.01	84.8	11.7	0.2	4.8	0.038	1.2	224	13.9	601	49.0	< 5	< 0.1	12	< 5	2.0	0.16	11.7	-
	273157 (Enhance Facility Well)	21/Jun/23	8.31	981	< 5	433	532	< 0.5	< 0.02	< 0.05	< 0.01	96.0	11.5	0.057	4.66	0.0394	1.26	205	12.9	583	47.9	< 5	< 0.1	< 5	< 5	2.5	0.14	11.5	-
	273157 (Enhance Facility Well)	13/Sep/23	8.13	961	< 5	419	511	< 0.5	< 0.02	< 0.05	< 0.01	87.4	11.8	0.194	4.12	0.0380	1.05	196	12.5	554	46.4	< 5	< 0.1	< 5	< 5	2.1	0.14	11.8	-
	273157 (Enhance Facility Well)	13/Sep/23	8.07	960	< 5	417	509	< 0.5	< 0.02	< 0.05	< 0.01	87.4	10.9	0.164	4.15	0.0385	1.06	180	11.8	536	44.3	< 5	< 0.1	< 5	< 5	2.1	0.12	10.9	-
North 1	Land Owner 14	6/Oct/21	8.01	818	< 5	366	447	< 0.5	< 0.02	< 0.05	< 0.01	32.3	-	1.0	33.9	0.200	-	75.2	1.87	444	306	< 5	0.1	< 5	< 5	13.5	0.12	-	-
	Land Owner 14	18/Jun/22	8.11	711	< 5	386	481	< 0.5	< 0.02	< 0.05	< 0.01	32.1	57.5	< 0.1	28.5	0.190	2.1	64.0	1.72	433	261	< 5	< 0.1	< 5	< 5	12.6	0.09	57.5	-
	Land Owner 14	21/Sep/22	8.04	780	< 5	352	429	< 0.5	< 0.02	< 0.05	< 0.01	34.0	57.1	1.0	28.3	0.191	2.2	81.2	2.19	429	259	< 5	0.1	< 5	< 5	15.1	0.13	57.1	-
	Land Owner 14	27/Jun/23	7.64	793	< 5	366	458	< 0.5	< 0.02	< 0.05	< 0.01	32.9	51.8	0.944	27.8	0.188	2.08	77.6	2.16	428	244	< 5	< 0.1	< 5	< 5	10.8	0.08	51.8	-
	Land Owner 14	14/Sep/23	8.05	823	< 5	385	469	< 0.5	< 0.02	< 0.05	< 0.01	34.2	52.8	0.714	25.7	0.175	1.99	80.2	2.26	436	238	< 5	< 0.1	< 5	< 5	10.4	0.12	52.8	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 1B: GroundWater Analytical Results: General, Major Ions, Nutrients

Area	Land Owner Number	Date (dd-mmm-yy)	pH pH Units	Electrical Conductivity uS/cm	p - Alkalinity (as CaCO3) mg/L	T - Alkalinity (as CaCO3) mg/L	Bicarbonate mg/L	Nitrate mg/L	Nitrate-N mg/L	Nitrite mg/L	Nitrite-N mg/L	Sulfate mg/L	Dissolved Calcium mg/L	Dissolved Iron mg/L	Dissolved Magnesium mg/L	Dissolved Manganese mg/L	Dissolved Potassium mg/L	Dissolved Sodium mg/L	Sodium Adsorption Ratio None	Calculated TDS mg/L	Hardness mg/L	Hydroxide mg/L	Bromide mg/L	Carbonate mg/L	Hydroxide mg/L	Chloride mg/L	Fluoride mg/L	Dissolved Calcium mg/L	Dissolved Inorganic Carbon mg/L
North 2	Land Owner 26	8/Oct/21	7.96	1250	< 5	404	492	< 0.5	< 0.02	< 0.05	< 0.01	77.3	-	0.6	48.0	0.397	-	115.0	2.34	690	457	< 5	< 0.1	< 5	< 5	101	0.22	-	-
	Land Owner 26	21/Sep/22	7.91	1210	< 5	394	481	< 0.5	< 0.02	< 0.05	< 0.01	70.4	95.3	1.6	46.0	0.335	2.4	109	2.29	671	427	< 5	0.8	< 5	< 5	111	0.20	95.3	-
North 3	Land Owner 7	16/Oct/21	7.62	729	< 5	323	394	1.1	0.25	< 0.05	< 0.01	42.5	-	< 0.1	30.4	0.093	-	41.0	0.94	412	360	< 5	< 0.1	< 5	< 5	6.2	0.18	-	-
	Land Owner 7	16/Jun/22	8.08	674	< 5	369	458	< 0.5	< 0.02	< 0.05	< 0.01	41.5	82.0	< 0.1	27.6	0.124	2.8	32.2	0.78	419	318	< 5	< 0.1	< 5	< 5	7.2	0.25	82.0	-
	Land Owner 7	20/Sep/22	8.03	676	< 5	369	457	< 0.5	< 0.02	< 0.05	< 0.01	39.6	84.2	2.8	30.4	0.116	3.1	35.6	0.85	424	335	< 5	< 0.1	< 5	< 5	5.9	0.19	84.2	-
	Land Owner 7	15/Sep/23	7.63	721	< 5	366	458	0.7	0.16	< 0.05	< 0.01	40.9	83.8	2.86	27.5	0.153	3.04	34.3	0.83	422	322	< 5	< 0.1	< 5	< 5	6.3	0.16	83.8	-
North 1	Land Owner 11	6/Oct/21	8.26	858	< 5	357	436	1.8	0.41	< 0.05	< 0.01	59.8	-	< 0.1	26.6	0.163	-	102	2.82	477	247	< 5	0.1	< 5	< 5	15.3	0.24	-	-
	Land Owner 11	15/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 11	15/Jun/22	8.35	813	5	360	426	2.5	0.56	< 0.05	< 0.01	54.6	47.0	< 0.1	24.9	0.119	1.7	95.5	2.80	458	220	< 5	< 0.1	7	< 5	15.0	0.26	47.0	-
	Land Owner 11	20/Sep/22	8.00	773	< 5	383	475	1.0	0.23	< 0.05	< 0.01	59.2	49.7	0.1	27.2	0.144	2.0	108	3.06	498	-	< 5	< 0.1	< 5	< 5	17.2	0.26	49.7	-
North 3	Land Owner 16	6/Oct/21	8.31	977	< 5	428	517	< 0.5	< 0.02	< 0.05	< 0.01	60.8	-	< 0.1	5.9	0.017	-	221	11.7	561	67	< 5	< 0.1	< 5	< 5	< 1.0	0.25	-	-
	Land Owner 16	16/Jun/22	8.23	789	< 5	404	493	< 0.5	< 0.02	< 0.05	< 0.01	52.2	14.3	< 0.1	4.6	0.011	1.4	183	10.8	499	54.6	< 5	< 0.1	< 5	< 5	1.1	0.18	14.3	-
	Land Owner 16	20/Sep/22	8.37	879	5	459	556	< 0.5	< 0.02	< 0.05	< 0.01	62.0	14.8	< 0.1	5.4	0.015	1.4	211	11.9	574	59.2	< 5	< 0.1	6	< 5	< 1.0	0.18	14.8	-
	Land Owner 16	23/Jun/23	8.33	940	< 5	454	544	< 0.5	< 0.02	< 0.05	< 0.01	61.1	15.3	0.068	5.28	0.0147	1.46	203	11.4	559	59.9	< 5	< 0.1	< 5	< 5	5.1	0.18	15.3	-
	Land Owner 16	14/Sep/23	7.95	940	< 5	433	528	< 0.5	< 0.02	< 0.05	< 0.01	59.4	16.4	0.092	5.19	0.0150	1.51	211	11.6	553	62.3	< 5	< 0.1	< 5	< 5	< 1.0	0.22	16.4	-
South	Land Owner 9	16/Jun/21	8.18	773	< 5	345	421	1.6	0.36	< 0.05	< 0.01	54.5	-	< 0.1	25.2	0.007	-	95.3	2.79	443	220	< 5	< 0.1	< 5	< 5	10.4	0.14	-	96
	Land Owner 9	16/Jun/21	8.08	767	< 5	340	414	1.5	0.34	< 0.05	< 0.01	55.8	-	< 0.1	25.7	0.007	-	95	2.78	442	221	< 5	< 0.1	< 5	< 5	11.9	0.19	-	95
	Land Owner 9	6/Oct/21	8.19	827	< 5	347	423	1.3	0.29	< 0.05	< 0.01	60.9	-	< 0.1	20.8	0.014	-	140	4.44	481	188	< 5	< 0.1	< 5	< 5	6.0	0.23	-	-
	Land Owner 9	15/Jun/22	8.26	779	< 5	328	400	1.5	0.34	< 0.05	< 0.01	57.9	34.9	< 0.1	18.8	0.010	1.8	111	3.77	428	165	< 5	< 0.1	< 5	< 5	5.7	0.22	34.9	-
	Land Owner 9	19/Sep/22	8.33	713	< 5	359	438	1.8	0.41	< 0.05	< 0.01	57.6	39.8	< 0.1	22.7	0.007	2.2	109	3.42	455	193	< 5	< 0.1	< 5	< 5	6.0	0.23	39.8	-
	Land Owner 9	21/Jun/23	8.20	801	< 5	357	446	< 0.5	< 0.02	< 0.05	< 0.01	65.6	33.3	0.001	17.2	0.00786	1.97	118	4.14	462	154	< 5	< 0.1	< 5	< 5	6.2	0.24	33.3	-
	Land Owner 9	21/Jun/23	8.18	801	< 5	358	448	< 0.5	< 0.02	< 0.05	< 0.01	79.5	32.7	0.001	16.7	0.00888	1.99	117	4.15	475	150	< 5	< 0.1	< 5	< 5	7.0	0.27	32.7	-
	Land Owner 9	14/Sep/23	7.80	802	< 5	347	424	1.3	0.29	< 0.05	< 0.01	58.9	33.9	0.008	17.2	0.0103	1.91	122	4.26	450	155	< 5	< 0.1	< 5	< 5	6.1	0.25	33.9	-
North 1	Land Owner 3	6/Oct/21	8.36	1110	< 5	407	486	< 0.5	< 0.02	< 0.05	< 0.01	109	-	< 0.1	3.0	0.092	-	246	15.3	627	49	< 5	< 0.1	5	< 5	8.1	0.11	-	-
	Land Owner 3	6/Oct/21	8.28	1110	< 5	409	498	< 0.5	< 0.02	< 0.05	< 0.01	116	-	0.1	2.5	0.088	-	250	16.2	637	45	< 5	< 0.1	< 5	< 5	8.3	0.10	-	-
	Land Owner 3	6/Oct/21	8.29	1110	< 5	405	490	1.7	0.38	< 0.05	< 0.01	120	-	< 0.1	2.8	0.112	-	249	15.4	641	50	< 5	< 0.1	< 5	< 5	9.0	0.03	-	-
	Land Owner 3	17/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 3	17/Jun/22	8.22	1220	< 5	393	480	< 0.5	< 0.02	< 0.05	< 0.01	184	67.5	< 0.1	30.7	0.296	2.7	159	4.03	723	295	< 5	< 0.1	< 5	< 5	42.7	0.08	67.5	-
	Land Owner 3	21/Sep/22	8.17	1190	< 5	393	480	< 0.5	< 0.02	< 0.05	< 0.01	165	51.6	0.8	23.7	0.248	2.8	188	5.44	707	226	< 5	< 0.1	< 5	< 5	39.4	0.12	51.6	-
	Land Owner 3	19/Sep/23	7.63	1200	< 5	443	554	< 0.5	< 0.02	< 0.05	< 0.01	158	58.1	1.33	26.0	0.302	2.85	197	5.40	750	252	< 5	< 0.1	< 5	< 5	35.7	0.10	58.1	-
North 1	Land Owner 15	14/Oct/21	8.37	1020	6	465	553	2.1	0.47	< 0.05	< 0.01	52.6	-	< 0.1	6.8	0.006	-	225	10.8	589	82	< 5	< 0.1	7	< 5	< 1.0	< 0.01	-	-
	Land Owner 15	23/Jun/22	8.43	938	10	505	602	1.8	0.41	< 0.05	< 0.01	56.8	18.5	< 0.1	5.6	< 0.005	1.6	212	11.1	604	69.3	< 5	< 0.1	12	< 5	< 1.0	0.09	18.5	-
	Land Owner 15	21/Sep/22	8.30	1040	< 5	449	542	< 0.5	< 0.02	< 0.05	< 0.01	75.2	21.0	< 0.1	7.3	< 0.005	1.7	220	10.5	594	82.5	< 5	< 0.1	< 5	< 5	2.0	0.19	21.0	-
	Land Owner 15	27/Jun/23	8.44	1080	8	500	600	2.4	0.54	< 0.05	< 0.01	50.8	20.5	0.002	7.49	0.00777	1.75	211	10.1	599	82.0	< 5	< 0.1	10	< 5	< 1.0	0.07	20.5	-
	Land Owner 15	13/Sep/23	7.95	1000	< 5	490	598	1.5	0.34	< 0.05	< 0.01	56.9	19.4	0.003	8.11	0.00878	1.79	187	8.99	569	81.8	< 5	< 0.1	< 5	< 5	< 1.0	0.07	19.4	-
South	Land Owner 28	8/Oct/21	8.01	643	< 5	322	403	1.0	0.23	< 0.05	< 0.01	21.8	-	< 0.1	34.9	< 0.005	-	13.2	0.30	373	373	< 5	< 0.1	< 5	< 5	9.0	0.08	-	-
	Land Owner 28	15/Jun/22	8.23	599	< 5	276	337	1.1	0.25	< 0.05	< 0.01	19.6	75.7	< 0.1	29.6	< 0.005	3.0	11.2	0.28	313	311	< 5	< 0.1	< 5	< 5	6.8	0.11	75.7	-
	Land Owner 28	19/Sep/22	8.09	599	< 5	340	421	1.1	0.25	< 0.05	< 0.01	21.2	77.7	< 0.1	33.4	< 0.005	3.4	12.2	0.29	363	332	< 5	< 0.1	< 5	< 5	6.8	0.10	77.7	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 1B: GroundWater Analytical Results: General, Major Ions, Nutrients

Area	Land Owner Number	Date (dd-mmm-yy)	pH pH Units	Electrical Conductivity uS/cm	p - Alkalinity (as CaCO3) mg/L	T - Alkalinity (as CaCO3) mg/L	Bicarbonate mg/L	Nitrate mg/L	Nitrate-N mg/L	Nitrite mg/L	Nitrite-N mg/L	Sulfate mg/L	Dissolved Calcium mg/L	Dissolved Iron mg/L	Dissolved Magnesium mg/L	Dissolved Manganese mg/L	Dissolved Potassium mg/L	Dissolved Sodium mg/L	Sodium Adsorption Ratio None	Calculated TDS mg/L	Hardness mg/L	Hydroxide mg/L	Bromide mg/L	Carbonate mg/L	Hydroxide mg/L	Chloride mg/L	Fluoride mg/L	Dissolved Calcium mg/L	Dissolved Inorganic Carbon mg/L
North 2	Land Owner 8	8/Oct/21	8.33	1560	< 5	528	635	< 0.5	< 0.02	< 0.05	< 0.01	243	-	< 0.1	0.6	0.011	-	384.0	51.0	946	11	< 5	< 0.1	< 5	< 5	1.5	0.37	-	-
	Land Owner 8	15/Jun/22	8.76	1460	26	582	659	< 0.5	< 0.02	< 0.05	< 0.01	238	2.7	< 0.1	0.5	0.007	0.7	351	51.4	948	8.8	< 5	< 0.1	31	< 5	< 1.0	0.35	2.7	-
	Land Owner 8	15/Jun/22	8.71	1460	23	587	671	< 0.5	< 0.02	< 0.05	< 0.01	235	2.6	< 0.1	0.5	0.007	0.8	353	52.5	950	8.6	< 5	< 0.1	28	< 5	< 1.0	0.33	2.6	-
	Land Owner 8	21/Sep/22	8.60	1550	21	529	594	< 0.5	< 0.02	< 0.05	< 0.01	242	2.8	< 0.1	0.5	0.008	0.7	369	53.3	935	9.1	< 5	< 0.1	25	< 5	2.9	0.35	2.8	-
	Land Owner 8	23/Jun/23	8.60	1550	17	560	641	< 0.5	< 0.02	< 0.05	< 0.01	229	2.89	0.006	0.52	0.00742	0.81	366	52.0	956	9.4	< 5	< 0.1	21	< 5	20.3	0.39	2.89	-
	Land Owner 8	15/Sep/23	8.53	1580	14	559	648	< 0.5	< 0.02	< 0.05	< 0.01	235	2.88	0.018	0.52	0.00766	0.85	381	54.2	956	9.3	< 5	< 0.1	17	< 5	< 1.0	0.38	2.88	-
South	Land Owner 30	7/Oct/21	8.41	700	6	309	362	< 0.5	< 0.02	< 0.05	< 0.01	25.6	-	1.6	31.0	0.499	-	51.9	1.32	370	291	< 5	< 0.1	8	< 5	8.1	0.20	-	-
	Land Owner 30	18/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 30	18/Jun/22	8.08	663	< 5	347	432	< 0.5	< 0.02	< 0.05	< 0.01	26.5	0.3	< 0.1	< 0.2	< 0.005	2.4	164	82.3	418	0.7	< 5	0.1	< 5	< 5	12.5	0.14	0.3	-
	Land Owner 30	29/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 30	19/Sep/22	8.10	613	< 5	343	425	< 0.5	< 0.02	< 0.05	< 0.01	23.6	59.0	1.8	29.9	0.483	2.1	49.4	1.31	382	270	< 5	< 0.1	< 5	< 5	8.5	0.16	59.0	-
	Land Owner 30	29/Jun/23	7.91	678	< 5	324	395	< 0.5	< 0.02	< 0.05	< 0.01	56.4	53.7	0.559	26.4	0.479	1.98	47.7	1.33	390	243	< 5	0.2	< 5	< 5	9.9	0.25	53.7	-
	Land Owner 30	19/Sep/23	7.44	662	< 5	347	434	< 0.5	< 0.02	< 0.05	< 0.01	24.1	58.0 58.0	0.632	27.4	0.499	2.15	48.9	1.33	382	258	< 5	< 0.1	< 5	< 5	8.3	0.13	58.0 58.0	-
North 2	Land Owner 21	14/Oct/21	8.48	1140	10	456	532	< 0.5	< 0.02	< 0.05	< 0.01	105	-	0.1	1.6	0.020	-	273.0	24.3	672	24	< 5	< 0.1	12	< 5	10.7	0.69	-	-
	Land Owner 21	16/Jun/22	8.59	1050	16	492	571	< 0.5	< 0.02	< 0.05	< 0.01	94.8	3.2	< 0.1	0.6	0.007	1.0	245	32.9	646	10.5	< 5	< 0.1	20	< 5	1.0	0.53	3.2	-
	Land Owner 21	20/Sep/22	8.64	1100	17	505	584	< 0.5	< 0.02	< 0.05	< 0.01	120	4.4	< 0.1	0.8	0.012	1.0	286	32.9	720	14.3	< 5	< 0.1	21	< 5	< 1.0	0.72	4.4	-
	Land Owner 21	22/Jun/23	8.57	1220	14	508	587	< 0.5	< 0.02	< 0.05	< 0.01	101	4.69	0.064	0.82	0.0132	0.98	238	26.6	650	15.1	< 5	< 0.1	16	< 5	< 1.0	0.72	4.69	-
	Land Owner 21	14/Sep/23	8.25	1220	< 5	490	598	< 0.5	< 0.02	< 0.05	< 0.01	125	4.40	0.059	0.57	0.0109	0.92	282	33.6	712	13.3	< 5	< 0.1	< 5	< 5	5.2	0.71	4.40	-
South	Land Owner 13	17/Oct/21	8.03	1080	< 5	406	504	< 0.5	< 0.02	< 0.05	< 0.01	179	-	1.3	31.3	0.219	-	196.0	5.26	710	262	< 5	< 0.1	< 5	< 5	< 1.0	< 0.01	-	-
	Land Owner 13	16/Jun/22	8.24	1010	< 5	411	512	< 0.5	< 0.02	< 0.05	< 0.01	179	48.0	< 0.1	23.0	0.165	2.3	158	4.69	662	215	< 5	< 0.1	< 5	< 5	< 1.0	0.09	48.0	-
	Land Owner 13	21/Sep/22	8.14	1080	< 5	373	455	< 0.5	< 0.02	< 0.05	< 0.01	180	47.5	0.3	24.3	0.179	2.6	172	5.06	652	219	< 5	< 0.1	< 5	< 5	1.5	0.07	47.5	-
North 3	Land Owner 23	6/Oct/21	7.93	971	< 5	317	387	44.5	10.1	< 0.05	< 0.01	41.3	-	< 0.1	33.1	< 0.005	-	31.4	0.65	524	441	< 5	0.2	< 5	< 5	57.4	0.20	-	-
	Land Owner 23	6/Oct/21	8.55	1330	13	494	571	< 0.5	< 0.02	< 0.05	< 0.01	121	-	< 0.1	1.0	0.009	-	323	37.4	755	14	< 5	< 0.1	15	< 5	9.4	0.54	-	-
	Land Owner 23	16/Jun/22	8.74	1190	22	516	586	< 0.5	< 0.02	< 0.05	< 0.01	119	1.5	< 0.1	0.2	< 0.005	0.7	277	56.3	723	4.6	< 5	< 0.1	26	< 5	10.6	0.49	1.5	-
	Land Owner 23	20/Sep/22	8.63	1220	17	525	609	< 0.5	< 0.02	< 0.05	< 0.01	144	2.8	< 0.1	0.4	0.007	0.7	317	46.9	796	8.6	< 5	< 0.1	21	< 5	10.3	0.58	2.8	-
	Land Owner 23	22/Jun/23	-	-	-	-	585	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 5	-	-	< 5	-	-	-	-
	Land Owner 23	13/Sep/23	8.38	1280	8	511	619	< 0.5	< 0.02	< 0.05	< 0.01	132	2.82	0.007	0.36	0.00752	0.69	273	40.7	733	8.5	< 5	< 0.1	9	< 5	10.4	0.56	2.82	-
North 1	Land Owner 20	6/Oct/21	8.60	1150	12	426	490	< 0.5	< 0.02	< 0.05	< 0.01	118	-	< 0.1	0.6	0.006	-	276	39.5	661	9	< 5	< 0.1	15	< 5	7.3	0.53	-	-
	Land Owner 20	23/Sep/22	8.66	1100	19	455	519	< 0.5	< 0.02	< 0.05	< 0.01	105	2.3	< 0.1	0.4	0.005	0.7	278	44.5	671	7.4	< 5	< 0.1	22	< 5	7.7	0.52	2.3	-
	Land Owner 20	16/Jun/22	8.65	1010	18	449	514	< 0.5	< 0.02	< 0.05	< 0.01	99.3	1.3	< 0.1	0.3	< 0.005	0.7	229	47.0	613	4.5	< 5	< 0.1	21	< 5	9.1	0.49	1.3	-
North 1	Land Owner 10	8/Oct/21	8.53	1080	12	457	529	< 0.5	< 0.02	< 0.05	< 0.01	90.8	-	< 0.1	2.7	0.015	-	238.0	18.4	618	32	< 5	< 0.1	14	< 5	3.0	0.29	-	-
	Land Owner 10	8/Oct/21	8.48	1080	10	460	537	< 0.5	< 0.02	< 0.05	< 0.01	91.1	-	< 0.1	2.6	0.014	-	244.0	19.2	626	31	< 5	< 0.1	12	< 5	3.0	0.29	-	-
	Land Owner 10	18/Jun/22	8.52	954	12	470	555	< 0.5	< 0.02	< 0.05	< 0.01	90.6	7.9	< 0.1	2.3	0.026	1.1	224	18.0	616	29.2	< 5	< 0.1	14	< 5	3.3	0.25	7.9	-
	Land Owner 10	29/Jun/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 10	20/Sep/22	8.35	969	< 5	467	570	< 0.5	< 0.02	< 0.05	< 0.01	88.6	8.0	< 0.1	2.6	0.026	1.2	249	19.6	633	30.7	< 5	< 0.1	< 5	< 5	3.2	0.26	8.0	-
	Land Owner 10	20/Sep/22	8.35	972	< 5	460	565	< 0.5	< 0.02	< 0.05	< 0.01	89.1	8.0	< 0.1	2.5	0.026	1.1	247	19.5	629	30.3	< 5	< 0.1	< 5	< 5	3.2	0.24	8.0	-
South	Land Owner 5	14/Oct/21	8.23	1140	< 5	465	577	0.5	0.11	< 0.05	< 0.01	142	-	< 0.1	48.7	0.233	-	170	3.97	710	347	< 5	< 0.1	< 5	< 5	4.0	0.12	-	-
	Land Owner 5	16/Jun/22	8.14	1030	< 5	467	505	< 0.5	< 0.02	< 0.05	< 0.01	149	51.8	< 0.1	38.3	0.190	2.1	149	3.83	639	287	< 5	< 0.1	< 5	< 5	< 1.0	0.15	51.8	-
	Land Owner 5	22/Sep/22	8.15	1110	< 5	473	587	< 0.5	< 0.02	< 0.05	< 0.01	152	46.7	< 0.1	40.9	0.207	2.7	166	4.28	697	285	< 5	< 0.1	< 5	< 5	< 1.0	0.15	46.7	-
	Land Owner 5	10/Oct/22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Land Owner 5	23/Jun/23	7.79	1110	< 5	444	553	< 0.5	< 0.02	< 0.05	< 0.01	147	51.1	0.012	37.1	0.207	2.28	148	3.85	664	280	< 5	< 0.1	< 5	< 5	6.1	0.13	51.1	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 1B: GroundWater Analytical Results: General, Major Ions, Nutrients

Area	Land Owner Number	Date (dd-mmm-yy)	pH pH Units	Electrical Conductivity uS/cm	p - Alkalinity (as CaCO3) mg/L	T - Alkalinity (as CaCO3) mg/L	Bicarbonate mg/L	Nitrate mg/L	Nitrate-N mg/L	Nitrite mg/L	Nitrite-N mg/L	Sulfate mg/L	Dissolved Calcium mg/L	Dissolved Iron mg/L	Dissolved Magnesium mg/L	Dissolved Manganese mg/L	Dissolved Potassium mg/L	Dissolved Sodium mg/L	Sodium Adsorption Ratio None	Calculated TDS mg/L	Hardness mg/L	Hydroxide mg/L	Bromide mg/L	Carbonate mg/L	Hydroxide mg/L	Chloride mg/L	Fluoride mg/L	Dissolved Calcium mg/L	Dissolved Inorganic Carbon mg/L
North 3	Land Owner 17	8/Oct/21	7.82	742	< 5	255	311	< 0.5	< 0.02	< 0.05	< 0.01	25.9	-	< 0.1	28.4	0.411	-	35.1	0.82	394	344	< 5	0.4	< 5	< 5	56.6	0.10	-	-
	Land Owner 17	18/Jun/22	8.27	651	< 5	272	339	< 0.5	< 0.02	< 0.05	< 0.01	27.7	77.7	< 0.1	23.4	0.334	2.7	27.2	0.69	382	290	< 5	0.3	< 5	< 5	56.6	0.11	77.7	-
	Land Owner 17	21/Sep/22	7.97	704	< 5	257	313	< 0.5	< 0.02	< 0.05	< 0.01	25.7	76.3	0.3	24.0	0.316	2.6	30.9	0.79	363	289	< 5	0.3	< 5	< 5	49.6	0.14	76.3	-
	Land Owner 17	19/Sep/23	7.35	731	< 5	275	345	< 0.5	< 0.02	< 0.05	< 0.01	25.9	79.5	0.386	25.3	0.345	2.76	30.8	0.77	392	303	< 5	0.4	< 5	< 5	57.9	0.11	79.5	-
North 3	Land Owner 32	7/Oct/21	8.09	1020	< 5	394	480	33.9	7.66	< 0.05	< 0.01	61.2	-	< 0.1	54.2	< 0.005	-	40.2	0.76	596	533	< 5	< 0.1	< 5	< 5	43.4	0.33	-	-
	Land Owner 32	18/Jun/22	8.01	898	< 5	424	527	34.9	7.88	< 0.05	< 0.01	58.2	102	< 0.1	45.5	< 0.005	3.0	32.8	0.68	567	442	< 5	< 0.1	< 5	< 5	31.7	0.25	102	-
North 2	Land Owner 25	14/Oct/21	7.94	660	< 5	275	335	14.1	3.19	< 0.05	< 0.01	34.9	-	< 0.1	30.4	< 0.005	-	36.2	0.91	361	300	< 5	< 0.1	< 5	< 5	7.0	0.15	-	-
	Land Owner 25	14/Oct/21	7.94	656	< 5	276	337	13.3	3.00	< 0.05	< 0.01	35.3	-	< 0.1	30.4	< 0.005	-	34.2	0.86	358	298	< 5	< 0.1	< 5	< 5	6.2	0.15	-	-
	Land Owner 25	17/Jun/22	8.13	593	< 5	307	382	12.4	2.80	< 0.05	< 0.01	34.0	71.3	< 0.1	26.3	< 0.005	2.8	29.3	0.75	370	286	< 5	< 0.1	< 5	< 5	6.2	0.17	71.3	-
	Land Owner 25	17/Jun/22	8.00	639	< 5	305	381	12.5	2.82	< 0.05	< 0.01	34.2	71.4	< 0.1	25.6	< 0.005	3.0	29.7	0.77	370	284	< 5	< 0.1	< 5	< 5	6.4	0.17	71.4	-
	Land Owner 25	20/Sep/22	8.05	604	< 5	312	388	12.3	2.78	< 0.20	< 0.01	35.2	66.7	< 0.1	29.0	< 0.005	3.3	33.5	0.86	377	286	< 5	< 0.1	< 5	< 5	6.5	0.13	66.7	-
North 3	Land Owner 18	16/Oct/21	8.34	590	< 5	252	302	< 0.5	< 0.02	< 0.05	< 0.01	22.9	-	< 0.1	18.4	0.157	-	48.9	1.46	297	213	< 5	< 0.1	< 5	< 5	1.3	< 0.01	-	-
	Land Owner 18	15/Jun/22	8.42	521	6	240	278	< 0.5	< 0.02	< 0.05	< 0.01	23.9	48.3	0.1	16.9	0.142	1.8	40.2	1.27	277	190	< 5	< 0.1	8	< 5	1.1	0.06	48.3	-
	Land Owner 18	19/Sep/22	8.13	490	< 5	278	344	< 0.5	< 0.02	< 0.05	< 0.01	24.2	48.6	0.3	18.3	0.130	2.1	44.9	1.39	308	197	< 5	< 0.1	< 5	< 5	1.1	0.08	48.6	-
North 1	Land Owner 6	17/Jun/21	8.02	772	< 5	350	427	10.7	2.42	< 0.05	< 0.01	28.4	-	< 0.1	38.9	< 0.005	-	19.6	0.43	438	402	< 5	0.2	< 5	< 5	31.1	0.13	-	99
	Land Owner 6	4/Oct/21	8.02	814	< 5	382	466	11.3	2.55	< 0.05	< 0.01	28.0	-	< 0.1	43.0	< 0.005	-	19.3	0.40	467	442	< 5	0.2	< 5	< 5	27.4	0.18	-	-
	Land Owner 6	14/Jun/22	8.28	753	< 5	322	391	11.8	2.67	< 0.05	< 0.01	27.8	91.0	< 0.1	37.4	< 0.005	2.1	18.5	0.41	406	381	< 5	0.163	< 5	< 5	25.6	0.21	91.0	-
	Land Owner 6	19/Sep/22	7.90	824	< 5	379	470	25.7	5.81	< 0.05	< 0.01	34.9	98.0	< 0.1	44.2	< 0.005	2.7	20.3	0.43	494	427	< 5	0.1	< 5	< 5	36.7	0.19	98.0	-
	Land Owner 6	15/Sep/23	7.78	817	< 5	361	440	12.3	2.78	< 0.05	< 0.01	28.6	92.5	0.103	38.3	0.00388	2.36	19.0	0.42	436	389	< 5	0.2	< 5	< 5	26.3	0.15	92.5	-
North 2	Land Owner 22	7/Oct/21	8.89	1160	38	493	520	< 0.5	< 0.02	< 0.05	< 0.01	111	-	< 0.1	0.3	< 0.005	-	279	49.6	695	6	< 5	< 0.1	46	< 5	< 1.0	0.90	-	-
	Land Owner 22	15/Jun/22	8.80	1080	26	415	443	0.6	0.14	< 0.05	< 0.01	110	1.6	< 0.1	< 0.2	< 0.005	< 0.6	244	53.0	605	4.0	< 5	< 0.1	31	< 5	< 1.0	1.20	1.6	-
	Land Owner 22	20/Sep/22	8.81	1030	25	471	525	< 0.5	< 0.02	< 0.05	< 0.01	100	1.7	< 0.1	0.3	< 0.005	< 0.6	271	50.3	661	5.5	< 5	< 0.1	30	< 5	< 1.0	0.97	1.7	-
	Land Owner 22	22/Jun/23	8.85	1100	34	463	481	< 0.5	< 0.02	< 0.05	< 0.01	103	1.54	0.008	0.22	0.00830	0.57	250	49.9	638	4.8	< 5	< 0.1	41	< 5	4.8	1.10	1.54	-
	Land Owner 22	14/Sep/23	8.56	1100	17	462	539	< 0.5	< 0.02	< 0.05	< 0.01	100	1.67	0.006	0.23	0.00517	0.57	239	45.9	627	5.1	< 5	< 0.1	20	< 5	< 1.0	0.78	1.67	-

Notes

1. - in detail data row(s) denotes parameter not analyzed
2. < in detal data row(s) denotes parameter below laboratory detection limit

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 2 : Groundwater Analytical Results: Dissolved Metals

Area	Land Owner Number	Date (dd-mmm-yy)	Dissolved Aluminum mg/L	Dissolved Antimony mg/L	Dissolved Arsenic mg/L	Dissolved Barium mg/L	Dissolved Beryllium mg/L	Dissolved Boron mg/L	Dissolved Cadmium mg/L	Dissolved Chromium mg/L	Dissolved Cobalt mg/L	Dissolved Copper mg/L	Dissolved Iron mg/L	Dissolved Lead mg/L	Dissolved Lithium mg/L	Dissolved Manganese mg/L	Dissolved Molybdenum mg/L	Dissolved Nickel mg/L	Dissolved Phosphorus mg/L	Dissolved Selenium mg/L	Dissolved Silicon mg/L	Dissolved Silver mg/L	Dissolved Sodium mg/L	Dissolved Strontium mg/L	Dissolved Thallium mg/L	Dissolved Tin mg/L	Dissolved Titanium mg/L	Dissolved Uranium mg/L	Dissolved Vanadium mg/L	Dissolved Zinc mg/L
Active Groundwater Sampling Locations																														
North 1	Landowner 2	8/Aug/19	0.008	< 0.001	< 0.001	0.06	< 0.001	0.07	< 0.000016	< 0.001	< 0.0009	0.0095	< 0.1	< 0.0005	0.051	< 0.005	0.001	< 0.003	< 0.08	0.0043	4.63	< 0.00005	31.4	0.719	< 0.0001	0.0043	0.001	0.009	< 0.001	0.015
	Landowner 2	9/Oct/19	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.05	< 0.000016	< 0.001	< 0.0009	0.0094	< 0.1	< 0.0005	0.045	< 0.005	0.001	< 0.003	< 0.08	0.0038	5.08	0.0001	31.7	0.679	< 0.0001	0.0014	< 0.001	0.008	< 0.001	0.013
	Landowner 2	7/Oct/21	0.034	< 0.001	< 0.001	0.06	< 0.001	0.05	< 0.000016	< 0.001	< 0.0009	0.0111	< 0.1	< 0.0005	0.043	< 0.005	0.001	< 0.003	< 0.08	< 0.0005	5.86	< 0.0001	36.5	0.688	< 0.0001	< 0.0005	0.002	0.009	< 0.001	0.035
	Landowner 2	7/Oct/21	0.006	< 0.001	< 0.001	0.06	< 0.001	0.06	< 0.000016	< 0.001	< 0.0009	0.0114	< 0.1	< 0.0005	0.045	< 0.005	0.001	< 0.003	< 0.08	< 0.0005	5.81	0.0001	33.9	0.745	< 0.0001	< 0.0005	0.003	0.009	< 0.001	0.036
	Landowner 2	15/Jun/22	< 0.004	< 0.001	< 0.001	0.06	< 0.0005	0.06	0.000018	< 0.0005	< 0.0009	0.0265	< 0.1	0.0001	0.044	< 0.005	0.001	< 0.003	0.19	0.0038	5.23	< 0.00005	31.0	0.790	< 0.0001	< 0.0005	< 0.001	0.008	< 0.001	0.054
	Landowner 2	20/Sep/22	< 0.004	< 0.001	< 0.001	0.06	< 0.0005	0.07	< 0.000032	< 0.0005	< 0.0009	0.0022	< 0.1	< 0.0001	0.051	< 0.005	0.001	< 0.003	0.13	0.0042	5.99	< 0.00005	33.0	0.785	< 0.0001	< 0.0010	< 0.002	0.008	< 0.001	0.019
	Landowner 2	21/Jun/23	< 0.004	< 0.001	< 0.001	0.06	< 0.00005	0.050	< 0.000016	< 0.0005	< 0.00006	0.0077	0.003	0.00012	0.043	0.00010	0.001	< 0.0004	< 0.05	0.00402	4.77	< 0.00003	29.9	0.722	< 0.00001	< 0.0001	< 0.001	0.00831	< 0.0005	0.005
	Landowner 2	13/Sep/23	0.008	< 0.001	< 0.001	0.06	< 0.00005	0.063	< 0.000016	0.0005	< 0.00006	0.0039	0.003	0.00007	0.056	0.00015	0.001	0.0006	< 0.05	0.00399	4.85	< 0.00003	30.4	0.661	< 0.00001	< 0.0001	< 0.001	0.00840	< 0.0005	< 0.004
North 1	Land Owner 12	8/Aug/19	0.005	< 0.001	0.02	0.07	< 0.001	0.08	< 0.000016	< 0.001	0.0012	0.0015	1.1	< 0.0005	0.036	0.426	0.003	< 0.003	< 0.08	0.0007	4.55	< 0.00005	47.6	0.53	< 0.0001	0.0016	< 0.001	0.003	< 0.001	0.008
	Land Owner 12	8/Oct/19	0.019	< 0.001	0.023	0.08	< 0.001	0.08	< 0.000016	< 0.001	< 0.0009	0.0027	1.1	< 0.0005	0.038	0.443	0.004	< 0.003	< 0.08	0.0009	4.66	< 0.00005	46.5	0.563	< 0.0001	0.0019	0.002	0.003	< 0.001	0.007
North 2	Landowner 1	7/Aug/19	0.01	< 0.001	< 0.001	0.06	< 0.001	0.06	0.000025	< 0.001	< 0.0009	0.022	< 0.1	< 0.0005	0.045	0.014	0.003	< 0.003	< 0.08	0.0018	4.55	< 0.00005	38.6	0.721	< 0.0001	< 0.0005	0.002	0.007	< 0.001	0.04
	Landowner 1	7/Aug/19	0.011	< 0.001	< 0.001	0.06	< 0.001	0.06	0.00002	< 0.001	< 0.0009	0.0217	< 0.1	< 0.0005	0.045	0.014	0.002	< 0.003	< 0.08	0.0018	4.56	< 0.00005	38.3	0.719	< 0.0001	< 0.0005	0.001	0.007	< 0.001	0.041
	Landowner 1	9/Oct/19	0.009	< 0.001	< 0.001	0.05	< 0.001	0.05	< 0.000016	< 0.001	< 0.0009	0.012	< 0.1	< 0.0005	0.042	0.015	0.002	< 0.003	< 0.08	0.0012	4.55	0.00018	37.6	0.744	< 0.0001	0.0017	< 0.001	0.007	< 0.001	0.024
	Landowner 1	7/Oct/21	0.005	< 0.001	< 0.001	0.06	< 0.001	0.06	< 0.000016	< 0.001	< 0.0009	0.0201	< 0.1	< 0.0005	0.041	0.011	0.002	< 0.003	-	< 0.0005	5.60	< 0.0001	37.5	0.775	< 0.0001	< 0.0005	0.002	0.008	< 0.001	0.025
	Landowner 1	17/Jun/22	< 0.004	< 0.001	< 0.001	0.05	< 0.0005	0.07	< 0.00016	< 0.0010	< 0.0009	0.0067	< 0.1	< 0.0005	0.045	0.008	0.002	< 0.003	0.16	< 0.005	4.68	< 0.00010	34.7	0.696	< 0.0001	< 0.005	< 0.01	0.004	< 0.001	0.016
	Landowner 1	19/Sep/22	< 0.004	< 0.001	< 0.001	0.06	< 0.0005	0.05	< 0.000016	< 0.0005	< 0.0009	0.0103	< 0.1	< 0.0001	0.039	< 0.005	0.002	< 0.003	0.11	< 0.0005	5.45	< 0.00005	39.4	0.700	< 0.0001	< 0.0005	< 0.001	0.007	< 0.001	0.013
	Landowner 1	22/Jun/23	< 0.004	< 0.001	< 0.001	0.06	< 0.00005	0.055	< 0.000016	< 0.0005	< 0.00006	0.0087	0.002	0.00012	0.043	0.00944	0.002	< 0.0004	< 0.05	0.00034	4.66	< 0.00003	36.7	0.712	< 0.00001	< 0.0001	< 0.001	0.00806	< 0.0005	0.019
	Landowner 1	13/Sep/23	0.023	< 0.001	< 0.001	0.06	< 0.00005	0.060	< 0.000016	< 0.0005	< 0.00006	0.0155	0.013	0.00016	0.049	0.00889	0.002	< 0.0004	< 0.05	0.00030	4.36	< 0.00003	34.6	0.645	< 0.00001	< 0.0001	< 0.001	0.00723	< 0.0005	0.016
North 1	Landowner 25	7/Aug/19	< 0.004	< 0.001	< 0.001	0.07	< 0.001	0.06	< 0.000016	< 0.001	< 0.0009	0.0028	< 0.1	< 0.0005	0.049	< 0.005	0.002	< 0.003	< 0.08	0.0024	4.44	< 0.00005	33.5	0.797	< 0.0001	0.0011	0.001	0.008	< 0.001	0.024
	Landowner 25	9/Oct/19	0.028	< 0.001	< 0.001	0.06	< 0.001	0.05	< 0.000016	< 0.001	< 0.0009	0.006	< 0.1	< 0.0005	0.044	< 0.005	0.002	< 0.003	< 0.08	0.002	4.61	0.00009	32.2	0.799	< 0.0001	0.002	< 0.001	0.008	< 0.001	0.03
	Landowner 25	6/Oct/21	0.007	< 0.001	< 0.001	0.07	< 0.001	0.07	< 0.000016	< 0.001	< 0.0009	< 0.0008	0.7	< 0.0005	0.054	0.128	0.001	< 0.003	< 0.08	0.0005	6.09	< 0.0001	58.3	1.17	< 0.0001	< 0.0005	0.003	< 0.001	< 0.001	0.047
South	Land Owner 33	7/Aug/19	< 0.004	< 0.001	< 0.001	0.21	< 0.001	0.07	< 0.000016	< 0.001	< 0.0009	0.0013	< 0.1	< 0.0005	0.041	< 0.005	0.002	< 0.003	< 0.08	0.0024	4.6	< 0.00005	40.1	0.483	< 0.0001	0.0015	0.002	0.005	< 0.001	< 0.005
	Land Owner 33	8/Oct/19	< 0.004	< 0.001	< 0.001	0.21	< 0.001	0.11	< 0.000016	< 0.001	< 0.0009	0.0015	< 0.1	< 0.0005	0.044	< 0.005	0.002	< 0.003	< 0.08	0.002	4.44	0.00008	38.3	0.497	< 0.0001	0.0015	0.005	0.006	< 0.001	< 0.005
	Land Owner 33	8/Oct/19	0.007	< 0.001	< 0.001	0.19	< 0.001	0.06	< 0.000016	< 0.001	< 0.0009	0.0013	< 0.1	< 0.0005	0.044	< 0.005	0.002	< 0.003	< 0.08	0.0015	4.44	0.00033	39.7	0.491	< 0.0001	0.0021	0.001	0.005	< 0.001	< 0.005
	Land Owner 33	16/Jun/21	0.025	< 0.001	< 0.001	0.18	< 0.001	0.06	< 0.000016	< 0.001	< 0.0009	0.0027	< 0.1	< 0.0005	-	< 0.005	0.002	< 0.003	< 0.08	< 0.0005	-	< 0.0001	40	-	< 0.0001	-	0.002	0.005	-	< 0.005
	Land Owner 33	7/Oct/21	0.006	< 0.001	< 0.001	0.20	< 0.001	0.07	0.000017	< 0.001	< 0.0009	0.0036	< 0.1	< 0.0005	0.037	< 0.005	0.001	< 0.003	< 0.08	< 0.0005	5.63	< 0.0001	42.1	0.484	< 0.0001	< 0.0005	0.003	0.005	< 0.001	0.013
	Land Owner 33	15/Jun/22	< 0.004	< 0.001	< 0.001	0.18	< 0.0005	0.06	< 0.000016	< 0.0005	< 0.0009	0.0031	< 0.1	0.0003	0.039	< 0.005	0.001	< 0.003	0.16	0.0008	4.68	< 0.00005	35.6	0.480	< 0.0001	< 0.0005	< 0.001	0.004	< 0.001	0.005
	Land Owner 33	15/Jun/22	< 0.004	< 0.001	< 0.001	0.18	< 0.0005	0.06	< 0.000016	< 0.0005	< 0.0009	0.0062	< 0.1	0.0004	0.039	< 0.005	0.001	< 0.003	0.14	0.0009	4.70	< 0.00005	36.0	0.473	< 0.0001	< 0.0005	< 0.001	0.004	< 0.001	0.011
	Land Owner 33	21/Sep/22	< 0.004	< 0.001	< 0.001	0.19	< 0.0005	0.07	< 0.000016	< 0.0005	< 0.0009	0.0078	< 0.1	0.0004	0.044	< 0.005	0.001	< 0.003	< 0.08	0.0010	5.04	< 0.00005	38.6	0.507	< 0.0001	< 0.0005	< 0.001	0.004	< 0.001	0.011
	Land Owner 33	21/Jun/23	< 0.004	< 0.001	< 0.001	0.18	< 0.00005	0.061	< 0.000016	< 0.0005	< 0.00006	0.0055	0.001	0.00030	0.036	0.00014	0.002	< 0.0004	< 0.05	0.00101	4.35	< 0.00003	37.4	0.464	< 0.00001	< 0.0001	< 0.001	0.00434	< 0.0005	0.007
	Land Owner 33	19/Sep/23	0.014	< 0.001	< 0.001	0.19	< 0.00005	0.069	< 0.000016	< 0.0005	< 0.00006	0.0043	0.005 0.006	0.00028	0.041	0.00006	0.001	< 0.0004	< 0.05	0.00098	4.81	< 0.00003	41.7	0.466	< 0.00001	< 0.0001	< 0.001	0.00452	< 0.0005	0.004
	Land Owner 33	19/Sep/23	< 0.004	< 0.001	< 0.001	0.19	< 0.00005	0.071	< 0.000016	< 0.0005	0.00006	0.0037	0.001	0.00027	0.044	< 0.00005	0.001	< 0.0004	< 0.05	0.00101	4.84	< 0.00003	41.4	0.480	< 0.00001	< 0.0001	< 0.001	0.00414	< 0.0005	< 0.004
South	Land Owner 35	22/Sep/23	0.007	< 0.001	< 0.001	< 0.05	< 0.00005	0.150	< 0.000016	< 0.0005	0.00108	0.0014	0.766	< 0.00005	0.044	1.01	0.002	0.0014	< 0.05	< 0.00005	5.67	< 0.00003	74.7	0.546	< 0.00001	0.0001	< 0.001	0.0109	< 0.0005	0.015
North 2	Land Owner 27	9/Aug/19	0.016	< 0.001	< 0.001	< 0.05	< 0.001	0.21	< 0.000016	< 0.001	< 0.0009	0.0035	0.3	< 0.0005	0.085	0.095	0.002	< 0.003	< 0.08	< 0.0005	3.88	< 0.00005	184	0.661	< 0.0001	0.0023	< 0.001	< 0.001	< 0.001	0.011
	Land Owner 27	9/Aug/19	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	< 0.01	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.003	< 0.08	< 0.0005	< 0.032	< 0.00005	< 0.6	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.005
	Land Owner 27	9/Aug/19	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	< 0.01	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.003	< 0.08	< 0.0005	< 0.032	< 0.00005	< 0.6	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.005
	Land Owner 27	8/Oct/19	0.007	< 0.001	< 0.001	< 0.05	< 0.001	0.23	< 0.000016	< 0.001	< 0.0009	0.0009	2.4	< 0.0005	0.087	0.182	0.002	< 0.003	< 0.08	0.0006	3.93	< 0.00005	213	0.472	< 0.0001	0.0029	0.004	< 0.001	< 0.001	0.022
South	Land Owner 4	8/Aug/19	0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.13	< 0.000016	< 0.001	< 0.0009	0.0215	1.4	0.0013	0.059	0.15	0.001	< 0.003	< 0.08	< 0.0005	4.96	< 0.00005	58.3	0.884	< 0.0001	0.0024	0.002	< 0.001	< 0.001	0.026
	Land Owner 4	8/Oct/19	0.017	< 0.001	< 0.001	< 0.05	< 0.001	0.13	< 0.000016	< 0.001	< 0.0009	0.0009	2.1	< 0.0005	0.062	0.174	0.001	< 0.003	< 0.08	0.0008	5.27	< 0.00005	55.7	0.924	< 0.0001	0.002	0.003	< 0.001	< 0.001	0.014
	Land Owner 4	8/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.11	0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.051	0.214	0.001	< 0.003	-	< 0.005	6.27	< 0.0001	60.6	0.912	< 0.0001	< 0.0005	0.005	< 0.001	< 0.001	0.019
	Land Owner 4	18/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.11	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.052	0.172	0.001	< 0.003	0.13	< 0.0005	5.58	< 0.00005	51.6	0.945	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	0.006
	Land Owner 4	19/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.11	< 0.000032	< 0.0005	< 0.0009	< 0.0008	1.1	< 0.0001	0.049	0.182	0.001	< 0.003	0.10	< 0.0010	6.56	< 0.00005	57.7	0.922	< 0.0001	< 0.0010	< 0.002	< 0.001	< 0.001	0.007
	Land Owner 4	21/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.094	< 0.000016	< 0.0005	< 0.00006	< 0.0003	1.08	< 0.00005	0.049	0.179	0.001	< 0.0004	< 0.05	< 0.00005	5.28	< 0.00003	50.0	0.887	< 0.00001	< 0.0001	< 0.001	0.00041	< 0.0005	0.006
	Land Owner 4	13/Sep/23	0.022	< 0.001	< 0.001	< 0.05	< 0.00005	0.119	< 0.000016	0.0006	0.00077	0.0005	0.987	< 0.00005	0.064	0.172	0.001	< 0.0004	< 0.05	< 0.00005	4.90	< 0.00003	49.4	0.770	< 0.00001	0.0001	< 0.001	0.00041	< 0.0005	0.006

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 2 : Groundwater Analytical Results: Dissolved Metals

Area	Land Owner Number	Date (dd-mmm-yy)	Dissolved Aluminum mg/L	Dissolved Antimony mg/L	Dissolved Arsenic mg/L	Dissolved Barium mg/L	Dissolved Beryllium mg/L	Dissolved Boron mg/L	Dissolved Cadmium mg/L	Dissolved Chromium mg/L	Dissolved Cobalt mg/L	Dissolved Copper mg/L	Dissolved Iron mg/L	Dissolved Lead mg/L	Dissolved Lithium mg/L	Dissolved Manganese mg/L	Dissolved Molybdenum mg/L	Dissolved Nickel mg/L	Dissolved Phosphorus mg/L	Dissolved Selenium mg/L	Dissolved Silicon mg/L	Dissolved Silver mg/L	Dissolved Sodium mg/L	Dissolved Strontium mg/L	Dissolved Thallium mg/L	Dissolved Tin mg/L	Dissolved Titanium mg/L	Dissolved Uranium mg/L	Dissolved Vanadium mg/L	Dissolved Zinc mg/L
North 3	Land Owner 31	8/Aug/19	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.18	< 0.000016	< 0.001	< 0.0009	< 0.0008	0.1	< 0.0005	0.051	0.036	0.003	< 0.003	< 0.08	< 0.0005	2.1	< 0.00005	148	0.108	< 0.0001	0.003	< 0.001	< 0.001	< 0.001	< 0.005
	Land Owner 31	8/Oct/21	0.006	< 0.001	0.003	< 0.05	< 0.001	0.18	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	0.0039	0.045	0.615	0.001	< 0.003	-	0.0009	4.71	< 0.0001	136.0	0.459	< 0.0001	< 0.0005	0.003	0.002	< 0.001	0.019
	Land Owner 31	17/Jun/22	< 0.004	< 0.001	0.002	< 0.05	< 0.0005	0.17	< 0.00016	< 0.0010	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.041	0.595	0.001	< 0.003	0.16	< 0.005	4.55	< 0.00010	106	0.519	< 0.0001	< 0.005	< 0.01	0.003	< 0.001	< 0.010
	Land Owner 31	19/Sep/22	< 0.004	< 0.001	0.002	< 0.05	< 0.0005	0.14	< 0.000016	< 0.0005	< 0.0009	< 0.0008	5.4	< 0.0001	0.038	0.498	0.001	< 0.003	0.11	< 0.0005	5.25	< 0.00005	136	0.500	< 0.0001	< 0.0005	< 0.001	0.001	< 0.001	< 0.004
	Land Owner 31	19/Sep/22	< 0.004	< 0.001	0.002	< 0.05	< 0.0005	0.14	< 0.000016	< 0.0005	< 0.0009	< 0.0008	4.2	< 0.0001	0.040	0.502	0.002	< 0.003	0.11	< 0.0005	5.23	< 0.00005	139	0.500	< 0.0001	< 0.0005	< 0.001	0.001	< 0.001	< 0.004
	Land Owner 31	27/Jun/23	< 0.004	< 0.001	0.003	< 0.05	< 0.00005	0.129	< 0.000016	< 0.0005	< 0.00006	< 0.0003	5.26	< 0.00005	0.038	0.521	0.001	< 0.0004	< 0.05	< 0.00005	4.91	< 0.00003	120	0.579	< 0.00001	< 0.0001	< 0.001	0.00236	< 0.0005	< 0.004
	Land Owner 31	14/Sep/23	0.012	< 0.001	0.003	< 0.05	< 0.00005	0.118	< 0.000016	0.0016	0.00348	0.0007	4.93	< 0.00005	0.029	0.682	0.002	< 0.0004	< 0.05	< 0.00005	4.61	< 0.00003	115	0.620	< 0.00001	0.0001	< 0.001	0.00327	< 0.0005	< 0.004
South	Land Owner 24	8/Aug/19	0.005	< 0.001	0.002	< 0.05	< 0.001	0.2	< 0.000016	< 0.001	< 0.0009	0.143	1.6	< 0.0005	0.05	0.241	0.002	< 0.003	< 0.08	0.0006	4.41	< 0.00005	143	0.621	< 0.0001	0.0022	0.001	< 0.001	< 0.001	0.006
	Land Owner 24	7/Oct/21	0.006	< 0.001	0.002	< 0.05	< 0.001	0.20	< 0.000016	< 0.001	< 0.0009	< 0.0008	3.3	< 0.0005	0.051	0.324	0.001	< 0.003	< 0.08	< 0.0005	5.93	< 0.0001	154	0.684	< 0.0001	< 0.0005	0.004	< 0.001	< 0.001	0.009
	Land Owner 24	17/Jun/22	0.006	< 0.001	0.002	< 0.05	< 0.0005	0.14	0.000029	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.011	< 0.005	0.006	< 0.003	0.09	< 0.0005	1.43	< 0.00005	96.6	0.054	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.004
North 1	UL1 - Development	11/Jul/19	< 0.004	< 0.001	0.009	< 0.05	< 0.001	0.18	< 0.000016	< 0.001	< 0.0009	0.0011	< 0.1	< 0.0005	0.022	0.011	0.008	< 0.003	< 0.08	< 0.0005	3.14	< 0.00005	233	0.058	< 0.0001	< 0.0005	< 0.001	0.003	< 0.001	0.026
	UL1 - Development	15/Jul/19	0.007	< 0.001	< 0.001	< 0.05	< 0.001	0.09	0.000031	< 0.001	< 0.0009	0.0015	< 0.1	< 0.0005	0.038	0.485	0.002	< 0.003	< 0.08	< 0.0005	4.43	< 0.00005	47.3	0.651	< 0.0001	< 0.0005	0.002	0.007	< 0.001	0.091
	UL1 - Development	15/Jul/19	0.007	< 0.001	0.003	< 0.05	< 0.001	0.08	0.000017	< 0.001	< 0.0009	0.0016	0.2	< 0.0005	0.039	0.266	0.004	< 0.003	< 0.08	< 0.0005	4.52	< 0.00005	47.2	0.638	< 0.0001	< 0.0005	0.003	0.006	< 0.001	0.053
	UL1 - Development	6/Aug/19	0.139	0.001	0.018	< 0.05	< 0.001	0.3	0.000038	< 0.001	< 0.0009	0.0065	< 0.1	< 0.0005	0.045	0.005	0.016	< 0.003	< 0.08	0.0021	3.83	< 0.00005	255	0.082	< 0.0001	< 0.0005	0.003	0.011	0.004	< 0.005
	UL1 - Development	6/Aug/19	0.038	0.001	0.018	< 0.05	< 0.001	0.3	0.000038	< 0.001	< 0.0009	0.0066	< 0.1	< 0.0005	0.044	< 0.005	0.016	< 0.003	< 0.08	0.002	3.44	< 0.00005	256	0.086	< 0.0001	< 0.0005	0.002	0.011	0.003	< 0.005
	UL1 - Development	7/Oct/19	0.014	0.001	0.017	< 0.05	< 0.001	0.27	< 0.000016	< 0.001	< 0.0009	0.0111	< 0.1	< 0.0005	0.035	0.006	0.014	< 0.003	< 0.08	0.0013	3.51	< 0.00005	255	0.08	< 0.0001	< 0.0005	0.01	0.009	0.002	0.021
	UL1 - Development	7/Oct/19	0.014	0.001	0.017	< 0.05	< 0.001	0.28	< 0.000016	< 0.001	< 0.0009	0.0098	< 0.1	< 0.0005	0.036	0.006	0.014	< 0.003	0.1	0.0012	3.54	< 0.00005	248	0.081	< 0.0001	< 0.0005	0.009	0.009	0.003	0.018
	UL1 - Development	21/Jul/20	0.006	< 0.001	< 0.001	< 0.05	< 0.001	0.31	0.000027	< 0.001	< 0.0009	0.0027	< 0.1	0.0005	0.036	0.01	0.012	< 0.003	-	0.0006	-	< 0.0001	273	0.059	< 0.0001	0.0005	0.001	0.006	-	0.011
	UL1 - Development	28/Oct/20	0.24	< 0.001	0.005	< 0.05	< 0.001	0.2	< 0.000016	< 0.001	< 0.0009	0.0009	0.2	< 0.0005	0.021	0.008	0.008	< 0.003	-	< 0.0005	4.58	< 0.0001	288	0.036	< 0.0001	0.0006	0.008	0.003	0.003	0.013
	UL1 - Development	28/Oct/20	0.236	< 0.001	0.005	< 0.05	< 0.001	0.2	< 0.000016	< 0.001	< 0.0009	< 0.0008	0.2	0.0005	0.021	0.009	0.008	< 0.003	-	< 0.0005	4.72	< 0.0001	288	0.036	< 0.0001	0.0006	0.008	0.003	0.003	0.011
	UL1 - Development	15/Jun/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.09	< 0.000016	< 0.001	< 0.001	0.002	< 0.1	0.0003	0.057	0.528	0.001	< 0.004	< 0.08	< 0.0005	5.23	< 0.00005	51.9	0.684	< 0.0005	0.0005	< 0.001	0.003	0.002	0.01
	UL1 - Development	5/Oct/21	0.008	< 0.001	< 0.001	< 0.05	< 0.001	0.09	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.039	0.631	0.002	< 0.003	< 0.08	0.0057	5.38	0.0001	44.8	0.672	< 0.0001	< 0.0005	< 0.001	0.003	< 0.001	< 0.005
	UL1 - Development	26/Jun/22	0.009	< 0.001	< 0.001	< 0.05	< 0.0005	0.07	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0002	0.037	0.005	0.002	< 0.003	0.24	< 0.0005	3.63	< 0.00005	45.6	0.617	< 0.0001	< 0.0005	0.003	0.003	< 0.001	< 0.005
	UL1 - Development	21/Sep/23	0.023	< 0.001	0.002	< 0.05	< 0.00005	0.311	< 0.000016	< 0.0005	0.00007	< 0.0003	0.009	0.00005	0.035	0.00848	0.008	< 0.0004	0.17	0.00010	3.4	< 0.00003	301	0.051	< 0.00001	0.0002	< 0.001	0.00070	0.0006	< 0.004
	UL1 - Development	21/Sep/23	0.025	< 0.001	0.002	< 0.05	< 0.00005	0.312	< 0.000016	< 0.0005	0.00040	< 0.0003	0.016	< 0.00005	0.035	0.00511	0.008	< 0.0004	0.14	0.00073	3.4	< 0.00003	291	0.059	< 0.00001	0.0006	< 0.001	0.00147	0.0007	< 0.004
North 1	UL2 - Development	7/Aug/19	0.009	< 0.001	0.001	0.05	< 0.001	0.09	0.000017	< 0.001	< 0.0009	0.0179	0.2	< 0.0005	0.049	0.318	0.002	< 0.003	< 0.08	< 0.0005	5.01	< 0.00005	47.8	0.609	< 0.0001	< 0.0005	0.002	0.004	< 0.001	0.034
	UL2 - Development	7/Oct/19	0.007	< 0.001	0.002	< 0.05	< 0.001	0.08	0.000026	< 0.001	< 0.0009	0.0115	0.4	< 0.0005	0.039	0.283	0.002	< 0.003	< 0.08	< 0.0005	5.41	< 0.00005	45.6	0.623	< 0.0001	< 0.0005	0.008	0.003	< 0.001	0.042
	UL2 - Development	22/Jul/20	0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.09	0.000018	< 0.001	< 0.0009	0.0086	0.5	0.0006	0.045	0.295	0.002	< 0.003	-	< 0.0005	-	< 0.0001	43.6	0.602	< 0.0001	< 0.0005	0.002	0.003	-	0.021
	UL2 - Development	22/Jul/20	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	< 0.01	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.003	-	< 0.0005	-	< 0.0001	< 0.6	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.001	-	< 0.005
	UL2 - Development	27/Oct/20	0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.05	< 0.000016	< 0.001	< 0.0009	0.0061	0.4	< 0.0005	0.032	0.289	0.002	< 0.003	-	0.0012	5.84	< 0.0001	48.4	0.439	< 0.0001	< 0.0005	0.001	0.002	< 0.001	0.021
	UL2 - Development	15/Jun/21	0.104	< 0.001	0.004	< 0.05	< 0.001	0.27	0.000017	< 0.001	< 0.001	0.003	< 0.1	0.0011	0.045	0.007	0.007	< 0.004	0.17	< 0.0005	3.9	< 0.00005	293	0.058	< 0.0005	0.0013	0.008	0.004	0.002	0.04
	UL2 - Development	5/Oct/21	0.005	< 0.001	< 0.001	< 0.05	< 0.001	0.09	< 0.000016	< 0.001	< 0.0009	< 0.0008	0.5	< 0.0005	0.042	0.344	0.002	< 0.003	< 0.08	0.0128	5.64	< 0.0001	46.9	0.618	< 0.0001	< 0.0005	0.001	0.003	< 0.001	0.011
	UL2 - Development	26/Jun/22	0.010	< 0.001	< 0.001	0.05	< 0.0005	0.07	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0002	0.040	0.248	0.002	< 0.003	0.11	< 0.0005	5.14	< 0.00005	47.3	0.579	< 0.0001	< 0.0005	0.003	0.003	< 0.001	0.007
	UL2 - Development	12/Sep/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.077	< 0.000016	< 0.0005	0.00007	0.0809	0.1	< 0.00005	0.044	0.275	0.002	0.0007	< 0.05	< 0.00005	5.25	< 0.00003	50.3	0.611	< 0.00001	0.0003	< 0.001	0.00291	< 0.0005	0.064
North 1	UL3 - Development	7/Aug/19	0.008	< 0.001	< 0.001	0.06	< 0.001	0.08	0.000046	< 0.001	< 0.0009	0.0211	< 0.1	< 0.0005	0.041	0.548	0.002	< 0.003	< 0.08	< 0.0005	4.89	< 0.00005	45.8	0.641	< 0.0001	< 0.0005	0.002	0.003	< 0.001	0.035
	UL3 - Development	7/Oct/19	0.011	< 0.001	< 0.001	0.07	< 0.001	0.08	< 0.000016	< 0.001	< 0.0009	0.0073	0.1	< 0.0005	0.044	0.599	0.002	< 0.003	< 0.08	< 0.0005	4.58	< 0.00005	43.4	0.661	< 0.0001	< 0.0005	0.002	0.003	< 0.001	0.017
	UL3 - Development	22/Jul/20	0.005	< 0.001	< 0.001	< 0.05	< 0.001	0.09	< 0.000016	< 0.001	< 0.0009	0.0097	< 0.1	0.0009	0.043	0.549	0.002	< 0.003	-	< 0.0005	-	< 0.0001	40.9	0.643	< 0.0001	< 0.0005	0.002	0.003	-	0.027
	UL3 - Development	22/Jul/20	0.005	< 0.001	< 0.001	< 0.05	< 0.001	0.09	0.00004	< 0.001	< 0.0009	0.0098	< 0.1	0.0009	0.043	0.554	0.002	< 0.003	-	0.0005	-	< 0.0001	41.7	0.663	< 0.0001	< 0.0005	0.001	0.003	-	0.026
	UL3 - Development	28/Oct/20	0.017	< 0.001	< 0.001	< 0.05	< 0.001	0.05	0.000023	< 0.001	< 0.0009	0.0056	< 0.1	< 0.0005	0.025	0.564	0.001	< 0.003	-	< 0.0005	5.85	< 0.0001	46	0.418	< 0.0001	< 0.0005	0.003	0.002	0.001	0.012
	UL3 - Development	28/Oct/20	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	< 0.01	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	< 0.001	< 0.005	< 0.001	< 0.003	-	< 0.0005	< 0.032	< 0.0001	< 0.6	< 0.001	< 0.0001	< 0.0005	< 0.001	< 0.001	0.002	< 0.005
	UL3 - Development	15/Jun/21	< 0.004	< 0.001	< 0.001	0.05	< 0.001	0.07	< 0.000016	< 0.001	< 0.001	0.003	< 0.1	0.0007	0.053	0.288	0.001	< 0.004	< 0.08	< 0.0005	5.58	< 0.00005	50.7	0.618	< 0.0005	< 0.0005	0.004	0.003	0.001	< 0.01
	UL3 - Development	5/Oct/21	0.044	< 0.001	0.003	< 0.05	< 0.001	0.33	0.000025	< 0.001	< 0.0009	0.0012	< 0.1	< 0.0005	0.032	< 0.005	0.008	< 0.003	0.10	0.0079	3.60	< 0.0001	290	0.058	< 0.0001	< 0.0005	0.002	0.001	0.002	0.009
	UL3 - Development	26/Jun/22	0.091	< 0.001	0.002	< 0.05	< 0.0005	0.27	0.000038	< 0.0005	< 0.0009	< 0.0008	< 0.1	0.0004	0.030	0.515	0.008	< 0.003	< 0.08	0.0013	5.03	< 0.00005	282	0.056	< 0.0001	< 0.0005	0.005	0.001	< 0.001	0.041
	UL3 - Development	12/Sep/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.070	0.000258	< 0.0005	0.00033	0.0945	0.066 < 0.1	0.00006	0.035	0.471 0.457	< 0.001	0.0017	0.09	0.00008	5.0	0.00136	256 255	0.632	0.00005	0.0004	< 0.001	0.00279	< 0.0005	0.053

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 2 : Groundwater Analytical Results: Dissolved Metals

Area	Land Owner Number	Date (dd-mmm-yy)	Dissolved Aluminum mg/L	Dissolved Antimony mg/L	Dissolved Arsenic mg/L	Dissolved Barium mg/L	Dissolved Beryllium mg/L	Dissolved Boron mg/L	Dissolved Cadmium mg/L	Dissolved Chromium mg/L	Dissolved Cobalt mg/L	Dissolved Copper mg/L	Dissolved Iron mg/L	Dissolved Lead mg/L	Dissolved Lithium mg/L	Dissolved Manganese mg/L	Dissolved Molybdenum mg/L	Dissolved Nickel mg/L	Dissolved Phosphorus mg/L	Dissolved Selenium mg/L	Dissolved Silicon mg/L	Dissolved Silver mg/L	Dissolved Sodium mg/L	Dissolved Strontium mg/L	Dissolved Thallium mg/L	Dissolved Tin mg/L	Dissolved Titanium mg/L	Dissolved Uranium mg/L	Dissolved Vanadium mg/L	Dissolved Zinc mg/L
Baseline Groundwater Sampling Points																														
North 1	Land Owner 19	16/Jun/21	< 0.004	< 0.001	< 0.001	0.09	< 0.001	0.04	0.00002	< 0.001	< 0.0009	0.0055	< 0.1	< 0.0005	-	< 0.005	0.001	< 0.003	< 0.08	0.0016	-	< 0.0001	14.6	-	< 0.0001	-	0.002	0.012	-	0.012
	Land Owner 19	8/Oct/21	0.049	< 0.001	< 0.001	0.10	< 0.001	0.05	0.000029	< 0.001	< 0.0009	0.0072	< 0.1	< 0.0005	0.046	< 0.005	0.001	< 0.003	-	0.0046	6.32	< 0.0001	15.7	0.608	< 0.0001	< 0.0005	0.004	0.012	< 0.001	0.026
	Land Owner 19	24/Jun/23	< 0.004	< 0.001	< 0.001	0.09	< 0.00005	0.047	0.000031	< 0.0005	< 0.00006	0.0108	0.003	0.00024	0.053	0.00066	0.001	0.0079	< 0.05	0.00479	5.66	< 0.00003	13.5	0.534	< 0.00001	< 0.0001	< 0.001	0.0108	0.0008	0.048
	Land Owner 19	24/Jun/23	< 0.004	< 0.001	< 0.001	0.09	< 0.00005	0.048	< 0.000016	< 0.0005	< 0.00006	0.0050	< 0.001	0.00007	0.057	0.00069	0.002	0.0075	< 0.05	0.00531	5.77	< 0.00003	14.2	0.545	< 0.00001	< 0.0001	< 0.001	0.0125	0.0007	0.040
	Land Owner 19	19/Sep/23	0.018	< 0.001	< 0.001	0.10	< 0.00005	0.044	0.000030	< 0.0005	0.00040	0.0183	0.004	0.00034	0.048	0.00028	0.001	0.0021	< 0.05	0.00465	6.34	< 0.00003	14.7	0.573	< 0.00001	0.0002	< 0.001	0.0106	0.0008	0.033
South	Land Owner 29	17/Jun/21	0.006	< 0.001	< 0.001	0.07	< 0.001	0.08	< 0.000016	< 0.001	< 0.0009	< 0.0008	0.7	< 0.0005	0.06	0.121	0.001	< 0.003	< 0.08	< 0.0005	6.69	< 0.0001	52	1.12	< 0.0001	< 0.0005	0.003	< 0.001	< 0.001	0.015
	Land Owner 29	23/Jun/22	0.010	< 0.001	< 0.001	0.07	< 0.0005	0.06	0.000016	< 0.0005	< 0.0009	0.0040	< 0.1	< 0.0001	0.051	0.123	0.001	< 0.003	0.08	< 0.0005	5.42	< 0.00005	49.6	1.11	< 0.0001	< 0.0005	0.002	< 0.001	< 0.001	0.054
	Land Owner 29	23/Jun/22	0.005	< 0.001	< 0.001	0.07	< 0.0005	0.06	< 0.000016	< 0.0005	< 0.0009	0.0097	< 0.1	< 0.0001	0.050	0.124	0.001	< 0.003	0.09	< 0.0005	5.41	< 0.00005	49.0	1.06	< 0.0001	< 0.0005	0.002	< 0.001	< 0.001	0.318
	Land Owner 29	24/Jun/22	0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.10	0.000027	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.057	0.332	0.001	< 0.003	0.10	< 0.0005	5.06	< 0.00005	105	0.854	< 0.0001	< 0.0005	0.004	0.004	< 0.001	0.010
	Land Owner 29	24/Sep/22	< 0.004	< 0.001	< 0.001	0.07	< 0.0005	0.08	< 0.000080	< 0.0005	< 0.0009	< 0.0008	0.6	< 0.0002	0.058	0.118	0.001	< 0.003	0.12	< 0.0025	6.11	< 0.00005	55.0	1.15	< 0.0001	< 0.0025	< 0.005	< 0.001	< 0.001	0.061
	Land Owner 29	29/Jun/23	< 0.004	< 0.001	< 0.001	0.08	< 0.00005	0.056	< 0.000016	< 0.0005	< 0.00006	< 0.0003	0.484	0.00005	0.047	0.117	0.001	< 0.0004	< 0.05	< 0.00005	4.97	< 0.00003	48.9	1.07	< 0.00001	< 0.0001	< 0.001	0.00007	< 0.0005	0.052
	Land Owner 29	14/Sep/23	0.013	< 0.001	< 0.001	0.09	< 0.00005	0.056	< 0.000016	0.0010	< 0.00006	0.0009	0.537	< 0.00005	0.042	0.124	0.001	< 0.0004	< 0.05	< 0.00005	5.22	< 0.00003	55.1	1.19	< 0.00001	0.0001	< 0.001	0.00008	< 0.0005	0.039
North 3	273157 (Enhance Facility Well)	15/Jun/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.11	< 0.000016	< 0.001	< 0.001	0.008	< 0.1	< 0.0002	0.095	0.039	0.002	< 0.004	< 0.08	< 0.0005	4.37	< 0.00005	226	0.26	< 0.0005	< 0.0005	0.008	< 0.001	0.001	0.03
	273157 (Enhance Facility Well)	5/Oct/21	0.019	< 0.001	< 0.001	< 0.05	< 0.001	0.12	< 0.000016	< 0.001	< 0.0009	< 0.0008	0.2	< 0.0005	0.071	0.046	0.002	< 0.003	< 0.08	0.0094	4.53	0.0002	216	0.270	< 0.0001	< 0.0005	0.001	< 0.001	< 0.001	< 0.005
	273157 (Enhance Facility Well)	14/Jun/22	0.014	< 0.001	< 0.001	< 0.05	< 0.0005	0.10	< 0.000016	< 0.0005	< 0.0009	0.0041	< 0.1	0.0002	0.069	0.035	0.002	< 0.003	0.13	< 0.0005	4.34	< 0.00005	212	0.269	< 0.0001	< 0.0005	0.003	< 0.001	< 0.001	0.203
	273157 (Enhance Facility Well)	19/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.10	< 0.000032	< 0.0005	< 0.0009	< 0.0008	0.2	0.0023	0.063	0.038	0.002	< 0.003	0.11	< 0.0010	4.90	< 0.00005	224	0.270	< 0.0001	< 0.0010	< 0.002	< 0.001	< 0.001	0.373
	273157 (Enhance Facility Well)	21/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.093	< 0.000016	< 0.0005	< 0.00006	0.0016	0.057	0.00054	0.071	0.0394	0.002	0.0004	< 0.05	< 0.00005	3.9	< 0.00003	205	0.291	< 0.00001	< 0.0001	< 0.001	0.00031	< 0.0005	0.210
	273157 (Enhance Facility Well)	13/Sep/23	0.010	< 0.001	< 0.001	< 0.05	< 0.00005	0.079	< 0.000016	< 0.0005	< 0.00006	0.0016	0.194	0.00008	0.058	0.0380	0.002	< 0.0004	< 0.05	< 0.00005	3.8	< 0.00003	196	0.269	< 0.00001	0.0001	< 0.001	0.00033	< 0.0005	0.032
	273157 (Enhance Facility Well)	13/Sep/23	0.008	< 0.001	< 0.001	< 0.05	< 0.00005	0.077	< 0.000016	< 0.0005	< 0.00006	< 0.0003	0.164	0.00007	0.057	0.0385	0.002	< 0.0004	< 0.05	< 0.00005	3.6	< 0.00003	180	0.272	< 0.00001	< 0.0001	< 0.001	0.00033	< 0.0005	0.030
North 1	Land Owner 14	6/Oct/21	< 0.004	< 0.001	< 0.001	0.06	< 0.001	0.08	< 0.000016	< 0.001	< 0.0009	< 0.0008	1.0	< 0.0005	0.064	0.200	0.001	< 0.003	< 0.08	< 0.0005	6.71	< 0.0001	75.2	0.596	< 0.0001	< 0.0005	0.002	0.001	< 0.001	0.017
	Land Owner 14	18/Jun/22	< 0.004	< 0.001	< 0.001	0.06	< 0.0005	0.08	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.064	0.190	0.001	< 0.003	0.14	< 0.0005	5.98	< 0.00005	64.0	0.620	< 0.0001	< 0.0005	< 0.001	0.001	< 0.001	0.030
	Land Owner 14	21/Sep/22	< 0.004	< 0.001	< 0.001	0.06	< 0.0005	0.12	< 0.000032	< 0.0005	< 0.0009	< 0.0008	1.0	< 0.0001	0.070	0.191	0.001	< 0.003	< 0.08	< 0.0010	6.13	< 0.00005	81.2	0.568	< 0.0001	< 0.0010	< 0.002	0.001	< 0.001	0.044
	Land Owner 14	27/Jun/23	< 0.004	< 0.001	< 0.001	0.06	< 0.00005	0.094	< 0.000016	< 0.0005	0.00008	< 0.0003	0.944	< 0.00005	0.061	0.188	0.001	< 0.0004	< 0.05	< 0.00005	5.45	< 0.00003	77.6	0.550	< 0.00001	< 0.0001	< 0.001	0.00107	< 0.0005	0.030
	Land Owner 14	14/Sep/23	0.007	< 0.001	< 0.001	0.06	< 0.00005	0.082	< 0.000016	0.0006	0.00038	0.0006	0.714	< 0.00005	0.048	0.175	0.001	< 0.0004	< 0.05	< 0.00005	5.12	< 0.00003	80.2	0.537	< 0.00001	0.0001	< 0.001	0.00100	< 0.0005	0.024
North 2	Land Owner 26	8/Oct/21	0.006	< 0.001	< 0.001	< 0.05	< 0.001	0.11	< 0.000016	< 0.001	< 0.0009	< 0.0008	0.6	< 0.0005	0.060	0.397	0.001	< 0.003	-	< 0.0005	6.10	< 0.0001	115.0	0.952	< 0.0001	< 0.0005	0.003	0.005	< 0.001	0.021
	Land Owner 26	21/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.13	< 0.000032	< 0.0005	< 0.0009	0.0019	1.6	0.0001	0.069	0.335	0.001	< 0.003	< 0.08	< 0.0010	5.29	< 0.00005	109	1.05	< 0.0001	< 0.0010	< 0.002	0.004	< 0.001	0.010
North 3	Land Owner 7	16/Oct/21	0.005	< 0.001	< 0.001	0.10	< 0.0005	0.06	0.000025	< 0.0005	< 0.0009	0.0037	< 0.1	0.0005	0.030	0.093	0.002	0.003	< 0.08	< 0.0005	5.97	< 0.00005	41.0	0.637	< 0.0001	< 0.0005	< 0.001	0.008	< 0.001	0.016
	Land Owner 7	16/Jun/22	0.008	< 0.001	< 0.001	0.08	< 0.0005	0.05	< 0.000016	< 0.0005	< 0.0009	0.0013	< 0.1	< 0.0001	0.026	0.124	0.002	< 0.003	0.10	< 0.0005	4.65	< 0.00005	32.2	0.557	< 0.0001	< 0.0005	0.003	0.006	< 0.001	0.016
	Land Owner 7	20/Sep/22	< 0.004	< 0.001	< 0.001	0.09	< 0.0005	0.07	< 0.000032	< 0.0005	< 0.0009	< 0.0008	2.8	< 0.0001	0.028	0.116	0.002	< 0.003	0.13	< 0.0010	5.79	< 0.00005	35.6	0.612	< 0.0001	< 0.0010	< 0.002	0.006	< 0.001	0.013
	Land Owner 7	15/Sep/23	0.015	< 0.001	< 0.001	0.10	< 0.00005	0.045	< 0.000016	0.0014	0.00246	0.0016	2.86	< 0.00005	0.021	0.153	0.002	0.0005	< 0.05	0.00010	4.82	< 0.00003	34.3	0.583	< 0.00001	0.0001	< 0.001	0.00667	< 0.0005	0.009
North 1	Land Owner 11	6/Oct/21	0.007	< 0.001	< 0.001	< 0.05	< 0.001	0.11	0.000029	< 0.001	< 0.0009	0.0013	< 0.1	0.0005	0.038	0.163	0.004	< 0.003	< 0.08	< 0.0005	5.06	< 0.0001	102	0.685	< 0.0001	< 0.0005	0.003	0.003	< 0.001	0.048
	Land Owner 11	15/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.11	0.000022	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.037	0.119	0.001	< 0.003	0.15	0.0007	4.72	< 0.00005	95.5	0.684	< 0.0001	< 0.0005	< 0.001	0.002	< 0.001	0.036
	Land Owner 11	20/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.13	< 0.000032	< 0.0005	< 0.0009	< 0.0008	0.1	< 0.0001	0.042	0.144	0.002	< 0.003	0.12	< 0.0010	5.57	< 0.00005	108	0.679	< 0.0001	< 0.0010	< 0.002	0.002	< 0.001	0.050
North 3	Land Owner 16	6/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.23	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.085	0.017	0.002	< 0.003	< 0.08	0.0009	4.39	< 0.0001	221	0.341	< 0.0001	< 0.0005	0.004	< 0.001	< 0.001	< 0.005
	Land Owner 16	16/Jun/22	0.024	< 0.001	< 0.001	< 0.05	< 0.0005	0.21	0.000033	< 0.0005	< 0.0009	0.0046	< 0.1	0.0005	0.081	0.011	0.002	< 0.003	0.09	< 0.0005	4.19	< 0.00005	183	0.326	< 0.0001	< 0.0005	0.005	< 0.001	< 0.001	0.021
	Land Owner 16	20/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.22	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.088	0.015	0.002	< 0.003	0.11	< 0.0005	4.66	< 0.00005	211	0.360	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.004
	Land Owner 16	23/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.236	< 0.000016	< 0.0005	< 0.00006	< 0.0003	0.068	< 0.00005	0.102	0.0147	0.002	< 0.0004	< 0.05	< 0.00005	4.1	< 0.00003	203	0.325	< 0.00001	< 0.0001	< 0.001	0.00011	< 0.0005	< 0.004
	Land Owner 16	14/Sep/23	0.007	< 0.001	< 0.001	< 0.05	< 0.00005	0.167	< 0.000016	< 0.0005	0.00051	0.0013	0.092	< 0.00005	0.067	0.0150	0.002	< 0.0004	< 0.05	< 0.00005	3.9	< 0.00003	211	0.334	< 0.00001	0.0002	< 0.001	0.00011	< 0.0005	< 0.004
South	Land Owner 9	16/Jun/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.11	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	0.0011	-	0.007	0.005	< 0.003	< 0.08	< 0.0005	-	< 0.0001	95.3	-	< 0.0001	-	0.002	0.005	-	< 0.005
	Land Owner 9	16/Jun/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.1	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	0.0009	-	0.007	0.005	< 0.003	< 0.08	< 0.0005	-	< 0.0001	95	-	< 0.0001	-	0.001	0.005	-	< 0.005
	Land Owner 9	6/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.14	< 0.000016	< 0.001	< 0.0009	0.0016	< 0.1	< 0.0005	0.060	0.014	0.004	< 0.003	< 0.08	0.0105	4.15	0.0001	140	0.596	< 0.0001	< 0.0005	0.004	0.004	< 0.001	0.007
	Land Owner 9	15/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.13	< 0.000016	< 0.0005	< 0.0009	0.0011	< 0.1	0.0001	0.059	0.010	0.004	< 0.003	0.16	0.0011	3.60	< 0.00005	111	0.630	< 0.0001	< 0.0005	< 0.001	0.003	< 0.001	< 0.004
	Land Owner 9	19/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.12	< 0.000032	< 0.0005	< 0.0009	0.0020	< 0.1	< 0.0001	0.054	0.007	0.005	< 0.003	0.12	0.0013	4.15	< 0.00005	109	0.644	< 0.0001	< 0.0010	< 0.002	0.003	< 0.001	0.007
	Land Owner 9	21/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.123	< 0.000016	< 0.0005	< 0.00006	0.0016	0.001	0.00012	0.057	0.00786	0.004	0.0007	< 0.05	0.00109	3.45	< 0.00003	118	0.552	< 0.00001	< 0.0001	< 0.001	0.00343	< 0.0005	< 0.004
	Land Owner 9	21/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.122	< 0.000016	< 0.0005	< 0.00006	0.0013	0.001	0.00012	0.056	0.00888	0.004	0.0006	< 0.05	0.00107	3.33	< 0.00003	117	0.559	< 0.00001	< 0.0001	< 0.001	0.00344	< 0.0005	0.006
	Land Owner 9	14/Sep/23	0.018	< 0.001	< 0.001	< 0.05	< 0.00005	0.111	< 0.000016	0.0016	0.00318	0.0027	0.008	0.00010	0.048	0.0103	0.004	0.0006	< 0.05	0.00107	3.36	< 0.00003	122	0.567	< 0.00001	0.0002	< 0.001	0.00340	< 0.0005	< 0.004

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 2 : Groundwater Analytical Results: Dissolved Metals

Area	Land Owner Number	Date (dd-mmm-yy)	Dissolved Aluminum mg/L	Dissolved Antimony mg/L	Dissolved Arsenic mg/L	Dissolved Barium mg/L	Dissolved Beryllium mg/L	Dissolved Boron mg/L	Dissolved Cadmium mg/L	Dissolved Chromium mg/L	Dissolved Cobalt mg/L	Dissolved Copper mg/L	Dissolved Iron mg/L	Dissolved Lead mg/L	Dissolved Lithium mg/L	Dissolved Manganese mg/L	Dissolved Molybdenum mg/L	Dissolved Nickel mg/L	Dissolved Phosphorus mg/L	Dissolved Selenium mg/L	Dissolved Silicon mg/L	Dissolved Silver mg/L	Dissolved Sodium mg/L	Dissolved Strontium mg/L	Dissolved Thallium mg/L	Dissolved Tin mg/L	Dissolved Titanium mg/L	Dissolved Uranium mg/L	Dissolved Vanadium mg/L	Dissolved Zinc mg/L
North 1	Land Owner 3	6/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.20	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.067	0.092	0.002	< 0.003	< 0.08	< 0.0005	4.20	0.0002	246	0.401	< 0.0001	< 0.0005	0.008	< 0.001	< 0.001	0.022
	Land Owner 3	6/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.19	< 0.000016	< 0.001	< 0.0009	< 0.0008	0.1	< 0.0005	0.066	0.088	0.002	< 0.003	< 0.08	< 0.0005	4.27	0.0001	250	0.401	< 0.0001	< 0.0005	0.006	< 0.001	< 0.001	0.018
	Land Owner 3	6/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.19	< 0.000016	< 0.001	< 0.0009	0.0044	< 0.1	< 0.0005	0.069	0.112	0.002	< 0.003	< 0.08	< 0.0005	4.33	< 0.0001	249	0.434	< 0.0001	< 0.0005	0.006	< 0.001	< 0.001	0.021
	Land Owner 3	17/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.16	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.083	0.296	0.002	< 0.003	< 0.08	< 0.0005	4.17	< 0.00005	159	1.19	< 0.0001	< 0.0005	< 0.001	0.002	< 0.001	0.038
	Land Owner 3	21/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.20	< 0.000032	< 0.0005	< 0.0009	< 0.0008	0.8	< 0.0001	0.091	0.248	0.002	< 0.003	< 0.08	< 0.0010	4.27	< 0.00005	188	1.09	< 0.0001	< 0.0010	< 0.002	0.001	< 0.001	0.038
	Land Owner 3	19/Sep/23	0.009	< 0.001	< 0.001	< 0.05	< 0.00005	0.175	< 0.000016	< 0.0005	0.00007	0.0009	1.33	< 0.00005	0.094	0.302	0.002	0.0005	< 0.05	< 0.00005	4.3	< 0.00003	197	1.08	< 0.00001	0.0001	< 0.001	0.00179	< 0.0005	0.046
North 1	Land Owner 15	14/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.19	< 0.000016	< 0.0005	< 0.0009	0.0020	< 0.1	< 0.0002	-	0.006	< 0.001	< 0.003	-	< 0.0005	-	< 0.00005	225	-	< 0.0001	-	0.003	< 0.001	-	0.008
	Land Owner 15	23/Jun/22	0.005	< 0.001	< 0.001	< 0.05	< 0.0005	0.21	< 0.000016	< 0.0005	< 0.0009	0.0048	< 0.1	< 0.0001	0.094	< 0.005	< 0.001	< 0.003	0.09	< 0.0005	4.67	< 0.00005	212	0.420	< 0.0001	< 0.0005	0.003	< 0.001	< 0.001	0.007
	Land Owner 15	21/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.24	< 0.000032	< 0.0005	< 0.0009	0.0025	< 0.1	< 0.0001	0.105	< 0.005	< 0.001	< 0.003	< 0.08	< 0.0010	4.75	< 0.00005	220	0.473	< 0.0001	< 0.0010	< 0.002	< 0.001	< 0.001	0.007
	Land Owner 15	27/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.198	< 0.000016	< 0.0005	< 0.00006	0.0056	0.002	0.00060	0.099	0.00777	< 0.001	< 0.0004	< 0.05	< 0.00005	4.5	< 0.00003	211	0.515	< 0.00001	< 0.0001	< 0.001	0.00017	< 0.0005	0.014
	Land Owner 15	13/Sep/23	0.012	< 0.001	< 0.001	< 0.05	< 0.00005	0.237	< 0.000016	< 0.0005	< 0.00006	0.0033	0.003	0.00007	0.120	0.00878	< 0.001	< 0.0004	< 0.05	< 0.00005	4.1	< 0.00003	187	0.539	< 0.00001	0.0001	< 0.001	0.00018	< 0.0005	0.005
South	Land Owner 28	8/Oct/21	0.008	< 0.001	< 0.001	0.05	< 0.001	0.04	< 0.000016	< 0.001	< 0.0009	0.0083	< 0.1	0.0009	0.041	< 0.005	0.002	< 0.003	-	< 0.0005	4.97	< 0.00005	13.2	1.12	< 0.0001	< 0.0005	0.002	0.016	< 0.001	0.076
	Land Owner 28	15/Jun/22	< 0.004	< 0.001	< 0.001	0.05	< 0.0005	0.03	< 0.000016	< 0.0005	< 0.0009	0.0053	< 0.1	< 0.0001	0.040	< 0.005	0.002	< 0.003	0.16	< 0.0005	4.38	< 0.00005	11.2	1.13	< 0.0001	< 0.0005	< 0.001	0.015	< 0.001	0.065
	Land Owner 28	19/Sep/22	< 0.004	< 0.001	< 0.001	0.05	< 0.0005	0.03	< 0.000032	< 0.0005	< 0.0009	0.0042	< 0.1	< 0.0001	0.038	< 0.005	0.002	< 0.003	0.12	< 0.0010	5.18	< 0.00005	12.2	0.953	< 0.0001	< 0.0010	< 0.002	0.013	< 0.001	0.068
North 2	Land Owner 8	8/Oct/21	0.019	< 0.001	< 0.001	< 0.05	< 0.001	0.36	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.099	0.011	0.001	< 0.003	-	0.0009	3.21	< 0.0001	384.0	0.086	< 0.0001	< 0.0005	0.002	< 0.001	< 0.001	0.008
	Land Owner 8	15/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.31	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.088	0.007	0.002	< 0.003	0.19	< 0.0005	2.93	< 0.00005	351	0.080	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.004
	Land Owner 8	15/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.31	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.089	0.007	0.001	< 0.003	0.18	< 0.0005	2.94	< 0.00005	353	0.081	< 0.0001	< 0.0005	< 0.001 < 0.001	< 0.001	< 0.001	< 0.004
	Land Owner 8	21/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.33	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.094	0.008	0.001	< 0.003	< 0.08	< 0.0005	2.93	< 0.00005	369	0.082	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.004
	Land Owner 8	23/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.353	< 0.000016	< 0.0005	< 0.00006	< 0.0003	0.006	< 0.00005	0.102	0.00742	0.003	< 0.0004	< 0.05	0.00008	2.9	< 0.00003	366	0.079	< 0.00001	< 0.0001	< 0.001	0.00027	< 0.0005	< 0.004
	Land Owner 8	15/Sep/23	0.015	< 0.001	< 0.001	< 0.05	< 0.00005	0.240	< 0.000016	< 0.0005	0.00017	0.0023	0.018	< 0.00005	0.069	0.00766	0.002	< 0.0004	< 0.05	< 0.00005	2.7	< 0.00003	381	0.084	< 0.00001	0.0001	< 0.001	0.00029	< 0.0005	< 0.004
South	Land Owner 30	7/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.08	0.000055	< 0.001	0.0099	< 0.0008	1.6	< 0.0005	0.033	0.499	0.019	0.024	< 0.08	< 0.0005	5.66	0.0002	51.9	0.483	< 0.0001	< 0.0005	0.003	0.004	< 0.001	< 0.005
	Land Owner 30	18/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.06	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.022	< 0.005	0.002	< 0.003	0.16	< 0.0005	5.38	< 0.00005	164	0.002	< 0.0001	< 0.0005	< 0.001	0.004	< 0.001	0.004
	Land Owner 30	19/Sep/22	< 0.004	< 0.001	0.006	0.06	< 0.0005	0.07	< 0.000032	< 0.0005	0.0011	< 0.0008	1.8	< 0.0001	0.030	0.483	0.002	< 0.003	0.13	< 0.0010	5.89	< 0.00005	49.4	0.522	< 0.0001	< 0.0010	< 0.002	0.003	< 0.001	0.011
	Land Owner 30	29/Jun/23	< 0.004	< 0.001	0.006	0.06	< 0.00005	0.063	< 0.000016	< 0.0005	0.00008	< 0.0003	0.559	< 0.00005	0.028	0.479	0.002	< 0.0004	< 0.05	< 0.00005	4.60	< 0.00003	47.7	0.534	< 0.00001	< 0.0001	< 0.001	0.00279	< 0.0005	< 0.004
	Land Owner 30	19/Sep/23	0.022	< 0.001	0.006	0.07	< 0.00005	0.076	< 0.000016	0.0008	0.00203	0.0008	0.632	< 0.00005	0.034	0.499	0.002	0.0006	< 0.05	< 0.00005	5.05	< 0.00003	48.9	0.529	< 0.00001	0.0001	< 0.001	0.00296	< 0.0005	< 0.004
North 2	Land Owner 21	14/Oct/21	0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.44	< 0.000016	< 0.0005	< 0.0009	< 0.0008	0.1	< 0.0002	0.042	0.020	0.003	< 0.003	< 0.08	0.0057	3.89	< 0.00005	273.0	0.152	< 0.0001	< 0.0005	0.001	< 0.001	< 0.001	< 0.005
	Land Owner 21	16/Jun/22	0.014	< 0.001	< 0.001	< 0.05	< 0.0005	0.38	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.036	0.007	0.003	< 0.003	0.12	< 0.0005	3.53	< 0.00005	245	0.139	< 0.0001	< 0.0005	0.004	< 0.001	< 0.001	0.005
	Land Owner 21	20/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.42	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.043	0.012	0.003	< 0.003	0.17	< 0.0005	3.73	< 0.00005	286	0.131	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.004
	Land Owner 21	22/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.371	< 0.000016	< 0.0005	< 0.00006	< 0.0003	0.064	< 0.00005	0.038	0.0132	0.003	< 0.0004	< 0.05	< 0.00005	3.3	< 0.00003	238	0.134	< 0.00001	< 0.0001	< 0.001	0.00008	< 0.0005	< 0.004
	Land Owner 21	14/Sep/23	0.013	< 0.001	< 0.001	< 0.05	< 0.00005	0.302	< 0.000016	< 0.0005	< 0.00006	0.0009	0.059	< 0.00005	0.029	0.0109	0.004	< 0.0004	< 0.05	< 0.00005	3.3	< 0.00003	282	0.110	< 0.00001	0.0002	< 0.001	0.00007	< 0.0005	< 0.004
South	Land Owner 13	17/Oct/21	0.018	< 0.001	0.003	< 0.05	< 0.001	0.18	0.000029	0.002	< 0.001	< 0.001	1.3	< 0.0002	0.050	0.219	0.005	< 0.004	-	0.0012	4.34	0.00007	196.0	1.04	< 0.0005	0.0010	0.008	0.005	0.004	0.01
	Land Owner 13	16/Jun/22	0.005	< 0.001	< 0.001	< 0.05	< 0.0005	0.15	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.041	0.165	0.002	< 0.003	0.09	< 0.0005	4.27	< 0.00005	158	0.989	< 0.0001	< 0.0005	0.004	0.003	< 0.001	0.006
	Land Owner 13	21/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.16	< 0.000032	< 0.0005	< 0.0009	< 0.0008	0.3	< 0.0001	0.047	0.179	0.002	< 0.003	< 0.08	< 0.0010	4.45	< 0.00005	172	1.03	< 0.0001	< 0.0010	< 0.002	0.003	< 0.001	< 0.004
North 3	Land Owner 23	6/Oct/21	< 0.004	< 0.001	< 0.001	0.24	< 0.001	0.07	0.000031	< 0.001	< 0.0009	0.0156	< 0.1	< 0.0005	0.041	< 0.005	< 0.001	< 0.003	< 0.08	0.0008	6.84	< 0.0001	31.4	0.618	< 0.0001	< 0.0005	0.003	0.007	< 0.001	0.062
	Land Owner 23	6/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.40	< 0.000016	< 0.001	< 0.0009	0.0075	< 0.1	< 0.0005	0.053	0.009	0.001	< 0.003	< 0.08	0.0014	3.39	< 0.0001	323	0.075	< 0.0001	< 0.0005	0.004	< 0.001	< 0.001	0.008
	Land Owner 23	16/Jun/22	0.007	< 0.001	< 0.001	< 0.05	< 0.0005	0.36	0.000019	< 0.0005	< 0.0009	0.0017	< 0.1	< 0.0001	0.048	< 0.005	0.001	< 0.003	0.13	< 0.0005	3.26	< 0.00005	277	0.070	< 0.0001	< 0.0005	0.005	< 0.001	< 0.001	0.006
	Land Owner 23	20/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.38	< 0.000016	< 0.0005	< 0.0009	0.0046	< 0.1	0.0001	0.056	0.007	0.001	< 0.003	0.18	< 0.0005	3.51	< 0.00005	317	0.078	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.004
	Land Owner 23	13/Sep/23	0.009	< 0.001	< 0.001	< 0.05	< 0.00005	0.396	< 0.000016	< 0.0005	< 0.00006	0.0017	0.007	0.00008	0.061	0.00752	0.002	< 0.0004	< 0.05	< 0.00005	2.9	< 0.00003	273	0.071	< 0.00001	0.0001	< 0.001	0.00007	< 0.0005	< 0.004
North 1	Land Owner 20	6/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.38	0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.048	0.006	0.002	< 0.003	< 0.08	< 0.0005	3.48	< 0.0001	276	0.071	< 0.0001	< 0.0005	0.004	< 0.001	< 0.001	< 0.005
	Land Owner 20	16/Jun/22	0.006	< 0.001	< 0.001	< 0.05	< 0.0005	0.35	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.043	< 0.005	0.002	< 0.003	0.11	< 0.0005	3.25	< 0.00005	229	0.072	< 0.0001	< 0.0005	0.005	< 0.001	< 0.001	0.006
	Land Owner 20	23/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.37	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.052	0.005	0.002	< 0.003	0.12	< 0.0005	3.46	< 0.00005	278	0.065	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.004
North 1	Land Owner 10	8/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.21	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.063	0.015	0.002	< 0.003	-	< 0.0005	4.43	< 0.0001	238.0	0.173	< 0.0001	< 0.0005	0.003	< 0.001	< 0.001	0.005
	Land Owner 10	8/Oct/21	< 0.004	< 0.001	< 0.001	< 0.05	< 0.001	0.21	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.067	0.014	0.002	< 0.003	-	0.0008	4.31	< 0.0001	244.0	0.175	< 0.0001	< 0.0005	0.003	< 0.001	< 0.001	0.007
	Land Owner 10	18/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.20	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.064	0.026	0.002	< 0.003	0.15	< 0.0005	3.98	< 0.00005	224	0.162	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	0.004
	Land Owner 10	20/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.21	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.069	0.026	0.002	< 0.003	0.12	< 0.0005	4.46	< 0.00005	249	0.170	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	0.005
	Land Owner 10	20/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.21	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	-	0.026	0.002	< 0.003	-	< 0.0005	-	< 0.00005	247	-	< 0.0001	-	< 0.001	< 0.001	-	0.006

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Table 2 : Groundwater Analytical Results: Dissolved Metals

Area	Land Owner Number	Date (dd-mmm-yy)	Dissolved Aluminum mg/L	Dissolved Antimony mg/L	Dissolved Arsenic mg/L	Dissolved Barium mg/L	Dissolved Beryllium mg/L	Dissolved Boron mg/L	Dissolved Cadmium mg/L	Dissolved Chromium mg/L	Dissolved Cobalt mg/L	Dissolved Copper mg/L	Dissolved Iron mg/L	Dissolved Lead mg/L	Dissolved Lithium mg/L	Dissolved Manganese mg/L	Dissolved Molybdenum mg/L	Dissolved Nickel mg/L	Dissolved Phosphorus mg/L	Dissolved Selenium mg/L	Dissolved Silicon mg/L	Dissolved Silver mg/L	Dissolved Sodium mg/L	Dissolved Strontium mg/L	Dissolved Thallium mg/L	Dissolved Tin mg/L	Dissolved Titanium mg/L	Dissolved Uranium mg/L	Dissolved Vanadium mg/L	Dissolved Zinc mg/L
South	Land Owner 5	14/Oct/21	0.015	< 0.001	0.001	< 0.05	< 0.001	0.17	0.000023	0.002	< 0.001	0.002	< 0.1	< 0.0002	0.030	0.233	0.002	< 0.004	< 0.08	< 0.0005	4.51	< 0.00005	170	0.51	< 0.0005	< 0.0005	0.005	0.008	< 0.001	0.01
	Land Owner 5	16/Jun/22	0.018	< 0.001	< 0.001	< 0.05	< 0.0005	0.18	0.000031	< 0.0005	< 0.0009	0.0018	< 0.1	< 0.0001	0.029	0.190	0.002	< 0.003	0.19	< 0.0005	4.59	< 0.00005	149	0.491	< 0.0001	< 0.0005	0.004	0.008	< 0.001	0.008
	Land Owner 5	22/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.20	0.000043	< 0.0005	< 0.0009	0.0019	< 0.1	0.0001	0.035	0.207	0.002	< 0.003	0.14	< 0.0005	5.21	< 0.00005	166	0.518	< 0.0001	< 0.0005	< 0.001	0.008	< 0.001	0.011
	Land Owner 5	23/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.207	0.000021	< 0.0005	0.00014	0.0021	0.012	0.00010	0.037	0.207	0.002	< 0.0004	< 0.05	< 0.00005	4.44	< 0.00003	148	0.468	< 0.00001	< 0.0001	< 0.001	0.00748	< 0.0005	< 0.004
North 3	Land Owner 17	8/Oct/21	0.016	< 0.001	< 0.001	0.11	< 0.001	0.06	< 0.000016	< 0.001	< 0.0009	< 0.0008	< 0.1	< 0.0005	0.039	0.411	0.002	< 0.003	-	0.0155	6.09	< 0.0001	35.1	0.916	< 0.0001	< 0.0005	0.003	0.002	< 0.001	0.006
	Land Owner 17	18/Jun/22	< 0.004	< 0.001	< 0.001	0.11	< 0.0005	0.06	< 0.000016	< 0.0005	< 0.0009	< 0.0008	< 0.1	< 0.0001	0.040	0.334	0.002	< 0.003	0.15	< 0.0005	5.47	< 0.00005	27.2	0.970	< 0.0001	< 0.0005	< 0.001	0.003	< 0.001	0.008
	Land Owner 17	21/Sep/22	< 0.004	< 0.001	< 0.001	0.11	< 0.0005	0.07	< 0.000032	< 0.0005	< 0.0009	< 0.0008	0.3	< 0.0001	0.042	0.316	0.002	< 0.003	< 0.08	< 0.0010	5.60	< 0.00005	30.9	1.03	< 0.0001	< 0.0010	< 0.002	0.002	< 0.001	0.005
	Land Owner 17	19/Sep/23	0.011	< 0.001	< 0.001	0.12	< 0.00005	0.061	< 0.000016	< 0.0005	0.00043	0.0012	0.386	< 0.00005	0.044	0.345	0.002	0.0006	< 0.05	< 0.00005	5.48	< 0.00003	30.8	0.912	0.00001	0.0001	< 0.001	0.00262	< 0.0005	0.012
North 3	Land Owner 32	7/Oct/21	0.006	< 0.001	< 0.001	0.08	< 0.001	0.05	< 0.000016	< 0.001	< 0.0009	0.0098	< 0.1	< 0.0005	0.088	< 0.005	0.003	< 0.003	< 0.08	0.0067	7.10	< 0.0001	40.2	1.00	< 0.0001	< 0.0005	0.002	0.028	< 0.001	0.014
	Land Owner 32	18/Jun/22	< 0.004	< 0.001	< 0.001	0.07	< 0.0005	0.05	< 0.000016	0.0007	< 0.0009	0.0177	< 0.1	0.0003	0.083	< 0.005	0.003	< 0.003	0.16	0.0072	6.07	< 0.00005	32.8	0.999	< 0.0001	< 0.0005	< 0.001	0.023	< 0.001	0.015
North 2	Land Owner 25	14/Oct/21	< 0.004	< 0.001	< 0.001	0.07	< 0.0005	0.06	0.000016	< 0.0005	< 0.0009	0.0012	< 0.1	< 0.0002	0.045	< 0.005	0.002	< 0.003	< 0.08	< 0.0005	4.97	< 0.00005	36.2	0.819	< 0.0001	< 0.0005	< 0.001	0.008	< 0.001	0.027
	Land Owner 25	14/Oct/21	0.005	< 0.001	< 0.001	0.07	< 0.0005	0.06	< 0.000016	< 0.0005	< 0.0009	0.0013	< 0.1	< 0.0002	0.046	< 0.005	0.002	< 0.003	< 0.08	< 0.0005	4.82	< 0.00005	34.2	0.818	< 0.0001	< 0.0005	< 0.001	0.008	< 0.001	0.023
	Land Owner 25	17/Jun/22	< 0.004	< 0.001	< 0.001	0.06	< 0.0005	0.05	0.000016	< 0.0005	< 0.0009	0.0029	< 0.1	< 0.0001	0.038	< 0.005	0.002	< 0.003	0.09	0.0016	4.65	< 0.00005	29.3	0.835	< 0.0001	< 0.0005	< 0.001	0.008	< 0.001	0.035
	Land Owner 25	17/Jun/22	< 0.004	< 0.001	< 0.001	0.06	< 0.0005	0.05	0.000017	< 0.0005	< 0.0009	0.0029	< 0.1	0.0001	0.040	< 0.005	0.002	< 0.003	< 0.08	0.0016	4.66	< 0.00005	29.7	0.831	< 0.0001	< 0.0005	< 0.001	0.008	< 0.001	0.034
	Land Owner 25	20/Sep/22	< 0.004	< 0.001	< 0.001	0.06	< 0.0005	0.06	< 0.000032	< 0.0005	< 0.0009	0.0029	< 0.1	< 0.0001	0.047	< 0.005	0.002	< 0.003	0.12	0.0018	5.37	< 0.00005	33.5	0.889	< 0.0001	< 0.0010	< 0.002	0.008	< 0.001	0.056
North 3	Land Owner 18	16/Oct/21	0.004	< 0.001	< 0.001	0.08	< 0.0005	0.07	0.000023	< 0.0005	< 0.0009	0.0031	< 0.1	< 0.0002	0.034	0.157	0.004	< 0.003	< 0.08	< 0.0005	5.24	< 0.00005	48.9	1.41	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	0.012
	Land Owner 18	15/Jun/22	< 0.004	< 0.001	< 0.001	0.08	< 0.0005	0.07	< 0.000016	< 0.0005	< 0.0009	0.0016	0.1	< 0.0001	0.030	0.142	0.004	< 0.003	0.15	< 0.0005	4.38	< 0.00005	40.2	1.36	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	0.009
	Land Owner 18	19/Sep/22	0.008	< 0.001	< 0.001	0.08	< 0.0005	0.07	< 0.000080	< 0.0005	< 0.0009	< 0.0008	0.3	< 0.0002	0.027	0.130	0.004	< 0.003	0.13	< 0.0025	5.14	< 0.00005	44.9	1.21	< 0.0001	< 0.0025	< 0.005	< 0.001	< 0.001	< 0.005
North 1	Land Owner 6	17/Jun/21	< 0.004	< 0.001	< 0.001	0.12	< 0.001	0.04	0.000027	< 0.001	< 0.0009	0.0036	< 0.1	< 0.0005	0.05	< 0.005	0.001	< 0.003	< 0.08	< 0.005	6.97	< 0.0001	19.6	0.537	< 0.0001	< 0.0005	0.003	0.008	< 0.001	0.018
	Land Owner 6	4/Oct/21	0.006	< 0.001	< 0.001	0.11	< 0.001	0.03	0.000023	< 0.001	< 0.0009	0.0035	< 0.1	< 0.0005	0.043	< 0.005	0.001	< 0.003	< 0.08	0.0136	6.00	0.0001	19.3	0.553	< 0.0001	< 0.0005	0.001	0.008	< 0.001	0.015
	Land Owner 6	14/Jun/22	< 0.004	< 0.001	< 0.001	0.14	< 0.0005	0.04	0.000023	< 0.0005	< 0.0009	0.0052	< 0.1	< 0.0002	0.046	< 0.005	0.001	< 0.003	< 0.08	0.0010	5.78	0.00010	18.5	0.598	< 0.0001	< 0.0005	0.006	0.009	< 0.001	0.026
	Land Owner 6	19/Sep/22	< 0.004	< 0.001	< 0.001	0.13	< 0.0005	0.04	< 0.000032	< 0.0005	< 0.0009	0.0028	< 0.1	< 0.0001	0.042	< 0.005	0.001	< 0.003	0.15	0.0016	7.12	< 0.00005	20.3	0.573	< 0.0001	< 0.0010	< 0.002	0.010	< 0.001	0.007
	Land Owner 6	15/Sep/23	0.039	< 0.001	< 0.001	0.13	< 0.00005	0.031	0.000047	0.0005	0.00037	0.0097	0.103	0.00043	0.034	0.00388	0.001	0.0008	< 0.05	0.00137	5.40	< 0.00003	19.0	0.555	< 0.00001	0.0002	< 0.001	0.00792	< 0.0005	0.035
North 2	Land Owner 22	7/Oct/21	0.007	< 0.001	< 0.001	< 0.05	< 0.001	0.34	< 0.000016	< 0.001	< 0.0009	0.0040	< 0.1	0.0007	0.053	< 0.005	0.002	< 0.003	< 0.08	< 0.0005	3.46	< 0.0001	279	0.044	< 0.0001	< 0.0005	0.003	< 0.001	< 0.001	< 0.005
	Land Owner 22	15/Jun/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.34	< 0.000016	< 0.0005	< 0.0009	0.0114	< 0.1	0.0007	0.043	< 0.005	0.004	< 0.003	0.18	< 0.0005	2.94	< 0.00005	244	0.043	< 0.0001	< 0.0005	0.001	< 0.001	< 0.001	< 0.004
	Land Owner 22	20/Sep/22	< 0.004	< 0.001	< 0.001	< 0.05	< 0.0005	0.36	< 0.000016	< 0.0005	< 0.0009	0.0117	< 0.1	0.0007	0.050	< 0.005	0.004	< 0.003	0.17	< 0.0005	3.23	< 0.00005	271	0.046	< 0.0001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.004
	Land Owner 22	22/Jun/23	< 0.004	< 0.001	< 0.001	< 0.05	< 0.00005	0.300	< 0.000016	< 0.0005	< 0.00006	0.0056	0.008	0.00051	0.051	0.00830	0.002	< 0.0004	< 0.05	0.00010	2.8	< 0.00003	250	0.046	< 0.00001	< 0.0001	0.001	0.00022	< 0.0005	< 0.004
	Land Owner 22	14/Sep/23	0.022	< 0.001	< 0.001	< 0.05	< 0.00005	0.345	< 0.000016	< 0.0005	< 0.00006	0.0080	0.006	0.00074	0.058	0.00517	0.003	< 0.0004	< 0.05	< 0.00005	2.5	< 0.00003	239	0.045	< 0.00001	0.0002	< 0.001	0.00018	< 0.0005	0.005

Notes

1. - in detail data row(s) denotes parameter not analyzed
2. < in detal data row(s) denotes parameter below laboratory detection limit

INTEGRATED SUSTAINABILITY

Table 3: Groundwater Analytical Results: Isotopic Abundance

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	d13C DIC None	d13C-CH4 ‰	d13C-CO2 ‰	d13C-C1 ‰	d34S None
Active Groundwater Sampling Locations							
North 1	Landowner 2	7/Oct/21	-12.5	-	-	-	-
	Landowner 2	7/Oct/21	-12.2	-	-	-	-
	Landowner 2	15/Jun/22	-11.9	-	-	-	-
	Landowner 2	20/Sep/22	-12.7	-	-	-	-
	Landowner 2	21/Jun/23	-12.8	-	-	-	-
	Landowner 2	13/Sep/23	-12.7	-	-	-	-
North 2	Landowner 1	7/Oct/21	-12.6	-	-	-	-
	Landowner 1	17/Jun/22	-	-	-19.61	-32.67	-
	Landowner 1	29/Jun/22	-	-	-21.7	-	-
	Landowner 1	19/Sep/22	-	-	-	-	-0.3
	Landowner 1	10/Oct/22	-	-67.8	-20.6	-	-
	Landowner 1	22/Jun/23	-12.7	-	-	-	0
	Landowner 1	13/Sep/23	-12.7	-	-	-	-
North 1	Landowner 25	6/Oct/21	-12.2	-	-	-	-
South	Land Owner 33	7/Oct/21	-13.1	-	-	-	-
	Land Owner 33	15/Jun/22	-13.3	-	-	-	-
	Land Owner 33	15/Jun/22	-12.4	-	-	-	-
	Land Owner 33	21/Sep/22	-12.9	-	-	-	-
	Land Owner 33	10/Oct/22	-	-	-21.6	-	-
	Land Owner 33	21/Jun/23	-13.3	-	-	-	-
	Land Owner 33	19/Sep/23	-13.5	-	-	-	-
South	Land Owner 4	8/Oct/21	-12.6	-	-	-	-5.2
	Land Owner 4	18/Jun/22	-12.7	-	-	-	-
	Land Owner 4	29/Jun/22	-	-	-22.2	-	-
	Land Owner 4	19/Sep/22	-13.3	-	-	-	-5.3
	Land Owner 4	21/Jun/23	-12.9	-	-	-	-
	Land Owner 4	13/Sep/23	-12.9	-	-	-	-
South	Land Owner 35	22/Sep/23	-13.0	-	-	-	-
North 3	Land Owner 31	8/Oct/21	-13	-	-	-	0.7
	Land Owner 31	17/Jun/22	-12.5	-	-	-	-
	Land Owner 31	29/Jun/22	-	-	-22.2	-	-
	Land Owner 31	19/Sep/22	-13.1	-	-	-	0.5
	Land Owner 31	19/Sep/22	-13.0	-	-	-	0.6
	Land Owner 31	27/Jun/23	-12.8	-	-	-	-2.8
	Land Owner 31	14/Sep/23	-12.9	-	-	-	-
South	Land Owner 24	7/Oct/21	-12.8	-	-	-	-
	Land Owner 24	8/Oct/21	-	-	-	-	1
	Land Owner 24	17/Jun/22	-	-	0	0	-
	Land Owner 24	17/Jun/22	-14.1	-	-	-	-
	Land Owner 24	29/Jun/22	-	-88.8	-	-	-
	Land Owner 24	10/Oct/22	-	-40.7	-13.3	-	-

INTEGRATED SUSTAINABILITY

Table 3: Groundwater Analytical Results: Isotopic Abundance

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	d13C DIC None	d13C-CH4 ‰	d13C-CO2 ‰	d13C-C1 ‰	d34S None
Active Groundwater Sampling Locations							
Baseline Groundwater Sampling Points							
North 1	Land Owner 19	8/Oct/21	-13.4	-	-	-	-
	Land Owner 19	24/Jun/23	-13.3	-	-	-	-0.2
	Land Owner 19	24/Jun/23	-13.5	-	-	-	-0.6
	Land Owner 19	19/Sep/23	-13.4	-	-	-	-
South	Land Owner 29	17/Jun/21	0.595	-	-	-	-
	Land Owner 29	23/Jun/22	-12.2	-	-	-	-
	Land Owner 29	23/Jun/22	-12.2	-	-	-	-
	Land Owner 29	24/Jun/22	-13.3	-	-20.49	-61.72	-
	Land Owner 29	24/Sep/22	-11.9	-	-	-	-
	Land Owner 29	29/Jun/23	-12.6	-	-	-	2.0
	Land Owner 29	14/Sep/23	-12.5	-	-	-	-
North 3	273157 (Enhance Facility Well)	15/Jun/21	0.503	-	-	-	-
	273157 (Enhance Facility Well)	5/Oct/21	-12.2	-	-	-	-
	273157 (Enhance Facility Well)	14/Jun/22	-12.1	-	-	-	-
	273157 (Enhance Facility Well)	19/Sep/22	-12.6	-	-	-	-
	273157 (Enhance Facility Well)	21/Jun/23	-12.4	-	-	-	-
	273157 (Enhance Facility Well)	13/Sep/23	-12.4	-	-	-	-
	273157 (Enhance Facility Well)	13/Sep/23	-12.5	-	-	-	-
North 1	Land Owner 14	6/Oct/21	-12.7	-	-	-	-
	Land Owner 14	18/Jun/22	-12.9	-	-	-	-
	Land Owner 14	21/Sep/22	-13.0	-	-	-	-
	Land Owner 14	27/Jun/23	-13.3	-	-	-	1.1
	Land Owner 14	14/Sep/23	-13.2	-	-	-	-
North 2	Land Owner 26	8/Oct/21	-12.6	-	-	-	-1.6
	Land Owner 26	21/Sep/22	-13.1	-	-	-	-
North 3	Land Owner 7	16/Oct/21	-11.9	-	-	-	-
	Land Owner 7	16/Jun/22	-12.3	-	-	-	-
	Land Owner 7	20/Sep/22	-13.0	-	-	-	-
	Land Owner 7	15/Sep/23	-12.8	-	-	-	-
North 1	Land Owner 11	6/Oct/21	-12.4	-	-	-	-
	Land Owner 11	15/Jun/22	-	-	-12.1	-	-
	Land Owner 11	15/Jun/22	-12.1	-	-	-	-
	Land Owner 11	20/Sep/22	-12.4	-	-	-	-
North 3	Land Owner 16	6/Oct/21	-13	-	-	-	-
	Land Owner 16	16/Jun/22	-12.8	-	-	-	-
	Land Owner 16	20/Sep/22	-13.8	-	-	-	-
	Land Owner 16	23/Jun/23	-12.8	-	-	-	1.5
	Land Owner 16	14/Sep/23	-13.2	-	-	-	-

INTEGRATED SUSTAINABILITY

Table 3: Groundwater Analytical Results: Isotopic Abundance

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	d13C DIC None	d13C-CH4 ‰	d13C-CO2 ‰	d13C-C1 ‰	d34S None
Active Groundwater Sampling Locations							
South	Land Owner 9	16/Jun/21	0.580	-	-	-	-
	Land Owner 9	16/Jun/21	0.588	-	-	-	-
	Land Owner 9	6/Oct/21	-12.6	-	-	-	-
	Land Owner 9	15/Jun/22	-12.5	-	-	-	-
	Land Owner 9	19/Sep/22	-12.7	-	-	-	-
	Land Owner 9	21/Jun/23	-12.8	-	-	-	-
	Land Owner 9	21/Jun/23	-12.8	-	-	-	-
	Land Owner 9	14/Sep/23	-12.8	-	-	-	-
North 1	Land Owner 3	6/Oct/21	-11.8	-	-	-	-
	Land Owner 3	6/Oct/21	-11.8	-	-	-	-
	Land Owner 3	6/Oct/21	-11.9	-	-	-	-
	Land Owner 3	17/Jun/22	-	-	-12.4	-	-
	Land Owner 3	21/Sep/22	-12.5	-	-	-	-4.1
	Land Owner 3	19/Sep/23	-12.6	-	-	-	-
North 1	Land Owner 15	14/Oct/21	-13.7	-	-	-	-
	Land Owner 15	23/Jun/22	-13.4	-	-	-	-
	Land Owner 15	21/Sep/22	-13.9	-	-	-	-
	Land Owner 15	27/Jun/23	-13.8	-	-	-	-2.4
	Land Owner 15	13/Sep/23	-13.9	-	-	-	-
South	Land Owner 28	8/Oct/21	-12.3	-	-	-	-
	Land Owner 28	15/Jun/22	-11.8	-	-	-	-
	Land Owner 28	19/Sep/22	-12.5	-	-	-	0.8
North 2	Land Owner 8	8/Oct/21	-12.6	-	-	-	-
	Land Owner 8	15/Jun/22	-12.6	-	-	-	-
	Land Owner 8	15/Jun/22	-12.6	-	-	-	-
	Land Owner 8	21/Sep/22	-12.9	-	-	-	-8.3
	Land Owner 8	23/Jun/23	-	-	-	-	-3.5
	Land Owner 8	15/Sep/23	-12.8	-	-	-	-
South	Land Owner 30	7/Oct/21	-11.9	-	-	-	-
	Land Owner 30	18/Jun/22	-	-	-19.22	-	-
	Land Owner 30	18/Jun/22	-12.3	-	-	-	-
	Land Owner 30	29/Jun/22	-	-	-21.7	-	-
	Land Owner 30	19/Sep/22	-12.5	-	-	-	-
	Land Owner 30	29/Jun/23	-12.6	-	-	-	-4.2
	Land Owner 30	19/Sep/23	-12.2	-	-	-	-
North 2	Land Owner 21	14/Oct/21	-13.7	-	-	-	-
	Land Owner 21	16/Jun/22	-13.2	-	-	-	-
	Land Owner 21	20/Sep/22	-13.6	-	-	-	-
	Land Owner 21	22/Jun/23	-13.5	-	-	-	13.5
	Land Owner 21	14/Sep/23	-13.8	-	-	-	-
South	Land Owner 13	17/Oct/21	-12.6	-	-	-	-
	Land Owner 13	16/Jun/22	-12.3	-	-	-	-
	Land Owner 13	21/Sep/22	-12.6	-	-	-	-

INTEGRATED SUSTAINABILITY

Table 3: Groundwater Analytical Results: Isotopic Abundance

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	d13C DIC None	d13C-CH4 ‰	d13C-CO2 ‰	d13C-C1 ‰	d34S None
Active Groundwater Sampling Locations							
North 1	UL3 - Development	5/Oct/21	-15.8	-	-	-	-
	UL3 - Development	26/Jun/22	-15.0	-	-	-	-
	UL3 - Development	12/Sep/23	-12.9	-	-	-	-
North 1	UL2 - Development	5/Oct/21	-12.4	-	-	-	-
	UL2 - Development	15/Jun/21	0.410	-	-	-	-
	UL2 - Development	26/Jun/22	-12.7	-	-	-	-
	UL2 - Development	12/Sep/23	-12.5	-	-	-	-
North 1	UL1 - Development	5/Oct/21	-12.8	-	-	-	-
	UL1 - Development	26/Jun/22	-12.8	-	-	-	-
	UL1 - Development	21/Sep/23	-15.9	-	-	-	-
	UL1 - Development	21/Sep/23	-15.5	-	-	-	-
North 3	Land Owner 23	6/Oct/21	-12.9	-	-	-	-
	Land Owner 23	16/Jun/22	-12.1	-	-	-	-
	Land Owner 23	20/Sep/22	-12.5	-	-	-	-
	Land Owner 23	22/Jun/23	-12.3	-	-	-	1.4
	Land Owner 23	13/Sep/23	-12.5	-	-	-	-
North 1	Land Owner 20	6/Oct/21	-12.6	-	-	-	-
	Land Owner 20	16/Jun/22	-12.2	-	-	-	-
	Land Owner 20	23/Sep/22	-12.6	-	-	-	1.5
North 1	Land Owner 10	8/Oct/21	-12.2	-	-	-	-
	Land Owner 10	8/Oct/21	-12.3	-	-	-	-
	Land Owner 10	18/Jun/22	-11.9	-	-	-	-
	Land Owner 10	29/Jun/22	-	-	-20.9	-	-
	Land Owner 10	20/Sep/22	-12.4	-	-	-	-4.4
	Land Owner 10	20/Sep/22	-12.4	-	-	-	-4.8
South	Land Owner 5	14/Oct/21	-12.5	-	-	-	-
	Land Owner 5	16/Jun/22	-12.6	-	-	-	-
	Land Owner 5	22/Sep/22	-12.8	-	-	-	-9.6
	Land Owner 5	10/Oct/22	-	-87.1	-20.9	-	-
	Land Owner 5	23/Jun/23	-	-	-	-	-9.6
North 3	Land Owner 17	8/Oct/21	-12.2	-	-	-	-
	Land Owner 17	18/Jun/22	-12.0	-	-	-	-
	Land Owner 17	21/Sep/22	-12.2	-	-	-	-
	Land Owner 17	19/Sep/23	-11.8	-	-	-	-
North 3	Land Owner 32	7/Oct/21	-12.1	-	-	-	-
	Land Owner 32	18/Jun/22	-11.6	-	-	-	-
North 2	Land Owner 25	14/Oct/21	-12	-	-	-	-
	Land Owner 25	14/Oct/21	-12	-	-	-	-
	Land Owner 25	17/Jun/22	-12.4	-	-	-	-
	Land Owner 25	17/Jun/22	-12.2	-	-	-	-
	Land Owner 25	20/Sep/22	-12.6	-	-	-	0.1

INTEGRATED SUSTAINABILITY

Table 3: Groundwater Analytical Results: Isotopic Abundance

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	d13C DIC None	d13C-CH4 ‰	d13C-CO2 ‰	d13C-C1 ‰	d34S None
Active Groundwater Sampling Locations							
North 3	Land Owner 18	16/Oct/21	-12.4	-	-	-	-
	Land Owner 18	15/Jun/22	-12.4	-	-	-	-
	Land Owner 18	19/Sep/22	-12.5	-	-	-	-
North 1	Land Owner 6	17/Jun/21	0.571	-	-	-	-
	Land Owner 6	4/Oct/21	-12.3	-	-	-	-
	Land Owner 6	14/Jun/22	-12.5	-	-	-	-
	Land Owner 6	19/Sep/22	-13.6	-	-	-	2.2
	Land Owner 6	15/Sep/23	-12.7	-	-	-	-
North 2	Land Owner 22	7/Oct/21	-12	-	-	-	-
	Land Owner 22	15/Jun/22	-11.1	-	-	-	-
	Land Owner 22	22/Jun/23	-11.9	-	-	-	1.5
	Land Owner 22	14/Sep/23	-12.1	-	-	-	-

Notes

1. - in detail data row(s) denotes parameter not analyzed
2. < in detal data row(s) denotes parameter below laboratory detection limit

INTEGRATED SUSTAINABILITY

Table 4: Groundwater Analytical Results: Microbiological Parameters

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00
Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	IRB Approximate Population Count cfu/ml	Iron Related Bacteria None	Sulfate Reducing Bacteria None	Sulfate Reducing Bacteria Count cfu/ml	Slime Forming Bacteria cfu/ml	Slime Forming Bacteria (Aggressivity) None
Active Groundwater Sampling Locations								
North 1	Landowner 2	8/Aug/19	2200	Present	Absent	< 1	-	-
	Landowner 2	9/Oct/19	-	-	-	-	-	-
	Landowner 2	7/Oct/21	9000	-	< 1	-	2500	Medium
	Landowner 2	7/Oct/21	< 1	-	< 1	-	500	Medium
	Landowner 2	15/Jun/22	-	-	-	-	-	-
	Landowner 2	20/Sep/22	500	-	-	< 1	500	-
	Landowner 2	21/Jun/23	-	2200	75	-	< 20	-
	Landowner 2	13/Sep/23	-	7	< 1	-	500	-
North 1	Land Owner 12	8/Aug/19	< 1	Absent	Present	20	-	-
	Land Owner 12	8/Oct/19	-	-	-	-	-	-
North 2	Landowner 1	7/Aug/19	9000	Present	Absent	< 1	-	-
	Landowner 1	7/Aug/19	9000	Present	Absent	< 1	-	-
	Landowner 1	9/Oct/19	-	-	-	-	-	-
	Landowner 1	7/Oct/21	2200	-	< 1	-	13000	Medium
	Landowner 1	17/Jun/22	-	-	-	-	-	-
	Landowner 1	17/Jun/22	2200	-	75	75	-	-
	Landowner 1	29/Jun/22	-	-	-	-	-	-
	Landowner 1	19/Sep/22	2200	2200	5	5	67000	-
	Landowner 1	10/Oct/22	-	-	-	-	-	-
	Landowner 1	22/Jun/23	-	9000	325	-	2500	-
	Landowner 1	13/Sep/23	-	2200	< 1	-	2500	-
North 1	Landowner 25	7/Aug/19	25	Present	Absent	< 1	-	-
	Landowner 25	9/Oct/19	-	-	-	-	-	-
	Landowner 25	6/Oct/21	2200	-	< 1	-	< 20	Low
South	Land Owner 33	7/Aug/19	150	Present	Absent	< 1	-	-
	Land Owner 33	8/Oct/19	-	-	-	-	-	-
	Land Owner 33	8/Oct/19	-	-	-	-	-	-
	Land Owner 33	16/Jun/21	-	-	-	-	2500	-
	Land Owner 33	7/Oct/21	2200	-	< 1	-	13000	Medium
	Land Owner 33	15/Jun/22	2200	2200	< 1	< 1	< 1	-
	Land Owner 33	15/Jun/22	2200	2200	< 1	< 1	< 1	-
	Land Owner 33	21/Sep/22	2200	-	-	< 1	67000	-
	Land Owner 33	10/Oct/22	-	-	-	-	-	-
	Land Owner 33	21/Jun/23	-	500	5	-	2500	-
	Land Owner 33	19/Sep/23	-	2200	< 1	-	67000	-
	Land Owner 33	19/Sep/23	-	2200	< 1	-	67000	-
North 2	Land Owner 27	9/Aug/19	2200	Present	Present	20	-	-
	Land Owner 27	9/Aug/19	< 1	Absent	Absent	< 1	-	-
	Land Owner 27	9/Aug/19	< 1	Absent	Absent	< 1	-	-
	Land Owner 27	8/Oct/19	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Table 4: Groundwater Analytical Results: Microbiological Parameters

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00
Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	IRB Approximate Population Count cfu/ml	Iron Related Bacteria None	Sulfate Reducing Bacteria None	Sulfate Reducing Bacteria Count cfu/ml	Slime Forming Bacteria cfu/ml	Slime Forming Bacteria (Aggressivity) None
South	Land Owner 4	8/Aug/19	2200	Present	Present	5	-	-
	Land Owner 4	8/Oct/19	-	-	-	-	-	-
	Land Owner 4	8/Oct/21	2200	-	325	-	440000	High
	Land Owner 4	18/Jun/22	-	2200	< 1	-	-	-
	Land Owner 4	29/Jun/22	-		-	-	-	-
	Land Owner 4	19/Sep/22	9000	-	-	< 1	67000	-
	Land Owner 4	21/Jun/23	-	8	20	-	2500	-
	Land Owner 4	13/Sep/23	-	< 1	< 1	-	500	-
North 3	Land Owner 31	8/Aug/19	500	Present	Present	20	-	-
	Land Owner 31	8/Oct/21	500	-	< 1	-	440000	High
	Land Owner 31	17/Jun/22	< 1	-	5	5	100	-
	Land Owner 31	29/Jun/22	-	-	-	-	-	-
	Land Owner 31	19/Sep/22	500	-	-	< 1	2500	-
	Land Owner 31	19/Sep/22	< 1	-	-	< 1	2500	-
	Land Owner 31	27/Jun/23	-	2200	1400	-	2500	-
	Land Owner 31	14/Sep/23	-	< 1	< 1	-	13000	-
South	Land Owner 35	22/Sep/23	-	2200	< 1	-	13000	-
South	Land Owner 24	8/Aug/19	150	Present	Present	5	-	-
	Land Owner 24	7/Oct/21	< 1	-	5	-	2500	Medium
	Land Owner 24	8/Oct/21	-	-	-	-	-	-
	Land Owner 24	17/Jun/22	-	-	-	-	-	-
	Land Owner 24	17/Jun/22	-	-	20	-	-	-
	Land Owner 24	29/Jun/22	-	-	-	-	-	-
	Land Owner 24	10/Oct/22	-	-	-	-	-	-
North 1	UL1 - Development	11/Jul/19	9000	Present	Absent	< 1	-	-
	UL1 - Development	15/Jul/19	9000	Present	Present	5	-	-
	UL1 - Development	15/Jul/19	9000	Present	Present	5	-	-
	UL1 - Development	6/Aug/19	35000	Present	Present	115000	-	-
	UL1 - Development	6/Aug/19	35000	Present	Present	115000	-	-
	UL1 - Development	7/Oct/19	-	-	-	-	-	-
	UL1 - Development	7/Oct/19	-	-	-	-	-	-
	UL1 - Development	21/Jul/20	9000	-	-	115000	-	-
	UL1 - Development	21/Jul/20	-	-	-	-	-	-
	UL1 - Development	28/Oct/20	9000	Present	Present	27000	-	-
	UL1 - Development	28/Oct/20	9000	Present	Present	27000	-	-
	UL1 - Development	15/Jun/21	-	-	-	-	-	-
	UL1 - Development	5/Oct/21	2200	-	325	-	440000	High
	UL1 - Development	26/Jun/22	2200	2200	6000	6000	-	-
	UL1 - Development	21/Sep/23	-	9000	6000	-	13000	-
	UL1 - Development	21/Sep/23	-	9000	6000	-	13000	-

INTEGRATED SUSTAINABILITY

Table 4: Groundwater Analytical Results: Microbiological Parameters

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00
Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	IRB Approximate Population Count cfu/ml	Iron Related Bacteria None	Sulfate Reducing Bacteria None	Sulfate Reducing Bacteria Count cfu/ml	Slime Forming Bacteria cfu/ml	Slime Forming Bacteria (Aggressivity) None
North 1	UL2 - Development	7/Aug/19	9000	Present	Present	1400	-	-
	UL2 - Development	7/Oct/19	-	-	-	-	-	-
	UL2 - Development	22/Jul/20	9000	-	-	27000	-	-
	UL2 - Development	22/Jul/20	2200	-	-	< 1	-	-
	UL2 - Development	27/Oct/20	2200	Present	Absent	< 1	-	-
	UL2 - Development	15/Jun/21	-	-	-	-	-	-
	UL2 - Development	5/Oct/21	2200	-	115000	-	440000	High
	UL2 - Development	26/Jun/22	2200	2200	6000	6000	-	-
	UL2 - Development	12/Sep/23	-	2200	325	-	< 20	-
North 1	UL3 - Development	7/Aug/19	9000	Present	Present	1400	-	-
	UL3 - Development	7/Oct/19	-	-	-	-	-	-
	UL3 - Development	22/Jul/20	9000	-	-	115000	-	-
	UL3 - Development	22/Jul/20	9000	-	-	115000	-	-
	UL3 - Development	28/Oct/20	2200	Present	Present	5	-	-
	UL3 - Development	28/Oct/20	150	Present	Absent	< 1	-	-
	UL3 - Development	15/Jun/21	-	-	-	-	-	-
	UL3 - Development	5/Oct/21	< 1	-	< 1	-	67000	High
	UL3 - Development	26/Jun/22	9000	9000	11500	11500	-	-
	UL3 - Development	12/Sep/23	-	2200	20	-	< 20	-
Baseline Groundwater Sampling Points								
North 1	Land Owner 19	16/Jun/21	-	-	-	-	2500	-
	Land Owner 19	8/Oct/21	2200	-	< 1	-	440000	High
	Land Owner 19	24/Jun/23	-	2200	1400	-	500	-
	Land Owner 19	24/Jun/23	-	2200	1400	-	500	-
	Land Owner 19	19/Sep/23	-	2200	< 1	-	67000	-
South	Land Owner 29	17/Jun/21	-	-	-	-	13000	-
	Land Owner 29	23/Jun/22	2200	2200	< 1	< 1	-	-
	Land Owner 29	23/Jun/22	2200	2200	325	325	-	-
	Land Owner 29	24/Jun/22	2200	-	-	325	-	-
	Land Owner 29	24/Sep/22	2200	-	-	< 1	100	-
	Land Owner 29	29/Jun/23	-	2200	75	-	< 20	-
	Land Owner 29	14/Sep/23	-	2200	< 1	-	2500	-
North 3	273157 (Enhance Facility Well)	15/Jun/21	-	-	-	-	-	-
	273157 (Enhance Facility Well)	5/Oct/21	< 1	-	< 1	-	100	Low
	273157 (Enhance Facility Well)	14/Jun/22	-	-	-	-	-	-
	273157 (Enhance Facility Well)	19/Sep/22	500	-	-	-	2500	-
	273157 (Enhance Facility Well)	21/Jun/23	-	500	75	-	2500	-
	273157 (Enhance Facility Well)	13/Sep/23	-	25	< 1	-	100	-
	273157 (Enhance Facility Well)	13/Sep/23	-	2200	< 1	-	500	-
North 1	Land Owner 14	6/Oct/21	25	-	< 1	-	2500	Medium
	Land Owner 14	18/Jun/22	-	-	-	-	-	-
	Land Owner 14	21/Sep/22	2200	-	-	< 1	500	-
	Land Owner 14	27/Jun/23	-	2200	1400	-	2500	-
	Land Owner 14	14/Sep/23	-	2200	< 1	-	2500	-
North 2	Land Owner 26	8/Oct/21	2200	-	< 1	-	440000	High
	Land Owner 26	21/Sep/22	2200	-	-	< 1	13000	-

INTEGRATED SUSTAINABILITY

Table 4: Groundwater Analytical Results: Microbiological Parameters

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00
Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	IRB Approximate Population Count cfu/ml	Iron Related Bacteria None	Sulfate Reducing Bacteria None	Sulfate Reducing Bacteria Count cfu/ml	Slime Forming Bacteria cfu/ml	Slime Forming Bacteria (Aggressivity) None
North 3	Land Owner 7	16/Oct/21	500	-	< 1	-	67000	High
	Land Owner 7	16/Jun/22	-	-	-	-	-	-
	Land Owner 7	20/Sep/22	2200	-	-	< 1	2500	-
	Land Owner 7	15/Sep/23	-	500	< 1	-	2500	-
North 1	Land Owner 11	6/Oct/21	2200	-	< 1	-	2500	Medium
	Land Owner 11	15/Jun/22	-	-	-	-	-	-
	Land Owner 11	15/Jun/22	-	-	-	-	-	-
	Land Owner 11	20/Sep/22	2200	-	-	< 1	67000	-
North 3	Land Owner 16	6/Oct/21	9000	-	< 1	-	2500	Medium
	Land Owner 16	16/Jun/22	9000	-	-	< 1	< 1	-
	Land Owner 16	20/Sep/22	2200	-	-	< 1	500	-
	Land Owner 16	23/Jun/23	-	9000	< 1	-	500	-
	Land Owner 16	14/Sep/23	-	2200	< 1	-	500	-
South	Land Owner 9	16/Jun/21	-	-	-	-	0	-
	Land Owner 9	16/Jun/21	-	-	-	-	0	-
	Land Owner 9	6/Oct/21	500	-	< 1	-	2500	Medium
	Land Owner 9	15/Jun/22	-	-	-	-	-	-
	Land Owner 9	19/Sep/22	2200	-	-	< 1	13000	-
	Land Owner 9	21/Jun/23	-	2200	75	-	500	-
	Land Owner 9	21/Jun/23	-	2200	75	-	500	-
	Land Owner 9	14/Sep/23	-	2200	< 1	-	100	-
North 1	Land Owner 3	6/Oct/21	500	-	< 1	-	2500	Medium
	Land Owner 3	6/Oct/21	2200	-	< 1	-	13000	Medium
	Land Owner 3	6/Oct/21	500	-	< 1	-	67000	High
	Land Owner 3	17/Jun/22	-	-	-	-	-	-
	Land Owner 3	17/Jun/22	-	-	5	-	-	-
	Land Owner 3	21/Sep/22	2200	-	-	< 1	2200	-
	Land Owner 3	19/Sep/23	-	500	< 1	-	500	-
North 1	Land Owner 15	14/Oct/21	2200	-	< 1	-	67000	High
	Land Owner 15	23/Jun/22	-	-	-	-	-	-
	Land Owner 15	21/Sep/22	2200	-	-	< 1	500	-
	Land Owner 15	27/Jun/23	-	2200	1400	-	2500	-
	Land Owner 15	13/Sep/23	-	2200	5	-	< 20	-
South	Land Owner 28	8/Oct/21	2200	-	< 1	-	440000	High
	Land Owner 28	15/Jun/22	-	-	-	-	-	-
	Land Owner 28	19/Sep/22	2200	-	-	< 1	2500	-
North 2	Land Owner 8	8/Oct/21	2200	-	5	-	440000	High
	Land Owner 8	15/Jun/22	-	-	-	-	-	-
	Land Owner 8	15/Jun/22	-	-	-	-	-	-
	Land Owner 8	21/Sep/22	9000	-	-	< 1	67000	-
	Land Owner 8	23/Jun/23	-	9000	325	-	67000	-
	Land Owner 8	15/Sep/23	-	9000	< 1	-	67000	-

INTEGRATED SUSTAINABILITY

Table 4: Groundwater Analytical Results: Microbiological Parameters

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00
Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	IRB Approximate Population Count cfu/ml	Iron Related Bacteria None	Sulfate Reducing Bacteria None	Sulfate Reducing Bacteria Count cfu/ml	Slime Forming Bacteria cfu/ml	Slime Forming Bacteria (Aggressivity) None
South	Land Owner 30	7/Oct/21	< 1	-	< 1	-	2500	Medium
	Land Owner 30	18/Jun/22	-	-	-	-	-	-
	Land Owner 30	18/Jun/22	25	-	< 1	< 1	-	-
	Land Owner 30	29/Jun/22	-	-	-	-	-	-
	Land Owner 30	19/Sep/22	< 1	-	-	< 1	20	-
	Land Owner 30	29/Jun/23	-	< 1	< 1	-	< 20	-
	Land Owner 30	19/Sep/23	-	< 1	< 1	-	2500	-
North 2	Land Owner 21	14/Oct/21	500	-	< 1	-	67000	High
	Land Owner 21	16/Jun/22	-	-	-	-	-	-
	Land Owner 21	20/Sep/22	2200	-	-	< 1	67000	-
	Land Owner 21	22/Jun/23	-	2200	325	-	2500	-
	Land Owner 21	14/Sep/23	-	9000	< 1	-	2500	-
South	Land Owner 13	17/Oct/21	500	-	115000	-	67000	High
	Land Owner 13	16/Jun/22	-	-	-	-	-	-
	Land Owner 13	21/Sep/22	500	-	-	< 1	< 1	-
North 3	Land Owner 23	6/Oct/21	9000	-	< 1	-	13000	Medium
	Land Owner 23	6/Oct/21	9000	-	< 1	-	< 20	Low
	Land Owner 23	16/Jun/22	-	-	-	-	-	-
	Land Owner 23	20/Sep/22	2200	-	-	< 1	2500	-
	Land Owner 23	22/Jun/23	-	-	-	-	-	-
	Land Owner 23	13/Sep/23	-	< 1	< 1	-	100	-
North 1	Land Owner 20	6/Oct/21	9000	-	< 1	-	2500	Medium
	Land Owner 20	23/Sep/22	2200	-	-	< 1	100	-
	Land Owner 20	16/Jun/22	500	500	< 1.0	< 1	-	-
North 1	Land Owner 10	8/Oct/21	9000	-	< 1	-	440000	High
	Land Owner 10	8/Oct/21	500	-	< 1	-	440000	High
	Land Owner 10	18/Jun/22	-	-	-	-	-	-
	Land Owner 10	29/Jun/22	-	-	-	-	-	-
	Land Owner 10	20/Sep/22	2200	-	-	< 1	13000	-
	Land Owner 10	20/Sep/22	2200	-	-	< 1	67000	-
South	Land Owner 5	14/Oct/21	2200	-	75	-	440000	High
	Land Owner 5	16/Jun/22	500	500	75	75	< 1	-
	Land Owner 5	22/Sep/22	2200	2200	115000	115000	67000	-
	Land Owner 5	10/Oct/22	-	-	-	-	-	-
	Land Owner 5	23/Jun/23	-	9000	115000	-	67000	-
North 3	Land Owner 17	8/Oct/21	2200	-	< 1	-	67000	High
	Land Owner 17	18/Jun/22	-	-	-	-	-	-
	Land Owner 17	21/Sep/22	9000	-	-	< 1	2500	-
	Land Owner 17	19/Sep/23	-	500	< 1	-	13000	-
North 3	Land Owner 32	7/Oct/21	9000	-	< 1	-	13000	Medium
	Land Owner 32	18/Jun/22	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Table 4: Groundwater Analytical Results: Microbiological Parameters

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00
Date 12/19/2023

Area	Land Owner Number	Date (dd-mmm-yy)	IRB Approximate Population Count cfu/ml	Iron Related Bacteria None	Sulfate Reducing Bacteria None	Sulfate Reducing Bacteria Count cfu/ml	Slime Forming Bacteria cfu/ml	Slime Forming Bacteria (Aggressivity) None
North 2	Land Owner 25	14/Oct/21	500	-	< 1	-	67000	High
	Land Owner 25	14/Oct/21	2200	-	< 1	-	67000	High
	Land Owner 25	17/Jun/22	500	-	-	-	< 1	-
	Land Owner 25	17/Jun/22	500	-	-	-	100	-
	Land Owner 25	20/Sep/22	< 1	-	-	< 1	500	-
North 3	Land Owner 18	16/Oct/21	2200	-	< 1	-	67000	High
	Land Owner 18	15/Jun/22	-	-	-	-	-	-
	Land Owner 18	19/Sep/22	500	-	-	< 1	2500	-
North 1	Land Owner 6	17/Jun/21	-	-	-	-	13000	-
	Land Owner 6	4/Oct/21	2200	-	20	-	440000	High
	Land Owner 6	14/Jun/22	-	2200	1400	-	< 1	-
	Land Owner 6	19/Sep/22	-	2200	115000	-	67000	-
	Land Owner 6	15/Sep/23	-	2200	1400	-	67000	-
North 2	Land Owner 22	7/Oct/21	2200	-	< 1	-	500	Medium
	Land Owner 22	15/Jun/22	-	-	-	-	-	-
	Land Owner 22	20/Sep/22	2200	-	-	< 1	500	-
	Land Owner 22	22/Jun/23	-	2200	75	-	13000	-
	Land Owner 22	14/Sep/23	-	9000	< 1	-	100	-

Notes
1. - in detail data row(s) denotes parameter not analyzed
2. < in detal data row(s) denotes parameter below laboratory detection limit

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air									AGAT VOC Gas									Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	del14C-CO2 ‰	del14C-CH4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
North Data																																		
01-02-040-24W4	7-Aug-19	0.767885	84486.5	-	67200	-	-	-	-	1	1	< 1	-	-	-	-	-	-	-	-	-9.2	-	-	-	-	-	0.96289	-	-45.09969	-	0.96289	-	-	-
01-02-040-24W4	9-Oct-19	0.263422	65301.4	< 2	55900	150000	770000	150000	770000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01-02-040-24W4	27-Jun-21	< 1000	5500	< 2	427	220000	780000	220000	780000	2	3	< 1	< 10	< 10	< 10	< 10	12.3	26.4	< 10	< 10	-18.7	-	-	-	-	-	0.93775	-	-	-	0.93775	-	-	-
01-02-040-24W4	13-Oct-21	1.06445	17813.5	< 2	17200	200000	780000	200000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01-02-040-24W4	18-Jun-22	0.52045	25209.025	< 2	18200	200000	780000	200000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.7	-	-	-	-	-	-	-	-	-	-	-	-	-
01-02-040-24W4	23-Sep-22	1.98645	14500	< 2	24700	210000	770000	210000	770000	2.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-21.85	-	-	-	-	-	0.93597	-	-72.15121	-	0.93597	-	-	-64.03441
01-02-040-24W4	24-Jun-23	0	30000	< 2	19300	190000	790000	190000	790000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.2	-	-	-	-	-	-	-	-	-	-	-	-	-
01-02-040-24W4	16-Sep-23	0.5	53000.00	< 2	35500	170000	800000	170000	800000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.14	-	-	-	-	-	-	-	-	-	-	-	-	-
02-10-040-24W4	1-Oct-20	0.12328	23172	< 2	19300	210000	780000	210000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-20.36	-	-	-	-	-	0.77920	-	-220.80000	-	0.77920	-	-	-
02-10-040-24W4	29-Jun-21	< 1000	26500	< 2	26500	200000	770000	200000	770000	< 1	1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.85	-	-	-	-	-	0.77378	-	-	-	0.77378	-	-	-
02-10-040-24W4	15-Oct-21	0.0872	13127	< 2	13050	200000	790000	200000	790000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.66	-	-	-	-	-	0.78013	-	-226.53700	-	0.78013	-	-	-219.87300
02-10-040-24W4	24-Jun-22	< 1000	20000	< 2	13200	210000	780000	210000	780000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-21.47	-	-	-	-	-	0.77465	-	-232.07000	-	0.77465	-	-	-225.35081
02-10-040-24W4	25-Jun-23	0	21000	< 2	13900	21	78	21	78	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-23.15	-	-	-	-	-	-	-	-	-	-	-	-	-
02-10-040-24W4	14-Sep-23	0	24000	< 2	13900.00	20.00	79.00	20.00	79.00	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.28	-	-	-	-	-	-	-	-	-	-	-	-	-
03-15-040-24W4	28-Sep-20	0.0729677	34248.8	< 2	28400	190000	780000	190000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-20.02	-	-	-	-	-	0.72320	-	-276.80000	-	0.72320	-	-	-
03-15-040-24W4	29-Jun-21	< 1000	51000	< 2	29200	190000	780000	190000	780000	< 1	2	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10		-	-	-	-	-	-	-	-	-	-	-	-	-
03-15-040-24W4	15-Oct-21	0.0927	17759	< 2	18000	200000	780000	200000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.08	-	-	-	-	-	0.72934	-	-276.88900	-	0.72934	-	-	-270.65900
03-15-040-24W4	25-Jun-22	< 1000	12000	< 2	16600	200000	780000	200000	780000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-19.85	-	-	-	-	-	0.71947	-	-286.76616	-	0.71947	-	-	-280.52506
03-15-040-24W4	24-Sep-22	2.0608	27000	< 2	24300	190000	790000	190000	790000	1.00	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-18.52	-	-	-	-	-	-	-	-	-	-	-	-	-
04-01-040-24W4	3-Jun-19	0.099644	71489.3	-	50700	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-22.04	-	-	-	-	-	0.74850	-	-251.52000	-	0.74850	-	-	-
04-01-040-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-01-040-24W4	1-Aug-19	-	-	-	60000	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-01-040-24W4	7-Aug-19	0.31947	77350.5	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-01-040-24W4	11-Aug-19	1.7898	101620	-	63700	-	-	-	-	1	1	< 1	-	-	-	-	-	-	-	-	-15.66	-	-	-	-	-	0.73355	-	-272.54259	-	0.73355	-	-	-
04-01-040-24W4	9-Oct-19	0.0575734	55339.5	< 2	45400	16000	790000	16000	790000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-19.39	-	-	-	-	-	0.75170	-	-254.56000	-	0.75170	-	-	-
04-01-040-24W4	9-Oct-19	0.268925	59324.9	< 2	43200	180000	780000	180000	780000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-01-040-24W4	12-Oct-19	0.995735	19464.2	< 2	14500	210000	770000	210000	770000	1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-8.08	-	-	-	-	-	0.57060	-	-434.16000	-	0.57060	-	-	-
04-01-040-24W4	23-Sep-20	0.0771208	71257	< 2	43500	180000	780000	180000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-01-040-24W4	23-Sep-20	0.325837	148094	< 2	115000	130000	760000	130000	760000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-21.25	-	-	-	-	-	0.93100	-	-68.99000	-	0.93100	-	-	-
04-01-040-24W4	1-Oct-20	0.962734	55768.5	< 2	44700	190000	770000	190000	770000	2	< 1	< 1	-	-	-	-	-	-	-	-	-20.9	-	-	-	-	-	0.24960	-	-750.36000	-	0.24960	-	-	-
04-01-040-24W4	27-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	50100	170000	780000	170000	780000	1	< 1	< 1	-	-	-	-	-	-	-	-	-22.36	-	-	-	-	-	0.75544	-	-	-	0.75544	-	-	-
04-01-040-24W4	28-Jun-21	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00324	-	-	-	1.00324	-	-	-
04-01-040-24W4	11-Oct-21	0.7509	20855	< 2	676	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-01-040-24W4	15-Oct-21	1.7797	355	< 2	414	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	1.00568	-	-2.91444	-	1.00568	-	-	5.67638
04-01-040-24W4	17-Oct-21	1.2165	7556	< 2	8820	210000	780000	210000	780000	3	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	0.62936	-	-376.10051	-	0.62936	-	-	-370.64035
04-01-040-24W4	19-Jun-22	0.8797	8609.75	< 2	12000	170000	820000	170000	820000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.05	-	-	-	-	-	-	-	-	-	-	-	-	-
04-01-040-24W4	16-Sep-23	-	-	< 2	29400	180000	790000	180000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.12	-	-	-	-	-	-	-	-	-	-	-	-	-
04-02-040-24W4	7-Aug-19	0.15247	99237.5	-	75200	-	-	-	-	1	1	< 1	-	-	-	-	-	-	-	-	-11.72	-	-	-	-	-	0.77855	-	-227.91209	-	0.77855	-	-	-
04-02-040-24W4	2-Oct-19	0.50962	53253.1	< 2	42300	190000	760000	190000	760000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-02-040-24W4	27-Jun-21	< 1000	56000	< 2	59400	160000	780000	160000	780000	1	2	< 1	< 10	< 10	< 10	< 10	< 10	15.4	< 10	< 10	-21.59	-	-	-	-	-	0.79216	-	-	-	0.79216	-	-	-
04-02-040-24W4	13-Oct-21	0.6063	25381.5	< 2	29000	200000	770000	200000	770000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-02-040-24W4	24-Jun-22	< 1000	49000	< 2	39100	160000	800000	160000	800000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-20.76	-	-	-	-	-	-	-	-	-	-	-	-	-
04-02-040-24W4	23-Sep-22	1.296	58500	< 2	43800	190000	770000	190000	770000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.81	-	-	-	-	-	0.81212	-	-194.92442	-	0.81212	-	-	-187.88057
04-02-040-24W4	24-Jun-23	0	52000	< 2	28000	180000	790000	180000	790000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.21	-	-	-	-	-	-	-	-	-	-	-	-	-
04-02-040-24W4	25-Jun-23	0	52000	< 2	414	220000	780000	220000	780000	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-16.98	-	-	-	-	-	-	-	-	-	-	-	-	-
04-02-040-24W4	15-Sep-23	0	58000	< 2	46100	170000	780000	170000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.38	-	-	-	-	-	-	-	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air								AGAT VOC Gas								Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	del14C in CO2 ‰	del14C-CH4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
04-12-040-24W4	3-Jun-19	0.437848	14589	-	14100	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-19.3	-	-	-	-	-	0.83550	-	-164.54000	-	0.83550	-	-	-
04-12-040-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-12-040-24W4	1-Aug-19	-	-	-	28200	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-12-040-24W4	8-Aug-19	0.1136	36528	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-12-040-24W4	2-Oct-19	1.0851	10565.5	< 2	24300	200000	780000	200000	780000	13	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-12-040-24W4	23-Sep-20	0.324699	23923.5	< 2	20200	210000	770000	210000	770000	1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-12-040-24W4	27-Jun-21	< 1000	19000	< 2	24100	200000	770000	200000	770000	1	2	< 1	< 10	< 10	< 10	< 10	11	22.1	< 10	< 10	-23.15	-	-	-	-	-	0.87215	-	-	-	0.87215	-	-	-
04-12-040-24W4	13-Oct-21	1.0451	8415	< 2	11600	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-12-040-24W4	18-Jun-22	0.91115	9429.595	< 2	10500	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.37	-	-	-	-	-	-	-	-	-	-	-	-	-
04-12-040-24W4	17-Sep-22	1.3921	22000	< 2	13800	210000	780000	210000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.94	-	-	-	-	-	0.90783	-	-100.04136	-	0.90783	-	-	-92.16828
07-02-040-24W4	3-Jun-19	0.238932	45478.3	-	46600	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-21.08	-	-	-	-	-	0.69010	-	-309.92000	-	0.69010	-	-	-
07-02-040-24W4	3-Jun-19	0.147437	34931.1	-	34800	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-20.22	-	-	-	-	-	0.75370	-	-246.29000	-	0.75370	-	-	-
07-02-040-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	1-Aug-19	-	-	-	48200	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	1-Aug-19	-	-	-	36900	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	8-Aug-19	0.8732	33356	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	8-Aug-19	0.0495415	46875.5	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	12-Oct-19	0.0959722	36151.6	< 2	28200	180000	780000	180000	780000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	12-Oct-19	0.0752263	29838.8	< 2	22800	190000	770000	190000	770000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	24-Sep-20	0.101765	43961.3	< 2	39400	190000	770000	190000	770000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-21.57	-	-	-	-	-	0.70980	-	-290.18000	-	0.70980	-	-	-
07-02-040-24W4	24-Sep-20	0.0987719	37470.4	< 2	44000	190000	770000	190000	770000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	1-Oct-20	2.00878	420.635	< 1	1180	220000	780000	220000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-8.62	-	-	-	-	-	1.00570	-	5.73000	-	1.00570	-	-	-
07-02-040-24W4	13-Oct-21	1.7627	1445	< 2	1890	220000	780000	220000	780000	4	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-26.31	-	-	-	-	-	0.76180	-	-244.70500	-	0.76180	-	-	-238.19700
07-02-040-24W4	24-Jun-23	0	5000	< 2	4140	210000	790000	210000	790000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-24.15	-	-	-	-	-	-	-	-	-	-	-	-	-
07-02-040-24W4	21-Sep-23	7000	13000	< 2	9430	200000	790000	200000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-23.66	-	-	-	-	-	-	-	-	-	-	-	-	-
07-10-040-24W4	28-Sep-20	0.330199	21130.3	< 2	15700	210000	780000	210000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-20.68	-	-	-	-	-	0.66280	-	-337.20000	-	0.66280	-	-	-
07-10-040-24W4	28-Sep-20	0.361482	11253.8	< 2	8470	210000	780000	210000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-22.81	-	-	-	-	-	0.73180	-	-268.18000	-	0.73180	-	-	-
07-10-040-24W4	29-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	13700	210000	770000	210000	770000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.04	-	-	-	-	-	0.72244	-	-	-	0.72244	-	-	-
07-10-040-24W4	15-Oct-21	0.27105	6054.5	< 2	6540	210000	790000	210000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-23.17	-	-	-	-	-	0.72697	-	-279.24400	-	0.72697	-	-	-273.03400
07-10-040-24W4	16-Sep-22	1.8969	6500	< 2	4900	220000	780000	220000	780000	3.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.83	-	-	-	-	-	-	-	-	-	-	-	-	-
07-10-040-24W4	25-Jun-23	0	13000	< 2	8980	210000	780000	210000	780000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-23.11	-	-	-	-	-	-	-	-	-	-	-	-	-
07-10-040-24W4	14-Sep-23	0	11000	< 2	5510.00	210000	780000	210000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.42	-	-	-	-	-	-	-	-	-	-	-	-	-
08-09-040-24W4	24-Sep-22	0.5712	15000	< 2	9660	200000	790000	200000	790000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-20.71	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Duplicate	24-Sep-22	0.5712	15000	< 2	6070	210000	790000	210000	790000	2.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-18.31	-	-	-	-	-	-	-	-	-	-	-	-	-
08-09-040-24W4	28-Jun-23	0	12000	< 2	8360	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-7.69	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Duplicate	28-Jun-23	-	-	< 2	9350	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-09-040-24W4	16-Sep-23	7000	30000	< 2	20500	180000	800000	180000	800000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.95	-	-	-	-	-	-	-	-	-	-	-	-	-
09-10-040-24W4	1-Oct-20	0.517242	122268	< 2	83600	140000	780000	140000	780000	< 1	< 1	< 1	-	Untraceable	-	-	-	Untraceable	Untraceable	Untraceable	-20.55	-	-	-	-	-	0.41870	-	-581.27000	-	0.41870	-	-	-
09-10-040-24W4	21-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	7020	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.05	-	-	-	-	-	0.42245	-	-	-	0.42245	-	-	-
09-10-040-24W4	29-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	7020	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.05	-	-	-	-	-	0.42245	-	-	-	0.42245	-	-	-
09-10-040-24W4	16-Oct-21	0.3624	64251	< 2	67900	140000	790000	140000	790000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.37	-	-	-	-	-	0.40436	-	-599.09400	-	0.40436	-	-	-595.63900
09-10-040-24W4	16-Oct-21	0.3624	64251	< 2	53000	140000	800000	140000	800000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10		-	-	-	-	-	-	-	-	-	-	-	-	-
09-10-040-24W4	16-Sep-22	1.51315	114500	< 2	46900	180000	780000	180000	780000	3.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.54	-	-	-	-	-	-	-	-	-	-	-	-	-
09-10-040-24W4	25-Jun-23	0	31000	< 2	1270	220000	780000	220000	780000	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-18.1	-	-	-	-	-	-	-	-	-	-	-	-	-
09-10-040-24W4	14-Sep-23	0	33000	< 2	16300.00	2100000	780000	2100000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.49	-	-	-	-	-	-	-	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air									AGAT VOC Gas								Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	del14C in CO2 ‰	del14C-CH4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
10-02-040-24W4	3-Jun-19	0.038579	14248.9	-	13700	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-19.48	-	-	-	-	-	0.83950	-	-160.47000	-	0.83950	-	-	-
10-02-040-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-02-040-24W4	1-Aug-19	-	-	-	16700	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-02-040-24W4	8-Aug-19	0.50488	19381	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-02-040-24W4	2-Oct-19	1.20664	5146.32	< 2	18400	200000	760000	200000	760000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-8.71	-	-	-	-	-	0.84830	-	-158.74000	-	0.84830	-	-	-
10-02-040-24W4	23-Sep-20	0.0111133	22737.9	< 2	19600	210000	770000	210000	770000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-19.64	-	-	-	-	-	0.85510	-	-144.85000	-	0.85510	-	-	-
10-02-040-24W4	27-Jun-21	< 1000	17500	< 2	23500	200000	780000	200000	780000	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	14.8	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-02-040-24W4	27-Jun-21	-	-	-	-	-	-	-	-	-	-	-	< 10	< 10	< 10	< 10	< 10	13.9	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-02-040-24W4	13-Oct-21	0.0763	11901.5	< 2	14400	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.28	-	-	-	-	-	0.85635	-	-150.96500	-	0.85635	-	-	-143.65000
10-02-040-24W4	17-Sep-22	1.25225	22500	< 2	16200	210000	780000	210000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.55	-	-	-	-	-	-	-	-	-	-	-	-	-
10-02-040-24W4	25-Jun-23	-	-	< 2	10700	210000	780000	210000	780000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-20.57	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Duplicate	25-Jun-23	-	-	< 2	10900	210000	780000	210000	780000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-02-040-24W4	16-Sep-23	5000	26000	< 2	15900	200000	780000	200000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.04	-	-	-	-	-	-	-	-	-	-	-	-	-
12-01-040-24W4	3-Jun-19	0.16141	56510.1	-	53000	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.85240	-	-147.63000	-	0.85240	-	-	-
12-01-040-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-01-040-24W4	1-Aug-19	-	-	-	70200	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-01-040-24W4	8-Aug-19	0.32771	87096	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-01-040-24W4	9-Oct-19	0.321719	61533.4	< 2	50800	170000	760000	170000	760000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-01-040-24W4	13-Oct-21	-	-	< 2	24500	190000	780000	190000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.81	-	-	-	-	-	0.70571	-	-300.31500	-	0.70571	-	-	-294.28700
12-01-040-24W4	18-Jun-22	1.37865	21392	< 2	44100	170000	790000	170000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.39	-	-	-	-	-	0.70769	-	-298.44392	-	0.70769	-	-	-292.30490
12-01-040-24W4	28-Jun-23	0.18285	43214.17	< 2	44400	170000	780000	170000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.56	-	-	-	-	-	-	-	-	-	-	-	-	-
12-01-040-24W4	16-Sep-23	0	61000	< 2	64400	130000	810000	130000	810000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.65	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Duplicate	16-Sep-23	0.5	9000	< 2	66300	130000	800000	130000	800000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.65	-	-	-	-	-	-	-	-	-	-	-	-	-
12-02-040-24W4	9-Aug-19	0.398995	55768.5	-	41200	-	-	-	-	1	1	< 1	-	-	-	-	-	-	-	-	-19.62	-	-	-	-	-	0.52860	-	-475.78866	-	0.52860	-	-	-
12-02-040-24W4	2-Oct-19	0.713648	28447.2	< 2	30800	170000	780000	170000	780000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-02-040-24W4	23-Sep-20	0.409584	45034.3	< 2	37800	180000	780000	180000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-02-040-24W4	27-Jun-21	1000	40500	< 2	43700	170000	780000	170000	780000	1	3	< 1	< 10	< 10	< 10	< 10	< 10	26.1	< 10	< 10	-7.53	-	-	-	-	-	0.52409	-	-	-	0.52409	-	-	-
12-02-040-24W4	15-Oct-21	0.48415	21737.5	< 2	27200	190000	790000	190000	790000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.53	-	-	-	-	-	0.53516	-	-469.41500	-	0.53516	-	-	-464.84400
12-02-040-24W4	24-Jun-22	< 1000	36000	< 2	29600	180000	790000	180000	790000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-21.57	-	-	-	-	-	0.53355	-	-471.08104	-	0.53355	-	-	-466.45131
12-02-040-24W4	25-Jun-23	-	-	< 2	22400	190000	790000	190000	790000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.85	-	-	-	-	-	-	-	-	-	-	-	-	-
12-02-040-24W4	16-Sep-23	7000	40000	< 2	21100	190000	790000	190000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.7	-	-	-	-	-	-	-	-	-	-	-	-	-
16-03-040-24W4	9-Aug-19	0.023823	38860	-	36000	-	-	-	-	1	1	< 1	-	-	-	-	-	-	-	-	-16.4	-	-	-	-	-	0.83982	-	-167.15278	-	0.83982	-	-	-
16-03-040-24W4	2-Oct-19	0.054491	23273	3	20500	190000	770000	190000	770000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15		-	-	-	-	-	-	-	-	-	-	-	-	-
16-03-040-24W4	15-Oct-21	0.20865	9649.5	< 2	9140	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.74	-	-	-	-	-	0.84975	-	-157.51100	-	0.84975	-	-	-150.25300
16-03-040-24W4	24-Sep-22	0.61925	23000	< 2	20800	200000	780000	200000	780000	< 1	2.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-19.91	-	-	-	-	-	-	-	-	-	-	-	-	-
16-03-040-24W4	28-Jun-23	0	16000	< 2	13700	200000	790000	200000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21	-	-	-	-	-	-	-	-	-	-	-	-	-
16-03-040-24W4	16-Sep-23	0.5	27000	< 2	16700	200000	780000	200000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.65	-	-	-	-	-	-	-	-	-	-	-	-	-
16-09-040-24W4	28-Sep-20	0.429879	11009.7	< 2	9100	210000	780000	210000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-19.95	-	-	-	-	-	0.83770	-	-162.34000	-	0.83770	-	-	-
16-09-040-24W4	26-Jun-21	< 1000	14000	< 2	16200	200000	780000	200000	780000	< 1	< 1	< 1	< 10	< 10	< 10	< 10	11.2	23	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-09-040-24W4	15-Oct-21	0.41215	5725.5	< 2	6190	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.24	-	-	-	-	-	0.85502	-	-152.28800	-	0.85502	-	-	-144.98400
16-09-040-24W4	25-Jun-22	< 1000	9000	< 2	54500	160000	790000	160000	790000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-10.76	-	-	-	-	-	0.84266	-	-164.64351	-	0.84266	-	-	-157.33502
16-09-040-24W4	22-Sep-22	1.29655	7500	< 2	3730	220000	780000	220000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.98	-	-	-	-	-	-	-	-	-	-	-	-	-
16-09-040-24W4	24-Jun-23	0	6000	< 2	5080	210000	790000	210000	790000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-26.39	-	-	-	-	-	-	-	-	-	-	-	-	-
16-09-040-24W4	16-Sep-23	0.6	20000	< 2	11400	210000	780000	210000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.44	-	-	-	-	-	-	-	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air									AGAT VOC Gas									Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	del14C in CO2 ‰	del14C-CH4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
North 2 Data																																		
09-16-040-24W4	23-Jun-21	< 1000	42500	< 2	32700	170000	800000	170000	800000	< 1	-	-	-	-	-	-	-	-	-	-	-13.42	-	-	-	-	-	0.80352	-	-	-	0.80352	-	-	-
09-16-040-24W4	17-Oct-21	0.9794	17846	< 2	18500	210000	780000	210000	780000	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09-16-040-24W4	22-Jun-22	< 1000	38500	< 2	33400	180000	790000	180000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.1	-	-	-	-	-	-	-	-	-	-	-	-	-
09-16-040-24W4	18-Sep-22	0.87705	39000	2.00	25800	210000	770000	210000	770000	3.00	< 1	< 1	< 10	< 10	< 10	14.9	25.3	< 10	< 10	< 10	-25.1	-	-	-	-	-	0.70674	-	-299.39249	-	0.70674	-	-	-293.26176
09-16-040-24W4	16-Sep-23	0.9	47000	< 2	26800	180000	790000	180000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.17	-	-	-	-	-	-	-	-	-	-	-	-	-
07-21-040-24W4	24-Jun-21	< 1000	24000	< 2	70920	9000	840000	9000	840000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.05	-	-	-	-	-	0.49130	-	-	-	0.49130	-	-	-
07-21-040-24W4	7-Oct-21	-	-	< 2	15600	50000	930000	50000	930000	203	< 1	< 1	11	33.8	31	< 10	26.9	21.9	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-21-040-24W4	14-Oct-21	0.5949	56397	< 2	59400	100000	840000	100000	840000	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07-21-040-24W4	22-Jun-22	1000	60000	< 2	49300	140000	810000	140000	810000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.69	-	-	-	-	-	0.47954	Failed	-524.62293	Failed	0.47954	Failed	-	-520.46139
12-15-040-24W4	29-Jun-21	0.0 - 0.1	27000	< 2	29900	190000	780000	190000	780000	< 1	1	< 1	< 10	< 10	< 10	< 10	15.8	13.7	< 10	< 10	-20.65	-	-	-	-	-	0.54959	-	-	-	0.54959	-	-	-
12-15-040-24W4	17-Oct-21	0.05365	13916	< 2	14300	200000	790000	200000	790000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-15-040-24W4	22-Jun-22	< 1000	18000	< 2	12900	200000	780000	200000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.35	-	-	-	-	-	-	-	-	-	-	-	-	-
12-15-040-24W4	22-Sep-22	0.785	23500	4.00	15000	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.94	-	-	-	-	-	0.58792	-	-417.17443	-	0.58792	-	-	-412.07337
12-15-040-24W4	24-Jun-23	0	44000	< 2	409	220000	780000	220000	780000	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-12.47	-	-	-	-	-	-	-	-	-	-	-	-	-
12-15-040-24W4	24-Jun-23	-	-	< 2	10900	210000	780000	210000	780000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-20.7	-	-	-	-	-	-	-	-	-	-	-	-	-
12-21-040-24W4	24-Jun-21	< 1000	5000	< 2	6930	220000	780000	220000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-20.25	-	-	-	-	-	0.82149	-	-	-	0.82149	-	-	-
12-21-040-24W4	16-Oct-21	0.1827	20456	< 2	26600	200000	780000	200000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-21-040-24W4	21-Jun-22	0.1344	14966.33	< 2	16900	200000	780000	200000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.43	-	-	-	-	-	-	-	-	-	-	-	-	-
12-21-040-24W4	14-Sep-22	0.6722	30500	< 2	17500	210000	780000	210000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-16.17	-	-	-	-	-	0.86492	-	-142.58242	-	0.86492	-	-	-135.08112
Field Duplicate	14-Sep-22	0.6722	30500	< 2	18600	210000	770000	210000	770000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-16.17	-	-	-	-	-	0.86162	-	-145.85192	-	0.86162	-	-	-138.37919
13-16-040-24W4	24-Jun-21	< 1000	10500	< 2	11340	210000	780000	210000	780000	< 1	-	-	20.6	< 10	25.2	< 10	54.7	12.2	< 10	< 10	-20.73	-	-	-	-	-	0.97966	-	-	-	0.97966	-	-	-
13-16-040-24W4	14-Oct-21	0.0338	5201	< 2	5560	210000	780000	210000	780000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13-16-040-24W4	21-Jun-22	0.00635	7807.575	< 2	8630	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.28	-	-	-	-	-	-	-	-	-	-	-	-	-
13-16-040-24W4	14-Sep-22	0.11005	9000	< 2	6140	210000	780000	210000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.35	-	-	-	-	-	-	-	-	-	-	-	-	-
14-21-040-24W4	24-Jun-21	< 1000	4000	< 2	4100	220000	780000	220000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-16.75	-	-	-	-	-	0.63178	-	-	-	0.63178	-	-	-
14-21-040-24W4	14-Oct-21	0.07315	2076.5	< 2	2650	210000	790000	210000	790000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-21-040-24W4	21-Jun-22	0.00345	2647.63	< 2	2650	220000	780000	220000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-16.84	-	-	-	-	-	-	-	-	-	-	-	-	-
14-21-040-24W4	14-Sep-22	0.0865	4000	< 2	2070	220000	780000	220000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-17.04	-	-	-	-	-	0.78513	-	-221.67779	-	0.78513	-	-	-214.86778
16-16-040-24W4	17-Oct-21	1.6371	5345.5	< 2	6040	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-16-040-24W4	22-Jun-22	< 1000	29500	< 2	22600	190000	790000	190000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.02	-	-	-	-	-	-	-	-	-	-	-	-	-
16-16-040-24W4	16-Sep-22	0.59195	32500	< 2	25300	200000	780000	200000	780000	3.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.23	-	-	-	-	-	0.71700	-	-289.21808	-	0.71700	-	-	-282.99842
16-16-040-24W4	16-Sep-23	0.8	60000	< 2	38600	170000	790000	170000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-5.82	-	-	-	-	-	-	-	-	-	-	-	-	-
16-16-040-24W4	18-Sep-23	-	-	< 2	408	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.61	-	-	-	-	-	-	-	-	-	-	-	-	-
16-20-040-24W4	24-Jun-21	< 1000	24000	< 2	27100	190000	790000	190000	790000	1	1	< 1	< 10	< 10	< 10	< 10	15.9	12.6	< 10	< 10	-20.85	-	-	-	-	-	-	-	-	-	-	-	-	-
16-20-040-24W4	14-Oct-21	0.08695	13377	< 2	14500	210000	770000	210000	770000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-20-040-24W4	21-Jun-22	0.0088	10873.22	< 2	11000	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.05	-	-	-	-	-	-	-	-	-	-	-	-	-
16-20-040-24W4	22-Sep-22	< 1000	28500	< 2	17200	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.98	-	-	-	-	-	0.93659	-	-71.52860	-	0.93659	-	-	-63.40636
North 3 Data																																		
01-32-040-24W4	28-Jun-21	< 1000	23000	< 2	26600	200000	780000	200000	780000	< 1	< 1	< 1	< 10	< 10	< 10	< 10	14.4	10.7	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01-32-040-24W4	12-Oct-21	0.0391	15081	< 2	17500	200000	780000	200000	780000	1	129	< 1	< 10	< 10	< 10	14	26	< 10	< 10	< 10	-19.82	-	-	-	-	-	0.68689	-	-318.97500	-	0.68689	-	-	-313.10700
01-32-040-24W4	18-Jun-22	0.3294	7240.895	< 2	13200	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.07	-	-	-	-	-	0.66971	-	-336.09642	-	0.66971	-	-	-330.28654
01-32-040-24W4	14-Sep-22	0.5613	26000	< 2	20300	200000	780000	200000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.25	-	-	-	-	-	0.69463	-	-311.39216	-	0.69463	-	-	-305.36632
Field Duplicate	14-Sep-22	0.5613	26000	< 2	21600	200000	780000	200000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	0.69407	-	-311.94376	-	0.69407	-	-	-305.92274

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters	AGAT Breathing Air									AGAT VOC Gas									Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	del14C in CO2 ‰	del14C-CH4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
02-05-041-24W4	28-Jun-21	< 1000	48500	< 2	45700	170000	790000	170000	790000	1	1	< 1	< 10	< 10	< 10	< 10	19.1	13.1	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02-05-041-24W4	12-Oct-21	0.37445	17671.5	< 2	19500	210000	770000	210000	770000	1	< 1	< 1	< 10	< 10	< 10	10.3	21.8	< 10	< 10	< 10	-19.37	-	-	-	-	-	0.95553	-	-52.63570	-	0.95553	-	-	-44.47330
02-05-041-24W4	18-Jun-22	0.126	20128.38	< 2	20400	190000	790000	190000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.34	-	-	-	-	-	-	-	-	-	-	-	-	-
02-05-041-24W4	14-Sep-22	< 1000	37000	< 2	24100	210000	770000	210000	770000	2.00	1.00	< 1	< 10	< 10	< 10	< 10	13.9	11.8	< 10	< 10	-18.71	-	-	-	-	-	0.95731	-	-50.99128	-	0.95731	-	-	-42.68957
05-33-040-24W4	28-Jun-21	< 1000	25000	< 2	27800	190000	780000	190000	780000	< 1	< 1	< 1	< 10	< 10	< 10	< 10	13.2	10.6	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05-33-040-24W4	12-Oct-21	0.03305	14918.5	< 2	16200	200000	790000	200000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.72	-	-	-	-	-	0.70114	-	-304.84700	-	0.70114	-	-	-298.85800
05-33-040-24W4	18-Jun-22	0.0042	71490.94	< 2	11600	200000	790000	200000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.72	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Duplicate	18-Jun-22	0.0042	71490.94	< 2	13600	200000	790000	200000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.72	-	-	-	-	-	-	-	-	-	-	-	-	-
05-33-040-24W4	16-Sep-22	0.7625	26500	< 2	17000	210000	780000	210000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.61	-	-	-	-	-	0.70462	-	-301.49083	-	0.70462	-	-	-295.37844
06-05-041-24W4	28-Jun-21	< 1000	18500	< 2	15800	210000	770000	210000	770000	2	2	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06-05-041-24W4	12-Oct-21	0.20505	22875.5	< 2	27500	200000	770000	200000	770000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.05	-	-	-	-	-	0.81466	-	-192.30200	-	0.81466	-	-	-185.34300
06-05-041-24W4	18-Jun-22	0.0294	25017.0705	< 2	15800	210000	780000	210000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-18.35	-	-	-	-	-	-	-	-	-	-	-	-	-
06-05-041-24W4	14-Sep-22	-	-	< 2	392	220000	780000	220000	780000	4.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-9.41	-	-	-	-	-	-	-	-	-	-	-	-	-
06-05-041-24W4	16-Sep-22	0.4439	45000	< 2	31100	190000	780000	190000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-18.18	-	-	-	-	-	0.81561	-	-191.46209	-	0.81561	-	-	-184.38799
Field Duplicate	16-Sep-22	0.4439	45000	< 2	35900	200000	770000	200000	770000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-18.18	-	-	-	-	-	0.81618	-	-190.89351	-	0.81618	-	-	-183.81444
06-08-041-24W4	28-Jun-21	< 1000	94500	< 2	76100	130000	800000	130000	800000	< 1	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06-08-041-24W4	10-Oct-21	0.5657	43276.5	< 2	65600	140000	800000	140000	800000	1	< 1	< 1	< 10	< 10	< 10	< 10	10.2	< 10	< 10	< 10	-22.57	-	-	-	-	-	0.63955	-	-365.91200	-	0.63955	-	-	-360.44900
06-08-041-24W4	18-Jun-22	1.784	337.51	< 2	366	220000	780000	220000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-8.04	-	-	-	-	-	-	-	-	-	-	-	-	-
06-08-041-24W4	25-Jun-22	0.1369	61436.335	< 2	6640	200000	790000	200000	790000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-21.14	-	-	-	-	-	0.63570	-	-369.81589	-	0.63570	-	-	-364.30079
06-08-041-24W4	14-Sep-22	< 1000	30500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00456	-	-4.14816	-	1.00456	-	-	4.56287
06-08-041-24W4	14-Sep-22	< 1000	2000	2.00	35600	190000	780000	190000	780000	5.00	5.00	< 1	< 10	< 10	< 10	< 10	10.1	< 10	< 10	< 10	-21.1	-	-	-	-	-	0.66238	-	-343.36494	-	0.66238	-	-	-337.61860
06-28-040-24W4	28-Jun-21	< 1000	8000	< 2	10020	210000	780000	210000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.06	-	-	-	-	-	0.81039	-	-	-	0.81039	-	-	-
06-28-040-24W4	29-Jun-21	-	-	< 2	390	220000	780000	220000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-7.53	-	-	-	-	-	0.99953	-	-	-	0.99953	-	-	-
06-28-040-24W4	13-Oct-21	0.02655	10416.5	< 2	12100	210000	780000	210000	780000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	17.7	< 1	13.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06-28-040-24W4	18-Jun-22	0.0057	9401.22	< 2	366	220000	780000	220000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-8.02	-	-	-	-	-	-	-	-	-	-	-	-	-
06-28-040-24W4	18-Jun-22	1.76375	337.18	< 2	10200	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.21	-	-	-	-	-	-	-	-	-	-	-	-	-
06-28-040-24W4	14-Sep-22	0.05285	17500	< 2	16600	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.67	-	-	-	-	-	0.82444	-	-182.70436	-	0.82444	-	-	-175.55371
06-28-040-24W4	17-Sep-22	< 1000	2000	< 2	388	220000	780000	220000	780000	3.00	< 1	< 1	< 10	< 10	< 10	< 10	16.5	< 10	< 10	< 10	-7.52	-	-	-	-	-	1.00381	-	-4.89564	-	1.00381	-	-	3.80886
10-32-040-24W4	28-Jun-21	< 1000	27500	< 2	31500	190000	780000	190000	780000	< 1	1	< 1	< 10	< 10	< 10	< 10	17.5	14.6	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-32-040-24W4	12-Oct-21	0.04685	19064	< 2	20200	200000	780000	200000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.07	-	-	-	-	-	0.84592	-	-161.30500	-	0.84592	-	-	-154.07900
10-32-040-24W4	18-Jun-22	0.01445	15395.76	< 2	15200	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.62	-	-	-	-	-	-	-	-	-	-	-	-	-
10-32-040-24W4	14-Sep-22	< 1000	30000	< 2	24000	200000	780000	200000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-18.86	-	-	-	-	-	0.84875	-	-158.60697	-	0.84875	-	-	-151.24572
12-28-040-24W4	21-Jun-21	< 1000	13500	< 2	12050	200000	780000	200000	780000	< 1	< 1	< 1	< 10	< 10	< 10	< 10	11	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-28-040-24W4	23-Jun-21	< 1000	13500	< 2	14200	200000	780000	200000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	11	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-28-040-24W4	13-Oct-21	0.3478	4503.5	< 2	4010	220000	780000	220000	780000	3	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.36	-	-	-	-	-	0.88646	-	-121.11600	-	0.88646	-	-	-113.54400
12-28-040-24W4	18-Jun-22	0.02875	7173.1	< 2	6990	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.77	-	-	-	-	-	0.88999	-	-117.72574	-	0.88999	-	-	-110.00721
Field Duplicate	18-Jun-22	0.02875	7173.1	< 2	5710	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.77	-	-	-	-	-	0.89019	-	-117.53252	-	0.89019	-	-	-109.81230
12-28-040-24W4	14-Sep-22	< 1000	6500	< 2	5050	220000	780000	220000	780000	3.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-18.64	-	-	-	-	-	-	-	-	-	-	-	-	-
13-05-041-24W4	28-Jun-21	< 1000	8000	< 2	8170	210000	780000	210000	780000	< 1	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13-05-041-24W4	16-Oct-21	0.11825	3019	< 2	2850	220000	780000	220000	780000	3	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.26	-	-	-	-	-	0.89005	-	-117.55600	-	0.89005	-	-	-109.95300
13-05-041-24W4	18-Jun-22	-	-	< 2	44900	170000	790000	170000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.02	-	-	-	-	-	-	-	-	-	-	-	-	-
13-05-041-24W4	24-Sep-22	< 1000	6000	< 2	5460	210000	780000	210000	780000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-19.83	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Duplicate	24-Sep-22	< 1000	6000	< 2	4970	210000	780000	210000	780000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-19.83	-	-	-	-	-	-	-	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air									AGAT VOC Gas									Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	F14C in CO2 None	F14C-CH4 None	del 14C in CO2 ‰	del 14C-CH4 ‰	F14C in CO2 None	F14C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
14-28-040-24W4	28-Jun-21	< 1000	8500	< 2	5880	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-28-040-24W4	13-Oct-21	0.89835	16243.5	< 2	16800	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.31	-	-	-	-	-	0.87085	-	-136.58900	-	0.87085	-	-	-129.15000
14-28-040-24W4	18-Jun-22	0.7133	11663.625	< 2	12500	200000	790000	200000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.35	-	-	-	-	-	0.86253	-	-144.95132	-	0.86253	-	-	-137.47073
14-28-040-24W4	18-Sep-22	1.60035	20500	2.00	13700	210000	770000	210000	770000	3.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.59	-	-	-	-	-	-	-	-	-	-	-	-	-
South Data																																		
01-35-039-24W4	10-Oct-19	-	-	< 2	8610	210000	770000	210000	770000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-19.33	-	-	-	-	-	0.80700	-	-199.68000	-	0.80700	-	-	-
01-35-039-24W4	12-Oct-19	1.99396	423.831	< 2	506	220000	780000	220000	780000	2	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-11.55	-	-	-	-	-	0.99610	-	-12.16000	-	0.99610	-	-	-
01-35-039-24W4	27-Sep-20	0.268849	11666.5	< 2	9200	210000	780000	210000	780000	1	< 1	< 1	-	-	-	-	-	-	-	-	-20.73	-	-	-	-	-	0.82490	-	-175.13000	-	0.82490	-	-	-
01-35-039-24W4	26-Jun-21	< 1000	13000	< 2	13600	210000	780000	210000	780000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-19.26	-	-	-	-	-	-	-	-	-	-	-	-	-
01-35-039-24W4	11-Oct-21	0.2938	6572	< 2	7700	210000	780000	210000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01-35-039-24W4	21-Jun-22	0.0519	13235.525	< 2	7250	210000	780000	210000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.44	-	-	-	-	-	0.88592	-	-121.76538	-	0.88592	-	-	-114.08216
01-35-039-24W4	24-Jun-23	0	18000	< 2	9890	210000	780000	210000	780000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-21.32	-	-	-	-	-	-	-	-	-	-	-	-	-
01-35-039-24W4	17-Sep-23	7000	11000	< 2	5440	210000	780000	210000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-17.4	-	-	-	-	-	-	-	-	-	-	-	-	-
02-23-039-24W4	27-Sep-20	0.951996	36129.1	< 2	33200	190000	770000	190000	770000	2	< 1	< 1	-	-	-	-	-	-	-	-	-9.6	-	-	-	-	-	0.69320	-	-306.85000	-	0.69320	-	-	-
02-23-039-24W4	26-Jun-21	< 1000	26500	< 2	29100	190000	780000	190000	780000	< 1	< 1	< 1	< 10	15.3	10.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02-23-039-24W4	11-Oct-21	0.54275	25928	< 2	25700	200000	780000	200000	780000	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-23.38	-	-	-	-	-	0.67670	-	-329.07900	-	0.67670	-	-	-323.29800
02-23-039-24W4	28-Jun-23	0	27000	< 2	17900	200000	780000	200000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.07	-	-	-	-	-	-	-	-	-	-	-	-	-
02-23-039-24W4	17-Sep-23	6000	34000	< 2	23400	200000	780000	200000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.04	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	1-Jun-19	-	-	-	37800	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-19.38	-	-	-	-	-	0.71280	-	-287.17000	-	0.71280	-	-	-
04-26-039-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	3-Jun-19	1.97482	417.153	-	470	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-7.65	-	-	-	-	-	1.03210	-	32.13000	-	1.03210	-	-	-
04-26-039-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	1-Aug-19	-	-	-	461	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-11.26	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	1-Aug-19	-	-	-	36800	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	9-Aug-19	0.092998	48714	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	9-Aug-19	1.9473	397.69	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-11.26	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	12-Oct-19	0.125568	28663	< 2	23600	200000	780000	200000	780000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	12-Oct-19	1.9858	420.196	< 2	520	222000	780000	222000	780000	2	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-8.39	-	-	-	-	-	1.00290	-	-5.47000	-	1.00290	-	-	-
04-26-039-24W4	24-Sep-20	0.0821111	41908.7	< 2	30900	200000	770000	200000	770000	1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	28-Oct-20	0.139806	31917.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-19.38	-	-	-	-	-	0.71280	-	-287.17000	-	0.71280	-	-	-
04-26-039-24W4	27-Jun-21	< 1000	35500	< 2	34100	170000	790000	170000	790000	< 1	2	< 1	< 10	10	< 10	< 10	< 10	17.4	< 10	< 10	-20.55	-	-	-	-	-	0.74144	-	-	-	0.74144	-	-	-
04-26-039-24W4	24-Jun-22	< 1000	25000	< 2	18700	190000	800000	190000	800000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-21.26	-	-	-	-	-	-	-	-	-	-	-	-	-
04-26-039-24W4	18-Sep-23	9000	41000	< 2	27600	190000	780000	190000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-23.28	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Duplicate	18-Sep-23	-	-	< 2	27600	190000	780000	190000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-23.28	-	-	-	-	-	-	-	-	-	-	-	-	-
04-35-039-24W4	11-Aug-19	0.525345	77192.5	-	61800	-	-	-	-	1	1	< 1	-	-	-	-	-	-	-	-	-19.74	-	-	-	-	-	0.73444	-	-271.65705	-	0.73444	-	-	-
04-35-039-24W4	10-Oct-19	0.19423	65921	< 2	56400	170000	780000	170000	780000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-35-039-24W4	27-Sep-20	0.186115	86900.4	< 2	64400	170000	770000	170000	770000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04-35-039-24W4	12-Oct-21	1.39885	6045	< 2	15700	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.43	-	-	-	-	-	0.69432	-	-311.61100	-	0.69432	-	-	-305.67900
04-35-039-24W4	21-Jun-22	0.086	24190.77	< 2	25200	180000	790000	180000	790000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.23	-	-	-	-	-	0.70536	-	-300.75631	-	0.70536	-	-	-294.63750
04-35-039-24W4	28-Jun-23	0	23000	< 2	31200	160000	810000	160000	810000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.28	-	-	-	-	-	-	-	-	-	-	-	-	-
04-35-039-24W4	18-Sep-23	10000	40000	< 2	22100	200000	780000	200000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.17	-	-	-	-	-	-	-	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air									AGAT VOC Gas									Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	del14C-CO2 ‰	del14C-CH4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
05-36-039-24W4	11-Oct-19	0.730816	133695	< 2	96900	90000	800000	90000	800000	1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-10.4	-	-	-	-	-	0.26220	-	-740.02000	-	0.26220	-	-	-
05-36-039-24W4	2-Oct-20	1.07178	133640	< 2	93000	130000	780000	130000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-21.77	-	-	-	-	-	0.29320	-	-706.76000	-	0.29320	-	-	-
05-36-039-24W4	26-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	120000	100000	780000	100000	780000	1	1	< 1	< 10	10.1	< 10	< 10	15.4	30.5	< 10	< 10	-21.06	-	-	-	-	-	0.29367	-	-	-	0.29367	-	-	-
05-36-039-24W4	11-Oct-21	0.9654	46082	< 2	49200	170000	780000	170000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05-36-039-24W4	18-Sep-22	1.9462	107500	< 2	75200	160000	770000	160000	770000	3.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.22	-	-	-	-	-	0.30222	-	-700.39698	-	0.30222	-	-	-697.77292
05-36-039-24W4	18-Sep-23	-	-	< 2	435	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-6.4	-	-	-	-	-	-	-	-	-	-	-	-	-
05-36-039-24W4	21-Sep-23	7000	128000	< 2	87300	140000	770000	140000	770000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.91	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	3-Jun-19	0.0961044	36448.8	-	31000	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-21.74	-	-	-	-	-	0.89210	-	-107.92000	-	0.89210	-	-	-
08-34-039-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	3-Jun-19	1.924	412.355	-	800	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-10.04	-	-	-	-	-	1.00530	-	5.27000	-	1.00530	-	-	-
08-34-039-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	1-Aug-19	-	-	-	444	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-9.18	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	1-Aug-19	-	-	-	32600	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	10-Aug-19	0.2086	55109	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	10-Aug-19	1.9185	383.82	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-9.18	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	12-Oct-19	0.034054	27839.6	< 2	22700	200000	780000	200000	780000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	12-Oct-19	2.09322	432.192	< 2	605	220000	780000	220000	780000	2	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-12.33	-	-	-	-	-	0.99340	-	-14.87000	-	0.99340	-	-	-
08-34-039-24W4	24-Sep-20	0.090277	32940.6	< 2	35000	190000	770000	190000	770000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	21-Jun-21	< 1000	32000	< 2	35100	190000	770000	190000	770000	< 1	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	29-Jun-21	< 1000	32000	-	-	-	-	-	-	-	-	-	< 10	< 10	< 10	< 10	13	12.1	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	12-Oct-21	0.17455	14429	< 2	14700	210000	780000	210000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.82	-	-	-	-	-	0.91253	-	-95.26490	-	0.91253	-	-	-87.46970
08-34-039-24W4	18-Sep-22	1.59655	10000	2.00	6720	220000	770000	220000	770000	4.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-18.15	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	25-Jun-23	-	-	< 2	2660	210000	790000	210000	790000	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-20.85	-	-	-	-	-	-	-	-	-	-	-	-	-
08-34-039-24W4	15-Sep-23	0	3000	< 2	24000	190000	780000	190000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.7	-	-	-	-	-	-	-	-	-	-	-	-	-
08-26-039-24W4	3-Jun-19	0.0587193	88956.9	-	88900	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-21.63	-	-	-	-	-	0.57600	-	-424.05000	-	0.57600	-	-	-
08-26-039-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-26-039-24W4	1-Aug-19	-	-	-	92600	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-26-039-24W4	9-Aug-19	0.180551	118827	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-26-039-24W4	11-Oct-19	0.255841	92799.3	< 2	80200	130000	790000	130000	790000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-8.33	-	-	-	-	-	0.57860	-	-426.18000	-	0.57860	-	-	-
08-26-039-24W4	24-Sep-20	0.177008	112232	< 2	75500	140000	780000	140000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-26-039-24W4	26-Jun-21	< 1000	84000	< 2	79800	120000	800000	120000	800000	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-26-039-24W4	11-Oct-21	0.25	60567	< 2	72700	140000	790000	140000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.53	-	-	-	-	-	0.56261	-	-442.19400	-	0.56261	-	-	-437.38800
08-26-039-24W4	24-Sep-22	0.99185	94000	< 2	85400	130000	790000	130000	790000	1.00	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-20.91	-	-	-	-	-	-	-	-	-	-	-	-	-
08-26-039-24W4	25-Jun-23	0	82000	< 2	61600	150000	790000	150000	790000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-15.19	-	-	-	-	-	-	-	-	-	-	-	-	-
08-26-039-24W4	15-Sep-23	0	62000	< 2	39100	170000	790000	170000	790000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.64	-	-	-	-	-	-	-	-	-	-	-	-	-
08-35-039-24W4	3-Jun-19	0.214609	63264.5	-	63600	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-22.04	-	-	-	-	-	0.32480	-	-675.17000	-	0.32480	-	-	-
08-35-039-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-35-039-24W4	26-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	58400	110000	830000	110000	830000	1	1	< 1	12.6	17.3	12.9	< 10	26.8	28	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08-35-039-24W4	11-Oct-21	0.55265	38819	< 2	38900	170000	790000	170000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.85	-	-	-	-	-	0.43291	-	-570.78600	-	0.43291	-	-	-567.08800
08-35-039-24W4	27-Jun-23	0	48000	< 2	22200	180000	800000	180000	800000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.87	-	-	-	-	-	-	-	-	-	-	-	-	-
08-35-039-24W4	16-Sep-23	10000	42000	< 2	25000	200000	770000	200000	770000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-22.52	-	-	-	-	-	-	-	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air									AGAT VOC Gas									Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	FI4C in CO2 None	FI4C-CH4 None	del14C in CO2 ‰	del14C-CH4 ‰	FI4C in CO2 None	FI4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
10-22-039-24W4	27-Sep-20	0.560427	71224.5	< 2	55500	140000	800000	140000	800000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-23.33	-	-	-	-	-	0.48930	-	-510.68000	-	0.48930	-	-	-
10-22-039-24W4	29-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	44000	180000	770000	180000	770000	3	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-22-039-24W4	10-Oct-21	0.43875	36615	< 2	43300	180000	780000	180000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-23.41	-	-	-	-	-	0.54527	-	-459.38600	-	0.54527	-	-	-454.72800
10-22-039-24W4	23-Sep-22	< 1000	23000	< 2	50800	180000	770000	180000	770000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-23.45	-	-	-	-	-	-	-	-	-	-	-	-	-
10-22-039-24W4	24-Jun-23	2.0739	64500	< 2	399	220000	780000	220000	780000	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-12.48	-	-	-	-	-	-	-	-	-	-	-	-	-
10-22-039-24W4	24-Jun-23	0	44000	< 2	29200	180000	790000	180000	790000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.53	-	-	-	-	-	-	-	-	-	-	-	-	-
10-22-039-24W4	15-Sep-23	0	58000	2	33000	190000	780000	190000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-25	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	3-Jun-19	14.0135	94861.8	-	85200	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-15.97	-	-	-	-	-	0.50580	-	-494.24000	-	0.50580	-	-	-
11-26-039-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	5-Oct-19	25.8001	97264.9	< 2	70600	140000	790000	140000	790000	7	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-8.93	-	-	-	-	-	0.16510	-	-836.30000	-	0.16510	-	-	-
11-26-039-24W4	5-Oct-19	1.57969	6116.06	< 2	20400	190000	770000	190000	770000	< 1	2	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-9.25	-	-	-	-	-	0.52040	-	-483.90000	-	0.52040	-	-	-
11-26-039-24W4	5-Oct-19	0.255403	81632.4	< 2	2850	70000	930000	70000	930000	< 1	< 1	< 1	-	0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	5-Oct-19	0.943454	15943.5	< 2	64100	140000	780000	140000	780000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	5-Oct-19	0.0164544	74684.1	< 2	57800	140000	790000	140000	790000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	10-Oct-19	0.10926	7128.9	< 2	6460	210000	770000	210000	770000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-10.85	-	-	-	-	-	0.71640	-	-289.60000	-	0.71640	-	-	-
11-26-039-24W4	5-Aug-20	-	-	< 2	70000	170000	770000	170000	770000	65	< 1	< 1	-	< 10	-	-	-	< 10	< 10	< 10	-11.13	-	-	-	-	-	0.21220	-	-789.57000	-	0.21220	-	-	-
11-26-039-24W4	5-Aug-20	-	-	< 2	50000	160000	790000	160000	790000	3	< 1	< 1	-	-	-	-	-	-	-	-	-8.38	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	5-Aug-20	-	-	< 2	20000	200000	780000	200000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	5-Aug-20	-	-	< 2	110000	80000	810000	80000	810000	1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	5-Aug-20	-	-	< 2	110000	60000	830000	60000	830000	< 1	6	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	26-Sep-20	103.658	98266.8	< 2	59900	160000	780000	160000	780000	10	< 1	< 1	-	Untraceable	-	-	-	Untraceable	Untraceable	Untraceable	-	-	-	-	-	-	0.18350	N/A	-816.49000	N/A	0.18350	N/A	-	-
11-26-039-24W4	26-Sep-20	0.677159	27394.7	< 2	22500	210000	770000	210000	770000	1	< 1	< 1	-	-	-	-	-	-	-	-	-21.43	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	26-Sep-20	0.07639	22180.8	< 2	19200	210000	770000	210000	770000	2	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	26-Sep-20	1.06858	17091.1	< 2	12900	210000	780000	210000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	25-Jun-21	1000	20500	< 2	25900	200000	770000	200000	770000	3	8	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14795	-	-	-	0.14795	-	-	-
11-26-039-24W4	26-Jun-21	-	-	< 2	388	220000	780000	220000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-20.77	-	-	-	-	-	1.00363	-	-	-	1.00363	-	-	-
11-26-039-24W4	11-Oct-21	1.2117	9004.5	< 2	12100	200000	790000	200000	790000	2	< 1	< 1	-	-	-	-	-	-	-	-	-22.62	-	-	-	-	-	0.13380	-	-867.33900	-	0.13380	-	-	-866.19600
11-26-039-24W4	17-Oct-21	1.817	350	< 2	466	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-9.08	-	-	-	-	-	1.00162	-	-6.93945	-	1.00162	-	-	1.61669
11-26-039-24W4	24-Jun-23	0	16000	< 2	11400	210000	780000	210000	780000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.28	-	-	-	-	-	-	-	-	-	-	-	-	-
11-26-039-24W4	17-Sep-23	8000	19000	< 2	10100	210000	780000	210000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.58	-	-	-	-	-	-	-	-	-	-	-	-	-
11-35-039-24W4	3-Jun-19	0.063251	41225.7	-	39300	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-22.12	-	-	-	-	-	0.79480	-	-205.18000	-	0.79480	-	-	-
11-35-039-24W4	3-Jun-19	-	-	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-35-039-24W4	1-Aug-19	-	-	-	42500	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-35-039-24W4	10-Aug-19	0.13073	57335.5	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-35-039-24W4	29-Jun-21	< 1000	23000	< 2	21500	190000	790000	190000	790000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-35-039-24W4	15-Oct-21	0.48355	14995	< 2	19100	210000	770000	210000	770000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-19.47	-	-	-	-	-	0.81202	-	-194.92000	-	0.81202	-	-	-187.98300
11-35-039-24W4	18-Jun-22	1.802	338.27	< 2	361	220000	780000	220000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-7.51	-	-	-	-	-	1.00316	Failed	-5.54237	Failed	1.00316	Failed	-	3.15648
11-35-039-24W4	22-Sep-22	< 1000	1500	< 2	407	220000	780000	220000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.44	-	-	-	-	-	-	-	-	-	-	-	-	-
11-35-039-24W4	23-Sep-22	1.8198	23000	< 2	14200	210000	780000	210000	780000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-21.33	-	-	-	-	-	-	-	-	-	-	-	-	-
11-35-039-24W4	17-Sep-23	-	-																		-21.33													
12-23-039-24W4	26-Jun-21	< 1000	102000	< 2	111000	100000	790000	100000	790000	< 1	< 1	< 1	< 10	12.2	< 10	< 10	16.7	24.8	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-23-039-24W4	10-Oct-21	0.26695	53343	< 2	70000	130000	800000	130000	800000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-23.5	-	-	-	-	-	0.53068	-	-473.85600	-	0.53068	-	-	-469.32300
12-23-039-24W4	24-Jun-22	< 1000	1500	< 2	39400	170000	790000	170000	790000	1.00	2.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.27	-	-	-	-	-	0.53351	-	-471.11525	-	0.53351	-	-	-466.48582
12-23-039-24W4	24-Sep-22	2.12375	84000	< 2	78000	140000	780000	140000	780000	2.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-21.22	-	-	-	-	-	-	-	-	-	-	-	-	-
12-23-039-24W4	24-Jun-23	0	36000	< 2	23600	190000	790000	190000	790000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.91	-	-	-	-	-	-	-	-	-	-	-	-	-
12-23-039-24W4	15-Sep-23	0	84000	< 2	70200	130000	800000	130000	800000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.38	-	-	-	-	-	-	-	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air								AGAT VOC Gas								Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	del14C in CO2 ‰	del14C-CH4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
12-25-039-24W4	12-Aug-19	438.265	196835	-	117000	-	-	-	-	364	1	< 1	-	-	-	-	-	-	-	-	-24.27	-	-	-	-	-	0.55665	-	-447.97613	-	0.55665	-	-	-
12-25-039-24W4	4-Oct-19	0.0863987	137269	< 2	36700	50000	910000	50000	910000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-9.76	-	-	-	-	-	0.56170	-	-442.94000	-	0.56170	-	-	-
12-25-039-24W4	4-Oct-19	1438.38	49475.7	< 2	71800	50000	820000	50000	820000	49500	4550	1	-	6.41	-	-	-	0.06	4.31	9.84	-11.36	-	-	-	-	-	0.36200	-	-640.96000	-	0.36200	-	-	-
12-25-039-24W4	4-Oct-19	4467.31	78640.1	< 2	75200	60000	850000	60000	850000	17300	1080	< 1	-	0.67	-	-	-	< 0.05	0.56	0.77	-10.66	-	-	-	-	-	0.55780	-	-446.84000	-	0.55780	-	-	-
12-25-039-24W4	4-Oct-19	2285.84	122938	< 2	104000	40000	820000	40000	820000	25900	15	< 1	-	< 0.05	-	-	-	< 0.05	0.05	< 0.15	-9.81	-	-	-	-	-	0.82590	-	-180.94000	-	0.82590	-	-	-
12-25-039-24W4	4-Oct-19	0.275639	98277.2	< 2	23000	30000	950000	30000	950000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-25-039-24W4	11-Oct-19	2165.12	100305	< 2	66500	110000	820000	110000	820000	1920	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-8.51	-	-	-	-	-	0.45150	-	-552.24000	-	0.45150	-	-	-
12-25-039-24W4	5-Aug-20	-	-	< 2	422	220000	780000	220000	780000	6	< 1	< 1	-	< 10	-	-	-	< 10	< 10	< 10	-8.81	-	-	-	-	-	0.96850	-	-39.66000	-	0.96850	-	-	-
12-25-039-24W4	6-Aug-20	-	-	< 2	190000	20000	790000	20000	790000	3200	7	< 1	-	< 10	-	-	-	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-25-039-24W4	6-Aug-20	-	-	< 2	100000	40000	750000	40000	750000	108000	6880	1	-	< 10	-	-	-	< 10	19	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-25-039-24W4	6-Aug-20	-	-	< 2	120000	30000	810000	30000	810000	44600	1280	< 1	-	< 10	-	-	-	18	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-25-039-24W4	6-Aug-20	-	-	< 2	210000	10000	730000	10000	730000	50300	81	< 1	-	< 10	-	-	-	< 10	< 10	< 10	-18.52	-	-	-	-	-	0.84510	-	-162.07000	-	0.84510	-	-	-
12-25-039-24W4	26-Sep-20	17056.1	163845	< 2	127000	70000	770000	70000	770000	34800	29	< 1	-	Untraceable	-	-	-	Untraceable	Untraceable	Untraceable	-19.09	-	-	-	-	-	0.83460	0.77570	-165.42000	-224.26000	0.83460	0.77570	-	-
12-25-039-24W4	29-Sep-20	0.00177878	159234	< 2	120000	90000	800000	90000	800000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-25-039-24W4	2-Oct-20	2.00041	431.136	< 2	734	220000	780000	220000	780000	2	< 1	< 1	-	Untraceable	-	-	-	Untraceable	Untraceable	Untraceable	-9	-	-	-	-	-	1.00690	-	6.90000	-	1.00690	-	-	-
12-25-039-24W4	25-Jun-21	474500	101500	< 2	81000	60000	810000	60000	810000	38440	3188	2	27.5	24.9	28.1	< 10	< 10	17.2	< 10	< 10	-17.86	-	-	-	-	-	-	-	-	-	-	-	-	-
12-25-039-24W4	11-Oct-21	9842.5	65217.5	< 2	77800	60000	850000	60000	850000	17900	3990	3	11	< 10	53	79	125	< 10	< 10	< 10	-21.29	-36.77	-27.23	-	-	-	0.39135	0.28483	-611.99600	-717.60000	0.39135	0.28483	-715.16700	-608.65300
12-25-039-24W4	13-Oct-21	-	-	< 2	440	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-6.86	-	-	-	-	-	-	-	-	-	-	-	-	-
12-25-039-24W4	16-Oct-21	1.81885	362.5	< 2	452	220000	780000	220000	780000	3	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-8.83	-	-	-	-	-	1.00267	-	-5.89651	-	1.00267	-	-	2.66861
12-25-039-24W4	18-Jun-22	1.7995	353.02	< 2	363	220000	780000	220000	780000	2.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-7.93	-	-	-	-	-	1.00178	Failed	-6.91088	Failed	1.00178	Failed	-	1.77601
12-25-039-24W4	22-Jun-22	277350	193000	< 2	64700	80000	840000	80000	840000	11000.00	3810.00	18.00	11.0	< 10	52.0	79.7	121.00	< 10	< 10	< 10	-	-51.34	-29.36	-	-	-	0.44149	0.30605	-562.34127	-693.94305	0.44149	0.30605	-	-558.50958
Field Duplicate	22-Jun-22	277350	193000	< 2	58500	90000	840000	90000	840000	9780.00	3650.00	18.00	11.6	< 10	59.2	91.9	147.00	< 10	< 10	< 10	-20.73	-51.25	-30.60	-25.70	-31.09	-28.22	0.44753	0.30678	-556.34935	-693.22124	0.44753	0.30678	-	-552.46526
12-25-039-24W4	18-Sep-22	14534.57525	118000	< 2	73300	90000	810000	90000	810000	23100.00	3320.00	10.00	10.3	< 10	< 10	39.9	94.5	35.5	< 10	< 10	-20.2	-44.23	-30.05	-27.52	-26.33	-26.06	0.40259	0.30067	-600.90512	-699.32867	0.40259	0.30067	-	-597.41071
12-25-039-24W4	23-Sep-22	2.0678	2000	< 2	407	220000	780000	220000	780000	3.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-7.99	-	-	-	-	-	-	-	-	-	-	-	-	-
12-36-039-24W4	3-Jun-19	0.0618263	44438	-	37800	-	-	-	-	< 1	-	-	-	-	-	-	-	-	-	-	-20.43	-	-	-	-	-	0.69280	-	-307.19000	-	0.69280	-	-	-
12-36-039-24W4	3-Jun-19	0.0618263	44438	-	-	-	-	-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-36-039-24W4	1-Aug-19	-	-	-	43700	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-36-039-24W4	9-Aug-19	0.5848	46800	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-36-039-24W4	9-Oct-19	0.171169	42716.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-15.09	-	-	-	-	-	0.73000	-	-276.05000	-	0.73000	-	-	-
12-36-039-24W4	9-Oct-19	0.171169	42716.7	< 2	33700	180000	760000	180000	760000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-36-039-24W4	24-Sep-20	0.133067	56888.2	< 2	45200	180000	770000	180000	770000	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-36-039-24W4	26-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	21000	190000	790000	190000	790000	1	2	< 1	11.4	15.2	10.5	< 10	22	29	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-36-039-24W4	16-Oct-21	0.2967	24094	< 2	29800	190000	780000	190000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-20.45	-	-	-	-	-	0.74073	-	-265.60100	-	0.74073	-	-	-259.27400
12-36-039-24W4	22-Jun-22	< 1000	36500	< 2	24400	190000	780000	190000	780000	1.00	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-24.6	-	-	-	-	-	0.73195	-	-274.39426	-	0.73195	-	-	-268.04502
14-23-039-24W4	27-Sep-20	3447.65	101339	< 2	62500	120000	820000	120000	820000	2400	< 1	< 1	-	Untraceable	-	-	-	Untraceable	Untraceable	Untraceable	-22.92	-	-	-	-	-	0.26020	N/A	-739.78000	N/A	0.26020	N/A	-	-
14-23-039-24W4	25-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	74500	140000	780000	140000	780000	473	-	-	30	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-23-039-24W4	26-Jun-21	N/A - Vacuum	N/A - Vacuum	< 2	74500	140000	780000	140000	780000	473	13	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-23-039-24W4	27-Jun-21	-	-	< 2	397	220000	780000	220000	780000	2	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00083	-	-	-	1.00083	-	-	-
14-23-039-24W4	10-Oct-21	140.5	21514	< 2	31000	180000	790000	180000	790000	167	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-6.87	-69.37	-	-	-	-	0.21261	-	-789.20400	-	0.21261	-	-	-787.38800
14-23-039-24W4	16-Oct-21	1.7469	354.5	< 2	426	220000	780000	220000	780000	2	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-24.04	-	-	-	-	-	1.00194	-	-6.61520	-	1.00194	-	-	1.94373
14-23-039-24W4	22-Jun-22	2500	11000	< 2	9680	210000	780000	210000	780000	11.00	< 1	< 1	< 10	< 10	< 10	12.0	22.3	< 10	< 10	< 10	-24.04	-	-	-	-	-	0.30793	Failed	-694.73606	Failed	0.30793	Failed	-	-692.06246
Field Duplicate	22-Jun-22	2500	11000	< 2	8470	210000	780000	210000	780000	21.00	< 1	< 1	< 10	< 10	< 10	10.0	17.4	< 10	< 10	< 10	-	-	-	-	-	-	0.30795	Failed	-694.71961	Failed	0.30795	Failed	-	-692.04587
14-23-039-24W4	18-Sep-22	17.09325	21500	2.00	17400	200000	780000	200000	780000	13.00	1.00	< 1	< 10	< 10	< 10	14.9	25.3	< 10	< 10	< 10	-22.2	-	-	-	-	-	0.23555	-	-766.49518	-	0.23555	-	-	-764.44949
Field Duplicate	18-Sep-22	17.09325	21500	2.00	15800	210000	780000	210000	780000	16.00	< 1	< 1	< 10	< 10	< 10	14.9	25.3	< 10	< 10	< 10	-22.54	-	-	-	-	-	0.23463	-	-767.40671	-	0.23463	-	-	-765.36900
14-23-039-24W4	24-Jun-23	0	3000	< 2	897	220000	770000	220000	770000	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-25.2	-	-	-	-	-	-	-	-	-	-	-	-	-
14-23-039-24W4	17-Sep-23	6000	29000	< 2	20700	200000	780000	200000	780000	22	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-23	-	-	-	-	-	-	-	-	-	-	-	-	-

INTEGRATED SUSTAINABILITY

Client Name Enhance Energy Inc.

Project Number CP23-EEI-02-00

Date 2023-12-19

Table 5: Soil Gas Analytical Results: Methane Isotope Abundance

		Field Parameters		AGAT Breathing Air									AGAT VOC Gas									Carbon 13 - University of Alberta					Carbon 14 - University of Ottawa							
Sampling ID	Date (dd-mmm-yy)	CH4 %	CO2 ppm	Carbon Monoxide (CO) - BA ppmv	Carbon Dioxide (CO2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Oxygen (O2) - BA ppmv	Nitrogen (N2) - BA ppmv	Methane - BA ppmv	Volatile Non-Methane Hydrocarbons (vNMH) - BA ppmv	Volatile Halogenated Hydrocarbons (vHH) - BA ppmv	Cyclopentane ppm	Benzene ppm	Cyclohexane ppm	2,2,4-trimethylpentane ppm	Methylcyclohexane ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	d13C-CO2 ‰	d13C-C1 ‰	d13C-C2 ‰	d13C-C3 ‰	d13C-iC4 ‰	d13C-nC4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	del14C-CO2 ‰	del14C-CH4 ‰	Fl4C in CO2 None	Fl4C-CH4 None	Normalised 14C in CH4 ‰	Normalised 14C in CO2 ‰
14-26-039-24W4	10-Oct-19	0.561715	56301.5	6	47900	160000	790000	160000	790000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-10.25	-	-	-	-	-	0.28820	-	-714.17000	-	0.28820	-	-	-
14-26-039-24W4	26-Sep-20	0.39961	90800.6	< 2	66800	180000	760000	180000	760000	2	< 1	< 1	-	-	-	-	-	-	-	-	-25	-	-	-	-	-	0.42920	-	-570.81000	-	0.42920	-	-	-
14-26-039-24W4	11-Oct-21	1.4016	11418.5	< 2	17900	210000	770000	210000	770000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-26-039-24W4	23-Sep-22	1.0837	54000	< 2	45200	190000	770000	190000	770000	1.00	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.52	-	-	-	-	-	0.62968	-	-375.77840	-	0.62968	-	-	-370.31542
14-26-039-24W4	24-Jun-23	0	44000	< 2	26300	190000	780000	190000	780000	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-22.2	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Duplicate	24-Jun-23	-	-	< 2	28200	190000	780000	190000	780000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-26-039-24W4	17-Sep-23	7000	60000	< 2	38000	180000	780000	180000	780000	1	< 1	< 1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-21.97	-	-	-	-	-	-	-	-	-	-	-	-	-
08-27-039-24W4	1-Aug-19	-	-	-	85700	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-15.75	-	-	-	-	-	-	-	-	-	-	-	-
08-27-039-24W4	12-Aug-19	8.0666	127710	-	-	-	-	-	-	-	1	< 1	-	-	-	-	-	-	-	-	-15.75	-	-	-	-	-	-	-	-	-	-	-	-
08-27-039-24W4	6-Oct-19	1.89603	73680.9	3	52100	40000	880000	40000	880000	2	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-8.34	-	-	-	-	-	0.86150	-	-145.70000	-	0.86150	-	-	-
08-27-039-24W4	6-Oct-19	31.7778	68075.1	< 2	55100	50000	880000	50000	880000	26	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-10.86	-	-	-	-	-	0.81450	-	-192.25000	-	0.81450	-	-	-
08-27-039-24W4	12-Oct-19	0.264965	35408.8	< 2	28500	170000	800000	170000	800000	< 1	< 1	< 1	-	< 0.05	-	-	-	< 0.05	< 0.05	< 0.15	-12.3	-	-	-	-	-	0.60340	-	-401.59000	-	0.60340	-	-	-
Groundwater Well Data																																		
Landowner 30	18-Jun-22	-	-	2.00	12400.00	120000	860000	120000	860000	26.00	< 1	< 1	< 10	-	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Landowner 1	17-Jun-22	-	-	< 2	6070.00	70000	930000	70000	930000	56.00	< 1	< 1	13.9	-	52.1	< 10	71.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Landowner 1	13-Sep-23	-	-	< 2	11300	170000	820000	170000	820000	106	< 1	< 1	< 10	-	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Landowner 29	24-Jun-22	-	-	< 2	22700.00	60000	920000	60000	920000	418.00	4.00	< 1	< 1	-	6.2	< 1	9.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Landowner 24	17-Jun-22	-	-	< 2	172.00	40000	920000	40000	920000	44100.00	388.00	< 1	< 10	-	< 10	< 10	< 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1. - in detail data row(s) denotes parameter not analyzed

2. < in detal data row(s) denotes parameter below laboratory detection limit

INTEGRATED SUSTAINABILITY

Appendices

INTEGRATED SUSTAINABILITY

Appendix 1: Additional Gas Analysis

AGAT® Laboratories

Isotope Analysis Summary

Operator: Enhance Energy

Analyst: Karlis Muehlenbachs, U of A
780-492-2827

Work Order	Well Location	Sample Point	Description	Date Sampled	$\delta^{13}C_1$	$\delta^{13}C_2$	$\delta^{13}C_3$	$\delta^{13}iC_4$	$\delta^{13}nC_4$	$\delta^{13i}C_5$	$\delta^{13}nC_5$	$\delta^{13}CO_2$	Comments
23R052948	04-15-040-24W4	EMBER CBM HEADER	CBM Prod Gas	1-Aug-23	–54.33	–34.50	–26.74	–25.74	–23.63				This has an isotope fingerprint typical of a CBM gas from that region.
23R052944	10-34-039-24W4	CBM GAS	CBM Prod Gas	1-Aug-23	–55.61	–36.73	–26.56	–27.40	–25.36				This has an isotope fingerprint typical of a CBM gas from that region.
23R052940	100/13-34-038-24W4/03	CASING GAS	Mannville Gas	1-Aug-23	–47.07	–25.62	–23.38	–24.02	–22.31	–22.04	–22.13		This is a typical biodegraded Mannville gas.
23R052940	100/16-34-039-24W4/03	WELLHEAD TUBING	Mannville Gas	1-Aug-23	–49.14	–26.36	–25.00	–26.28	–20.07				This is a typical biodegraded Mannville gas.
23R052940	104/14-02-042-24W4/00	WELLHEAD TUBING	Mannville Gas	1-Aug-23	–48.95	–25.48	–23.88	–25.60	–22.83				This is a typical biodegraded Mannville gas.
23R015961	100/16-03-039-24W4/00	TEST METER RUN	Leduc Prod Gas	2-May-23	-39.97	-33.04	-27.98	-28.22	-26.68			-4.01	This is a mature thermogenic gas.
23E017409	100/04-26-039-24W4/00	WELLHEAD	Nisku Prod Gas	26-Apr-23	-40.29	-32.86	-28.16	-28.89	-26.71	-26.14	-27.21	1.89	This is a mature gas.
23E017407	100/08-02-040-24W4/02	WELLHEAD	Nisku Prod Gas	25-Apr-23	-39.45	-32.18	-28.44	-28.12	-27.21	-25.32	-23.41	-9.35	This is a mature gas.
23E011217	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	10-Apr-23	-39.75	-32.66	-28.76	-29.16	-27.45			-6.77	
23E011217	100/07-15-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	10-Apr-23	-41.68	-32.01	-28.19	-27.69	-25.53	-26.50	-27.53	-9.02	
23E000435	102/05-33-040-24W4/02	CASING GAS	Nisku Prod Gas	2-Mar-23	-42.14	-32.61	-28.43	-29.66	-26.50			-8.97	This gas has the isotope fingerprint of a mature gas such as from the Nisku A.
23E000435	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	2-Mar-23	-39.52	-32.35	-27.00	-28.58	-27.80			-9.59	This gas has the isotope fingerprint of a mature gas such as from the Nisku A.
23E000435	100/07-15-040-24W4/02	TEST SEPARATOR METER RUN	Nisku Prod Gas	2-Mar-23	-41.86	-32.60	-28.62	-28.67	-29.96	-26.54	-27.58	-12.23	This gas has the isotope fingerprint of a mature gas such as from the Nisku A.
23E000611	14-07-056-21W4	METER 091-FIT-0210	NWR CO2 Source	22-Feb-23								-27.70	
23R000611	04-17-056-21W4	METER FIT-4116	Nutrien CO2 Source	22-Feb-23								-42.00	
23R993143	102-09-16-040-24W4/00	SCV	Coal SCV Flow	2-Feb-23	-55.68	-52.14							This SCV gas now has a much more shallow fingerprint, 200 m depth or less compared to previous analyses of this SCVF.
23R993143	100/06-21-040-24W4/03	SCV	Coal SCV Flow	2-Feb-23	-58.24	-46.59	-36.97					1.40	This is a shallow thermogenic gas from perhaps 200 to 300 m depth and has not changed since analyzed before.
23R993143	100/05-21-040-24W4/02	SCV	Coal SCV Flow	2-Feb-23	-58.53	-47.30	-37.06	-29.62	-37.67				This is a shallow thermogenic gas from perhaps 200 to 300 m depth. It may have become shallower by a bit since analyzed last.
23R993116	04-15-040-24W4	METER 090-FIT-100(ENH 0202)	Combined CO2 Source	2-Feb-23								-28.55	
2022													
22R977108	100/12-01-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	5-Dec-22	-37.73	-32.06	-27.18	-29.94	-26.12			-4.70	This is a mature thermogenic gas.
22R977108	100/16-02-040-24W4/00	WELLHEAD TUBING	Nisku Prod Gas	5-Dec-22	-36.62	-32.21	-27.70	-28.49	-25.92			2.80	This is a mature thermogenic gas.
22R977108	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	5-Dec-22	-37.47	-32.05	-28.70	-29.91	-27.42			-7.70	This is a mature thermogenic gas.
22R958723	100/14-21-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	19-Oct-22	-42.87	-33.28	-29.16	-29.70	-27.47	-27.21	-27.93	-5.01	This is a typical thermogenic gas from the Devonian.
22R958723	100/04-26-039-24W4/00	WELLHEAD TUBING	Nisku Prod Gas	19-Oct-22	-40.89	-33.92	-28.47	-27.26	-27.11	-25.94	-27.34	-7.78	This is a typical thermogenic gas from the Devonian.
22R929085	100/14-21-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	7-Aug-22	-44.98	-33.12	-29.54	-20.45	-27.76			-5.63	This gas has an isotope fingerprint typical of a mature Devonian gas.
22R929085	100/08-02-040-24W4/02	WELLHEAD	Nisku Prod Gas	7-Aug-22	-40.24	-31.95	-27.69	-29.00	-26.01			-4.69	This gas has an isotope fingerprint typical of a mature Devonian gas.
22R929085	100/04-26-039-24W4/00	WELLHEAD	Nisku Prod Gas	7-Aug-22	-37.07	-30.75	-26.78	-28.65	-27.25			2.43	This gas has an isotope fingerprint typical of a mature Devonian gas.
22R922504	100/16-03-039-24W4/00	TEST METER RUN	Leduc Prod Gas	20-Jul-22	-39.68	-33.59	-29.45	-28.44	-27.31			-4.64	This is a mature thermogenic gas that may come from the Leduc.
22R915636	104/14-02-042-24W4/00	WELLHEAD TUBING	Mannville Gas	7-Jul-22	-47.18	-28.40	-25.61	-26.86	-25.55	-25.37	-25.08	-13.66	This is a mature thermogenic gas that may come from the Manville
22R915636	100/16-34-039-24W4/03	TUBING	Mannville Gas	7-Jul-22	-47.25	-27.37	-27.16	-28.70	-27.10			-8.04	This is a mature thermogenic gas that may come from the Manville
22R915637	04-15-040-20W4	EMBER CBM HEADER 12-12	CBM Prod Gas	4-Jul-22	-55.12	-37.77	-55.01	-25.88				24.46	This gas has an isotope fingerprint typical for a CBM gas in this region.
22R915634	10-34-034-24W4	CBM GAS	CBM Prod Gas	4-Jul-22	-54.25	-38.69	-28.59	-29.74	-29.54			3.04	This is a typical CBM Gas.
22R899719	04-15-040-24W4	EMBER CBM HEADER	CBM Prod Gas	26-May-22	-52.75	-37.05	-27.70	-27.80	-28.10				This is a typical isotope fingerprint of a CBM gas in that region.
22R893697	04-17-056-21W4	METER FIT-4116	Nutrien CO2 Source	24-May-22	-44.51							-39.65	This is an almost pure CO2 gas with a trace of thermogenic methane.
22R893697	14-07-056-21W4	METER 091-FIT-0210	NWR CO2 Source	24-May-22	-31.40	-29.61						-26.71	This is an almost pure CO2 gas with a traces of thermogenic methane and ethane.
22R889542	04-15-040-24W4	METER 090-FIT-100(ENH 0202)	Combined CO2 Source	13-May-22	-29.92	-31.51						-27.89	This is an almost pure CO2 gas with traces of thermogenic methane and ethane.
22R889542	04-15-040-24W4	EMBER CBM HEADER	CBM Prod Gas	13-May-22	-55.35	-38.02	-28.04	-27.91	-29.69			-1.78	This is a typical isotope fingerprint of a CBM gas in that region.
22R889542	100/13-34-038-24W4/03	WELLHEAD CASING	Mannville Gas	13-May-22	-46.04	-27.60	-25.29	-27.85	-25.09			-1.57	This is a typical isotope fingerprint of a deep thermogenic gas.
22R889542	10-34-039-24W4	CBM GAS	CBM Prod Gas	13-May-22	-54.36	-39.01	-28.31	-29.14	-29.10			-13.83	This is a typical isotope fingerprint of a CBM gas in that region.
22R883697	102/05-33-040-24W4-02	CASING GAS	Nisku Prod Gas	12-Apr-22	-42.54	-33.23	-28.91	-30.01	-27.37			-7.05	This gas has the isotope fingerprint of a mature gas such as from the Nisku A.
22R879425	100/07-15-040-24W4/02	CASING GAS	Nisku Prod Gas	5-Apr-22	-41.71	-32.56	-32.96	-28.63	-27.23			-4.26	The casing and SCV gases have the same source and may be from or near the Nisku A. Their isotope fingerprint is very similar but not exactly like that of the test meter run from this well analyzed in Nov, 2021 which would indicate that the source of the casing and SCV gases is slightly shallower than the meter run gas.
22R879425	100/07-15-040-24W4/02	SCV	Nisku Prod Gas	5-Apr-22	-40.42	-31.68	-27.93	-28.72	-28.23			-5.56	The casing and SCV gases have the same source and may be from or near the Nisku A. Their isotope fingerprint is very similar but not exactly like that of the test.
22R879425	102/09-16-040-24W4/00	SCV	Coal SCV Flow	5-Apr-22	-54.74	-47.53	-34.31						This is a shallow thermogenic gas that may come from around 200 to 300 m depth. It has not changed since previous tests.
22R879425	100/05-21-040-24W4/02	SCV	Coal SCV Flow	5-Apr-22	-56.29	-46.30	-35.91	-25.98	-22.01				This is a shallow thermogenic gas that may come from 200 to 300 m depth. It has not changed since previous tests.
22R879425	100/06-21-040-24W4/03	SCV	Coal SCV Flow	5-Apr-22	-56.46	-47.17	-34.41						This is a shallow thermogenic gas that may come from 200 to 300 m depth. It has not changed since previous tests.
22R869991	04-17-056-21W4	METER FIT 4116	Nutrien CO2 Source	11-Mar-22								-43.14	
22R869991	14-07-056-21W4	METER FIT 090 FIT 0210	NWR CO2 Source	11-Mar-22								-28.44	
22R869985	04-15-040-20W4	METER 090-FIT-100 (ENH 0202)	Combined CO2 Source	7-Mar-22	-39.92	-29.63						-28.72	Gas is CO2 with traces of deep thermogenic gas.
22R858925	100/16-02-040-24W4/00	WELLHEAD TUBING	Nisku Prod Gas	9-Feb-22	-40.18	-33.55	-28.40	-28.66	-26.08				This is a thermogenic has typical of the Nisku A.
2021													
21R831470	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	18-Nov-21	-37.89	-31.48	-28.06	-28.67	-27.16			-3.59	This is an atypical thermogenic gas from the Nisku.
21R830214	100/04-26-039-24W4/00	WELLHEAD	Nisku Prod Gas	16-Nov-21	-30.86	-30.90	-28.00					-5.38	Very poor sample, which is a remnant of a thermogenic gas.
21R823222	100/07-15-040-24W4/02	TEST METER RUN	Nisku Prod Gas	1-Nov-21	-37.92	-31.34	-27.77	-28.74	-26.99			-4.66	This is a thermogenic gas with an isotopic fingerprint indicative of the Nisku A.
21R823234	100/05-21-040-24W4/02	SCV	Coal SCV Flow	1-Nov-21	-55.29	-46.36	-36.32	-27.25					This is a shallow thermogenic gas that may come from 200 to 300 m depth.
21R823234	100/06-21-040-24W4/03	SCV	Coal SCV Flow	1-Nov-21	-55.31	-46.63	-35.87	-28.83	-31.14				This is a shallow thermogenic gas that may come from 200 to 300 m depth.
21R823234	102/09-16-040-24W4/00	SCV	Coal SCV Flow	1-Nov-21	-55.28	-47.23	-33.82						This is a shallow thermogenic gas that may come from 200 to 300 m depth. Its isotope fingerprint has not changed since it was measured in Oct. 2020 and May 2021.
21R819717	04-17-056-21W4	METER FIT 4116	Nutrien CO2 Source	25-Oct-21								-42.20	
21R819717	14-07-056-21W4	METER FIT 090 FIR 0210	NWR CO2 Source	25-Oct-21								-26.47	
21R819730	04-15-040-24W4	METER 090-FIT-100	Combined CO2 Source	25-Oct-21								-29.23	

21E792846	100/04-26-039-24W4/00	WELLHEAD	Nisku Prod Gas	27-Aug-21	-31.03	-33.08	-28.47	-28.90	-27.32			3.67	Difficult to pick source. This sample was full of air. Methane value indicates it was altered. C2+ concentrations are unusal, but the isotope ratios indicate a typical mature source.
21E792836	100/08-02-040-24W4/02	WELLHEAD	Nisku Prod Gas	26-Aug-21	-38.24	-31.55	-28.56	-30.83	-28.16			-5.66	This gas has an isotope fingerprint typical of a mature Devonian gas.
21R782729	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	4-Aug-21	-40.32	-32.84	-28.05	-28.38	-26.28			-2.61	This gas is thermogenic and has a typical isotope fingerprint of a gas from the Nisku.
21R743507	100/08-35-039-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	13-May-21	-39.36	-32.65	-28.11	-29.37	-27.04			-6.62	This is a mature thermogenic gas that may come from or near the Nisku.
21R740736	102/09-16-040-24W4/00	SCV	Coal SCV Flow	6-May-21	-56.77	-46.80	-34.40	-27.62	-20.22				This is a shallow thermogenic gas that may come from around 200 to 300 m depth. It has not changed since measured in 2020.
21R741900	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	4-May-21	-39.56	-32.11	-28.41	-29.38	-28.23			-5.44	This is a thermogenic gas that may come from around 1900 m depth.
21R728065	10-34-039-24W4	CMB HEADER	CBM Prod Gas	12-Apr-21	-54.92	-38.50	-28.52	-29.37	-27.98			8.26	This gas has an isotope fingerprint typical of CBM gases from that region.
21R728071	04-15-040-24W4	CBM HEADER	CBM Prod Gas	12-Apr-21	-55.80	-36.62	-28.54	-27.42	-28.52			8.63	This gas has an isotope fingerprint typical of CBM gases from that region.
21R711147	04-17-056-21W4	METER FIT 4116	Nutrien CO2 Source	17-Feb-21								-41.12	
21R711147	14-07-056-21W4	METER FIT 090 FIT 0210	NWR CO2 Source	17-Feb-21								-26.91	
21R707335	04-15-040-24W4	METER 090-FIT-100	Combined CO2 Source	17-Feb-21								-42.79	
2020													
20R650088	04-17-056-21W4	METER FIT 4116	Nutrien CO2 Source	15-Sep-20								-44.82	
20R650088	14-07-056-21W4	METER FIT 090 FIT 0210	NWR CO2 Source	15-Sep-20								-25.42	
20R667535	100/12-01-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	23-Oct-20	-40.76	-33.72	-29.15	-29.09	-26.97	-26.81	-26.54		This gas has an isotope fingerprint typical of the Nisku in this region.
20R667535	100/04-11-040-24W4/02	WELLHEAD TUBING	Leduc Prod Gas	23-Oct-20	-40.48	-34.29	-29.04	-29.37	-27.04			-13.01	This gas has an isotope fingerprint typical of the Leduc in this region.
20R667535	100/10-35-039-24W4/02	WELLHEAD TUBING	Leduc Prod Gas	23-Oct-20	-40.17	-33.13	-28.22	-29.33	-27.59			-28.33	This gas has an isotope fingerprint typical of the Leduc in this region.
20R658420	102/09-16-040-24W4/00	SCV	Coal SCV Flow	2-Oct-20	-54.35	-47.15						-10.04	
20R619783	10-34-039-24W4	HEADER	CBM Prod Gas	2-Jul-20	-53.30	-38.00	-28.05	-30.72	-27.16			4.16	Typical CBM Gas
20R598691	10-34-039-24W4	HEADER	CBM Prod Gas	12-May-20	-55.50	-38.78	-28.11	-28.08	-29.63			-1.02	Typical CBM gas. Similar isotope fingerprint as before.
20R598691	100/01-02-040-24W5/02	WELLHEAD CASING	Nisku Prod Gas	12-May-20	-41.16	-30.67	-28.00	-27.19	-26.23			-8.40	Typical Nisku gas. Similar isotope fingerprint as before.
20R598691	100/04-26-039-24W4/00	CASING GAS	Nisku Prod Gas	12-May-20	2.18	-26.32	-26.46					-13.18	Atypical gas. Extremely low in methane concentration but contains multiple stray peaks on the gas chromatography run. Isotope data for methane is unusual but perhaps indicates some artificial alteration of the sample.
20R561525	04-26-039-24W4	HEADER	Nisku Prod Gas	13-Jan-20	-57.08	-32.44	-27.40	-26.27	-26.18			-4.46	This is a low maturity thermogenic gas, albiet a bit unusual. The C2+ values are relativey more enriched in 13C than would be indicated by the methane value. This header gas may be mixture.
2019													
19R833267	100/16-03-040-24W4/02	WELLHEAD	Leduc Prod Gas	22-Oct-19	-38.54	-32.38	-27.69	-29.80	-26.18			-1.55	This gas has a typical Leduc isotope fingerprint.
19R833267	100/04-11-040-24W4/00	WELLHEAD	Leduc Prod Gas	22-Oct-19	-32.57	-30.82	-27.36	-27.47	-26.21			-0.87	This has is a bit unusual having a 13-C enriched methane but the C2+ appears to be a typical Leduc gas.
19C523749	04-17-056-21W4	PV301	Nutrien CO2 Source	27-Sep-19								-41.89	
19C523749	04-17-056-21W4	Feed Gas	Nutrien CH4 Inlet	27-Sep-19	-44.79	-28.50	-27.07	-26.57	-25.37			-41.89	Typical Thermogenic Gas
19R520433	100/10-35-039-24W4/00	CASING GAS	Leduc Prod Gas	20-Sep-19	-39.48	-32.16	-28.69	-26.57	-27.06			0.50	This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R520433	100/01-02-040-24W5/02	CASING GAS	Nisku Prod Gas	20-Sep-19	-40.10	-32.60	-27.79	-28.86	-26.28			-0.19	This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R520433	100/12-01-040-24W4/02	CASING GAS	Nisku Prod Gas	20-Sep-19	-38.79	-32.47	-28.19	-29.97	-27.24			-0.72	This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R496905	10-34-039-24W4	HEADER	CBM Prod Gas	25-Jul-19	-58.33	-38.26	-26.79	-27.27	-27.73			5.59	This is a typical CBM gas from this region.
19R492723	100/10-35-039-24W4/00	TEST METER RUN	Leduc Prod Gas	16-Jul-19	-39.73	-31.35	-27.09	-31.31	-25.74				This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R492724	100/12-01-040-24W4/02	WELLHEAD	Nisku Prod Gas	16-Jul-19	-39.45	-31.41	-28.33	-26.17	-24.66				This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R492725	100/16-02-040-24W4/00	WELLHEAD	Nisku Prod Gas	16-Jul-19	-38.90	-31.24	-27.63	-17.05	-27.25				This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R492726	100/01-02-040-24W5/02	TEST METER RUN	Nisku Prod Gas	16-Jul-19	-39.48	-31.42	-27.09	-29.12	-26.76				This gas has the typical isotope fingerprint of a Leduc or Nisku gas.

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Analysis Report

uOttawa

Isotope Analysis Summary

Date	Lab ID	Submitter ID	Submitter comments	Description	Material	Material Code	14C yr BP	±	F14C	±	D14C ‰	±	Δ14C ‰	±
2023														
05-Sep-23	UOC-23008	SUMA9439 (10-34 CBM GAS)	10-34-039-24W4	CBM Prod Gas	Gas	CH4	>48700ϕ	--	<0.0023	--	<-997.7	--	<-997.7	--
01-Aug-23	UOC-23007	CANISTER1B (04-15 CBM HEADER)	12-12-040-24W4	CBM Prod Gas	Gas	CH4	>48700ϕ	--	<0.0023	--	<-997.7	--	<-997.7	--
22-Feb-23	UOC-21804	SUMMA4B	04-17-056-21W4	Nutrien CO2 Source	Gas	CX	46586.36	1269	0.0030	0.0005	-996.97	0.48	-997.0	0.48
03-Feb-23	UOC-21803	SUMMA1A	14-07-056-21W4	NWR CO2 Source	Gas	CX	>47400ϕ	--	<0.0027	--	<-997.3	--	<-997.3	--
02-Feb-23	UOC-21802	CAN00189A	04-15-040-24W4	Combined CO2 Source	Gas	CX	>47400ϕ	--	<0.0027	--	<-997.3	--	<-997.3	--
2022														
1-Sep-22	UOC-19760ϕ	SUMMA1A (10-34 CBM GAS)	10-34-039-24W4	CBM Prod Gas	Gas	CH4	>50400	--	<0.0019	--	<-998.1	--	<-1000	--
1-Sep-22	UOC-19761ϕ	CANISTER1B (04-15 CBM HEADER)	12-12-040-24W4	CBM Prod Gas	Gas	CH4	>50400	--	<0.0019	--	<-998.1	--	<-1000	--
24-May-22	UOC-19338ϕ	SUMMA1A	14-07-056-21W4	NWR CO2 Source	Gas	CX	>46900	--	<0.0029	--	<-997.1	--	<-997.1	--
24-May-22	UOC-19339	SUMMA3B	04-17-056-21W4	Nutrien CO2 Source	Gas	CX	>46900	--	<0.0029	--	<-997.1	--	<-997.1	--
13-May-22	UOC-19107ϕ	CAN1C	04-15-040-24W4	Combined CO2 Source	Gas	CX	>46900	--	<0.0029	--	<-997.1	--	<-997.1	--
11-Mar-22	UOC-18173	SUMMA1A	14-07-056-21W4	NWR CO2 Source	Gas	CX	>49900	--	<0.002	--	<-998.0	--	<-998.0	--
11-Mar-22	UOC-18174	SUMMA4B	04-17-056-21W4	Nutrien CO2 Source	Gas	CX	>49900	--	<0.002	--	<-998.0	--	<-998.0	--
7-Mar-22	UOC-18172	SUMMA1A	04-15-040-24W4	Combined CO2 Source	Gas	CX	42091.29	702.1	0.0053	0.0005	-994.70	0.46	-994.74	0.46
2021														
25-Oct-21	UOC-16776 ϕ	CAN00142	04-17-056-21W4	Nutrien CO2 Source	Gas - Summa Can	CX	>50000	---	<0.0020	---	<-998.00	---	<-998.02	---
25-Oct-21	UOC-16777 ϕ	CAN11950	04-17-056-21W4 DUPE	Nutrien CO2 Source	Gas - Summa Can	CX	>50000	---	<0.0020	---	<-998.00	---	<-998.02	---
25-Oct-21	UOC-16778 ϕ	CAN03091	14-07-056-21W4	NWR CO2 Source	Gas - Summa Can	CX	>50000	---	<0.0020	---	<-998.00	---	<-998.02	---
25-Oct-21	UOC-16779 ϕ	CAN11815	14-07-056-21W4 DUPE	NWR CO2 Source	Gas - Summa Can	CX	>50000	---	<0.0020	---	<-998.00	---	<-998.02	---
04-Oct-21	UOC-16774 ϕ	CAN00144A	04-15-040-24W4	Combined CO2 Source	Gas - Summa Can	CX	>50000	---	<0.0020	---	<-998.00	---	<-998.02	---
04-Oct-21	UOC-16775	CAN06451A	04-15-040-24W4 DUPE	Combined CO2 Source	Gas - Summa Can	CX	42234	1209	0.0052	0.0008	-994.79	0.78	-994.84	0.78
13-May-21	UOC-16104	GV1A_08-35	100/08-35-039-24W4	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
13-May-21	UOC-16105	GVA2_08-35	100/08-35-039-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
13-May-21	UOC-16106	GVA3_08-35	100/08-35-039-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
13-May-21	UOC-16107	GVA4_08-35	100/08-35-039-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
13-May-21	UOC-16108	GVA5_08-35	100/08-35-039-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
13-May-21	UOC-16109	GVA6_08-35	100/08-35-039-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
06-May-21	UOC-16110	GV1A_09-16	102/09-16-040-24W4	Coal SCV Flow	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
06-May-21	UOC-16111	GV2A_09-16	102/09-16-040-24W4 DUPE	Coal SCV Flow	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
06-May-21	UOC-16112	GV3A_09-16	102/09-16-040-24W4 DUPE	Coal SCV Flow	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
04-May-21	UOC-16098	GV1A_08-02	100/08-02-040-24W4	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
04-May-21	UOC-16099	GVA2_08-02	100/08-02-040-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
04-May-21	UOC-16100	GVA3_08-02	100/08-02-040-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
04-May-21	UOC-16101	GVA4_08-02	100/08-02-040-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---

04-May-21	UOC-16102	GVA5_08-02	100/08-02-040-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
04-May-21	UOC-16103	GVA6_08-02	100/08-02-040-24W4 DUPE	Nisku Prod Gas	Gas/Liquid	CH4	>50000ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
12-Apr-21	UOC-15352	VIAL 1A_04-15	04-15-040-24W4;	CBM Prod Gas	Gas/Liquid	CH4	>50000 ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
12-Apr-21	UOC-15353	VIAL 2A_04-15	04-15-040-24W4; DUPLICATE	CBM Prod Gas	Gas/Liquid	CH4	>50000 ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
12-Apr-21	UOC-15354	VIAL 3A_04-15	04-15-040-24W4; DUPLICATE	CBM Prod Gas	Gas/Liquid	CH4	>50000 ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
12-Apr-21	UOC-15355	VIAL 1A_10-34	10-34-039-24W4	CBM Prod Gas	Gas/Liquid	CH4	>50000 ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
12-Apr-21	UOC-15356	VIAL 2A_10-34	10-34-039-24W4; DUPLICATE	CBM Prod Gas	Gas/Liquid	CH4	>50000 ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
12-Apr-21	UOC-15357	VIAL 3A_10-34	10-34-039-24W4; DUPLICATE	CBM Prod Gas	Gas/Liquid	CH4	>50000 ϕ	---	<0.0020	---	<-998.00	---	<-998.02	---
17-Feb-21	UOC-14862	CAN1A	04-17-056-21W4	Nutrien CO2 Source	Gas	CX	48222	670	0.0025	0.0002	-997.53	0.21	-997.55	0.20
17-Feb-21	UOC-14863ϕ	CAN3C	14-07-056-21W4	NWR CO2 Source	Gas	CX	>50000	---	<0.0019	---	<-998.00	---	<-998.00	---
01-Feb-21	UOC-14861ϕ	CAN04201C	04-15-040-24W4	Combined CO2 Source	Gas	CX	>50000	---	<0.0019	---	<-998.00	---	<-998.00	---
2020														
02-Oct-20	UOC-14028ϕ	SN8750/29-10621	102/09-16-040-24W4	Coal SCV Flow	GAS	CH4	>50000	---	<0.0020	---	<-998.00	---	<-998.02	---
15-Sep-20	UOC-14028ϕ	SN8750/29-10621	4-17-056-21W4 Nutrien	Nutrien CO2 Source	GAS	CX	>50000	---	<0.0020	---	<-998.00	---	<-998.02	---
15-Sep-20	UOC-14027ϕ	SN5565/29-10622G	14-07-056-21W4 NWR	NWR CO2 Source	Gas	CX	>50000	---	<0.0020	---	<-998.00	---	<-998.02	---
02-Jul-20	UOC-13121ϕ	VIAL 1A,2A,3A,4A	10-34-039-24w4 CBM Header	CBM Prod Gas	Nautral Gas	CH4	>60000	---	<0.0006	---	<-999.40	---	<-999.41	---
12-May-20	UOC-12831ϕ	1-2-40-24w4	100/01-02-040-24W4/02	Nisku Prod Gas	Nautral Gas	CH4	>55000	---	<0.001	---	<-999.00	---	<-999.00	---
12-Mar-20	UOC-12830ϕ	10-35-39-24w4	100/10-35-039-24W4/00	Leduc Prod Gas	Nautral Gas	CH4	>55000	---	<0.001	---	<-999.00	---	<-999.00	---
2019														
01-Oct-19	UOC-10891	10-34-039-24w4		CBM Prod Gas	CH4 gas	CH4	>67637	8696	0.0002	0.0002	-999.83	0.18	-999.83	0.18
27-Sep-19	UOC-10892	Nutrien inlet gas		Nutrien CH4 Inlet	CH4 gas	CH4	>67637	16665	0.0001	0.0001	-999.94	0.13	-999.94	0.13
27-Sep-19	UOC-10896	Nutrien CO2 source gas		Nutrien CO2 Source	CO2 gas	CX	23980	153	0.0505	0.001	-949.47	0.96	-949.89	0.95

AGAT® Laboratories

Isotope Analysis Summary

Operator: Enhance Energy

Analyst: Karlis Muehlenbachs, U of A
780-492-2827

Work Order	Well Location	Sample Point	Description	Date Sampled	$\delta^{13}C_1$	$\delta^{13}C_2$	$\delta^{13}C_3$	$\delta^{13}iC_4$	$\delta^{13}nC_4$	$\delta^{13i}C_5$	$\delta^{13}nC_5$	$\delta^{13}CO_2$	Comments
23R015961	100/16-03-039-24W4/00	TEST METER RUN	Leduc Prod Gas	2-May-23	-39.97	-33.04	-27.98	-28.22	-26.68			-4.01	This is a mature thermogenic gas.
23E017409	100/04-26-039-24W4/00	WELLHEAD	Nisku Prod Gas	26-Apr-23	-40.29	-32.86	-28.16	-28.89	-26.71	-26.14	-27.21	1.89	This is a mature gas.
23E017407	100/08-02-040-24W4/02	WELLHEAD	Nisku Prod Gas	25-Apr-23	-39.45	-32.18	-28.44	-28.12	-27.21	-25.32	-23.41	-9.35	This is a mature gas.
23E011217	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	10-Apr-23	-39.75	-32.66	-28.76	-29.16	-27.45			-6.77	
23E011217	100/07-15-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	10-Apr-23	-41.68	-32.01	-28.19	-27.69	-25.53	-26.50	-27.53	-9.02	
23E000435	102/05-33-040-24W4/02	CASING GAS	Nisku Prod Gas	2-Mar-23	-42.14	-32.61	-28.43	-29.66	-26.50			-8.97	This gas has the isotope fingerprint of a mature gas such as from the Nisku A.
23E000435	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	2-Mar-23	-39.52	-32.35	-27.00	-28.58	-27.80			-9.59	This gas has the isotope fingerprint of a mature gas such as from the Nisku A.
23E000435	100/07-15-040-24W4/02	TEST SEPARATOR METER RUN	Nisku Prod Gas	2-Mar-23	-41.86	-32.60	-28.62	-28.67	-29.96	-26.54	-27.58	-12.23	This gas has the isotope fingerprint of a mature gas such as from the Nisku A.
23E000611	14-07-056-21W4	METER 091-FIT-0210	NWR CO2 Source	22-Feb-23								-27.70	
23R000611	04-17-056-21W4	METER FIT-4116	Nutrien CO2 Source	22-Feb-23								-42.00	
23R993143	102-09-16-040-24W4/00	SCV	Coal SCV Flow	2-Feb-23	-55.68	-52.14							This SCV gas now has a much more shallow fingerprint, 200 m depth or less compared to previous analyses of this SCVF.
23R993143	100/06-21-040-24W4/03	SCV	Coal SCV Flow	2-Feb-23	-58.24	-46.59	-36.97					1.40	This is a shallow thermogenic gas from perhaps 200 to 300 m depth and has not changed since analyzed before.
23R993143	100/05-21-040-24W4/02	SCV	Coal SCV Flow	2-Feb-23	-58.53	-47.30	-37.06	-29.62	-37.67				This is a shallow thermogenic gas from perhaps 200 to 300 m depth. It may have become shallower by a bit since analyzed last.
23R993116	04-15-040-24W4	METER 090-FIT-100(ENH 0202)	Combined CO2 Source	2-Feb-23								-28.55	
2022													
22R977108	100/12-01-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	5-Dec-22	-37.73	-32.06	-27.18	-29.94	-26.12			-4.70	This is a mature thermogenic gas.
22R977108	100/16-02-040-24W4/00	WELLHEAD TUBING	Nisku Prod Gas	5-Dec-22	-36.62	-32.21	-27.70	-28.49	-25.92			2.80	This is a mature thermogenic gas.
22R977108	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	5-Dec-22	-37.47	-32.05	-28.70	-29.91	-27.42			-7.70	This is a mature thermogenic gas.
22R958723	100/14-21-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	19-Oct-22	-42.87	-33.28	-29.16	-29.70	-27.47	-27.21	-27.93	-5.01	This is a typical thermogenic gas from the Devonian.
22R958723	100/04-26-039-24W4/00	WELLHEAD TUBING	Nisku Prod Gas	19-Oct-22	-40.89	-33.92	-28.47	-27.26	-27.11	-25.94	-27.34	-7.78	This is a typical thermogenic gas from the Devonian.
22R929085	100/14-21-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	7-Aug-22	-44.98	-33.12	-29.54	-20.45	-27.76			-5.63	This gas has an isotope fingerprint typical of a mature Devonian gas.
22R929085	100/08-02-040-24W4/02	WELLHEAD	Nisku Prod Gas	7-Aug-22	-40.24	-31.95	-27.69	-29.00	-26.01			-4.69	This gas has an isotope fingerprint typical of a mature Devonian gas.
22R929085	100/04-26-039-24W4/00	WELLHEAD	Nisku Prod Gas	7-Aug-22	-37.07	-30.75	-26.78	-28.65	-27.25			2.43	This gas has an isotope fingerprint typical of a mature Devonian gas.
22R922504	100/16-03-039-24W4/00	TEST METER RUN	Leduc Prod Gas	20-Jul-22	-39.68	-33.59	-29.45	-28.44	-27.31			-4.64	This is a mature thermogenic gas that may come from the Leduc.
22R915636	104/14-02-042-24W4/00	WELLHEAD TUBING	Mannville Gas	7-Jul-22	-47.18	-28.40	-25.61	-26.86	-25.55	-25.37	-25.08	-13.66	This is a mature thermogenic gas that may come from the Manville
22R915636	100/16-34-039-24W4/03	TUBING	Mannville Gas	7-Jul-22	-47.25	-27.37	-27.16	-28.70	-27.10			-8.04	This is a mature thermogenic gas that may come from the Manville
22R915637	04-15-040-20W4	EMBER CBM HEADER 12-12	CBM Prod Gas	4-Jul-22	-55.12	-37.77	-55.01	-25.88				24.46	This gas has an isotope fingerprint typical for a CBM gas in this region.
22R915634	10-34-034-24W4	CBM GAS	CBM Prod Gas	4-Jul-22	-54.25	-38.69	-28.59	-29.74	-29.54			3.04	This is a typical CBM Gas.
22R899719	04-15-040-24W4	EMBER CBM HEADER	CBM Prod Gas	26-May-22	-52.75	-37.05	-27.70	-27.80	-28.10				This is a typical isotope fingerprint of a CBM gas in that region.
22R893697	04-17-056-21W4	METER FIT-4116	Nutrien CO2 Source	24-May-22	-44.51							-39.65	This is an almost pure CO2 gas with a trace of thermogenic methane.
22R893697	14-07-056-21W4	METER 091-FIT-0210	NWR CO2 Source	24-May-22	-31.40	-29.61						-26.71	This is an almost pure CO2 gas with a traces of thermogenic methane and ethane.
22R889542	04-15-040-24W4	METER 090-FIT-100(ENH 0202)	Combined CO2 Source	13-May-22	-29.92	-31.51						-27.89	This is an almost pure CO2 gas with traces of thermogenic methane and ethane.
22R889542	04-15-040-24W4	EMBER CBM HEADER	CBM Prod Gas	13-May-22	-55.35	-38.02	-28.04	-27.91	-29.69			-1.78	This is a typical isotope fingerprint of a CBM gas in that region.
22R889542	100/13-34-038-24W4/03	WELLHEAD CASING	Mannville Gas	13-May-22	-46.04	-27.60	-25.29	-27.85	-25.09			-1.57	This is a typical isotope fingerprint of a deep thermogenic gas.
22R889542	10-34-039-24W4	CBM GAS	CBM Prod Gas	13-May-22	-54.36	-39.01	-28.31	-29.14	-29.10			-13.83	This is a typical isotope fingerprint of a CBM gas in that region.
22R883697	102/05-33-040-24W4-02	CASING GAS	Nisku Prod Gas	12-Apr-22	-42.54	-33.23	-28.91	-30.01	-27.37			-7.05	This gas has the isotope fingerprint of a mature gas such as from the Nisku A.
22R879425	100/07-15-040-24W4/02	CASING GAS	Nisku Prod Gas	5-Apr-22	-41.71	-32.56	-32.96	-28.63	-27.23			-4.26	The casing and SCV gases have the same source and may be from or near the Nisku A. Their isotope fingerprint is very similar but not exactly like that of the test meter run from this well analyzed in Nov, 2021 which would indicate that the source of the casing and SCV gases is slightly shallower than the meter run gas.
22R879425	100/07-15-040-24W4/02	SCV	Nisku Prod Gas	5-Apr-22	-40.42	-31.68	-27.93	-28.72	-28.23			-5.56	The casing and SCV gases have the same source and may be from or near the Nisku A. Their isotope fingerprint is very similar but not exactly like that of the test.
22R879425	102/09-16-040-24W4/00	SCV	Coal SCV Flow	5-Apr-22	-54.74	-47.53	-34.31						This is a shallow thermogenic gas that may come from around 200 to 300 m depth. It has not changed since previous tests.
22R879425	100/05-21-040-24W4/02	SCV	Coal SCV Flow	5-Apr-22	-56.29	-46.30	-35.91	-25.98	-22.01				This is a shallow thermogenic gas that may come from 200 to 300 m depth. It has not changed since previous tests.
22R879425	100/06-21-040-24W4/03	SCV	Coal SCV Flow	5-Apr-22	-56.46	-47.17	-34.41						This is a shallow thermogenic gas that may come from 200 to 300 m depth. It has not changed since previous tests.

22R869991	04-17-056-21W4	METER FIT 4116	Nutrien CO2 Source	11-Mar-22								-43.14	
22R869991	14-07-056-21W4	METER FIT 090 FIT 0210	NWR CO2 Source	11-Mar-22								-28.44	
22R869985	04-15-040-20W4	METER 090-FIT-100 (ENH 0202)	Combined CO2 Source	7-Mar-22	-39.92	-29.63						-28.72	Gas is CO2 with traces of deep thermogenic gas.
22R858925	100/16-02-040-24W4/00	WELLHEAD TUBING	Nisku Prod Gas	9-Feb-22	-40.18	-33.55	-28.40	-28.66	-26.08				This is a thermogenic has typical of the Nisku A.
2021													
21R831470	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	18-Nov-21	-37.89	-31.48	-28.06	-28.67	-27.16			-3.59	This is an atypical thermogenic gas from the Nisku.
21R830214	100/04-26-039-24W4/00	WELLHEAD	Nisku Prod Gas	16-Nov-21	-30.86	-30.90	-28.00					-5.38	Very poor sample, which is a remnant of a thermogenic gas.
21R823222	100/07-15-040-24W4/02	TEST METER RUN	Nisku Prod Gas	1-Nov-21	-37.92	-31.34	-27.77	-28.74	-26.99			-4.66	This is a thermogenic gas with an isotopic fingerprint indicative of the Nisku A.
21R823234	100/05-21-040-24W4/02	SCV	Coal SCV Flow	1-Nov-21	-55.29	-46.36	-36.32	-27.25					This is a shallow thermogenic gas that may come from 200 to 300 m depth.
21R823234	100/06-21-040-24W4/03	SCV	Coal SCV Flow	1-Nov-21	-55.31	-46.63	-35.87	-28.83	-31.14				This is a shallow thermogenic gas that may come from 200 to 300 m depth.
21R823234	102/09-16-040-24W4/00	SCV	Coal SCV Flow	1-Nov-21	-55.28	-47.23	-33.82						This is a shallow thermogenic gas that may come from 200 to 300 m depth. Its isotope fingerprint has not changed since it was measured in Oct. 2020 and May 2021.
21R819717	04-17-056-21W4	METER FIT 4116	Nutrien CO2 Source	25-Oct-21								-42.20	
21R819717	14-07-056-21W4	METER FIT 090 FIR 0210	NWR CO2 Source	25-Oct-21								-26.47	
21R819730	04-15-040-24W4	METER 090-FIT-100	Combined CO2 Source	25-Oct-21								-29.23	
21E792846	100/04-26-039-24W4/00	WELLHEAD	Nisku Prod Gas	27-Aug-21	-31.03	-33.08	-28.47	-28.90	-27.32			3.67	Difficult to pick source. This sample was full of air. Methane value indicates it was altered. C2+ concentrations are unusal, but the isotope ratios indicate a typical mature source.
21E792836	100/08-02-040-24W4/02	WELLHEAD	Nisku Prod Gas	26-Aug-21	-38.24	-31.55	-28.56	-30.83	-28.16			-5.66	This gas has an isotope fingerprint typical of a mature Devonian gas.
21R782729	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	4-Aug-21	-40.32	-32.84	-28.05	-28.38	-26.28			-2.61	This gas is thermogenic and has a typical isotope fingerprint of a gas from the Nisku.
21R743507	100/08-35-039-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	13-May-21	-39.36	-32.65	-28.11	-29.37	-27.04			-6.62	This is a mature thermogenic gas that may come from or near the Nisku.
21R740736	102/09-16-040-24W4/00	SCV	Coal SCV Flow	6-May-21	-56.77	-46.80	-34.40	-27.62	-20.22				This is a shallow thermogenic gas that may come from around 200 to 300 m depth. It has not changed since measured in 2020.
21R741900	100/08-02-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	4-May-21	-39.56	-32.11	-28.41	-29.38	-28.23			-5.44	This is a thermogenic gas that may come from around 1900 m depth.
21R728065	10-34-039-24W4	CMB HEADER	CBM Prod Gas	12-Apr-21	-54.92	-38.50	-28.52	-29.37	-27.98			8.26	This gas has an isotope fingerprint typical of CBM gases from that region.
21R728071	04-15-040-24W4	CBM HEADER	CBM Prod Gas	12-Apr-21	-55.80	-36.62	-28.54	-27.42	-28.52			8.63	This gas has an isotope fingerprint typical of CBM gases from that region.
21R711147	04-17-056-21W4	METER FIT 4116	Nutrien CO2 Source	17-Feb-21								-41.12	
21R711147	14-07-056-21W4	METER FIT 090 FIT 0210	NWR CO2 Source	17-Feb-21								-26.91	
21R707335	04-15-040-24W4	METER 090-FIT-100	Combined CO2 Source	17-Feb-21								-42.79	
2020													
20R650088	04-17-056-21W4	METER FIT 4116	Nutrien CO2 Source	15-Sep-20								-44.82	
20R650088	14-07-056-21W4	METER FIT 090 FIT 0210	NWR CO2 Source	15-Sep-20								-25.42	
20R667535	100/12-01-040-24W4/02	WELLHEAD TUBING	Nisku Prod Gas	23-Oct-20	-40.76	-33.72	-29.15	-29.09	-26.97	-26.81	-26.54		This gas has an isotope fingerprint typical of the Nisku in this region.
20R667535	100/04-11-040-24W4/02	WELLHEAD TUBING	Leduc Prod Gas	23-Oct-20	-40.48	-34.29	-29.04	-29.37	-27.04			-13.01	This gas has an isotope fingerprint typical of the Leduc in this region.
20R667535	100/10-35-039-24W4/02	WELLHEAD TUBING	Leduc Prod Gas	23-Oct-20	-40.17	-33.13	-28.22	-29.33	-27.59			-28.33	This gas has an isotope fingerprint typical of the Leduc in this region.
20R658420	102/09-16-040-24W4/00	SCV	Coal SCV Flow	2-Oct-20	-54.35	-47.15						-10.04	
20R619783	10-34-039-24W4	HEADER	CBM Prod Gas	2-Jul-20	-53.30	-38.00	-28.05	-30.72	-27.16			4.16	Typical CBM Gas
20R598691	10-34-039-24W4	HEADER	CBM Prod Gas	12-May-20	-55.50	-38.78	-28.11	-28.08	-29.63			-1.02	Typical CBM gas. Similar isotope fingerprint as before.
20R598691	100/01-02-040-24W5/02	WELLHEAD CASING	Nisku Prod Gas	12-May-20	-41.16	-30.67	-28.00	-27.19	-26.23			-8.40	Typical Nisku gas. Similar isotope fingerprint as before.
20R598691	100/04-26-039-24W4/00	CASING GAS	Nisku Prod Gas	12-May-20	2.18	-26.32	-26.46					-13.18	Atypical gas. Extremely low in methane concentration but contains multiple stray peaks on the gas chromatography run. Isotope data for methane is unusual but perhaps indicates some artificial alteration of the sample.
20R561525	04-26-039-24W4	HEADER	Nisku Prod Gas	13-Jan-20	-57.08	-32.44	-27.40	-26.27	-26.18			-4.46	This is a low maturity thermogenic gas, albiet a bit unusual. The C2+ values are relativey more enriched in 13C than would be indicated by the methane value. This header gas may be mixture.
2019													
19R833267	100/16-03-040-24W4/02	WELLHEAD	Leduc Prod Gas	22-Oct-19	-38.54	-32.38	-27.69	-29.80	-26.18			-1.55	This gas has a typical Leduc isotope fingerprint.
19R833267	100/04-11-040-24W4/00	WELLHEAD	Leduc Prod Gas	22-Oct-19	-32.57	-30.82	-27.36	-27.47	-26.21			-0.87	This has is a bit unusual having a 13-C enriched methane but the C2+ appears to be a typical Leduc gas.
19C523749	04-17-056-21W4	PV301	Nutrien CO2 Source	27-Sep-19								-41.89	
19C523749	04-17-056-21W4	Feed Gas	Nutrien CH4 Inlet	27-Sep-19	-44.79	-28.50	-27.07	-26.57	-25.37			-41.89	Typical Thermogenic Gas
19R520433	100/10-35-039-24W4/00	CASING GAS	Leduc Prod Gas	20-Sep-19	-39.48	-32.16	-28.69	-26.57	-27.06			0.50	This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R520433	100/01-02-040-24W5/02	CASING GAS	Nisku Prod Gas	20-Sep-19	-40.10	-32.60	-27.79	-28.86	-26.28			-0.19	This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R520433	100/12-01-040-24W4/02	CASING GAS	Nisku Prod Gas	20-Sep-19	-38.79	-32.47	-28.19	-29.97	-27.24			-0.72	This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R496905	10-34-039-24W4	HEADER	CBM Prod Gas	25-Jul-19	-58.33	-38.26	-26.79	-27.27	-27.73			5.59	This is a typical CBM gas from this region.
19R492723	100/10-35-039-24W4/00	TEST METER RUN	Leduc Prod Gas	16-Jul-19	-39.73	-31.35	-27.09	-31.31	-25.74				This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R492724	100/12-01-040-24W4/02	WELLHEAD	Nisku Prod Gas	16-Jul-19	-39.45	-31.41	-28.33	-26.17	-24.66				This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R492725	100/16-02-040-24W4/00	WELLHEAD	Nisku Prod Gas	16-Jul-19	-38.90	-31.24	-27.63	-17.05	-27.25				This gas has the typical isotope fingerprint of a Leduc or Nisku gas.
19R492726	100/01-02-040-24W5/02	TEST METER RUN	Nisku Prod Gas	16-Jul-19	-39.48	-31.42	-27.09	-29.12	-26.76				This gas has the typical isotope fingerprint of a Leduc or Nisku gas.

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Results

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IN October 15, 2023
OUT

office phon 403-299-2183
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PO#:

#	LIMs ID	SAMPLE ID	$\delta^{34}S$	%S			Comments
1	S-17141	WellHeadTubing	**15.7**	13			WO# 23R052940. 100/08-02-040-24W4/02

δ^{34}S-CDT of sulfide minerals by EA-IRMS

All results reported in the usual permil notation relative to IAEA stds

IAEA values used to normalize data

	^{34}S
IAEA S1	-0.3 (b.d.)
IAEA S2	22.7 ± 0.2
IAEA S3	-32.6 ± 0.2

Precision and accuracy as 1 sigma of (n=10) lab standards is: 0.3 for δ^{34}S

note: (b.d.) = 'by definition'

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OUT November 3, 2023

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#	LIMs ID	SAMPLE ID	$\delta^{34}S$	%S			Comments
1	S-17142	DexProDryOutlet	**15.5**	12			WO# 23R052942. 04-15-040-24W4

δ^{34}S-CDT of sulfide minerals by EA-IRMS

All results reported in the usual permil notation relative to IAEA stds

IAEA values used to normalize data

	^{34}S
IAEA S1	-0.3 (b.d.)
IAEA S2	22.7 ± 0.2
IAEA S3	-32.6 ± 0.2

Precision and accuracy as 1 sigma of (n=10) lab standards is: 0.3 for δ^{34}S

note: (b.d.) = 'by definition'

AGAT® Laboratories

Sulphur Isotope Summary

Operator: Enhance Energy

Analyst: S. Taylor

Work Order	Well Location	Description	Sample Point	Date Sampled	$\delta^{34}S_{H2S}$	wt%S
2023						
23R052940	100/08-02-040-24W4/02	Nisku Prod Gas	WELLHEAD	3-Aug-22	15.7	13.0
23R052942	04-15-040-20W4	Leduc Prod Gas	DRY CO2 DEXPRO OUTLET	3-Aug-22	15.5	12.0
2022						
22R930109	100/07-15-040-24W4/02	Nisku Prod Gas	TEST METER RUN	9-Aug-22	14.6	14.0
22R926845	04-15-040-20W4	Leduc Prod Gas	DRY CO2 DEXPRO OUTLET	3-Aug-22	15.6	13.0
22R926854	100/08-02-040-24W4/02	Nisku Prod Gas	WELLHEAD	3-Aug-22	16.0	13.0
22R926854	100/16-03-040-24W4/02	Leduc Prod Gas	TEST SEP. OIL	3-Aug-22	15.4	14.0
2021						
21R759924	04-15-040-24W4	Leduc Prod Gas	DRY CO2 DEXPRO OUTLET	13-Jul-21	17.2	9.4
21R795907	100/07-15-040-24W4/02	Nisku Prod Gas	WELLHEAD	2-Sep-21	15.6	13.5
21R795907	100/08-02-040-24W4/02	Nisku Prod Gas	WELLHEAD	2-Sep-21	15.5	14.3
21R795907	04-15-040-20W4	Leduc Prod Gas	DEXPRO DRY GAS OUTLET	2-Sep-21	15.1	13.3

INTEGRATED SUSTAINABILITY

Appendix 2: Program Methodology & Sampling Schedules

INTEGRATED SUSTAINABILITY

2023 Soil Gas Sampling Analytical Schedule

Date: May 18, 2023

Client Name: Enhance Energy Ltd. **Project Number:** CP23-EEI-01-00 **Rev:** A

Soil Probe Surface Location	Sample ID	2023 Summer Breathing Air and Extended Gas	2023 Summer d13C (UofA)	2023 Summer d14C (UofO)	2023 Summer Duplicate	2023 Summer Atmosphere	2023 Summer Atmosphere d14C (UofO)	2023 Fall Breathing Air and Composition	2023 Fall d13C (UofA)	2023 Fall d14C (UofO)	2023 Fall Duplicate	2023 Fall Atmosphere	2023 Summer Atmosphere d14C (UofO)
11-26-039-24W4	11-26-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	No
01-35-039-24W4	01-35-PP-SU-23	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No
04-01-040-24W4	04-01-PP-SU-23	No	No	No	No	No	No	Yes	Yes	Yes	No	No	No
05-36-039-24W4	05-36-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	Yes	No
14-26-039-24W4	14-26-PP-SU-23	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No	No	No
01-02-040-24W4	01-02-PP-SU-23	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No
04-02-040-24W4	04-02-PP-SU-23	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	No
04-26-039-24W4	04-26-PP-SU-23	No	No	No	No	No	No	Yes	Yes	No	Yes	No	No
04-35-039-24W4	04-35-PP-SU-23	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes	Yes
07-02-040-24W4	07-02-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	YEs	No	No	No
08-26-039-24W4	08-26-PP-SU-23	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
08-34-039-24W4 (08-24)	08-24-PP-SU-23	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
08-35-039-24W4	08-35-PP-SU-23	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	No
10-02-040-24W4	10-02-PP-SU-23	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
11-35-039-24W4	11-35-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	No
12-01-040-24W4	12-01-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	No
12-02-040-24W4	12-02-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	No
16-03-040-24W4	16-03-PP-SU-23	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No
07-10-040-24W4	07-10-PP-SU-23	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No
09-10-040-24W4	09-10-PP-SU-23	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No
03-15-040-24W4 - No Sample	03-15-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No
02-10-040-24W4	02-10-PP-SU-23	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No
16-09-040-24W4	16-09-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	No
02-23-039-24W4	02-23-PP-SU-23	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	No
12-23-039-24W4	12-23-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	No
14-23-039-24W4	14-23-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	No	No
10-22-039-24W4	10-22-PP-SU-23	Yes	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No
12-15-040-24W4	12-15-PP-SU-23	Yes	Yes	No	No	Yes	No	No	No	No	No	No	No
09-16-040-24W4 (01-16)	09-16-PP-SU-23	No	No	No	No	No	No	Yes	Yes	Yes	No	No	No
16-16-040-24W4	16-16-PP-SU-23	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	No
08-09-040-24W4	08-09-PP-SU-23	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes
08-20-040-24W4	08-20-PP-SU-23	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No
10-09-040-24W4	10-09-PP-SU-23	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No	No	No
Total		29	29	13	4	1	1	31	31	15	2	4	2

GE-SOP-0018: SOIL GAS PROBE INSTALLATION

Department/Area:	Geosciences		
Prepared By:	Joseph Cruz	**Date:**	08 June 2021
Approved By:	Ian Grant	**Date:**	16 June 2021
Date Created:	October 18, 2021	**Revision:**	B

PURPOSE OF TASK

This Standard Operating Procedure (SOP) provides guidelines for the manual installation of a soil gas probe with two methods:

- Method A - installation with an auger
- Method B - installation with a drive point hammer

Employers must ensure that workers are trained and experienced in completing this task. Soil gas probes may be installed in unconsolidated or consolidated material if the well annuls can be sealed.

Soil gas samples should not be collected if groundwater has entered the sampling equipment, as this may damage the analysis equipment and invalidate the soil gas sample collected. Therefor soil gas probes should be installed above the observed or expected static groundwater elevation. If groundwater is encountered while drilling, the probe location should be properly abandoned and an alternate location should be selected.

REQUIRED MATERIALS AND EQUIPMENT

1) Manual slide hammer for drive point piezometer
2) Drive point piezometer tip and screen
3) Riser extensions and couplings to reach the required depth of the piezometer.
   - Piezometer screens and extensions referred to as "casing"
4) ¼" Piezometer tubing (length suitable to reach the required depth and extend above ground surface). Teflon tubing suitable for soil sampling should be used. Silicon tubing should be avoided where possible.
   - Referred to as "tubing"
5) Wrench to tighten drive point piezometer, swage lock nut and bolts
6) Drive head by-pass assembly for drive point piezometer
   – Includes: drive head, drive extension and tubing by-pass
7) Piezometer drive hammer
8) ¼" Ball valve (Brass or stainless steel are suitable)
9) ¼" Swage locks (Brass or stainless steel are suitable)

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10) 10-20 filter sand
11) Bentonite chips or pellets
12) Large water container (to hydrate bentonite)
13) Helium gas with discharge fitting
14) Helium detector
15) Helium shroud
16) Dutch auger, handle, and extension
17) Shovel
18) Well Casing (Road Box)

OPTION A STANDARD WORK PROCEDURE: DUTCH AUGER

Steps to complete this task are as follows:

1) Verify all ground disturbance sweeps have been completed and verify that the ground disturbance permitting is valid for the selected drilling location. Drill only in the location identified within the ground disturbance permit.
2) The location of the soil probe will be installed where all ground disturbance specifications are met and meet all requirements (e.g. minimum distance from any pipelines in the area)
3) Place the corkscrew tip of the auger on the ground surface and press firmly on the handles.
4) While pressing down, rotate the handles in a clockwise motion.
5) Continue this until the top of the auger head is at ground surface (should have descended approximately 6")
6) Pull the auger straight up to remove soil. Replace in the borehole and continue to auger to the proposed installation depth.
7) Record the depth range and describe the soil sample as completely as possible (grain size distribution, colour, odour, oxidation/mineralization, plasticity, stiffness, etc.)
8) Drop the tape measure into the hole to verify the true depth of the hole and evaluate for sloughed material.
9) If auger refusal is reached, move over approximately 50 cm and reattempt the hole. Do not log the soil until the original depth of refusal is reached. If refusal occurs again, make a note in the field notebook (refusal may be the result of bedrock). If not, continue logging the hole (as refusal was likely the result of a large piece of gravel). At least 3 attempts should be made at each location. Confirm with project requirements if a shallower borehole is acceptable. If possible, install using the drive point hammer at the point of refusal (Option B).

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10) Measure and cut the piezometer tubing to the proposed installation depth, plus an additional 0.5 m (2 ft)
11) Loosen the compression fitting, insert the piezometer tubing with the ferrules into the drive point screen, and tighten 1/4 turn past finger tight to properly secure the tubing in the fitting.
12) Hold the tubing to prevent it from turning, slide the extensions over the tubing and tighten it firmly onto the piezometer drive point screen.
13) Slide a coupling over the tubing and tighten firmly onto the previous extension pipe and tighten, slide the next extension pipe over the tubing and tighten securely to the other end of the coupling and tighten. Repeat until the desired length has been achieved. The piezometer extension should end below ground surface so the road box may be placed over the well.
14) Place piezometer set up in the hole and hold straight, the top of the extension pipe shall be flush with the ground surface.
15) Backfill the screened portion of the drive point piezometer tip with the 10-20 filter sand at least 10 cm above the screened portion of the piezometer to facilitate unimpeded flow of soil gasses into the piezometer. The remainder of the pilot hole is to be backfilled with alternating layers of bentonite chips and 10-20 filter sand. This is to prevent short-circuiting of atmospheric air to the piezometer.
16) Continue to installation of ball valve and fittings section.

OPTION B STANDARD WORK PROCEDURE: DRIVE POINT PIEZOMETER

Steps to complete this task are as follows:

1) Verify all ground disturbance sweeps have been completed and verify that the ground disturbance permitting is valid for the selected drilling location. Drill only in the location identified within the ground disturbance permit.
2) The location of the soil probe will be installed where all ground disturbance specifications are met and meet all requirements (e.g. minimum distance from any pipelines in the area)
3) Measure and cut the piezometer tubing to the proposed installation depth, plus an additional 0.5 m (2 ft)
4) Loosen the compression fitting, insert the piezometer tubing with the ferrules into the drive point screen, and tighten 1/4 turn past finger tight to properly secure the tubing in the fitting.
5) Hold the tubing to prevent it from turning, slide the extensions over the tubing and tighten it firmly onto the piezometer drive point screen.
6) Thread the tubing through the drive head by-pass assembly and place on top screw on to the piezometer casing and tighten to finger tight.

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7) Slide the manual slide hammer over the drive head and hammer the device until approximately 15 cm (6") of the extension pipe below the tubing bypass remains above the ground.
8) Remove the hammer and remove the drive head assembly, hold the tubing to prevent it from turning.
9) Slide a coupling over the tubing and tighten firmly onto the previous extension pipe, slide the next extension pipe over the tubing and tighten securely.
10) Repeat steps 5 to 8 till the sampling depth has been reached.
11) Continue to installation of ball valve and fittings section.

INSTALLATION OF BALL VALVE AND FITTINGS

1) Wrap all threads of the fittings with Teflon tape and connect and tighten all parts of the fitting assembly, swage lock-ball valve-swage lock.
2) Loosen and remove the nut and ferrule of one end of the fitting, and slide the nut and ferrule assembly on to the sampling tube.
3) Place the sampling tube to connect to the ball valve fitting, and tighten the nut and ferrule to the fitting assembly, tighten 1-1/4 turn past finger tight.
4) The setup will be leak checked with helium gas to verify there is no short-circuiting of atmospheric air into the gas line through the fittings at surface or through the well annulus.
5) Install the service box (flush mount) over the casing and fill void spaces with native material or bentonite.
6) The brass valve assembly will remain in the well casing for protection, when placing the fitting and sampling tube within the casing, make sure the sampling tube does not get bent or kinked.
7) The casing will be labeled with the location ID and GPS coordinates recorded for future sampling.

LEAK CHECK WITH HELIUM GAS

1) The helium shroud should have at least 3 valve connections:
2) 1 connection with ¼" tubing to connect to the fitting assembly of the soil gas well
3) 1 connection open to the bucket
4) 1 connection to inject helium gas
5) All fittings should be equipped with masterflex tubing to use with the helium detector wand.
6) Loosen the nut and ferrule assembly from the fitting assembly on the outflow end of the ball valve.
7) Slide the nut and ferrule assembly to the ¼" tubing of the helium shroud, and connect to the fitting assembly, tighten 1-1/4 turn past finger tight.

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8) Open the valve and place the helium shroud over the sampling port, all fittings should be within the helium shroud. Verify all valves on the helium shroud are closed.
9) Using the helium detector measure the following parameters:
10) Measure and record the atmospheric helium values
11) Place the helium detector wand into the masterflex tubing for the connection to the soil gas well, open the valve measure and record the helium values, and close the valve.
12) Place the helium detector wand into the masterflex tubing for the connection to the bucket, open the valve measure and record the helium values, and close the valve.
13) Place the helium gas cannister discharge to the helium gas injection fitting of the helium shroud. Verify the sampling port and bucket fittings are closed, open the helium injection fitting valve and discharge helium into the fitting. A 1-2 second burst of helium is sufficient to detect a leak in the fitting. Close the valve.
14) Using the helium detector measure the following parameters:
15) Measure and record the atmospheric helium values
16) Place the helium detector wand into the masterflex tubing for the connection to the soil gas well, open the valve measure and record the helium values, and close the valve.
17) Place the helium detector wand into the masterflex tubing for the connection to the bucket, open the valve measure and record the helium values, and close the valve.
18) The helium detector should pick up values of helium in the bucket, and the readings to the soil gas well should not detect any helium.
19) If helium is detected in the soil gas well, check and re-tighten all fittings and repeat steps 1 through 7
20) If helium is detected in the soil gas well, after checking and re-tightening all fittings, the fitting assembly may be compromised, and a new fitting assembly may be required to be installed. Assemble a new fitting and re-test
21) If the helium detector does not pick up helium values from the soil gas well, but helium is detected in the bucket, the fitting assembly is deemed leak proof.
22) Remove the ¼" tubing from the fitting assembly, re-connect the nut and install a new ferrule for future sampling, and place the assembly in the well casing.
23) Place the cover on the well casing, and tighten bolts to verify the casing is sealed.

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Purpose: To provide information on standard work practices.

GE-SOP-0006: MONITORING WELL INSTALLATION

Department/Area:	Geosciences		
Prepared By:	M. Myden	**Date:**	01 Sept 2016
Approved By:	M. Myden	**Date:**	01 Sept 2016
Date Created:	01 Sept 2016	**Revision:**	0

PURPOSE OF TASK

The purpose of this procedure is to describe the methods for a groundwater monitoring well installation. It describes designs, procedures, and materials that are used to construct a monitoring well that will produce accurate groundwater level measurements and representative groundwater samples.

REQUIRED MATERIALS AND EQUIPMENT

- Monitoring well construction materials: casing, screen, sand (filter) pack and seal materials
- Measuring tape
- Water level tape
- Soil sampling equipment (see GE-SOP-0004 for further requirements)
- Sample trays or vials
- Field log book (including borehole logging forms)

STANDARD WORK PROCEDURE

Requirements for monitoring well installations are site-specific, and will depend on the soil, bedrock and groundwater conditions encountered in the field, the goals of the investigation program, and the availability and limitations of drilling equipment and installation materials.

Clients may also have monitoring well specifications that differ from the design specifications presented in this procedure. It is up to the field hydrogeologist to ensure design specifications meet both client and regulatory requirements.

Monitoring Well Design

The following are general guidelines for installation of monitoring wells that have been drilled in overburden (soils) or shallow bedrock. Before drilling begins, the conceptual well design and drilling method should be identified and reviewed by a qualified hydrogeologist to determine whether deviations from these general guidelines are appropriate.

Monitoring well design (including well depth and screen length) should be determined based on geological and hydrogeological site observation, objectives of the groundwater sampling

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program and presence of DNAPL/LNAPL. Nested monitoring wells may be installed to monitor several depth intervals within an aquifer.

Typical monitoring well designs include (but are not limited to):

- Water table wells (screened across the water table) including anticipated seasonal fluctuations.
- Well screens (up to 1.5 m in length) installed below the water table, but across, within or at the base of a water-bearing zone.

The steps involved in a monitoring well installation include:

Plan and prepare for drilling and monitoring well installation (see also GE-SOP-0006)

- Review the drilling and sampling plan, as well as any relevant information pertaining to subsurface conditions at the planned drilling locations, such as soil and groundwater conditions, type, degree and extent of contamination.
- Determine the appropriate type of drilling rig, soil sample collection and well installations.
- Plan the design of each monitoring well installation, based on the conceptual site model and objectives of the sampling/monitoring program.
- Perform ground disturbance procedures (i.e. utility locates).
- Prepare HSE Management Plan (as required) and Waste Management Plan (as required).
- Schedule and book drilling contractor. Confirm expected subsurface conditions, depths of monitoring well installations and estimated quantities/types of materials that should be brought to site, including:
  - Type and length of casing & type and length of screen
  - End-caps or j-plugs
  - Sand and sealing material
  - Cement (if required)
  - Flush-mount or stick-up protective surface completions
  - Supply of potable water (whether provided by client or by drilling contractor)

Perform ground disturbance (utility locates)

- Mark all borehole locations so that ground disturbance can be undertaken.
- Clear sub-surface and above-ground utilities (e.g. power lines) prior to starting drilling program.
- Ensure sufficient clearance between drilling mast and overhead power lines. Minimum safe work distances for each province shall be used.
- Manual (hand) or vac truck excavation may be required prior to commencing drilling.

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- If the planned borehole location(s) interferes with utilities, an alternative location should be selected and cleared.

Drill the borehole and collect/log the soil samples

- Commence drilling of the borehole. As drilling advances, samples brought to the surface should be examined, logged and representative samples collected for screening and/or laboratory analysis (as required).
- A borehole log should be filled in as completely as possible. All depths should be measured to metres below ground surface (mbgs). Information should include, but not be limited to:
  - Site identification and borehole numbers
  - Type of rig used, casing or auger diameter, bit type (if applicable) and rate of advance
  - Depth (intervals) from which samples were collected and a description of each sample (see borehole log form)
  - Moisture content of the sample immediately upon recovery
  - Any significant groundwater observation
- See also GE-SOP-0017 for additional work procedures with respect to soil drilling and sample collection.

Design the monitoring well

- Consult with a qualified hydrogeologist to determine the final design for the monitoring well, including:
  - Length of the screen interval
  - Interval of the screened section (based on borehole lithology)
  - Sand pack interval (minimum depth of sand pack)

Install the monitoring well (screen and unscreened intervals)

- The monitoring well (casing, screen and bottom cap) should be lowered into the borehole until it reaches the bottom of the borehole (at its design depth).
- Measure the height of the well casing above the ground to the nearest cm and record it in the field log book.

Note: Determine the zone with the most moisture for screen placement. Rule of thumb is to place the middle of the screen within the wettest zone. Never have a screen or sand pack cross multiple lithology units.

Note: If the borehole has sloughed in substantially, have the drill operator go back into the borehole and attempt a clean-out. If the borehole is open to the bottom, determine if the borehole needs to be backfilled to capture the screened interval. If backfilling is required, backfill with bentonite or sand. Backfill with sand if the bottom of the borehole is in the same unit as the screened interval. If the borehole needs to be backfilled

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through multiple lithologies, use bentonite. When backfilling with bentonite, stop about 0.3 m from the bottom of the desired screen depth. Use sand to backfill the final 0.3m to the bottom of the screen. This prevents damage to the screen.

Install the sand (filter) pack and annular seal materials

- Calculate the volume of sand material needed to fill the annulus to the required height.
- Ensure the monitoring well is centered in the borehole.
- Measure the depth to the bottom of the hole and record the measurement. Keep the measuring tape in the hole while adding the filter sand.
- Pour filter sand in slowly to avoid bridging the annulus until the required amount of sand has been added (approximately 0.3 to 0.5 m above the top of the screen).
- Measure and record final depth to the top of the sand pack when finished.
- The seal material should be placed in the same manner as the filter sand.
- Calculate the volume of seal material required to provide a seal length of approximately 0.6 to 1 m above the sand pack.
- Measure and record final depth to the top of the seal material when finished.

Place fill above seal (if appropriate)

- If the top of the seal does not correspond to the ground surface, the remainder of the annular space should be sealed to within 0.5 m of ground surface using either cement, a bentonite grout slurry or uncontaminated material from the site (as appropriate).

Install the surface seal and protective casing

- The upper 0.5 m of the borehole should be sealed to prevent surface water from entering the borehole.
- An appropriate surface casing (e.g. a lockable stick-up completion or flush mounted surface casing) should be installed based on site conditions.

Survey the monitoring well location.

- All monitoring wells at the site should be surveyed in to measure elevation of the ground surface and top of well casing at each well location. Well surveys should be accurate to within 0.1 cm (i.e. GPS coordinates are not accurate enough).

Troubleshooting

- Contact project manager or senior hydrogeologist if there are issues with the borehole sloughing in or the annulus bridges during well construction.

REFERENCES

USEPA, 1996. Standard Operating Procedures 2048 – Monitor Well Installation.

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Purpose: To provide information on standard operating procedure.

GE-SOP-000X: SOIL GAS SAMPLING

Department/Area:	Geosciences		
Prepared By:	Joseph Cruz	**Date:**	June 08, 2021
Approved By:	Ian Grant	**Date:**	
Date Created:	October 01, 2021	**Revision:**	B

PURPOSE OF TASK

This Standard Operating Procedure (SOP) provides guidelines for the sampling of soil gas (methane, and carbon dioxide) in-situ using a Los Gatos Ultraportable Greenhouse Gas Analyzer (GGA) and collecting samples with pre-evacuated (SUMMA) cannisters and/or Wheaton bottle samples.

REQUIRED MATERIALS AND EQUIPMENT

1) Tedlar Bags
2) Summa Cannister and/or Glass bottle samples
3) Vacuum Gauge
4) Flow Regulator
5) Los Gatos Ultraportable Greenhouse Gas Analyzer (GGA)
   - VNC application on phone or tablet to view readings
   - Connect wifi signal to GGA on tablet or phone
   - VNC application configure to connect to the GGA
6) ¼" diameter Teflon tubing
7) 9/16" and ½" wrenches
8) Chameleon fitting for Glass sample bottles
9) Chain of Custody paper work (COC)
10) Field notebook

STANDARD WORK PROCEDURE FOR SOIL GAS SAMPLING

Employers must ensure that workers are trained and experienced in completing this task. Steps to complete this task are as follows:

Soil Gas Sample Collection with Summa Cannister

1) Inspect Summa Cannister to check for mechanical integrity. Verify the vacuum in the cannister is greater than 25 in Hg with the vacuum gauges, if the cannister vacuum is less than 25 in Hg, ambient air may have leaked into the cannister, and the sample may be compromised.

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2) Confirm the Summa cannister valve is closed
3) Remove the brass cap and attach the gauge
4) Attach brass cap to the side of gauge tee fitting to ensure a closed train.
5) Open and close valve quickly (seconds) and read vacuum on the gauge. Record the initial vacuum reading and Summa cannister serial number in field notebook/notes
6) Verify the cannister valve is closed
7) Attach the ¼" Teflon tubing to the existing soil gas sampling fitting on the outlet side of the valve, the Teflon tubing should be attached to the fitting with a compression fitting and nut. The compression fitting should be tightened to the manufacturers specification (ex. 1-1/4 turn for Swagelock branded compression fittings)
8) The Teflon tubing will be connected to the GGA, and open the valve of the soil sampling fitting
9) Purge the sampler of stagnant air through the GGA. The methane and carbon dioxide concentrations will be monitored till the stable concentrations are read, typically within 1 to 3 minutes
10) Record all concentrations in the field notebook and/or field sheets
11) Once stable concentrations have been read and recorded, close the valve of the soil sampling fitting and disconnect the ¼" Teflon tubing from the GGA, and connect the tubing to the flow regulator and vacuum gauge of the Summa cannister with a compression fitting and nut. The compression fitting should be tightened to the manufacturers specification (ex. 1-1/4 turn for Swagelock branded compression fittings) The SUMMA Cannister shall remain closed.
12) If using a flow controller, set the flow controller to the specifications of the Summa cannister.
13) Open the valve from the soil gas sampling fitting
14) Open the valve to the Summa cannister to begin collecting the soil gas sample
15) Monitor the vacuum gauge on the Summa cannister, and close the valve when the gauge is reading between -5 in Hg and -3 in Hg (unless otherwise instructed by the laboratory)
16) Close the valve from the soil gas sampling fitting
17) Disconnect the ¼" tubing from the Summa cannister, and record all readings
18) Record the final vacuum of the cannister in the field notebook/notes
19) Fill out cannister sample tag and verify the sample tag matches what is recorded on the COC.
20) Return the cannister to the box and fill out the COC.
21) Repeat steps 1 through 21 if collecting additional Summa cannister samples

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22) If collecting additional samples using the glass sample bottles, continue to step 23

Soil Gas Sample Collection with Glass Sample Bottle

23) Inspect glass sample bottle and microvalve fitting to check for mechanical integrity. Verify the vacuum in the cannister is greater than 25 in Hg with the microvalve vacuum gauge, if the cannister vacuum is less than 25 in Hg, ambient air may have leaked into the cannister, and the sample may be compromised
24) Connect the female end of the microvalve vacuum gauge to the microvalve fitting on the glass sample bottle and record the initial vacuum reading and glass sample bottle serial number in the field notebook/notes.
25) Attach the ¼" Teflon tubing from the outlet end of the soil gas sampling fitting to the inlet end of the Chameleon fitting
26) Connect the female microvalve connection end of the Chameleon to the male end of the microvalve on the glass sampling bottle
27) Open the valve from the soil gas sampling fitting to begin sampling
28) Monitor the vacuum gauge on the Chameleon fitting, and disconnect the fitting when the vacuum gauge reads 0 in Hg (unless otherwise stated by the laboratory)
29) Close the valve from the soil gas sampling fitting
30) Record the final vacuum of the glass sample bottle in the field notebook/notes
31) Fill out glass sample bottle tag and verify the sample tag matches what is recorded on the COC
32) Return the glass sample bottle to the box and fill out the COC

Recording Final Gas Readings

33) Connect the ¼ tubing to the GGA to collect additional post-purge of the in-situ sampling for methane and carbon dioxide
34) Open the soil gas sampling fitting valve and record final values for methane and carbon dioxide concentrations
35) Close the soil gas sampling fitting and disconnect the ¼" tubing from the GGA
36) Disconnect the ¼" tubing and compression fitting from the soil gas sampling fitting, verify the valve has been closed and return the fitting to the manhole
37) Close up manhole, and clean up all materials from Site

TECHNICAL REFERENCES

https://www.eurofinsus.com/media/161448/guide-to-air-sampling-analysis-2014-06-27_revised-logos.pdf

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Appendix 3: Soil Gas Probe Lithology

06-08
13-05
06-05
02-05
North 3 Data
10-32
05-33
01-32
14-28
12-28
06-28
16-20
14-21
12-21
06-21
07-21
05-21
North 2 Data
13-16
16-16
09-16
12-15
03-15
16-09
09-10
07-10
08-09
02-10
North 1 Data
04-12
16-03
12-02
10-02
12-01
07-02
04-02
01-02
04-01
04-01
11-35
12-36
08-34
08-35
05-36
04-35
01-35
14-26
11-26
12-25
South Data
08-27
08-26
04-26
14-23
10-22
12-23
02-23
41-24-W4
41-23-W4
40-24-W4
40-23-W4
39-24-W4
39-23-W4
Clive
821
12

Soil Gas Probe Locations
Enhance Facility Location
Approval Area Part 1
Approval Area Part 2
North 3 Data
North 2 Data
North 1 Data
South Data
Primary Road
Secondary Road
Stream
Municipality

0 1 2
Kilometers

N

1:52,000

Coordinate System: NAD 1983 UTM Zone 12N

Grande Prairie
Fort McMurray
Edmonton
Calgary

PREPARED BY:
INTEGRATED SUSTAINABILITY

CLIENT:
enhance

ENHANCE ENERGY INC.
SOIL GAS PROBE NETWORK
LOCATIONS AND AREAS

DRAWN BY:	CHECKED BY:	APPROVED BY:
K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	1	1

NOTES: 3-APR-24
Source: Roads and Urban Areas from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams from Government of Alberta.

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41-25-W4

41-24-W4

40-25-W4

40-24-W4

39-24-W4

39-23-W4

Clive

821

12

16-09

09-10

07-10

08-09

02-10

North 1 Data

04-12

16-03

12-02

10-02

12-01

07-02

04-02

01-02

04-01

04-01

Soil Gas Probe Locations
Enhance Facility Location
Approval Area Part 1
Approval Area Part 2
North 1 Data
Primary Road
Secondary Road
Stream

0 1 2
Kilometers

N

1:50,000

Coordinate System: NAD 1983 UTM Zone 12N

Fort McMurray
Grande Prairie
Edmonton
Calgary

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INTEGRATED SUSTAINABILITY

CLIENT:
enhance

ENHANCE ENERGY INC.
SOIL GAS PROBE NETWORK
NORTH 1 AREA

DRAWN BY:	CHECKED BY:	APPROVED BY:
K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	2	1

NOTES: 3-APR-24
Source: Roads from Altalis. MMV Plan Area provided by Enhance. FWMIS Streams from Government of Alberta.

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41-25-W4
41-24-W4
41-23-W4
40-25-W4
40-24-W4
40-23-W4
39-24-W4
39-23-W4
Clive
821
12
South Data

11-35
12-36
08-34
08-35
05-36
04-35
01-35
14-26
11-26
12-25
08-27
08-26
04-26
14-23
10-22
12-23
02-23

Soil Gas Probe Locations
Enhance Facility Location
Approval Area Part 1
Approval Area Part 2
South Data
Primary Road
Secondary Road
Stream

0 1 2
Kilometers

N

1:50,000

Coordinate System: NAD 1983 UTM Zone 12N

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Grande Prairie
Edmonton
Calgary

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INTEGRATED SUSTAINABILITY

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ENHANCE ENERGY INC.
SOIL GAS PROBE NETWORK
SOUTH AREA

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K.MATEUSH	J.FENNELL	I.GRANT

PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	3	1

NOTES: 3-APR-24
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41-24-W4

40-24-W4

Clive

North 2 Data

16-20
14-21
12-21
06-21
07-21
05-21
13-16
16-16
09-16
12-15
03-15

821
12

Soil Gas Probe Locations
Enhance Facility Location
Approval Area Part 1
Approval Area Part 2
North 2 Data
Primary Road
Secondary Road
Stream
Municipality

0 1 2
Kilometers

N

1:50,000

Coordinate System: NAD 1983 UTM Zone 12N

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SOIL GAS PROBE NETWORK
NORTH 2 AREA

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PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	4	1

NOTES: 3-APR-24
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06-08
13-05
06-05
02-05
North 3 Data
10-32
05-33
01-32
14-28
12-28
06-28
Clive
41-25-W4
41-24-W4
40-25-W4
40-24-W4
39-24-W4
821
12

Soil Gas Probe Locations
Enhance Facility Location
Approval Area Part 1
Approval Area Part 2
North 3 Data
Primary Road
Secondary Road
Stream
Municipality

0 1 2
Kilometers

N

1:50,000

Coordinate System: NAD 1983 UTM Zone 12N

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SOIL GAS PROBE NETWORK
NORTH 3 AREA

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PROJECT NO.	FIGURE NO.	REVISION:
CP23-EEI-02-00	5	1

NOTES: 3-APR-24
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ATTACHMENT 2

2019-2023 SCVF Baseline Monitoring Program

Well UWI	Well Surface	Area	Well Status	Operator	TVD (m)	2019 SCVF #1			2020 SCVF #2			2020 SCVF #3			2021 SCVF #4			2021 SCVF #5			2022 SCVF #6			2022 SCVF #7			2023 SCVF #8			2023 SCVF #9		
						Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA
100/01-02-040-24W4	01-02-040-24w4	Central	Pump OIL	Enhance Enrg Inc	1,949	2019/05/12	N	2482	2020/05/12	N	1750	2020/09/29	N	63	2021/04/10	N	70	2021/09/14	N	213	2022/06/01	N	10	2022/11/01	N	50	2023/05/14	N	0	2023/10/03	N	0
100/01-03-040-24W4	06-02-040-24w4	Central	Act CO2 Inj	Enhance Enrg Inc	1,894	2019/09/21	N	1447	2020/05/09	N	0	2020/10/04	N	654	2021/04/20	N	527	2021/09/28	N	115	2022/06/24	N	141	2022/11/01	N	122	2023/06/22	N	2646	2023/10/03	N	487
100/01-27-039-24W4	15-26-039-24w4	Central	Act CO2 Inj	Enhance Enrg Inc	1,877				2020/08/21	N	553	2020/10/04	N	579	2021/04/13	N	797	2021/09/14	N	1295	2022/06/24	N	212	2022/11/14	N	159	2023/06/05	N	407	2023/10/03	N	519
100/01-32-040-24W4	01-32-040-24W4	North 3	Susp OIL	Tourmaline Oil Corp	1885													2021/11/27	N	0	2022/05/16	N	345	2022/11/02	N	312	2023/05/30	N	338	2023/10/11	N	0
100/01-34-039-24w4	15-35-039-24w4	Central	Act CO2 Inj	Enhance Enrg Inc	1,882				2020/08/21	N	565	2020/09/29	N	571	2021/04/13	N	618	2021/09/28	N	22	2022/06/24	N	75	2022/11/14	N	894	2023/06/22	N	1021	2023/10/03	N	896
100/01-35-039-24W4	01-35-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,900	2019/09/06	N	0	2020/05/09	N	0	2020/10/03	N	0	2021/04/13	N	-10	2021/09/14	N	30	2022/05/16	N	28	2022/11/08	N	0	2023/05/23	N	0	2023/10/10	N	0
100/02-05-041-24W4	02-05-041-24W4	North 3	Susp OIL	Tourmaline Oil Corp	1878													2021/11/21	N	0	2022/06/16	N	28	2022/11/08	N	0	2023/05/26	N	0	2023/10/10	N	0
100/02-08-041-24W4	02-08-041-24W4	North 3	Susp WTR Disp	Tourmaline Oil Corp	1945													2021/11/12	N	0	2022/06/16	N	56	2022/11/02	N	0	2023/05/26	N	41	2023/10/10	N	38
100/02-10-040-24W4	02-10-040-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,942	2019/08/24	N	0	2020/05/06	N	0	2020/09/29	N	0	2021/04/10	N	10	2021/09/29	N	0	2022/06/08	N	-1	2022/11/08	N	0	2023/05/16	N	0	2023/10/10	N	0
100/02-11-040-24W4	02-11-040-24w4	Central	Susp WTR Disp	Tourmaline Oil Corp	1,932	2019/08/26	N	0	2020/05/06	N	0	2020/09/29	N	123	2021/04/09	N	17	2021/09/29	N	0	2022/06/08	N	13	2022/11/24	N	-10	2023/05/31	N	117	2023/10/10	N	88
100/02-15-040-24w4	02-15-040-24w4	North 1	ABD Zn WTR Inj	Tourmaline Oil Corp	1,944							2020/10/03	N	10	2021/04/15	N	0	2021/09/29	N	0	2022/06/08	N	28	2022/11/24	N	16	2023/06/23	N	889	2023/10/31	N	861
100/02-21-040-24W4	02-21-040-24W4	North 2	Susp OIL	Tourmaline Oil Corp	1,922										2021/04/27	N	15	2021/09/29	N	15	2022/06/10	N	34	2022/11/24	N	25	2023/05/31	N	28	2023/10/10	N	26
100/02-23-039-24w4	02-23-039-24w4	South	Cased	Tourmaline Oil Corp	1,921							2020/10/04	N	6	2021/04/14	N	-3	2021/09/15	N	6	2022/05/18	N	3	2022/10/31	N	5	2023/05/15	N	0	2023/10/22	N	0
100/02-26-039-24W4	02-26-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,910	2019/09/08	N	0	2020/05/07	N	0	2020/10/01	N	7	2021/04/27	N	43	2021/09/15	N	30	2022/05/30	N	17	2022/11/24	N	22	2023/06/05	N	0	2023/10/22	N	15
100/02-28-040-24W4	02-28-040-24W4	North 3	ABD Zn WTR Inj	Tourmaline Oil Corp	1927													2021/11/12	N	0	2022/06/10	N	49	2022/11/24	N	44	2023/05/30	N	0	2023/10/22	N	0
100/03-01-040-24W4	07-35-039-24W4	Central	Flow OIL	Enhance Enrg Inc	1,872										2021/04/13	N	412	2021/09/29	N	430	2022/06/24	N	27	2022/10/27	N	126	2023/06/22	N	-35	2023/10/31	N	0
100/03-02-040-24W4	03-02-040-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,910	2019/08/27	N	N/A	2020/05/06	N	46	2020/10/01	N	61	2021/04/20	N	32	2021/09/29	N	30	2022/05/31	N	35	2022/11/09	N	45	2023/05/18	N	28	2023/10/22	N	30
100/03-15-040-24w4	03-15-040-24w4	North 1	ABD Zn	Tourmaline Oil Corp	1,950							2020/10/02	N	30	2021/04/25	N	10	2021/09/28	N	320	2022/06/09	N	280	2022/11/09	N	0	2023/06/22	N	0	2023/10/31	N	0
100/03-21-040-24W4	03-21-040-24W4	North 2	Susp OIL	Tourmaline Oil Corp	1,939										2021/04/27	N	35	2021/09/28	N	20	2022/06/13	N	45	2022/11/09	N	31	2023/05/29	N	41	2023/10/24	N	45
100/03-26-039-24W4	03-26-040-24w4	Central	Flow GAS	Ember Rsrcs Inc	1,925	2019/09/21	N	N/A	2020/05/07	N	45	2020/10/03	N	7	2021/04/14	N	41	2021/09/28	N	40	2022/05/30	N	36	2022/11/09	N	12	2023/06/05	N	179	2023/10/24	N	136
100/03-35-039-24W4	03-35-040-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,914	2019/09/06	N	0	2020/05/09	N	0	2020/09/29	N	0	2021/04/13	N	-17	2021/09/19	N	22	2022/05/16	N	0	2022/11/09	N	-6	2023/05/23	N	-28	2023/10/24	N	0
100/04-01-040-24W4	04-01-040-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,950	2019/08/27	N	0	2020/05/10	N	0	2020/10/04	N	6	2021/04/20	N	5	2021/09/15	N	0	2022/06/01	N	-21	2022/11/09	N	-8	2023/05/18	N	-41	2023/10/23	N	-35
100/04-02-040-24W4	04-02-040-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,881	2019/08/27	N	N/A	2020/05/06	N	64	2020/09/29	N	62	2021/04/20	N	50	2021/09/29	N	0	2022/05/31	N	87	2022/10/31	N	66	2023/05/18	N	76	2023/10/31	N	63
100/04-11-040-24W4	04-11-040-24w4	Central	Observation	Enhance Enrg Inc	1,900	2019/08/26	N	450	2020/05/06	N	1930	2020/10/04	N	275	2021/04/20	N	220	2021/09/14	N	242	2022/06/08	N	7	2022/10/31	N	Plug in tubing	2023/05/14	N	0	2023/10/31	N	27
100/04-12-040-24W4	04-12-040-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,950	2019/08/27	N	0	2020/05/06	N	0	2020/09/29	N	0	2021/04/08	N	0	2021/09/28	N	0	2022/06/08	N	40	2022/10/31	N	0	2023/05/18	N	0	2023/10/31	N	34
100/04-21-040-24W4	04-21-040-24W4	North 2	ABD Zn OIL	Enhance Enrg Inc	1,928										2021/04/27	N	0	2021/09/28	N	0	2022/06/13	N	0	2022/10/31	N	0	2023/05/29	N	0	2023/10/23	N	0
100/04-23-039-24w4	04-23-039-24w4	South	ABD Zn OIL	Tourmaline Oil Corp	1,938							2020/10/02	N	0	2021/04/14	N	140	2021/09/24	N	142	2022/05/30	N	99	2022/10/31	N	136	2023/05/30	N	255	2023/10/11	N	165
100/04-25-039-24W4	04-25-039-24w4	Central	Susp WTR Inj	Tourmaline Oil Corp	1,902	2019/09/08	N	N/A	2020/05/09	N	160	2020/10/01	N	280	2021/04/13	N	113	2021/09/19	N	135	2022/05/24	N	101	2022/10/31	N	140	2023/05/23	N	145	2023/10/11	N	220
100/04-26-039-24W4	04-26-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,922	2019/09/08	N	0	2020/05/09	N	0	2020/09/29	N	0	2021/04/13	N	46	2021/09/15	N	50	2022/05/17	N	89	2022/10/31	N	70	2023/05/14	N	-30	2023/11/23	N	117
100/04-28-040-24W4	04-28-040-24W4	North 3	ABD Zn OIL	Enhance Enrg Inc	1908													2021/11/21	N	0	2022/06/14	N	-11	2022/10/31	N	0	2023/05/30	N	0	2023/10/31	N	0
100/04-33-040-24W4	04-33-040-24W4	North 3	Susp OIL	Tourmaline Oil Corp	1887													2021/11/27	N	-2	2022/05/16	N	0	2022/10/31	N	0	2023/05/30	N	0	2023/10/31	N	0
100/05-01-040-24W4	04-01-040-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,868	2019/08/27	N	N/A	2020/05/10	N	22	2020/09/29	N	38	2021/04/20	N	23	2021/09/14	N	6	2022/06/01	N	20	2022/11/02	N	31	2023/05/18	N	0	2023/10/23	N	34
100/05-02-040-24W4	05-02-040-24w4	Central	ABD Zn	Tourmaline Oil Corp	1,900	2019/08/27	N	0	2020/05/09	N	0	2020/10/01	N	-56	2021/04/20	N	-20	2021/09/14	N	-60	2022/05/31	N	-57	2022/10/31	N	-44	2023/05/14	N	-63	2023/10/31	N	-34
100/05-15-040-24w4	05-15-040-24w4	North 1	ABD Zn Oil	Tourmaline Oil Corp	1,947							2020/10/03	N	7	2021/04/25	N	16	2021/09/28	N	-20	2022/06/10	N	19	2022/10/31	N	-46	2023/06/01	N	0	2023/10/23	N	0
100/05-21-040-24W4	05-21-040-24W4	North 2	Susp OIL	Tourmaline Oil Corp	1,942										2021/04/27	Y	9	2021/09/28	Y	0	2022/06/13	Y	18	2022/11/01	Y	10	2023/05/29	Y	28	2023/10/22	Y	41
100/05-23-039-24w4	05-23-039-24w4	South	Susp OIL	Tourmaline Oil Corp	1,940							2020/10/02	N	126	2021/04/14	N	92	2021/09/14	N	52	2022/05/30	N	71	2022/11/01	N	96	2023/05/30	N	137	2023/10/11	N	117
100/05-26-039-24W4	05-26-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,931	2019/09/08	N	N/A	2020/05/06	N	80	2020/09/29	N	101	2021/04/13	N	57	2021/09/29	N	44	2022/05/17	N	62	2022/11/01	N	58	2023/05/23	N	69	2023/10/11	N	34
100/05-33-040-24W4	05-33-040-24W4	North 3	Susp OIL	Tourmaline Oil Corp	1897													2021/11/27	N	2710	2022/05/16	N	2377	2022/10/31	N	60	2023/05/30	N	69	2023/10/31	N	18
100/05-36-039-24W4	05-36-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,915	2019/09/03	N	N/A	2020/05/09	N	298	2020/10/01	N	316	2021/04/13	N	292	2021/09/19	N	407	2022/05/25	N	420	2022/11/01	N	412	2023/05/25	N	379	2023/10/11	N	489
100/06-02-040-24W4	06-02-040-24w4	Central	Susp GAS	Tourmaline Oil Corp	1,924	2019/08/27	N	N/A	2020/05/07	N	0	2020/10/02	N	-16	2021/04/20	N	80	2021/09/14	N	60	2022/05/31	N	56	2022/11/01	N	57	2023/05/18	N	48	2023/10/31	N	62
100/06-05-041-24W4	06-05-041-24W4	North 3	Pump OIL	Enhance Enrg Inc	1884													2021/11/12	N	1992	2022/06/16	N	2691	2022/10/31	N	2700	2023/06/23	N	2896	2023/10/31	N	1792
100/06-08-041-24W4	06-08-041-24W4	North 3	Pump OIL	Enhance Enrg Inc	1900													2021/11/29	n	2399	2022/06/16	N	3665	2022/10/31	N	3682	2023/05/25	N	3241	2023/10/31	N	0
100/06-21-040-24W4	06-21-040-24W4	North 2	Susp OIL	Tourmaline Oil Corp	1,936										2021/04/27	Y	0	2021/09/24	Y	0	2022/06/13	Y	10	2022/11/02	Y	0	2023/05/30	Y	199	2023/10/22	Y	62
100/06-23-039-24w4	06-23-039-24w4	South	ABD Zn OIL	Tourmaline Oil Corp	1,945							2020/10/01	N	-11	2021/04/17	N	-4	2021/09/30	N	0	2022/05/18	N	1	2022/11/02	N	-7	2023/05/15	N	0	2023/10/11	N	0
100/06-26-039-24W4	06-26-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,933	2019/09/06	N	0	2020/05/08	N	0	2020/09/29	N	36	2021/04/13	N	46	2021/09/19	N	44	2022/05/17	N	51	2022/11/02	N	46	2023/05/23	N	41	2023/10/31	N	48
100/06-28-040-24W4	06-28-040-24W4	North 3	ABD Zn OIL	Tourmaline Oil Corp	1910													2021/11/21	N	0	2022/06/14	N	107	2022/11/02	N	85	2023/05/30	N	110	2023/10/31	N	89
100/06-35-039-24W4	06-35-039-24w4	Central	Susp GAS	Tourmaline Oil Corp	1,902	2019/09/06	N	N/A	2020/05/09	N	0	2020/09/29	N	0	2021/04/13	N	-17	2021/09/29	N	0	2022/05/16	N	0	2022/11/02	N	-8	2023/05/23	N	0	2023/10/31	N	0
100/07-02-040-24W4	07-02-040-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,935	2019/08/27	N	N/A	2020/05/06	N	10	2020/10/01	N	5	2021/04/20	N	0	2021/09/14	N	0	2022/05/31	N	11	2022/11/02	N	16	2023/05/18	N	0	2023/10/01	N	0
100/07-10-040-24W4	07-10-040-24W4	North 1	ABD Zn	Tourmaline Oil Corp	1,926							2020/10/04	N	0	2021/04/27	N	-15	2021/09/29	N	0	2022/06/23	N	-14	2022/11/02	N	-12	2023/05/16	N	0	2023/10/01	N	0
100/07-15-040-24w4	07-15-040-24w4	North 1	Pump Oil	Enhance Enrg Inc	1,970							2020/10/02	N	712	2021/04/25	N	800	2021/09/28	N	460	2022/06/23	N	1104	2022/10/27	N	1210	2023/06/22	N	103	2023/10/10	N	103
100/07-16-040-24W4	07-16-040-24W4	North 2	ABD Zn Oil	Tourmaline Oil Corp	1,936										2021/04/27	N	42	2021/09/28	N	40	2022/06/28	N	26	2022/10/27	N	30	2023/06/01	N	34	2023/10/10	N	55
100/07-21-040-24W4	07-21-040-24W4	North 2	Act WTR Inj	Enhance Enrg Inc	1,968										2021/04/27	N	5	2021/09/29	N	5	2022/06/10	N	2	2022/10/27	N	0	2023/05/31	N	0	2023/10/10	N	-48
100/07-26-039-24W4	07-26-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,921	2019/09/06	N	0	2020/05/06	N	0	2020/09/29	N	0	2021/04/13	N	204	2021/09/19	N	184	2022/05/17	N	205	2022/10/27	N	186	2023/05/23	N	172	Sept 30/23	N	158
100/07-34-039-24W4	02-02-040-24W4	Central	Flow OIL	Enhance Enrg Inc	1,897										2021/04/21	N	800	2021/09/28	N	140	2022/06/28	N	154	2022/11/02	N	146	2023/06/05	N	213	2023/10/01	N	262
100/07-35-039-24W4	07-35-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,900	2019/09/06	N	0	2020/05/09	N	0	2020/09/29	N	0	2021/04/13	N	170	2021/09/28	N	148	2022/05/16	N	179	2022/11/01	N	200	2023/06/22	N	159	Sept 30/23	N	144
100/08-02-040-24W4	08-02-040-24w4	Central	Pump OIL	Enhance Enrg Inc	1,965	2019/08/27	N	N/A	2020/05/12	N	5850	2020/09/29	N	6002	2021/04/10	N	6528	2021/09/14	N	6391	2022/06/01	N	6761	2022/11/01	N	6648	2023/05/14	N	6391	2023/10/01	N	6867
100/08-03-040-24W4	08-03-040-24w4	Central	Susp GAS	Tourmaline Oil Corp	1,902	2019/08/26	N	N/A	2020/05/06	N	0	2020/09/29	N	0	2021/04/21	N	0	2021/09/14	N	0	2022/05/31	N	-6	2022/10/27	N	0	2023/06/09	N	0	Sept 30/23	N	0
100/08-10-040-24W4	16-03-040-24w4	Central	Pump OIL	Enhance Enrg Inc	1,851	2019/08/26	N	0	2020/05/06	N	0	2020/09/29	N	0	2021/04/09	N	0	2021/09/14	N	0	2022/05/31	N	185	2022/11/14	N	41	2023/05/16	N	48	Sept 30/23	N	0
100/08-26-039-24W4	08-26-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,920	2019/09/08	N	N/A	2020/05/09	N	60	2020/10/01	N	22	2021/04/13	N	104	2021/09/19	N	140	2022/05/24	N	184	2022/10/27	N	177	2023/05/23	N	103	Sept 29/23	N	110
100/08-27-039-24W4	08-27-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,905	2019/09/08	N	N/A	2020/05/06	N	0	2020/09/29	N	5	2021/04/13	N	46	2021/09/15	N	56	2022/05/17	N	51	2022/10/27	N	55	2023/05/23	N	-34	Sept 29/23	N	75
100/08-34-039-24W4	08-34-039-24w4	Central	ABD Zn OIL	Enhance Enrg Inc	1,935	2019/09/08	N	N/A	2020/05/10	N	10	2020/09/29	N	5	2021/04/15	N	30	2021/09/15	N	21	2022/05/30	N	61	2022/11/02	N	16	2023/05/30	N	0	Sept 29/23	N	82
100/08-35-039-24W4	08-35-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,914	2019/09/03	N	0	2020/05/09	N	0	2020/10/04	N	0	2021/04/13	N	-12	2021/09/19	N	0	2022/05/25	N	-7	2022/11/01	N	0	2023/05/14	N	0	2023/10/10	N	0
100/09-02-040-24W4	09-02-040-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,949	2019/08/27	N	N/A	2020/05/06	N	0	2020/09/29	N	0	2021/04/21	N	-22	2021/09/28	N	0	2022/06/01	N	-17	2022/11/08	N	0	2023/05/18	N	0	2023/10/01	N	0

Well UWI	Well Surface	Area	Well Status	Operator	TVD (m)	2019 SCVF #1			2020 SCVF #2			2020 SCVF #3			2021 SCVF #4			2021 SCVF #5			2022 SCVF #6			2022 SCVF #7			2023 SCVF #8			2023 SCVF #9		
						Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA
100/09-10-040-24W4	09-10-040-24W4	North 1	ABD Zn OIL	Tourmaline Oil Corp	1,924							2020/09/29	N	0	2021/04/20	N	3	2021/09/14	N	5	2022/06/08	N	0	2022/10/28	N	131	2023/05/16	N	145	2023/10/01	N	124
100/09-16-040-24W4	09-16-040-24W4	North 2	Susp OIL	Tourmaline Oil Corp	1,949										2021/04/27	N	-80	2021/09/28	N	0	2022/06/23	N	-81	2022/11/25	N	-35	2023/05/31	N	-76	2023/10/10	N	48
100/09-26-039-24W4	09-26-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,915	2019/09/08	N	N/A	2020/05/09	N	120	2020/10/01	N	0	2021/04/13	N	30	2021/09/19	N	85	2022/05/24	N	43	2022/11/26	N	27	2023/05/23	N	34	2023/10/10	N	55
100/09-32-040-24W4	09-32-040-24W4	North 3	Susp OIL	Enhance Enrg Inc	1880													2021/11/29	N	103	2022/06/15	N	73	2022/11/26	N	220	2023/05/26	N	69	2023/10/10	N	213
100/09-35-039-24W4	09-35-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,922	2019/10/24	N	0	2020/05/10	N	0	2020/10/04	N	6	2021/04/13	N	0	2021/09/19	N	0	2022/05/26	N	45	2022/11/26	N	0	2023/05/30	N	41	Sept 30/23	N	27
100/10-02-040-24W4	10-02-040-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,922	2019/08/27	N	N/A	2020/05/06	N	0	2020/09/29	N	6	2021/04/19	N	4	2021/09/14	N	0	2022/06/01	N	14	2022/11/02	N	0	2023/05/31	N	0	2023/10/01	N	0
100/10-08-041-24W4	10-08-041-24W4	North 3	Susp WTR Disp	Tourmaline Oil Corp	1925													2021/11/27	N	0	2022/06/20	N	0	2022/10/28	N	0	2023/05/30	N	0	2023/10/10	N	0
100/10-10-040-24W4	02-10-040-24W4	Central	Susp OIL	Tourmaline Oil Corp	1,915							2020/10/03	N	0	2021/04/10	N	-20	2021/09/14	N	0	2022/06/23	N	-35	2022/11/08	N	-10	2023/05/16	N	0	2023/10/23	N	0
100/10-10-040-24W4	07-10-040-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,915	2019/08/24	N	0	2020/05/12	N	0	2020/10/03	N	0	2021/04/10	N	10	2021/09/14	N	-16	2022/06/24	N	-1	2022/11/02	N	-8						
100/10-16-040-24W4	10-16-040-24W4	North 2	ABD Zn GAS	Tourmaline Oil Corp	1,936										2021/04/27	N	0	2021/09/14	N	0	2022/06/09	N	6	2022/11/25	N	0	2023/05/31	N	0	2023/10/10	N	0
100/10-22-039-24w4	10-22-039-24w4	South	Susp WTR Inj	Tourmaline Oil Corp	1,914							2020/09/29	N	3	2021/04/14	N	770	2021/09/22	N	854	2022/05/30	N	222	2022/10/28	N	151	2023/06/23	N	703	2023/10/03	N	785
100/10-23-039-24w4	10-23-039-24w4	South	Susp OIL	Tourmaline Oil Corp	1,926							2020/10/01	N	20	2021/04/14	N	12	2021/09/22	N	22	2202/05/18	N	39	2022/11/26	N	0	2023/05/15	N	0	2023/10/01	N	0
100/10-26-039-24W4	10-26-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,908	2019/09/06	N	N/A	2020/05/06	N	35	2020/09/29	N	8	2021/04/13	N	70	2021/09/28	N	96	2022/05/16	N	55	2022/11/27	N	0	2023/05/23	N	28	2023/10/03	N	36
100/10-27-039-24W4	07-35-039-24W4	Central	Flow OIL	Enhance Enrg Inc	1,872										2021/04/13	N	490	2021/09/18	N	344	2022/06/24	N	61	2022/11/01	N	66	2023/06/22	N	76	2023/10/03	N	1216
100/10-32-040-24W4	10-32-040-24W4	North 3	Act WTR Inj	Enhance Enrg Inc	1878													2021/11/29	N	172	2022/06/16	N	211	2022/10/28	N	0	2023/05/26	N	0	2023/10/01	N	0
100/10-35-039-24W4	10-35-039-24w4	Central	Cased	Enhance Enrg Inc	1,897	2019/09/03	N	N/A				2020/10/01	N	126	2021/04/13	N	13	2021/09/19	N	62	2022/05/26	N	-78	2022/10/28	N	241	2023/06/22	N	2179	2023/10/01	N	2446
100/11-02-040-24W4	11-02-040-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,950	2019/08/27	N	N/A	2020/05/09	N	0	2020/09/29	N	6	2021/04/09	N	7	2021/09/18	N	0	2022/05/31	N	29	2022/11/12	N	0	2023/05/25	N	0	2023/10/01	N	0
100/11-05-041-24W4	11-05-041-24W4	North 3	ABD Zn OIL	Enhance Enrg Inc	1885													2021/11/27	N	0	2022/06/16	N	-15	2022/10/28	N	0	2023/05/26	N	0	2023/10/01	N	0
100/11-08-041-24W4	11-08-041-24W4	North 3	Susp OIL	Tourmaline Oil Corp	1907													2021/11/27	M	-34	2022/06/20	N	-35	2022/10/28	N	0	2023/05/30	N	0	2023/10/01	N	0
100/11-10-040-24W4	11-10-040-24w4	North 1	ABD Gas	Tourmaline Oil Corp	1,988							2020/10/02	N	6	2021/04/21	N	7	2021/09/14	N	0	2022/06/08	N	-9	2022/11/14	N	0	2023/05/16	N	0	2023/10/01	N	0
100/11-21-040-24W4	11-21-040-24W4	North 2	Pump OIL	Enhance Enrg Inc	1,929										2021/04/27	N	4500	2021/09/14	N	4805	2022/06/13	N	5201	2022/10/30	N	5253	2023/05/29	N	0	2023/10/10	N	0
100/11-25-039-24W4	02-26-039-24w4	South	Spud	Enhance Enrg Inc	1,891										2021/04/13	N	0	2021/09/20	N	348	2022/06/24	N	499	2022/11/24	N	446	2023/06/05	N	416	2023/10/02	N	662
100/11-26-039-24W4	11-26-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,935	2019/09/06	N	0	2020/05/10	N	0	2020/10/04	N	7	2021/04/13	N	5	2021/09/28	N	0	2022/05/16	N	62	2022/11/26	N	34	2023/05/23	N	55	2023/10/03	N	61
100/11-35-039-24W4	11-35-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,902	2019/09/03	N	N/A	2020/05/10	N	40	2020/10/02	N	35	2021/04/13	N	30	2021/09/20	N	34	2022/05/26	N	43	2022/10/28	N	27	2023/05/30	N	41	2023/10/03	N	44
100/11-36-039-24W4	04-01-040-24W4	Central	Susp OIL	Tourmaline Oil Corp	1,869	2019/08/27	N	N/A	2020/05/10	N	280	2020/09/29	N	220	2021/04/09	N	525	2021/09/18	N	282	2022/06/24	N	302	2022/11/02	N	285	2023/06/24	N	282	2023/10/03	N	312
100/12-01-040-24W4	12-01-040-24W4	Central	Pump OIL	Enhance Enrg Inc	1,951	2019/08/27	N	N/A	2020/05/10	N	900	2020/09/29	N	560	2021/04/08	N	745	2021/09/18	N	579	2022/06/01	N	647	2022/11/08	N	3183	2023/05/14	N	592	2023/10/10	N	587
100/12-02-040-24W4	12-02-040-24W4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,890	2019/08/27	N	N/A	2020/05/12	N	0	2020/09/29	N	8	2021/04/20	N	180	2021/09/18	N	151	2022/05/31	N	162	2022/11/12	N	0	2023/05/25	N	145	2023/10/03	N	162
100/12-08-041-24W4	11-08-041-24W4	North 3	Susp OIL	Tourmaline Oil Corp	1923													2021/11/27	N	48	2022/06/21	N	69	2022/10/28	N	48	2023/05/25	N	55	2023/10/10	N	58
100/12-15-040-24W4	12-15-040-24W4	North 2	Susp OIL	Tourmaline Oil Corp	1,936										2021/04/28	N	110	2021/09/28	N	96	2022/06/10	N	88	2022/11/25	N	62	2023/06/01	N	62	2023/10/10	N	63
100/12-21-040-24W4	12-21-040-24W4	North 2	Susp OIL	Tourmaline Oil Corp	1,939										2021/04/27	N	43	2021/09/14	N	27	2022/06/13	N	46	2022/11/14	N	0	2023/05/29	N	0	2023/10/10	N	0
100/12-23-039-24w4	12-23-039-24w4	South	ABD Zn OIL	Tourmaline Oil Corp	1,938							2020/10/02	N	23	2021/04/14	N	12	2021/09/19	N	0	2022/05/30	N	16	2022/11/12	N	0	2023/05/15	N	0	2023/10/03	N	0
100/12-25-039-24W4	12-25-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,882	2019/09/03	N	0	2020/05/09	N	0	2020/10/01	N	3	2021/04/13	N	150	2021/11/29	N	0	2022/05/24	N	71	2022/11/27	N	27	2023/05/23	N	55	2023/10/10	N	43
100/12-28-040-24W4	12-28-040-24W4	North 3	ABD Zn OIL	Tourmaline Oil Corp	1894													2021/09/28	N	75	2022/06/12	N	12	2022/11/26	N	0	2023/05/30	N	0	2023/10/10	N	0
100/12-33-040-24W4	12-33-040-24W4	North 3	Pump OIL	Enhance Enrg Inc	1875													2021/11/27	N	634	2022/06/15	N	343	2022/11/26	N	2413	2023/05/30	N	2468	2023/10/10	N	2308
100/12-35-039-24W4	12-35-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,890	2019/09/03	N	0	2020/05/10	N	0	2020/10/01	N	5	2021/04/13	N	-13	2021/09/20	N	0	2022/05/26	N	28	2022/11/28	N	34	2023/05/30	N	55	2023/10/03	N	46
100/12-36-039-24W4	12-36-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,910	2019/09/03	N	0	2020/05/10	N	0	2020/10/04	N	3	2021/04/13	N	0	2021/09/28	N	-27	2022/05/31	N	-5	2022/11/27	N	0	2023/05/18	N	0	2023/10/03	N	0
100/13-02-040-24W4	13-02-040-24W4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,930	2019/08/28	N	0	2020/05/06	N	0	2020/09/29	N	3	2021/04/20	N	102	2021/09/20	N	96	2022/06/24	N	99	2022/11/08	N	68	2023/05/16	N	90	2023/10/24	N	76
100/13-05-041-24W4	06-08-041-24W4	North 3	ABD Zn OIL	Tourmaline Oil Corp	1878													2021/11/29	N	0	2022/06/16	N	-1	2022/10/31	N	0	2023/05/26	N	48	2023/11/02	N	0
100/13-10-040-24w4	13-10-040-24w4	North 1	ABD Zn OIL	Tourmaline Oil Corp	1,937							2020/10/02	N	-5	2021/04/28	N	6	2021/09/28	N	0	2022/06/09	N	1	2022/11/25	N	0	2023/05/16	N	0	2023/10/31	N	0
100/13-16-040-24W4	13-16-040-24W4	North 2	ABD Zn OIL	Tourmaline Oil Corp	1,966										2021/04/27	N	-8	2021/09/14	N	0	2022/06/13	N	-7	2022/11/29	N	0	2023/05/29	N	0	2023/10/13	N	0
100/13-21-040-24W4	13-21-040-24W4	North 2	ABD Zn OIL	Enhance Enrg Inc	1,932										2021/04/27	N	208	2021/09/14	N	248	2022/06/13	N	56	2022/11/14	N	199	2023/05/29	N	220	2023/11/01	N	124
100/13-23-039-24W4	13-23-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,945	2019/09/08	N	N/A	2020/05/06	N	0	2020/10/04	N	22	2021/04/14	N	10	2021/09/19	N	55	2022/05/30	N	56	2022/11/12	N	34	2023/05/15	N	48	2023/10/24	N	34
100/13-25-039-24W4	13-25-039-24w4	Central	Cased	Tourmaline Oil Corp	1,893	2019/09/03	N	N/A	2020/05/09	N	20	2020/10/04	N	22	2021/04/13	N	1617	2021/09/19	N	1599	2022/05/24	N	1063	2022/11/26	N	1613	2023/05/25	N	1641	2023/10/24	N	1628
100/13-28-040-24W4	13-28-040-24W4	North 3	ABD Zn OIL	Tourmaline Oil Corp	1905													2021/11/29	N	0	2022/06/12	N	-4	2022/11/26	N	0	2023/05/30	N	0	2023/11/01	N	0
100/14-01-040-24W4	02-02-040-24W4	Central	Flow OIL	Enhance Enrg Inc	1,896										2021/04/21	N	0	2021/09/18	N	96	2022/06/28	N	387	2022/11/08	N	106	2023/06/05	N	-41	2023/11/01	N	0
100/14-02-040-24W4	14-02-040-24W4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,960	2019/08/28	N	0	2020/05/06	N	0	2020/09/29	N	0	2021/04/10	N	-70	2021/09/20	N	-82	2022/06/08	N	-50	2022/11/08	N	-82	2023/05/31	N	-83	2023/10/24	N	151
100/14-05-041-24W4	13-05-041-24W4	North 3	Susp OIL	Tourmaline Oil Corp	1891													2021/11/12	N	0	2022/06/20	N	42	2022/11/26	N	0	2023/05/26	N	28	2023/11/02	N	340
100/14-10-040-24w4	14-10-040-24w4	North 1	Cased	Tourmaline Oil Corp	1,944							2020/10/02	N	-5	2021/04/25	N	77	2021/09/28	N	-75	2022/06/09	N	-78	2022/10/30	N	-82	2023/06/23	N	-55	2023/11/01	N	48
100/14-21-040-24W4	14-21-040-24W4	North 2	Pump OIL	Enhance Enrg Inc	1,929										2021/04/27	N	2067	2021/09/14	N	2013	2022/06/14	N	2077	2022/11/14	N	137	2023/05/29	N	234	2023/10/31	N	262
100/14-28-040-24W4	14-28-040-24W4	North 3	Susp WTR Inj	Tourmaline Oil Corp	1937													2021/11/29	N	0	2022/06/12	N	15	2022/11/26	N	0	2023/05/30	N	0	2023/11/01	N	0
100/14-35-039-24W4	14-35-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,859	2019/09/03	N	0	2020/05/10	N	0	2020/09/29	N	0	2021/04/13	N	-22	2021/09/20	N	0	2022/05/26	N	-20	2022/11/28	N	0	2023/05/30	N	0	2023/10/24	N	-8
100/15-02-040-24W4	15-02-040-24W4	Central	Susp OIL	Tourmaline Oil Corp	1,942	2019/08/27	N	N/A	2020/05/06	N	0	2020/09/29	N	23	2021/04/09	N	85	2021/09/20	N	75	2022/06/01	N	72	2022/11/08	N	27	2023/05/31	N	62	2023/10/24	N	42
100/15-16-040-24W4	15-16-040-24W4	North 2	Act WTR Disp	Enhance Enrg Inc	1,940										2021/04/27	N	587	2021/09/14	N	268	2022/06/13	N	201	2022/10/29	N	117	2023/05/31	N	76	2023/10/31	N	1200
100/15-21-040-24W4	15-21-040-24W4	North 2	ABD Zn OIL	Enhance Enrg Inc	1,921										2021/04/27	N	-84	2021/09/14	N	-89	2022/06/10	N	-83	2022/11/25	N	-75	2023/06/09	N	0	2023/11/01	N	41
100/15-26-039-24W4	15-26-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,902	2019/09/06	N	0	2020/05/06	N	0	2020/09/29	N	0	2021/04/13	N	-9	2021/09/28	N	0	2022/05/16	N	0	2022/11/25	N	-5	2023/06/05	N	-27	2023/10/24	N	-4
100/15-35-039-24W4	15-35-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,910	2019/09/03	N	0	2020/05/10	N	0	2020/10/02	N	7	2021/04/13	N	0	2021/09/18	N	-27	2022/05/26	N	-10	2022/10/28	N	0	2023/05/30	N	0	2023/10/24	N	0
100/16-02-040-24W4	16-02-040-24W4	Central	Observation	Enhance Enrg Inc	1,970	2019/08/27	N	N/A	2020/05/09	N	70	2020/10/01	N	520	2021/04/13	N	372	2021/09/18	N	351	2022/06/01	N	351	2022/11/08	N	405	2023/05/18	N	262	2023/10/24	N	234
100/16-03-040-24W4	16-03-040-24w4	Central	Pump OIL	Enhance Enrg Inc	1,906	2019/08/26	N	220	2020/05/10	N	1550	2020/09/29	N	0	2021/04/20	N	2500	2021/09/18	N	1530	2022/05/31	N	2200	2022/11/14	N	6800	2023/06/22	N	1724	2023/11/01	N	4200
100/16-09-040-24W4	16-09-040-24W4	North 1	Act WTR Inj	Enhance Enrg Inc	1,943							2020/10/03	N	0	2021/04/13	N	1953	2021/09/14	N	2295	2022/06/09	N	-27	2022/11/28	N	565	2023/05/15	N	848	2023/10/31	N	1055
100/16-16-040-24W4	16-16-040-24W4	North 2	Susp OIL	Tourmaline Oil Corp	1,938										2021/04/27	N	-18	2021/09/14	N	0	2022/06/09	N	-1	2022/10/27	N	34	2023/05/31	N	41	2023/10/31	N	35
100/16-20-040-24W4	16-20-040-24W4	North 2	Susp WTR Inj	Tourmaline Oil Corp	1,904										2021/04/28	N	50	2021/09/14	N	89	2022/05/16	N	117	2022/11/14	N	68	2023/05/29	N	34	2023/11/01	N	35
100/16-23-039-24W4	16-23-039-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,920	2019/09/21	N	0	2020/05/06	N	0	2020/10/01	N	0	2021/04/14	N	-7	2021/09/19	N	0	2022/05/24	N	-6	2022/11/27	N	0	2023/05/15	N	0	2023/10/24	N	0
100/16-26-039-24W4	16-26-039-24w4	Central	Susp GAS	Ember Rsrcs Inc	1,879	2019/09/21	N	N/A	2020/05/09	N	1585	2020/10/04	N	0	2021/04/14	N	1626	2021/09/19	N	1599	2022/05/24	N	1646	2022/11/27	N	1620	2023/06/05	N	1647	2023/09/29	N	1654

Well UWI	Well Surface	Area	Well Status	Operator	TVD (m)	2019 SCVF #1			2020 SCVF #2			2020 SCVF #3			2021 SCVF #4			2021 SCVF #5			2022 SCVF #6			2022 SCVF #7			2023 SCVF #8			2023 SCVF #9		
						Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA	Date Tested	Flow Y/N	Casing Pressure KPA
100/16-27-039-24W4	16-27-039-24w4	Central	Susp WTR Disp	Tourmaline Oil Corp	1,908	2019/09/08	N	0	2020/05/09	N	0	2020/09/29	N	0	2021/04/14	N	0	2021/09/28	N	0	2022/05/30	N	-5	2022/11/27	N	0	2023/05/23	N	0	2023/09/29	N	0
100/16-32-040-24W4	16-32-040-24W4	North 3	Act WTR Disp	Enhance Enrg Inc	1889													2021/11/29	N	199	2022/06/16	N	369	2022/11/28	N	0	2023/05/26	N	213.7	2023/10/01	N	110
100/16-34-039-24W4	16-34-039-24w4	Central	Flow GAS	Ember Rsrcs Inc	1,896	2019/09/21	N	0	2020/05/10	N	1600	2020/10/04	N	0	2021/04/15	N	1400	2021/09/19	N	1338	2022/05/26	N	129	2022/11/28	N	278	2023/06/24	N	74	2023/10/02	N	83
100/16-35-039-24W4	16-35-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,940	2019/09/03	N	0	2020/05/10	N	0	2020/10/01	N	0	2021/04/13	N	hg valve no	2021/09/20	N	0	2022/05/26	N	11	2022/11/14	N	0	2023/05/30	N	0	2023/10/02	N	0
102/01-16-040-24w4	09-16-040-24w4	North 1	Susp Oil	Tourmaline Oil Corp	1,920							2020/10/03	N	3	2021/04/20	N	-83	2021/09/14	N	0	2022/06/09	N	-72	2022/11/25	N	-75	2023/05/12	N	0	2023/10/03	N	0
102/01-32-040-24W4	08-32-040-24W4	North 3	Pump OIL	Enhance Enrg Inc	1817													2021/11/29	N	317	2022/05/15	N	293	2022/11/02	N	312	2023/06/09	N	0	2023/10/02	N	0
102/02-02-040-24W4	02-02-040-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,907	2019/08/27	N	N/A	2020/05/06	N	0	2020/10/03	N	5	2021/04/28	N	30	2021/09/18	N	0	2022/06/28	N	29	2022/11/08	N	0	2023/06/05	N	0	2023/10/02	N	52
102/02-22-039-24W4	02-26-039-24w4	South	Spud	Enhance Enrg Inc	1,891										2021/04/27	N	0	2021/09/20	N	723	2022/06/24	N	498	2022/11/24	N	308	2023/06/05	N	417	2023/10/01	N	527
102/02-35-039-24W4	02-35-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,884	2019/09/06	N	0	2020/05/09	N	0	2020/10/04	N	0	2021/04/13	N	-8	2021/09/19	N	0	2022/06/24	N	0	2022/11/01	N	-6	2023/05/23	N	28	2023/10/11	N	27
102/03-15-040-24w4	04-15-040-24w4	North 1	ABD Zn OIL	Tourmaline Oil Corp	1,919							2020/10/04	N	61	2021/04/15	N	127	2021/09/14	N	117	2022/06/10	N	143	2022/10/31	N	126	2023/06/01	N	110	2023/10/03	N	0
102/03-28-040-24W4		North 3	Pump OIL	Enhance Enrg Inc	1920													2021/11/21	N	1303	2022/06/23	N	1374	2022/11/14	N	1247	2023/05/30	N	1337	2023/10/10	N	1337
102/05-33-040-24W4	05-33-040-24W4	North 3	Pump OIL	Enhance Enrg Inc	1885													2021/11/27	N	2716	2022/06/20	N	3036	2022/10/31	N	2700	2023/05/30	N	2827	2023/10/01	N	2957
102/06-01-040-24w4	15-35-039-24w4	Central	Act CO2 Inj	Enhance Enrg Inc	1,882				2020/08/21	N	680	2020/10/04	N	709	2021/04/13	N	607	2021/09/19	N	-27	2022/06/24	N	791	2022/10/28	N	960	2023/06/22	N	524	2023/10/02	N	426
102/06-23-039-24w4	11-23-039-24w4	South	ABD	Tourmaline Oil Corp	1,890							2020/10/04	N	6	2021/04/13	N	-4	2021/09/19	N	0	2022/05/18	N	-24	2022/11/02	N	-34	2023/05/15	N	0	2023/10/01	N	0
102/08-10-040-24W4	12-11-040-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,910	2019/08/26	N	0	2020/05/06	N	0	2020/10/02	N	-2	2021/04/20	N	89	2021/09/19	N	96	2022/06/08	N	64	2022/10/30	N	55	2023/06/09	N	48	2023/10/10	N	0
102/09-10-040-24W4	16-03-040-24w4	Central	ABD Zn OIL	Tourmaline Oil Corp	1,885	2019/08/24	N	0	2020/05/06	N	0	2020/10/02	N	0	2021/04/20	N	-8	2021/09/18	N	0	2022/05/31	N	-8	2022/11/26	N	0	2023/05/16	N	0	2023/10/10	N	0
102/09-16-040-24w4	08-16-040-24w4	North 1	ABD Zn OIL	Tourmaline Oil Corp	1,879							2020/10/03	Y	-18	2021/04/20	Y	-20	2021/09/14	Y	0	2022/06/28	Y	0	2022/10/27	Y	0	2023/06/01	Y	0	2023/10/03	Y	0
102/10-10-040-24W4	07-10-040-24w4	North 1	ABD Zn OIL	Tourmaline Oil Corp	1,944							2020/10/02	N	7	2021/04/20	N	-9	2021/09/28	N	0	2022/06/23	N	-6	2022/11/02	N	-10	2023/05/16	N	0	2023/10/10	N	0
102/11-26-039-24W4	14-26-039-24w4	Central	Susp OIL	Tourmaline Oil Corp	1,867	2019/09/06	N	0	2020/05/10	N	0	2020/09/29	N	12	2021/04/14	N	12	2021/09/28	N	117	2022/06/24	N	117	2022/10/27	N	89	2023/05/23	N	103	2023/10/14	N	82
102/11-36-39-24W4	15-26-039-24w4	Central	Act CO2 Inj	Enhance Enrg Inc	1,879				2020/08/21	N	585	2020/09/29	N	590	2021/04/13	N	446	2021/09/28	N	649	2022/06/24	N	520	2022/11/14	N	552	2023/06/05	N	587	2023/10/14	N	704
102/12-08-041-24W4	11-08-041-24W4	North 3	ABD Zn OIL	Tourmaline Oil Corp	1907													2021/11/27	N	0	2022/06/22	N	-3	2022/10/28	N	0	2023/05/25	N	0	2023/10/02	N	0
103/06-02-040-24W4	06-02-040-24w4	Central	Act WTR Inj	Enhance Enrg Inc	2,097	2019/09/21	N	0	2020/05/07	N	0	2020/10/02	N	0	2021/04/20	N	-78	2021/09/18	N	1086	2022/06/24	N	761	2022/10/29	N	0	2023/06/22	N	0	2023/10/11	N	0
103/16-02-040-24W4	6-02-040-24w4	Central	Act CO2 Inj	Enhance Enrg Inc	1,896	2019/09/21	N	0	2020/05/10	N	1713	2020/09/29	N	0	2021/04/20	N	522	2021/09/18	N	635	2022/06/24	N	304	2022/11/14	N	27	2023/06/26	N	86	2023/10/11	N	12
1S0/03-26-039-24W4	14-23-039-24w4	South	Susp OIL	Tourmaline Oil Corp	1,882	2019/09/03	N	0	2020/05/10	N	0	2020/10/04	N	8	2021/04/14	N	45	2021/09/28	N	34	2022/05/18	N	41	2022/11/02	N	0	2023/05/15	N	0	2023/10/01	N	27

ATTACHMENT 3

Innisfail-Clive-Nevis Reef Chain Revisit Tsang Springer May (13-10-1983)

PETROLEUM SOCIETY OF CIM PAPER NO. 83-34-24

THIS IS A PREPRINT — SUBJECT TO CORRECTION

INNISFAIL-CLIVE-NEVIS REEF CHAIN REVISIT

by
G. Tsang, S.J. Springer
Gulf Canada Resources Inc.

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THIS PAPER IS TO BE PRESENTED AT THE 34th ANNUAL TECHNICAL MEETING OF THE PETROLEUM SOCIETY OF CIM HELD JOINTLY WITH THE CANADIAN ASSOCIATION OF DRILLING ENGINEERS IN BANFF, MAY 10 - 13, 1983. DISCUSSION OF THIS PAPER IS INVITED. SUCH DISCUSSION MAY BE PRESENTED AT THE TECHNICAL MEETING AND WILL BE CONSIDERED FOR PUBLICATION IN CIM JOURNALS IF FILED IN WRITING WITH THE TECHNICAL PROGRAM CHAIRMAN PRIOR TO THE CONCLUSION OF THE MEETING.

ABSTRACT

Several pools in the Bashaw-Duhamel Reef Complex had experienced water efflux caused by high withdrawals from the Nevis Devonian gas pool. This water efflux phenomenon created an additional unknown for the detailed study of an individual pool. A 3-dimensional, 3-phase, unsteady-state, black oil numerical simulator was used to simulate the aquifer water movements caused by the production of hydrocarbons from various parts of the reef complex. A lumped model was utilized to investigate the pressure interference among the pools and to estimate quantitatively the historical water influx/efflux rates in the various pools. The model was also used to predict the future water influx/efflux rates for the various pools under different Nevis production scenarios. These estimates of water influx/efflux rates were then used as input to the detailed study of the individual pool.

INTRODUCTION

The Innisfail-Clive-Nevis Reef Chain, more commonly known as the Bashaw-Duhamel Reef Complex, is situated in south central Alberta. This Upper Devonian Leduc reef complex extends from Township 45, Range 20W4M southwesterly to Township 27, Range 3W5M for a distance of about 200 km. The major pools in the reef complex include the Duhamel D-3B, New Norway D-3, Malmo D-3A, Malmo D-3B, Bashaw D-3A, Clive D-3, Nevis Devonian, Buffalo Lake D-3, Erskine D-3, Wimborne D-3, Lone Pine Creek D-3, and Innisfail D-3. The locations of these pools are shown in Figure 1.

Pressure interference among pools in the reef complex had been documented as early as 1966.[1] In 1971, a depletion study on the Bashaw D-3A oil pool[2] led to the observation that pressure interference had been experienced in the Bashaw D-3A pool due to large withdrawals from the Nevis Devonian gas pool. In 1974, an interference study[3] was conducted on the reef complex after water injection projects failed to maintain the pressure of the Clive D-2 and D-3 units. Recent detailed studies of the Clive D-2 and D-3 units necessitated an update of the 1974 study. This 1974 interference study and the 1982 update constitute the subject of this paper.

In this study, a commercially available 3-dimensional, 3-phase, unsteady-state, black oil numerical simulator was used to

investigate the pressure interferences and the movements of aquifer water among the major pools in the reef complex. A lumped model was constructed to simulate the various major pools and the aquifer. The production and pressure performances of the various pools were history-matched. After history match was achieved, estimates of water influx/efflux rates in the various pools were obtained. The model was also used to predict future water influx/efflux rates for the pools in the reef complex.

GEOLOGY

The Bashaw-Duhamel Reef Complex is founded on a platform of fragmental limestone of the Cooking Lake formation as shown in Figure 2. Slight topographic highs on the platform, possibly caused by localized shoaling, provided focal points for the Leduc D-3 reef growth. The underlying Cooking Lake platform likely provides the common connection for the D-3 pools in the reef complex. The Leduc formation is a biohermal dolomite, medium to coarse crystalline with large vugs. Porosity is apparently well developed within the reef buildup facies, particularly throughout the reef rim.

The Leduc D-3 reef is overlain by the impermeable limy green shale of the Ireton formation. The Ireton formation between the Leduc D-3 and Nisku D-2 zones varies from a thickness of 150 m off the reef edge to only a metre. In the Nevis field the Ireton formation disappears completely in various high locations on the D-3 reef, leaving the Nisku D-2 gas in direct communication with the underlying Leduc D-3 pay zone. A similar circumstance is suspected in the Alix area, which may result in communication between the Clive and Alix D-2 pools and the Leduc reef complex.

The Nisku D-2 formation is a dolomitized biostrome reef draped over the underlying Ireton formation and Leduc reef mass. The hydrocarbon pay zones are comprised of fine to medium crystalline facies, with minor anhydrite and shaly bands. The better porosity development is coincident with the underlying Leduc D-3 reef rim areas, and hydrocarbon accumulations occur in those instances where a trap is formed.

DEVELOPMENT HISTORY

Development of the northern part of the Bashaw-Duhamel Reef Complex began in 1950 with the discovery of the Duhamel D-3 pool. A period of intensive exploratory drilling followed, resulting in the discovery of the Clive, New Norway and Bashaw fields in 1951; the Nevis Devonian gas pool in 1952; and the Erskine D-3 pool in 1953. Exploration during the following two years did not yield significant discoveries.

Development of the southern portion of the reef complex began in 1956 with the discovery of the Wimborne D-3 pool and continued into 1957, when the Innisfail D-3 pool was discovered. Significant discoveries within the reef complex since 1957 include the Malmo D-3B gas pool in 1959, the Buffalo Lake D-3 oil pool in 1961; and the Lone Pine Creek D-3 pool in 1963.

The years 1963-1968 were a period of intensive pool development, yielding significant additions to the productive area of the Bashaw field in 1963-1965; the Nevis field in 1966-1967, the Clive field in 1966-1968; and the Wimborne field in 1965.

Large-scale hydrocarbon withdrawals from the reef complex began with the deliveries from the Nevis Devonian gas pool to TransCanada Pipelines in late 1959, at which time most of the oil pools were either at the early stages of development or were restricted by gas-oil ratio penalties. Such penalties were largely relieved in late 1960 by the completion of Innisfail gas conservation facility and in 1965, by the advent of concurrent production from the Wimborne D-3 pool. Aside from the Nevis Devonian gas pool, no significant increase in hydrocarbon withdrawal rate was initiated in the northern part of the reef complex until the expansion of the Clive D-2 and D-3 pools in 1966-1968. Additional increase in reservoir voidage rate occurred in the Nevis Devonian gas pool in 1969, as a result of the revision of the contract demand factor from 1:100 000 to 1:80 000.

In 1970, water injection pressure maintenance projects were implemented in the Clive D-2 and D-3 units, however, the water injection failed to maintain the pressure in either unit despite of reservoir voidage replacement ratios in excess of 1.5. In order to characterize the aquifer properties which had resulted in the pressure behaviours of the Clive D-2 and D-3 units, the Innisfail-Clive-Nevis Interference study was conducted in 1974.

PRESSURE HISTORIES

The poor performances of the Clive D-2 and D-3 water injection projects led to several conclusions. Firstly, the injected water was being fed into a regional aquifer; secondly, water efflux was taking place in the Clive D-2 and D-3 aquifers; and thirdly, whatever caused the water efflux in the Clive D-2 aquifer also caused the water efflux in the Clive D-3 aquifer. The last conclusion also implies that the Clive D-2 aquifer is in communication with the Clive D-3 aquifer despite of the fact that the Nisku D-2 formation is separated from the Leduc D-3 formation by the impermeable Ireton shale.

An examination of the producing pools in the vicinity of the Clive field would indicate that the Nevis Devonian gas pool is

the most likely cause of the water efflux problem from Clive because of the large reservoir withdrawal rate of Nevis. Table 1 lists the cumulative productions to 1981-12-31 of the various pools in the reef complex, and it shows Nevis is clearly the leader in term of reservoir voidage.

The Nevis Devonian gas pool also provides a logical explanation to the pressure communication between the Clive D-2 unit and the Leduc reef complex since the Ireton shale is missing in part of the Nevis field.

Figure 3 is a plot of the initial pressures versus datum depths for the major pools in the reef complex. The plot suggests a common pressure system and, hence, a common aquifer for the pools. The slope of the straight line fitted through the data has a value of 10.95 kPa/m which matches the density of formation water samples taken from the pools.

Average pressures for the major pools in the reef complex, as recorded over the past twenty years, were corrected to a common datum of 881 m subsea and plotted in Figure 4. The plot illustrates that the pressure trends of the various pools are very similar. With the exceptions of Erskine D-3 and Wimborne D-3, the pressure versus time plots are within a narrow band. This suggests that there may be a correlation among the pressure histories of the various pools.

MODEL DESCRIPTION

The original 1974 study was conducted with a simulator which had been specifically modified for the study. However, the 1982 update was conducted with a different simulator because the simulator used for the original study was no longer supported by the software company. During the process of converting the model from the original simulator to the new simulator, the model was modified and streamlined but the reservoir characterization and description were still based on the original study.

Due to dimension limitation of the simulator, some of the smaller pools like Chigwell D-3 and Wood River D-3 were excluded from the model, and some of the pools were grouped together. In the model, the Duhamel D-3, New Norway D-3 and Malmo D-3 were combined to form a composite pool; Bashaw D-3B was combined with Bashaw D-3A; and Buffalo Lake D-3 was combined with Erskine D-3.

A 19x14x3 grid network was used for the model. The grid along with the locations of the various pools are shown in Figure 5. The top two layers are made up of empty cells except at places where pools are located. The active cells in the top and middle layers represent the gas cap and oil zone of the corresponding pool respectively. The bottom layer represents the aquifer and its outline is shown in Figure 5.

The actual thicknesses of the gas caps and oil zones of various pools were assigned to the corresponding grid cells in the top two layers. A constant thickness of 213 m was assumed for the entire bottom aquifer layer. The elevation of each grid cell in the bottom layer was determined from the structure map (Figure 6).

For the sake of simplicity, the Clive D-2 and Alix D-2 reservoir cells were connected to the main aquifer directly instead of having a separate aquifer layer for them and providing a connection between the two aquifers.

HISTORY MATCHING

Production data from ERCB records were input into the model to obtain the proper production histories. The pressure performances of the various pools were matched by adjusting the input parameters of the model.

With the exception of Erskine and Wimborne, the pressure histories of the other pools were quite readily matched indicating the initial reservoir characterization are reasonably well.

In order to obtain a pressure history match for Erskine, a transmissibility barrier was required between Erskine and the main body of the reef complex, which suggested that there is very little or no communication between the Erskine D-3 pool and the reef complex.

The pressure history of the Wimborne D-3 pool was matched by reducing the initial gas cap gas-in-place of the pool. This suggested that the initial gas cap gas-in-place carried by the ERCB might be too high.

The pressure matches obtained for Clive D-2 and Alix D-2 lent some support to the hypothesis that the Nisku D-2 aquifers of those two pools are in hydraulic communication with the Leduc-Cooking Lake aquifer.

The volume of water-in-place for the reef complex was estimated to be $43 \times 10^9 m^3$.

PREDICTION CASES

After history match was obtained, the model was used to forecast the water influx/efflux rates for the major pools in the reef complex. All the pools, except the Nevis Devonian gas pool, were assumed to continue the current production trends. Three prediction cases were obtained based on three different future

depletion scenarios for the Nevis Devonian gas pool.

In the base case, the depletion of the Nevis Devonian gas pool was assumed to be completed in ten years. In the alternate case 1, the depletion was assumed to be completed in five years. In alternate case 2, Nevis was assumed to be shut-in from July 1982.

Results of the three prediction cases are presented graphically in Figures 7a and 7b. A discussion of the results will be presented in the next section.

DISCUSSION OF RESULTS

Figures 7a and 7b show the water influx profiles obtained from the model for the major pools in the reef complex. It should be noted that the plotted water influx rates were normalized rates. The normalized rate was determined by dividing the absolute influx rate by the water volume within the control region for which the rate was calculated.

Some qualitative conclusions can be drawn from the water influx profiles. In the northern part of the reef complex, Nevis Devonian gas pool is the only pool which has experienced water influx in the past, while all the other pools have experienced water efflux. This substantiates the argument that Nevis Devonian gas pool has caused water efflux from other pools in the northern part of the reef complex.

In the southern part of the reef complex, no water efflux have been experienced by the Innisfail D-3 and Wimborne D-3 pools in the past, and the different Nevis production scenarios do not have any significant effect on their future influx profiles.

The profile for the Clive D-2 pool shows that the water efflux problem in the pool is reversed in 1982. However, for the Clive D-3 pool, the reversal takes place at a later date. The profile for the Clive D-3 pool indicates that the influx will start in 1991 for the base case, in 1987 for the alternate case 1, and in 1983 for the alternate case 2.

The calculated water influx/efflux profiles for the Clive D-2 and D-3 pools were used in the detailed simulation studies of those two pools. The data facilitated the history matching processes of the two studies and provided some guidelines pertaining to the future behaviours of the aquifers.

CONCLUSIONS

The following conclusions can be drawn from the study:

1. The water efflux problems experienced by pools in the northern part of the Bashaw-Duhamel Reef Complex are caused by large withdrawals from the Nevis Devonian gas pool.

2. The Alix D-2 and Clive D-2 pools are in hydraulic communication with the Leduc-Cooking Lake aquifer.

3. There is very little or no pressure communication between the Erskine D-3 pool and the main Bashaw-Duhamel Reef Complex.

4. The initial gas cap gas-in-place for the Wimborne D-3 pool as carried by the ERCB may be too high.

5. The water influx/efflux data obtained in this study are useful for detailed study of individual pool in the reef complex.

ACKNOWLEDGMENTS

The authors thank the management of Gulf Canada Resources Inc. for permission to present this paper.

REFERENCES

1. Paxman, D.S. and Havlena, D. : "Effects of Hydrodynamic Pressure Interference on Reservoir Performance, Buffalo Lake D-3 Pool," J. Pet. Tech. (Jan. 1966) 23-30.

2. Gulf Oil Canada Ltd. : "Bashaw D-3A Pool Depletion Study," (May, 1971) submitted to the Alberta Energy Resources Conservation Board.

3. Lee, P. and Randall, T.E. : "Innisfail-Clive-Nevis Reef Chain Interference Study," (July 1974) submitted to the Alberta Energy Resources Conservation Board.

TABLE 1

CUMULATIVE PRODUCTION AND RESERVOIR VOIDAGE TO 1981-12-31

Pool	Cum. Oil Prod. (E+03 M3)	Cum. Gas Prod. (E+06 M3)	Cumulative Reservoir Voidage (E+03 Res. M3)
Nevis Devonian	--	19 187	109 366
Wimborne D-3	1 877	6 011	27 320
Innisfail D-3	9 873	2 705	18 628
Clive D-3	3 956	771	5 734
Lone Pine Creek D-3	29	1 202	5 649
Erskine D-3	3 297	413	4 020
Clive D-2	1 826	490	2 647
Buffalo Lake D-3	605	52	729
Bashaw D-3A	347	163	518
Alix D-2	332	77	468

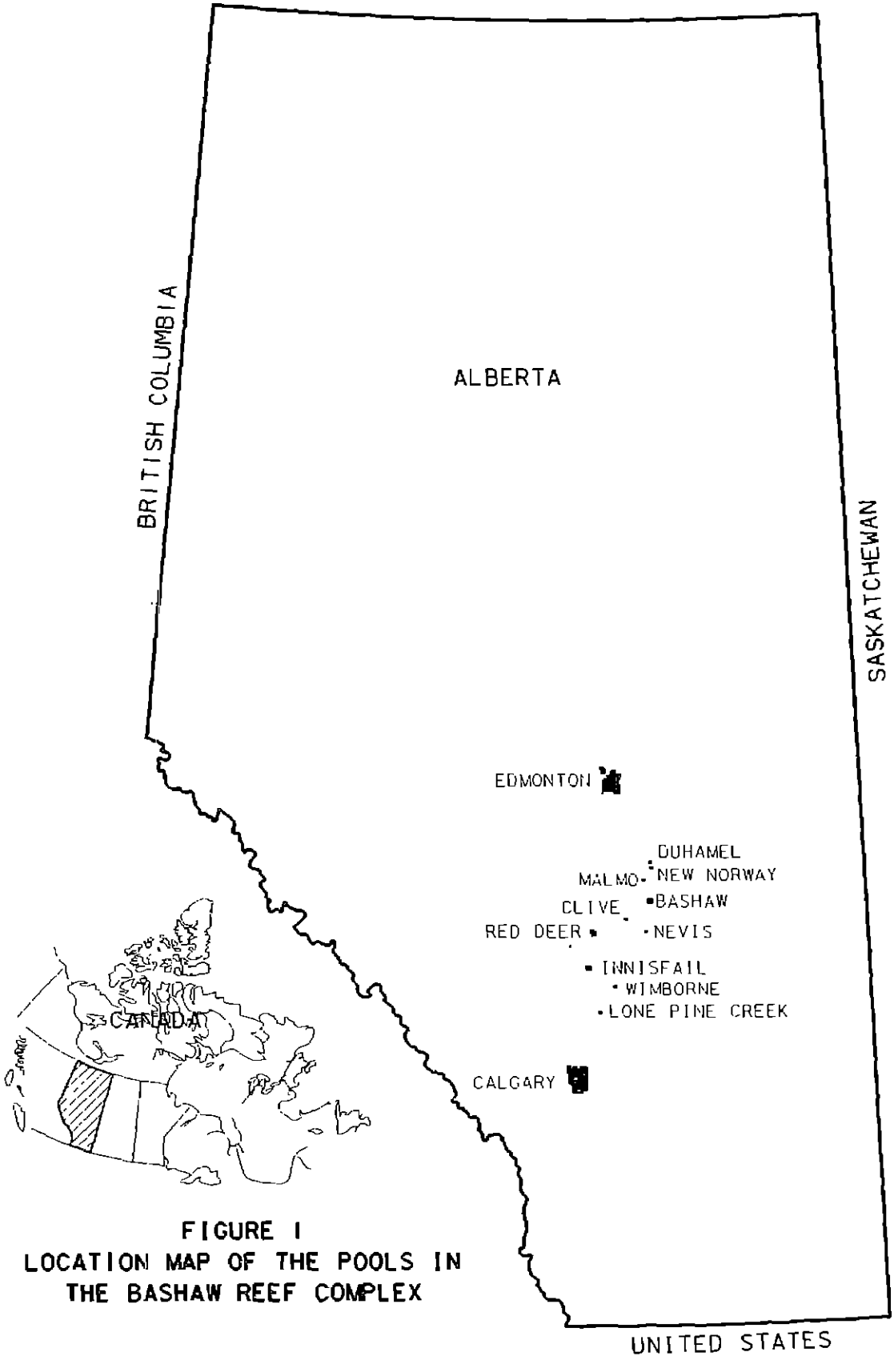
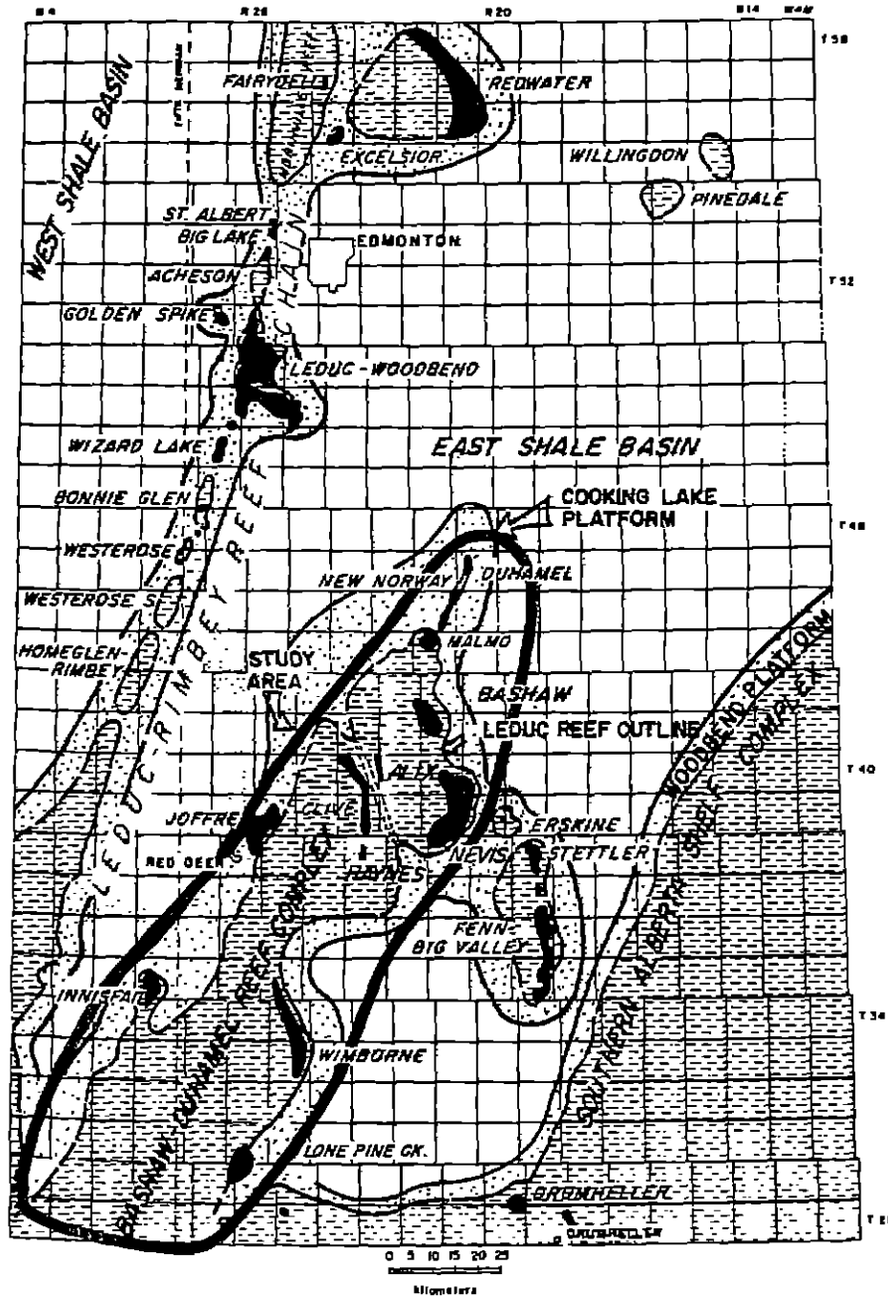


FIGURE 1
LOCATION MAP OF THE POOLS IN THE BASHAW REEF COMPLEX



LEGEND

FIGURE 2

LOCATION MAP AND GEOLOGIC SETTING FOR
THE INNISFAIL – CLIVE – NEVIS REEF CHAIN STUDY

PRODUCING UPPER DEVONIAN FIELD

STUDY AREA

REEF CARBONATES

PLATFORM CARBONATES

SHALE BASIN

BY: C.F.K.

DATE: MAY, 1982

FILE NO. P-82272

FIGURE 3
INITIAL RESERVOIR PRESSURE VERSUS DATUM DEPTH PLOT FOR POOLS IN THE BASHAW - DUHAMEL REEF COMPLEX

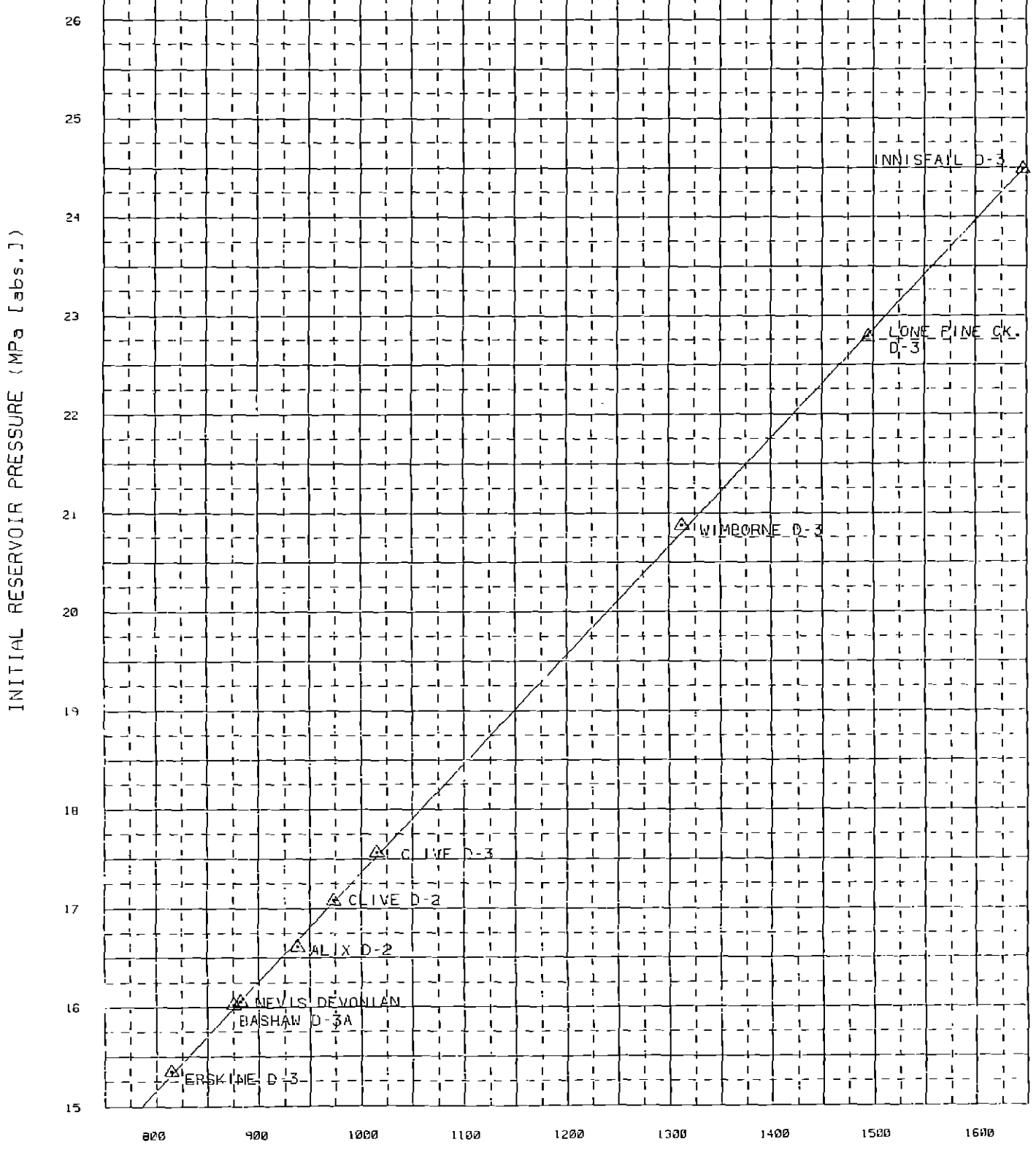
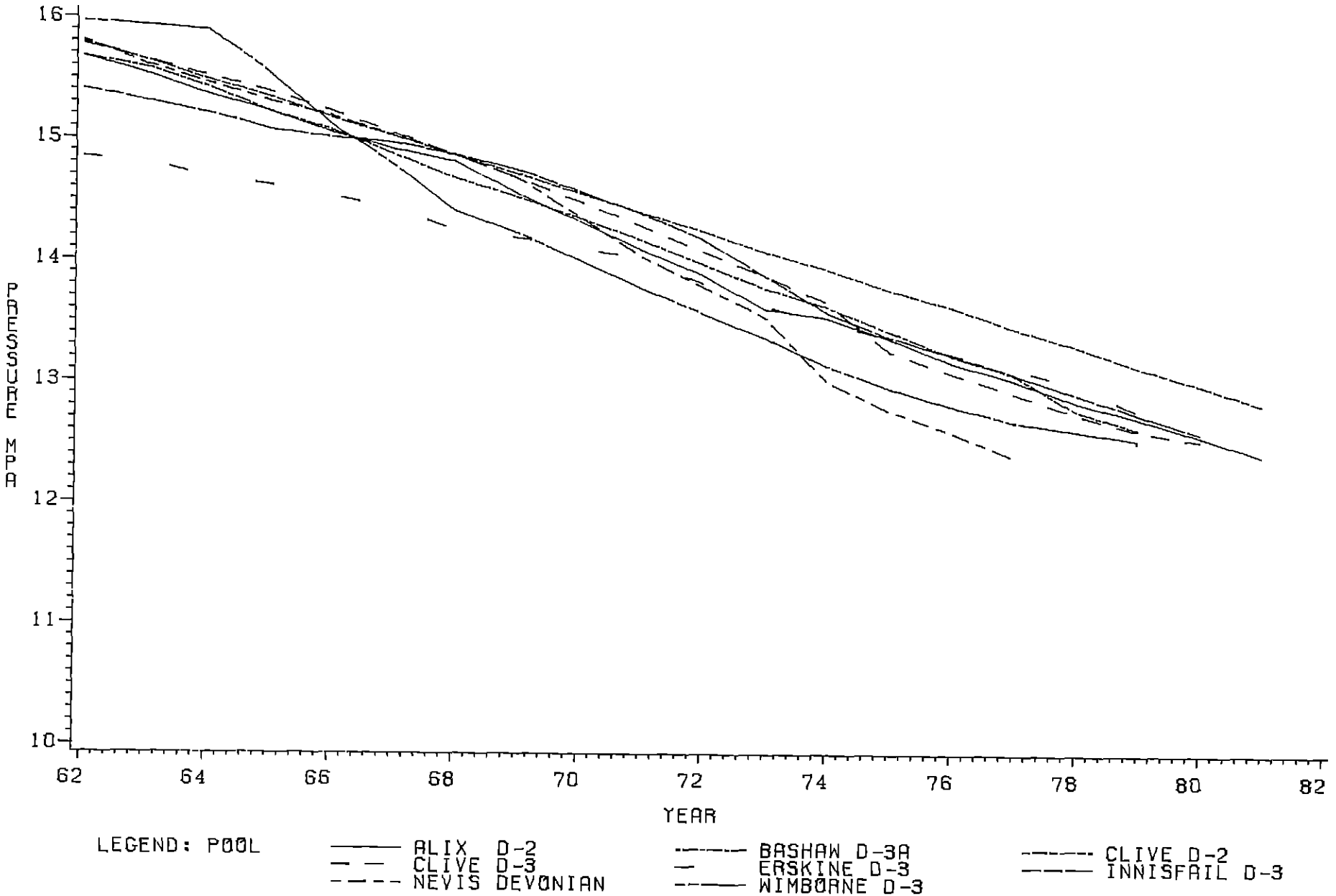
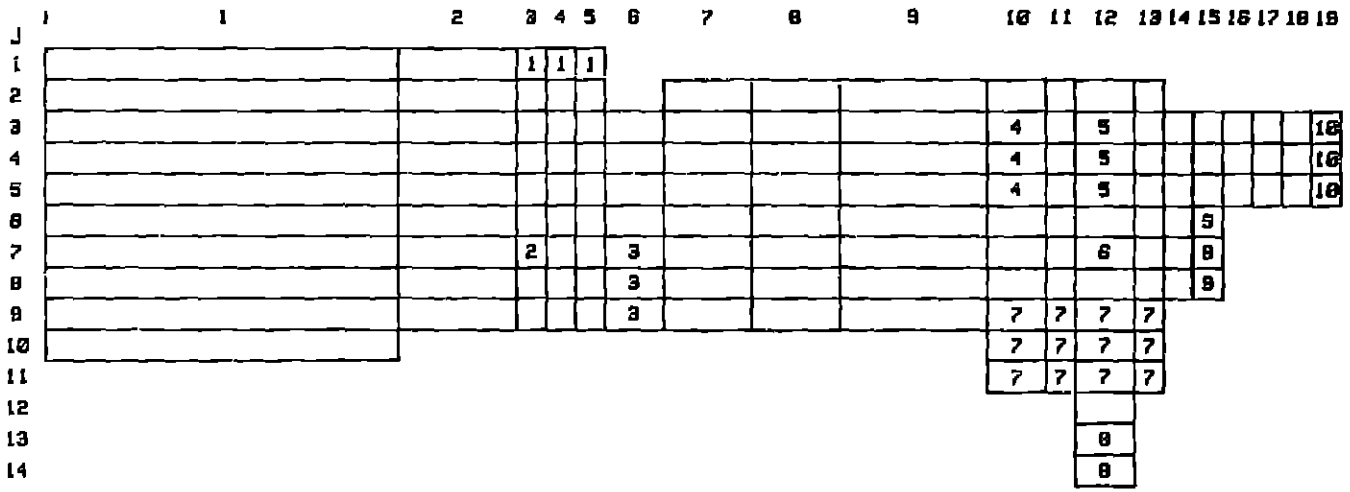


FIGURE 4 : PRESSURE HISTORY OF THE POOLS IN BASHAW–DUHAMEL REEF COMPLEX



PRESSURE CORRECTED TO 881 METRE SUBSEA

FIGURE 5 Innisfail-Clive-Nevis Reef Chain Study
Locations of Pools in the Model Grid



LEGEND	
1 Innisfail D-3	6 Alix D-2
2 Lone Pine Creek D-3	7 Nevis Devonian
3 Wimborne D-3	8 Erskine D-3
4 Clive D-3	9 Bashaw D-3
5 Clive D-2	10 Duhamel, New Norway, Malmo D-3 Combined

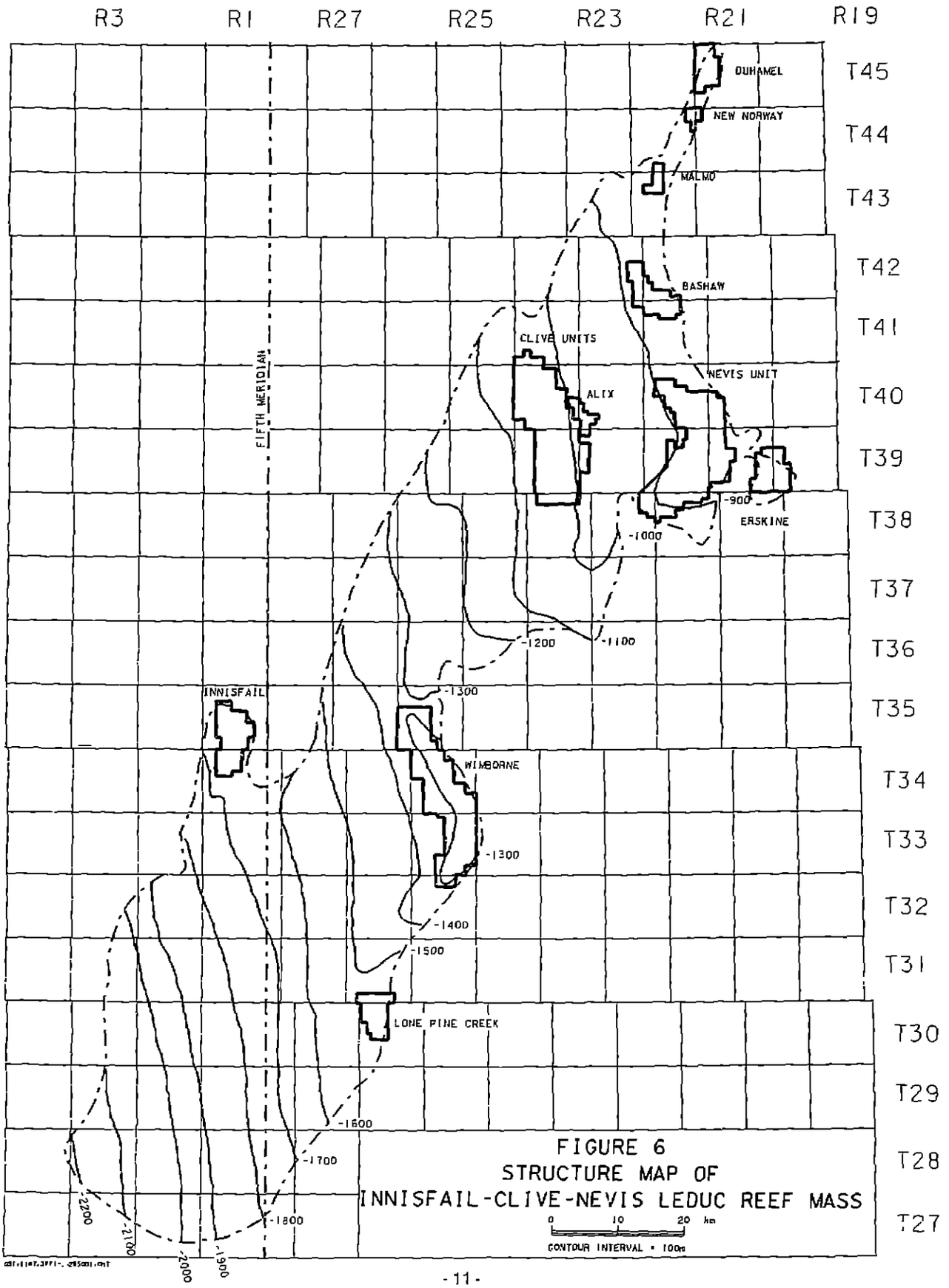
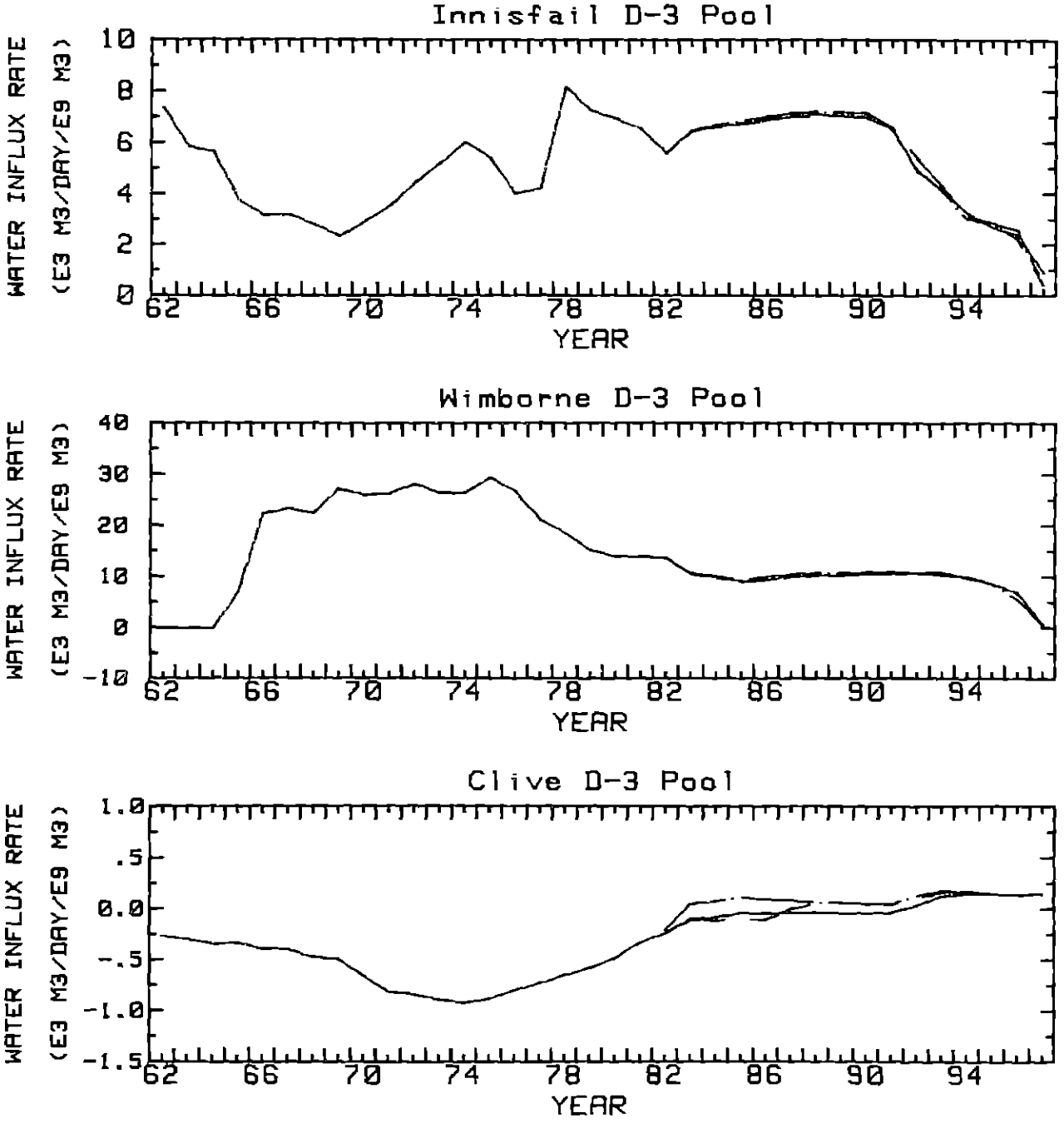


FIGURE 6
STRUCTURE MAP OF
INNISFAIL-CLIVE-NEVIS LEDUC REEF MASS

FIGURE 7a Innisfail-Clive-Nevis Reef Chain Study
Water Influx Profiles



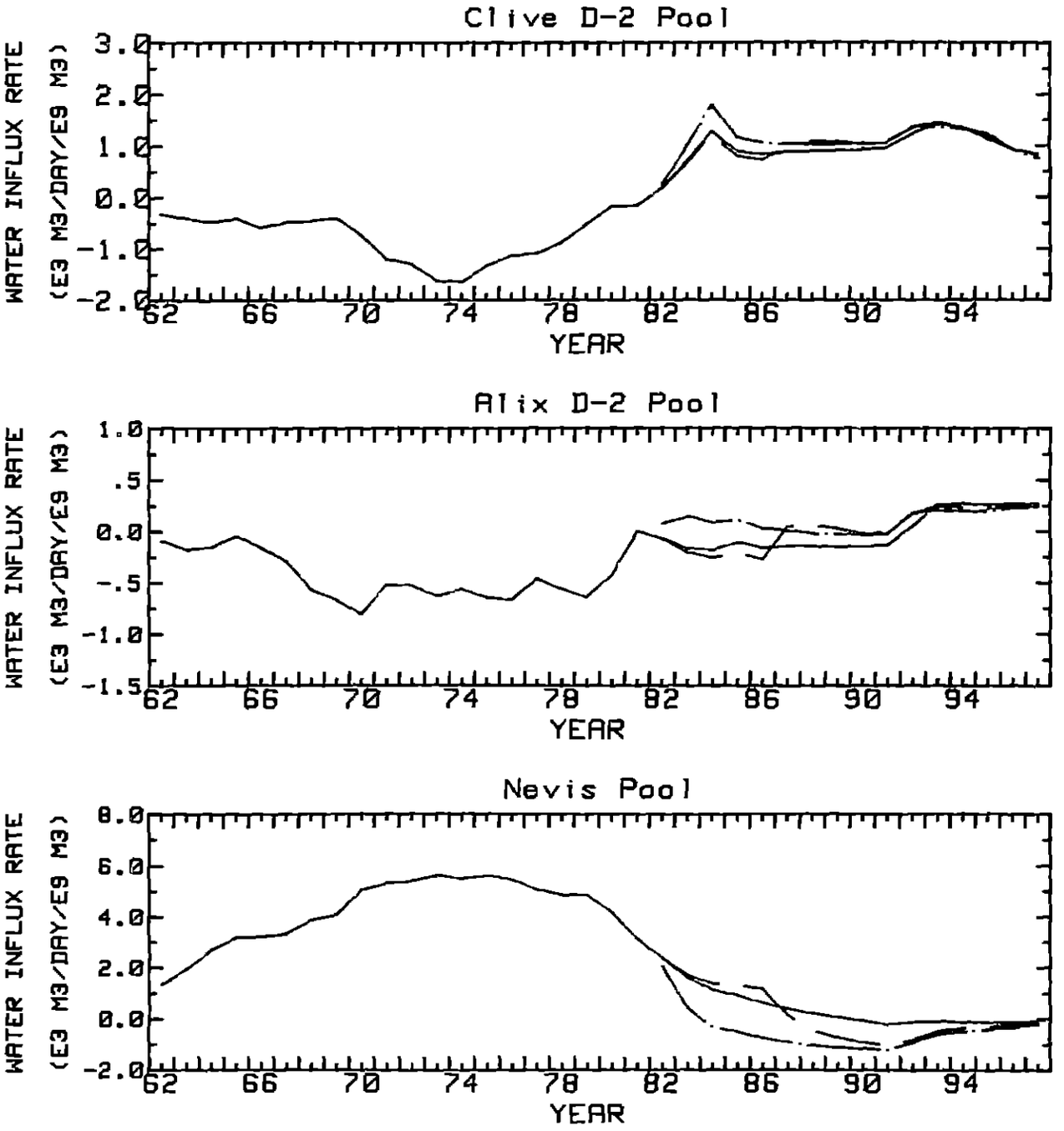
LEGEND

———————— Base Case: Deplete Nevis in ten years

—— —— . Case 1: Deplete Nevis in five years

——.——.— Case 2: Shut in Nevis from 1982-87

FIGURE 7b Innisfail-Clive-Nevis Reef Chain Study
Water Influx Profiles



LEGEND

———— Base Case: Deplete Nevis in ten years

— — — Case 1: Deplete Nevis in five years

—·—·— Case 2: Shut in Nevis from 1982-07

ATTACHMENT 4

Pressure Surveys

RELIANCE
OILFIELD SERVICES

Test Type Static Gradient

Company Name	**Enhance Energy Inc.**
Well Name	**Enhance Energy Clive 4-11-40-24W4**
Unique Well ID	**100/04-11-040-24W4/0**
Well License Number	**0027600**
Formation	**Leduc**
Start Test Date	**2023/09/29**
Final Test Date	**2023/09/29**

Prepared By	**Kennason Tech Services Inc.**
Qualified By	**Cory Strang**
Report Date	**2023/10/02**

Reliance OFS Canada Limited
2500 333 - 7th Ave SW
Calgary AB T2P 2Z1
403-475-1229
relianceofs.com

RELIANCE OILFIELD SERVICES

Pressure Survey Report

Static Gradient

Company Name Enhance Energy Inc.
Contact Kevin Meyer

Representative Russ Guenther

General Information

Well Name	Enhance Energy Clive 4-11-40-24W4	KB Elevation (SL)	879.30 m
Unique Well ID	100/04-11-040-24W4/0	CF Elevation (SL)	875.10 m
Surface Location	04-11-040-24W4	GL Elevation (SL)	875.10 m
Well License Number	0027600	KB-CF Offset	4.20 m
Well Type	Vertical	KB-GL Offset	4.20 m

Wellbore Information

Tubing OD	60.3 mm	Casing OD	139.7 mm
Tubing ID	50.7 mm	Casing ID	125.7 mm
Tubing Depth(Log KB)	1886.90000 m	Casing Depth(Log KB)	1899.00000 m
Tubing Depth(TVD KB)	1886.90000 m	Casing Depth(TVD KB)	1899.00000 m
Packer Depth(Log KB)	1881.48000 m	PBTD(Log KB)	1899.00 m
Packer Depth(TVD KB)	1881.48000 m	PBTD(TVD KB)	1899.00 m

Gross Completion Interval (GCI) as tested:

Top(Log KB)	1890.30 m	Top(TVD KB)	1890.30 m	Formation Name	Leduc
Bottom(Log KB)	1892.70 m	Bottom(TVD KB)	1892.70 m	Pool	
MPP(Log KB)	1891.50 m	MPP(TVD KB)	1891.50 m		

Test Information

Test Type	Static Gradient	Date/Time Gauge on Bottom	2023/09/29 12:31:45
Well Fluid Type	01 Oil	Date/Time Gauge Off Bottom	2023/09/29 14:31:45
Test Purpose	Annual Pressure	Time/Date Well Shut-In	2022/10/20 08:00:00
		Shut-In Duration	8259.4347 h

Surface Pressures:

Tubing Pressure Initial	8288.00 kPa(a)	Casing Pressure Initial	kPa(a)
Tubing Pressure: Final	8336.00 kPa(a)	Casing Pressure: Final	kPa(a)

Test Results

Gauge Serial Number Used in Summary	80803		Run Depth (Log KB)	1891.50	m
Calculated Pressure Corrected to MPP	13313.70	kPa(a)	Run Depth (TVD KB)	1891.50	m
Reservoir Temperature	64.08	°C	Pressure at Stop Depth	13313.70	kPa(a)
Liquid Level(TVD KB)	1517.86	m	Temperature at Run Depth	64.1	°C

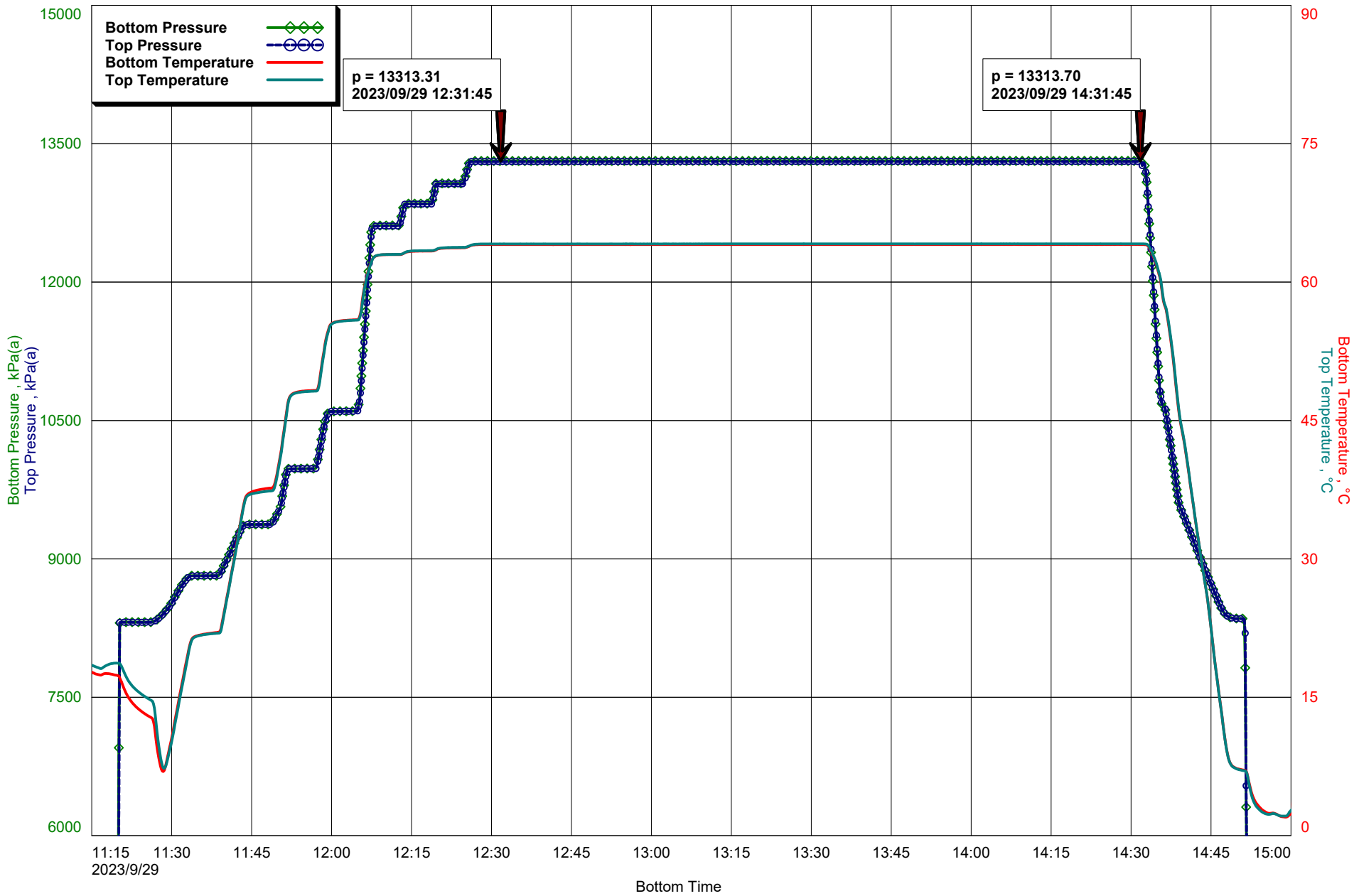
Test Remarks:

The Shut in date/time was not provided - defaulted to the shut in from the previous test.
The casing valves were not accessible to take deadweight pressures.

Enhance Energy Inc.
100/04-11-040-24W4/0
Start Test Date: 2023/09/29
Final Test Date: 2023/09/29

Enhance Energy Clive 4-11-40-24W4
Formation: Leduc

Static Gradient Plot



Static Gradient 2023/09/29

Company Name Enhance Energy Inc.

Well Name Enhance Energy Clive 4-11-40-24W4

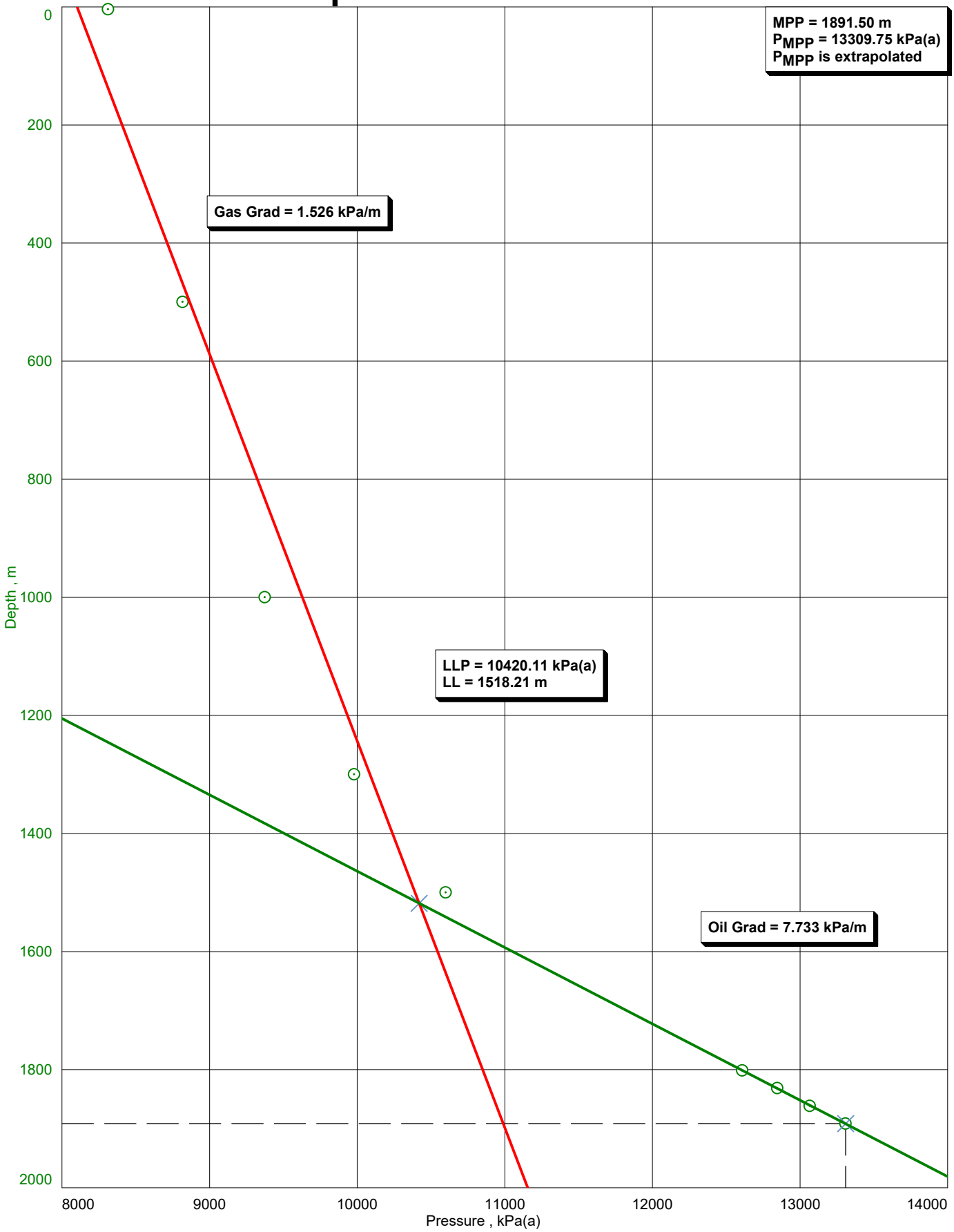
Unique Well ID	100/04-11-040-24W4/0	KB Elevation (SL)	879.30
		GL Elevation (SL)	875.10
Formation	Leduc	CF Elevation (SL)	875.10
Well Fluid Type	01 Oil		
Well License Number	0027600		
Well Type	Vertical		
Start Test Date	2023/09/29	Start Test Time	11:11:00
Final Test Date	2023/09/29	Final Test Time	15:00:25
Date Well Shut-In	2022/10/20	Time Well Shut-In	08:00:00
Top(TVD KB)	1890.30 m	Tubing Pressure: Initial	8288.00 kPa(a)
Bottom(TVD KB)	1892.70 m	Casing Pressure: Initial	kPa(a)
MPP(TVD KB)	1891.50 m	Shut-In Duration	8259.4347 h

	Bottom	Top
Gauge Name	Bottom	Top
Gauge Serial Number	80803	80704
Gauge Type	Strain	Strain
Gauge Manufacturer	Spartek	Spartek
Gauge Model	SS2500	SS2500
Maximum Recorder Range	41370.00 kPa(a)	41370.00 kPa(a)
Resolution (% of Full Scale)	0.00030	0.00030
Accuracy (% of Full Scale)	0.03000	0.03000
Date of Last Calibration	2023/08/19	2023/08/19
Gauge Start Date	2023/09/29 11:11:00	2023/09/29 11:11:00
Gauge Stop Date	2023/09/29 15:00:25	2023/09/29 15:00:25
Date Gauge On Bottom	2023/09/29 12:31:45	2023/09/29 12:31:45
Date Gauge Off Bottom	2023/09/29 14:31:45	2023/09/29 14:31:45
Run Depth (TVD KB)	1891.50 m	1891.25 m
Pressure at Run Depth	13313.70 kPa(a)	13307.82 kPa(a)
Pressure at MPP	13313.70 kPa(a)	13309.75 kPa(a)
Representative Gradient	7.733 kPa/m	7.733 kPa/m
Temperature at Run Depth	64.1 °C	64.2 °C
Liquid Level(TVD KB)	1517.86 m	1518.21 m

Bottom						Top				
Depth	Temp.	Pressure	Gradient	Gradient	Time	Depth	Temp.	Pressure	Gradient	Gradient
m	°C	kPa(a)	kPa/m	°C/m	HH:mm:ss	m	°C	kPa(a)	kPa/m	°C/m
4.20	12.82	8314.18			11:26:05	3.95	14.69	8312.33		
500.00	22.03	8818.13	1.016	0.019	11:38:35	499.75	21.95	8816.76	1.017	0.015
1000.00	37.68	9373.92	1.112	0.031	11:48:35	999.75	37.38	9373.92	1.114	0.031
1300.00	48.26	9979.58	2.019	0.035	11:56:55	1299.75	48.19	9978.79	2.016	0.036
1500.00	55.92	10601.67	3.110	0.038	12:04:45	1499.75	55.88	10599.48	3.103	0.038
1801.50	62.99	12613.84	6.674	0.023	12:12:35	1801.25	63.01	12608.07	6.662	0.024
1831.50	63.37	12850.61	7.892	0.013	12:18:35	1831.25	63.42	12845.52	7.915	0.014
1861.50	63.72	13070.04	7.314	0.012	12:24:35	1861.25	63.77	13065.30	7.326	0.012
1891.50	64.08	13313.70	8.122	0.012	14:31:45	1891.25	64.15	13307.82	8.084	0.013

Bottom Pressure Gradient

Top Pressure Gradient



Company Name Enhance Energy Inc.
Unique Well ID 100/04-11-040-24W4/0
Start Test Date 2023/09/29
Final Test Date 2023/09/29

Well Name Enhance Energy Clive 4-11-40-24W4
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
1	2023/09/29 11:11:00	0.0000	101.33	18.17	0.0000	98.85	18.53
2	2023/09/29 11:11:55	0.0153	102.85	17.90	0.0153	99.90	18.83
3	2023/09/29 11:13:45	0.0458	102.76	18.06	0.0458	99.98	18.81
4	2023/09/29 11:15:35	0.0764	102.72	17.57	0.0764	100.12	18.34
5	2023/09/29 11:17:25	0.1069	1695.44	17.56	0.1069	1592.97	18.34
6	2023/09/29 11:19:15	0.1375	4095.85	17.43	0.1375	4017.50	18.69
7	2023/09/29 11:21:05	0.1681	8314.01	15.91	0.1681	8313.68	17.69
8	2023/09/29 11:22:55	0.1986	8314.40	14.20	0.1986	8312.61	16.03
9	2023/09/29 11:24:45	0.2292	8314.03	13.29	0.2292	8312.30	15.16
10	2023/09/29 11:26:35	0.2597	8320.91	12.35	0.2597	8318.16	14.29
11	2023/09/29 11:28:25	0.2903	8406.11	6.94	0.2903	8401.01	7.34
12	2023/09/29 11:30:15	0.3208	8552.06	11.34	0.3208	8543.44	10.95
13	2023/09/29 11:32:05	0.3514	8730.68	16.92	0.3514	8724.21	16.57
14	2023/09/29 11:33:55	0.3819	8816.83	21.42	0.3819	8815.24	21.33
15	2023/09/29 11:35:45	0.4125	8817.56	21.80	0.4125	8816.36	21.75
16	2023/09/29 11:37:35	0.4431	8818.03	21.97	0.4431	8816.60	21.89
17	2023/09/29 11:39:25	0.4736	8884.31	22.93	0.4736	8875.55	22.68
18	2023/09/29 11:41:15	0.5042	9107.16	28.55	0.5042	9097.50	28.41
19	2023/09/29 11:43:05	0.5347	9335.16	34.54	0.5347	9326.08	34.37
20	2023/09/29 11:44:55	0.5653	9372.55	37.23	0.5653	9372.41	37.03
21	2023/09/29 11:46:45	0.5958	9373.50	37.53	0.5958	9373.44	37.24
22	2023/09/29 11:48:35	0.6264	9373.92	37.68	0.6264	9373.60	37.37
23	2023/09/29 11:50:25	0.6569	9565.82	41.31	0.6569	9556.12	41.07
24	2023/09/29 11:52:15	0.6875	9976.88	47.65	0.6875	9975.59	47.59
25	2023/09/29 11:54:05	0.7181	9977.88	48.14	0.7181	9977.05	48.07
26	2023/09/29 11:55:55	0.7486	9979.04	48.24	0.7486	9978.12	48.16
27	2023/09/29 11:57:45	0.7792	10184.98	49.41	0.7792	10165.05	49.14
28	2023/09/29 11:59:35	0.8097	10598.30	55.16	0.8097	10595.87	55.01
29	2023/09/29 12:01:25	0.8403	10599.90	55.77	0.8403	10597.95	55.73
30	2023/09/29 12:03:15	0.8708	10601.05	55.88	0.8708	10599.01	55.84
31	2023/09/29 12:05:05	0.9014	10673.72	56.00	0.9014	10652.90	55.91
32	2023/09/29 12:06:55	0.9319	12115.86	61.29	0.9319	12060.02	61.19
33	2023/09/29 12:08:45	0.9625	12612.71	62.90	0.9625	12607.84	62.93
34	2023/09/29 12:10:35	0.9931	12613.71	62.98	0.9931	12608.33	63.00
35	2023/09/29 12:12:25	1.0236	12613.28	62.99	1.0236	12608.29	63.01
36	2023/09/29 12:14:15	1.0542	12850.26	63.28	1.0542	12845.04	63.31
37	2023/09/29 12:16:05	1.0847	12850.55	63.35	1.0847	12845.53	63.40
38	2023/09/29 12:17:55	1.1153	12850.73	63.37	1.1153	12845.72	63.41
39	2023/09/29 12:19:45	1.1458	13068.86	63.55	1.1458	13062.21	63.58
40	2023/09/29 12:21:35	1.1764	13070.08	63.70	1.1764	13064.73	63.74
41	2023/09/29 12:23:25	1.2069	13070.53	63.72	1.2069	13065.01	63.76
42	2023/09/29 12:25:15	1.2375	13183.25	63.76	1.2375	13165.73	63.80
43	2023/09/29 12:27:05	1.2681	13313.34	64.06	1.2681	13306.94	64.10
44	2023/09/29 12:28:55	1.2986	13313.21	64.07	1.2986	13307.04	64.13
45	2023/09/29 12:30:45	1.3292	13312.99	64.07	1.3292	13306.91	64.14

Print Filter: Approximately every 11 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80803	2023/09/29 YYYY/MM/DD	11:11:00 HH:mm:ss	1891.50 m
Top	80704	2023/09/29 YYYY/MM/DD	11:11:00 HH:mm:ss	1891.25 m

Company Name Enhance Energy Inc.
Unique Well ID 100/04-11-040-24W4/0
Start Test Date 2023/09/29
Final Test Date 2023/09/29

Well Name Enhance Energy Clive 4-11-40-24W4
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
46	2023/09/29 12:32:35	1.3597	13313.24	64.07	1.3597	13307.26	64.13
47	2023/09/29 12:34:25	1.3903	13313.33	64.07	1.3903	13306.99	64.14
48	2023/09/29 12:36:15	1.4208	13313.28	64.08	1.4208	13307.16	64.14
49	2023/09/29 12:38:05	1.4514	13313.47	64.07	1.4514	13306.99	64.14
50	2023/09/29 12:39:55	1.4819	13313.11	64.07	1.4819	13307.15	64.14
51	2023/09/29 12:41:45	1.5125	13313.61	64.07	1.5125	13306.95	64.14
52	2023/09/29 12:43:35	1.5431	13313.32	64.07	1.5431	13307.40	64.13
53	2023/09/29 12:45:25	1.5736	13313.35	64.07	1.5736	13307.47	64.14
54	2023/09/29 12:47:15	1.6042	13313.58	64.07	1.6042	13307.20	64.14
55	2023/09/29 12:49:05	1.6347	13313.70	64.07	1.6347	13307.11	64.13
56	2023/09/29 12:50:55	1.6653	13313.51	64.07	1.6653	13307.03	64.14
57	2023/09/29 12:52:45	1.6958	13313.64	64.07	1.6958	13307.39	64.14
58	2023/09/29 12:54:35	1.7264	13313.67	64.08	1.7264	13307.56	64.13
59	2023/09/29 12:56:25	1.7569	13313.41	64.07	1.7569	13307.37	64.14
60	2023/09/29 12:58:15	1.7875	13313.35	64.07	1.7875	13307.08	64.13
61	2023/09/29 13:00:05	1.8181	13313.65	64.07	1.8181	13307.64	64.14
62	2023/09/29 13:01:55	1.8486	13313.47	64.07	1.8486	13307.50	64.14
63	2023/09/29 13:03:45	1.8792	13313.52	64.07	1.8792	13307.53	64.14
64	2023/09/29 13:05:35	1.9097	13313.71	64.07	1.9097	13307.82	64.14
65	2023/09/29 13:07:25	1.9403	13313.50	64.07	1.9403	13307.60	64.14
66	2023/09/29 13:09:15	1.9708	13313.29	64.07	1.9708	13307.53	64.14
67	2023/09/29 13:11:05	2.0014	13313.64	64.07	2.0014	13307.70	64.14
68	2023/09/29 13:12:55	2.0319	13313.60	64.07	2.0319	13307.69	64.14
69	2023/09/29 13:14:45	2.0625	13313.85	64.07	2.0625	13307.47	64.14
70	2023/09/29 13:16:35	2.0931	13313.66	64.07	2.0931	13307.48	64.14
71	2023/09/29 13:18:25	2.1236	13313.66	64.07	2.1236	13307.65	64.14
72	2023/09/29 13:20:15	2.1542	13313.77	64.07	2.1542	13307.94	64.14
73	2023/09/29 13:22:05	2.1847	13313.61	64.07	2.1847	13307.79	64.14
74	2023/09/29 13:23:55	2.2153	13313.83	64.07	2.2153	13308.08	64.14
75	2023/09/29 13:25:45	2.2458	13313.75	64.07	2.2458	13307.72	64.15
76	2023/09/29 13:27:35	2.2764	13313.71	64.07	2.2764	13307.87	64.15
77	2023/09/29 13:29:25	2.3069	13313.71	64.07	2.3069	13307.65	64.14
78	2023/09/29 13:31:15	2.3375	13313.96	64.07	2.3375	13307.61	64.15
79	2023/09/29 13:33:05	2.3681	13313.72	64.07	2.3681	13307.85	64.15
80	2023/09/29 13:34:55	2.3986	13313.78	64.08	2.3986	13307.79	64.14
81	2023/09/29 13:36:45	2.4292	13313.68	64.07	2.4292	13307.73	64.15
82	2023/09/29 13:38:35	2.4597	13313.86	64.07	2.4597	13307.73	64.15
83	2023/09/29 13:40:25	2.4903	13313.88	64.07	2.4903	13307.34	64.14
84	2023/09/29 13:42:15	2.5208	13313.89	64.07	2.5208	13307.92	64.15
85	2023/09/29 13:44:05	2.5514	13313.80	64.07	2.5514	13307.43	64.14
86	2023/09/29 13:45:55	2.5819	13313.20	64.07	2.5819	13307.64	64.15
87	2023/09/29 13:47:45	2.6125	13314.01	64.07	2.6125	13307.91	64.14
88	2023/09/29 13:49:35	2.6431	13313.79	64.07	2.6431	13307.72	64.15
89	2023/09/29 13:51:25	2.6736	13313.75	64.07	2.6736	13307.54	64.15
90	2023/09/29 13:53:15	2.7042	13313.88	64.07	2.7042	13308.06	64.14

Print Filter: Approximately every 11 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80803	2023/09/29 YYYY/MM/DD	11:11:00 HH:mm:ss	1891.50 m
Top	80704	2023/09/29 YYYY/MM/DD	11:11:00 HH:mm:ss	1891.25 m

Company Name Enhance Energy Inc.
Unique Well ID 100/04-11-040-24W4/0
Start Test Date 2023/09/29
Final Test Date 2023/09/29

Well Name Enhance Energy Clive 4-11-40-24W4
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
91	2023/09/29 13:55:05	2.7347	13314.01	64.07	2.7347	13307.43	64.14
92	2023/09/29 13:56:55	2.7653	13313.90	64.08	2.7653	13307.98	64.15
93	2023/09/29 13:58:45	2.7958	13313.87	64.08	2.7958	13307.65	64.15
94	2023/09/29 14:00:35	2.8264	13313.86	64.07	2.8264	13307.62	64.15
95	2023/09/29 14:02:25	2.8569	13313.33	64.08	2.8569	13307.61	64.15
96	2023/09/29 14:04:15	2.8875	13313.76	64.08	2.8875	13307.52	64.15
97	2023/09/29 14:06:05	2.9181	13313.81	64.08	2.9181	13307.78	64.15
98	2023/09/29 14:07:55	2.9486	13313.70	64.08	2.9486	13307.59	64.15
99	2023/09/29 14:09:45	2.9792	13313.60	64.08	2.9792	13307.60	64.14
100	2023/09/29 14:11:35	3.0097	13313.79	64.07	3.0097	13307.87	64.14
101	2023/09/29 14:13:25	3.0403	13313.81	64.08	3.0403	13307.87	64.15
102	2023/09/29 14:15:15	3.0708	13313.70	64.08	3.0708	13307.72	64.15
103	2023/09/29 14:17:05	3.1014	13313.78	64.08	3.1014	13307.84	64.15
104	2023/09/29 14:18:55	3.1319	13313.86	64.08	3.1319	13307.71	64.14
105	2023/09/29 14:20:45	3.1625	13313.60	64.08	3.1625	13307.42	64.14
106	2023/09/29 14:22:35	3.1931	13313.82	64.08	3.1931	13307.92	64.15
107	2023/09/29 14:24:25	3.2236	13313.55	64.08	3.2236	13307.77	64.15
108	2023/09/29 14:26:15	3.2542	13313.80	64.08	3.2542	13307.96	64.15
109	2023/09/29 14:28:05	3.2847	13313.90	64.08	3.2847	13308.03	64.15
110	2023/09/29 14:29:55	3.3153	13313.69	64.08	3.3153	13307.87	64.15
111	2023/09/29 14:31:45	3.3458	13313.70	64.08	3.3458	13307.82	64.15
112	2023/09/29 14:33:35	3.3764	12478.55	63.54	3.3764	12513.01	63.65
113	2023/09/29 14:35:25	3.4069	10806.98	60.48	3.4069	10820.41	60.63
114	2023/09/29 14:37:15	3.4375	10294.15	54.51	3.4375	10308.34	54.73
115	2023/09/29 14:39:05	3.4681	9576.45	45.40	3.4681	9581.91	45.60
116	2023/09/29 14:40:55	3.4986	9311.70	38.92	3.4986	9315.48	39.03
117	2023/09/29 14:42:45	3.5292	9042.49	31.55	3.5292	9045.04	31.58
118	2023/09/29 14:44:35	3.5597	8780.98	24.54	3.5597	8784.45	24.55
119	2023/09/29 14:46:25	3.5903	8534.30	15.77	3.5903	8535.95	15.70
120	2023/09/29 14:48:15	3.6208	8373.18	8.46	3.6208	8371.86	8.41
121	2023/09/29 14:50:05	3.6514	8354.43	7.23	3.6514	8351.07	7.18
122	2023/09/29 14:51:55	3.6819	4727.22	6.35	3.6819	4880.40	6.28
123	2023/09/29 14:53:45	3.7125	1357.59	3.32	3.7125	1398.52	3.00
124	2023/09/29 14:55:35	3.7431	635.14	2.46	3.7431	609.48	2.31
125	2023/09/29 14:57:25	3.7736	193.65	2.29	3.7736	208.10	2.26
126	2023/09/29 14:59:15	3.8042	106.08	2.03	3.8042	105.08	2.16
127	2023/09/29 15:00:25	3.8236	105.14	4.53	3.8236	101.41	3.80

Print Filter: Approximately every 11 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80803	2023/09/29 YYYY/MM/DD	11:11:00 HH:mm:ss	1891.50 m
Top	80704	2023/09/29 YYYY/MM/DD	11:11:00 HH:mm:ss	1891.25 m

Test Type Static Gradient

Company Name	**Enhance Energy Inc.**
Well Name	**Fairborne Clive 5-2-40-24W4**
Unique Well ID	**100/05-02-040-24W4/0**
Well License Number	**0154267**
Formation	**Leduc**
Start Test Date	**2023/06/24**
Final Test Date	**2023/06/24**

Prepared By	**Kennason Tech Services Inc.**
Qualified By	**Cory Strang**
Report Date	**2023/06/26**

Reliance OFS Canada Limited
2500 333 - 7th Ave SW
Calgary AB T2P 2Z1
403-475-1229
relianceofs.com

RELIANCE OILFIELD SERVICES

Pressure Survey Report

Static Gradient

Company Name Enhance Energy Inc.
Contact Kevin Meyer

Representative Russ Guenther

General Information

Well Name	Fairborne Clive 5-2-40-24W4
Unique Well ID	100/05-02-040-24W4/0
Surface Location	05-02-040-24W4
Well License Number	0154267
Well Type	Vertical

KB Elevation (SL)	866.60 m
CF Elevation (SL)	862.60 m
GL Elevation (SL)	862.60 m
KB-CF Offset	4.00 m
KB-GL Offset	4.00 m

Wellbore Information

Tubing OD	73.0 mm
Tubing ID	62.0 mm
Tubing Depth(Log KB)	1864.22000 m
Tubing Depth(TVD KB)	1864.22000 m
Packer Depth(Log KB)	1858.51000 m
Packer Depth(TVD KB)	1858.51000 m

Casing OD	177.8 mm
Casing ID	161.7 mm
Casing Depth(Log KB)	1899.50000 m
Casing Depth(TVD KB)	1899.50000 m
PBTD(Log KB)	1881.20 m
PBTD(TVD KB)	1881.20 m

Gross Completion Interval (GCI) as tested:

Top(Log KB)	1875.50 m	Top(TVD KB)	1875.50 m	Formation Name	Leduc
Bottom(Log KB)	1876.50 m	Bottom(TVD KB)	1876.50 m	Pool	
MPP(Log KB)	1876.00 m	MPP(TVD KB)	1876.00 m		

Test Information

Test Type	Static Gradient
Well Fluid Type	01 Oil
Test Purpose	Annual Pressure

Date/Time Gauge on Bottom	2023/06/24 10:26:35
Date/Time Gauge Off Bottom	2023/06/24 10:41:45
Time/Date Well Shut-In	2023/05/29 12:00:00
Shut-In Duration	621.3764 h

Surface Pressures:

Tubing Pressure Initial	5533.00 kPa(a)	Casing Pressure Initial	93.00 kPa(a)
Tubing Pressure: Final	5533.00 kPa(a)	Casing Pressure: Final	93.00 kPa(a)

Test Results

Gauge Serial Number Used in Summary	80664		Run Depth (Log KB)	1876.00	m
Calculated Pressure Corrected to MPP	13853.01	kPa(a)	Run Depth (TVD KB)	1876.00	m
Reservoir Temperature	63.20	°C	Pressure at Stop Depth	13853.01	kPa(a)
Liquid Level(TVD KB)	132.05	m	Temperature at Run Depth	63.2	°C

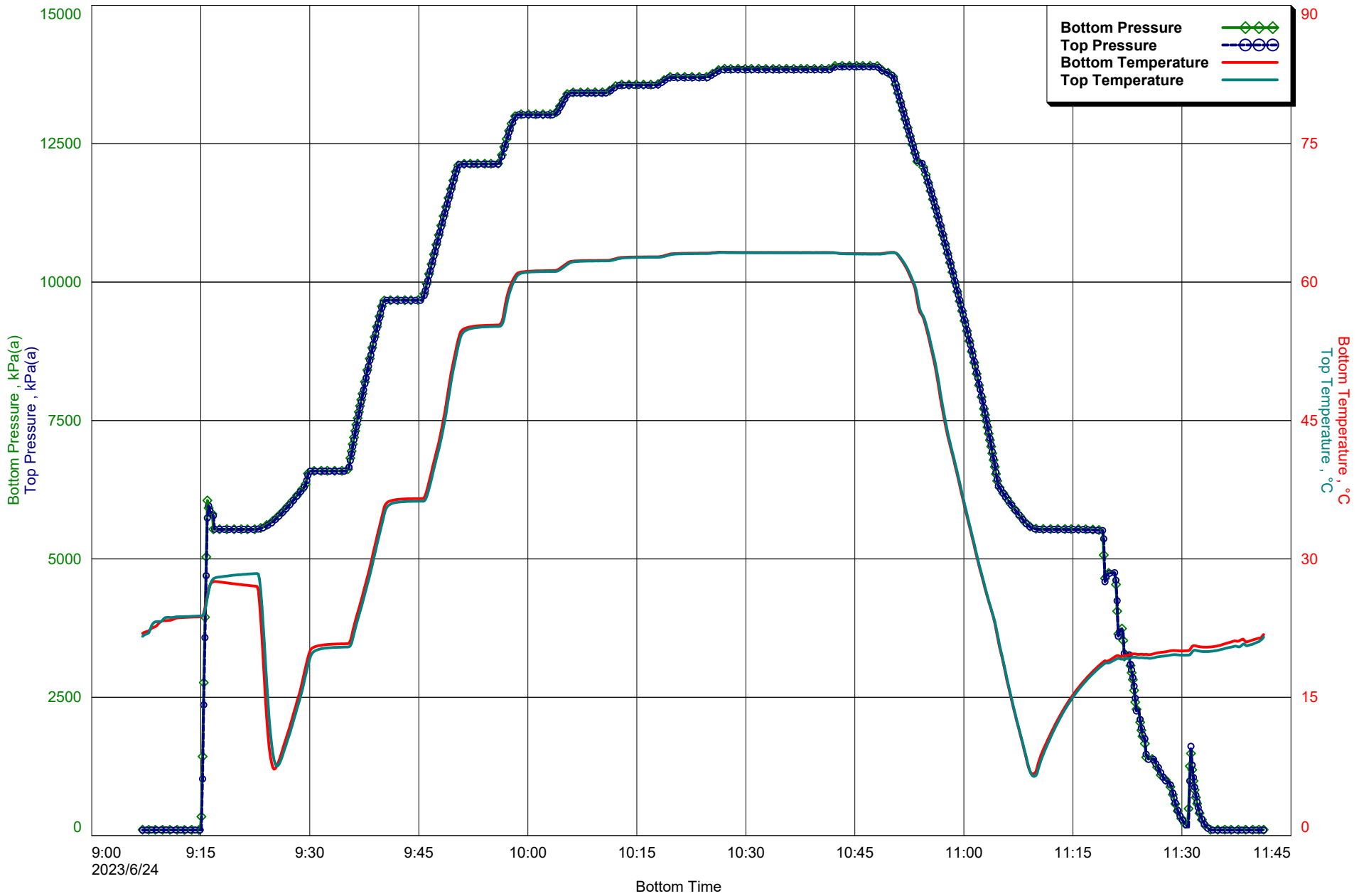
Test Remarks:

Tagged PB @ 1881.20 mKB
While moving from the surface stop to 500m, the temperature dropped and may have affected the gradient calculation between those 2 stops.

Enhance Energy Inc.
100/05-02-040-24W4/0
Start Test Date: 2023/06/24
Final Test Date: 2023/06/24

Fairborne Clive 5-2-40-24W4
Formation: Leduc

Static Gradient Plot



Static Gradient 2023/06/24

Company Name Enhance Energy Inc.

Well Name Fairborne Clive 5-2-40-24W4

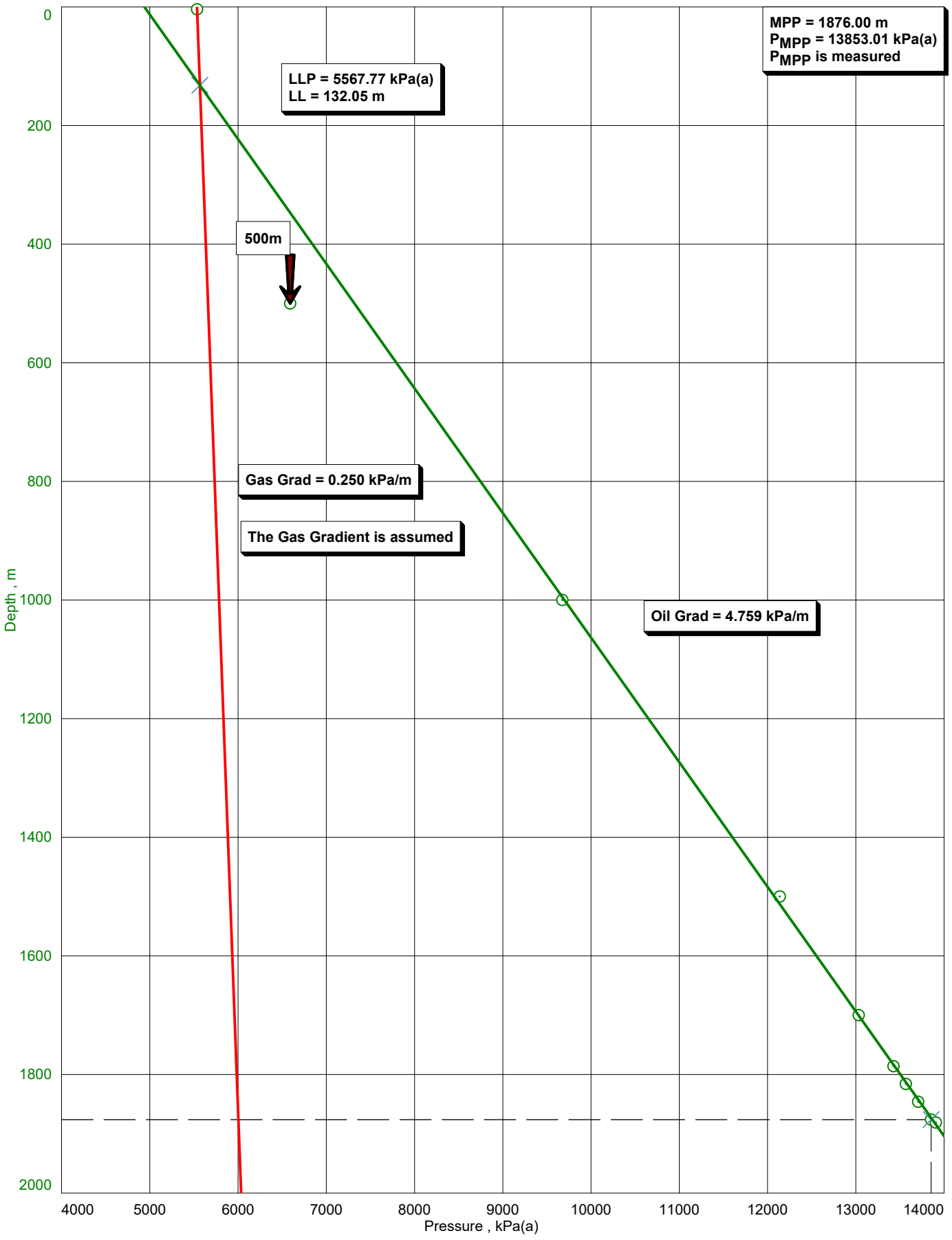
Unique Well ID	100/05-02-040-24W4/0	KB Elevation (SL)	866.60
		GL Elevation (SL)	862.60
Formation	Leduc	CF Elevation (SL)	862.60
Well Fluid Type	01 Oil		
Well License Number	0154267		
Well Type	Vertical		
Start Test Date	2023/06/24	Start Test Time	09:07:00
Final Test Date	2023/06/24	Final Test Time	11:41:15
Date Well Shut-In	2023/05/29	Time Well Shut-In	12:00:00

Top(TVD KB)	1875.50 m	Tubing Pressure: Initial	5533.00 kPa(a)
Bottom(TVD KB)	1876.50 m	Casing Pressure: Initial	93.00 kPa(a)
MPP(TVD KB)	1876.00 m	Shut-In Duration	621.3764 h

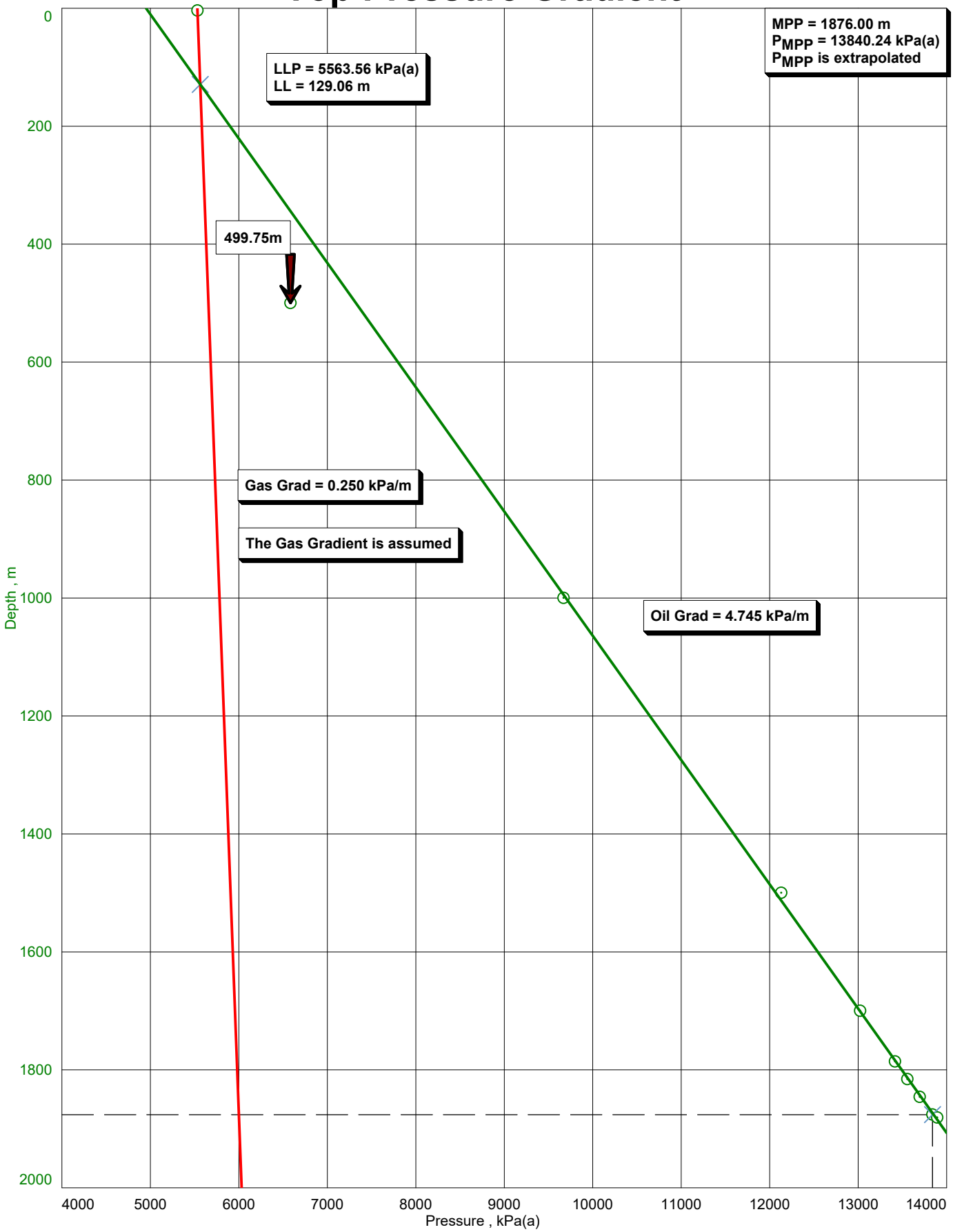
	Bottom	Top
Gauge Name	Bottom	Top
Gauge Serial Number	80664	80666
Gauge Type	Strain	Strain
Gauge Manufacturer	Spartek	Spartek
Gauge Model	SS2500	SS2500
Maximum Recorder Range	41370.00 kPa(a)	41370.00 kPa(a)
Resolution (% of Full Scale)	0.00030	0.00030
Accuracy (% of Full Scale)	0.03000	0.03000
Date of Last Calibration	2021/12/22	2021/12/22
Gauge Start Date	2023/06/24 09:07:00	2023/06/24 09:07:00
Gauge Stop Date	2023/06/24 11:41:15	2023/06/24 11:41:15
Date Gauge On Bottom	2023/06/24 10:26:35	2023/06/24 10:26:35
Date Gauge Off Bottom	2023/06/24 10:41:45	2023/06/24 10:41:45
Run Depth (TVD KB)	1876.00 m	1875.75 m
Pressure at Run Depth	13853.01 kPa(a)	13839.05 kPa(a)
Pressure at MPP	13853.01 kPa(a)	13840.24 kPa(a)
Representative Gradient	4.759 kPa/m	4.745 kPa/m
Temperature at Run Depth	63.2 °C	63.2 °C
Liquid Level(TVD KB)	132.05 m	129.06 m

Bottom						Top				
Depth	Temp.	Pressure	Gradient	Gradient	Time	Depth	Temp.	Pressure	Gradient	Gradient
m	°C	kPa(a)	kPa/m	°C/m	HH:mm:ss	m	°C	kPa(a)	kPa/m	°C/m
4.00	27.04	5535.75			09:22:35	3.75	28.41	5532.23		
500.00	20.80	6591.42	2.128	-0.013	09:35:05	499.75	20.44	6584.03	2.121	-0.016
1000.00	36.53	9675.09	6.167	0.031	09:45:25	999.75	36.25	9669.85	6.172	0.032
1500.00	55.34	12138.84	4.927	0.038	09:55:45	1499.75	55.19	12130.83	4.922	0.038
1700.00	61.25	13033.12	4.471	0.030	10:03:35	1699.75	61.15	13022.66	4.459	0.030
1786.00	62.36	13427.67	4.588	0.013	10:10:45	1785.75	62.30	13416.48	4.579	0.013
1816.00	62.74	13567.85	4.673	0.013	10:17:45	1815.75	62.70	13556.46	4.666	0.013
1846.00	63.15	13707.36	4.650	0.013	10:24:35	1845.75	63.10	13696.25	4.659	0.014
1876.00	63.20	13853.01	4.855	0.002	10:41:45	1875.75	63.18	13839.05	4.760	0.003
1881.00	63.07	13907.27	10.853	-0.026	10:47:55	1880.75	63.04	13893.93	10.977	-0.028

Bottom Pressure Gradient



Top Pressure Gradient



Company Name Enhance Energy Inc.
Unique Well ID 100/05-02-040-24W4/0
Start Test Date 2023/06/24
Final Test Date 2023/06/24

Well Name Fairborne Clive 5-2-40-24W4
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
1	2023/06/24 09:07:00	0.0000	106.27	21.92	0.0000	99.31	21.60
2	2023/06/24 09:07:40	0.0111	105.83	22.15	0.0111	99.17	21.90
3	2023/06/24 09:08:45	0.0292	105.29	22.65	0.0292	102.91	23.18
4	2023/06/24 09:10:05	0.0514	104.18	23.32	0.0514	102.67	23.62
5	2023/06/24 09:11:25	0.0736	103.94	23.51	0.0736	101.63	23.68
6	2023/06/24 09:12:45	0.0958	103.58	23.66	0.0958	100.89	23.74
7	2023/06/24 09:14:05	0.1181	103.71	23.69	0.1181	100.54	23.78
8	2023/06/24 09:15:25	0.1403	2764.55	24.13	0.1403	2360.95	24.02
9	2023/06/24 09:16:45	0.1625	5535.13	27.53	0.1625	5777.97	27.85
10	2023/06/24 09:18:05	0.1847	5535.78	27.45	0.1847	5532.58	28.09
11	2023/06/24 09:19:25	0.2069	5535.99	27.32	0.2069	5532.51	28.22
12	2023/06/24 09:20:45	0.2292	5535.30	27.19	0.2292	5532.69	28.32
13	2023/06/24 09:22:05	0.2514	5535.57	27.08	0.2514	5531.77	28.38
14	2023/06/24 09:23:25	0.2736	5565.21	21.44	0.2736	5552.86	24.81
15	2023/06/24 09:24:45	0.2958	5666.20	7.88	0.2958	5648.75	9.89
16	2023/06/24 09:26:05	0.3181	5827.05	8.89	0.3181	5813.62	8.29
17	2023/06/24 09:27:25	0.3403	6017.91	12.25	0.3403	6004.51	11.52
18	2023/06/24 09:28:45	0.3625	6225.88	15.91	0.3625	6212.98	15.12
19	2023/06/24 09:30:05	0.3847	6589.54	20.11	0.3847	6583.52	19.40
20	2023/06/24 09:31:25	0.4069	6590.58	20.61	0.4069	6583.48	20.23
21	2023/06/24 09:32:45	0.4292	6591.23	20.73	0.4292	6583.81	20.37
22	2023/06/24 09:34:05	0.4514	6591.09	20.78	0.4514	6583.70	20.42
23	2023/06/24 09:35:25	0.4736	6697.93	20.89	0.4736	6657.30	20.47
24	2023/06/24 09:36:45	0.4958	7654.39	24.60	0.4958	7612.75	23.85
25	2023/06/24 09:38:05	0.5181	8515.44	28.49	0.5181	8477.94	27.70
26	2023/06/24 09:39:25	0.5403	9288.65	32.94	0.5403	9255.80	32.12
27	2023/06/24 09:40:45	0.5625	9672.35	36.16	0.5625	9668.82	35.74
28	2023/06/24 09:42:05	0.5847	9674.21	36.44	0.5847	9669.83	36.15
29	2023/06/24 09:43:25	0.6069	9674.98	36.51	0.6069	9669.61	36.23
30	2023/06/24 09:44:45	0.6292	9674.60	36.53	0.6292	9669.67	36.25
31	2023/06/24 09:46:05	0.6514	9969.31	37.36	0.6514	9935.98	36.74
32	2023/06/24 09:47:25	0.6736	10676.92	41.57	0.6736	10644.50	40.83
33	2023/06/24 09:48:45	0.6958	11359.48	46.72	0.6958	11329.52	45.75
34	2023/06/24 09:50:05	0.7181	11994.65	52.58	0.7181	11966.67	51.78
35	2023/06/24 09:51:25	0.7403	12136.55	55.00	0.7403	12129.84	54.74
36	2023/06/24 09:52:45	0.7625	12138.51	55.24	0.7625	12130.17	55.05
37	2023/06/24 09:54:05	0.7847	12138.73	55.31	0.7847	12130.84	55.15
38	2023/06/24 09:55:25	0.8069	12139.04	55.34	0.8069	12130.64	55.18
39	2023/06/24 09:56:45	0.8292	12442.42	56.83	0.8292	12410.82	56.12
40	2023/06/24 09:58:05	0.8514	12952.63	60.44	0.8514	12929.31	60.07
41	2023/06/24 09:59:25	0.8736	13032.05	61.13	0.8736	13022.20	61.02
42	2023/06/24 10:00:45	0.8958	13032.77	61.20	0.8958	13022.11	61.11
43	2023/06/24 10:02:05	0.9181	13032.92	61.23	0.9181	13022.33	61.14
44	2023/06/24 10:03:25	0.9403	13033.19	61.24	0.9403	13022.65	61.15
45	2023/06/24 10:04:45	0.9625	13251.82	61.68	0.9625	13228.06	61.51

Print Filter: Approximately every 8 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/06/24 YYYY/MM/DD	09:07:00 HH:mm:ss	1876.00 m
Top	80666	2023/06/24 YYYY/MM/DD	09:07:00 HH:mm:ss	1875.75 m

Company Name Enhance Energy Inc.
Unique Well ID 100/05-02-040-24W4/0
Start Test Date 2023/06/24
Final Test Date 2023/06/24

Well Name Fairborne Clive 5-2-40-24W4
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
46	2023/06/24 10:06:05	0.9847	13426.81	62.27	0.9847	13415.89	62.17
47	2023/06/24 10:07:25	1.0069	13427.54	62.32	1.0069	13416.26	62.26
48	2023/06/24 10:08:45	1.0292	13427.40	62.34	1.0292	13416.79	62.28
49	2023/06/24 10:10:05	1.0514	13427.80	62.36	1.0514	13416.55	62.30
50	2023/06/24 10:11:25	1.0736	13476.80	62.41	1.0736	13459.85	62.33
51	2023/06/24 10:12:45	1.0958	13567.05	62.66	1.0958	13556.41	62.59
52	2023/06/24 10:14:05	1.1181	13567.37	62.71	1.1181	13556.07	62.66
53	2023/06/24 10:15:25	1.1403	13567.90	62.73	1.1403	13556.15	62.68
54	2023/06/24 10:16:45	1.1625	13567.88	62.74	1.1625	13556.22	62.69
55	2023/06/24 10:18:05	1.1847	13592.30	62.75	1.1847	13576.67	62.70
56	2023/06/24 10:19:25	1.2069	13704.55	63.01	1.2069	13691.92	62.92
57	2023/06/24 10:20:45	1.2292	13707.17	63.11	1.2292	13695.63	63.06
58	2023/06/24 10:22:05	1.2514	13707.32	63.13	1.2514	13696.02	63.08
59	2023/06/24 10:23:25	1.2736	13707.37	63.14	1.2736	13695.62	63.09
60	2023/06/24 10:24:45	1.2958	13712.66	63.15	1.2958	13696.65	63.10
61	2023/06/24 10:26:05	1.3181	13817.99	63.24	1.3181	13802.03	63.18
62	2023/06/24 10:27:25	1.3403	13852.75	63.23	1.3403	13838.80	63.20
63	2023/06/24 10:28:45	1.3625	13852.84	63.21	1.3625	13838.87	63.19
64	2023/06/24 10:30:05	1.3847	13852.91	63.21	1.3847	13838.85	63.19
65	2023/06/24 10:31:25	1.4069	13852.39	63.20	1.4069	13838.95	63.19
66	2023/06/24 10:32:45	1.4292	13852.54	63.20	1.4292	13838.74	63.19
67	2023/06/24 10:34:05	1.4514	13853.11	63.21	1.4514	13839.01	63.19
68	2023/06/24 10:35:25	1.4736	13853.13	63.21	1.4736	13839.08	63.18
69	2023/06/24 10:36:45	1.4958	13853.29	63.21	1.4958	13838.93	63.18
70	2023/06/24 10:38:05	1.5181	13852.53	63.20	1.5181	13838.79	63.18
71	2023/06/24 10:39:25	1.5403	13853.05	63.20	1.5403	13838.82	63.19
72	2023/06/24 10:40:45	1.5625	13853.48	63.20	1.5625	13838.86	63.18
73	2023/06/24 10:42:05	1.5847	13883.00	63.20	1.5847	13861.83	63.19
74	2023/06/24 10:43:25	1.6069	13907.29	63.10	1.6069	13893.96	63.08
75	2023/06/24 10:44:45	1.6292	13907.09	63.09	1.6292	13893.66	63.06
76	2023/06/24 10:46:05	1.6514	13907.32	63.08	1.6514	13893.79	63.05
77	2023/06/24 10:47:25	1.6736	13907.53	63.08	1.6736	13893.85	63.04
78	2023/06/24 10:48:45	1.6958	13829.99	63.11	1.6958	13822.01	63.06
79	2023/06/24 10:50:05	1.7181	13742.66	63.22	1.7181	13736.88	63.18
80	2023/06/24 10:51:25	1.7403	13178.63	62.37	1.7403	13195.50	62.49
81	2023/06/24 10:52:45	1.7625	12561.91	60.35	1.7625	12577.27	60.58
82	2023/06/24 10:54:05	1.7847	12185.17	56.56	1.7847	12182.81	56.76
83	2023/06/24 10:55:25	1.8069	11647.52	53.04	1.8069	11662.66	53.45
84	2023/06/24 10:56:45	1.8292	11020.80	47.51	1.8292	11037.71	48.10
85	2023/06/24 10:58:05	1.8514	10349.55	42.32	1.8514	10369.11	42.63
86	2023/06/24 10:59:25	1.8736	9655.37	37.98	1.8736	9675.84	38.28
87	2023/06/24 11:00:45	1.8958	8934.34	33.57	1.8958	8955.88	33.80
88	2023/06/24 11:02:05	1.9181	8135.56	29.23	1.9181	8161.05	29.42
89	2023/06/24 11:03:25	1.9403	7263.43	25.37	1.9403	7291.32	25.48
90	2023/06/24 11:04:45	1.9625	6320.09	21.00	1.9625	6318.36	21.29

Print Filter: Approximately every 8 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/06/24 YYYY/MM/DD	09:07:00 HH:mm:ss	1876.00 m
Top	80666	2023/06/24 YYYY/MM/DD	09:07:00 HH:mm:ss	1875.75 m

Company Name Enhance Energy Inc.
Unique Well ID 100/05-02-040-24W4/0
Start Test Date 2023/06/24
Final Test Date 2023/06/24

Well Name Fairborne Clive 5-2-40-24W4
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
91	2023/06/24 11:06:05	1.9847	6059.94	16.27	1.9847	6057.98	16.46
92	2023/06/24 11:07:25	2.0069	5824.54	11.97	2.0069	5822.42	12.08
93	2023/06/24 11:08:45	2.0292	5614.87	7.76	2.0292	5609.22	7.95
94	2023/06/24 11:10:05	2.0514	5542.41	7.42	2.0514	5534.51	6.80
95	2023/06/24 11:11:25	2.0736	5540.17	10.18	2.0736	5532.03	9.75
96	2023/06/24 11:12:45	2.0958	5539.20	12.33	2.0958	5530.90	12.01
97	2023/06/24 11:14:05	2.1181	5538.66	14.17	2.1181	5530.18	13.90
98	2023/06/24 11:15:25	2.1403	5538.14	15.69	2.1403	5529.42	15.45
99	2023/06/24 11:16:45	2.1625	5535.41	16.97	2.1625	5527.13	16.73
100	2023/06/24 11:18:05	2.1847	5523.74	18.06	2.1847	5516.10	17.80
101	2023/06/24 11:19:25	2.2069	4648.17	18.94	2.2069	4586.56	18.68
102	2023/06/24 11:20:45	2.2292	4743.25	19.37	2.2292	4748.73	19.05
103	2023/06/24 11:22:05	2.2514	3236.38	19.52	2.2514	3293.11	19.19
104	2023/06/24 11:23:25	2.2736	2622.58	19.70	2.2736	2698.41	19.35
105	2023/06/24 11:24:45	2.2958	1787.68	19.64	2.2958	1771.65	19.27
106	2023/06/24 11:26:05	2.3181	1386.18	19.70	2.3181	1376.43	19.27
107	2023/06/24 11:27:25	2.3403	1066.77	19.89	2.3403	1054.71	19.45
108	2023/06/24 11:28:45	2.3625	741.28	20.06	2.3625	770.63	19.61
109	2023/06/24 11:30:05	2.3847	274.74	20.03	2.3847	277.71	19.57
110	2023/06/24 11:31:25	2.4069	1188.91	20.53	2.4069	1273.32	19.93
111	2023/06/24 11:32:45	2.4292	286.55	20.45	2.4292	296.89	19.96
112	2023/06/24 11:34:05	2.4514	107.79	20.46	2.4514	98.69	19.98
113	2023/06/24 11:35:25	2.4736	107.83	20.67	2.4736	98.50	20.19
114	2023/06/24 11:36:45	2.4958	107.32	20.99	2.4958	98.89	20.43
115	2023/06/24 11:38:05	2.5181	107.08	21.20	2.5181	99.13	20.54
116	2023/06/24 11:39:25	2.5403	107.08	21.13	2.5403	99.07	20.69
117	2023/06/24 11:40:45	2.5625	107.24	21.42	2.5625	98.88	21.12
118	2023/06/24 11:41:15	2.5708	106.54	21.80	2.5708	99.46	21.53

Print Filter: Approximately every 8 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/06/24 YYYY/MM/DD	09:07:00 HH:mm:ss	1876.00 m
Top	80666	2023/06/24 YYYY/MM/DD	09:07:00 HH:mm:ss	1875.75 m

Test Type Final Static Gradient

Company Name	**Enhance Energy Inc.**
Well Name	**EnhanceEnergy Clive 10-35-39-24**
Unique Well ID	**100/10-35-039-24W4/0**
Well License Number	**0030078**
Formation	**Leduc**
Start Test Date	**2023/05/11**
Final Test Date	**2023/05/29**

Prepared By	**Kennason Tech Services Inc.**
Qualified By	**Cory Strang**
Report Date	**2023/05/30**

Reliance OFS Canada Limited
2500 333 - 7th Ave SW
Calgary AB T2P 2Z1
403-475-1229
relianceofs.com

RELIANCE OILFIELD SERVICES

Pressure Survey Report

Final Static Gradient

Company Name Enhance Energy Inc.
Contact Kevin Meyer
Representative Russ Guenther

General Information

Well Name	EnhanceEnergy Clive 10-35-39-24	KB Elevation (SL)	855.90 m
Unique Well ID	100/10-35-039-24W4/0	CF Elevation (SL)	851.90 m
Surface Location	10-35-039-24W4	GL Elevation (SL)	851.90 m
Well License Number	0030078	KB-CF Offset	4.00 m
Well Type	Vertical	KB-GL Offset	4.00 m

Wellbore Information

Tubing OD	73.0 mm	Casing OD	139.7 mm
Tubing ID	62.0 mm	Casing ID	125.7 mm
Tubing Depth(Log KB)	1879.50000 m	Casing Depth(Log KB)	1897.40000 m
Tubing Depth(TVD KB)	1879.50000 m	Casing Depth(TVD KB)	1897.40000 m
Packer Depth(Log KB)	1845.22000 m	PBTD(Log KB)	1885.34 m
Packer Depth(TVD KB)	1845.22000 m	PBTD(TVD KB)	1885.34 m

Gross Completion Interval (GCI) as tested:

Top(Log KB)	1860.50 m	Top(TVD KB)	1860.50 m	Formation Name	Leduc
Bottom(Log KB)	1880.00 m	Bottom(TVD KB)	1880.00 m	Pool	
MPP(Log KB)	1870.25 m	MPP(TVD KB)	1870.25 m		

Test Information

Test Type	Final Static Gradient	Date/Time Gauge on Bottom	2023/05/29 06:43:25
Well Fluid Type	01 Oil	Date/Time Gauge Off Bottom	2023/05/29 08:43:25
Test Purpose	Initial Test	Time/Date Well Shut-In	2023/05/26 15:39:25
		Shut-In Duration	65.0667 h

Surface Pressures:

Tubing Pressure Initial	6017.00 kPa(a)	Casing Pressure Initial	1896.00 kPa(a)
Tubing Pressure: Final	6017.00 kPa(a)	Casing Pressure: Final	1896.00 kPa(a)

Test Results

Gauge Serial Number Used in Summary	80590		Run Depth (Log KB)	1879.19	m
Calculated Pressure Corrected to MPP	13486.11	kPa(a)	Run Depth (TVD KB)	1879.19	m
Reservoir Temperature	62.66	°C	Pressure at Stop Depth	13527.57	kPa(a)
Liquid Level(TVD KB)	297.62	m	Temperature at Run Depth	62.7	°C

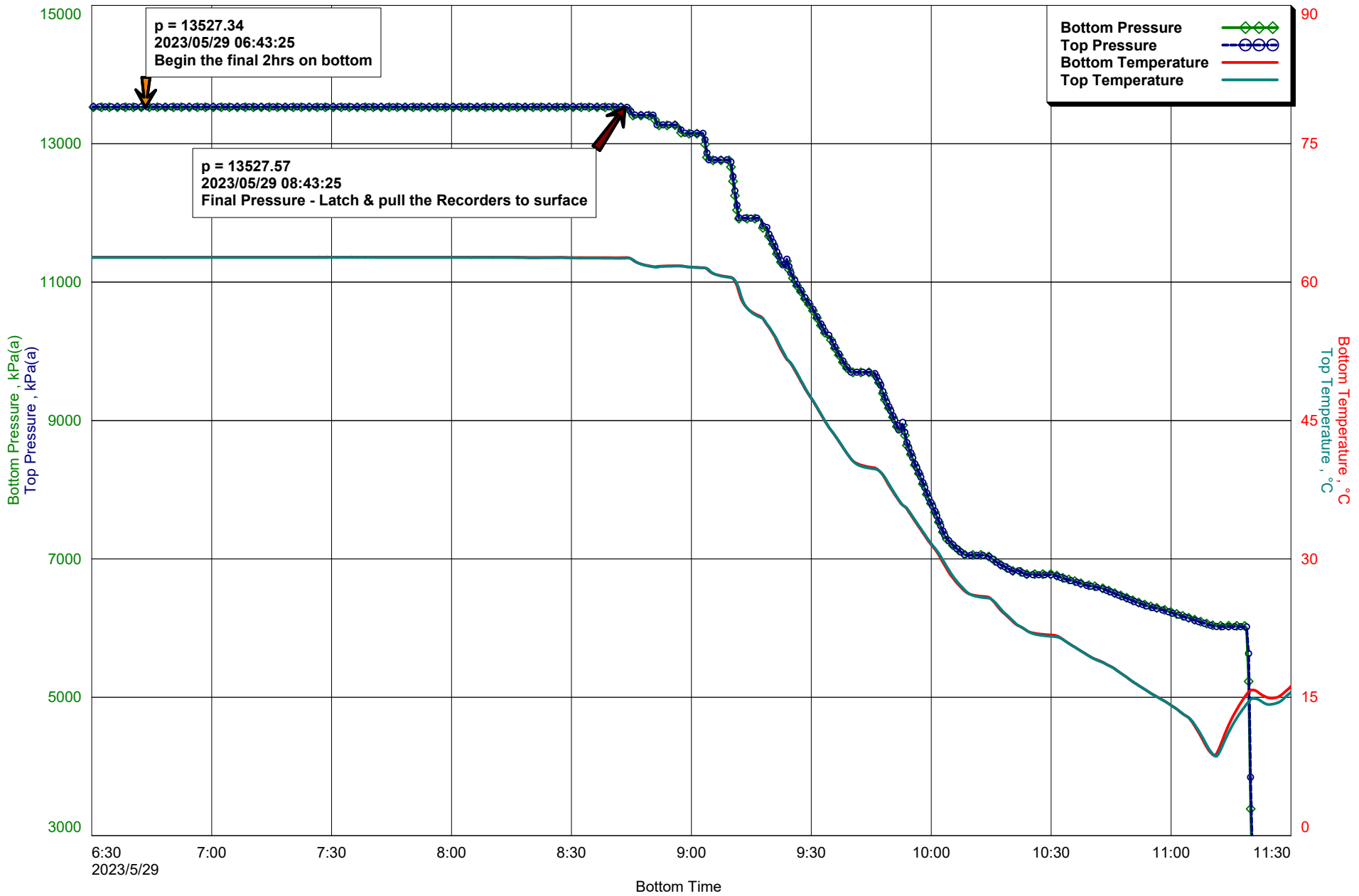
Test Remarks:

Static Gradient Stops were made on the way out of the well.

Enhance Energy Inc.
100/10-35-039-24W4/0
Start Test Date: 2023/05/11
Final Test Date: 2023/05/29

EnhanceEnergy Clive 10-35-39-24
Formation: Leduc

Final Static Gradient Plot



Final Static Gradient 2023/05/11

Company Name Enhance Energy Inc.

Well Name EnhanceEnergy Clive 10-35-39-24

Unique Well ID	100/10-35-039-24W4/0	KB Elevation (SL)	855.90
		GL Elevation (SL)	851.90
Formation	Leduc	CF Elevation (SL)	851.90
Well Fluid Type	01 Oil		
Well License Number	0030078		
Well Type	Vertical		
Start Test Date	2023/05/11	Start Test Time	11:42:00
Final Test Date	2023/05/29	Final Test Time	11:45:25
Date Well Shut-In	2023/05/26	Time Well Shut-In	15:39:25

Top(TVD KB)	1860.50	m	Tubing Pressure: Initial	6017.00	kPa(a)
Bottom(TVD KB)	1880.00	m	Casing Pressure: Initial	1896.00	kPa(a)
MPP(TVD KB)	1870.25	m	Shut-In Duration	65.0667	h

	Bottom		Top	
Gauge Name	Bottom		Top	
Gauge Serial Number	80590		80594	
Gauge Type	Strain		Strain	
Gauge Manufacturer	Spartek		Spartek	
Gauge Model	SS2500		SS2500	
Maximum Recorder Range	68950.00 kPa(a)		68950.00 kPa(a)	
Resolution (% of Full Scale)	0.00030		0.00030	
Accuracy (% of Full Scale)	0.03000		0.03000	
Date of Last Calibration	2021/05/05		2021/05/05	
Gauge Start Date	2023/05/11	11:42:00	2023/05/11	11:42:00
Gauge Stop Date	2023/05/29	11:45:25	2023/05/29	11:45:25
Date Gauge On Bottom	2023/05/29	06:43:25	2023/05/29	06:43:25
Date Gauge Off Bottom	2023/05/29	08:43:25	2023/05/29	08:43:25
Run Depth (TVD KB)	1879.19 m		1878.94 m	
Pressure at Run Depth	13527.57 kPa(a)		13533.30 kPa(a)	
Pressure at MPP	13486.11 kPa(a)		13492.85 kPa(a)	
Representative Gradient	4.638 kPa/m		4.655 kPa/m	
Temperature at Run Depth	62.7 °C		62.6 °C	
Liquid Level(TVD KB)	297.62 m		296.87 m	

Bottom						Top				
Depth	Temp.	Pressure	Gradient	Gradient	Time	Depth	Temp.	Pressure	Gradient	Gradient
m	°C	kPa(a)	kPa/m	°C/m	HH:mm:ss	m	°C	kPa(a)	kPa/m	°C/m
1879.19	62.66	13527.57			08:43:25	1878.94	62.60	13533.30		
1849.00	61.69	13407.67	3.971	0.032	08:50:25	1848.75	61.65	13413.41	3.971	0.031
1819.00	61.76	13267.54	4.671	-0.002	08:56:25	1818.75	61.74	13272.58	4.694	-0.003
1789.00	61.56	13144.99	4.085	0.007	09:02:55	1788.75	61.55	13150.69	4.063	0.006
1700.00	60.56	12761.11	4.313	0.011	09:09:25	1699.75	60.51	12767.05	4.311	0.012
1500.00	56.36	11917.13	4.220	0.021	09:16:55	1499.75	56.15	11923.89	4.216	0.022
1000.00	39.90	9696.23	4.442	0.033	09:45:25	999.75	39.77	9696.82	4.454	0.033
500.00	25.89	7057.35	5.278	0.028	10:13:55	499.75	25.77	7050.69	5.292	0.028
4.00	15.02	6030.14	2.071	0.022	11:18:25	3.75	13.97	6017.14	2.084	0.024

Bottom Pressure Gradient

Top Pressure Gradient

Company Name Enhance Energy Inc.
Unique Well ID 100/10-35-039-24W4/0
Start Test Date 2023/05/11
Final Test Date 2023/05/29

Well Name EnhanceEnergy Clive 10-35-39-24
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Bottom G1 - G2	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	kPa	h	kPa(a)	°C
1	2023/05/29 06:00:25	426.3069	13527.28	62.70	-5.54	426.3069	13532.81	62.67
2	2023/05/29 06:03:25	426.3569	13527.69	62.70	-5.20	426.3569	13532.89	62.67
3	2023/05/29 06:06:25	426.4069	13527.46	62.70	-5.60	426.4069	13533.06	62.67
4	2023/05/29 06:09:25	426.4569	13527.34	62.70	-5.38	426.4569	13532.73	62.67
5	2023/05/29 06:12:25	426.5069	13527.20	62.70	-5.84	426.5069	13533.04	62.67
6	2023/05/29 06:15:25	426.5569	13527.44	62.70	-5.62	426.5569	13533.06	62.67
7	2023/05/29 06:18:25	426.6069	13527.33	62.71	-5.80	426.6069	13533.13	62.67
8	2023/05/29 06:21:25	426.6569	13527.24	62.70	-5.75	426.6569	13532.99	62.66
9	2023/05/29 06:24:25	426.7069	13527.42	62.70	-5.51	426.7069	13532.93	62.67
10	2023/05/29 06:27:25	426.7569	13527.24	62.70	-5.43	426.7569	13532.67	62.66
11	2023/05/29 06:30:25	426.8069	13527.55	62.70	-5.48	426.8069	13533.03	62.66
12	2023/05/29 06:33:25	426.8569	13527.13	62.70	-5.78	426.8569	13532.91	62.66
13	2023/05/29 06:36:25	426.9069	13527.31	62.70	-5.69	426.9069	13532.99	62.67
14	2023/05/29 06:39:25	426.9569	13527.27	62.70	-5.46	426.9569	13532.73	62.67
15	2023/05/29 06:42:25	427.0069	13527.62	62.70	-5.29	427.0069	13532.90	62.67
16	2023/05/29 06:43:25	427.0236	13527.34	62.70	-5.70	427.0236	13533.04	62.67
17	Begin the final 2hrs on bottom							
18	2023/05/29 06:43:55	427.0319	13527.52	62.70	-5.02	427.0319	13532.54	62.67
19	2023/05/29 06:45:25	427.0569	13527.40	62.70	-5.57	427.0569	13532.96	62.67
20	2023/05/29 06:48:25	427.1069	13527.23	62.70	-5.76	427.1069	13532.99	62.67
21	2023/05/29 06:51:25	427.1569	13527.04	62.70	-5.94	427.1569	13532.99	62.67
22	2023/05/29 06:54:25	427.2069	13527.55	62.71	-5.13	427.2069	13532.68	62.66
23	2023/05/29 06:57:25	427.2569	13527.21	62.71	-5.84	427.2569	13533.05	62.66
24	2023/05/29 07:00:25	427.3069	13527.44	62.70	-5.72	427.3069	13533.16	62.67
25	2023/05/29 07:03:25	427.3569	13527.08	62.70	-5.78	427.3569	13532.86	62.67
26	2023/05/29 07:06:25	427.4069	13527.38	62.70	-5.80	427.4069	13533.18	62.67
27	2023/05/29 07:09:25	427.4569	13526.98	62.70	-5.86	427.4569	13532.84	62.67
28	2023/05/29 07:12:25	427.5069	13527.44	62.70	-5.78	427.5069	13533.21	62.67
29	2023/05/29 07:15:25	427.5569	13527.51	62.71	-5.71	427.5569	13533.22	62.67
30	2023/05/29 07:18:25	427.6069	13527.38	62.70	-5.61	427.6069	13532.99	62.67
31	2023/05/29 07:21:25	427.6569	13527.10	62.70	-5.91	427.6569	13533.01	62.66
32	2023/05/29 07:24:25	427.7069	13527.39	62.71	-5.72	427.7069	13533.11	62.67
33	2023/05/29 07:27:25	427.7569	13527.44	62.71	-5.59	427.7569	13533.03	62.67
34	2023/05/29 07:30:25	427.8069	13527.65	62.71	-5.53	427.8069	13533.17	62.67
35	2023/05/29 07:33:25	427.8569	13527.81	62.71	-5.07	427.8569	13532.88	62.68
36	2023/05/29 07:36:25	427.9069	13527.61	62.71	-5.52	427.9069	13533.13	62.67
37	2023/05/29 07:39:25	427.9569	13527.25	62.70	-5.76	427.9569	13533.01	62.67
38	2023/05/29 07:42:25	428.0069	13527.42	62.70	-5.60	428.0069	13533.02	62.67
39	2023/05/29 07:45:25	428.0569	13527.47	62.70	-5.81	428.0569	13533.29	62.67
40	2023/05/29 07:48:25	428.1069	13527.42	62.70	-5.67	428.1069	13533.10	62.66
41	2023/05/29 07:51:25	428.1569	13527.28	62.70	-5.91	428.1569	13533.19	62.67
42	2023/05/29 07:54:25	428.2069	13527.37	62.71	-5.75	428.2069	13533.12	62.66
43	2023/05/29 07:57:25	428.2569	13527.63	62.70	-5.29	428.2569	13532.92	62.67
44	2023/05/29 08:00:25	428.3069	13527.41	62.70	-5.69	428.3069	13533.09	62.67
45	2023/05/29 08:03:25	428.3569	13527.59	62.70	-5.72	428.3569	13533.32	62.66

Print Filter: Approximately every 6 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80590	2023/05/11 YYYY/MM/DD	11:42:00 HH:mm:ss	1879.19 m
Top	80594	2023/05/11 YYYY/MM/DD	11:42:00 HH:mm:ss	1878.94 m

Company Name Enhance Energy Inc.
Unique Well ID 100/10-35-039-24W4/0
Start Test Date 2023/05/11
Final Test Date 2023/05/29

Well Name EnhanceEnergy Clive 10-35-39-24
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Bottom G1 - G2	Top Time	Top Pres.	Top Temp.
	rYYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	kPa	h	kPa(a)	°C
46	2023/05/29 08:06:25	428.4069	13527.43	62.70	-5.53	428.4069	13532.96	62.67
47	2023/05/29 08:09:25	428.4569	13527.40	62.70	-5.54	428.4569	13532.94	62.67
48	2023/05/29 08:12:25	428.5069	13527.88	62.70	-5.12	428.5069	13532.99	62.66
49	2023/05/29 08:15:25	428.5569	13527.37	62.70	-6.09	428.5569	13533.46	62.66
50	2023/05/29 08:18:25	428.6069	13527.75	62.68	-5.18	428.6069	13532.93	62.64
51	2023/05/29 08:21:25	428.6569	13527.78	62.68	-5.29	428.6569	13533.06	62.63
52	2023/05/29 08:24:25	428.7069	13527.57	62.68	-5.41	428.7069	13532.98	62.64
53	2023/05/29 08:27:25	428.7569	13527.22	62.69	-5.91	428.7569	13533.13	62.65
54	2023/05/29 08:30:25	428.8069	13527.33	62.66	-5.88	428.8069	13533.21	62.61
55	2023/05/29 08:33:25	428.8569	13527.78	62.66	-5.27	428.8569	13533.05	62.61
56	2023/05/29 08:36:25	428.9069	13527.37	62.66	-5.79	428.9069	13533.16	62.60
57	2023/05/29 08:39:25	428.9569	13527.66	62.65	-5.49	428.9569	13533.15	62.59
58	2023/05/29 08:42:25	429.0069	13527.70	62.65	-5.27	429.0069	13532.96	62.58
59	2023/05/29 08:43:25	429.0236	13527.57	62.66	-5.73	429.0236	13533.30	62.60
60	Final Pressure - Latch & pull the Recorders to surface							
61	2023/05/29 08:43:55	429.0319	13522.39	62.66	-3.66	429.0319	13526.04	62.60
62	2023/05/29 08:45:25	429.0569	13408.11	62.37	-5.93	429.0569	13414.04	62.42
63	2023/05/29 08:48:25	429.1069	13407.99	61.86	-5.70	429.1069	13413.69	61.83
64	2023/05/29 08:51:25	429.1569	13267.59	61.69	-6.12	429.1569	13273.72	61.62
65	2023/05/29 08:54:25	429.2069	13267.45	61.76	-5.49	429.2069	13272.94	61.72
66	2023/05/29 08:57:25	429.2569	13159.03	61.76	-40.59	429.2569	13199.62	61.74
67	2023/05/29 09:00:25	429.3069	13145.10	61.62	-5.54	429.3069	13150.64	61.60
68	2023/05/29 09:03:25	429.3569	12993.26	61.54	-62.65	429.3569	13055.91	61.54
69	2023/05/29 09:06:25	429.4069	12760.94	60.79	-5.81	429.4069	12766.75	60.78
70	2023/05/29 09:09:25	429.4569	12761.11	60.56	-5.93	429.4569	12767.05	60.51
71	2023/05/29 09:12:25	429.5069	11918.72	58.21	-6.99	429.5069	11925.71	58.51
72	2023/05/29 09:15:25	429.5569	11917.16	56.69	-6.99	429.5569	11924.15	56.60
73	2023/05/29 09:18:25	429.6069	11809.45	55.68	16.96	429.6069	11792.49	55.78
74	2023/05/29 09:21:25	429.6569	11406.35	53.57	-28.89	429.6569	11435.24	53.77
75	2023/05/29 09:24:25	429.7069	11181.74	51.42	-44.77	429.7069	11226.51	51.44
76	2023/05/29 09:27:25	429.7569	10862.21	49.24	-20.06	429.7569	10882.27	49.36
77	2023/05/29 09:30:25	429.8069	10586.70	47.12	-21.48	429.8069	10608.18	47.18
78	2023/05/29 09:33:25	429.8569	10267.65	44.93	-20.19	429.8569	10287.84	44.97
79	2023/05/29 09:36:25	429.9069	9996.86	43.05	-18.49	429.9069	10015.35	43.09
80	2023/05/29 09:39:25	429.9569	9718.00	41.14	-14.89	429.9569	9732.89	41.16
81	2023/05/29 09:42:25	430.0069	9696.38	40.17	-0.84	430.0069	9697.22	40.06
82	2023/05/29 09:45:25	430.0569	9696.23	39.90	-0.59	430.0569	9696.82	39.77
83	2023/05/29 09:48:25	430.1069	9299.29	38.74	-30.30	430.1069	9329.59	38.85
84	2023/05/29 09:51:25	430.1569	8910.93	36.62	-21.37	430.1569	8932.30	36.71
85	2023/05/29 09:54:25	430.2069	8584.29	35.07	-16.53	430.2069	8600.82	35.20
86	2023/05/29 09:57:25	430.2569	8157.25	33.14	-22.15	430.2569	8179.40	33.27
87	2023/05/29 10:00:25	430.3069	7741.56	31.32	-15.54	430.3069	7757.10	31.43
88	2023/05/29 10:03:25	430.3569	7318.05	29.26	-18.47	430.3569	7336.52	29.50
89	2023/05/29 10:06:25	430.4069	7146.50	27.40	-1.24	430.4069	7147.74	27.57
90	2023/05/29 10:09:25	430.4569	7057.62	26.22	6.40	430.4569	7051.22	26.25

Print Filter: Approximately every 6 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80590	2023/05/11 YYYY/MM/DD	11:42:00 HH:mm:ss	1879.19 m
Top	80594	2023/05/11 YYYY/MM/DD	11:42:00 HH:mm:ss	1878.94 m

Company Name Enhance Energy Inc.
Unique Well ID 100/10-35-039-24W4/0
Start Test Date 2023/05/11
Final Test Date 2023/05/29

Well Name EnhanceEnergy Clive 10-35-39-24
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Bottom G1 - G2	Top Time	Top Pres.	Top Temp.
	rYYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	kPa	h	kPa(a)	°C
91	2023/05/29 10:12:25	430.5069	7057.52	25.95	6.72	430.5069	7050.79	25.84
92	2023/05/29 10:15:25	430.5569	6993.66	25.47	-0.81	430.5569	6994.47	25.51
93	2023/05/29 10:18:25	430.6069	6886.98	24.02	1.18	430.6069	6885.80	24.11
94	2023/05/29 10:21:25	430.6569	6848.04	22.83	8.97	430.6569	6839.07	22.89
95	2023/05/29 10:24:25	430.7069	6779.36	22.09	8.88	430.7069	6770.49	22.09
96	2023/05/29 10:27:25	430.7569	6779.39	21.84	9.38	430.7569	6770.01	21.72
97	2023/05/29 10:30:25	430.8069	6779.08	21.74	9.11	430.8069	6769.97	21.59
98	2023/05/29 10:33:25	430.8569	6716.97	21.12	6.94	430.8569	6710.03	21.12
99	2023/05/29 10:36:25	430.9069	6668.05	20.30	7.12	430.9069	6660.93	20.30
100	2023/05/29 10:39:25	430.9569	6617.71	19.50	7.94	430.9569	6609.77	19.49
101	2023/05/29 10:42:25	431.0069	6583.93	18.90	8.05	431.0069	6575.88	18.85
102	2023/05/29 10:45:25	431.0569	6513.31	18.23	5.39	431.0569	6507.92	18.22
103	2023/05/29 10:48:25	431.1069	6448.41	17.32	7.24	431.1069	6441.17	17.33
104	2023/05/29 10:51:25	431.1569	6377.91	16.40	7.35	431.1569	6370.55	16.41
105	2023/05/29 10:54:25	431.2069	6319.43	15.57	8.57	431.2069	6310.86	15.58
106	2023/05/29 10:57:25	431.2569	6277.47	14.82	9.58	431.2569	6267.89	14.81
107	2023/05/29 11:00:25	431.3069	6221.94	14.01	8.18	431.3069	6213.76	14.01
108	2023/05/29 11:03:25	431.3569	6166.86	13.05	9.36	431.3569	6157.50	13.06
109	2023/05/29 11:06:25	431.4069	6110.31	11.54	8.56	431.4069	6101.75	11.71
110	2023/05/29 11:09:25	431.4569	6056.05	9.27	8.19	431.4569	6047.86	9.44
111	2023/05/29 11:12:25	431.5069	6032.96	9.86	12.23	431.5069	6020.73	9.31
112	2023/05/29 11:15:25	431.5569	6032.54	12.87	13.25	431.5569	6019.29	12.01
113	2023/05/29 11:18:25	431.6069	6030.14	15.02	13.00	431.6069	6017.14	13.97
114	2023/05/29 11:21:25	431.6569	1056.32	15.66	-143.91	431.6569	1200.24	14.82
115	2023/05/29 11:24:25	431.7069	128.90	14.94	2.59	431.7069	126.31	14.22
116	2023/05/29 11:27:25	431.7569	113.73	15.19	12.54	431.7569	101.18	14.56
117	2023/05/29 11:30:25	431.8069	107.53	16.36	9.34	431.8069	98.18	15.72
118	2023/05/29 11:33:25	431.8569	107.52	17.85	9.07	431.8569	98.45	17.27
119	2023/05/29 11:36:25	431.9069	107.26	19.37	8.49	431.9069	98.77	18.91
120	2023/05/29 11:39:25	431.9569	104.77	20.61	6.47	431.9569	98.31	20.44
121	2023/05/29 11:42:25	432.0069	104.54	21.17	6.04	432.0069	98.50	21.18
122	2023/05/29 11:45:25	432.0569	104.77	22.40	6.05	432.0569	98.71	22.51

Print Filter: Approximately every 6 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80590	2023/05/11 YYYY/MM/DD	11:42:00 HH:mm:ss	1879.19 m
Top	80594	2023/05/11 YYYY/MM/DD	11:42:00 HH:mm:ss	1878.94 m

RELIANCE
OILFIELD SERVICES

Test Type Static Gradient

Company Name	**Enhance Energy Inc.**
Well Name	**Fairborne 102 Clive 2-20-40-24**
Unique Well ID	**102/02-02-040-24W4/0**
Well License Number	**0174800**
Formation	**Leduc**
Start Test Date	**2023/07/12**
Final Test Date	**2023/07/12**

Prepared By	**Kennason Tech Services Inc.**
Qualified By	**Cory Strang**
Report Date	**2023/07/13**

Reliance OFS Canada Limited
2500 333 - 7th Ave SW
Calgary AB T2P 2Z1
403-475-1229
relianceofs.com

RELIANCE OILFIELD SERVICES

Pressure Survey Report

Static Gradient

Company Name Enhance Energy Inc.
Contact Kevin Meyer

Representative Russ Guenther

General Information

Well Name	Fairborne 102 Clive 2-20-40-24
Unique Well ID	102/02-02-040-24W4/0
Surface Location	02-02-040-24W4
Well License Number	0174800
Well Type	Vertical

KB Elevation (SL)	877.20 m
CF Elevation (SL)	872.00 m
GL Elevation (SL)	872.00 m
KB-CF Offset	5.20 m
KB-GL Offset	5.20 m

Wellbore Information

Tubing OD	73.0 mm	Casing OD	139.7 mm
Tubing ID	62.0 mm	Casing ID	125.7 mm
Tubing Depth(Log KB)	1903.80000 m	Casing Depth(Log KB)	1907.00000 m
Tubing Depth(TVD KB)	1903.80000 m	Casing Depth(TVD KB)	1907.00000 m
Packer Depth(Log KB)	1891.20000 m	PBTD(Log KB)	1907.00 m
Packer Depth(TVD KB)	1891.20000 m	PBTD(TVD KB)	1907.00 m

Gross Completion Interval (GCI) as tested:

Top(Log KB)	1901.00 m	Top(TVD KB)	1901.00 m	Formation Name	Leduc
Bottom(Log KB)	1905.00 m	Bottom(TVD KB)	1905.00 m	Pool	
MPP(Log KB)	1903.00 m	MPP(TVD KB)	1903.00 m		

Test Information

Test Type	Static Gradient
Well Fluid Type	06 Water
Test Purpose	Initial Test

Date/Time Gauge on Bottom	2023/07/12 10:09:35
Date/Time Gauge Off Bottom	2023/07/12 12:14:45
Time/Date Well Shut-In	2023/06/25 12:00:00
Shut-In Duration	405.2236 h

Surface Pressures:

Tubing Pressure Initial	4993.00 kPa(a)	Casing Pressure Initial	93.00 kPa(a)
Tubing Pressure: Final	4999.00 kPa(a)	Casing Pressure: Final	93.00 kPa(a)

Test Results

Gauge Serial Number Used in Summary	80664		Run Depth (Log KB)	1903.00	m
Calculated Pressure Corrected to MPP	13568.90	kPa(a)	Run Depth (TVD KB)	1903.00	m
Reservoir Temperature	63.04	°C	Pressure at Stop Depth	13568.90	kPa(a)
Liquid Level(TVD KB)	1276.92	m	Temperature at Run Depth	63.0	°C

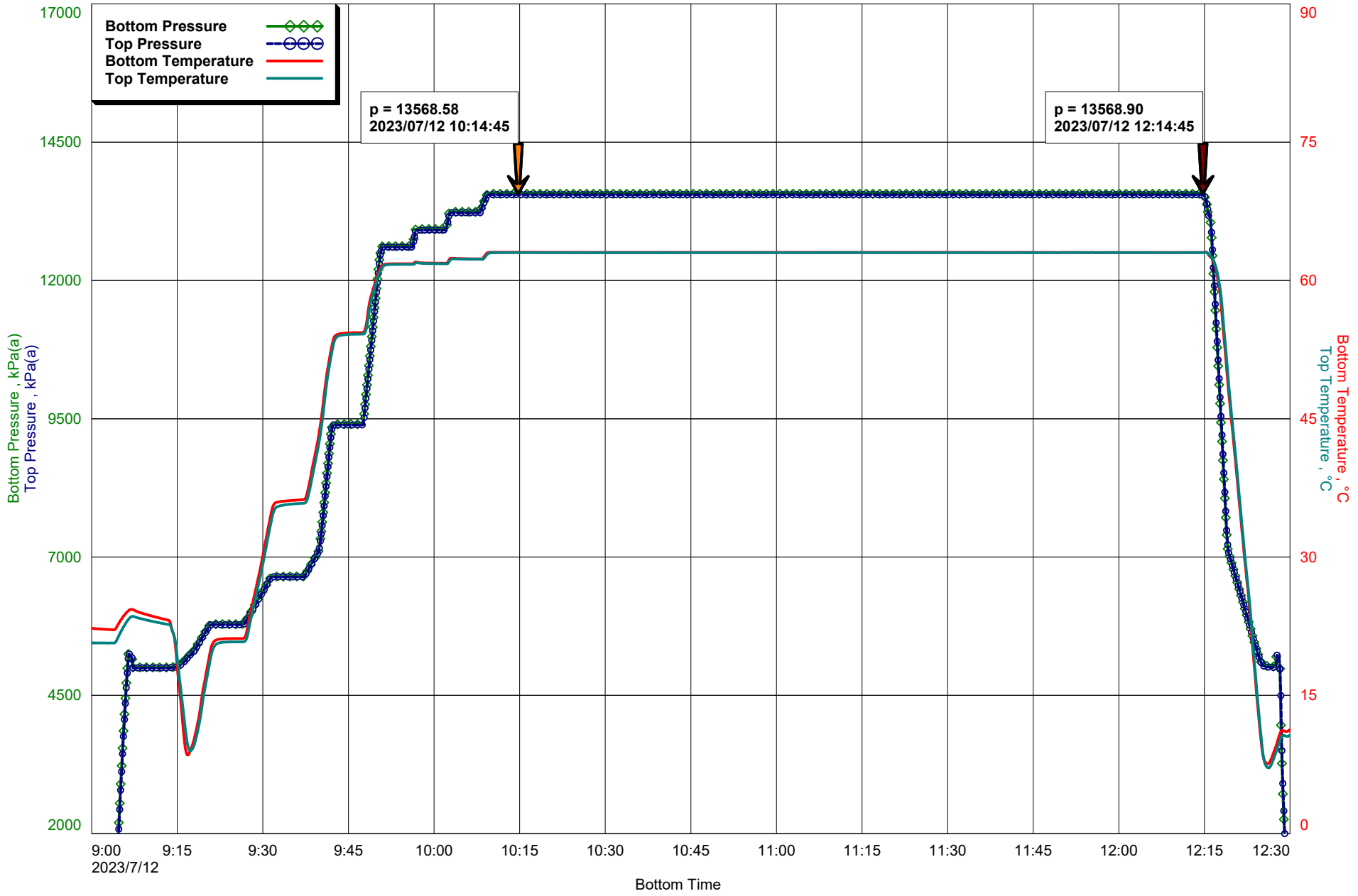
Test Remarks:

The Shut in Date/Time was not provided - defaulted to perf date.

Enhance Energy Inc.
102/02-02-040-24W4/0
Start Test Date: 2023/07/12
Final Test Date: 2023/07/12

Fairborne 102 Clive 2-20-40-24
Formation: Leduc

Static Gradient Plot



Static Gradient 2023/07/12

Company Name Enhance Energy Inc.

Well Name Fairborne 102 Clive 2-20-40-24

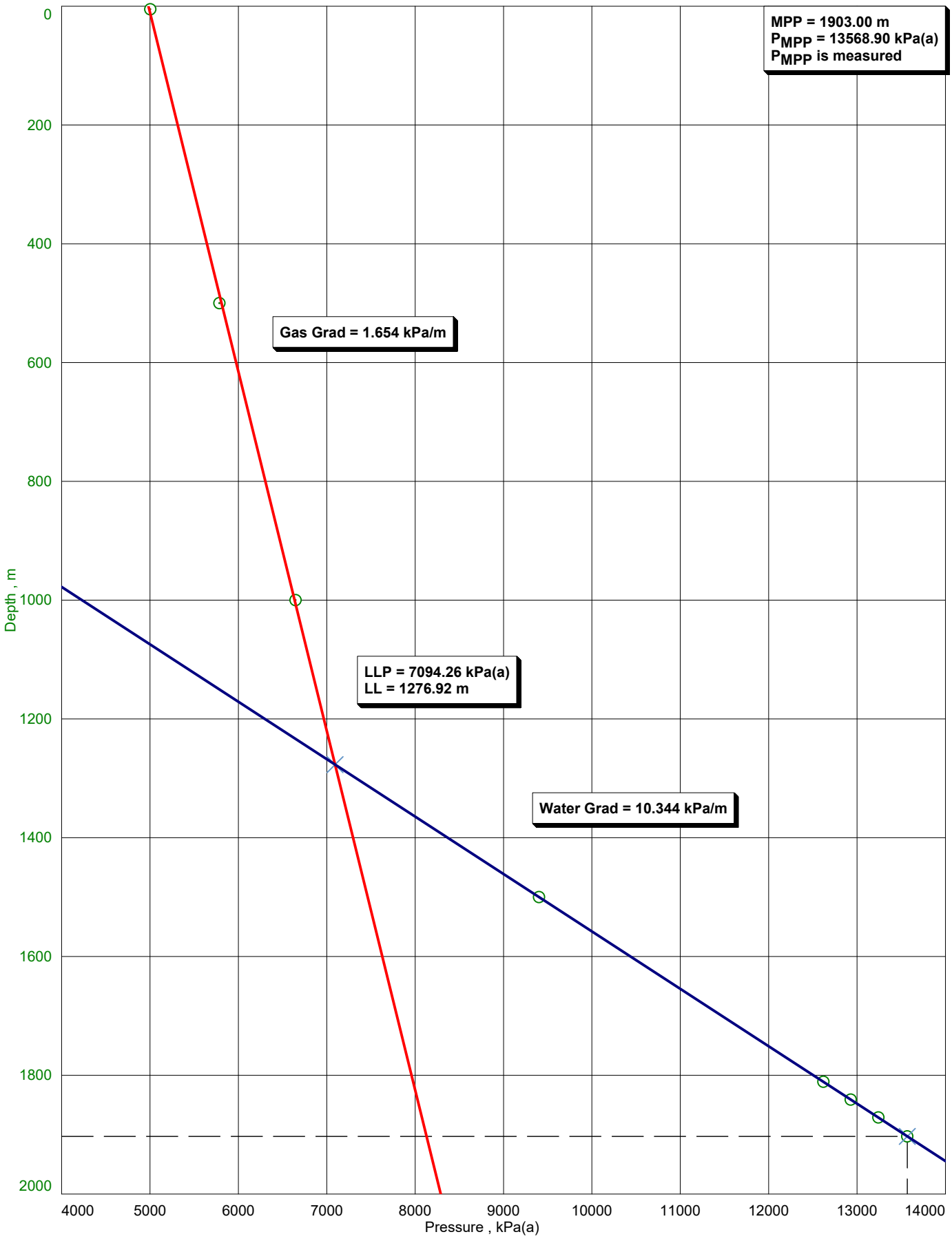
Unique Well ID	102/02-02-040-24W4/0	KB Elevation (SL)	877.20
		GL Elevation (SL)	872.00
Formation	Leduc	CF Elevation (SL)	872.00
Well Fluid Type	06 Water		
Well License Number	0174800		
Well Type	Vertical		
Start Test Date	2023/07/12	Start Test Time	08:51:00
Final Test Date	2023/07/12	Final Test Time	12:35:05
Date Well Shut-In	2023/06/25	Time Well Shut-In	12:00:00

Top(TVD KB)	1901.00 m	Tubing Pressure: Initial	4993.00 kPa(a)
Bottom(TVD KB)	1905.00 m	Casing Pressure: Initial	93.00 kPa(a)
MPP(TVD KB)	1903.00 m	Shut-In Duration	405.2236 h

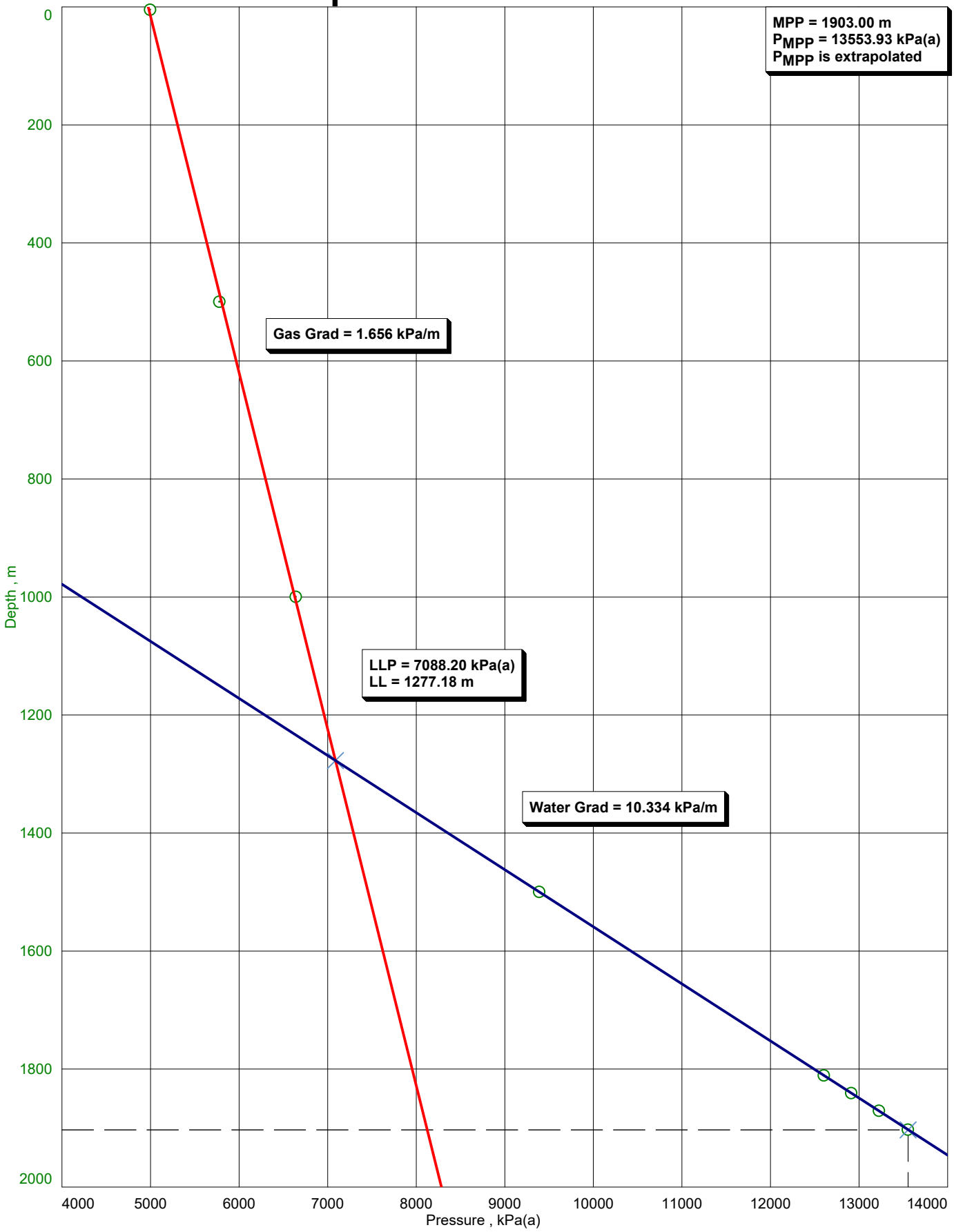
	Bottom	Top
Gauge Name	Bottom	Top
Gauge Serial Number	80664	80666
Gauge Type	Strain	Strain
Gauge Manufacturer	Spartek	Spartek
Gauge Model	SS2500	SS2500
Maximum Recorder Range	41370.00 kPa(a)	41370.00 kPa(a)
Resolution (% of Full Scale)	0.00030	0.00030
Accuracy (% of Full Scale)	0.03000	0.03000
Date of Last Calibration	2021/12/22	2021/12/22
Gauge Start Date	2023/07/12 08:51:00	2023/07/12 08:51:00
Gauge Stop Date	2023/07/12 12:35:05	2023/07/12 12:35:05
Date Gauge On Bottom	2023/07/12 10:09:35	2023/07/12 10:09:35
Date Gauge Off Bottom	2023/07/12 12:14:45	2023/07/12 12:14:45
Run Depth (TVD KB)	1903.00 m	1902.75 m
Pressure at Run Depth	13568.90 kPa(a)	13551.35 kPa(a)
Pressure at MPP	13568.90 kPa(a)	13553.93 kPa(a)
Representative Gradient	10.344 kPa/m	10.334 kPa/m
Temperature at Run Depth	63.0 °C	63.0 °C
Liquid Level(TVD KB)	1276.92 m	1277.18 m

Bottom						Top				
Depth	Temp.	Pressure	Gradient	Gradient	Time	Depth	Temp.	Pressure	Gradient	Gradient
m	°C	kPa(a)	kPa/m	°C/m	HH:mm:ss	m	°C	kPa(a)	kPa/m	°C/m
5.20	23.15	5003.88			09:13:25	4.95	22.66	4994.55		
500.00	21.16	5785.61	1.580	-0.004	09:26:15	499.75	20.79	5776.81	1.581	-0.004
1000.00	36.22	6647.73	1.724	0.030	09:37:05	999.75	35.84	6640.39	1.727	0.030
1500.00	54.35	9401.70	5.508	0.036	09:47:25	1499.75	54.19	9388.17	5.496	0.037
1811.00	61.82	12619.40	10.346	0.024	09:56:05	1810.75	61.75	12602.30	10.335	0.024
1841.00	61.87	12928.77	10.312	0.002	10:02:05	1840.75	61.82	12911.82	10.317	0.002
1871.00	62.34	13241.46	10.423	0.016	10:07:55	1870.75	62.31	13224.49	10.422	0.017
1903.00	63.04	13568.90	10.232	0.022	12:14:45	1902.75	63.02	13551.35	10.214	0.022

Bottom Pressure Gradient



Top Pressure Gradient



Company Name Enhance Energy Inc.
Unique Well ID 102/02-02-040-24W4/0
Start Test Date 2023/07/12
Final Test Date 2023/07/12

Well Name Fairborne 102 Clive 2-20-40-24
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
1	2023/07/12 08:51:00	0.0000	109.79	22.35	0.0000	97.90	21.53
2	2023/07/12 08:52:05	0.0181	108.67	23.09	0.0181	97.79	21.82
3	2023/07/12 08:54:05	0.0514	107.64	23.84	0.0514	97.32	21.86
4	2023/07/12 08:56:05	0.0847	107.68	23.23	0.0847	96.98	21.43
5	2023/07/12 08:58:05	0.1181	107.77	22.66	0.1181	97.01	20.98
6	2023/07/12 09:00:05	0.1514	107.83	22.26	0.1514	96.27	20.69
7	2023/07/12 09:02:05	0.1847	108.04	22.17	0.1847	96.74	20.67
8	2023/07/12 09:04:05	0.2181	636.52	22.13	0.2181	501.07	20.69
9	2023/07/12 09:06:05	0.2514	4723.15	23.96	0.2514	4632.27	22.92
10	2023/07/12 09:08:05	0.2847	5003.77	24.05	0.2847	4995.13	23.40
11	2023/07/12 09:10:05	0.3181	5003.77	23.67	0.3181	4995.15	23.10
12	2023/07/12 09:12:05	0.3514	5003.95	23.35	0.3514	4994.72	22.84
13	2023/07/12 09:14:05	0.3847	5008.35	22.12	0.3847	4997.64	22.08
14	2023/07/12 09:16:05	0.4181	5111.00	11.05	0.4181	5089.91	13.14
15	2023/07/12 09:18:05	0.4514	5338.50	10.57	0.4514	5320.04	9.85
16	2023/07/12 09:20:05	0.4847	5675.14	17.47	0.4847	5658.15	16.52
17	2023/07/12 09:22:05	0.5181	5785.56	21.05	0.5181	5776.41	20.63
18	2023/07/12 09:24:05	0.5514	5785.63	21.15	0.5514	5775.86	20.79
19	2023/07/12 09:26:05	0.5847	5786.00	21.16	0.5847	5775.93	20.79
20	2023/07/12 09:28:05	0.6181	6039.96	24.67	0.6181	6022.90	23.82
21	2023/07/12 09:30:05	0.6514	6401.22	30.44	0.6514	6385.70	29.50
22	2023/07/12 09:32:05	0.6847	6645.34	35.83	0.6847	6640.00	35.21
23	2023/07/12 09:34:05	0.7181	6646.82	36.08	0.7181	6639.76	35.68
24	2023/07/12 09:36:05	0.7514	6647.44	36.18	0.7514	6640.01	35.79
25	2023/07/12 09:38:05	0.7847	6802.98	37.81	0.7847	6787.03	36.98
26	2023/07/12 09:40:05	0.8181	7332.55	44.37	0.8181	7286.55	43.32
27	2023/07/12 09:42:05	0.8514	9345.41	52.89	0.8514	9309.04	52.23
28	2023/07/12 09:44:05	0.8847	9401.42	54.27	0.8847	9387.95	54.09
29	2023/07/12 09:46:05	0.9181	9401.76	54.34	0.9181	9388.11	54.17
30	2023/07/12 09:48:05	0.9514	9935.76	55.05	0.9514	9865.19	54.62
31	2023/07/12 09:50:05	0.9847	12026.77	60.63	0.9847	11956.74	60.26
32	2023/07/12 09:52:05	1.0181	12618.69	61.80	1.0181	12602.13	61.72
33	2023/07/12 09:54:05	1.0514	12618.81	61.82	1.0514	12602.14	61.75
34	2023/07/12 09:56:05	1.0847	12619.40	61.82	1.0847	12602.30	61.75
35	2023/07/12 09:58:05	1.1181	12928.80	61.91	1.1181	12911.59	61.86
36	2023/07/12 10:00:05	1.1514	12928.77	61.88	1.1514	12911.70	61.83
37	2023/07/12 10:02:05	1.1847	12928.77	61.87	1.1847	12911.82	61.82
38	2023/07/12 10:04:05	1.2181	13241.51	62.38	1.2181	13224.20	62.34
39	2023/07/12 10:06:05	1.2514	13241.55	62.35	1.2514	13223.76	62.32
40	2023/07/12 10:08:05	1.2847	13257.20	62.34	1.2847	13224.49	62.31
41	2023/07/12 10:10:05	1.3181	13567.94	63.06	1.3181	13551.06	63.01
42	2023/07/12 10:12:05	1.3514	13568.07	63.06	1.3514	13550.37	63.02
43	2023/07/12 10:14:05	1.3847	13568.62	63.06	1.3847	13550.85	63.02
44	2023/07/12 10:16:05	1.4181	13568.40	63.05	1.4181	13550.80	63.02
45	2023/07/12 10:18:05	1.4514	13568.41	63.05	1.4514	13551.08	63.02

Print Filter: Approximately every 12 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/07/12 YYYY/MM/DD	08:51:00 HH:mm:ss	1903.00 m
Top	80666	2023/07/12 YYYY/MM/DD	08:51:00 HH:mm:ss	1902.75 m

Company Name Enhance Energy Inc.
Unique Well ID 102/02-02-040-24W4/0
Start Test Date 2023/07/12
Final Test Date 2023/07/12

Well Name Fairborne 102 Clive 2-20-40-24
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
46	2023/07/12 10:20:05	1.4847	13568.73	63.05	1.4847	13550.57	63.02
47	2023/07/12 10:22:05	1.5181	13568.43	63.05	1.5181	13551.31	63.02
48	2023/07/12 10:24:05	1.5514	13568.46	63.05	1.5514	13550.90	63.01
49	2023/07/12 10:26:05	1.5847	13568.51	63.05	1.5847	13550.52	63.01
50	2023/07/12 10:28:05	1.6181	13568.92	63.05	1.6181	13550.81	63.01
51	2023/07/12 10:30:05	1.6514	13568.80	63.05	1.6514	13550.68	63.01
52	2023/07/12 10:32:05	1.6847	13569.06	63.05	1.6847	13551.11	63.01
53	2023/07/12 10:34:05	1.7181	13568.89	63.05	1.7181	13551.03	63.01
54	2023/07/12 10:36:05	1.7514	13568.73	63.05	1.7514	13550.97	63.01
55	2023/07/12 10:38:05	1.7847	13568.69	63.05	1.7847	13551.04	63.01
56	2023/07/12 10:40:05	1.8181	13568.78	63.05	1.8181	13551.29	63.01
57	2023/07/12 10:42:05	1.8514	13568.64	63.05	1.8514	13550.84	63.01
58	2023/07/12 10:44:05	1.8847	13568.64	63.05	1.8847	13550.91	63.01
59	2023/07/12 10:46:05	1.9181	13568.84	63.05	1.9181	13551.05	63.01
60	2023/07/12 10:48:05	1.9514	13568.74	63.05	1.9514	13550.76	63.02
61	2023/07/12 10:50:05	1.9847	13568.82	63.05	1.9847	13550.93	63.01
62	2023/07/12 10:52:05	2.0181	13569.21	63.05	2.0181	13550.84	63.02
63	2023/07/12 10:54:05	2.0514	13569.38	63.05	2.0514	13551.09	63.02
64	2023/07/12 10:56:05	2.0847	13569.10	63.05	2.0847	13550.99	63.02
65	2023/07/12 10:58:05	2.1181	13568.86	63.05	2.1181	13551.29	63.02
66	2023/07/12 11:00:05	2.1514	13568.49	63.05	2.1514	13551.11	63.02
67	2023/07/12 11:02:05	2.1847	13568.76	63.05	2.1847	13550.94	63.02
68	2023/07/12 11:04:05	2.2181	13568.85	63.05	2.2181	13550.91	63.02
69	2023/07/12 11:06:05	2.2514	13568.84	63.05	2.2514	13550.99	63.02
70	2023/07/12 11:08:05	2.2847	13568.92	63.05	2.2847	13551.04	63.02
71	2023/07/12 11:10:05	2.3181	13568.74	63.05	2.3181	13551.25	63.02
72	2023/07/12 11:12:05	2.3514	13569.03	63.05	2.3514	13550.79	63.01
73	2023/07/12 11:14:05	2.3847	13568.72	63.05	2.3847	13551.12	63.02
74	2023/07/12 11:16:05	2.4181	13569.06	63.04	2.4181	13551.02	63.02
75	2023/07/12 11:18:05	2.4514	13568.87	63.04	2.4514	13551.03	63.01
76	2023/07/12 11:20:05	2.4847	13569.17	63.04	2.4847	13551.08	63.02
77	2023/07/12 11:22:05	2.5181	13568.69	63.05	2.5181	13551.32	63.02
78	2023/07/12 11:24:05	2.5514	13568.78	63.05	2.5514	13550.93	63.02
79	2023/07/12 11:26:05	2.5847	13569.40	63.05	2.5847	13551.05	63.01
80	2023/07/12 11:28:05	2.6181	13568.86	63.04	2.6181	13550.90	63.01
81	2023/07/12 11:30:05	2.6514	13568.63	63.05	2.6514	13551.63	63.02
82	2023/07/12 11:32:05	2.6847	13568.68	63.04	2.6847	13551.18	63.02
83	2023/07/12 11:34:05	2.7181	13569.06	63.04	2.7181	13551.40	63.01
84	2023/07/12 11:36:05	2.7514	13569.19	63.04	2.7514	13551.43	63.02
85	2023/07/12 11:38:05	2.7847	13568.97	63.04	2.7847	13551.22	63.01
86	2023/07/12 11:40:05	2.8181	13568.48	63.04	2.8181	13551.26	63.02
87	2023/07/12 11:42:05	2.8514	13568.68	63.04	2.8514	13551.39	63.01
88	2023/07/12 11:44:05	2.8847	13569.13	63.04	2.8847	13551.32	63.02
89	2023/07/12 11:46:05	2.9181	13568.63	63.04	2.9181	13550.99	63.01
90	2023/07/12 11:48:05	2.9514	13569.07	63.04	2.9514	13551.05	63.01

Print Filter: Approximately every 12 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/07/12 YYYY/MM/DD	08:51:00 HH:mm:ss	1903.00 m
Top	80666	2023/07/12 YYYY/MM/DD	08:51:00 HH:mm:ss	1902.75 m

Company Name Enhance Energy Inc.
Unique Well ID 102/02-02-040-24W4/0
Start Test Date 2023/07/12
Final Test Date 2023/07/12

Well Name Fairborne 102 Clive 2-20-40-24
Formation Leduc

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
91	2023/07/12 11:50:05	2.9847	13568.82	63.04	2.9847	13551.30	63.02
92	2023/07/12 11:52:05	3.0181	13569.04	63.05	3.0181	13551.57	63.02
93	2023/07/12 11:54:05	3.0514	13568.47	63.04	3.0514	13551.30	63.02
94	2023/07/12 11:56:05	3.0847	13568.79	63.04	3.0847	13551.09	63.01
95	2023/07/12 11:58:05	3.1181	13568.56	63.04	3.1181	13550.91	63.02
96	2023/07/12 12:00:05	3.1514	13568.60	63.04	3.1514	13551.37	63.02
97	2023/07/12 12:02:05	3.1847	13569.07	63.04	3.1847	13551.17	63.02
98	2023/07/12 12:04:05	3.2181	13568.67	63.04	3.2181	13551.34	63.02
99	2023/07/12 12:06:05	3.2514	13569.19	63.04	3.2514	13550.93	63.01
100	2023/07/12 12:08:05	3.2847	13568.92	63.04	3.2847	13551.16	63.02
101	2023/07/12 12:10:05	3.3181	13568.76	63.04	3.3181	13551.66	63.01
102	2023/07/12 12:12:05	3.3514	13568.58	63.04	3.3514	13551.44	63.02
103	2023/07/12 12:14:05	3.3847	13568.80	63.04	3.3847	13551.49	63.02
104	2023/07/12 12:16:05	3.4181	13048.05	62.62	3.4181	13124.86	62.63
105	2023/07/12 12:18:05	3.4514	9087.20	56.23	3.4514	9202.21	57.20
106	2023/07/12 12:20:05	3.4847	6777.73	42.72	3.4847	6785.19	43.40
107	2023/07/12 12:22:05	3.5181	6067.08	29.63	3.5181	6072.44	30.19
108	2023/07/12 12:24:05	3.5514	5346.43	15.57	3.5514	5346.70	16.23
109	2023/07/12 12:26:05	3.5847	5028.45	7.58	3.5847	5012.88	7.15
110	2023/07/12 12:28:05	3.6181	5155.91	10.56	3.6181	5197.84	9.82
111	2023/07/12 12:30:05	3.6514	969.11	11.27	3.6514	1027.79	10.70
112	2023/07/12 12:32:05	3.6847	169.14	11.76	3.6847	163.52	11.22
113	2023/07/12 12:34:05	3.7181	113.87	12.83	3.7181	99.48	12.27
114	2023/07/12 12:35:05	3.7347	113.42	13.80	3.7347	99.17	13.34

Print Filter: Approximately every 12 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/07/12 YYYY/MM/DD	08:51:00 HH:mm:ss	1903.00 m
Top	80666	2023/07/12 YYYY/MM/DD	08:51:00 HH:mm:ss	1902.75 m

RELIANCE
OILFIELD SERVICES

Test Type Static Gradient

Company Name	**Enhance Energy Inc.**
Well Name	**Fairborne Clive 4-26-39-24W4**
Unique Well ID	**100/04-26-039-24W4/2**
Well License Number	**0032636**
Formation	**Nisku**
Start Test Date	**2023/09/28**
Final Test Date	**2023/09/28**

Prepared By	**Kennason Tech Services Inc.**
Qualified By	**Cory Strang**
Report Date	**2023/09/29**

Reliance OFS Canada Limited
2500 333 - 7th Ave SW
Calgary AB T2P 2Z1
403-475-1229
relianceofs.com

RELIANCE OILFIELD SERVICES

Pressure Survey Report

Static Gradient

Company Name Enhance Energy Inc.
Contact Kevin Meyer

Representative Russ Guenther

General Information

Well Name	Fairborne Clive 4-26-39-24W4
Unique Well ID	100/04-26-039-24W4/2
Surface Location	04-26-039-24W4
Well License Number	0032636
Well Type	Vertical

KB Elevation (SL)	886.70 m
CF Elevation (SL)	882.70 m
GL Elevation (SL)	882.70 m
KB-CF Offset	4.00 m
KB-GL Offset	4.00 m

Wellbore Information

Tubing OD	73.0 mm
Tubing ID	62.0 mm
Tubing Depth(Log KB)	1845.30000 m
Tubing Depth(TVD KB)	1845.30000 m
Packer Depth(Log KB)	1839.90000 m
Packer Depth(TVD KB)	1839.90000 m

Casing OD	177.8 mm
Casing ID	161.7 mm
Casing Depth(Log KB)	1922.10000 m
Casing Depth(TVD KB)	1922.10000 m
PBTD(Log KB)	1882.00 m
PBTD(TVD KB)	1882.00 m

Gross Completion Interval (GCI) as tested:

Top(Log KB)	1845.50 m	Top(TVD KB)	1845.50 m	Formation Name	Nisku
Bottom(Log KB)	1847.50 m	Bottom(TVD KB)	1847.50 m	Pool	
MPP(Log KB)	1846.50 m	MPP(TVD KB)	1846.50 m		

Test Information

Test Type	Static Gradient
Well Fluid Type	01 Oil
Test Purpose	Annual Pressure

Date/Time Gauge on Bottom	2023/09/28 09:33:55
Date/Time Gauge Off Bottom	2023/09/28 09:48:55
Time/Date Well Shut-In	2020/03/10 12:00:00
Shut-In Duration	31124.5292 h

Surface Pressures:

Tubing Pressure Initial	93.00 kPa(a)	Casing Pressure Initial	182.00 kPa(a)
Tubing Pressure: Final	93.00 kPa(a)	Casing Pressure: Final	182.00 kPa(a)

Test Results

Gauge Serial Number Used in Summary	80682	Run Depth (Log KB)	1846.50 m
Calculated Pressure Corrected to MPP	12794.47 kPa(a)	Run Depth (TVD KB)	1846.50 m
Reservoir Temperature	63.26 °C	Pressure at Stop Depth	12794.47 kPa(a)
Liquid Level(TVD KB)	631.83 m	Temperature at Run Depth	63.3 °C

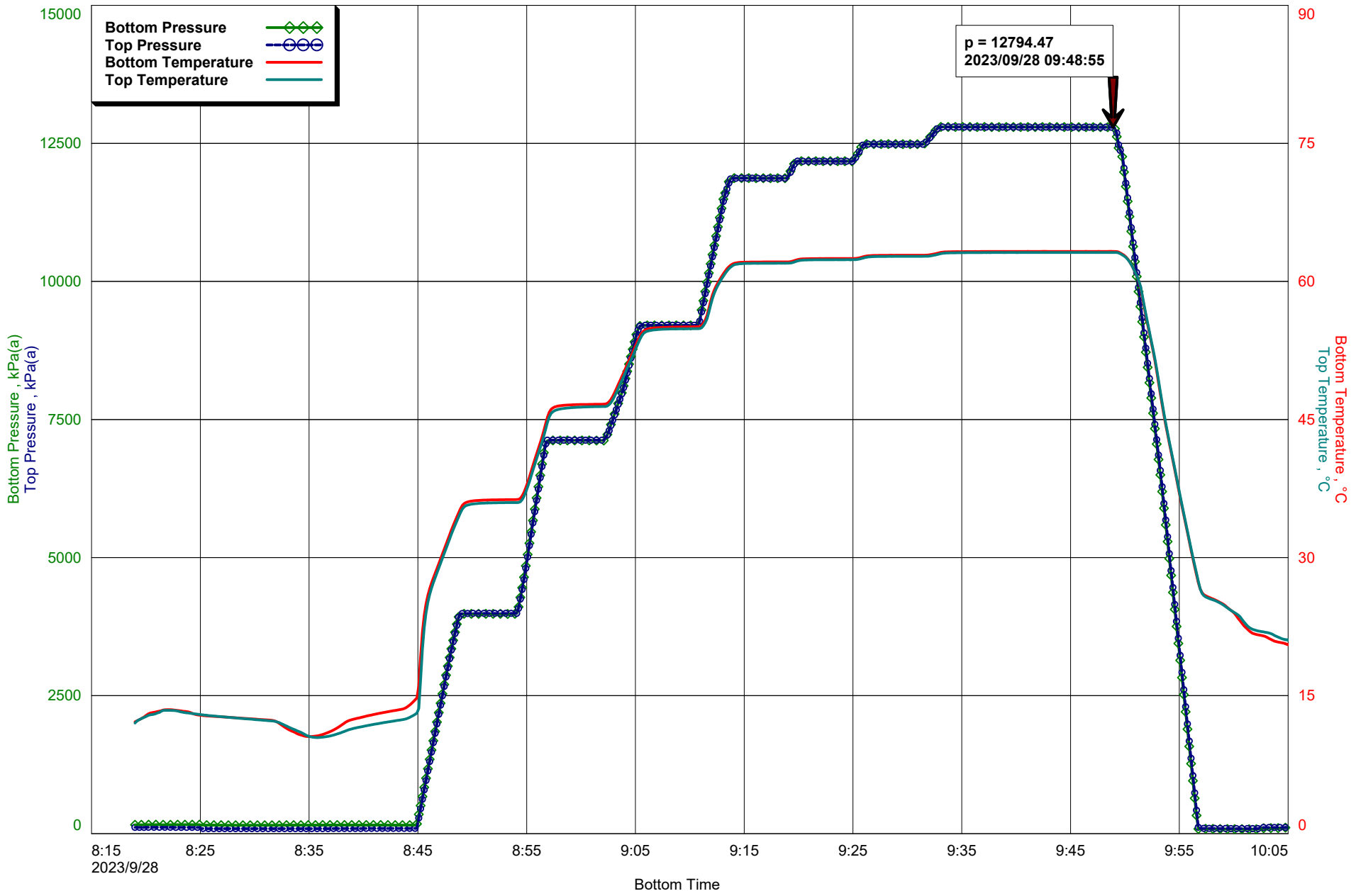
Test Remarks:

The Shut in date/time was not provided - used the AER Suspension date.

Enhance Energy Inc.
100/04-26-039-24W4/2
Start Test Date: 2023/09/28
Final Test Date: 2023/09/28

Fairborne Clive 4-26-39-24W4
Formation: Nisku

Static Gradient Plot



Static Gradient 2023/09/28

Company Name Enhance Energy Inc.

Well Name Fairborne Clive 4-26-39-24W4

Unique Well ID	100/04-26-039-24W4/2	KB Elevation (SL)	886.70
		GL Elevation (SL)	882.70
Formation	Nisku	CF Elevation (SL)	882.70
Well Fluid Type	01 Oil		
Well License Number	0032636		
Well Type	Vertical		
Start Test Date	2023/09/28	Start Test Time	08:19:00
Final Test Date	2023/09/28	Final Test Time	10:05:25
Date Well Shut-In	2020/03/10	Time Well Shut-In	12:00:00

Top(TVD KB)	1845.50	m	Tubing Pressure: Initial	93.00	kPa(a)
Bottom(TVD KB)	1847.50	m	Casing Pressure: Initial	182.00	kPa(a)
MPP(TVD KB)	1846.50	m	Shut-In Duration	31124.5292	h

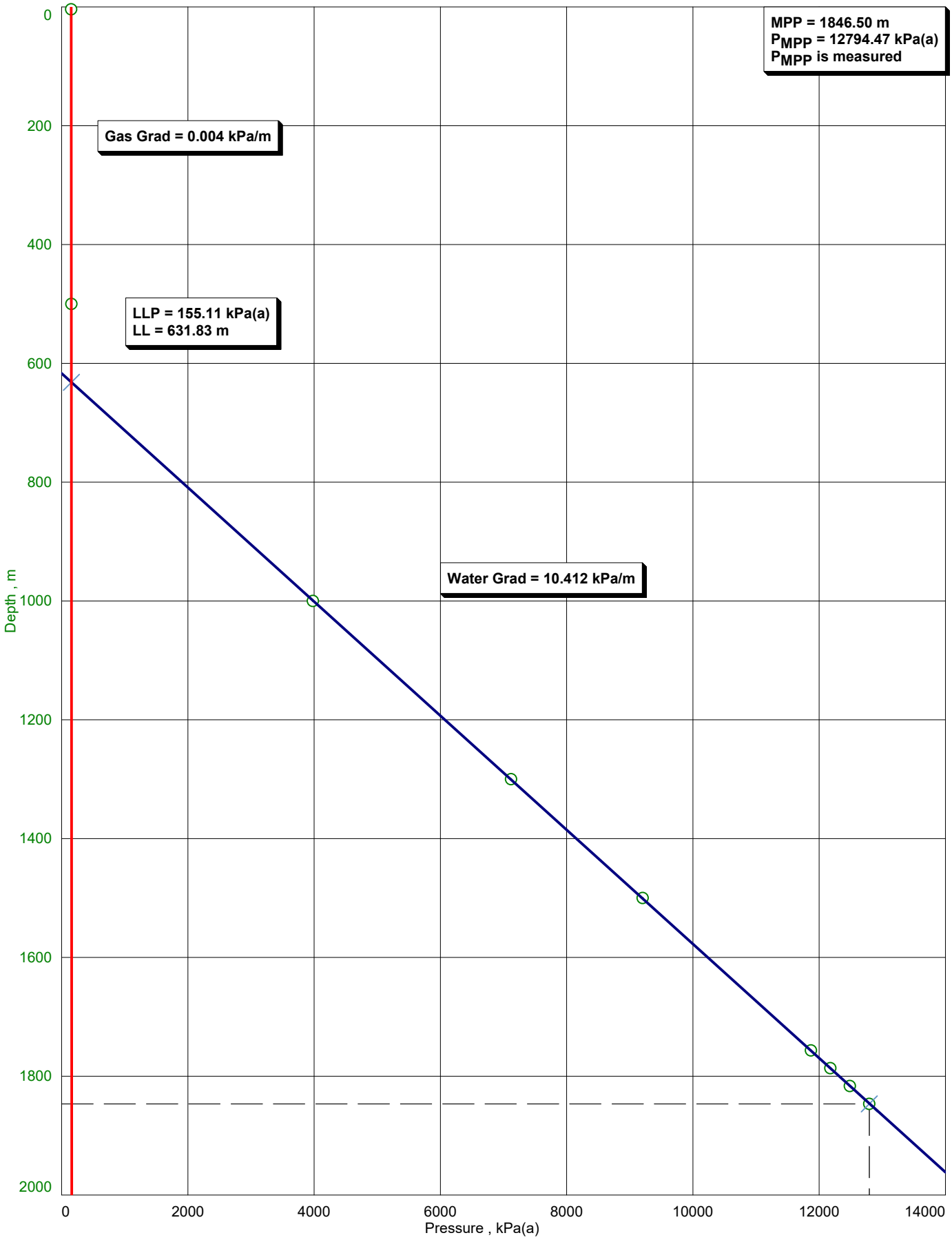
	Bottom		Top	
Gauge Name	Bottom		Top	
Gauge Serial Number	80682		80685	
Gauge Type	Strain		Strain	
Gauge Manufacturer	Spartek		Spartek	
Gauge Model	SS2500		SS2500	
Maximum Recorder Range	41370.00	kPa(a)	41370.00	kPa(a)
Resolution (% of Full Scale)	0.00030		0.00030	
Accuracy (% of Full Scale)	0.03000		0.03000	
Date of Last Calibration	2023/07/27		2023/07/27	
Gauge Start Date	2023/09/28	08:19:00	2023/09/28	08:19:00
Gauge Stop Date	2023/09/28	10:05:25	2023/09/28	10:05:25
Date Gauge On Bottom	2023/09/28	09:33:55	2023/09/28	09:33:55
Date Gauge Off Bottom	2023/09/28	09:48:55	2023/09/28	09:48:55
Run Depth (TVD KB)	1846.50	m	1846.25	m
Pressure at Run Depth	12794.47	kPa(a)	12792.11	kPa(a)
Pressure at MPP	12794.47	kPa(a)	12794.71	kPa(a)
Representative Gradient	10.412	kPa/m	10.398	kPa/m
Temperature at Run Depth	63.3	°C	63.2	°C
Liquid Level(TVD KB)	631.83	m	624.58	m

Bottom						Top				
Depth	Temp.	Pressure	Gradient	Gradient	Time	Depth	Temp.	Pressure	Gradient	Gradient
m	°C	kPa(a)	kPa/m	°C/m	HH:mm:ss	m	°C	kPa(a)	kPa/m	°C/m
4.00	12.28	152.68			08:31:45	3.75	12.28	90.83		
500.00	13.82	154.60	0.004	0.003	08:44:05	499.75	12.64	95.23	0.009	0.001
1000.00	36.30	3979.68	7.650	0.045	08:53:55	999.75	35.98	3988.26	7.786	0.047
1300.00	46.66	7119.80	10.467	0.035	09:01:55	1299.75	46.41	7125.35	10.457	0.035
1500.00	55.07	9203.39	10.418	0.042	09:10:35	1499.75	54.87	9205.09	10.399	0.042
1756.50	62.13	11870.07	10.396	0.027	09:18:55	1756.25	61.98	11867.95	10.382	0.028
1786.50	62.49	12176.73	10.222	0.012	09:24:55	1786.25	62.36	12174.60	10.222	0.013
1816.50	62.85	12486.36	10.321	0.012	09:31:25	1816.25	62.73	12483.87	10.309	0.012
1846.50	63.26	12794.47	10.271	0.014	09:48:55	1846.25	63.15	12792.11	10.275	0.014

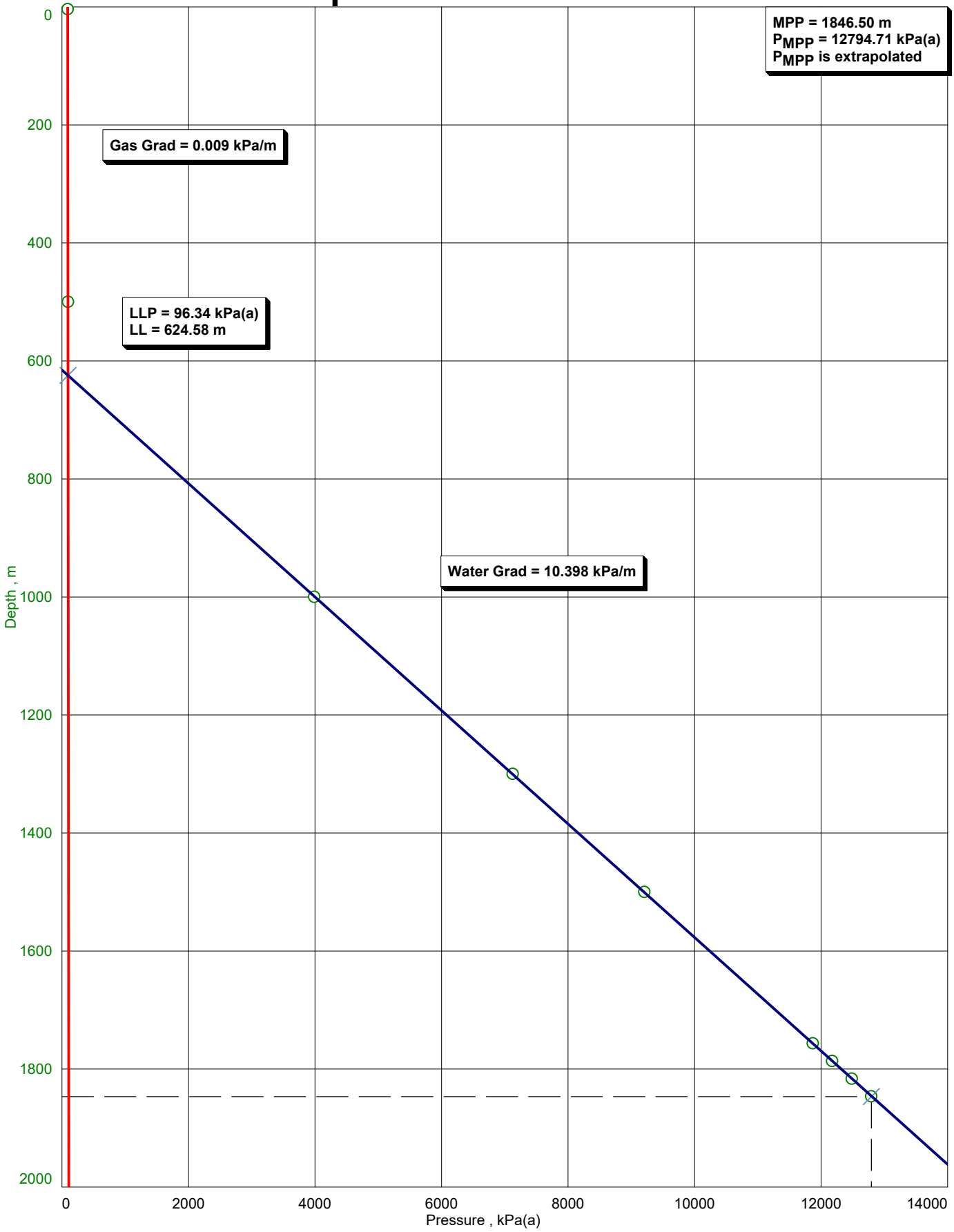
Enhance Energy Inc.
100/04-26-039-24W4/2
Start Test Date: 2023/09/28
Final Test Date: 2023/09/28

Fairborne Clive 4-26-39-24W4
Formation: Nisku

Bottom Pressure Gradient



Top Pressure Gradient



Company Name Enhance Energy Inc.
Unique Well ID 100/04-26-039-24W4/2
Start Test Date 2023/09/28
Final Test Date 2023/09/28

Well Name Fairborne Clive 4-26-39-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
1	2023/09/28 08:19:00	0.0000	160.55	12.15	0.0000	113.40	12.02
2	2023/09/28 08:19:25	0.0069	160.13	12.40	0.0069	113.35	12.40
3	2023/09/28 08:19:50	0.0139	161.45	12.68	0.0139	113.82	12.64
4	2023/09/28 08:20:35	0.0264	163.01	13.15	0.0264	114.64	12.94
5	2023/09/28 08:21:25	0.0403	160.39	13.36	0.0403	114.64	13.31
6	2023/09/28 08:22:15	0.0542	161.22	13.47	0.0542	114.23	13.39
7	2023/09/28 08:23:05	0.0681	161.59	13.36	0.0681	113.92	13.27
8	2023/09/28 08:23:55	0.0819	161.37	13.22	0.0819	113.60	13.11
9	2023/09/28 08:24:45	0.0958	161.67	12.91	0.0958	113.51	12.97
10	2023/09/28 08:25:35	0.1097	153.95	12.80	0.1097	90.83	12.86
11	2023/09/28 08:26:25	0.1236	153.28	12.73	0.1236	90.86	12.77
12	2023/09/28 08:27:15	0.1375	152.84	12.67	0.1375	90.49	12.68
13	2023/09/28 08:28:05	0.1514	152.62	12.60	0.1514	90.50	12.59
14	2023/09/28 08:28:55	0.1653	152.34	12.54	0.1653	90.43	12.51
15	2023/09/28 08:29:45	0.1792	152.51	12.47	0.1792	90.48	12.43
16	2023/09/28 08:30:35	0.1931	152.25	12.40	0.1931	90.74	12.34
17	2023/09/28 08:31:25	0.2069	152.69	12.33	0.2069	90.47	12.27
18	2023/09/28 08:32:15	0.2208	152.91	11.98	0.2208	90.41	12.06
19	2023/09/28 08:33:05	0.2347	153.32	11.33	0.2347	90.50	11.60
20	2023/09/28 08:33:55	0.2486	153.89	10.86	0.2486	90.08	11.17
21	2023/09/28 08:34:45	0.2625	154.45	10.56	0.2625	89.74	10.68
22	2023/09/28 08:35:35	0.2764	154.87	10.59	0.2764	90.17	10.45
23	2023/09/28 08:36:25	0.2903	155.63	10.84	0.2903	90.57	10.51
24	2023/09/28 08:37:15	0.3042	155.98	11.27	0.3042	91.45	10.71
25	2023/09/28 08:38:05	0.3181	156.43	11.88	0.3181	92.06	11.04
26	2023/09/28 08:38:55	0.3319	156.11	12.39	0.3319	92.94	11.38
27	2023/09/28 08:39:45	0.3458	155.92	12.62	0.3458	93.39	11.60
28	2023/09/28 08:40:35	0.3597	155.82	12.85	0.3597	93.81	11.80
29	2023/09/28 08:41:25	0.3736	155.32	13.06	0.3736	93.90	11.97
30	2023/09/28 08:42:15	0.3875	155.11	13.25	0.3875	94.15	12.13
31	2023/09/28 08:43:05	0.4014	154.72	13.42	0.4014	94.62	12.29
32	2023/09/28 08:43:55	0.4153	154.74	13.69	0.4153	94.97	12.48
33	2023/09/28 08:44:45	0.4292	154.32	14.54	0.4292	95.46	12.96
34	2023/09/28 08:45:35	0.4431	836.99	23.73	0.4431	790.43	22.42
35	2023/09/28 08:46:25	0.4569	1682.26	27.76	0.4569	1645.32	27.26
36	2023/09/28 08:47:15	0.4708	2531.50	30.38	0.4708	2493.40	29.93
37	2023/09/28 08:48:05	0.4847	3346.92	32.98	0.4847	3321.10	32.53
38	2023/09/28 08:48:55	0.4986	3974.83	35.30	0.4986	3976.78	34.87
39	2023/09/28 08:49:45	0.5125	3980.13	36.10	0.5125	3987.80	35.76
40	2023/09/28 08:50:35	0.5264	3979.94	36.21	0.5264	3988.60	35.88
41	2023/09/28 08:51:25	0.5403	3980.07	36.25	0.5403	3988.58	35.93
42	2023/09/28 08:52:15	0.5542	3979.48	36.27	0.5542	3988.39	35.95
43	2023/09/28 08:53:05	0.5681	3979.66	36.29	0.5681	3988.09	35.97
44	2023/09/28 08:53:55	0.5819	3979.68	36.30	0.5819	3988.15	35.98
45	2023/09/28 08:54:45	0.5958	4644.08	37.09	0.5958	4600.28	36.66

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80682	2023/09/28 YYYY/MM/DD	08:19:00 HH:mm:ss	1846.50 m
Top	80685	2023/09/28 YYYY/MM/DD	08:19:00 HH:mm:ss	1846.25 m

Company Name Enhance Energy Inc.
Unique Well ID 100/04-26-039-24W4/2
Start Test Date 2023/09/28
Final Test Date 2023/09/28

Well Name Fairborne Clive 4-26-39-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
46	2023/09/28 08:55:35	0.6097	5670.71	40.01	0.6097	5625.32	39.49
47	2023/09/28 08:56:25	0.6236	6694.42	43.08	0.6236	6647.53	42.54
48	2023/09/28 08:57:15	0.6375	7119.74	46.10	0.6375	7124.30	45.65
49	2023/09/28 08:58:05	0.6514	7120.61	46.50	0.6514	7124.56	46.14
50	2023/09/28 08:58:55	0.6653	7120.13	46.58	0.6653	7124.60	46.27
51	2023/09/28 08:59:45	0.6792	7120.40	46.62	0.6792	7125.46	46.33
52	2023/09/28 09:00:35	0.6931	7119.90	46.64	0.6931	7125.51	46.37
53	2023/09/28 09:01:25	0.7069	7119.98	46.66	0.7069	7125.33	46.40
54	2023/09/28 09:02:15	0.7208	7171.60	46.68	0.7208	7162.51	46.41
55	2023/09/28 09:03:05	0.7347	7600.46	47.91	0.7347	7579.81	47.51
56	2023/09/28 09:03:55	0.7486	8108.96	50.07	0.7486	8074.58	49.66
57	2023/09/28 09:04:45	0.7625	8771.87	52.25	0.7625	8740.72	51.88
58	2023/09/28 09:05:35	0.7764	9201.45	54.40	0.7764	9208.09	54.10
59	2023/09/28 09:06:25	0.7903	9204.49	54.90	0.7903	9206.09	54.68
60	2023/09/28 09:07:15	0.8042	9204.24	54.99	0.8042	9205.76	54.79
61	2023/09/28 09:08:05	0.8181	9204.08	55.03	0.8181	9205.75	54.83
62	2023/09/28 09:08:55	0.8319	9203.99	55.05	0.8319	9205.47	54.85
63	2023/09/28 09:09:45	0.8458	9203.54	55.06	0.8458	9205.03	54.86
64	2023/09/28 09:10:35	0.8597	9203.39	55.07	0.8597	9205.23	54.87
65	2023/09/28 09:11:25	0.8736	9817.71	55.80	0.8736	9777.66	55.51
66	2023/09/28 09:12:15	0.8875	10654.44	59.07	0.8875	10610.99	58.73
67	2023/09/28 09:13:05	0.9014	11488.94	60.83	0.9014	11445.64	60.57
68	2023/09/28 09:13:55	0.9153	11872.90	61.89	0.9153	11867.01	61.71
69	2023/09/28 09:14:45	0.9292	11871.24	62.08	0.9292	11869.11	61.93
70	2023/09/28 09:15:35	0.9431	11870.81	62.11	0.9431	11869.16	61.97
71	2023/09/28 09:16:25	0.9569	11870.65	62.12	0.9569	11868.64	61.98
72	2023/09/28 09:17:15	0.9708	11870.59	62.12	0.9708	11868.37	61.98
73	2023/09/28 09:18:05	0.9847	11870.14	62.12	0.9847	11868.45	61.98
74	2023/09/28 09:18:55	0.9986	11870.07	62.13	0.9986	11867.97	61.98
75	2023/09/28 09:19:45	1.0125	12170.27	62.32	1.0125	12161.60	62.17
76	2023/09/28 09:20:35	1.0264	12177.91	62.46	1.0264	12176.08	62.33
77	2023/09/28 09:21:25	1.0403	12177.97	62.48	1.0403	12175.42	62.35
78	2023/09/28 09:22:15	1.0542	12177.69	62.49	1.0542	12175.47	62.36
79	2023/09/28 09:23:05	1.0681	12177.23	62.49	1.0681	12175.24	62.36
80	2023/09/28 09:23:55	1.0819	12177.20	62.50	1.0819	12175.12	62.36
81	2023/09/28 09:24:45	1.0958	12177.20	62.50	1.0958	12174.75	62.36
82	2023/09/28 09:25:35	1.1097	12366.95	62.56	1.1097	12351.18	62.43
83	2023/09/28 09:26:25	1.1236	12487.46	62.79	1.1236	12485.99	62.66
84	2023/09/28 09:27:15	1.1375	12487.31	62.83	1.1375	12484.97	62.71
85	2023/09/28 09:28:05	1.1514	12486.87	62.84	1.1514	12484.68	62.72
86	2023/09/28 09:28:55	1.1653	12487.04	62.85	1.1653	12484.78	62.72
87	2023/09/28 09:29:45	1.1792	12486.25	62.85	1.1792	12484.58	62.73
88	2023/09/28 09:30:35	1.1931	12486.52	62.85	1.1931	12484.26	62.73
89	2023/09/28 09:31:25	1.2069	12486.36	62.85	1.2069	12483.87	62.73
90	2023/09/28 09:32:15	1.2208	12655.19	62.93	1.2208	12643.09	62.80

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80682	2023/09/28 YYYY/MM/DD	08:19:00 HH:mm:ss	1846.50 m
Top	80685	2023/09/28 YYYY/MM/DD	08:19:00 HH:mm:ss	1846.25 m

Company Name Enhance Energy Inc.
Unique Well ID 100/04-26-039-24W4/2
Start Test Date 2023/09/28
Final Test Date 2023/09/28

Well Name Fairborne Clive 4-26-39-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
91	2023/09/28 09:33:05	1.2347	12797.64	63.16	1.2347	12795.65	63.03
92	2023/09/28 09:33:55	1.2486	12797.67	63.22	1.2486	12795.25	63.11
93	2023/09/28 09:34:45	1.2625	12797.52	63.24	1.2625	12795.35	63.12
94	2023/09/28 09:35:35	1.2764	12797.81	63.25	1.2764	12794.92	63.13
95	2023/09/28 09:36:25	1.2903	12797.09	63.25	1.2903	12794.73	63.14
96	2023/09/28 09:37:15	1.3042	12797.18	63.25	1.3042	12794.67	63.14
97	2023/09/28 09:38:05	1.3181	12796.64	63.26	1.3181	12794.52	63.14
98	2023/09/28 09:38:55	1.3319	12796.57	63.25	1.3319	12794.23	63.14
99	2023/09/28 09:39:45	1.3458	12796.63	63.26	1.3458	12794.43	63.14
100	2023/09/28 09:40:35	1.3597	12796.24	63.26	1.3597	12793.79	63.15
101	2023/09/28 09:41:25	1.3736	12796.07	63.26	1.3736	12793.43	63.14
102	2023/09/28 09:42:15	1.3875	12795.92	63.26	1.3875	12793.22	63.14
103	2023/09/28 09:43:05	1.4014	12795.47	63.26	1.4014	12793.36	63.15
104	2023/09/28 09:43:55	1.4153	12795.26	63.26	1.4153	12792.98	63.15
105	2023/09/28 09:44:45	1.4292	12795.34	63.26	1.4292	12792.63	63.15
106	2023/09/28 09:45:35	1.4431	12795.00	63.26	1.4431	12792.30	63.14
107	2023/09/28 09:46:25	1.4569	12794.72	63.26	1.4569	12792.42	63.15
108	2023/09/28 09:47:15	1.4708	12794.98	63.26	1.4708	12792.09	63.14
109	2023/09/28 09:48:05	1.4847	12794.55	63.26	1.4847	12791.96	63.15
110	2023/09/28 09:48:55	1.4986	12794.47	63.26	1.4986	12792.11	63.15
111	2023/09/28 09:49:45	1.5125	12260.85	62.97	1.5125	12323.22	62.89
112	2023/09/28 09:50:35	1.5264	10906.34	61.84	1.5264	10973.81	61.83
113	2023/09/28 09:51:25	1.5403	9543.95	59.42	1.5403	9616.36	59.54
114	2023/09/28 09:52:15	1.5542	8167.37	54.34	1.5542	8241.83	54.52
115	2023/09/28 09:53:05	1.5681	6775.47	49.00	1.5681	6856.65	49.25
116	2023/09/28 09:53:55	1.5819	5288.13	43.37	1.5819	5374.54	43.54
117	2023/09/28 09:54:45	1.5958	3752.99	38.53	1.5958	3844.10	38.69
118	2023/09/28 09:55:35	1.6097	2205.12	33.66	1.6097	2299.39	33.80
119	2023/09/28 09:56:25	1.6236	641.18	28.98	1.6236	737.51	29.16
120	2023/09/28 09:57:15	1.6375	89.42	25.97	1.6375	94.43	25.87
121	2023/09/28 09:58:05	1.6514	87.08	25.50	1.6514	94.11	25.41
122	2023/09/28 09:58:55	1.6653	84.65	25.01	1.6653	93.00	24.94
123	2023/09/28 09:59:45	1.6792	82.20	24.26	1.6792	91.11	24.25
124	2023/09/28 10:00:35	1.6931	82.59	23.13	1.6931	90.92	23.56
125	2023/09/28 10:01:25	1.7069	80.88	22.05	1.7069	91.29	22.41
126	2023/09/28 10:02:15	1.7208	81.74	21.61	1.7208	90.69	22.03
127	2023/09/28 10:03:05	1.7347	98.56	21.32	1.7347	110.10	21.85
128	2023/09/28 10:03:55	1.7486	100.87	20.86	1.7486	110.80	21.44
129	2023/09/28 10:04:45	1.7625	107.83	20.64	1.7625	110.87	21.08
130	2023/09/28 10:05:25	1.7736	119.39	20.49	1.7736	110.58	20.96

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80682	2023/09/28 YYYY/MM/DD	08:19:00 HH:mm:ss	1846.50 m
Top	80685	2023/09/28 YYYY/MM/DD	08:19:00 HH:mm:ss	1846.25 m

Test Type Static Gradient

Company Name	**Enhance Energy Inc.**
Well Name	**Fairborne Clive 8-35-39-24W4**
Unique Well ID	**100/08-35-039-24W4/2**
Well License Number	**0107445**
Formation	**Nisku**
Start Test Date	**2023/09/27**
Final Test Date	**2023/09/27**

Prepared By	**Kennason Tech Services Inc.**
Qualified By	**Cory Strang**
Report Date	**2023/09/28**

Reliance OFS Canada Limited
2500 333 - 7th Ave SW
Calgary AB T2P 2Z1
403-475-1229
relianceofs.com

RELIANCE OILFIELD SERVICES

Pressure Survey Report

Static Gradient

Company Name Enhance Energy Inc.
Contact Kevin Meyer

Representative Russ Guenther

General Information

Well Name	Fairborne Clive 8-35-39-24W4		KB Elevation (SL)	860.20 m
Unique Well ID	100/08-35-039-24W4/2		CF Elevation (SL)	854.90 m
Surface Location	08-35-039-24W4		GL Elevation (SL)	854.90 m
Well License Number	0107445		KB-CF Offset	5.30 m
Well Type	Vertical		KB-GL Offset	5.30 m

Wellbore Information

Tubing OD	73.0 mm	Casing OD	177.8 mm
Tubing ID	62.0 mm	Casing ID	161.7 mm
Tubing Depth(Log KB)	1824.84000 m	Casing Depth(Log KB)	1922.00000 m
Tubing Depth(TVD KB)	1824.84000 m	Casing Depth(TVD KB)	1922.00000 m
Packer Depth(Log KB)	1819.30000 m	PBTD(Log KB)	1843.00 m
Packer Depth(TVD KB)	1819.30000 m	PBTD(TVD KB)	1843.00 m

Gross Completion Interval (GCI) as tested:

Top(Log KB)	1832.00 m	Top(TVD KB)	1832.00 m	Formation Name	Nisku
Bottom(Log KB)	1835.00 m	Bottom(TVD KB)	1835.00 m	Pool	
MPP(Log KB)	1833.50 m	MPP(TVD KB)	1833.50 m		

Test Information

Test Type	Static Gradient	Date/Time Gauge on Bottom	2023/09/27 14:48:25
Well Fluid Type	01 Oil	Date/Time Gauge Off Bottom	2023/09/27 15:03:25
Test Purpose	Annual Pressure	Time/Date Well Shut-In	2020/09/01 12:00:00
		Shut-In Duration	26905.7875 h

Surface Pressures:

Tubing Pressure Initial	93.00 kPa(a)	Casing Pressure Initial	93.00 kPa(a)
Tubing Pressure: Final	93.00 kPa(a)	Casing Pressure: Final	93.00 kPa(a)

Test Results

Gauge Serial Number Used in Summary	80664		Run Depth (Log KB)	1833.50	m
Calculated Pressure Corrected to MPP	12915.19	kPa(a)	Run Depth (TVD KB)	1833.50	m
Reservoir Temperature	62.30	°C	Pressure at Stop Depth	12915.19	kPa(a)
Liquid Level(TVD KB)	665.35	m	Temperature at Run Depth	62.3	°C

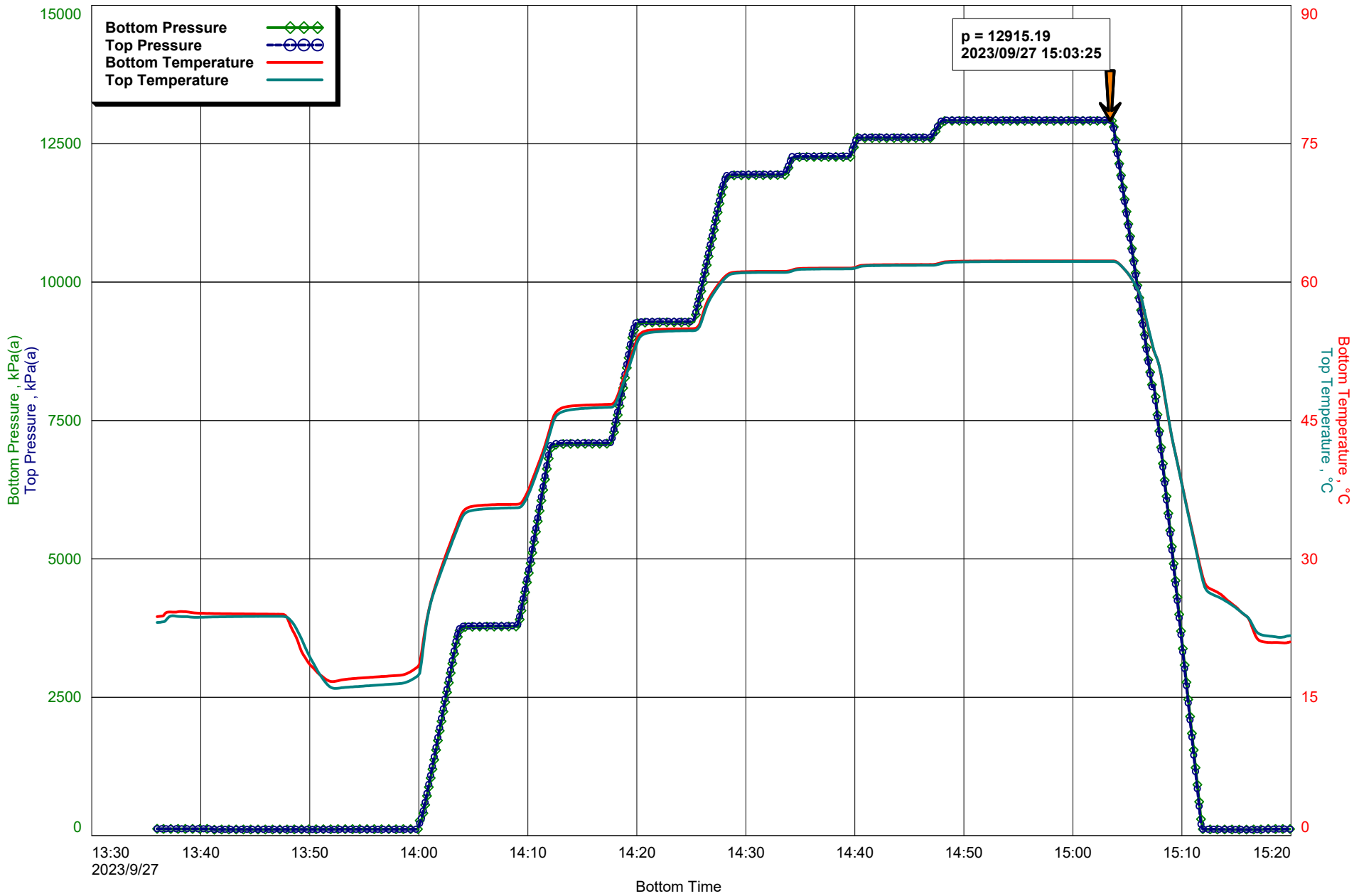
Test Remarks:

The shut in date/time was not provided - used the AER suspension date.

Enhance Energy Inc.
100/08-35-039-24W4/2
Start Test Date: 2023/09/27
Final Test Date: 2023/09/27

Fairborne Clive 8-35-39-24W4
Formation: Nisku

Static Gradient Plot



Static Gradient 2023/09/27

Company Name Enhance Energy Inc.

Well Name Fairborne Clive 8-35-39-24W4

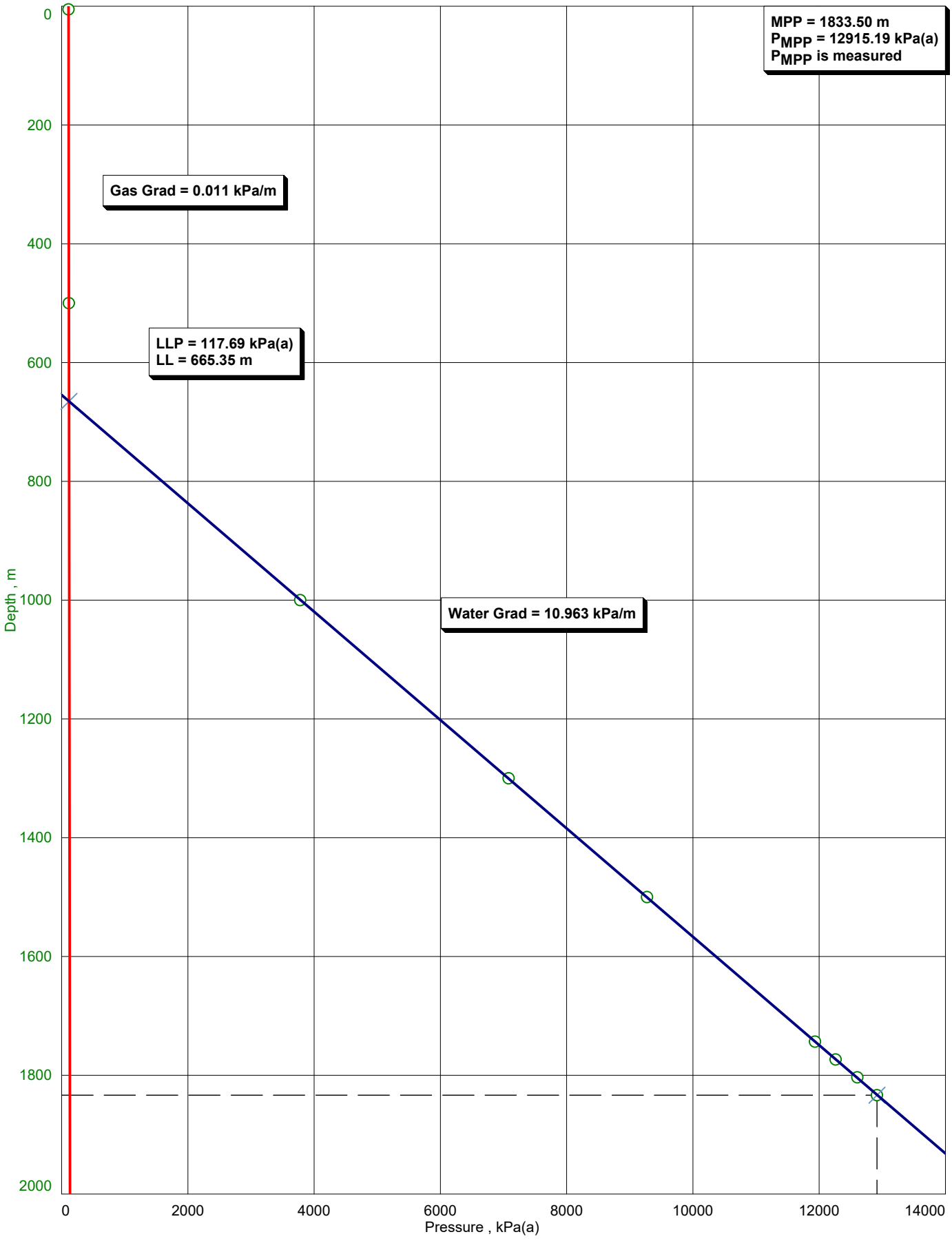
Unique Well ID	100/08-35-039-24W4/2	KB Elevation (SL)	860.20
		GL Elevation (SL)	854.90
Formation	Nisku	CF Elevation (SL)	854.90
Well Fluid Type	01 Oil		
Well License Number	0107445		
Well Type	Vertical		
Start Test Date	2023/09/27	Start Test Time	13:36:00
Final Test Date	2023/09/27	Final Test Time	15:19:55
Date Well Shut-In	2020/09/01	Time Well Shut-In	12:00:00

Top(TVD KB)	1832.00	m	Tubing Pressure: Initial	93.00	kPa(a)
Bottom(TVD KB)	1835.00	m	Casing Pressure: Initial	93.00	kPa(a)
MPP(TVD KB)	1833.50	m	Shut-In Duration	26905.7875	h

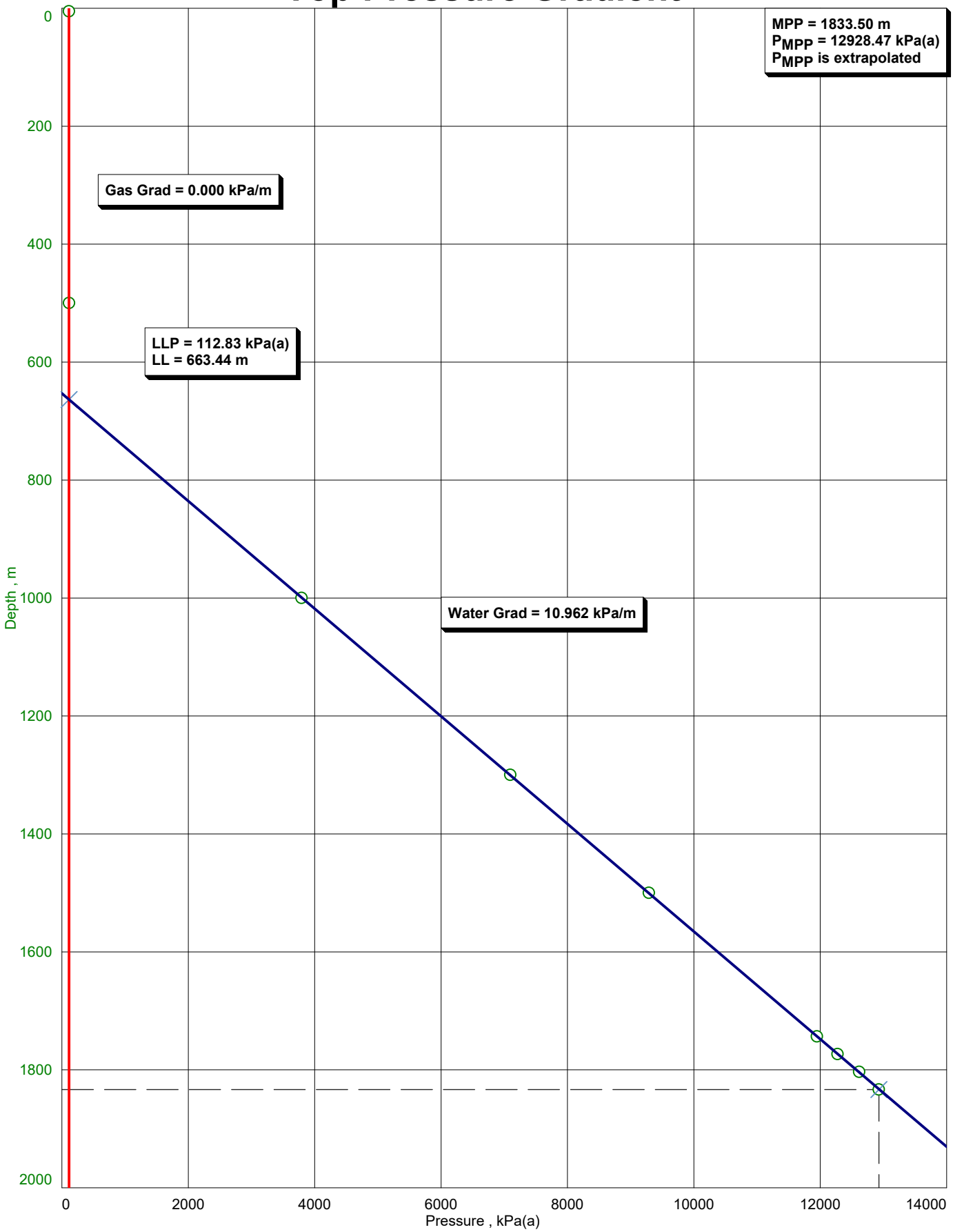
	Bottom		Top	
Gauge Name	Bottom		Top	
Gauge Serial Number	80664		80666	
Gauge Type	Strain		Strain	
Gauge Manufacturer	Spartek		Spartek	
Gauge Model	SS2500		SS2500	
Maximum Recorder Range	41370.00	kPa(a)	41370.00	kPa(a)
Resolution (% of Full Scale)	0.00030		0.00030	
Accuracy (% of Full Scale)	0.03000		0.03000	
Date of Last Calibration	2021/12/22		2021/12/22	
Gauge Start Date	2023/09/27	13:36:00	2023/09/27	13:36:00
Gauge Stop Date	2023/09/27	15:19:55	2023/09/27	15:19:55
Date Gauge On Bottom	2023/09/27	14:48:25	2023/09/27	14:48:25
Date Gauge Off Bottom	2023/09/27	15:03:25	2023/09/27	15:03:25
Run Depth (TVD KB)	1833.50	m	1833.25	m
Pressure at Run Depth	12915.19	kPa(a)	12925.73	kPa(a)
Pressure at MPP	12915.19	kPa(a)	12928.47	kPa(a)
Representative Gradient		kPa/m	10.962	kPa/m
Temperature at Run Depth	62.3	°C	62.2	°C
Liquid Level(TVD KB)	665.35	m	663.44	m

Bottom					Top					
Depth	Temp.	Pressure	Gradient	Gradient	Time	Depth	Temp.	Pressure	Gradient	Gradient
m	°C	kPa(a)	kPa/m	°C/m	HH:mm:ss	m	°C	kPa(a)	kPa/m	°C/m
5.30	24.00	110.54			13:47:15	5.05	22.49	112.57		
500.00	17.28	115.90	0.011	-0.014	13:57:05	499.75	16.40	112.76	0.000	-0.012
1000.00	35.91	3780.05	7.328	0.037	14:08:55	999.75	35.54	3791.38	7.357	0.038
1300.00	46.76	7081.36	11.004	0.036	14:17:35	1299.75	46.44	7095.22	11.013	0.036
1500.00	54.96	9274.75	10.967	0.041	14:25:05	1499.75	54.73	9288.65	10.967	0.041
1743.50	61.17	11935.08	10.925	0.026	14:33:25	1743.25	61.06	11947.56	10.920	0.026
1773.50	61.52	12261.53	10.882	0.012	14:39:35	1773.25	61.45	12273.61	10.868	0.013
1803.50	61.91	12604.37	11.428	0.013	14:47:05	1803.25	61.83	12614.93	11.377	0.013
1833.50	62.30	12915.19	10.361	0.013	15:03:25	1833.25	62.23	12925.73	10.360	0.014

Bottom Pressure Gradient



Top Pressure Gradient



Company Name Enhance Energy Inc.
Unique Well ID 100/08-35-039-24W4/2
Start Test Date 2023/09/27
Final Test Date 2023/09/27

Well Name Fairborne Clive 8-35-39-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
1	2023/09/27 13:36:00	0.0000	122.46	23.73	0.0000	123.89	23.11
2	2023/09/27 13:36:25	0.0069	121.82	23.79	0.0069	123.81	23.15
3	2023/09/27 13:36:50	0.0139	121.28	24.17	0.0139	123.71	23.39
4	2023/09/27 13:37:35	0.0264	121.30	24.22	0.0264	124.01	23.82
5	2023/09/27 13:38:25	0.0403	120.30	24.28	0.0403	123.27	23.73
6	2023/09/27 13:39:15	0.0542	120.16	24.16	0.0542	122.72	23.67
7	2023/09/27 13:40:05	0.0681	120.42	24.10	0.0681	122.96	23.68
8	2023/09/27 13:40:55	0.0819	120.46	24.08	0.0819	123.34	23.70
9	2023/09/27 13:41:45	0.0958	111.37	24.07	0.0958	113.64	23.72
10	2023/09/27 13:42:35	0.1097	111.07	24.05	0.1097	113.34	23.73
11	2023/09/27 13:43:25	0.1236	110.85	24.04	0.1236	113.25	23.75
12	2023/09/27 13:44:15	0.1375	110.74	24.03	0.1375	113.31	23.76
13	2023/09/27 13:45:05	0.1514	110.64	24.02	0.1514	113.09	23.77
14	2023/09/27 13:45:55	0.1653	110.52	24.02	0.1653	113.19	23.77
15	2023/09/27 13:46:45	0.1792	110.34	24.00	0.1792	113.19	23.78
16	2023/09/27 13:47:35	0.1931	110.35	23.98	0.1931	113.45	23.77
17	2023/09/27 13:48:25	0.2069	111.94	22.28	0.2069	113.04	23.10
18	2023/09/27 13:49:15	0.2208	113.19	19.95	0.2208	111.83	21.32
19	2023/09/27 13:50:05	0.2347	114.17	18.45	0.2347	111.18	19.20
20	2023/09/27 13:50:55	0.2486	114.73	17.45	0.2486	111.09	17.48
21	2023/09/27 13:51:45	0.2625	115.75	16.77	0.2625	110.95	16.22
22	2023/09/27 13:52:35	0.2764	116.27	16.78	0.2764	112.26	15.98
23	2023/09/27 13:53:25	0.2903	116.35	16.96	0.2903	112.55	16.09
24	2023/09/27 13:54:15	0.3042	115.94	17.05	0.3042	112.50	16.15
25	2023/09/27 13:55:05	0.3181	116.07	17.12	0.3181	112.80	16.22
26	2023/09/27 13:55:55	0.3319	116.23	17.19	0.3319	112.76	16.29
27	2023/09/27 13:56:45	0.3458	116.02	17.26	0.3458	112.71	16.36
28	2023/09/27 13:57:35	0.3597	115.90	17.32	0.3597	112.70	16.43
29	2023/09/27 13:58:25	0.3736	115.91	17.40	0.3736	113.20	16.50
30	2023/09/27 13:59:15	0.3875	116.34	17.78	0.3875	113.93	16.83
31	2023/09/27 14:00:05	0.4014	271.22	18.58	0.4014	221.69	17.60
32	2023/09/27 14:00:55	0.4153	877.03	24.45	0.4153	923.96	24.37
33	2023/09/27 14:01:45	0.4292	1719.19	27.92	0.4292	1771.19	27.64
34	2023/09/27 14:02:35	0.4431	2587.68	30.76	0.4431	2641.32	30.34
35	2023/09/27 14:03:25	0.4569	3454.74	33.33	0.4569	3508.34	32.89
36	2023/09/27 14:04:15	0.4708	3768.82	35.37	0.4708	3782.98	34.94
37	2023/09/27 14:05:05	0.4847	3774.79	35.72	0.4847	3787.02	35.29
38	2023/09/27 14:05:55	0.4986	3777.07	35.82	0.4986	3788.63	35.40
39	2023/09/27 14:06:45	0.5125	3778.45	35.88	0.5125	3789.51	35.46
40	2023/09/27 14:07:35	0.5264	3779.06	35.90	0.5264	3790.56	35.50
41	2023/09/27 14:08:25	0.5403	3779.88	35.91	0.5403	3791.23	35.53
42	2023/09/27 14:09:15	0.5542	3904.36	35.95	0.5542	3957.98	35.58
43	2023/09/27 14:10:05	0.5681	4744.78	37.56	0.5681	4802.59	37.08
44	2023/09/27 14:10:55	0.5819	5678.39	40.11	0.5819	5736.47	39.64
45	2023/09/27 14:11:45	0.5958	6625.51	42.98	0.5958	6686.00	42.52

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/09/27 YYYY/MM/DD	13:36:00 HH:mm:ss	1833.50 m
Top	80666	2023/09/27 YYYY/MM/DD	13:36:00 HH:mm:ss	1833.25 m

Company Name Enhance Energy Inc.
Unique Well ID 100/08-35-039-24W4/2
Start Test Date 2023/09/27
Final Test Date 2023/09/27

Well Name Fairborne Clive 8-35-39-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
46	2023/09/27 14:12:35	0.6097	7063.99	45.89	0.6097	7082.47	45.47
47	2023/09/27 14:13:25	0.6236	7076.06	46.47	0.6236	7091.44	46.04
48	2023/09/27 14:14:15	0.6375	7078.66	46.60	0.6375	7092.77	46.22
49	2023/09/27 14:15:05	0.6514	7079.72	46.66	0.6514	7093.86	46.30
50	2023/09/27 14:15:55	0.6653	7080.37	46.69	0.6653	7094.44	46.36
51	2023/09/27 14:16:45	0.6792	7081.09	46.72	0.6792	7094.72	46.40
52	2023/09/27 14:17:35	0.6931	7081.36	46.76	0.6931	7100.81	46.44
53	2023/09/27 14:18:25	0.7069	7759.15	48.25	0.7069	7813.14	47.84
54	2023/09/27 14:19:15	0.7208	8632.72	51.07	0.7208	8691.71	50.67
55	2023/09/27 14:20:05	0.7347	9255.30	54.01	0.7347	9273.60	53.62
56	2023/09/27 14:20:55	0.7486	9269.72	54.74	0.7486	9286.09	54.47
57	2023/09/27 14:21:45	0.7625	9272.28	54.84	0.7625	9287.34	54.61
58	2023/09/27 14:22:35	0.7764	9273.11	54.90	0.7764	9288.02	54.67
59	2023/09/27 14:23:25	0.7903	9273.43	54.92	0.7903	9288.29	54.71
60	2023/09/27 14:24:15	0.8042	9274.39	54.93	0.8042	9288.74	54.73
61	2023/09/27 14:25:05	0.8181	9274.75	54.96	0.8181	9288.65	54.73
62	2023/09/27 14:25:55	0.8319	9835.89	55.97	0.8319	9885.77	55.64
63	2023/09/27 14:26:45	0.8458	10624.22	58.52	0.8458	10676.44	58.23
64	2023/09/27 14:27:35	0.8597	11417.03	59.92	0.8597	11470.54	59.71
65	2023/09/27 14:28:25	0.8736	11921.86	60.90	0.8736	11936.11	60.75
66	2023/09/27 14:29:15	0.8875	11931.03	61.10	0.8875	11944.39	60.98
67	2023/09/27 14:30:05	0.9014	11933.02	61.14	0.9014	11945.68	61.02
68	2023/09/27 14:30:55	0.9153	11933.95	61.16	0.9153	11946.00	61.04
69	2023/09/27 14:31:45	0.9292	11934.66	61.16	0.9292	11946.77	61.05
70	2023/09/27 14:32:35	0.9431	11934.78	61.16	0.9431	11946.68	61.05
71	2023/09/27 14:33:25	0.9569	11935.08	61.17	0.9569	11947.56	61.06
72	2023/09/27 14:34:15	0.9708	12235.81	61.32	0.9708	12267.22	61.21
73	2023/09/27 14:35:05	0.9847	12260.39	61.49	0.9847	12273.25	61.39
74	2023/09/27 14:35:55	0.9986	12261.09	61.51	0.9986	12273.15	61.41
75	2023/09/27 14:36:45	1.0125	12261.57	61.52	1.0125	12273.29	61.42
76	2023/09/27 14:37:35	1.0264	12261.90	61.52	1.0264	12273.80	61.44
77	2023/09/27 14:38:25	1.0403	12261.81	61.52	1.0403	12273.11	61.44
78	2023/09/27 14:39:15	1.0542	12261.69	61.52	1.0542	12273.59	61.44
79	2023/09/27 14:40:05	1.0681	12523.09	61.62	1.0681	12555.29	61.53
80	2023/09/27 14:40:55	1.0819	12602.49	61.85	1.0819	12614.66	61.76
81	2023/09/27 14:41:45	1.0958	12603.39	61.87	1.0958	12614.78	61.79
82	2023/09/27 14:42:35	1.1097	12603.93	61.88	1.1097	12614.65	61.80
83	2023/09/27 14:43:25	1.1236	12603.82	61.89	1.1236	12615.21	61.81
84	2023/09/27 14:44:15	1.1375	12603.75	61.90	1.1375	12615.08	61.81
85	2023/09/27 14:45:05	1.1514	12603.88	61.90	1.1514	12615.30	61.82
86	2023/09/27 14:45:55	1.1653	12603.73	61.90	1.1653	12614.83	61.82
87	2023/09/27 14:46:45	1.1792	12604.14	61.90	1.1792	12614.93	61.83
88	2023/09/27 14:47:35	1.1931	12784.97	61.98	1.1931	12808.88	61.90
89	2023/09/27 14:48:25	1.2069	12914.37	62.21	1.2069	12924.89	62.12
90	2023/09/27 14:49:15	1.2208	12915.09	62.25	1.2208	12925.35	62.18

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/09/27 YYYY/MM/DD	13:36:00 HH:mm:ss	1833.50 m
Top	80666	2023/09/27 YYYY/MM/DD	13:36:00 HH:mm:ss	1833.25 m

Company Name Enhance Energy Inc.
Unique Well ID 100/08-35-039-24W4/2
Start Test Date 2023/09/27
Final Test Date 2023/09/27

Well Name Fairborne Clive 8-35-39-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
91	2023/09/27 14:50:05	1.2347	12914.99	62.27	1.2347	12925.49	62.20
92	2023/09/27 14:50:55	1.2486	12915.56	62.28	1.2486	12925.09	62.21
93	2023/09/27 14:51:45	1.2625	12915.01	62.29	1.2625	12925.17	62.22
94	2023/09/27 14:52:35	1.2764	12915.15	62.29	1.2764	12925.50	62.22
95	2023/09/27 14:53:25	1.2903	12915.46	62.29	1.2903	12925.46	62.22
96	2023/09/27 14:54:15	1.3042	12915.24	62.29	1.3042	12925.40	62.22
97	2023/09/27 14:55:05	1.3181	12915.22	62.29	1.3181	12925.50	62.23
98	2023/09/27 14:55:55	1.3319	12915.36	62.29	1.3319	12925.35	62.23
99	2023/09/27 14:56:45	1.3458	12915.30	62.29	1.3458	12925.50	62.23
100	2023/09/27 14:57:35	1.3597	12915.36	62.29	1.3597	12925.44	62.23
101	2023/09/27 14:58:25	1.3736	12915.32	62.29	1.3736	12925.59	62.23
102	2023/09/27 14:59:15	1.3875	12915.88	62.30	1.3875	12925.52	62.23
103	2023/09/27 15:00:05	1.4014	12915.17	62.30	1.4014	12925.69	62.23
104	2023/09/27 15:00:55	1.4153	12915.43	62.30	1.4153	12925.58	62.23
105	2023/09/27 15:01:45	1.4292	12915.25	62.30	1.4292	12925.32	62.23
106	2023/09/27 15:02:35	1.4431	12915.49	62.30	1.4431	12925.45	62.23
107	2023/09/27 15:03:25	1.4569	12915.19	62.30	1.4569	12925.73	62.23
108	2023/09/27 15:04:15	1.4708	12141.37	61.98	1.4708	12105.96	61.96
109	2023/09/27 15:05:05	1.4847	11051.27	60.89	1.4847	11012.70	60.89
110	2023/09/27 15:05:55	1.4986	9942.01	59.28	1.4986	9903.86	59.29
111	2023/09/27 15:06:45	1.5125	8824.55	55.73	1.5125	8782.56	55.87
112	2023/09/27 15:07:35	1.5264	7929.84	52.06	1.5264	7852.57	52.08
113	2023/09/27 15:08:25	1.5403	6419.34	47.58	1.5403	6365.96	47.72
114	2023/09/27 15:09:15	1.5542	4912.32	42.22	1.5542	4846.26	42.24
115	2023/09/27 15:10:05	1.5681	3379.13	37.69	1.5681	3318.06	37.61
116	2023/09/27 15:10:55	1.5819	1846.67	33.18	1.5819	1778.36	33.01
117	2023/09/27 15:11:45	1.5958	297.08	28.78	1.5958	205.28	28.46
118	2023/09/27 15:12:35	1.6097	113.63	26.77	1.6097	115.17	26.27
119	2023/09/27 15:13:25	1.6236	111.79	26.27	1.6236	113.92	25.82
120	2023/09/27 15:14:15	1.6375	110.54	25.44	1.6375	112.08	25.26
121	2023/09/27 15:15:05	1.6514	109.61	24.64	1.6514	110.86	24.56
122	2023/09/27 15:15:55	1.6653	109.25	23.78	1.6653	109.70	23.79
123	2023/09/27 15:16:45	1.6792	110.96	21.66	1.6792	108.65	22.25
124	2023/09/27 15:17:35	1.6931	119.37	20.98	1.6931	118.06	21.69
125	2023/09/27 15:18:25	1.7069	119.49	20.93	1.7069	117.86	21.58
126	2023/09/27 15:19:15	1.7208	119.36	20.90	1.7208	118.67	21.52
127	2023/09/27 15:19:55	1.7319	118.87	21.00	1.7319	117.90	21.67

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/09/27 YYYY/MM/DD	13:36:00 HH:mm:ss	1833.50 m
Top	80666	2023/09/27 YYYY/MM/DD	13:36:00 HH:mm:ss	1833.25 m

Test Type Static Gradient

Company Name	**Enhance Energy Inc.**
Well Name	**Fairborne Clive 14-10-40-24**
Unique Well ID	**100/14-10-040-24W4/3**
Well License Number	**0024817**
Formation	**Nisku**
Start Test Date	**2023/09/28**
Final Test Date	**2023/09/28**

Prepared By	**Kennason Tech Services Inc.**
Qualified By	**Cory Strang**
Report Date	**2023/09/29**

Reliance OFS Canada Limited
2500 333 - 7th Ave SW
Calgary AB T2P 2Z1
403-475-1229
relianceofs.com

RELIANCE OILFIELD SERVICES

Pressure Survey Report

Static Gradient

Company Name Enhance Energy Inc.
Contact Kevin Meyer

Representative Russ Guenther

General Information

Well Name	Fairborne Clive 14-10-40-24
Unique Well ID	100/14-10-040-24W4/3
Surface Location	14-10-040-24W4
Well License Number	0024817
Well Type	Vertical

KB Elevation (SL)	908.30 m
CF Elevation (SL)	904.60 m
GL Elevation (SL)	904.60 m
KB-CF Offset	3.70 m
KB-GL Offset	3.70 m

Wellbore Information

Tubing OD	73.0 mm	Casing OD	139.7 mm
Tubing ID	62.0 mm	Casing ID	125.7 mm
Tubing Depth(Log KB)	1882.00000 m	Casing Depth(Log KB)	1944.00000 m
Tubing Depth(TVD KB)	1882.00000 m	Casing Depth(TVD KB)	1944.00000 m
Packer Depth(Log KB)	1876.70000 m	PBTD(Log KB)	1920.20 m
Packer Depth(TVD KB)	1876.70000 m	PBTD(TVD KB)	1920.20 m

Gross Completion Interval (GCI) as tested:

Top(Log KB)	1887.00 m	Top(TVD KB)	1887.00 m	Formation Name	Nisku
Bottom(Log KB)	1889.50 m	Bottom(TVD KB)	1889.50 m	Pool	
MPP(Log KB)	1888.25 m	MPP(TVD KB)	1888.25 m		

Test Information

Test Type	Static Gradient
Well Fluid Type	01 Oil
Test Purpose	Annual Pressure

Date/Time Gauge on Bottom	2023/09/28 12:34:55
Date/Time Gauge Off Bottom	2023/09/28 12:49:55
Time/Date Well Shut-In	2022/06/20 12:00:00
Shut-In Duration	11159.5292 h

Surface Pressures:

Tubing Pressure Initial	415.00 kPa(a)	Casing Pressure Initial	93.00 kPa(a)
Tubing Pressure: Final	411.00 kPa(a)	Casing Pressure: Final	93.00 kPa(a)

Test Results

Gauge Serial Number Used in Summary	80664		Run Depth (Log KB)	1888.25	m
Calculated Pressure Corrected to MPP	12919.16	kPa(a)	Run Depth (TVD KB)	1888.25	m
Reservoir Temperature	64.80	°C	Pressure at Stop Depth	12919.16	kPa(a)
Liquid Level(TVD KB)	705.89	m	Temperature at Run Depth	64.8	°C

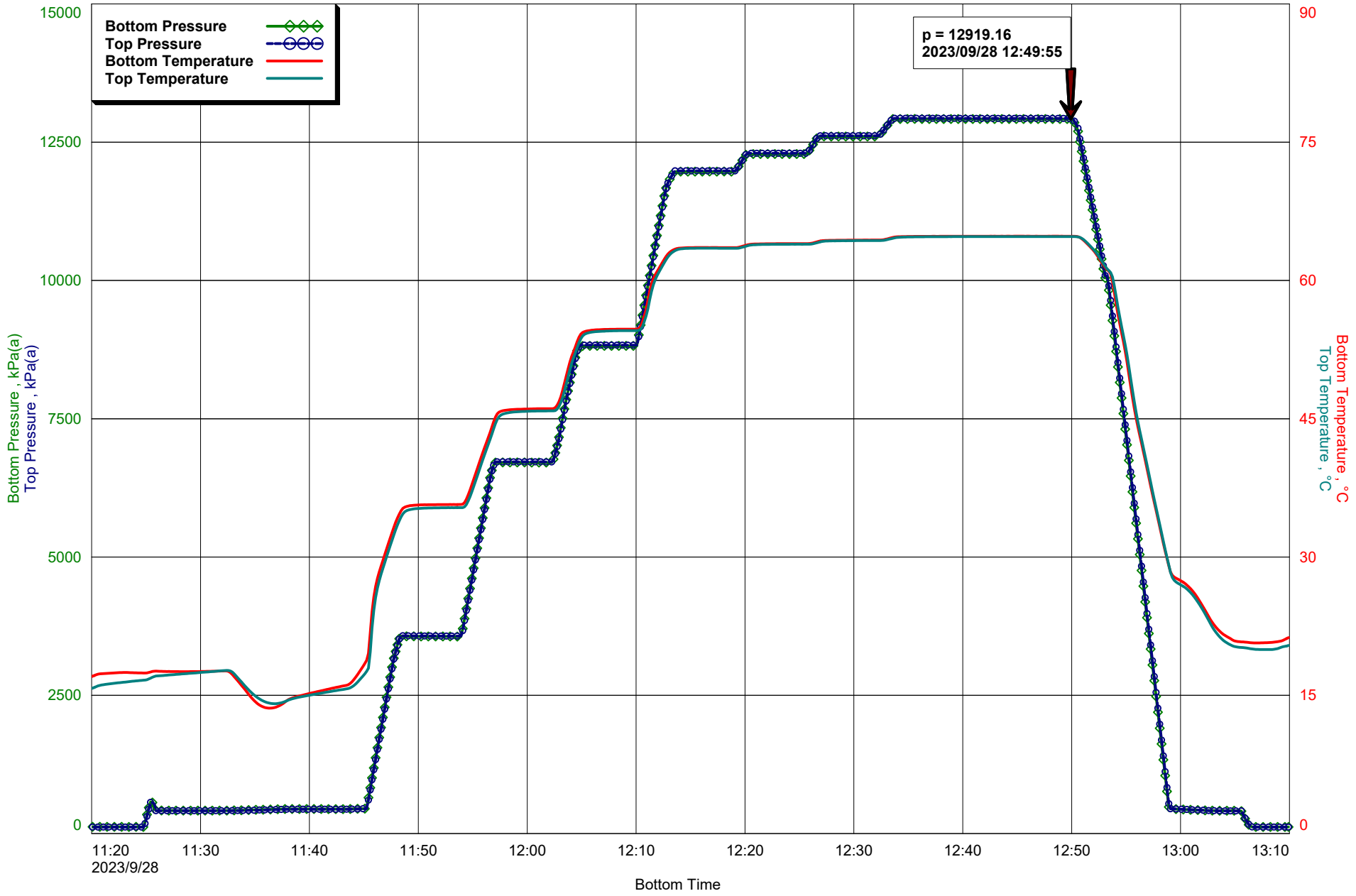
Test Remarks:

The Shut in date/time was not provided - used the date from last years test.

Enhance Energy Inc.
100/14-10-040-24W4/3
Start Test Date: 2023/09/28
Final Test Date: 2023/09/28

Fairborne Clive 14-10-40-24
Formation: Nisku

Static Gradient Plot



Static Gradient 2023/09/28

Company Name Enhance Energy Inc.

Well Name Fairborne Clive 14-10-40-24

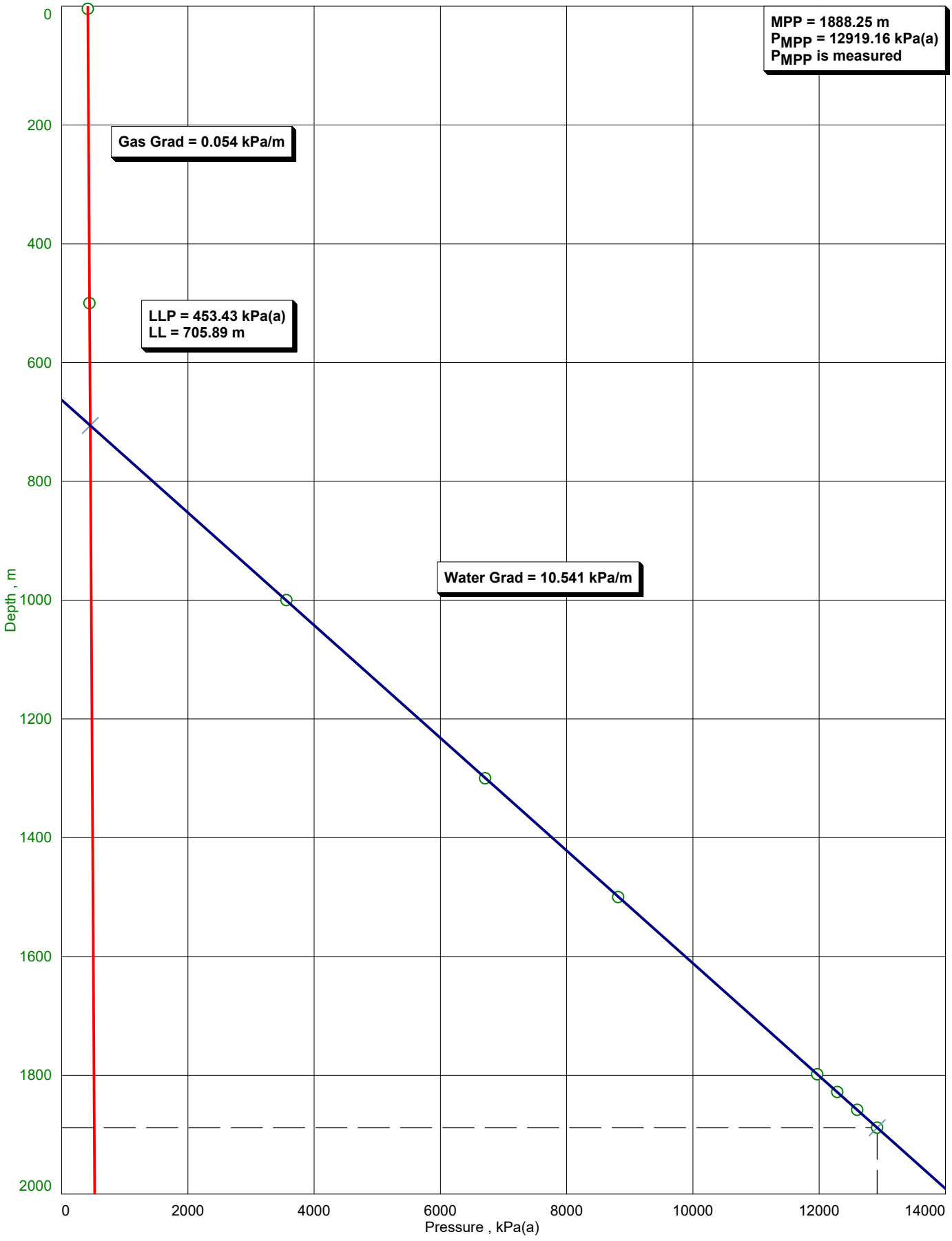
Unique Well ID	100/14-10-040-24W4/3	KB Elevation (SL)	908.30
		GL Elevation (SL)	904.60
Formation	Nisku	CF Elevation (SL)	904.60
Well Fluid Type	01 Oil		
Well License Number	0024817		
Well Type	Vertical		
Start Test Date	2023/09/28	Start Test Time	11:17:00
Final Test Date	2023/09/28	Final Test Time	13:09:55
Date Well Shut-In	2022/06/20	Time Well Shut-In	12:00:00

Top(TVD KB)	1887.00	m	Tubing Pressure: Initial	415.00	kPa(a)
Bottom(TVD KB)	1889.50	m	Casing Pressure: Initial	93.00	kPa(a)
MPP(TVD KB)	1888.25	m	Shut-In Duration	11159.5292	h

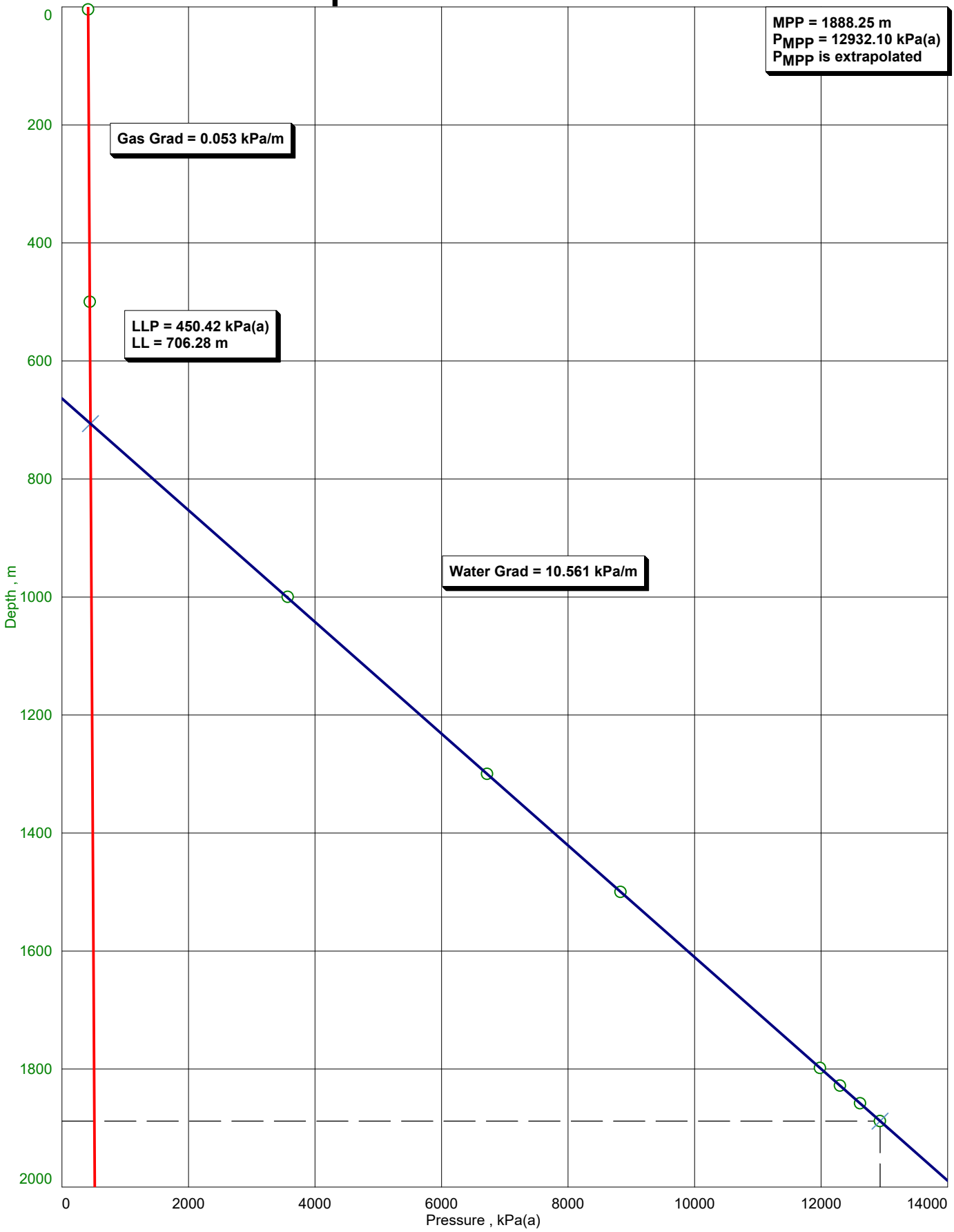
	Bottom		Top	
Gauge Name	Bottom		Top	
Gauge Serial Number	80664		80666	
Gauge Type	Strain		Strain	
Gauge Manufacturer	Spartek		Spartek	
Gauge Model	SS2500		SS2500	
Maximum Recorder Range	41370.00	kPa(a)	41370.00	kPa(a)
Resolution (% of Full Scale)	0.00030		0.00030	
Accuracy (% of Full Scale)	0.03000		0.03000	
Date of Last Calibration	2022/12/21		2022/12/21	
Gauge Start Date	2023/09/28	11:17:00	2023/09/28	11:17:00
Gauge Stop Date	2023/09/28	13:09:55	2023/09/28	13:09:55
Date Gauge On Bottom	2023/09/28	12:34:55	2023/09/28	12:34:55
Date Gauge Off Bottom	2023/09/28	12:49:55	2023/09/28	12:49:55
Run Depth (TVD KB)	1888.25	m	1888.00	m
Pressure at Run Depth	12919.16	kPa(a)	12929.46	kPa(a)
Pressure at MPP	12919.16	kPa(a)	12932.10	kPa(a)
Representative Gradient	10.541	kPa/m	10.561	kPa/m
Temperature at Run Depth	64.8	°C	64.8	°C
Liquid Level(TVD KB)	705.89	m	706.28	m

Bottom					Top					
Depth	Temp.	Pressure	Gradient	Gradient	Time	Depth	Temp.	Pressure	Gradient	Gradient
m	°C	kPa(a)	kPa/m	°C/m	HH:mm:ss	m	°C	kPa(a)	kPa/m	°C/m
4.50	17.63	415.49			11:31:45	4.25	17.67	413.13		
500.00	16.05	442.29	0.054	-0.003	11:43:15	499.75	15.74	439.45	0.053	-0.004
1000.00	35.70	3561.73	6.239	0.039	11:53:45	999.75	35.36	3568.98	6.259	0.039
1300.00	46.10	6708.83	10.490	0.035	12:02:15	1299.75	45.85	6719.01	10.500	0.035
1500.00	54.72	8816.77	10.540	0.043	12:09:55	1499.75	54.56	8829.03	10.550	0.044
1798.25	63.56	11969.01	10.569	0.030	12:18:55	1798.00	63.49	11981.23	10.569	0.030
1828.25	64.00	12286.49	10.583	0.015	12:25:35	1828.00	63.93	12298.34	10.570	0.015
1858.25	64.39	12603.46	10.566	0.013	12:31:55	1858.00	64.33	12614.69	10.545	0.013
1888.25	64.80	12919.16	10.523	0.014	12:49:55	1888.00	64.76	12929.46	10.492	0.014

Bottom Pressure Gradient



Top Pressure Gradient



Company Name Enhance Energy Inc.
Unique Well ID 100/14-10-040-24W4/3
Start Test Date 2023/09/28
Final Test Date 2023/09/28

Well Name Fairborne Clive 14-10-40-24
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
1	2023/09/28 11:17:00	0.0000	122.39	15.26	0.0000	116.04	14.30
2	2023/09/28 11:17:30	0.0083	121.19	15.95	0.0083	116.50	14.71
3	2023/09/28 11:18:05	0.0181	121.25	16.38	0.0181	116.19	14.93
4	2023/09/28 11:19:05	0.0347	121.17	16.83	0.0347	117.09	15.47
5	2023/09/28 11:20:05	0.0514	120.44	17.06	0.0514	116.47	15.78
6	2023/09/28 11:21:05	0.0681	120.62	17.36	0.0681	116.72	16.15
7	2023/09/28 11:22:05	0.0847	120.43	17.42	0.0847	116.71	16.30
8	2023/09/28 11:23:05	0.1014	119.81	17.47	0.1014	116.27	16.43
9	2023/09/28 11:24:05	0.1181	120.19	17.44	0.1181	116.90	16.56
10	2023/09/28 11:25:05	0.1347	342.07	17.43	0.1347	311.15	16.69
11	2023/09/28 11:26:05	0.1514	415.62	17.61	0.1514	413.53	17.10
12	2023/09/28 11:27:05	0.1681	415.88	17.58	0.1681	413.23	17.20
13	2023/09/28 11:28:05	0.1847	415.52	17.56	0.1847	413.19	17.29
14	2023/09/28 11:29:05	0.2014	415.91	17.57	0.2014	413.38	17.39
15	2023/09/28 11:30:05	0.2181	416.09	17.58	0.2181	413.09	17.48
16	2023/09/28 11:31:05	0.2347	415.62	17.61	0.2347	413.08	17.57
17	2023/09/28 11:32:05	0.2514	415.13	17.64	0.2514	413.13	17.67
18	2023/09/28 11:33:05	0.2681	418.33	17.04	0.2681	414.36	17.33
19	2023/09/28 11:34:05	0.2847	422.57	15.62	0.2847	417.55	16.01
20	2023/09/28 11:35:05	0.3014	428.47	14.24	0.3014	422.70	14.88
21	2023/09/28 11:36:05	0.3181	434.29	13.63	0.3181	428.67	14.23
22	2023/09/28 11:37:05	0.3347	439.40	13.78	0.3347	434.16	14.11
23	2023/09/28 11:38:05	0.3514	443.31	14.54	0.3514	438.81	14.49
24	2023/09/28 11:39:05	0.3681	443.08	14.92	0.3681	439.13	14.80
25	2023/09/28 11:40:05	0.3847	443.04	15.22	0.3847	439.05	15.02
26	2023/09/28 11:41:05	0.4014	443.00	15.49	0.4014	438.87	15.23
27	2023/09/28 11:42:05	0.4181	442.53	15.76	0.4181	438.79	15.44
28	2023/09/28 11:43:05	0.4347	442.22	16.01	0.4347	438.63	15.63
29	2023/09/28 11:44:05	0.4514	445.75	16.71	0.4514	442.38	16.06
30	2023/09/28 11:45:05	0.4681	449.53	18.45	0.4681	448.58	17.33
31	2023/09/28 11:46:05	0.4847	1370.45	26.81	0.4847	1335.85	25.61
32	2023/09/28 11:47:05	0.5014	2464.77	30.85	0.5014	2430.93	30.01
33	2023/09/28 11:48:05	0.5181	3414.36	34.22	0.5181	3395.28	33.48
34	2023/09/28 11:49:05	0.5347	3565.11	35.54	0.5347	3573.70	35.10
35	2023/09/28 11:50:05	0.5514	3564.88	35.65	0.5514	3572.19	35.27
36	2023/09/28 11:51:05	0.5681	3563.85	35.68	0.5681	3571.37	35.32
37	2023/09/28 11:52:05	0.5847	3563.14	35.69	0.5847	3570.54	35.34
38	2023/09/28 11:53:05	0.6014	3562.60	35.70	0.6014	3569.38	35.35
39	2023/09/28 11:54:05	0.6181	3705.12	35.73	0.6181	3665.47	35.36
40	2023/09/28 11:55:05	0.6347	4797.18	38.42	0.6347	4764.14	37.64
41	2023/09/28 11:56:05	0.6514	5886.74	41.86	0.6514	5855.61	41.10
42	2023/09/28 11:57:05	0.6681	6707.30	45.18	0.6681	6720.69	44.47
43	2023/09/28 11:58:05	0.6847	6709.69	45.93	0.6847	6721.29	45.61
44	2023/09/28 11:59:05	0.7014	6709.65	46.03	0.7014	6720.80	45.76
45	2023/09/28 12:00:05	0.7181	6709.54	46.06	0.7181	6719.99	45.82

Print Filter: Approximately every 6 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/09/28 YYYY/MM/DD	11:17:00 HH:mm:ss	1888.25 m
Top	80666	2023/09/28 YYYY/MM/DD	11:17:00 HH:mm:ss	1888.00 m

Company Name Enhance Energy Inc.
Unique Well ID 100/14-10-040-24W4/3
Start Test Date 2023/09/28
Final Test Date 2023/09/28

Well Name Fairborne Clive 14-10-40-24
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
46	2023/09/28 12:01:05	0.7347	6709.20	46.09	0.7347	6719.81	45.84
47	2023/09/28 12:02:05	0.7514	6708.79	46.10	0.7514	6719.36	45.85
48	2023/09/28 12:03:05	0.7681	7336.40	47.36	0.7681	7307.87	46.74
49	2023/09/28 12:04:05	0.7847	8304.38	51.76	0.7847	8284.08	51.02
50	2023/09/28 12:05:05	0.8014	8815.58	54.36	0.8014	8830.06	53.97
51	2023/09/28 12:06:05	0.8181	8817.15	54.62	0.8181	8830.21	54.42
52	2023/09/28 12:07:05	0.8347	8817.30	54.69	0.8347	8830.31	54.50
53	2023/09/28 12:08:05	0.8514	8817.77	54.71	0.8514	8829.54	54.54
54	2023/09/28 12:09:05	0.8681	8817.73	54.72	0.8681	8829.95	54.56
55	2023/09/28 12:10:05	0.8847	8842.72	54.72	0.8847	8833.01	54.57
56	2023/09/28 12:11:05	0.9014	9910.37	57.82	0.9014	9883.22	56.92
57	2023/09/28 12:12:05	0.9181	10992.22	61.29	0.9181	10964.53	60.88
58	2023/09/28 12:13:05	0.9347	11828.42	63.06	0.9347	11828.72	62.79
59	2023/09/28 12:14:05	0.9514	11968.01	63.52	0.9514	11981.57	63.42
60	2023/09/28 12:15:05	0.9681	11969.24	63.57	0.9681	11981.68	63.49
61	2023/09/28 12:16:05	0.9847	11969.24	63.57	0.9847	11981.47	63.50
62	2023/09/28 12:17:05	1.0014	11969.11	63.57	1.0014	11981.80	63.50
63	2023/09/28 12:18:05	1.0181	11969.42	63.57	1.0181	11981.26	63.49
64	2023/09/28 12:19:05	1.0347	11969.01	63.56	1.0347	11981.17	63.50
65	2023/09/28 12:20:05	1.0514	12271.38	63.83	1.0514	12273.63	63.71
66	2023/09/28 12:21:05	1.0681	12286.89	63.96	1.0681	12299.00	63.89
67	2023/09/28 12:22:05	1.0847	12286.94	63.98	1.0847	12298.78	63.91
68	2023/09/28 12:23:05	1.1014	12286.53	63.99	1.1014	12298.40	63.92
69	2023/09/28 12:24:05	1.1181	12286.79	64.00	1.1181	12298.13	63.93
70	2023/09/28 12:25:05	1.1347	12286.86	64.00	1.1347	12298.06	63.94
71	2023/09/28 12:26:05	1.1514	12405.38	64.03	1.1514	12403.58	63.95
72	2023/09/28 12:27:05	1.1681	12603.82	64.32	1.1681	12615.36	64.23
73	2023/09/28 12:28:05	1.1847	12603.88	64.36	1.1847	12615.34	64.30
74	2023/09/28 12:29:05	1.2014	12603.97	64.37	1.2014	12615.13	64.31
75	2023/09/28 12:30:05	1.2181	12603.73	64.38	1.2181	12614.79	64.32
76	2023/09/28 12:31:05	1.2347	12603.70	64.39	1.2347	12614.87	64.33
77	2023/09/28 12:32:05	1.2514	12603.85	64.39	1.2514	12614.69	64.33
78	2023/09/28 12:33:05	1.2681	12805.59	64.52	1.2681	12806.06	64.43
79	2023/09/28 12:34:05	1.2847	12920.25	64.75	1.2847	12931.24	64.68
80	2023/09/28 12:35:05	1.3014	12920.41	64.77	1.3014	12931.04	64.72
81	2023/09/28 12:36:05	1.3181	12920.22	64.78	1.3181	12930.92	64.74
82	2023/09/28 12:37:05	1.3347	12920.00	64.79	1.3347	12931.11	64.75
83	2023/09/28 12:38:05	1.3514	12919.88	64.80	1.3514	12930.56	64.75
84	2023/09/28 12:39:05	1.3681	12919.69	64.80	1.3681	12930.60	64.76
85	2023/09/28 12:40:05	1.3847	12919.66	64.80	1.3847	12930.46	64.76
86	2023/09/28 12:41:05	1.4014	12919.89	64.80	1.4014	12930.27	64.76
87	2023/09/28 12:42:05	1.4181	12919.32	64.80	1.4181	12930.33	64.76
88	2023/09/28 12:43:05	1.4347	12919.38	64.80	1.4347	12930.06	64.76
89	2023/09/28 12:44:05	1.4514	12919.49	64.81	1.4514	12929.91	64.76
90	2023/09/28 12:45:05	1.4681	12919.68	64.80	1.4681	12930.02	64.76

Print Filter: Approximately every 6 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/09/28 YYYY/MM/DD	11:17:00 HH:mm:ss	1888.25 m
Top	80666	2023/09/28 YYYY/MM/DD	11:17:00 HH:mm:ss	1888.00 m

Company Name Enhance Energy Inc.
Unique Well ID 100/14-10-040-24W4/3
Start Test Date 2023/09/28
Final Test Date 2023/09/28

Well Name Fairborne Clive 14-10-40-24
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
91	2023/09/28 12:46:05	1.4847	12919.59	64.80	1.4847	12929.67	64.76
92	2023/09/28 12:47:05	1.5014	12919.35	64.80	1.5014	12930.08	64.76
93	2023/09/28 12:48:05	1.5181	12919.22	64.80	1.5181	12930.07	64.76
94	2023/09/28 12:49:05	1.5347	12918.98	64.80	1.5347	12929.13	64.76
95	2023/09/28 12:50:05	1.5514	12914.84	64.80	1.5514	12929.42	64.76
96	2023/09/28 12:51:05	1.5681	12156.89	64.36	1.5681	12212.89	64.44
97	2023/09/28 12:52:05	1.5847	11099.02	63.15	1.5847	11154.40	63.26
98	2023/09/28 12:53:05	1.6014	10045.88	61.41	1.6014	10089.56	61.54
99	2023/09/28 12:54:05	1.6181	8717.60	57.46	1.6181	8798.76	58.29
100	2023/09/28 12:55:05	1.6347	7029.30	51.15	1.6347	7107.03	51.92
101	2023/09/28 12:56:05	1.6514	5327.22	44.11	1.6514	5403.27	44.65
102	2023/09/28 12:57:05	1.6681	3617.87	38.65	1.6681	3693.16	39.05
103	2023/09/28 12:58:05	1.6847	1904.08	33.27	1.6847	1977.89	33.53
104	2023/09/28 12:59:05	1.7014	448.11	28.37	1.7014	448.21	28.33
105	2023/09/28 13:00:05	1.7181	437.56	27.39	1.7181	439.82	26.94
106	2023/09/28 13:01:05	1.7347	428.36	26.35	1.7347	429.99	25.92
107	2023/09/28 13:02:05	1.7514	420.10	24.56	1.7514	420.08	24.19
108	2023/09/28 13:03:05	1.7681	414.45	22.63	1.7681	412.13	22.09
109	2023/09/28 13:04:05	1.7847	412.63	21.49	1.7847	409.72	20.81
110	2023/09/28 13:05:05	1.8014	412.16	20.86	1.8014	409.25	20.25
111	2023/09/28 13:06:05	1.8181	209.29	20.75	1.8181	221.78	20.12
112	2023/09/28 13:07:05	1.8347	119.36	20.68	1.8347	116.91	19.97
113	2023/09/28 13:08:05	1.8514	119.11	20.72	1.8514	116.60	19.96
114	2023/09/28 13:09:05	1.8681	119.42	20.85	1.8681	117.34	20.13
115	2023/09/28 13:09:55	1.8819	118.61	21.26	1.8819	117.12	20.40

Print Filter: Approximately every 6 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80664	2023/09/28 YYYY/MM/DD	11:17:00 HH:mm:ss	1888.25 m
Top	80666	2023/09/28 YYYY/MM/DD	11:17:00 HH:mm:ss	1888.00 m

RELIANCE
OILFIELD SERVICES

Test Type Static Gradient

Company Name	**Enhance Energy Inc.**
Well Name	**Enhance Energy Clive 16-2-40-24W4**
Unique Well ID	**100/16-02-040-24W4/0**
Well License Number	**0119108**
Formation	**Nisku**
Start Test Date	**2023/09/29**
Final Test Date	**2023/09/29**

Prepared By	**Kennason Tech Services Inc.**
Qualified By	**Cory Strang**
Report Date	**2023/10/01**

Reliance OFS Canada Limited
2500 333 - 7th Ave SW
Calgary AB T2P 2Z1
403-475-1229
relianceofs.com

RELIANCE OILFIELD SERVICES

Pressure Survey Report

Static Gradient

Company Name Enhance Energy Inc.
Contact Kevin Meyer
Representative Russ Guenther

General Information

Well Name	Enhance Energy Clive 16-2-40-24W4	KB Elevation (SL)	915.00 m
Unique Well ID	100/16-02-040-24W4/0	CF Elevation (SL)	910.80 m
Surface Location	16-02-040-24W4	GL Elevation (SL)	910.80 m
Well License Number	0119108	KB-CF Offset	4.20 m
Well Type	Vertical	KB-GL Offset	4.20 m

Wellbore Information

Tubing OD	73.0 mm	Casing OD	177.8 mm
Tubing ID	62.0 mm	Casing ID	161.7 mm
Tubing Depth(Log KB)	1879.20000 m	Casing Depth(Log KB)	1970.00000 m
Tubing Depth(TVD KB)	1879.20000 m	Casing Depth(TVD KB)	1970.00000 m
Packer Depth(Log KB)	1873.40000 m	PBTD(Log KB)	1970.00 m
Packer Depth(TVD KB)	1873.40000 m	PBTD(TVD KB)	1970.00 m

Gross Completion Interval (GCI) as tested:

Top(Log KB)	1881.50 m	Top(TVD KB)	1881.50 m	Formation Name	Nisku
Bottom(Log KB)	1888.50 m	Bottom(TVD KB)	1888.50 m	Pool	
MPP(Log KB)	1885.00 m	MPP(TVD KB)	1885.00 m		

Test Information

Test Type	Static Gradient	Date/Time Gauge on Bottom	2023/09/29 09:30:35
Well Fluid Type	01 Oil	Date/Time Gauge Off Bottom	2023/09/29 09:45:35
Test Purpose	Annual Pressure	Time/Date Well Shut-In	2020/09/01 12:00:00
		Shut-In Duration	26948.4708 h

Surface Pressures:

Tubing Pressure Initial	1158.00 kPa(a)	Casing Pressure Initial	337.00 kPa(a)
Tubing Pressure: Final	1149.00 kPa(a)	Casing Pressure: Final	337.00 kPa(a)

Test Results

Gauge Serial Number Used in Summary	80703	Run Depth (Log KB)	1885.00 m
Calculated Pressure Corrected to MPP	9817.74 kPa(a)	Run Depth (TVD KB)	1884.75 m
Reservoir Temperature	62.56 °C	Pressure at Stop Depth	9817.74 kPa(a)
Liquid Level(TVD KB)	1020.78 m	Temperature at Run Depth	62.6 °C

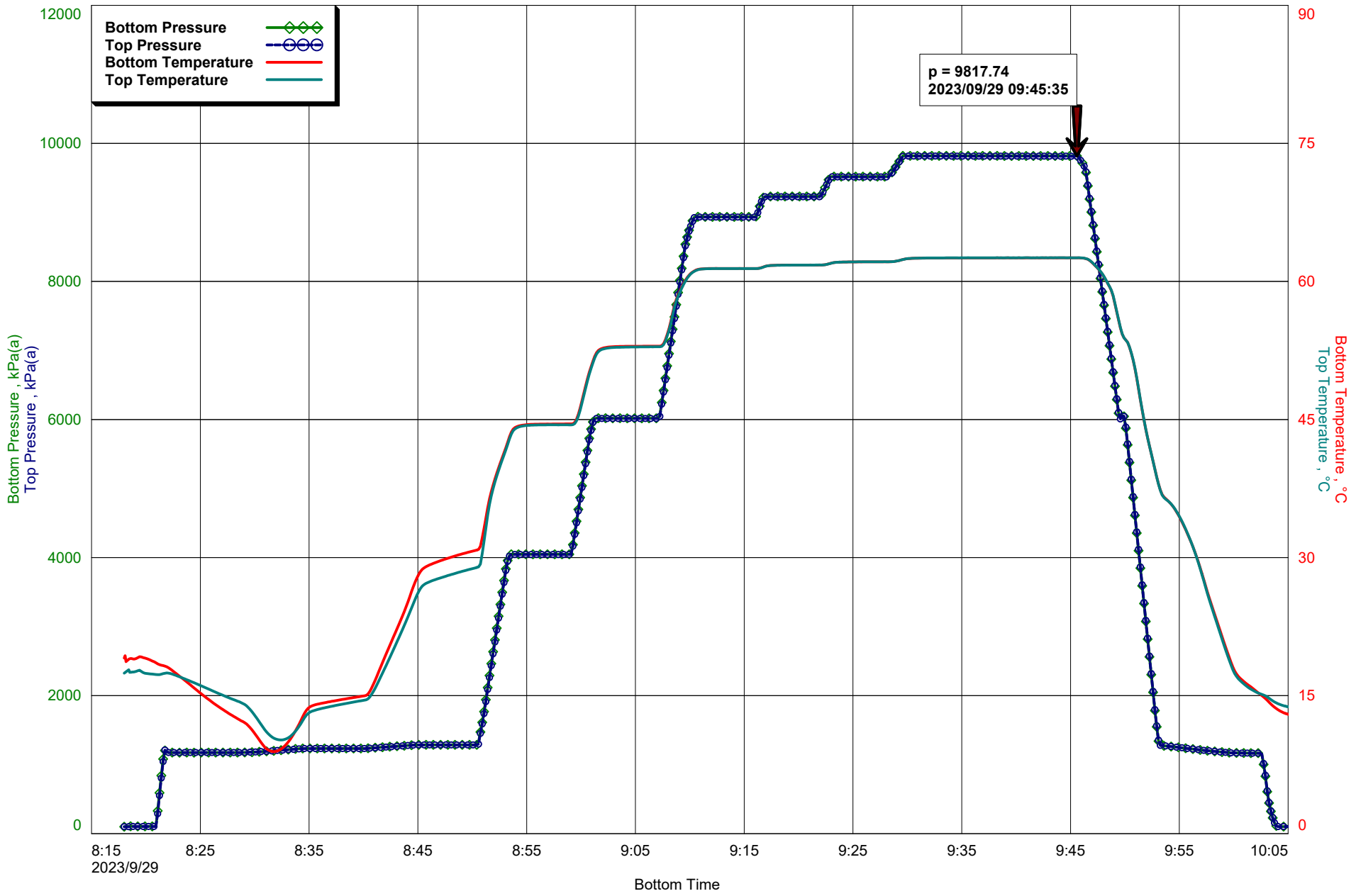
Test Remarks:

The Shut in date/time was not provided - used the AER Suspension date.

Enhance Energy Inc.
100/16-02-040-24W4/0
Start Test Date: 2023/09/29
Final Test Date: 2023/09/29

Enhance Energy Clive 16-2-40-24W4
Formation: Nisku

Static Gradient Plot



Static Gradient 2023/09/29

Company Name Enhance Energy Inc.

Well Name Enhance Energy Clive 16-2-40-24W4

Unique Well ID	100/16-02-040-24W4/0	KB Elevation (SL)	915.00
		GL Elevation (SL)	910.80
Formation	Nisku	CF Elevation (SL)	910.80
Well Fluid Type	01 Oil		
Well License Number	0119108		
Well Type	Vertical		
Start Test Date	2023/09/29	Start Test Time	08:18:00
Final Test Date	2023/09/29	Final Test Time	10:07:05
Date Well Shut-In	2020/09/01	Time Well Shut-In	12:00:00

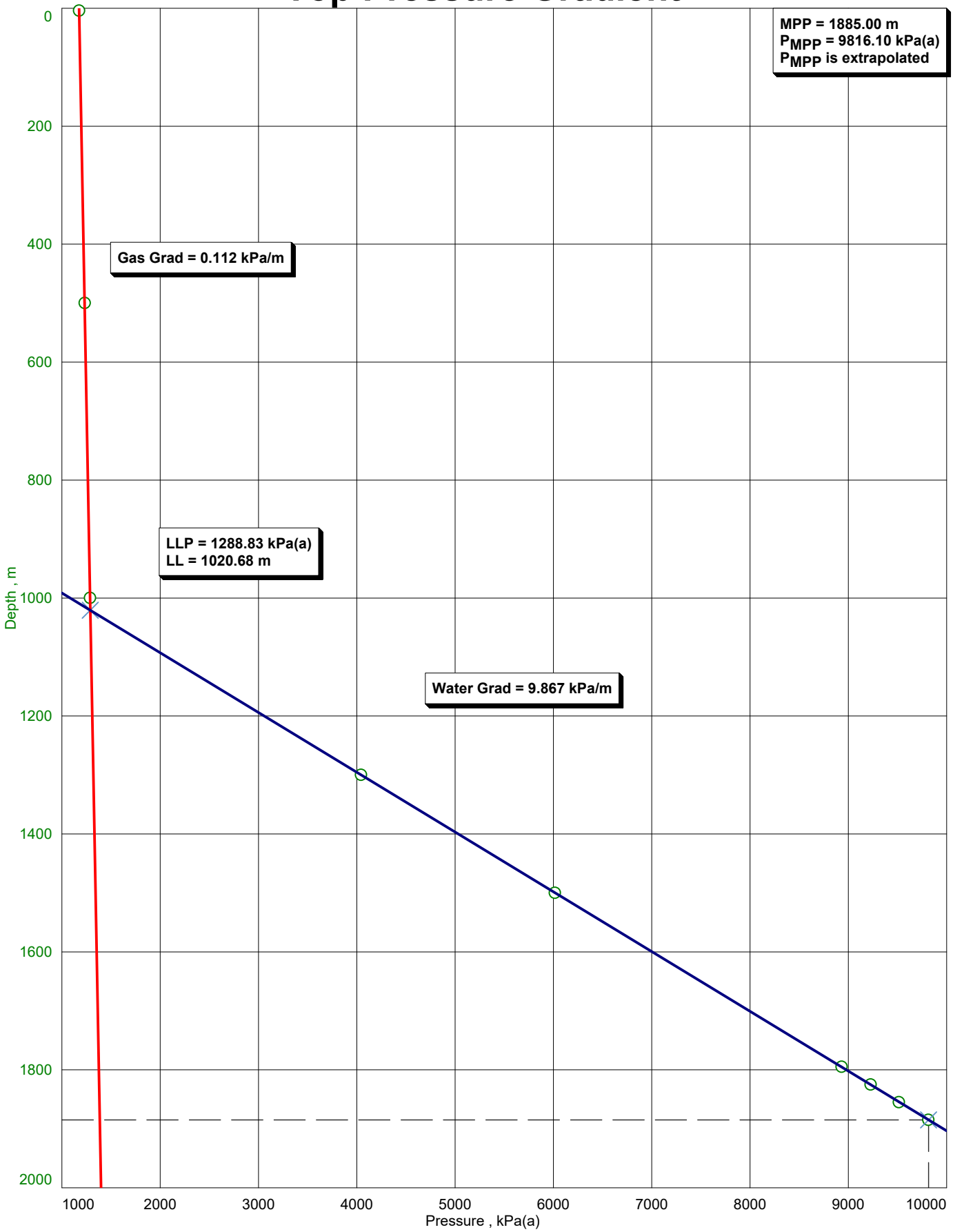
Top(TVD KB)	1881.50	m	Tubing Pressure: Initial	1158.00	kPa(a)
Bottom(TVD KB)	1888.50	m	Casing Pressure: Initial	337.00	kPa(a)
MPP(TVD KB)	1885.00	m	Shut-In Duration	26948.4708	h

	Bottom		Top	
Gauge Name	Bottom		Top	
Gauge Serial Number	80703		80704	
Gauge Type	Strain		Strain	
Gauge Manufacturer	Spartek		Spartek	
Gauge Model	SS2500		SS2500	
Maximum Recorder Range	41370.00	kPa(a)	41370.00	kPa(a)
Resolution (% of Full Scale)	0.00030		0.00030	
Accuracy (% of Full Scale)	0.03000		0.03000	
Date of Last Calibration	2023/08/23		2023/08/23	
Gauge Start Date	2023/09/29	08:18:00	2023/09/29	08:18:00
Gauge Stop Date	2023/09/29	10:07:05	2023/09/29	10:07:05
Date Gauge On Bottom	2023/09/29	09:30:35	2023/09/29	09:30:35
Date Gauge Off Bottom	2023/09/29	09:45:35	2026/09/29	09:45:35
Run Depth (TVD KB)	1884.75	m	1884.75	m
Pressure at Run Depth	9817.74	kPa(a)	9813.63	kPa(a)
Pressure at MPP	9817.74	kPa(a)	9816.10	kPa(a)
Representative Gradient	9.869	kPa/m	9.867	kPa/m
Temperature at Run Depth	62.6	°C	62.6	°C
Liquid Level(TVD KB)	1020.78	m	1020.68	m

Bottom					Top					
Depth	Temp.	Pressure	Gradient	Gradient	Time	Depth	Temp.	Pressure	Gradient	Gradient
m	°C	kPa(a)	kPa/m	°C/m	HH:mm:ss	m	°C	kPa(a)	kPa/m	°C/m
4.20	12.61	1174.24			08:28:15	3.95	14.48	1174.69		
500.00	14.95	1233.67	0.120	0.005	08:39:55	499.75	14.50	1232.15	0.116	0.000
1000.00	30.76	1286.65	0.106	0.032	08:50:15	999.75	28.82	1285.75	0.107	0.029
1300.00	44.53	4046.42	9.199	0.046	08:58:55	1299.75	44.42	4043.08	9.191	0.052
1500.00	52.97	6017.70	9.856	0.042	09:07:05	1499.75	52.90	6014.09	9.855	0.042
1795.00	61.41	8935.65	9.891	0.029	09:15:55	1794.75	61.39	8931.08	9.888	0.029
1825.00	61.79	9230.55	9.830	0.013	09:21:55	1824.75	61.78	9226.22	9.838	0.013
1855.00	62.14	9518.28	9.591	0.012	09:28:15	1854.75	62.14	9514.05	9.595	0.012
1885.00	62.56	9817.74	9.982	0.014	09:45:35	1884.75	62.57	9813.63	9.986	0.014

Bottom Pressure Gradient

Top Pressure Gradient



Company Name Enhance Energy Inc.
Unique Well ID 100/16-02-040-24W4/0
Start Test Date 2023/09/29
Final Test Date 2023/09/29

Well Name Enhance Energy Clive 16-2-40-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
1	2023/09/29 08:18:00	0.0000	100.12	19.07	0.0000	100.21	17.44
2	2023/09/29 08:18:25	0.0069	106.93	18.96	0.0069	99.80	17.81
3	2023/09/29 08:18:50	0.0139	106.39	18.98	0.0139	103.47	17.56
4	2023/09/29 08:19:35	0.0264	105.61	19.20	0.0264	103.24	17.62
5	2023/09/29 08:20:25	0.0403	105.29	18.86	0.0403	103.85	17.35
6	2023/09/29 08:21:15	0.0542	590.95	18.36	0.0542	551.01	17.28
7	2023/09/29 08:22:05	0.0681	1174.89	18.02	0.0681	1175.59	17.44
8	2023/09/29 08:22:55	0.0819	1174.67	17.27	0.0819	1175.30	17.12
9	2023/09/29 08:23:45	0.0958	1174.11	16.49	0.0958	1175.23	16.73
10	2023/09/29 08:24:35	0.1097	1175.00	15.67	0.1097	1175.32	16.31
11	2023/09/29 08:25:25	0.1236	1174.20	14.89	0.1236	1175.20	15.88
12	2023/09/29 08:26:15	0.1375	1175.05	14.15	0.1375	1174.95	15.45
13	2023/09/29 08:27:05	0.1514	1175.10	13.48	0.1514	1174.81	15.03
14	2023/09/29 08:27:55	0.1653	1174.50	12.85	0.1653	1174.85	14.63
15	2023/09/29 08:28:45	0.1792	1175.22	12.26	0.1792	1175.22	14.23
16	2023/09/29 08:29:35	0.1931	1179.70	11.51	0.1931	1179.09	13.48
17	2023/09/29 08:30:25	0.2069	1186.07	10.19	0.2069	1185.75	12.16
18	2023/09/29 08:31:15	0.2208	1194.89	9.08	0.2208	1194.64	10.84
19	2023/09/29 08:32:05	0.2347	1203.83	8.99	0.2347	1203.70	10.23
20	2023/09/29 08:32:55	0.2486	1215.86	9.73	0.2486	1213.36	10.32
21	2023/09/29 08:33:45	0.2625	1226.77	11.16	0.2625	1223.89	11.13
22	2023/09/29 08:34:35	0.2764	1234.08	13.09	0.2764	1231.90	12.61
23	2023/09/29 08:35:25	0.2903	1234.31	13.95	0.2903	1232.57	13.36
24	2023/09/29 08:36:15	0.3042	1234.18	14.19	0.3042	1232.59	13.63
25	2023/09/29 08:37:05	0.3181	1234.08	14.38	0.3181	1232.30	13.84
26	2023/09/29 08:37:55	0.3319	1234.05	14.55	0.3319	1232.33	14.04
27	2023/09/29 08:38:45	0.3458	1233.96	14.72	0.3458	1232.15	14.22
28	2023/09/29 08:39:35	0.3597	1234.10	14.88	0.3597	1232.33	14.40
29	2023/09/29 08:40:25	0.3736	1237.57	15.19	0.3736	1234.91	14.65
30	2023/09/29 08:41:15	0.3875	1246.70	17.14	0.3875	1244.58	16.21
31	2023/09/29 08:42:05	0.4014	1256.07	19.52	0.4014	1254.16	18.27
32	2023/09/29 08:42:55	0.4153	1265.23	21.80	0.4153	1263.14	20.41
33	2023/09/29 08:43:45	0.4292	1274.09	24.13	0.4292	1272.22	22.62
34	2023/09/29 08:44:35	0.4431	1282.97	26.84	0.4431	1281.37	24.99
35	2023/09/29 08:45:25	0.4569	1286.57	28.74	0.4569	1285.12	26.92
36	2023/09/29 08:46:15	0.4708	1286.85	29.28	0.4708	1285.45	27.45
37	2023/09/29 08:47:05	0.4847	1286.39	29.66	0.4847	1285.65	27.79
38	2023/09/29 08:47:55	0.4986	1286.51	29.99	0.4986	1285.69	28.10
39	2023/09/29 08:48:45	0.5125	1286.56	30.29	0.5125	1285.80	28.39
40	2023/09/29 08:49:35	0.5264	1287.00	30.56	0.5264	1285.67	28.66
41	2023/09/29 08:50:25	0.5403	1286.68	30.81	0.5403	1285.98	28.92
42	2023/09/29 08:51:15	0.5542	1940.86	34.26	0.5542	1911.33	33.18
43	2023/09/29 08:52:05	0.5681	2805.92	38.53	0.5681	2775.38	38.21
44	2023/09/29 08:52:55	0.5819	3666.77	41.38	0.5819	3636.68	41.15
45	2023/09/29 08:53:45	0.5958	4046.80	43.94	0.5958	4043.42	43.77

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80703	2023/09/29 YYYY/MM/DD	08:18:00 HH:mm:ss	1884.75 m
Top	80704	2023/09/29 YYYY/MM/DD	08:18:00 HH:mm:ss	1884.75 m

Company Name Enhance Energy Inc.
Unique Well ID 100/16-02-040-24W4/0
Start Test Date 2023/09/29
Final Test Date 2023/09/29

Well Name Enhance Energy Clive 16-2-40-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
46	2023/09/29 08:54:35	0.6097	4047.40	44.37	0.6097	4044.24	44.28
47	2023/09/29 08:55:25	0.6236	4047.17	44.47	0.6236	4043.98	44.39
48	2023/09/29 08:56:15	0.6375	4047.14	44.50	0.6375	4043.90	44.42
49	2023/09/29 08:57:05	0.6514	4046.81	44.51	0.6514	4043.64	44.42
50	2023/09/29 08:57:55	0.6653	4046.84	44.51	0.6653	4043.73	44.42
51	2023/09/29 08:58:45	0.6792	4046.59	44.52	0.6792	4043.33	44.42
52	2023/09/29 08:59:35	0.6931	4525.34	45.03	0.6931	4501.17	44.85
53	2023/09/29 09:00:25	0.7069	5381.32	48.64	0.7069	5357.31	48.40
54	2023/09/29 09:01:15	0.7208	6013.28	51.86	0.7208	6006.46	51.68
55	2023/09/29 09:02:05	0.7347	6017.96	52.78	0.7347	6014.46	52.68
56	2023/09/29 09:02:55	0.7486	6018.06	52.91	0.7486	6014.53	52.82
57	2023/09/29 09:03:45	0.7625	6017.98	52.94	0.7625	6013.98	52.86
58	2023/09/29 09:04:35	0.7764	6017.89	52.96	0.7764	6014.19	52.88
59	2023/09/29 09:05:25	0.7903	6017.71	52.96	0.7903	6014.20	52.89
60	2023/09/29 09:06:15	0.8042	6017.82	52.96	0.8042	6013.81	52.90
61	2023/09/29 09:07:05	0.8181	6017.70	52.97	0.8181	6014.09	52.90
62	2023/09/29 09:07:55	0.8319	6775.58	54.24	0.8319	6750.41	54.08
63	2023/09/29 09:08:45	0.8458	7663.46	58.04	0.8458	7637.08	57.89
64	2023/09/29 09:09:35	0.8597	8537.98	60.12	0.8597	8513.45	60.03
65	2023/09/29 09:10:25	0.8736	8932.01	61.14	0.8736	8924.34	61.10
66	2023/09/29 09:11:15	0.8875	8936.55	61.38	0.8875	8932.19	61.36
67	2023/09/29 09:12:05	0.9014	8936.33	61.41	0.9014	8931.73	61.39
68	2023/09/29 09:12:55	0.9153	8936.02	61.41	0.9153	8931.74	61.40
69	2023/09/29 09:13:45	0.9292	8936.21	61.41	0.9292	8931.63	61.40
70	2023/09/29 09:14:35	0.9431	8936.10	61.41	0.9431	8931.59	61.40
71	2023/09/29 09:15:25	0.9569	8935.89	61.41	0.9569	8931.30	61.40
72	2023/09/29 09:16:15	0.9708	9009.59	61.41	0.9708	8996.40	61.40
73	2023/09/29 09:17:05	0.9847	9230.83	61.69	0.9847	9226.92	61.68
74	2023/09/29 09:17:55	0.9986	9231.16	61.76	0.9986	9226.61	61.75
75	2023/09/29 09:18:45	1.0125	9231.08	61.78	1.0125	9226.82	61.77
76	2023/09/29 09:19:35	1.0264	9230.93	61.78	1.0264	9226.42	61.78
77	2023/09/29 09:20:25	1.0403	9230.47	61.78	1.0403	9226.53	61.78
78	2023/09/29 09:21:15	1.0542	9230.79	61.78	1.0542	9226.15	61.78
79	2023/09/29 09:22:05	1.0681	9255.57	61.78	1.0681	9245.50	61.79
80	2023/09/29 09:22:55	1.0819	9517.74	61.96	1.0819	9516.34	61.96
81	2023/09/29 09:23:45	1.0958	9518.83	62.10	1.0958	9514.49	62.10
82	2023/09/29 09:24:35	1.1097	9518.68	62.12	1.1097	9514.52	62.12
83	2023/09/29 09:25:25	1.1236	9518.93	62.13	1.1236	9514.38	62.13
84	2023/09/29 09:26:15	1.1375	9518.68	62.13	1.1375	9514.53	62.13
85	2023/09/29 09:27:05	1.1514	9518.23	62.14	1.1514	9514.29	62.13
86	2023/09/29 09:27:55	1.1653	9518.12	62.14	1.1653	9514.26	62.14
87	2023/09/29 09:28:45	1.1792	9619.25	62.16	1.1792	9610.80	62.17
88	2023/09/29 09:29:35	1.1931	9819.21	62.38	1.1931	9811.74	62.38
89	2023/09/29 09:30:25	1.2069	9820.20	62.51	1.2069	9815.79	62.51
90	2023/09/29 09:31:15	1.2208	9820.19	62.53	1.2208	9815.71	62.54

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80703	2023/09/29 YYYY/MM/DD	08:18:00 HH:mm:ss	1884.75 m
Top	80704	2023/09/29 YYYY/MM/DD	08:18:00 HH:mm:ss	1884.75 m

Company Name Enhance Energy Inc.
Unique Well ID 100/16-02-040-24W4/0
Start Test Date 2023/09/29
Final Test Date 2023/09/29

Well Name Enhance Energy Clive 16-2-40-24W4
Formation Nisku

	Bottom Date	Bottom Time	Bottom Pres.	Bottom Temp.	Top Time	Top Pres.	Top Temp.
	YYYY/MM/DD HH:mm:ss	h	kPa(a)	°C	h	kPa(a)	°C
91	2023/09/29 09:32:05	1.2347	9819.88	62.54	1.2347	9815.60	62.55
92	2023/09/29 09:32:55	1.2486	9819.42	62.55	1.2486	9815.25	62.55
93	2023/09/29 09:33:45	1.2625	9819.68	62.56	1.2625	9815.01	62.56
94	2023/09/29 09:34:35	1.2764	9819.37	62.56	1.2764	9815.10	62.57
95	2023/09/29 09:35:25	1.2903	9819.42	62.56	1.2903	9814.78	62.57
96	2023/09/29 09:36:15	1.3042	9819.07	62.56	1.3042	9815.02	62.57
97	2023/09/29 09:37:05	1.3181	9818.90	62.56	1.3181	9814.72	62.57
98	2023/09/29 09:37:55	1.3319	9818.46	62.56	1.3319	9814.64	62.57
99	2023/09/29 09:38:45	1.3458	9818.94	62.56	1.3458	9814.15	62.57
100	2023/09/29 09:39:35	1.3597	9818.59	62.56	1.3597	9814.50	62.57
101	2023/09/29 09:40:25	1.3736	9818.39	62.56	1.3736	9814.28	62.57
102	2023/09/29 09:41:15	1.3875	9818.08	62.56	1.3875	9814.13	62.57
103	2023/09/29 09:42:05	1.4014	9818.50	62.56	1.4014	9814.14	62.57
104	2023/09/29 09:42:55	1.4153	9818.06	62.56	1.4153	9814.12	62.57
105	2023/09/29 09:43:45	1.4292	9818.06	62.56	1.4292	9813.98	62.57
106	2023/09/29 09:44:35	1.4431	9817.81	62.57	1.4431	9813.85	62.57
107	2023/09/29 09:45:25	1.4569	9817.58	62.56	1.4569	9813.19	62.57
108	2023/09/29 09:46:15	1.4708	9667.21	62.52	1.4708	9669.34	62.53
109	2023/09/29 09:47:05	1.4847	8812.83	61.93	1.4847	8825.04	61.96
110	2023/09/29 09:47:55	1.4986	7848.69	60.81	1.4986	7861.78	60.84
111	2023/09/29 09:48:45	1.5125	6874.41	59.02	1.5125	6886.19	59.05
112	2023/09/29 09:49:35	1.5264	6016.64	54.94	1.5264	6008.10	55.00
113	2023/09/29 09:50:25	1.5403	5375.75	52.86	1.5403	5393.92	52.88
114	2023/09/29 09:51:15	1.5542	4100.40	48.30	1.5542	4119.72	48.37
115	2023/09/29 09:52:05	1.5681	2818.01	42.99	1.5681	2832.62	42.99
116	2023/09/29 09:52:55	1.5819	1547.35	38.75	1.5819	1562.03	38.73
117	2023/09/29 09:53:45	1.5958	1270.12	36.39	1.5958	1270.12	36.33
118	2023/09/29 09:54:35	1.6097	1255.71	35.28	1.6097	1255.22	35.31
119	2023/09/29 09:55:25	1.6236	1240.65	33.45	1.6236	1240.83	33.52
120	2023/09/29 09:56:15	1.6375	1225.31	31.18	1.6375	1225.22	31.17
121	2023/09/29 09:57:05	1.6514	1209.93	28.25	1.6514	1209.88	28.14
122	2023/09/29 09:57:55	1.6653	1196.34	25.02	1.6653	1196.34	24.81
123	2023/09/29 09:58:45	1.6792	1184.21	22.04	1.6792	1183.74	21.78
124	2023/09/29 09:59:35	1.6931	1173.71	19.16	1.6931	1172.71	18.86
125	2023/09/29 10:00:25	1.7069	1169.07	17.09	1.7069	1168.54	16.84
126	2023/09/29 10:01:15	1.7208	1167.39	16.21	1.7208	1166.04	15.96
127	2023/09/29 10:02:05	1.7347	1165.86	15.46	1.7347	1164.69	15.37
128	2023/09/29 10:02:55	1.7486	830.91	14.68	1.7486	846.40	14.97
129	2023/09/29 10:03:45	1.7625	154.42	13.74	1.7625	158.24	14.31
130	2023/09/29 10:04:35	1.7764	102.15	13.14	1.7764	101.23	13.90
131	2023/09/29 10:05:25	1.7903	102.04	12.72	1.7903	100.96	13.65
132	2023/09/29 10:06:15	1.8042	102.21	12.37	1.8042	101.56	13.48
133	2023/09/29 10:07:05	1.8181	100.56	12.69	1.8181	101.58	13.23

Print Filter: Approximately every 5 lines

Gauge Name	Serial Number	Start Date	Start Time	Run Depth (TVD)
Bottom	80703	2023/09/29 YYYY/MM/DD	08:18:00 HH:mm:ss	1884.75 m
Top	80704	2023/09/29 YYYY/MM/DD	08:18:00 HH:mm:ss	1884.75 m

ATTACHMENT 5

Fluid Analyses

EXTENDED GAS ANALYSIS

Version: 1

08000471A	EE041504024W4MFIT100G			22ER915638A	23ER985358A
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	METER 090-FIT-100(ENH 0202)	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 CO2 ACTL 20 CO2 ANALYZER

Well Name | *Well License* | *Well Status* | *Well Fluid Status* | *LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	28 Source	44 Received	5 Source	21 Received

Jan 05, 2023 14:30	Jan 07, 2023	Jan 13, 2023	Jan 13, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information :

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.00807	0.52547		0.00842
He	0.00000	0.00000		0.00000
N_2	0.00291	0.18926		0.00743
CO_2	0.98463	0.00000		0.98318
H_2S	0.00000	0.00000		0.00000
C_1	0.00087	0.05675		0.00081
C_2	0.00023	0.01478	0.8	0.00000
C_3	0.00068	0.04404	2.5	0.00001
iC_4	0.00016	0.01042	0.7	0.00002
nC_4	0.00057	0.03687	2.4	0.00001
iC_5	0.00023	0.01530	1.1	0.00001
nC_5	0.00041	0.02668	2.0	0.00001
C_6	0.00039	0.02561	2.1	0.00001
C_7+	0.00085	0.05482	4.5	0.00009
TOTAL	1.00000	1.00000	16.1	1.00000

WDMS Data Verification Check

Exceeded compare limits: C3, C7

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross		Net	
0.62 Air Free as Received	40.47 Moisture & Acid Gas Free	**0.58** Air Free as Received	37.76 Moisture & Acid Gas Free

Calculated Density

Relative		Absolute	
1.509 Moisture Free As Received	0.789 Moisture & Acid Gas Free	760.3 C_7+ Density (kg/m³)	1.848 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7301.07 pPc (kPa)	301.86 pTc (K)	2431.88 pPc (kPa)	156.06 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
0 Stain Tube (GPA 2377)	Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	0.00

Calculated Molecular Weight

(Moisture Free asReceived) (g/mol)

43.68	95.28
Total Sample	C_7+ Fraction

Calculated Vapour Pressure

59.49 C_5+(kPa)

Gas Compressibility

0.9942 @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

View or download your data online at webfluids.agatlabs.com

Container Identification	Sample Point Code	Meter Code	AGAT WDMS Number	Previous Number	Laboratory Number
08000471A	EE041504024W4MFIT			22ER915638A	23ER985358A

Operator Name	Sampling Point	Unique Well Identifier
ENHANCE ENERGY INC	METER 090-FIT-100(ENH 0202)	04-15-040-24W4

Well Name	Well License	Well Status	Well Fluid Status	LSD
ENHANCE CLIVE 4-15 CO2 ACTL 20 CO2 ANALYZER				

BOILING POINT RANGE (°C)	Carbon Number	Hydrocarbon Summary	As Received Mole Fraction	Acid Gas Free Mole Fraction	As Received Liquid Volume (mL/m³)
36.2+	C_6+	Hexanes+	0.00124	0.08043	6.5680
68.9+	C_7+	Heptanes+	0.00085	0.05482	4.4500
98.6+	C_8+	Octanes+	0.00036	0.02316	1.7569
125.8+	C_9+	Nonanes+	0.00001	0.00057	0.0499
150.9+	C_{10}+	Decanes+	0.00000	0.00000	0.0000
174.3+	C_{11}+	Undecanes+	0.00000	0.00000	0.0000
196.0+	C_{12}+	Dodecanes+	0.00000	0.00000	0.0000
216.4+	C_{13}+	Tridecanes+	0.00000	0.00000	0.0000
235.6 - 270.7	C_{14}+	Tetradecanes+	0.00000	0.00000	0.0000

BOILING POINT RANGE (°C)	Carbon Number	Hydrocarbon Grouping	As Received Mole Fraction	Acid Gas Free Mole Fraction	As Received Liquid Volume (mL/m³)
68.9 - 98.6	C_7	Heptanes	0.00049	0.03167	2.6931
98.6 - 125.8	C_8	Octanes	0.00035	0.02259	1.7071
125.8 - 150.9	C_9	Nonanes	0.00001	0.00057	0.0499
150.9 - 174.3	C_{10}	Decanes	0.00000	0.00000	0.0000
174.3 - 196.0	C_{11}	Undecanes	0.00000	0.00000	0.0000
196.0 - 216.4	C_{12}	Dodecanes	0.00000	0.00000	0.0000
216.4 - 235.6	C_{13}	Tridecanes	0.00000	0.00000	0.0000
235.6 - 253.6	C_{14}	Tetradecanes	0.00000	0.00000	0.0000
253.6 - 270.69	C_{15}	Pentadecanes	0.00000	0.00000	0.0000

BOILING POINT RANGE (°C)	Carbon Number	Relevent Compounds	As Received Mole Fraction	Acid Gas Free Mole Fraction	As Received Liquid Volume (mL/m³)
49.28	C_5	Cyclopentane	0.00006	0.00401	0.2998
68.73	C_6	n-Hexane	0.00019	0.01242	1.0469
71.83	C_6	Methylcyclopentane	0.00008	0.00544	0.4496
80.06	C_6	Benzene	0.00007	0.00431	0.2474
80.78	C_6	Cyclohexane	0.00008	0.00496	0.3994
99.24	C_8	2,2,4-Trimethylpentane	0.00002	0.00112	0.1192
100.94	C_7	Methylcyclohexane	0.00006	0.00383	0.3159
110.61	C_7	Toluene	0.00024	0.01595	1.0954
136.16	C_8	Ethylbenzene	0.00000	0.00000	0.0000
138.33 ; 139.09	C_8	m&p-Xylene	0.00000	0.00019	0.0152
144.42	C_8	o-Xylene	0.00000	0.00000	0.0000
169.34	C_9	1,2,4-Trimethylbenzene	0.00000	0.00000	0.0000

EXTENDED GAS ANALYSIS

Version: 1

Container Identification	Sample Point Code	Meter Code	AGAT WDMS Number	Previous Number	Laboratory Number
TB2A					23ER993146A

Operator Name	Sampling Point	Unique Well Identifier
ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4

Well Name	Well License	Well Status	Well Fluid Status	LSD
ENHANCE CLIVE 4-15 CO2 ACTL 20 CO2 ANALYZER				

Field or Area	Pool or Zone	Sampler's Company	Name of Sampler
CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB

Test Interval (mKB) From :	Test Interval (mKB) To:	Test Type	Test No.	Elevation (m) KB	Elevation (m) GRD	Pressure (kPa) Source	Pressure (kPa) Received	Temperature (°C) Source	Temperature (°C) Received
						32		4	21

Date/Time Sampled	Date Received	Date Analyzed	Date Reported	Location - Approved By - Title
Feb 02, 2023 10:45	Feb 03, 2023	Feb 09, 2023	Feb 09, 2023	Calgary - Gerry Ecker - Reporter

Other Information : TAKE FROM NEW CO2 METER @ SOUTH END

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.00574	0.60930		
He	0.00000	0.00000		
N_2	0.00254	0.26960		
CO_2	0.99058	0.00000		
H_2S	0.00000	0.00000		
C_1	0.00058	0.06204		
C_2	0.00000	0.00000	0.0	
C_3	0.00001	0.00145	0.1	
iC_4	0.00020	0.02091	0.9	
nC_4	0.00033	0.03555	1.4	
iC_5	0.00001	0.00062	TRACE	
nC_5	0.00001	0.00054	TRACE	
C_6	0.00000	0.00000	0.0	
C_7+	0.00000	0.00000	0.0	
TOTAL	1.00000	1.00000	2.4	

WDMS Data Verification Check ✓

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross: Air Free as Received	Gross: Moisture & Acid Gas Free	Net: Air Free as Received	Net: Moisture & Acid Gas Free
0.16	16.87	**0.14**	14.96

Calculated Density

Relative: Moisture Free As Received	Relative: Moisture & Acid Gas Free	Absolute: C_7+ Density (kg/m³)	Absolute: Total Sample Density (kg/m³)
1.510	0.456	0.0	1.849

Calculated Pseudo Critical Properties

As Sampled: pPc (kPa)	As Sampled: pTc (K)	Acid Gas Free: pPc (kPa)	Acid Gas Free: pTc (K)
7328.46	302.12	2222.99	90.78

Hydrogen Sulfide (H_2S) (ppm)

Field Value: Stain Tube (GPA 2377)	Field Value: Tutweiler (GPA C1)	Laboratory Value: Other	Laboratory Value: GC-SCD (ASTM D5504)	g/m³
0				0.00

Calculated Molecular Weight
(Moisture Free asReceived) (g/mol)

Total Sample	C_7+ Fraction
43.72	0.00

Calculated Vapour Pressure

C_5+(kPa)
134.77

Gas Compressibility

@15 °C & 101.325 kPa
0.9943

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

View or download your data online at webfluids.agatlabs.com

AGAT Laboratories

GAS ANALYSIS

Version: 1

Container Identification	Sample Point Code	Meter Code	AGAT WDMS Number	Previous Number	Laboratory Number
08001730A	090-FIT-100				23GR000434A

Operator Name	Sampling Point	Unique Well Identifier
ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4

Well Name	Well License	Well Status	Well Fluid Status	LSD
ENHANCE CLIVE 4-15 CO2 ACTL 20				

Field or Area	Pool or Zone	Sampler's Company	Name of Sampler
CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA

Test Interval (mKB) From :	Test Interval (mKB) To:	Test Type	Test No.	Elevation (m) KB	Elevation (m) GRD	Pressure (kPa) Source	Pressure (kPa) Received	Temperature (°C) Source	Temperature (°C) Received
						20	32	10	21

Date/Time Sampled	Date Received	Date Analyzed	Date Reported	Location - Approved By - Title
Mar 02, 2023 12:40	Mar 06, 2023	Mar 10, 2023	Mar 10, 2023	Calgary - Gerry Ecker - Reporter

Other Information : BATTERY

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0058	0.6666		
He	0.0000	0.0000		
N_2	0.0019	0.2184		
CO_2	0.9913	0.0000		
H_2S	0.0000	0.0000		
C_1	0.0007	0.0805		
C_2	TRACE	TRACE	0.0	
C_3	TRACE	TRACE	0.0	
iC_4	0.0001	0.0115	0.4	
nC_4	TRACE	TRACE	0.0	
iC_5	TRACE	TRACE	0.0	
nC_5	TRACE	TRACE	0.0	
C_6	TRACE	TRACE	0.0	
C_{7+}	0.0002	0.0230	1.3	
TOTAL	1.0000	1.0000	1.7	

WDMS Data Verification Check

Exceeds normal limits: CO2, H2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net		
0.15 Air Free as Received	17.43 Moisture & Acid Gas Free	0.04 C_{7+} Moisture Free	**0.13** Air Free as Received	15.52 Moisture & Acid Gas Free	

Calculated Density

Relative			Absolute		
1.510 Moisture Free As Received	0.410 Moisture & Acid Gas Free	3.702 C_{7+} Moisture Free	697.8 C_{7+} Density (kg/m³)	1.849 Total Sample Density (kg/m³)	

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7330.9 pPc (kPa)	302.2 pTc (K)	2078.3 pPc (kPa)	82.5 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
0 Stain Tube (GPA 2377)	Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

43.7 Total Sample	107.2 C_{7+} Fraction

Calculated Vapour Pressure

7.45 C_{5+} (kPa)

Gas Compressibility

0.9956 @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

11002350A	EE041504024W4FIT100			23GR000434A	23GR011216A
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 CO2 ACTL 20				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	100 Source	100 Received	3 Source	21 Received

Apr 10, 2023 8:00	Apr 11, 2023	Apr 18, 2023	Apr 18, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information :

COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m³	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H_2	0.0074	0.6271		0.0058
He	0.0000	0.0000		0.0000
N_2	0.0035	0.2966		0.0019
CO_2	0.9882	0.0000		0.9913
H_2S	0.0000	0.0000		0.0000
C_1	0.0007	0.0593		0.0007
C_2	0.0000	0.0000	0.0	TRACE
C_3	TRACE	TRACE	0.0	TRACE
iC_4	TRACE	TRACE	0.0	0.0001
nC_4	TRACE	TRACE	0.0	TRACE
iC_5	TRACE	TRACE	0.0	TRACE
nC_5	TRACE	TRACE	0.0	TRACE
C_6	TRACE	TRACE	0.0	TRACE
C_7+	0.0002	0.0170	1.3	0.0002
TOTAL	1.0000	1.0000	1.3	1.0000

WDMS Data Verification Check 

Exceeds normal limits: CO2, H2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
0.16 Air Free as Received	13.47 Moisture & Acid Gas Free	0.04 C_7+ Moisture Free	**0.14** Air Free as Received	11.89 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.507 Moisture Free As Received	0.426 Moisture & Acid Gas Free	3.702 C_7+ Moisture Free	697.8 C_7+ Density (kg/m³)	1.845 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7315.2 pPc (kPa)	301.4 pTc (K)	2137.7 pPc (kPa)	79.0 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
0 Stain Tube (GPA 2377)	Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

43.6	107.2
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

7.45 *C_5+ (kPa)*

Gas Compressibility

0.9971 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

00019371A	EE041504024W4FIT100			23GR011216A	23GR015962A
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 CO2 ACTL 20 CO2 ANALYZER

Well Name | *Well License* | *Well Status* | *Well Fluid Status* | *LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	80 Source	70 Received	5 Source	22 Received

May 02, 2023 10:20	May 03, 2023	May 10, 2023	May 10, 2023	Calgary - Bernie Diep - Supervisor
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information :

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0058	0.7734		0.0074
He	0.0000	0.0000		0.0000
N_2	0.0007	0.0933		0.0035
CO_2	0.9925	0.0000		0.9882
H_2S	0.0000	0.0000		0.0000
C_1	0.0010	0.1333		0.0007
C_2	TRACE	TRACE	0.0	0.0000
C_3	TRACE	TRACE	0.0	TRACE
iC_4	TRACE	TRACE	0.0	TRACE
nC_4	TRACE	TRACE	0.0	TRACE
iC_5	TRACE	TRACE	0.0	TRACE
nC_5	TRACE	TRACE	0.0	TRACE
C_6	TRACE	TRACE	0.0	TRACE
C_7+	TRACE	TRACE	0.0	0.0002
TOTAL	1.0000	1.0000	0.0	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
0.11 Air Free as Received	14.27 Moisture & Acid Gas Free	0.00 C_7+ Moisture Free	**0.09** Air Free as Received	12.44 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.510 Moisture Free As Received	0.218 Moisture & Acid Gas Free	3.702 C_7+ Moisture Free	697.8 C_7+ Density (kg/m³)	1.849 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7336.2 pPc (kPa)	302.3 pTc (K)	1933.0 pPc (kPa)	62.9 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

43.7	107.2
Total Sample	C_7+ Fraction

Calculated Vapour Pressure

0.00 C_5+ (kPa)

Gas Compressibility

1.0002 @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

11005611A	EE041504024W4FIT100			23GR015962A	23GR030668A
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 CO2 ACTL 20				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	65 Source	80 Received	10 Source	21 Received

Jun 01, 2023	Jun 02, 2023	Jun 08, 2023	Jun 08, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information :

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0061	0.7439		0.0058
He	0.0000	0.0000		0.0000
N_2	0.0011	0.1341		0.0007
CO_2	0.9918	0.0000		0.9925
H_2S	0.0000	0.0000		0.0000
C_1	0.0007	0.0854		0.0010
C_2	TRACE	TRACE	0.0	TRACE
C_3	TRACE	TRACE	0.0	TRACE
iC_4	TRACE	TRACE	0.0	TRACE
nC_4	TRACE	TRACE	0.0	TRACE
iC_5	TRACE	TRACE	0.0	TRACE
nC_5	TRACE	TRACE	0.0	TRACE
C_6	TRACE	TRACE	0.0	TRACE
C_7+	0.0003	0.0366	2.2	TRACE
TOTAL	1.0000	1.0000	2.2	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net		
0.17 Air Free as Received	20.96 Moisture & Acid Gas Free	0.07 C_7+ Moisture Free	**0.15** Air Free as Received	18.75 Moisture & Acid Gas Free	

Calculated Density

Relative			Absolute	
1.510 Moisture Free As Received	0.379 Moisture & Acid Gas Free	4.105 C_7+ Moisture Free	712.0 C_7+ Density (kg/m³)	1.849 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7332.1 pPc (kPa)	302.3 pTc (K)	1901.5 pPc (kPa)	79.0 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
0 Stain Tube (GPA 2377)	Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

43.7	118.9
Total Sample	C_7+ Fraction

Calculated Vapour Pressure

2.90 C_5+ (kPa)

Gas Compressibility

0.9827 @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
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AGAT Laboratories

GAS ANALYSIS

Version: 1

07000474A	EE041504024W4FIT100			23GR030668A	23GR043117A
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 CO2 ACTL 20				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	90 Source	85 Received	5 Source	21 Received

Jul 05, 2023 9:50	Jul 07, 2023	Jul 12, 2023	Jul 12, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information :

COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m³	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H_2	0.0059	0.6148		0.0061
He	0.0000	0.0000		0.0000
N_2	0.0007	0.0729		0.0011
CO_2	0.9904	0.0000		0.9918
H_2S	0.0000	0.0000		0.0000
C_1	0.0010	0.1042		0.0007
C_2	0.0001	0.0104	0.4	TRACE
C_3	0.0003	0.0312	1.1	TRACE
iC_4	0.0001	0.0104	0.4	TRACE
nC_4	0.0001	0.0104	0.4	TRACE
iC_5	0.0001	0.0104	0.5	TRACE
nC_5	0.0001	0.0104	0.5	TRACE
C_6	0.0002	0.0208	1.1	TRACE
C_7+	0.0010	0.1041	7.4	0.0003
TOTAL	1.0000	1.0000	11.8	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: C7

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net		
0.49	50.52	0.25	**0.44**	46.20	
Air Free as Received	*Moisture & Acid Gas Free*	*C_7+ Moisture Free*	*Air Free as Received*	*Moisture & Acid Gas Free*	

Calculated Density

Relative			Absolute	
1.513	0.831	4.283	717.2	1.853
Moisture Free As Received	*Moisture & Acid Gas Free*	*C_7+ Moisture Free*	*C_7+ Density (kg/m³)*	*Total Sample Density (kg/m³)*

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7327.0	302.7	2163.2	154.0
pPc (kPa)	*pTc (K)*	*pPc (kPa)*	*pTc (K)*

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
0				0.00
Stain Tube (GPA 2377)	*Tutweiler (GPA C1)*	*Other*	*GC-SCD (ASTM D5504)*	

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

43.8	124.0
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

25.11
C_5+ (kPa)

Gas Compressibility

0.9256
@15 °C & 101.325 kPa

GAS ANALYSIS

Version: 1

05005042A	EE041504024W4FIT100			23GR043117A	23GR052938A
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	NOT AVAILABLE	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 CO2 ACTL 20				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	70 Source	60 Received	10 Source	21 Received

Aug 01, 2023 9:35	Aug 03, 2023	Aug 11, 2023	Aug 11, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : CO2 METER 090-FIT-100(ENH0202)

COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m³	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H_2	0.0056	0.5184		0.0059
He	0.0000	0.0000		0.0000
N_2	0.0020	0.1852		0.0007
CO_2	0.9892	0.0000		0.9904
H_2S	0.0000	0.0000		0.0000
C_1	0.0006	0.0556		0.0010
C_2	0.0000	0.0000	0.0	0.0001
C_3	0.0001	0.0093	0.4	0.0003
iC_4	TRACE	TRACE	0.0	0.0001
nC_4	0.0002	0.0185	0.8	0.0001
iC_5	0.0002	0.0185	1.0	0.0001
nC_5	0.0003	0.0278	1.5	0.0001
C_6	0.0005	0.0463	2.7	0.0002
C_7+	0.0013	0.1204	8.3	0.0010
TOTAL	1.0000	1.0000	14.7	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net		
0.57 Air Free as Received	52.62 Moisture & Acid Gas Free	0.28 C_7+ Moisture Free	**0.52** Air Free as Received	48.21 Moisture & Acid Gas Free	

Calculated Density

Relative			Absolute	
1.514 Moisture Free As Received	0.989 Moisture & Acid Gas Free	3.646 C_7+ Moisture Free	695.7 C_7+ Density (kg/m³)	1.854 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7322.0 pPc (kPa)	302.7 pTc (K)	2280.3 pPc (kPa)	173.9 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
0 Stain Tube (GPA 2377)	Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

43.8	105.6
Total Sample	C_7+ Fraction

Calculated Vapour Pressure

38.39 C_5+ (kPa)

Gas Compressibility

0.9716 @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

Container Identification	Sample Point Code	Meter Code	AGAT WDMS Number	Previous Number	Laboratory Number
04000491A	EE041504024W4FIT100			23GR052938A	23GR064310A

Operator Name	Sampling Point	Unique Well Identifier
ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4

Well Name	Well License	Well Status	Well Fluid Status	LSD
ENHANCE CLIVE 4-15 CO2 ACTL 20				

Field or Area	Pool or Zone	Sampler's Company	Name of Sampler
CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA

Test Interval (mKB) From :	Test Interval (mKB) To:	Test Type	Test No.	Elevation (m) KB	Elevation (m) GRD	Pressure (kPa) Source	Pressure (kPa) Received	Temperature (°C) Source	Temperature (°C) Received
						100	90	10	23

Date/Time Sampled	Date Received	Date Analyzed	Date Reported	Location - Approved By - Title
Sep 05, 2023 8:45	Sep 07, 2023	Sep 14, 2023	Sep 14, 2023	Calgary - Bernie Diep - Supervisor

Other Information : FIELD H2S BY TUBE = 0ppm

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0058	0.5980		0.0056
He	0.0000	0.0000		0.0000
N_2	0.0022	0.2268		0.0020
CO_2	0.9903	0.0000		0.9892
H_2S	0.0000	0.0000		0.0000
C_1	0.0010	0.1031		0.0006
C_2	0.0001	0.0103	0.4	0.0000
C_3	TRACE	TRACE	0.0	0.0001
iC_4	0.0001	0.0103	0.4	TRACE
nC_4	TRACE	TRACE	0.0	0.0002
iC_5	TRACE	TRACE	0.0	0.0002
nC_5	TRACE	TRACE	0.0	0.0003
C_6	TRACE	TRACE	0.0	0.0005
C_7+	0.0005	0.0515	3.2	0.0013
TOTAL	1.0000	1.0000	4.0	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: C7

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross: Air Free as Received	Gross: Moisture & Acid Gas Free	Gross: C_7+ Moisture Free	Net: Air Free as Received	Net: Moisture & Acid Gas Free
0.23	23.79	0.11	**0.21**	21.47

Calculated Density

Relative: Moisture Free As Received	Relative: Moisture & Acid Gas Free	Relative: C_7+ Moisture Free	Absolute: C_7+ Density (kg/m³)	Absolute: Total Sample Density (kg/m³)
1.510	0.533	3.556	692.1	1.849

Calculated Pseudo Critical Properties

As Sampled: pPc (kPa)	As Sampled: pTc (K)	Acid Gas Free: pPc (kPa)	Acid Gas Free: pTc (K)
7327.2	302.2	2245.9	103.6

Hydrogen Sulfide (H_2S) (ppm)

Field Value: Stain Tube (GPA 2377)	Field Value: Tutweiler (GPA C1)	Laboratory Value: Other	Laboratory Value: GC-SCD (ASTM D5504)	g/m³
0				0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

Total Sample	C_7+ Fraction
43.7	103.0

Calculated Vapour Pressure

9.68 — C_5+ (kPa)

Gas Compressibility

0.9913 — @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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GAS ANALYSIS

Version: 1

Container Identification	Sample Point Code	Meter Code	AGAT WDMS Number	Previous Number	Laboratory Number
00019505A	EE041504024W4FIT100			23GR064310A	23GR074536A

Operator Name	Sampling Point	Unique Well Identifier
ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4

Well Name	Well License	Well Status	Well Fluid Status	LSD
ENHANCE CLIVE 4-15 CO2 ACTL 20				

Field or Area	Pool or Zone	Sampler's Company	Name of Sampler
CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA

Test Interval (mKB) From :	Test Interval (mKB) To:	Test Type	Test No.	Elevation (m) KB	Elevation (m) GRD	Pressure (kPa) Source	Pressure (kPa) Received	Temperature (°C) Source	Temperature (°C) Received
						80	90	10	23

Date/Time Sampled	Date Received	Date Analyzed	Date Reported	Location - Approved By - Title
Oct 02, 2023	Oct 03, 2023	Oct 06, 2023	Oct 06, 2023	Calgary - Arpita Misra - Reporter

Other Information : FIELD H2S BY TUBE = 0 ppm/LAB H2S = ND

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0058	0.6043		0.0058
He	0.0000	0.0000		0.0000
N_2	0.0010	0.1042		0.0022
CO_2	0.9904	0.0000		0.9903
H_2S	0.0000	0.0000		0.0000
C_1	0.0006	0.0625		0.0010
C_2	0.0001	0.0104	0.4	0.0001
C_3	0.0001	0.0104	0.4	TRACE
iC_4	TRACE	TRACE	0.0	0.0001
nC_4	0.0001	0.0104	0.4	TRACE
iC_5	TRACE	TRACE	0.0	TRACE
nC_5	0.0001	0.0104	0.5	TRACE
C_6	0.0002	0.0208	1.1	TRACE
C_7+	0.0016	0.1666	11.1	0.0005
TOTAL	1.0000	1.0000	13.9	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: C7

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross: Air Free as Received	Gross: Moisture & Acid Gas Free	Gross: C_7+ Moisture Free	Net: Air Free as Received	Net: Moisture & Acid Gas Free
0.56	57.53	0.38	**0.51**	52.72

Calculated Density

Relative: Moisture Free As Received	Relative: Moisture & Acid Gas Free	Relative: C_7+ Moisture Free	Absolute: C_7+ Density (kg/m³)	Absolute: Total Sample Density (kg/m³)
1.514	0.985	4.035	709.6	1.855

Calculated Pseudo Critical Properties

As Sampled: pPc (kPa)	As Sampled: pTc (K)	Acid Gas Free: pPc (kPa)	Acid Gas Free: pTc (K)
7326.0	302.8	2066.7	167.5

Hydrogen Sulfide (H_2S) (ppm)

Field Value: Stain Tube (GPA 2377)	Field Value: Tutweiler (GPA C1)	Laboratory Value: Other	Laboratory Value: GC-SCD (ASTM D5504)	g/m³
0				0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

Total Sample	C_7+ Fraction
43.9	116.9

Calculated Vapour Pressure

12.87 C_5+ (kPa)

Gas Compressibility

0.9223 @15 °C & 101.325 kPa

Disclaimer: The result in this report has been confirmed by a duplicate run.

AGAT Laboratories

GAS ANALYSIS

Version: 1

05005435A	EE041504024W4FIT100			23GR074536A	23GR090892A
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 CO2 ACTL 20				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	70 Source	82 Received	13 Source	23 Received

Nov 09, 2023 9:20	Nov 13, 2023	Nov 21, 2023	Nov 21, 2023	Calgary - Mehedi Hasan - Report Writer
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information :

COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m³	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H_2	0.0058	0.6044		0.0058
He	0.0000	0.0000		0.0000
N_2	0.0012	0.1250		0.0010
CO_2	0.9904	0.0000		0.9904
H_2S	0.0000	0.0000		0.0000
C_1	0.0008	0.0833		0.0006
C_2	0.0002	0.0208	0.7	0.0001
C_3	0.0006	0.0625	2.2	0.0001
iC_4	0.0001	0.0104	0.4	TRACE
nC_4	0.0001	0.0104	0.4	0.0001
iC_5	0.0001	0.0104	0.5	TRACE
nC_5	0.0002	0.0208	1.0	0.0001
C_6	0.0002	0.0208	1.1	0.0002
C_7+	0.0003	0.0312	1.9	0.0016
TOTAL	1.0000	1.0000	8.2	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: C7

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net		
0.34 Air Free as Received	35.14 Moisture & Acid Gas Free	0.06 C_7+ Moisture Free	**0.31** Air Free as Received	31.95 Moisture & Acid Gas Free	

Calculated Density

Relative			Absolute	
1.511 Moisture Free As Received	0.620 Moisture & Acid Gas Free	3.621 C_7+ Moisture Free	694.7 C_7+ Density (kg/m³)	1.850 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7328.1 pPc (kPa)	302.4 pTc (K)	2286.4 pPc (kPa)	132.1 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

43.8	104.9
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

56.27 *C_{5+} (kPa)*

Gas Compressibility

0.9891 *@15 °C & 101.325 kPa*

Disclaimer: The result in this report has been confirmed by a duplicate run.

GAS ANALYSIS

Version: 1

Container Identification	Sample Point Code	Meter Code	AGAT WDMS Number	Previous Number	Laboratory Number
07000216A	EE041504024W4MFIT100G		000188887	22GR974584A	23GR098510A

Operator Name	Sampling Point	Unique Well Identifier
ENHANCE ENERGY INC	METER 090-FIT-100(ENH0202)	04-15-040-24W4

Well Name	Well License	Well Status	Well Fluid Status	LSD
ENHANCE CLIVE 4-15 CO2 ACTL 20 CO2 ANALYZER				

Field or Area	Pool or Zone	Sampler's Company	Name of Sampler
CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA

Test Interval (mKB) From :	Test Interval (mKB) To:	Test Type	Test No.	Elevation (m) KB	Elevation (m) GRD	Pressure (kPa) Source	Pressure (kPa) Received	Temperature (°C) Source	Temperature (°C) Received
						4400	11000	-2	21

Date/Time Sampled	Date Received	Date Analyzed	Date Reported	Location - Approved By - Title
Dec 06, 2023 11:45	Dec 07, 2023	Dec 13, 2023	Dec 13, 2023	Calgary - Gerry Ecker - Reporter

Other Information :

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0062	0.8732		0.0064
He	0.0000	0.0000		0.0000
N_2	0.0001	0.0141		0.0002
CO_2	0.9929	0.0000		0.9920
H_2S	0.0000	0.0000		0.0000
C_1	0.0008	0.1127		0.0010
C_2	TRACE	TRACE	0.0	0.0002
C_3	TRACE	TRACE	0.0	0.0001
iC_4	0.0000	0.0000	0.0	TRACE
nC_4	0.0000	0.0000	0.0	0.0001
iC_5	0.0000	0.0000	0.0	TRACE
nC_5	0.0000	0.0000	0.0	TRACE
C_6	0.0000	0.0000	0.0	TRACE
C_7+	0.0000	0.0000	0.0	TRACE
TOTAL	1.0000	1.0000	0.0	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross: Air Free as Received	Gross: Moisture & Acid Gas Free	Gross: C_7+ Moisture Free	Net: Air Free as Received	Net: Moisture & Acid Gas Free
0.11	14.68	0.00	**0.09**	12.76

Calculated Density

Relative: Moisture Free As Received	Relative: Moisture & Acid Gas Free	Relative: C_7+ Moisture Free	Absolute: C_7+ Density (kg/m³)	Absolute: Total Sample Density (kg/m³)
1.510	0.137	0.000	0.0	1.849

Calculated Pseudo Critical Properties

As Sampled: pPc (kPa)	As Sampled: pTc (K)	Acid Gas Free: pPc (kPa)	Acid Gas Free: pTc (K)
7336.7	302.3	1698.7	52.2

Hydrogen Sulfide (H_2S) (ppm)

Field Value: Stain Tube (GPA 2377)	Field Value: Tutweiler (GPA C1)	Laboratory Value: Other	Laboratory Value: GC-SCD (ASTM D5504)	g/m³
0				0.00

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

Total Sample	C_7+ Fraction
43.7	0.0

Calculated Vapour Pressure

0.00 — C_5+ (kPa)

Gas Compressibility

1.0003 — @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

EXTENDED GAS ANALYSIS

Version: 1

11005787B	EE041504024W4DRYOUTLET		000188788	22ER879427A	23ER052942B
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3820 Source	3500 Received	12 Source	21 Received

Aug 01, 2023 9:00	Aug 03, 2023	Aug 11, 2023	Aug 11, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 1.76%/LAB = 1.97%

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.00667	0.06511		0.00716
He	0.00006	0.00054		0.00008
N_2	0.00764	0.07459		0.00861
CO_2	0.87780	0.00000		0.85994
H_2S	0.01970	0.00000		0.02400
C_1	0.06698	0.65350		0.07671
C_2	0.00812	0.07926	28.9	0.00883
C_3	0.00663	0.06464	24.3	0.00693
iC_4	0.00101	0.00988	4.4	0.00108
nC_4	0.00288	0.02810	12.1	0.00305
iC_5	0.00075	0.00727	3.6	0.00077
nC_5	0.00089	0.00872	4.3	0.00094
C_6	0.00042	0.00414	2.3	0.00065
C_7+	0.00045	0.00426	2.4	0.00125
TOTAL	1.00000	1.00000	82.4	1.00000

WDMS Data Verification Check

Exceeded compare limits: H2S, C1, C2, C7

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross		Net	
5.13 *Air Free as Received*	45.44 *Moisture & Acid Gas Free*	**4.66** *Air Free as Received*	41.20 *Moisture & Acid Gas Free*

Calculated Density

Relative		Absolute	
1.435 *Moisture Free As Received*	0.762 *Moisture & Acid Gas Free*	730.4 *C_7+ Density (kg/m³)*	1.758 *Total Sample Density (kg/m³)*

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7086.22 *pPc (kPa)*	296.06 *pTc (K)*	4228.03 *pPc (kPa)*	212.04 *pTc (K)*

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	17600 *Tutweiler (GPA C1)*	*Other*	19700 *GC-SCD (ASTM D5504)*	28.34

Calculated Molecular Weight
(Moisture Free asReceived) (g/mol)

41.56	95.37
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

97.41 *C_5+(kPa)*

Gas Compressibility

0.9942 *@15 °C & 101.325 kPa*

AGAT Laboratories

PROPERTIES OF C6+ FRACTION

Version: 1

11005787B	EE041504024W4DRY		000188788	22ER879427A	23ER052942B
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

BOILING POINT RANGE (°C)	Carbon Number	Hydrocarbon Summary	As Received Mole Fraction	Acid Gas Free Mole Fraction	As Received Liquid Volume (mL/m³)
36.2+	C_6+	Hexanes+	0.00087	0.00840	4.6616
68.9+	C_7+	Heptanes+	0.00045	0.00426	2.4021
98.6+	C_8+	Octanes+	0.00009	0.00085	0.5023
125.8+	C_9+	Nonanes+	0.00000	0.00002	0.0110
150.9+	C_{10}+	Decanes+	0.00000	0.00000	0.0000
174.3+	C_{11}+	Undecanes+	0.00000	0.00000	0.0000
196.0+	C_{12}+	Dodecanes+	0.00000	0.00000	0.0000
216.4+	C_{13}+	Tridecanes+	0.00000	0.00000	0.0000
235.6 - 270.7	C_{14}+	Tetradecanes+	0.00000	0.00000	0.0000

BOILING POINT RANGE (°C)	Carbon Number	Hydrocarbon Grouping	As Received Mole Fraction	Acid Gas Free Mole Fraction	As Received Liquid Volume (mL/m³)
68.9 - 98.6	C_7	Heptanes	0.00036	0.00341	1.8999
98.6 - 125.8	C_8	Octanes	0.00009	0.00083	0.4913
125.8 - 150.9	C_9	Nonanes	0.00000	0.00002	0.0110
150.9 - 174.3	C_{10}	Decanes	0.00000	0.00000	0.0000
174.3 - 196.0	C_{11}	Undecanes	0.00000	0.00000	0.0000
196.0 - 216.4	C_{12}	Dodecanes	0.00000	0.00000	0.0000
216.4 - 235.6	C_{13}	Tridecanes	0.00000	0.00000	0.0000
235.6 - 253.6	C_{14}	Tetradecanes	0.00000	0.00000	0.0000
253.6 - 270.69	C_{15}	Pentadecanes	0.00000	0.00000	0.0000

BOILING POINT RANGE (°C)	Carbon Number	Relevent Compounds	As Received Mole Fraction	Acid Gas Free Mole Fraction	As Received Liquid Volume (mL/m³)
49.28	C_5	Cyclopentane	0.00010	0.00102	0.5096
68.73	C_6	n-Hexane	0.00023	0.00220	1.2404
71.83	C_6	Methylcyclopentane	0.00011	0.00104	0.5720
80.06	C_6	Benzene	0.00005	0.00050	0.1932
80.78	C_6	Cyclohexane	0.00005	0.00045	0.2443
99.24	C_8	2,2,4-Trimethylpentane	0.00003	0.00031	0.2223
100.94	C_7	Methylcyclohexane	0.00004	0.00036	0.1972
110.61	C_7	Toluene	0.00002	0.00016	0.0719
136.16	C_8	Ethylbenzene	0.00000	0.00000	0.0000
138.33 ; 139.09	C_8	m&p-Xylene	0.00000	0.00002	0.0110
144.42	C_8	o-Xylene	0.00000	0.00000	0.0000
169.34	C_9	1,2,4-Trimethylbenzene	0.00000	0.00000	0.0000

AGAT Laboratories

GAS ANALYSIS

Version: 1

05005036D	EE041504024W4DRYOUTLET		000188788	23GR993155B	23GR000436D
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3800 Source	3600 Received	2 Source	23 Received

Mar 02, 2023 12:50	Mar 03, 2023	Mar 09, 2023	Mar 09, 2023	Calgary - Bernie Diep - Supervisor
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 2.433%

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0066	0.0647		0.0065
He	0.0001	0.0010		0.0001
N_2	0.0227	0.2224		0.0089
CO_2	0.8736	0.0000		0.8834
H_2S	0.0243	0.0000		0.0170
C_1	0.0556	0.5445		0.0651
C_2	0.0067	0.0656	23.8	0.0077
C_3	0.0055	0.0539	20.2	0.0059
iC_4	0.0008	0.0078	3.5	0.0009
nC_4	0.0023	0.0225	9.7	0.0025
iC_5	0.0005	0.0049	2.4	0.0005
nC_5	0.0006	0.0059	2.9	0.0007
C_6	0.0003	0.0029	1.6	0.0004
C_7+	0.0004	0.0039	2.5	0.0004
TOTAL	1.0000	1.0000	66.6	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: H2S, C1, C2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net		
4.42 Air Free as Received	37.29 Moisture & Acid Gas Free	0.08 C_7+ Moisture Free	**4.00** Air Free as Received	33.91 Moisture & Acid Gas Free	

Calculated Density

Relative			Absolute	
1.436 Moisture Free As Received	0.782 Moisture & Acid Gas Free	3.581 C_7+ Moisture Free	693.0 C_7+ Density (kg/m³)	1.758 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7078.0 pPc (kPa)	294.7 pTc (K)	4061.6 pPc (kPa)	195.3 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	24330 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	34.96

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.6	103.7
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

82.72 *C_5+ (kPa)*

Gas Compressibility

0.9948 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

04001184A	EE041504024W4DRYOUTLET		000188788	23GR000436D	23GR011215A
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3850 Source	4200 Received	10 Source	22 Received

Apr 10, 2023 8:15	Apr 11, 2023	Apr 17, 2023	Apr 17, 2023	Calgary - Bernie Diep - Supervisor
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 2.057%

COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m³	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H_2	0.0062	0.0520		0.0066
He	0.0001	0.0008		0.0001
N_2	0.0097	0.0813		0.0227
CO_2	0.8601	0.0000		0.8736
H_2S	0.0206	0.0000		0.0243
C_1	0.0811	0.6798		0.0556
C_2	0.0083	0.0696	29.5	0.0067
C_3	0.0068	0.0570	25.0	0.0055
iC_4	0.0011	0.0092	4.8	0.0008
nC_4	0.0031	0.0260	13.0	0.0023
iC_5	0.0008	0.0067	3.9	0.0005
nC_5	0.0009	0.0075	4.4	0.0006
C_6	0.0006	0.0050	3.3	0.0003
C_7+	0.0006	0.0051	3.9	0.0004
TOTAL	1.0000	1.0000	87.8	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: H2S, C1, C2, C3, NC4

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net		
5.84 Air Free as Received	44.52 Moisture & Acid Gas Free	0.13 C_7+ Moisture Free	**5.28** Air Free as Received	40.50 Moisture & Acid Gas Free	

Calculated Density

Relative			Absolute		
1.421 Moisture Free As Received	0.757 Moisture & Acid Gas Free	3.621 C_7+ Moisture Free	694.7 C_7+ Density (kg/m³)	1.741 Total Sample Density (kg/m³)	

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7038.6 pPc (kPa)	294.4 pTc (K)	4260.1 pPc (kPa)	210.6 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	20570 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	29.63

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.2	104.9
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

81.08 *C_5+ (kPa)*

Gas Compressibility

0.9937 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

Container Identification	Sample Point Code	Meter Code	AGAT WDMS Number	Previous Number	Laboratory Number
05004221B	EE041504024W4DRYOUTLET		000188788	23GR011215A	23GR015960B

Operator Name	Sampling Point	Unique Well Identifier
ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4

Well Name	Well License	Well Status	Well Fluid Status	LSD
ENHANCE CLIVE 4-15 BATTERY				

Field or Area	Pool or Zone	Sampler's Company	Name of Sampler
CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB

Test Interval (mKB) From :	Test Interval (mKB) To:	Test Type	Test No.	Elevation (m) KB	Elevation (m) GRD	Pressure (kPa) Source	Pressure (kPa) Received	Temperature (°C) Source	Temperature (°C) Received
						3800	3500	12	21

Date/Time Sampled	Date Received	Date Analyzed	Date Reported	Location - Approved By - Title
May 02, 2023 10:30	May 03, 2023	May 10, 2023	May 10, 2023	Calgary - Gerry Ecker - Reporter

Other Information : FIELD H2S BY TUT = 2.08%

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0062	0.0673		0.0062
He	0.0001	0.0011		0.0001
N_2	0.0070	0.0760		0.0097
CO_2	0.8871	0.0000		0.8601
H_2S	0.0208	0.0000		0.0206
C_1	0.0589	0.6395		0.0811
C_2	0.0073	0.0793	25.9	0.0083
C_3	0.0059	0.0641	21.7	0.0068
iC_4	0.0011	0.0119	4.8	0.0011
nC_4	0.0032	0.0347	13.5	0.0031
iC_5	0.0008	0.0087	3.9	0.0008
nC_5	0.0009	0.0098	4.4	0.0009
C_6	0.0004	0.0043	2.2	0.0006
C_7+	0.0003	0.0033	1.9	0.0006
TOTAL	1.0000	1.0000	78.3	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: C1, C2, C3

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
4.77 Air Free as Received	46.01 Moisture & Acid Gas Free	0.06 C_7+ Moisture Free	**4.31** Air Free as Received	41.89 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.444 Moisture Free As Received	0.777 Moisture & Acid Gas Free	3.621 C_7+ Moisture Free	694.7 C_7+ Density (kg/m³)	1.768 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7118.6 pPc (kPa)	297.2 pTc (K)	4204.6 pPc (kPa)	213.8 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	20800 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	29.92

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

Total Sample	C_7+ Fraction
41.8	104.9

Calculated Vapour Pressure

94.04 C_5+ (kPa)

Gas Compressibility

0.9933 @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

07000784B	EE041504024W4DRYOUTLET		000188788	23GR015960B	23GR030665B
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3230 Source	3700 Received	11 Source	21 Received

Jun 01, 2023 10:15	Jun 02, 2023	Jun 08, 2023	Jun 08, 2023	Calgary - Bernie Diep - Supervisor
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 1.901%;

COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m³	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H_2	0.0069	0.0719		0.0062
He	0.0001	0.0010		0.0001
N_2	0.0065	0.0677		0.0070
CO_2	0.8850	0.0000		0.8871
H_2S	0.0190	0.0000		0.0208
C_1	0.0636	0.6625		0.0589
C_2	0.0074	0.0771	26.3	0.0073
C_3	0.0056	0.0583	20.6	0.0059
iC_4	0.0009	0.0094	3.9	0.0011
nC_4	0.0026	0.0271	10.9	0.0032
iC_5	0.0006	0.0063	2.9	0.0008
nC_5	0.0008	0.0083	3.9	0.0009
C_6	0.0005	0.0052	2.7	0.0004
C_7+	0.0005	0.0052	3.2	0.0003
TOTAL	1.0000	1.0000	74.4	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: C1, NC4

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net		
4.81 Air Free as Received	45.00 Moisture & Acid Gas Free	0.11 C_7+ Moisture Free	**4.35** Air Free as Received	40.94 Moisture & Acid Gas Free	

Calculated Density

Relative			Absolute		
1.439 Moisture Free As Received	0.750 Moisture & Acid Gas Free	3.653 C_7+ Moisture Free	696.0 C_7+ Density (kg/m³)	1.762 Total Sample Density (kg/m³)	

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7103.7 pPc (kPa)	296.4 pTc (K)	4209.3 pPc (kPa)	209.9 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	19010 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	27.33

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.7	105.8
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

79.86 *C_5+ (kPa)*

Gas Compressibility

0.9935 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
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AGAT Laboratories

GAS ANALYSIS

Version: 1

08001733C	EE041504024W4DRYOUTLET		000188788	23GR030665B	23GR043114C
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3810 Source	3600 Received	16 Source	21 Received

Jul 05, 2023 10:05	Jul 07, 2023	Jul 12, 2023	Jul 12, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 2.51%

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0071	0.0564		0.0069
He	0.0001	0.0008		0.0001
N_2	0.0076	0.0604		0.0065
CO_2	0.8490	0.0000		0.8850
H_2S	0.0251	0.0000		0.0190
C_1	0.0868	0.6894		0.0636
C_2	0.0090	0.0715	32.0	0.0074
C_3	0.0072	0.0572	26.5	0.0056
iC_4	0.0012	0.0095	5.2	0.0009
nC_4	0.0033	0.0262	13.9	0.0026
iC_5	0.0009	0.0071	4.4	0.0006
nC_5	0.0011	0.0087	5.3	0.0008
C_6	0.0007	0.0056	3.8	0.0005
C_7+	0.0009	0.0072	5.8	0.0005
TOTAL	1.0000	1.0000	96.9	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: H2S, C1, C2, C3, NC4

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
6.43 Air Free as Received	45.94 Moisture & Acid Gas Free	0.19 C_7+ Moisture Free	**5.81** Air Free as Received	41.79 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.415 Moisture Free As Received	0.759 Moisture & Acid Gas Free	3.621 C_7+ Moisture Free	694.7 C_7+ Density (kg/m³)	1.733 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7025.8 pPc (kPa)	294.4 pTc (K)	4263.7 pPc (kPa)	213.0 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	25100 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	36.11

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.0	104.9
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

76.87 *C_5+ (kPa)*

Gas Compressibility

0.9931 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
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GAS ANALYSIS

Version: 1

05002890B	EE041504024W4DRYOUTLET		000188788	23GR043114C	23GR064315B
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				04-15-040-24W4
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3770 Source	3700 Received	8 Source	21 Received

Sep 05, 2023 8:50	Sep 07, 2023	Sep 18, 2023	Sep 18, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 2.07%

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0064	0.0699		0.0071
He	0.0001	0.0011		0.0001
N_2	0.0062	0.0678		0.0076
CO_2	0.8878	0.0000		0.8490
H_2S	0.0207	0.0000		0.0251
C_1	0.0587	0.6414		0.0868
C_2	0.0072	0.0787	25.6	0.0090
C_3	0.0060	0.0656	22.0	0.0072
iC_4	0.0010	0.0109	4.4	0.0012
nC_4	0.0028	0.0306	11.8	0.0033
iC_5	0.0007	0.0077	3.4	0.0009
nC_5	0.0008	0.0087	3.9	0.0011
C_6	0.0005	0.0055	2.7	0.0007
C_7+	0.0011	0.0121	7.3	0.0009
TOTAL	1.0000	1.0000	81.1	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: H2S, C1, C2, C3

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
4.87 Air Free as Received	47.49 Moisture & Acid Gas Free	0.25 C_7+ Moisture Free	**4.41** Air Free as Received	43.25 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.446 Moisture Free As Received	0.794 Moisture & Acid Gas Free	3.768 C_7+ Moisture Free	700.3 C_7+ Density (kg/m³)	1.771 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7119.2 pPc (kPa)	297.5 pTc (K)	4192.1 pPc (kPa)	216.0 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	20700 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	29.78

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.9	109.1
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

67.50 *C_5+ (kPa)*

Gas Compressibility

0.9909 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
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AGAT Laboratories

GAS ANALYSIS

Version: 1

04000656B	EE041504024W4DRYOUTLET		000188788	23GR064315B	23GR074545B
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3820 Source	3800 Received	10 Source	21 Received

Oct 02, 2023 9:00	Oct 03, 2023	Oct 10, 2023	Oct 10, 2023	Calgary - Bernie Diep - Supervisor
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 2.219%

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0062	0.0712		0.0064
He	0.0001	0.0011		0.0001
N_2	0.0061	0.0700		0.0062
CO_2	0.8907	0.0000		0.8878
H_2S	0.0222	0.0000		0.0207
C_1	0.0565	0.6489		0.0587
C_2	0.0071	0.0815	25.2	0.0072
C_3	0.0055	0.0631	20.2	0.0060
iC_4	0.0009	0.0103	3.9	0.0010
nC_4	0.0025	0.0287	10.5	0.0028
iC_5	0.0006	0.0069	2.9	0.0007
nC_5	0.0007	0.0080	3.4	0.0008
C_6	0.0004	0.0046	2.2	0.0005
C_7+	0.0005	0.0057	3.2	0.0011
TOTAL	1.0000	1.0000	71.5	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: C1, C7

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
4.53 Air Free as Received	45.57 Moisture & Acid Gas Free	0.11 C_7+ Moisture Free	**4.10** Air Free as Received	41.48 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.446 Moisture Free As Received	0.763 Moisture & Acid Gas Free	3.653 C_7+ Moisture Free	696.0 C_7+ Density (kg/m³)	1.771 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7136.8 pPc (kPa)	297.6 pTc (K)	4205.4 pPc (kPa)	211.9 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	22190 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	31.94

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.9	105.8
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

80.69 *C_5+ (kPa)*

Gas Compressibility

0.9933 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

13000908B	EE041504024W4DRYOUTLET		000188788	23GR074545B	23GR090895B
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BB/BA
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3800 Source	3800 Received	8 Source	23 Received

Nov 09, 2023 9:00	Nov 13, 2023	Nov 16, 2023	Nov 16, 2023	Calgary - Marie Gabrielle Viado - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 1.788%/LAB H2S BY GC = 0.8002%;CC:23CLV001

COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m³	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H_2	0.0061	0.0570		0.0062
He	0.0001	0.0009		0.0001
N_2	0.0189	0.1766		0.0061
CO_2	0.8751	0.0000		0.8907
H_2S	0.0179	0.0000		0.0222
C_1	0.0636	0.5946		0.0565
C_2	0.0073	0.0682	25.9	0.0071
C_3	0.0056	0.0523	20.6	0.0055
iC_4	0.0009	0.0084	3.9	0.0009
nC_4	0.0025	0.0234	10.5	0.0025
iC_5	0.0006	0.0056	2.9	0.0006
nC_5	0.0007	0.0065	3.4	0.0007
C_6	0.0003	0.0028	1.6	0.0004
C_7+	0.0004	0.0037	2.5	0.0005
TOTAL	1.0000	1.0000	71.3	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: H2S, C1

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
4.68 Air Free as Received	39.41 Moisture & Acid Gas Free	0.08 C_7+ Moisture Free	**4.23** Air Free as Received	35.84 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.433 Moisture Free As Received	0.770 Moisture & Acid Gas Free	3.581 C_7+ Moisture Free	693.0 C_7+ Density (kg/m³)	1.755 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7059.8 pPc (kPa)	294.2 pTc (K)	4141.5 pPc (kPa)	200.1 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	17880 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	25.75

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.5	103.7
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

86.86 *C_5+ (kPa)*

Gas Compressibility

0.9946 *@15 °C & 101.325 kPa*

Disclaimer: The result in this report has been confirmed by a duplicate run.

AGAT Laboratories

GAS ANALYSIS

Version: 1

13000741B	EE041504024W4RECYCLEG		000250466		23GR098499B
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	RECYCLE GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3800 Source	3900 Received	9 Source	21 Received

Dec 06, 2023 9:40	Dec 07, 2023	Dec 13, 2023	Dec 13, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 1.96%

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0062	0.0619		
He	0.0001	0.0010		
N_2	0.0069	0.0689		
CO_2	0.8803	0.0000		
H_2S	0.0196	0.0000		
C_1	0.0666	0.6654		
C_2	0.0079	0.0789	28.1	
C_3	0.0060	0.0599	22.0	
iC_4	0.0009	0.0090	3.9	
nC_4	0.0027	0.0270	11.4	
iC_5	0.0007	0.0070	3.4	
nC_5	0.0008	0.0080	3.9	
C_6	0.0006	0.0060	3.3	
C_7+	0.0007	0.0070	4.5	
TOTAL	1.0000	1.0000	80.5	

WDMS Data Verification Check

Exceeds normal limits: CO2, H2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
5.09 Air Free as Received	45.77 Moisture & Acid Gas Free	0.15 C_7+ Moisture Free	**4.60** Air Free as Received	41.66 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.437 Moisture Free As Received	0.765 Moisture & Acid Gas Free	3.598 C_7+ Moisture Free	693.7 C_7+ Density (kg/m³)	1.760 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7094.4 pPc (kPa)	296.3 pTc (K)	4236.2 pPc (kPa)	212.8 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	19600 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	28.20

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.6	104.2
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

75.51 *C_5+ (kPa)*

Gas Compressibility

0.9931 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
Sampling performed by AGAT Laboratories is done according to Field Sampling Procedure Manual

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AGAT Laboratories

GAS ANALYSIS

Version: 1

Container Identification	Sample Point Code	Meter Code	AGAT WDMS Number	Previous Number	Laboratory Number
05005274A	EE041504024W4DRYOUTLET		000188788	22GR974580C	23GR985355A

Operator Name	Sampling Point	Unique Well Identifier
ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4

Well Name	Well License	Well Status	Well Fluid Status	LSD
ENHANCE CLIVE 4-15 BATTERY				

Field or Area	Pool or Zone	Sampler's Company	Name of Sampler
CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB

Test Interval (mKB) From :	Test Interval (mKB) To:	Test Type	Test No.	Elevation (m) KB	Elevation (m) GRD	Pressure (kPa) Source	Pressure (kPa) Received	Temperature (°C) Source	Temperature (°C) Received
						3805	6000	11	21

Date/Time Sampled	Date Received	Date Analyzed	Date Reported	Location - Approved By - Title
Jan 05, 2023 14:25	Jan 09, 2023	Jan 13, 2023	Jan 13, 2023	Calgary - Gerry Ecker - Reporter

Other Information : FIELD H2S BY TUT = 1.81%

COMPOSITION

Component	Mole Fraction: Air Free As Received	Mole Fraction: Air & Acid Gas Free As Received	Liquid Volume mL / m³	Mole Fraction of Previous Analysis
H_2	0.0060	0.0664		0.0061
He	0.0001	0.0011		TRACE
N_2	0.0066	0.0731		0.0059
CO_2	0.8916	0.0000		0.8932
H_2S	0.0181	0.0000		0.0242
C_1	0.0586	0.6491		0.0520
C_2	0.0074	0.0819	26.3	0.0068
C_3	0.0060	0.0664	22.0	0.0056
iC_4	0.0009	0.0100	3.9	0.0009
nC_4	0.0026	0.0288	10.9	0.0027
iC_5	0.0006	0.0066	2.9	0.0007
nC_5	0.0007	0.0078	3.4	0.0008
C_6	0.0004	0.0044	2.2	0.0005
C_7+	0.0004	0.0044	2.5	0.0006
TOTAL	1.0000	1.0000	74.1	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: H2S, C1, C2

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
4.57 Air Free as Received	45.42 Moisture & Acid Gas Free	0.08 C_7+ Moisture Free	**4.13** Air Free as Received	41.34 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.445 Moisture Free As Received	0.764 Moisture & Acid Gas Free	3.581 C_7+ Moisture Free	693.0 C_7+ Density (kg/m³)	1.770 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7121.3 pPc (kPa)	297.1 pTc (K)	4220.4 pPc (kPa)	212.4 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	18100 Tutweiler (GPA C1)	Other	GC-SCD (ASTM D5504)	26.04

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

Total Sample	C_7+ Fraction
41.9	103.7

Calculated Vapour Pressure

84.35 C_5+ (kPa)

Gas Compressibility

0.9935 @15 °C & 101.325 kPa

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
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AGAT Laboratories

GAS ANALYSIS

Version: 1

00020303B	EE041504024W4DRYOUTLET		000188788	23GR985355A	23GR993155B
Container Identification	*Sample Point Code*	*Meter Code*	*AGAT WDMS Number*	*Previous Number*	*Laboratory Number*

ENHANCE ENERGY INC	DEXPRO DRY OUTLET GAS	04-15-040-24W4
Operator Name	*Sampling Point*	*Unique Well Identifier*

ENHANCE CLIVE 4-15 BATTERY				
Well Name	*Well License*	*Well Status*	*Well Fluid Status*	*LSD*

CLIVE	NOT APPLICABLE	AGAT RED DEER	BA/BB
Field or Area	*Pool or Zone*	*Sampler's Company*	*Name of Sampler*

Test Interval (mKB)				Elevation (m)		Pressure (kPa)		Temperature (°C)	
From :	To:	Test Type	Test No.	KB	GRD	3800 Source	5500 Received	7 Source	21 Received

Feb 02, 2023 10:25	Feb 03, 2023	Feb 09, 2023	Feb 09, 2023	Calgary - Gerry Ecker - Reporter
Date/Time Sampled	*Date Received*	*Date Analyzed*	*Date Reported*	*Location - Approved By - Title*

Other Information : FIELD H2S BY TUT = 1.5%/LAB = 1.70%

COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m³	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H_2	0.0065	0.0653		0.0060
He	0.0001	0.0010		0.0001
N_2	0.0089	0.0894		0.0066
CO_2	0.8834	0.0000		0.8916
H_2S	0.0170	0.0000		0.0181
C_1	0.0651	0.6537		0.0586
C_2	0.0077	0.0773	27.4	0.0074
C_3	0.0059	0.0592	21.7	0.0060
iC_4	0.0009	0.0090	3.9	0.0009
nC_4	0.0025	0.0251	10.5	0.0026
iC_5	0.0005	0.0050	2.4	0.0006
nC_5	0.0007	0.0070	3.4	0.0007
C_6	0.0004	0.0040	2.2	0.0004
C_7+	0.0004	0.0040	2.5	0.0004
TOTAL	1.0000	1.0000	74.0	1.0000

WDMS Data Verification Check

Exceeds normal limits: CO2, H2
Exceeded compare limits: C1

PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa *(MJ/m³)*

Gross			Net	
4.78 Air Free as Received	43.52 Moisture & Acid Gas Free	0.08 C_7+ Moisture Free	**4.32** Air Free as Received	39.58 Moisture & Acid Gas Free

Calculated Density

Relative			Absolute	
1.437 Moisture Free As Received	0.748 Moisture & Acid Gas Free	3.581 C_7+ Moisture Free	693.0 C_7+ Density (kg/m³)	1.760 Total Sample Density (kg/m³)

Calculated Pseudo Critical Properties

As Sampled		Acid Gas Free	
7089.6 pPc (kPa)	295.7 pTc (K)	4214.3 pPc (kPa)	207.7 pTc (K)

Hydrogen Sulfide (H_2S) (ppm)

Field Value		Laboratory Value		g/m³
Stain Tube (GPA 2377)	Tutweiler (GPA C1)	Other	17000 GC-SCD (ASTM D5504)	24.46

Calculated Molecular Weight (Moisture Free as Received) (g/mol)

41.6	103.7
Total Sample	*C_7+ Fraction*

Calculated Vapour Pressure

81.52 *C_5+ (kPa)*

Gas Compressibility

0.9941 *@15 °C & 101.325 kPa*

Results relate to only items tested. Analysis and associated calculations are based on GPA 2261, GPA 2286, GPA 2145, AGA #5, and TP-17.
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