

# **Investigation of Odours and Emissions from Heavy Oil and Bitumen in the Peace River Oil Sands Area: 3-D Geological Modelling and Petroleum Geochemistry**

AER/AGS Open File Report 2015-07

# **Investigation of Odours and Emissions from Heavy Oil and Bitumen in the Peace River Oil Sands Area: 3-D Geological Modelling and Petroleum Geochemistry**

S.D.A. Anderson, C. Filewich, S. Lyster and K.E. MacCormack

Alberta Energy Regulator  
Alberta Geological Survey

May 2015

©Her Majesty the Queen in Right of Alberta, 2015  
ISBN 978-1-4601-0147-6

The Alberta Energy Regulator/Alberta Geological Survey (AER/AGS), its employees and contractors make no warranty, guarantee or representation, express or implied, or assume any legal liability regarding the correctness, accuracy, completeness or reliability of this publication. Any references to proprietary software and/or any use of proprietary data formats do not constitute endorsement by AER/AGS of any manufacturer's product.

If you use information from this publication in other publications or presentations, please acknowledge the AER/AGS. We recommend the following reference format:

Anderson, S.D.A, Filewich, C., Lyster, S. and MacCormack, K.E. (2015): Investigation of odours and emissions from heavy oil and bitumen in the Peace River Oil Sands Area: 3-D geological modelling and petroleum geochemistry; Alberta Energy Regulator, AER/AGS Open File Report 2015-07, 162 p.

**Published May 2015 by:**

Alberta Energy Regulator  
Alberta Geological Survey  
4th Floor, Twin Atria Building  
4999 – 98th Avenue  
Edmonton, AB T6B 2X3  
Canada

Tel: 780.638.4491  
Fax: 780.422.1459  
E-mail: [AGS-Info@aer.ca](mailto:AGS-Info@aer.ca)  
Website: [www.ags.gov.ab.ca](http://www.ags.gov.ab.ca)

## Contents

|  |     |
|--|-----|
| Acknowledgements.....  | v   |
| Abstract.....  | vi  |
| 1 Introduction.....  | 1   |
| 1.1 Definitions.....   | 1   |
| 2 Background.....  | 5   |
| 2.1 Geology.....   | 5   |
| 3 Three-Dimensional Geological Model.....  | 11  |
| 3.1 Creating the Three-Dimensional Geological Model.....                                   | 11  |
| 3.2 Analysis of the Three-Dimensional Geological Model.....                                | 11  |
| 4 Petroleum Sampling and Analysis Program.....   | 17  |
| 4.1 Sampling Program Details.....  | 17  |
| 4.2 Analytical Methods.....  | 21  |
| 5 Results and Discussion.....  | 21  |
| 5.1 Source-Rock Contribution.....  | 21  |
| 5.2 Petroleum Chemistry and Liquid Properties.....   | 23  |
| 5.2.1 Volatile Organic Compounds and Reduced Sulphur Compounds.....                        | 23  |
| 5.2.2 Density and Viscosity.....   | 31  |
| 5.3 Geological Plays and Heavy Oil and Bitumen Deposits and Zones.....                     | 35  |
| 6 Conclusions.....   | 42  |
| 7 References.....  | 43  |
| Appendix 1 – Supplementary Tables.....   | 45  |
| Appendix 2 – RSCs and VOCs exceeding odour thresholds using odour threshold multiples..... | 158 |

## Tables

|  |     |
|--|-----|
| Table 1. Modelled 3-D geological surfaces and their level of confidence.....   | 13  |
| Table 2. Sample locations and information.....   | 20  |
| Table 3. Analysis types and their methodologies as well as the sample type that underwent analysis.....  | 21  |
| Table 4. Boiling points for reduced sulphur compounds analyzed for in this study.....  | 33  |
| Table 5. Odour thresholds for select C1-C7 hydrocarbons, reduced sulphur compounds, and volatile organic compounds analyzed for in this study..... | 45  |
| Table 6. Location and identifier information of the twelve wells sampled for the petroleum sampling and analysis program.....                      | 49  |
| Table 7. Identifying information for the twenty-two samples collected for the petroleum sampling and analysis program.....                         | 50  |
| Table 8. Results of the petroleum sampling and analysis program as provided by the laboratories.....   | 51  |
| Table 9. AITF casing gas data.....   | 158 |
| Table 10. CoreLabCoreLab casing gas data.....  | 159 |
| Table 11. AITF 25C flash gas data.....   | 160 |
| Table 12. CoreLab 25C flash gas data.....  | 161 |
| Table 13. CoreLab 80C flash gas data.....  | 162 |

## Figures

|            |  |    |
|------------|--|----|
| Figure 1.  | Location of oil sands areas and model area in Alberta.....   | 3  |
| Figure 2.  | Location of Peace River proceedings recommendation areas within the Peace River Oil Sands Area and the 3-D geological model area.....  | 4  |
| Figure 3.  | Map showing the subcrop areas of the geological units on the sub-Cretaceous unconformity, derived from the 3-D geological model.....   | 6  |
| Figure 4.  | A southwest to northeast stratigraphic cross-section through the model volume. ....  | 7  |
| Figure 5.  | Gross isopach map of the Bluesky-Gething and its relationship to the Red Earth Highlands, derived from the 3-D geological model.....   | 9  |
| Figure 6.  | Bitumen pay thickness map for the Bluesky-Gething deposits using a $\geq 6\%$ mass bitumen cut-off.....  | 10 |
| Figure 7.  | Image of the 3-D geological model of the Peace River Oil Sands Area at 50 $\times$ vertical exaggeration. ....   | 12 |
| Figure 8.  | Series of images showing geological plays within the 3-D geological model at 50 $\times$ vertical exaggeration. ....   | 14 |
| Figure 9.  | A series of images of the 3-D geological model showing some of the complex faulting within the PROS area and its proximity to the recommendation areas at 50 $\times$ vertical exaggeration. ....  | 15 |
| Figure 10. | A southwest-northeast cross-section through the 3-D geological model at 50 $\times$ vertical exaggeration annotated with potential migration pathways for Gordondale-sourced oils and Exshaw-sourced oils.....   | 16 |
| Figure 11. | A series of images showing oil density (15 $^{\circ}$ C post-cleaning, absolute density) and oil viscosity (15 $^{\circ}$ C kinematic viscosity) data within the 3-D geological model area at 50 $\times$ vertical exaggeration. ....  | 18 |
| Figure 12. | Map of sampling locations for the petroleum sampling and analysis program. ....  | 19 |
| Figure 13. | Graph of total sulphur versus $\delta^{34}\text{S}$ data from this study shown with the proposed source-oil data ranges from Adams et al. (2013). ....   | 24 |
| Figure 14. | Graph of vanadium to nickel ratio (V/Ni) versus $\delta^{34}\text{S}$ data from this study.....  | 25 |
| Figure 15. | Graph of RSC and VOC odour threshold exceedance multiples compared (when present)....  | 26 |
| Figure 16. | Graph of total VOC and RSC concentrations in casing gas and 25-flash gas samples in the PROS area. ....  | 27 |
| Figure 17. | Map of total VOC and RSC concentrations in casing gas samples.....   | 28 |
| Figure 18. | Graph of total VOCs in casing gas and 25-flash gas versus 15 $^{\circ}$ C post-cleaning absolute oil density. ....   | 29 |
| Figure 19. | Graphs of total RSCs and VOCs versus total sulphur.....  | 30 |
| Figure 20. | Graph of total RSC concentrations, comparing 25-flash and 80-flash gas samples, measured by trace sulphur analysis (TSA).....  | 32 |
| Figure 21. | Graph of heavy oil and bitumen densities versus viscosities. ....  | 34 |
| Figure 22. | Map of the surface extent of the heavy oil and bitumen deposits identified within each geological play and within the model area.....  | 36 |
| Figure 23. | Peace River Oil Sands (PROS) Area heavy oil and bitumen deposits were identified within the four geological plays in the 3-D geological model area (shown at 50 $\times$ vertical exaggeration) based on geological unit and spatial extent above the base of PROS surface which represents an oil density of $\sim 950 \text{ kg/m}^3$ . .... | 37 |
| Figure 24. | A series of images showing the creation of the base of PROS surface within the 3-D geological model from oil density (15 $^{\circ}$ C post-cleaning, absolute density) data.....   | 39 |

|   |    |
|---|----|
| Figure 25. A heavy oil and bitumen odours and emissions assessment profile built within the 3-D geological model (shown at 50× vertical exaggeration) identifying the subsurface intervals of high, medium, and low probability for odours and emissions from heavy oil and bitumen in the PROS area..... | 40 |
| Figure 26. Data used to create the heavy oil and bitumen odours and emissions assessment profile for the PROS area. ....  | 41 |

## **Acknowledgements**

This project could not be accomplished without the knowledge and skills of several individuals, particularly those within the Alberta Energy Regulator. Our team would like to recognize the efforts of the following individuals:

- Jacqui Chrystal
- Aaron Dalton
- Robin Datta
- Matt Grobe
- Fran Hein
- Kirk MacKay
- Yasmin Maherali
- Panch Panchalingam
- Jesse Peterson
- Connie Pollo
- Dean Rokosh
- Jill Weiss

## Abstract

In this report we present the results from the investigation of geological and geochemical contributions to odours and emissions from heavy oil and bitumen production in the Peace River Oil Sands (PROS) Area in Alberta. This study was initiated in response to a formal proceeding into these odours and emissions and the panel's final report (*Decision 2014 ABAER 005: Report of Recommendations on Odours and Emissions in the Peace River Area*) and included the creation of a three-dimensional (3-D) geological model, designing and implementing a petroleum sampling and analysis program, and defining geological plays and heavy oil and bitumen deposit and zone boundaries.

Key findings from this study are as follows:

- In the PROS area, the 3-D zone in the subsurface where the heavy oil and bitumen appears to have the highest probability for increased odours and emissions is related to depth, oil properties, and heat treatment during production, regardless of the geological play or source rock.
- While both reduced sulphur compounds (RSCs) and volatile organic compounds (VOCs) are present in the produced oil sands designated heavy oil and bitumen, there is no correlation between their concentrations and the oil's source rock.
- There is a trend of increasing RSC concentrations released from the oil sands designated heavy oil and bitumen as the temperature difference between original reservoir temperatures and production temperatures increases.



# 1 Introduction

In January 2014, a panel of AER hearing commissioners conducted an inquiry into odours and emissions from heavy oil and bitumen operations in the Peace River area of Alberta (<http://www.aer.ca/applications-and-notice/hearings/proceeding-1769924>), referred to in this report as the Peace River proceedings. On March 31, 2014, the panel released *Decision 2014 ABAER 005: Report of Recommendations on Odours and Emissions in the Peace River Area* (Alberta Energy Regulator, 2014a).

One of the panel's findings was that there was insufficient data with respect to the geology and petroleum chemistry of the heavy oil and bitumen in this area, resulting in the following recommendation:

*That the AER conduct or require operators in the Peace River area to submit a geochemical analysis of the volatile compounds from the heavy oil from the Gordondale-sourced bitumen at surface prior to processing.*

In addition to identifying a need for new data, the panel put forward a hypothesis: that increased odours in the PROS area could be directly related to “higher levels of sulphur and volatile components” (Alberta Energy Regulator, 2014a) in the oils, likely related to the contribution of Gordondale-sourced hydrocarbons.

The present study was initiated to help determine how and where such geochemical analyses would take place (Alberta Energy Regulator, 2014b). This includes determining what components to analyze for, the methodologies of the analytical tests, sample collection methodology, the number of samples to collect, and the location of the samples. The study also tests the panel's hypothesis. To accomplish this, we did the following:

- created a three-dimensional (3-D) geological model of the PROS area to delineate the subsurface geology and identify complex geological characteristics that might separate the oils in this area,
- designed and implemented a fluid petroleum sampling program to identify both the source-rock contributions and the compounds which may contribute to the odours and emissions, and
- determined the geological extent of plays and heavy oil and bitumen boundaries to aid regulatory response in the area.

## 1.1 Definitions

The scientific classifications of bitumen and heavy oil are summarized as follows:

- Natural bitumen have densities  $>1000 \text{ kg/m}^3$  ( $<10$  API gravity) and viscosities  $>10000 \text{ cP}$  (Kashirtsev and Hein, 2012).
- Heavy oils and extra-heavy oils have densities  $>934 \text{ kg/m}^3$  ( $<20$  API gravity) and viscosities between 1000 and 10000 cP (Kashirtsev and Hein, 2012).

The AER classifies crude oil with a density greater than or equal to 900 kilograms per cubic metre ( $\text{kg/m}^3$ ) as “heavy,” while crude bitumen is extra-heavy oil that will not flow to a well in its natural state. For administrative purposes, the AER designates any heavy oil or crude bitumen found within designated oil sands geological formations and within the oil sands areas as “oil sands”.

For this report, it is necessary to make a distinction between all heavy oil as defined by the AER and oil sands designated heavy oil and bitumen as discussed in the Peace River proceedings. This is because

heavy oil and bitumen in this area is treated differently from both a production and an administrative point of view. For this report, the following classifications will be used:

- “Heavy oils” have densities between 900 and 950 kg/m<sup>3</sup>.
- “Oil sands designated heavy oil and bitumen” have densities  $\geq 950$  kg/m<sup>3</sup> and viscosities  $\geq 1000$  cP.

There are three oil sands areas (OSAs) defined by the AER: the PROS area, the Athabasca Oil Sands (AOS) Area, and the Cold Lake Oil Sands (CLOS) Area (Figure 1). These defined areas are used to regulate and administrate heavy oil and bitumen deposits in the province. The Peace River proceedings introduced four smaller recommendation areas located within the PROS area: Three Creeks, Walrus, Seal Lake, and Reno (Figure 2).

A 3-D geological model was used to visualize the complex arrangement of geological units and to analyze data in 3-D space in the PROS area. The model area was chosen based on the geographic extent of the PROS area with a buffer on each side (Figure 1 and Figure 2).

For the purposes of this study, production methods in the PROS area were separated into two categories: cold and thermal. Currently, cold heavy oil production (CHOP) is the dominant production method in the Three Creeks, Walrus, Seal Lake, and Reno areas. Thermal production methods include steam-assisted gravity drainage (SAGD), cyclic steam stimulation (CSS), and vertical steam drive (VSD).

The AER defines a geological play as a set of known or postulated oil or gas accumulations (pools and deposits) within a petroleum system sharing similar geochemical, geological, geographic, and temporal properties. These properties can include reservoir lithology and facies and trapping mechanisms. Geological plays occur below the ground surface and can be represented at the surface by geographic boundaries, which represent the lateral extent of the geological elements that define it in the subsurface. In this study, the geological plays are approximately equivalent to the geological formation.

For the purposes of this study, a heavy oil and bitumen deposit is defined as the area within a play where known or postulated heavy oil and bitumen accumulations have similar characteristics and have the potential to be an economic resource now or in the near future. Heavy oil and bitumen deposits are determined using log analysis based on current technology and can therefore change over time.

Odour is defined as the presence of a compound in a gaseous concentration strong enough to be detected by olfactory receptors lining the nose. Odours are often expelled from solids or liquids through sublimation, evaporation, or boiling. The concentration at which a compound may be detected by olfactory receptors and become odorous is referred to as its odour threshold.

Odour thresholds can be determined by different methods, resulting in a broad range of thresholds (Ruth, 1986). For consistency, this study uses the threshold values listed in Nagata (2003; Appendix 1, Table 5), with the exception of n-Ethane (from <http://cameochemicals.noaa.gov/>) and n-Hexane (from <http://www.epa.gov/ttnatw01/hlthef/hexane.html>) because these two compounds are hydrocarbons and not measured by Nagata. For C1-C7 hydrocarbon group thresholds, we used the pure end-member compound to represent each group (for example the compound methane for hydrocarbon group C1). Observations about the potential for a sample to be more odorous are based on the number of times the measured compounds exceeded the odour threshold. It is assumed here that the more times the compound concentration was over the threshold, the more likely it was to remain odorous when diluted in air. Odour thresholds are not available for all compounds tested. This study does not try to determine the potential for a sample to be more odorous for compounds without odour thresholds. This does not imply that the compound does not have the potential to be odorous, only that data were not available.

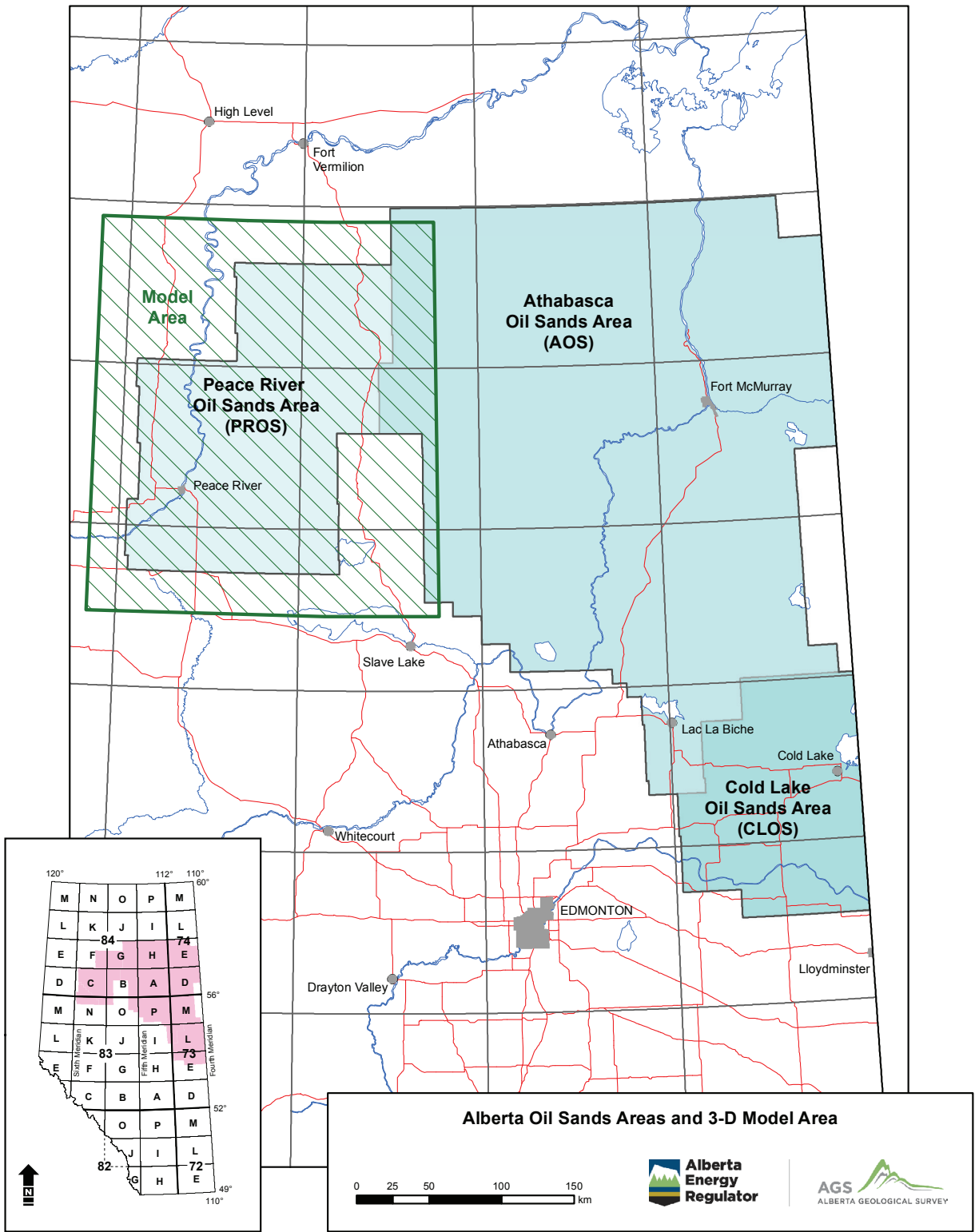


Figure 1. Location of oil sands areas and model area in Alberta.

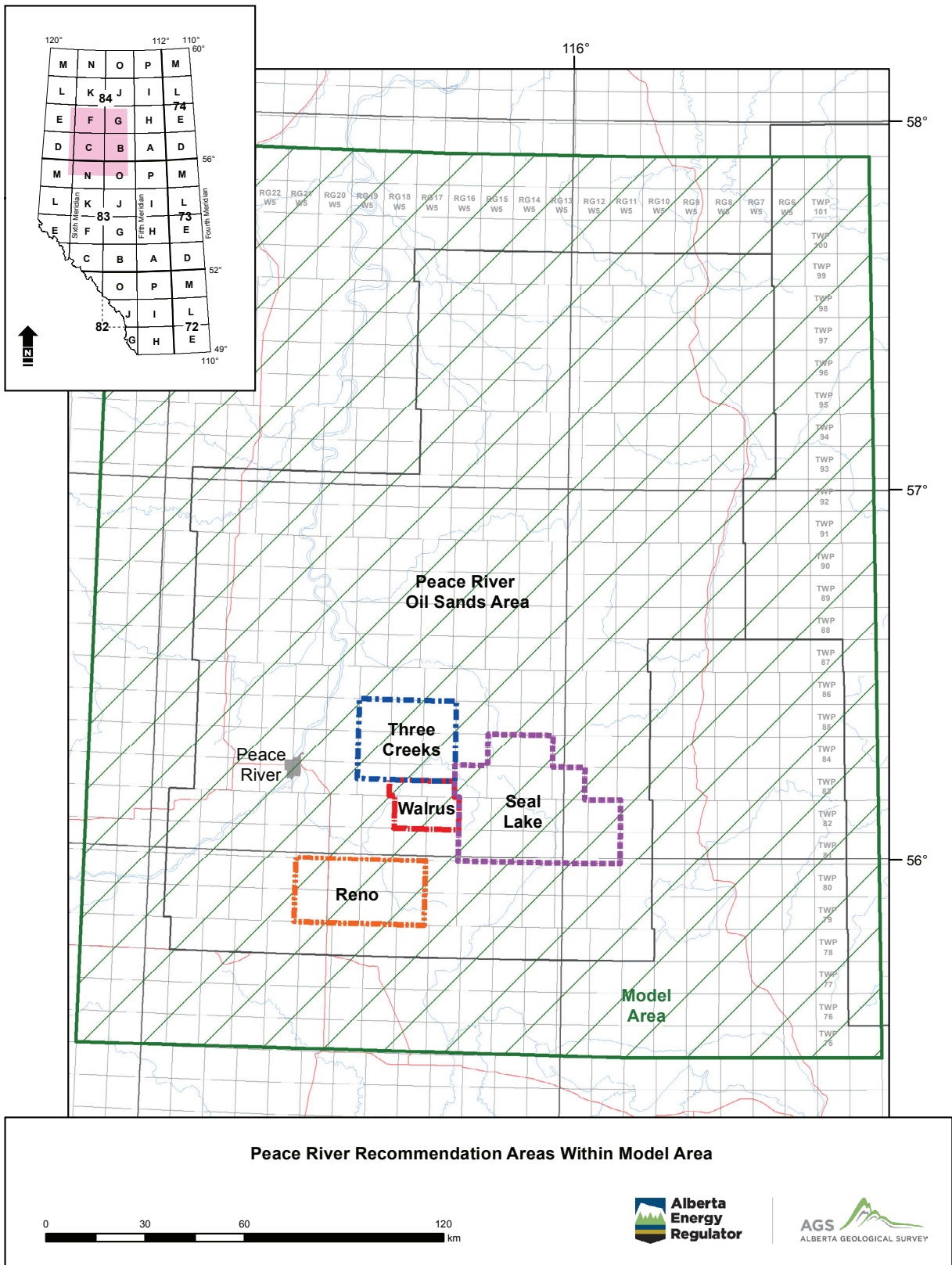


Figure 2. Location of Peace River proceedings recommendation areas within the Peace River Oil Sands Area and the 3-D geological model area.

## 2 Background

### 2.1 Geology

The reservoirs containing designated oil sands deposits (designated by the AER) in the PROS area centre around and are controlled by the paleotopography of the sub-Cretaceous angular unconformity (Sub-K). This unconformity separates the lower older passive margin succession from the upper younger foreland basin succession in the Western Canada Sedimentary Basin (WCSB). An important feature to the oil sands designated heavy oil and bitumen in the PROS area is the Red Earth Highlands. This feature was a paleotopographic high during early Cretaceous sedimentation, discussed in Hubbard et al. (1999). The tectonostratigraphic history of the WCSB, as it applies to the oil and gas deposits in the PROS area, is summarized by Berbesi et al. (2012).

One regional tectonic feature that plays an important role in the depositional history and the source-rock migration pathways is the Peace River Arch. The Peace River Arch is located to the southwest of the PROS area, where many faults are located, creating potential vertical fluid pathways connecting deeply buried rocks to those at shallower depth (O'Connell, 1994). In the PROS area, oil sands designated heavy oil and bitumen are contained and primarily targeted for production in Cretaceous strata deposited on top of the Sub-K and are contained and secondarily targeted for production in formations below the Sub-K, ranging in age from Permian to Devonian.

Focusing on oil sands designated heavy oil and bitumen within the PROS area, we narrowed the objectives of this project to six geological units and one unconformity surface; however, more than forty geological entities in the subsurface of the PROS area were modelled. The geological entities of interest are as follows:

- Exshaw Formation
- Pekisko Formation
- Debolt Formation
- Belloy Formation
- Gordondale Member of the Fernie Formation
- Sub-Cretaceous unconformity
- Bluesky and Gething formations.

Below is a summary of the basic geological characteristics of these entities as they are known within the geological community.

The Upper Devonian to Lower Mississippian Exshaw Formation is a source rock that has contributed hydrocarbons to the oil sands deposits in the PROS area. It consists primarily of black shale deposited in a deep marine environment. The Exshaw Formation subcrop area is located on the northeastern edge of the Red Earth Highlands (Figure 3).

The Mississippian Pekisko and Debolt formations are secondary hosts of oil sands designated heavy oil and bitumen in the PROS area. In this area, both formations are primarily composed of marine limestone that has undergone intensive dolomitization near the Sub-K, resulting in vuggy carbonate reservoirs. The Debolt Formation can be subdivided into an upper, middle, and lower unit. The upper Debolt is composed of limestone and dolostone overlying a regional anhydrite bed that pinches out to the northeast (Figure 4). The middle and lower Debolt are composed of argillaceous and clean carbonates, respectively. The Pekisko and Debolt formations both have subcrop areas within the the Red Earth Highlands area, where they come into contact with the Bluesky and Gething formations (Figure 3 and Figure 4).

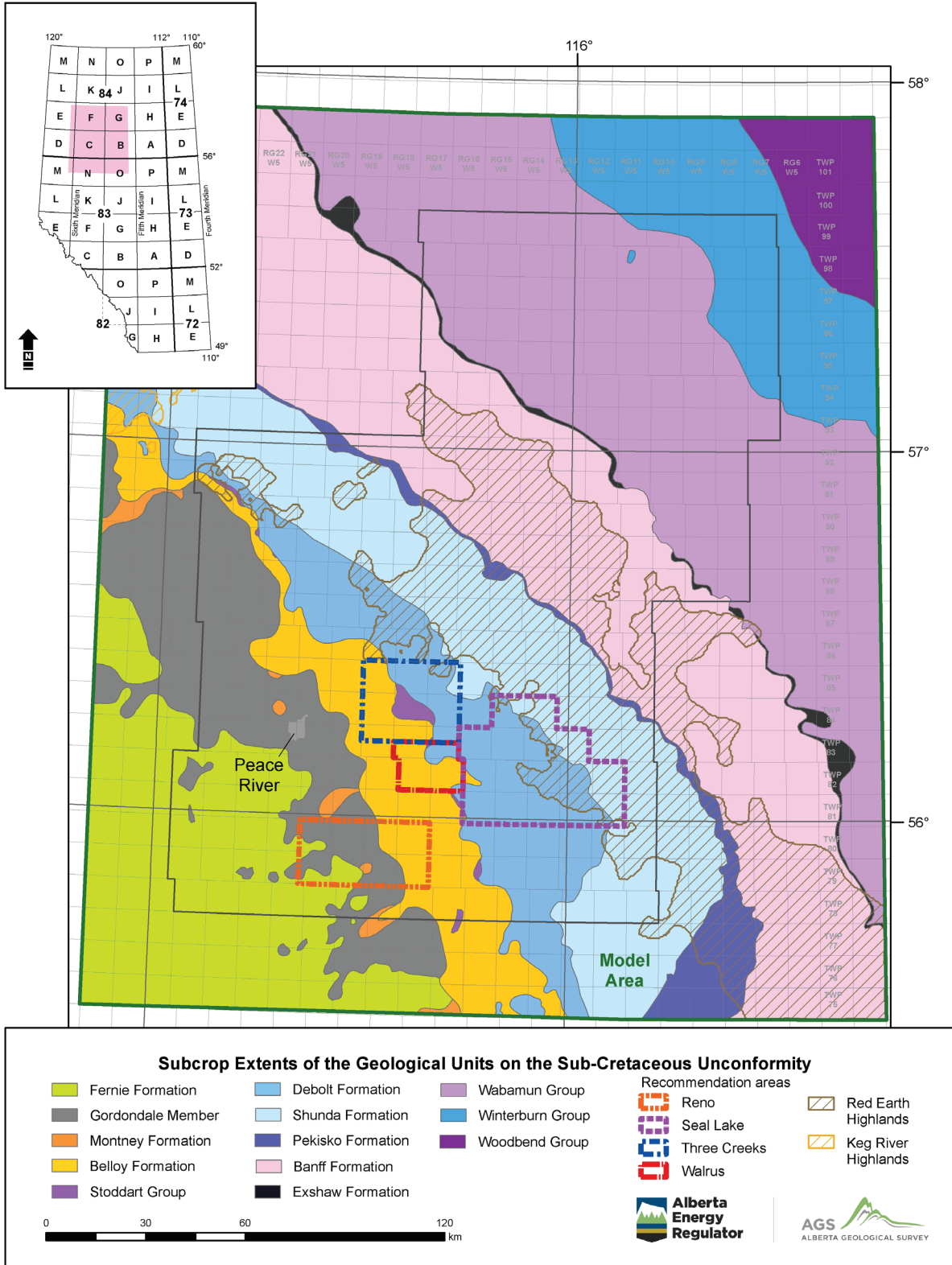


Figure 3. Map showing the subcrop areas of the geological units on the sub-Cretaceous unconformity, derived from the 3-D geological model.

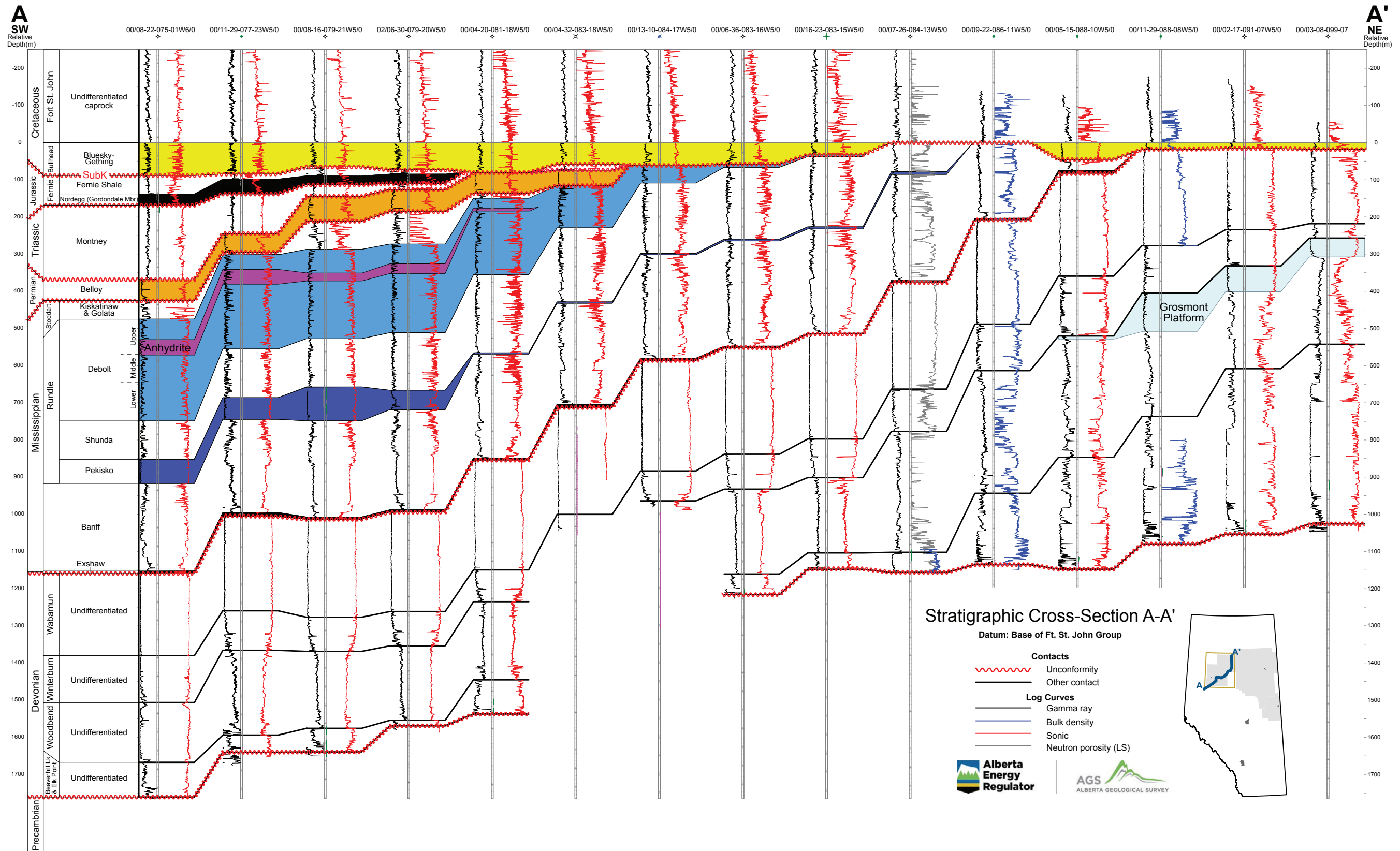


Figure 4. A southwest to northeast stratigraphic cross-section through the model volume.

The Permian Belloy Formation is also a secondary host of the oil sands deposits in the PROS area and is primarily composed of sandstone deposited in a shallow marine environment. The Belloy subcrop area is located at the southwestern edge of the Red Earth Highlands, putting it in direct contact with the Bluesky and Gething formations (Figure 3 and Figure 4).

The Jurassic Gordondale Member (historically the Nordegg Member shale) of the Fernie Formation is one of the source rocks that have contributed hydrocarbons to the PROS area, including the oil sands deposits (Creaney and Allan, 1992). It consists of variously phosphatic limestones, including calcitic mudstone, calcilutite, and calcarenite, deposited in a marine environment (Asgar-Deen et al., 2004). The Gordondale Member is partially overlain by the other shales of the Fernie Formation and by the Gething Formation fluvial deposits in the PROS area. The Gordondale Member subcrops at the Sub-K in the Reno area and near the southwest corner of the Three Creeks area (Figure 3).

Together, the Gordondale Member and Exshaw Formation are considered to be the main source rocks for the oil sands deposits in the PROS area. The contribution of both of these strata to the oil sands deposits has been in debate for many years. Complications with determining source-rock contribution stem from the influence of biodegradation on the geochemical signature of heavy oil and bitumen, as discussed in Section 5.1 of this report.

The Sub-K divides Cretaceous rocks from older rocks, as mentioned above. Due to the angular nature of this unconformity, a number of underlying formations are in contact with Cretaceous units at this unconformity surface. A cross-section through the PROS area shows the base of the Bluesky and Gething formations in contact with a sequence of strata ranging in age from youngest (Fernie Formation) to oldest (Wabamun Group) as you move from southwest to northeast across the PROS area (Figure 4).

The Lower Cretaceous Gething Formation is a secondary host of oil sands deposits in the PROS area. It consists of sandstone and mudstone deposited in a fluvial environment. The Gething Formation is overlain by Wilrich Member shale of the Spirit River Formation where the overlying Bluesky Formation is absent. The Gething is underlain in some areas by the Cadomin Formation or is in direct contact with the Sub-K, where it overlies several older geological units. Gething Formation deposition was controlled by the Red Earth Highlands.

The Lower Cretaceous Bluesky Formation is the primary host of the oil sands designated heavy oil and bitumen in the PROS area. It consists of sandstone and mudstone deposited in a shoreline to shallow shelf environment, with the main reservoir sands deposited in a wave-dominated estuarine environment. The Bluesky is overlain by Wilrich Member shale of the Spirit River Formation (within the Fort St. John Group) and underlain by Gething Formation fluvial deposits. Deposition of the Bluesky was controlled by the Red Earth Highlands, separating deposition in the northeast from the southwest (Figure 5). Oil sands production is currently occurring mainly in the southwest, with only minor exploration occurring in the northeast.

Oil sands deposits contained in the Bluesky and Gething formations are often referred to together in literature as the Bluesky-Gething deposits, and this is the terminology used in this report. A gross isopach map of the Bluesky-Gething shows thinning to complete absence of the unit in the area of the Red Earth Highlands, highlighting the influence of this paleotopographic feature on deposition (Figure 5). A net pay map displays the thickness of bitumen-saturated sands using a  $\geq 6\%$  mass bitumen cut-off (Figure 6). The sands range in character from relatively clean and homogeneous to finely laminated. Homogeneous sands may also be separated by several metres of shale.



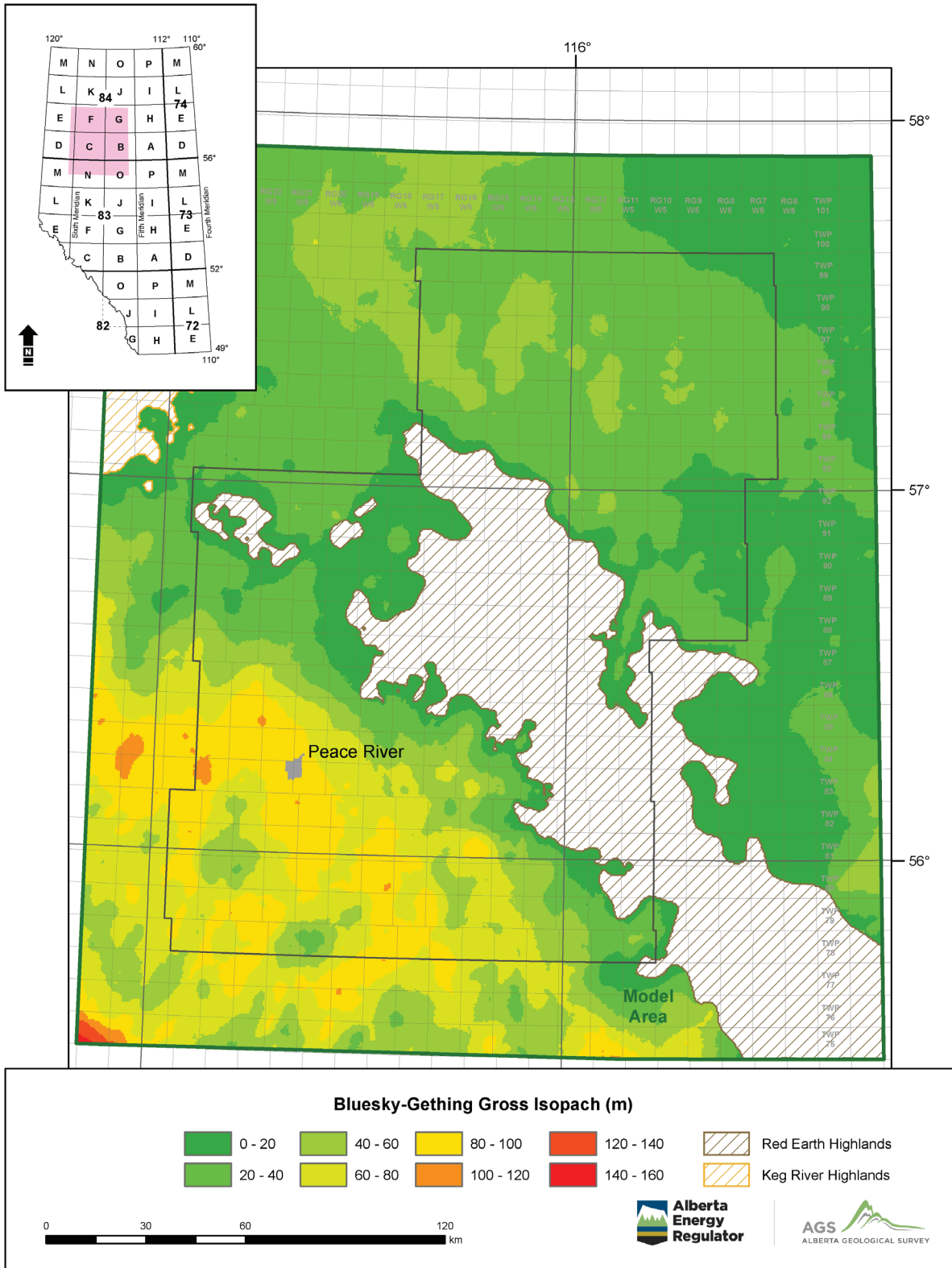


Figure 5. Gross isopach map of the Bluesky-Gething and its relationship to the Red Earth Highlands, derived from the 3-D geological model.

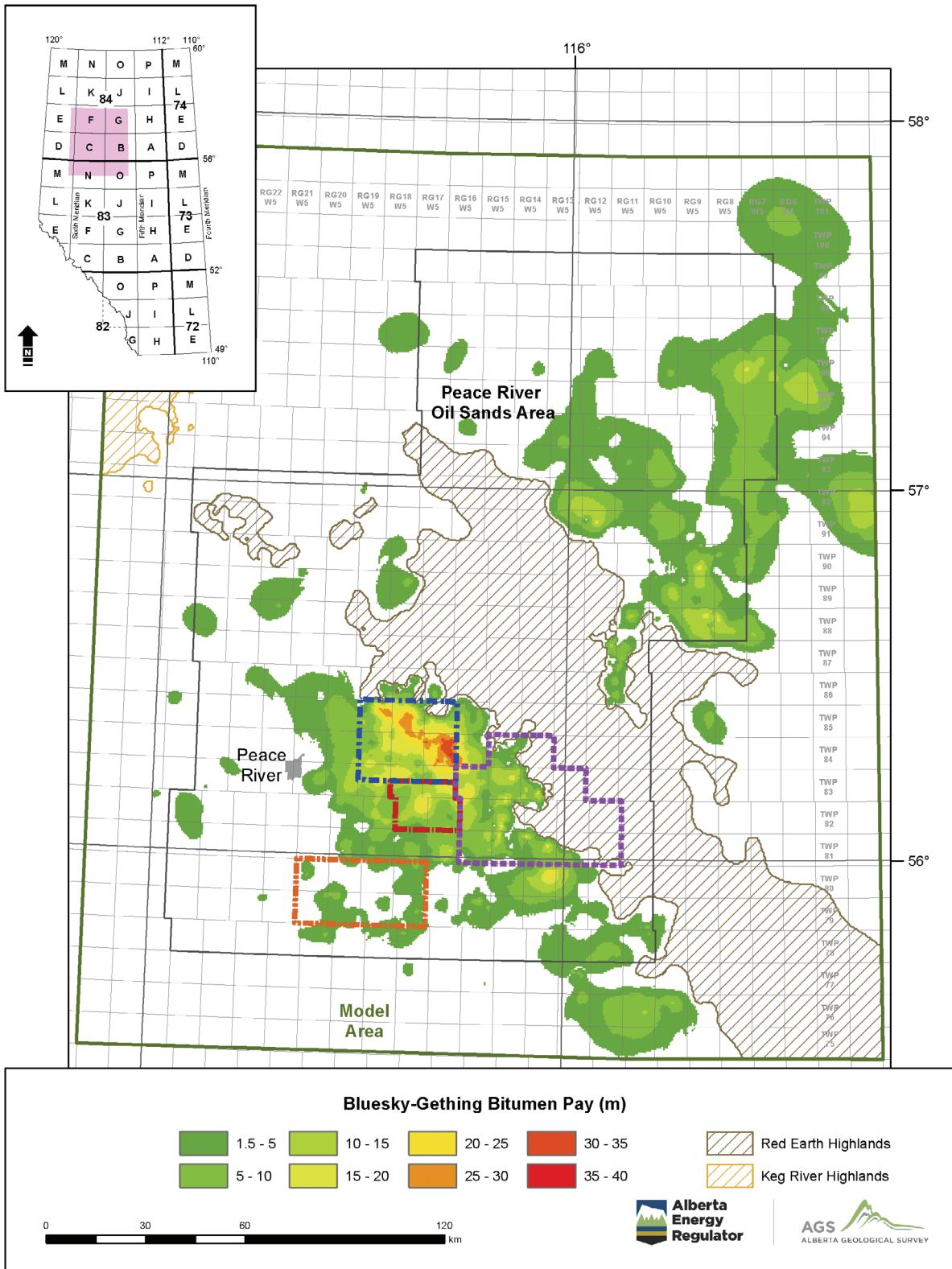


Figure 6. Bitumen pay thickness map for the Bluesky-Gething deposits using a  $\geq 26\%$  mass bitumen cut-off.

### 3 Three-Dimensional Geological Model

A 3-D geological model was created to visualize relationships in the subsurface that otherwise may not be distinguished using two-dimensional (2-D) maps (Figure 7). The model was used to assess the spatial stratigraphic and structural extent of the subsurface geological units, to examine possible fluid migration pathways, and to integrate geochemical data identifying relationships between the heavy oils and bitumen within the geological units in the PROS area. Evaluating this information within the model facilitated the design of a petroleum sampling and analysis program necessary to analyze the geochemistry and build the geological plays as defined in Section 1.1.

#### 3.1 Creating the Three-Dimensional Geological Model

The geological surfaces were modelled using primarily existing data, with the addition of new high-quality data (i.e., formation-top picks) in areas where existing data were found to be erroneous or insufficient. The model is composed of 23 surfaces (Table 1), which together create the tops and bases of the 17 geological units in the model. A confidence level was assigned qualitatively to each created surface using the following attributes:

- data quantity
- data distribution
- data quality
- the geological complexity of the units

#### 3.2 Analysis of the Three-Dimensional Geological Model

After completion of the 3-D geological model, several datasets were incorporated into the model and used to analyze the extent of the geological plays in the PROS area. The following types of data were incorporated:

- oil and gas well and location data
- oil and gas pool outline and location data
- approved oil sands in situ recovery scheme outline and location data
- fault location and orientation data
- existing oil and gas routine analytical data

A total of 25 geological plays were identified and created within the model for the initial stratigraphic evaluation and assessment of the relationships between all heavy oil and bitumen in the PROS area. The main focus of this initial evaluation was to identify the scope of the petroleum sampling and analysis program for geochemical evaluations. The following observations were made:

- The connectivity of the geological plays indicates good potential for the oil sands designated heavy oil and bitumen to be quite similar across the PROS area (Figure 8). This means there may be no way to definitively distinguish the oil sands designated heavy oil and bitumen at the scale of the recommendation areas.
- The intense faulting along the Peace River Arch (Figure 9) extends across many geological units in the subsurface mainly in the southwestern part of the PROS area, providing potential pathways for fluid migration from Devonian geological units all the way up to Cretaceous units (Figure 10). This means there could be ambiguity in determining exactly which heavy oil and bitumen deposits were sourced by the Gordondale and what percentage of Gordondale-sourced oil is present if there is any mixing.

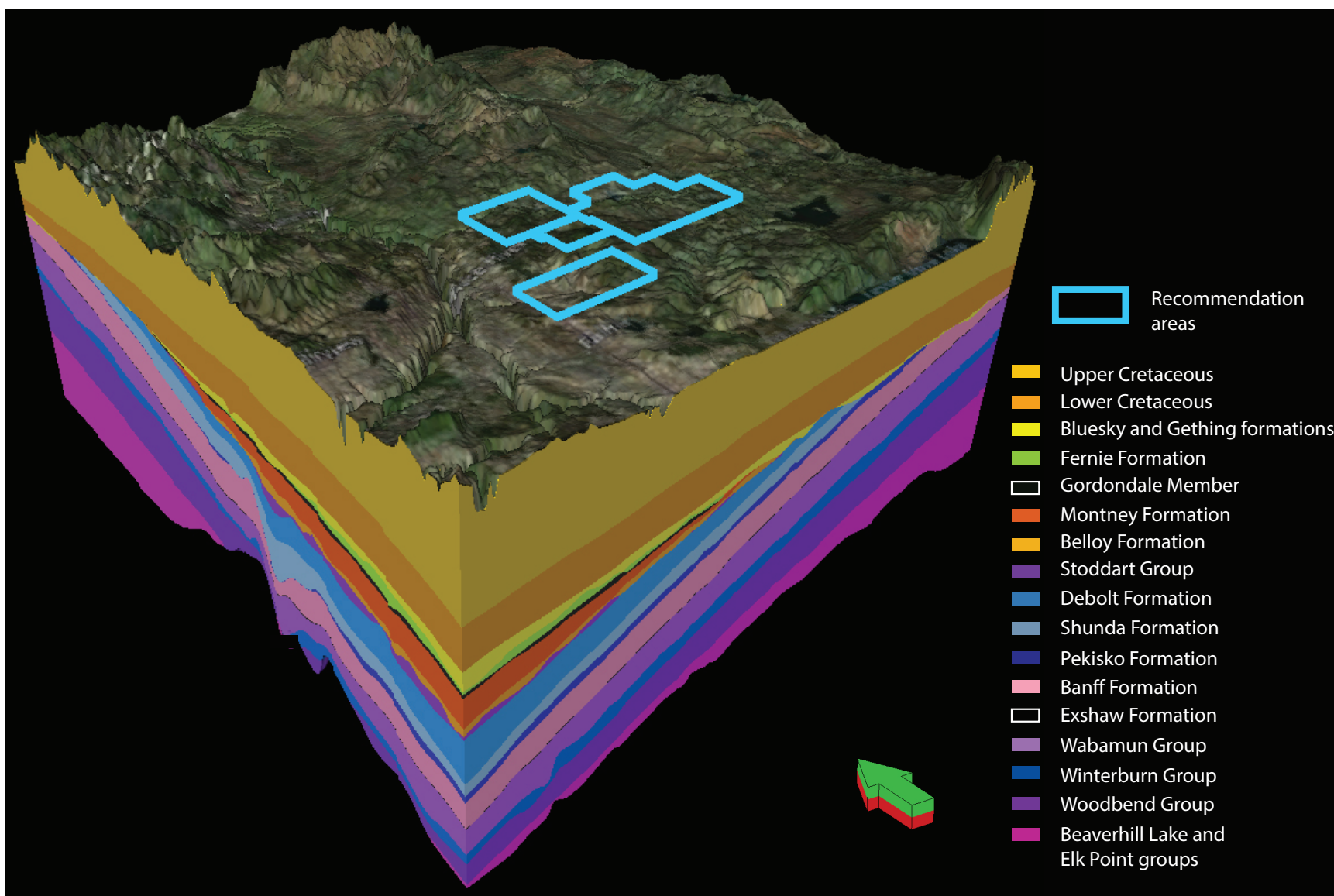


Figure 7. Image of the 3-D geological model of the Peace River Oil Sands Area at 50× vertical exaggeration.

**Table 1. Modelled 3-D geological surfaces and their level of confidence, listed from shallowest to deepest.**

| <b>Geological Surface</b>           | <b>Surface Type</b>     | <b>Confidence Level</b> |
|-------------------------------------|-------------------------|-------------------------|
| Ground surface                      | digital elevation model | high                    |
| Upper Mannville Group               | unit top                | medium                  |
| Fort St. John Group and equivalents | unit base               | high                    |
| Sub-Cretaceous unconformity         | unconformity            | high                    |
| Fernie Formation                    | unit top                | high                    |
| Gordondale Member                   | unit top                | high                    |
| Sub-Jurassic unconformity           | unconformity            | high                    |
| Montney Formation                   | unit top                | high                    |
| Sub-Triassic unconformity           | unconformity            | medium                  |
| Belloy Formation                    | unit top                | medium                  |
| Sub-Permian unconformity            | unconformity            | low                     |
| Stoddart Group                      | unit top                | low                     |
| Debolt Formation                    | unit top                | high                    |
| Shunda Formation                    | unit top                | high                    |
| Pekisko Formation                   | unit top                | medium                  |
| Banff Formation                     | unit top                | high                    |
| Exshaw Formation                    | unit top                | high                    |
| Wabamun Group                       | unit top                | high                    |
| Winterburn Group                    | unit top                | medium                  |
| Woodbend Group                      | unit top                | medium                  |
| Woodbend Group                      | unit base               | high                    |
| Basement                            | unit top                | low                     |

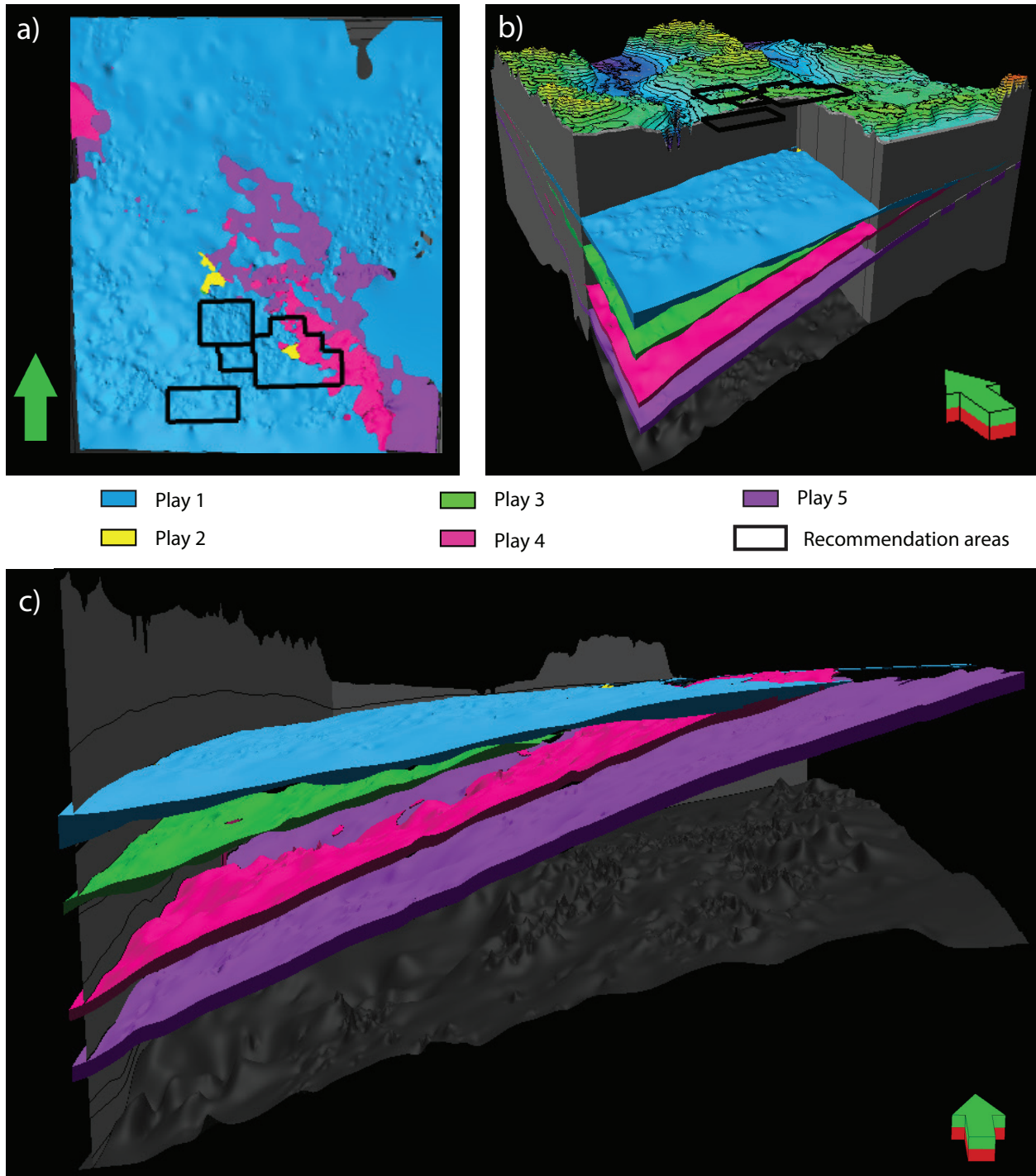


Figure 8. Series of images showing geological plays within the 3-D geological model at 50× vertical exaggeration. a) distribution of plays in plan view at the level of the top of the Bluesky-Gething, b) spatial arrangement of plays within the model, and c) view of the model area from the south showing how the plays converge in the eastern portion of the model.

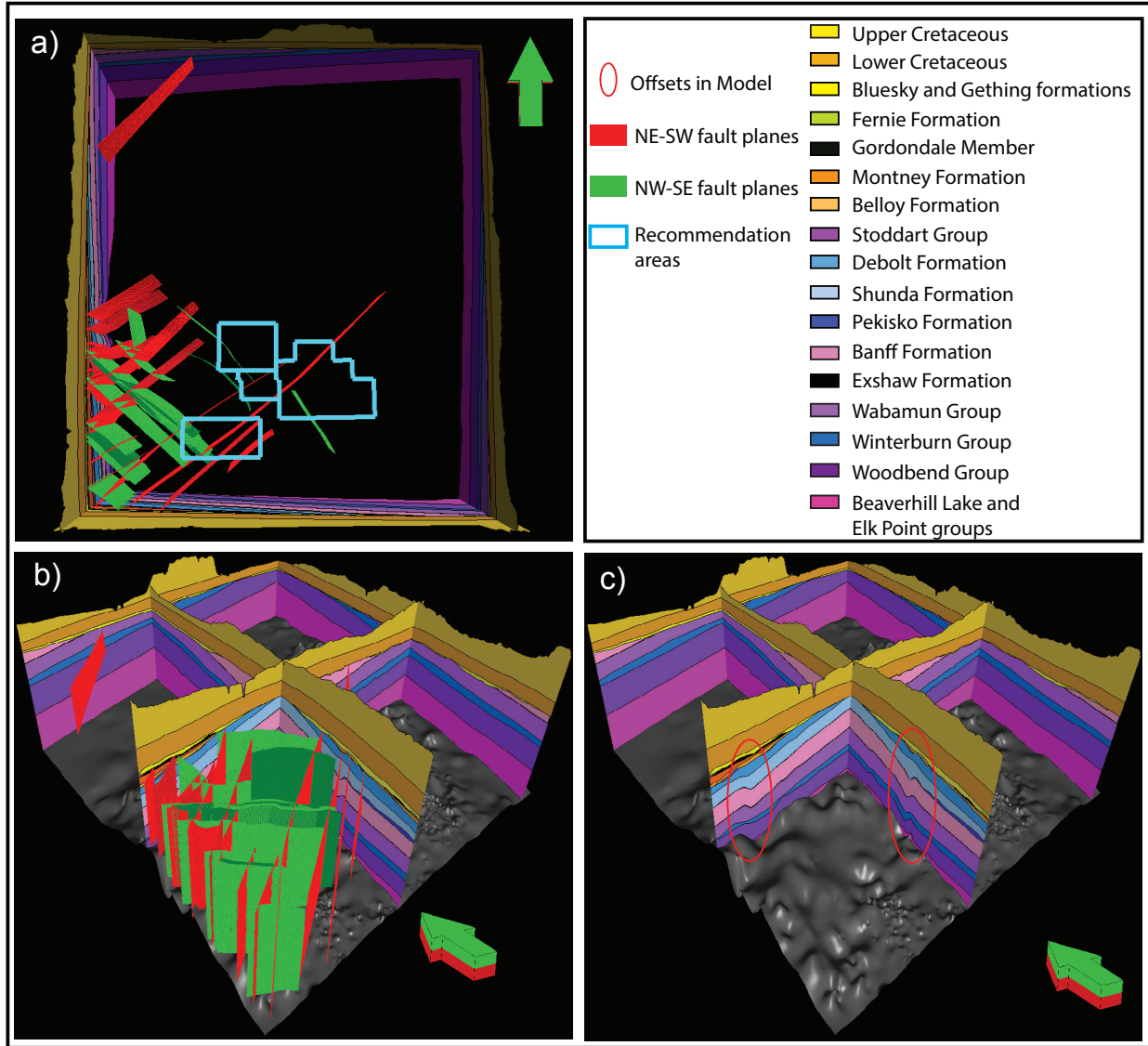


Figure 9. A series of images of the 3-D geological model showing some of the complex faulting within the PROS area and its proximity to the recommendation areas at 50× vertical exaggeration; a) plan view of the 3-D model area showing subsurface fault locations in relation to the Peace River recommendation areas (blue polygons); b) fault surfaces collected from various literatures and interpreted in 3-D show good correlation with offsets recognized in the geological units; c) cross-sections through the model with locations of geological unit offsets circled in red.

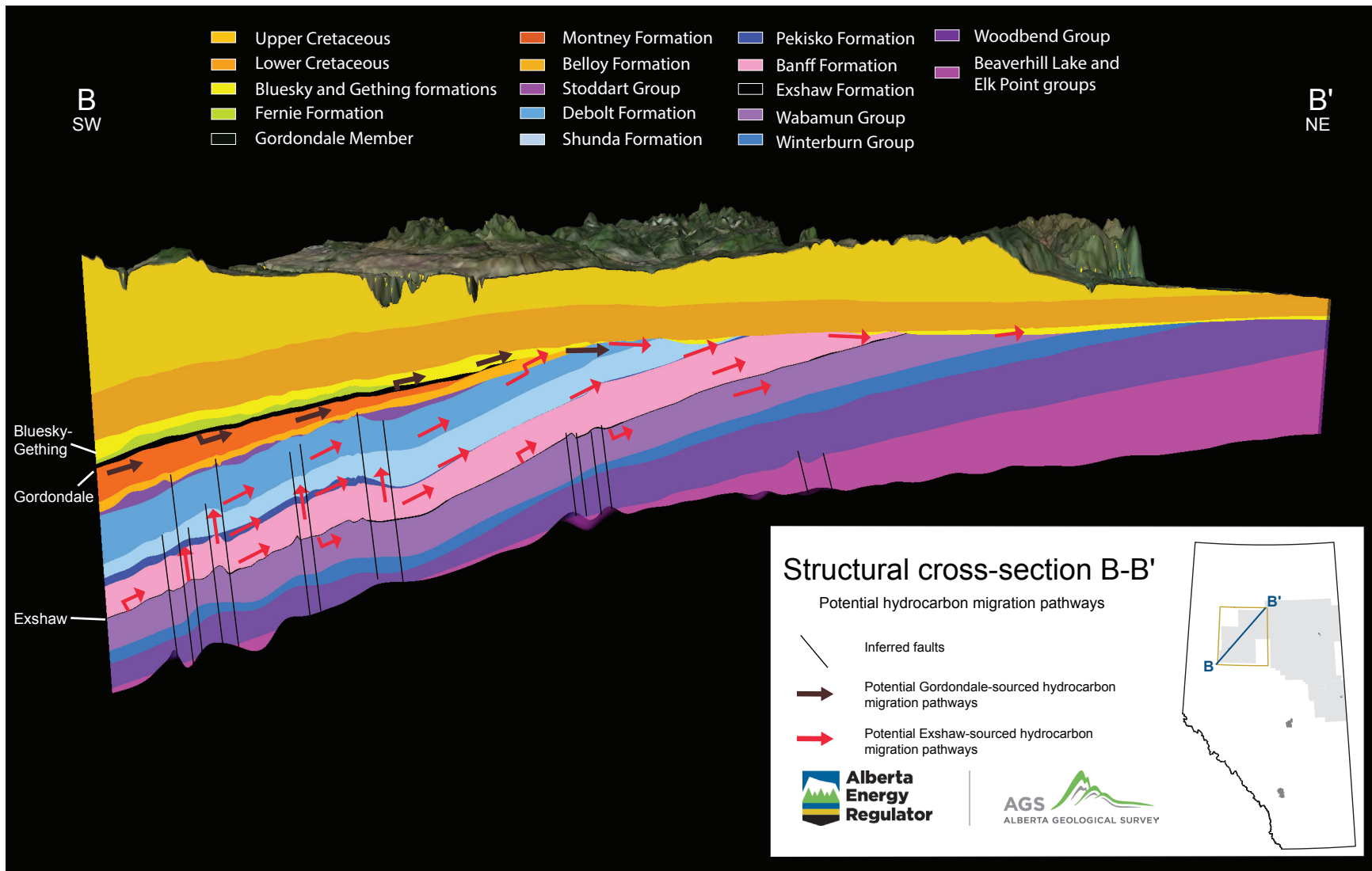


Figure 10. A southwest-northeast cross-section through the 3-D geological model at 50× vertical exaggeration annotated with potential migration pathways for Gordondale-sourced oils (brown arrows) and Exshaw-sourced oils (red arrows). Location of inferred faults are based on those reported in literature and inferred from modelled geological unit offsets.



- Examination of oil density and viscosity data for all heavy oil and bitumen in the PROS area indicates that there is a relationship between depth and oil density and viscosity that could be used to separate the oil sands designated deposits from deeper heavy oils (Figure 11). In addition, comparison of PROS area heavy oil and bitumen with heavy oil and bitumen of other OSAs in the province suggests that all the oil sands deposits have similar oil densities and viscosities.

These initial observations have led to the design and implementation of a regional sampling program concentrating on designated oil sands deposits with some source-rock oil analysis used for comparison with current literature. This sampling program investigated the similarities and differences between oil sands designated heavy oil and bitumen and remain in scope of the current Peace River recommendation areas.

## **4 Petroleum Sampling and Analysis Program**

The regional petroleum sampling and analysis program was primarily designed to aid in understanding the chemistry of the gas coming from the oil sands designated heavy oil and bitumen as it relates to odorous compounds and, secondarily, to discern regional source-rock contributions to PROS-area hydrocarbons. Sampling concentrated on gathering data about the fluids coming from the ground before any treatment occurred at the surface and before the compounds were dispersed in air (making their concentrations much lower). A regional sampling approach was necessary to be able to compare fluids from the PROS area with source type oils from outside the area and fluids from other OSAs. The relatively small sample set was targeted to help address the objectives of this study within a relatively short timeframe. It provides data for broadly characterizing the oil sands designated heavy oil and bitumen in the PROS area. Results of the sampling and analysis program are in Appendix 1.

Twelve wells were sampled: nine producing from designated oil sands deposits throughout the province and three producing oils known to be sourced from specific source rocks (i.e., the Duvernay, Exshaw, and Gordondale) (Figure 12). For eight of the designated oil sands wells and the Gordondale and Exshaw oil type wells, both casing gas and liquid samples were collected. The other two wells (Two Creek and AOS Brintnell) were sampled for only liquids. Table 2 contains sample location and collection information.

### **4.1 Sampling Program Details**

The AER hired Core Laboratories to collect the samples from ten wells where both casing gas and liquids were collected (Table 2). Casing gas samples were collected from the well casing into evacuated SilcoCan canisters. Canisters containing casing gas samples were sent to Core Laboratories for routine gas analysis and RSC analysis, which they refer to as trace sulphur analysis (TSA). Duplicate casing gas samples were also sent to Alberta Innovates Technology Futures (AITF), which has environmental analytical services for C1 to C4, inert gas, RSC, and VOC analyses. The main differences between the RSC analyses of the two laboratories are the number of compounds analyzed and the detection limit ranges routinely used. Liquid samples were collected into stainless steel canisters and analyzed at Core Laboratories for routine oil composition as well as nickel and vanadium trace metal analyses. A portion of each liquid sample was sent to the G.G. Hatch Stable Isotope Laboratory at the University of Ottawa for sulphur and nitrogen isotope analyses.

Gas emitted from liquid samples was also analyzed. Ten liquid samples were heated to 25°C (25-flash) for 24 hours; gas emitted during the test was subjected to routine gas analysis and TSA. A portion of this gas was captured into evacuated SilcoCan canisters and analyzed for VOCs. Three of the ten samples were also heated to 80°C (80-flash) for 24 hours and subjected to routine gas analysis and TSA.

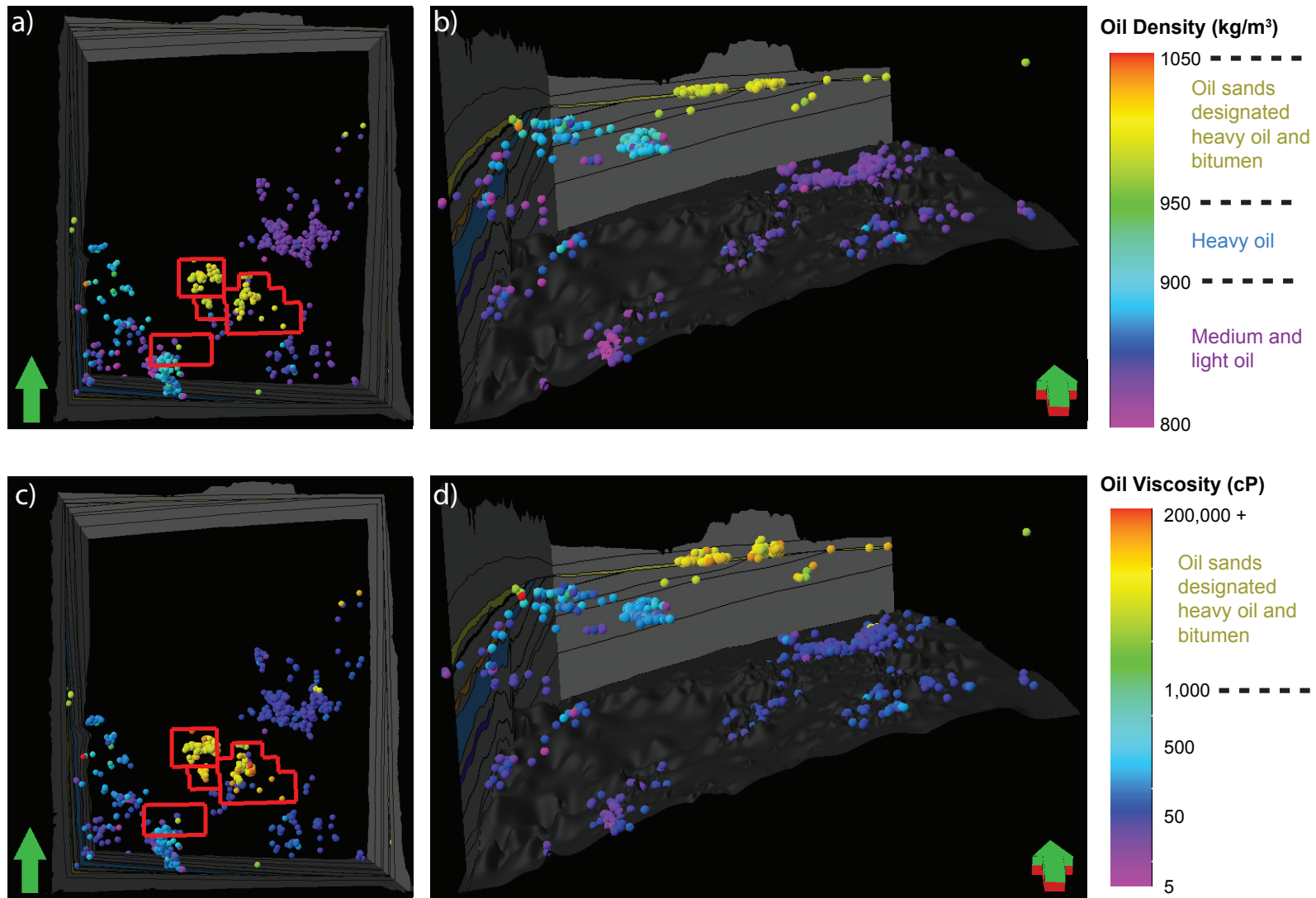


Figure 11. A series of images showing oil density (15°C post-cleaning, absolute density) and oil viscosity (15°C kinematic viscosity) data within the 3-D geological model area at 50× vertical exaggeration. The recommendation areas are outlined in red; a) plan view of the model showing density data; b) oblique view of the oil density data in 3-D space showing how the data varies with depth; c) plan view of the model showing oil viscosity data (in cP); d) oblique view of the oil viscosity data in 3-D space showing how the data varies with depth.

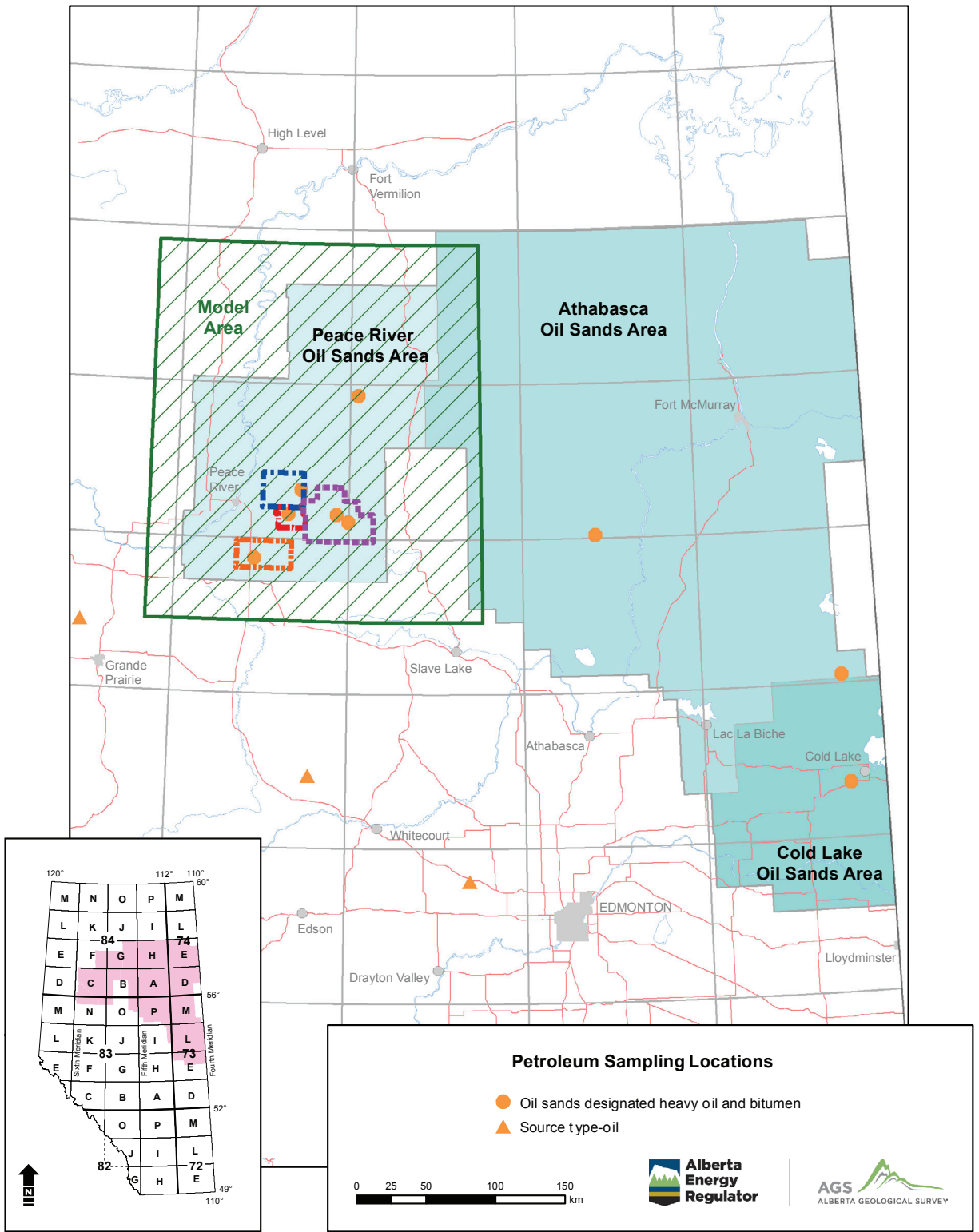


Figure 12. Map of sampling locations for the petroleum sampling and analysis program.

**Table 2. Sample locations and information.**

| Sample No. | Location UWI         | Sample Measured Depth* (m) | Sample Type | Location Description | Producing Geological Unit |
|------------|----------------------|----------------------------|-------------|----------------------|---------------------------|
| 14251      | 102/16-30-091-12W5/0 | 857.9–1647                 | casing gas  | PROS Sawn Lake       | Bluesky-Gething           |
| 14252      | 102/16-30-091-12W5/0 | 857.9–1647                 | liquids     | PROS Sawn Lake       | Bluesky-Gething           |
| 14253      | 100/13-09-062-03W4/0 | 572.5–1995                 | casing gas  | CLOS Beaverdam       | Grand Rapids              |
| 14254      | 100/13-09-062-03W4/0 | 572.5–1995                 | liquids     | CLOS Beaverdam       | Grand Rapids              |
| 14255      | 100/01-29-079-20W5/0 | 920.2–2777                 | casing gas  | PROS Reno            | Bluesky-Gething           |
| 14256      | 100/01-29-079-20W5/0 | 920.2–2777                 | liquids     | PROS Reno            | Bluesky-Gething           |
| 14257      | 100/05-13-081-21W4/4 | 586–2920                   | liquids     | AOS Brintnell        | Wabiskaw-McMurray         |
| 14258      | 100/16-24-063-17W5/0 | 3283–4658                  | liquids     | Two Creek            | Duvernay                  |
| 14259      | 125/03-17-070-03W4/0 | 775–1564                   | casing gas  | AOS Foster Creek     | Wabiskaw-McMurray         |
| 14260      | 125/03-17-070-03W4/0 | 775–1564                   | liquids     | AOS Foster Creek     | Wabiskaw-McMurray         |
| 14261      | 100/04-29-074-07W6/0 | 2036.9–3214                | casing gas  | La Glace             | Gordondale                |
| 14262      | 100/04-29-074-07W6/0 | 2036.9–3214                | liquids     | La Glace             | Gordondale                |
| 14263      | 105/16-32-082-14W5/0 | 745–2150                   | casing gas  | PROS Seal Lake       | Bluesky-Gething           |
| 14264      | 105/16-32-082-14W5/0 | 745–2150                   | liquids     | PROS Seal Lake       | Bluesky-Gething           |
| 14265      | 102/12-17-082-13W5/0 | 756–798                    | casing gas  | PROS Seal Lake       | Pekisko                   |
| 14266      | 102/12-17-082-13W5/0 | 756–798                    | liquids     | PROS Seal Lake       | Pekisko                   |
| 14267      | 102/02-01-083-18W5/8 | 822–2054                   | casing gas  | PROS Walrus          | Bluesky-Gething           |
| 14268      | 102/02-01-083-18W5/8 | 822–2054                   | liquids     | PROS Walrus          | Bluesky-Gething           |
| 14269      | 103/16-26-084-17W5/2 | 754–2205                   | casing gas  | PROS Three Creeks    | Bluesky-Gething           |
| 14270      | 103/16-26-084-17W5/2 | 754–2205                   | liquids     | PROS Three Creeks    | Bluesky-Gething           |
| 14271      | 100/08-35-055-05W5/0 | 1377–1390.4                | casing gas  | St. Anne             | Exshaw                    |
| 14272      | 100/08-35-055-05W5/0 | 1377–1390.4                | liquids     | St. Anne             | Exshaw                    |

\* Measured Depth (MD) is the distance along the borehole (in metres) measured from the kelly bushing (KB). The intervals here are the first occurrence of a perforation to the last occurrence.

Two wells were sampled for liquid only (Table 2). These samples were collected by the well operators and sent into Core Laboratories for routine oil analysis and nickel and vanadium trace metal concentration analyses. A portion of each of these samples was also sent to the G.G. Hatch Stable Isotope Laboratory at the University of Ottawa for sulphur and nitrogen isotope analyses.

## 4.2 Analytical Methods

The analytical methods for each set of analyses are listed in Table 3. The methodologies include gas chromatography-mass spectrometry (GC-MS), gas chromatography-thermal conductivity and flame ionization detection (GC-TCD/FID), gas chromatography-sulphur chemiluminescence detection (GC-SCD), and inductively coupled plasma atomic emission spectrometry (ICP-AES). It is important to note that these analytical techniques look for specific compounds rather than query all compounds in the sample. This means that there could be other compounds in the samples than what were analyzed for. AITF used Environmental Protection Agency (EPA) Compendium Methodology TO-15 (1999) for VOC analysis and ASTM International Designation D5504-12 (2014) for RSC analysis. Core Laboratories details their analytical methods for routine oil, routine gas, TSA, and trace metal analyses (nickel and vanadium trace metals) on their website (<http://www.corelab.com/ps/geochemistry-fluids>). The G.G. Hatch Stable Isotope Laboratory used ICP-AES for sulphur and nitrogen isotopic analysis.

A total of 102 VOCs and 19 RSCs were analyzed in the casing gas and 25-flash gas samples by AITF, and a total of 15 reduced sulphur compounds were analyzed in casing gas, 25-flash, and 25-flash samples by Core Laboratories. There was an overlap in reduced sulphur analyses where samples were analyzed for some of the same compounds by two different laboratories. The laboratories used the same methodologies but different detection limits. This was done as a quality control check and to test the results from analytical methods with two different detection limits. Some laboratory lower detection limits are higher than the odour threshold values for several compounds, particularly the RSCs that have very low odour thresholds. Because of this, there may be some compounds that are odorous and present but not detected.

**Table 3. Analysis types and their methodologies as well as the sample type that underwent analysis.**

| Analysis Type                    | Sample Types                   | Methodology |
|----------------------------------|--------------------------------|-------------|
| Routine Oil                      | Oil                            | various     |
| Routine Gas                      | Casing gas, 25-flash, 80-flash | GC-TCD/FID  |
| Volatile Organic Compounds       | Casing gas, 25-flash           | GC-MS       |
| Reduced Sulphur Compounds        | Casing gas                     | GC-SCD      |
| Trace Sulphur Analysis           | Casing gas, 25-flash, 80-flash | GC-SCD      |
| Sulphur and Nitrogen Isotopes    | Oil                            | ICP-AES     |
| Nickel and Vanadium Trace Metals | Oil                            | ICP-AES     |

## 5 Results and Discussion

### 5.1 Source-Rock Contribution

Based on the 3-D geological model, the Gordondale Member is the closest source rock to the current major activity in the southwestern part of the PROS area; it subcrops directly beneath the Bluesky-Gething deposit in the Reno area and just west of the Three Creeks, Walrus, and Seal Lake areas (Figure 3). Direct vertical migration of oil from the Gordondale is expected to be impeded where the

Gordondale is overlain by other Fernie Formation shales because they act as a barrier to fluid flow (Figure 10), also discussed in Adams et al. (2013). The model indicates that Gordondale-sourced oil is likely a main contributor to the oil sands deposits in the recommendation areas due to the other Fernie Formation shales acting as a barrier to fluid flow and the location where the Gordondale subcrops.

The Exshaw Formation source rock is located approximately 500 m below the main oil sands designated heavy oil and bitumen production in the southwest PROS area (Figure 4 and Figure 10). It comes into direct contact with the Bluesky-Gething in the northeast PROS area (Figure 3). A variety of porous and permeable geological units overlie the Exshaw Formation. Connection of these units through faulting may have provided a series of migration pathways for Exshaw-sourced oils to enter the Bluesky-Gething deposits downdip from the Exshaw subcrop area, especially east of the upper Debolt anhydrite pinchout (Figure 3 and Figure 4). The Debolt anhydrite acts as a barrier to Exshaw-sourced fluid flow similarly to how the other Fernie Formation shales act as a barrier to Gordondale-sourced fluid flow.

The Duvernay Formation source rock is located approximately 1200 m below the main designated heavy oil and bitumen production in the southwest PROS area (included with the Woodbend Group on Figure 4). Although the Duvernay is not the focus of this study, a sample was collected in order to compare it with the other type-oil samples (Gordondale and Exshaw).

The analytical identification of the source-rock contributions to the oil sands deposits in Alberta have been studied and debated for decades (summarized in Adams et al., 2013). Some of the more recent literature (e.g., Adams et al., 2013) indicates that oil sands deposits in the PROS area change from pure Gordondale-sourced oil in the southwest to pure Exshaw-sourced oil in the northeast, with an area of mixing in between. While some workers have argued for the Exshaw Formation shale as the single or at least dominant source (see Riediger et al., 2000, for a review), others suggest contributions from many source rocks. Most of the ambiguity stems from the fact that, compared to light oil, determining the source rocks of heavy oil and bitumen is more complex because of the effect of biodegradation on liquid chemistry. The properties that are affected through biodegradation of oil include (Schmitt, 2004)

- density,
- viscosity,
- API gravity,
- asphaltene content,
- total sulphur content, and
- trace metal content.

The rate of biodegradation is primarily controlled by temperature, salinity, delivery of nutrients, and the removal of secondary biogenic gas (Adams et al., 2013). As reservoirs in Alberta become shallower from west to east, the heavy oil and bitumen are generally more biodegraded. In the Peace River area, it is suggested that timing of migration also plays a part in the rate of biodegradation (Riediger et al., 2000). For example, Exshaw oils migrated into Pekisko reservoirs before Gordondale oils migrated into Bluesky reservoirs. This may explain more highly biodegraded oils in the Pekisko than in the Bluesky, despite the Bluesky being at shallower depths (Riediger et al., 2000).

It has been noted in the literature (Marcano et al., 2010) that whole-sulphur isotopic composition is minimally affected by biodegradation, even in highly biodegraded oils. Additionally, the vanadium (V) and nickel (Ni) ratio (V/Ni) can be used as markers to distinguish oil families because, even though the trace metal concentrations are affected by biodegradation, their ratios remain relatively unaffected (Adams et al., 2013).

The trace metal and isotope data acquired during this study (Appendix 1) are consistent with those presented in Adams et al. (2013) and indicate mainly Gordondale and Exshaw sourcing in the PROS area and a lack of Gordondale source-rock contribution in the other OSAs (Figure 13). The Exshaw component increases as you move northeast through the PROS area (Figure 14). The exception to this is the sample from northeast of the Red Earth Highlands, which was taken from a well that had recently been converted to SAGD production. The water source for the steam may have changed the sulphur isotope ratios without affecting the vanadium to nickel ratio. Due to the mixing of these source oils and the complexity of the oil contribution based on depth, it would be extremely difficult to draw a line between where pure Gordondale-sourced oil and pure Exshaw-sourced oil exists within the Peace River recommendation areas. This area appears to be a mixture of both source rocks.

The Gordondale type oil analyzed for this study is likely of higher organic maturity than the type oils in Adams et al. (2013), which may account for the variation from the Adams et al. (2013) Gordondale source-oil box (Figure 13). Some samples could not be plotted in Figure 13 because isotopic data were not analyzed for or were unable to be determined by the laboratory. In Figure 14, the data shows an increasing Gordondale component from northeast to southwest across the PROS area. Some samples could not be plotted in Figure 14 because isotopic data were not analyzed for or because the nickel and vanadium contents were below detection limits.

## **5.2 Petroleum Chemistry and Liquid Properties**

### **5.2.1 Volatile Organic Compounds and Reduced Sulphur Compounds**

VOC and RSC data for petroleum flowing directly from the reservoir are limited to the data collected in this study (Appendix 1). This section summarizes this data, mainly focusing on their potential to be odorous. A compound is considered to be more odorous the more times the concentration exceeds the odour threshold as defined in Section 1.1. This study does not consider other factors that could contribute to the potential to be odorous, such as rate for gas release, the offensiveness of the odour, or how each compound will behave when dispersed in air. Odour thresholds were available for 57 of 102 VOCs and 12 of 19 RSCs analyzed for in this study (Appendix 1).

In casing gas samples, RSCs appear to be significantly more odorous than the majority of VOCs detected (Figure 15). RSC concentrations commonly exceeded 1000 times the odour threshold when present in the sample (Appendix 2), while VOCs are most commonly less than 100 times the odour threshold (Appendix 2). This is in part due to sulphur compounds having lower threshold ranges on average than hydrocarbon compounds, making it easier for the threshold to be exceeded (Nagata, 2003).

The total concentration of RSCs and VOCs was analyzed for trends that would indicate that there could be differences between oil sands designated heavy oil and bitumen regionally across all OSAs or locally within the PROS area. The following observations were made:

- Total VOC and RSC concentrations in casing and 25-flash gas show no regional trend in the oil sands designated heavy oil and bitumen (Figure 16).
- No trend is observed across all the oil sands areas that indicate that the PROS have higher total RSC and VOC concentrations emitted from oils compared to other OSAs (Figure 17).
- There is a broad relationship (due to the regional nature of the sample data) between the amount of total VOCs and the oil density: less dense oil corresponds with more total VOCs (Figure 18), which is expected as lower density oils have higher concentrations of more volatile compounds.
- Total VOC and RSC concentrations in casing and 25-flash gas do not correlate to the total sulphur content in the oils (Figure 19).

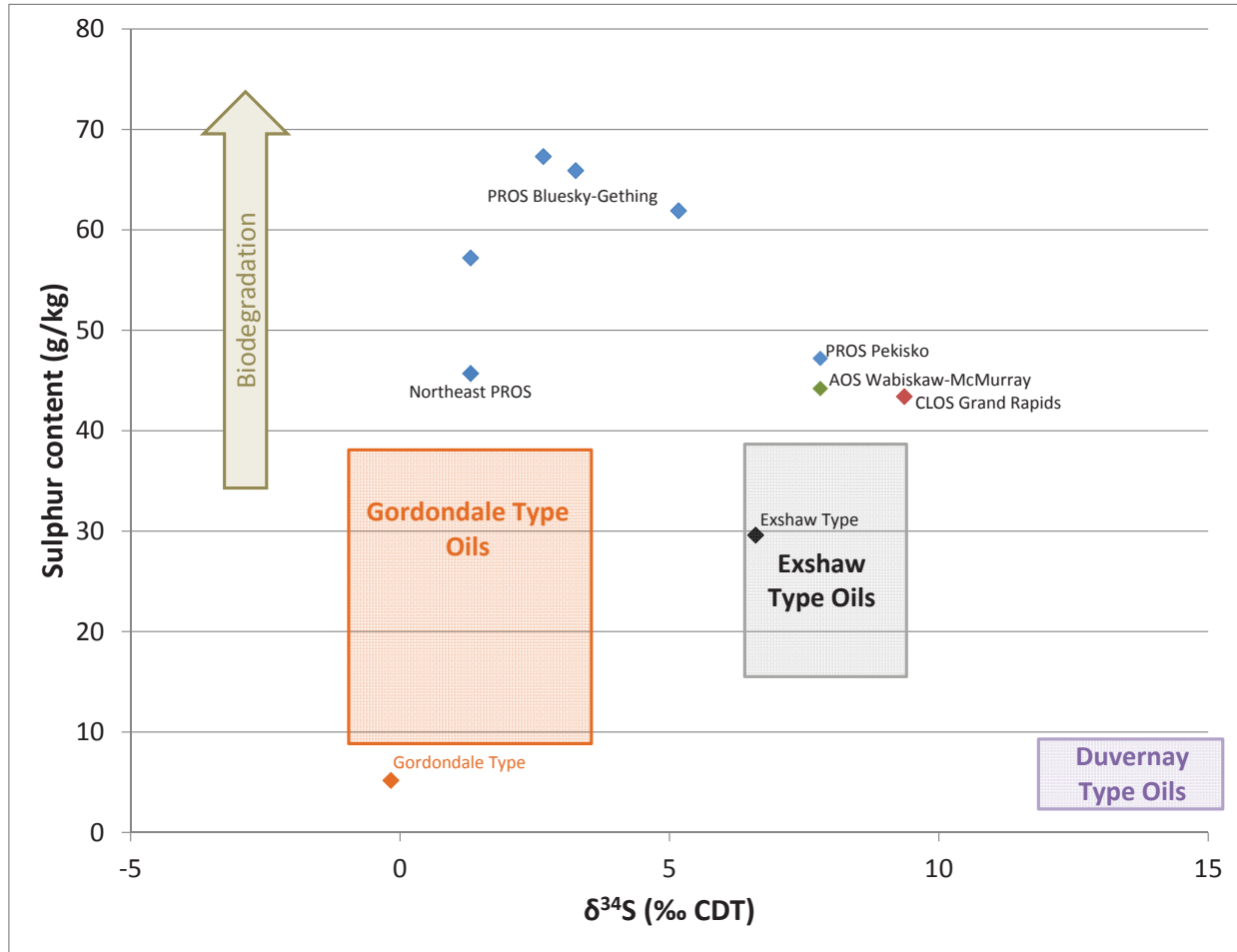


Figure 13. Graph of total sulphur versus  $\delta^{34}\text{S}$  data from this study shown with the proposed source-oil data ranges from Adams et al. (2013). Data points are coloured by producing formation for the type-oil samples and by oil sands area for the heavy oil and bitumen samples.



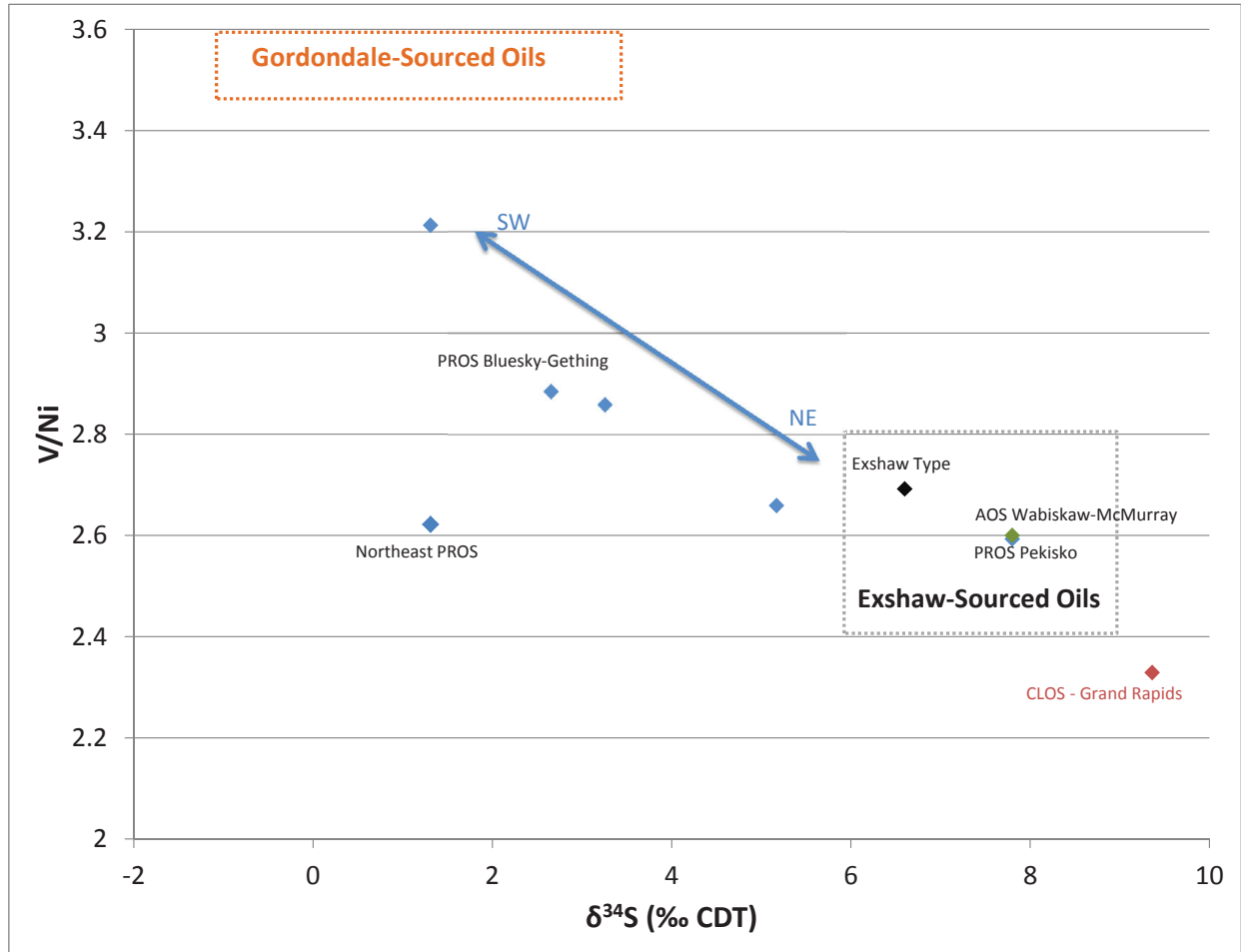


Figure 14. Graph of vanadium to nickel ratio (V/Ni) versus  $\delta^{34}\text{S}$  data from this study. Data points are coloured by producing formation for the type-oil samples and by oil sands area for the heavy oil and bitumen samples.

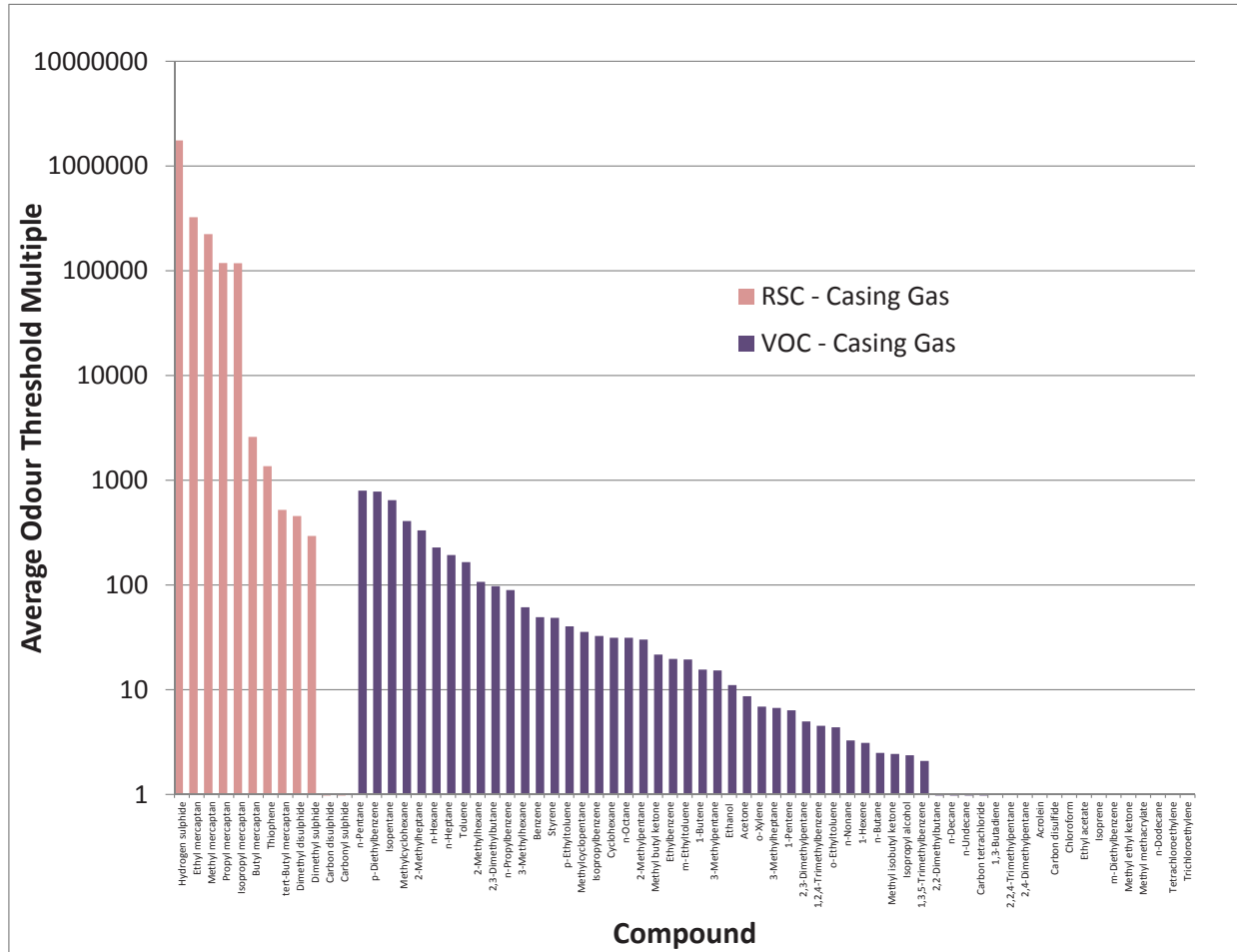


Figure 15. Graph of total RSC and VOC odour threshold exceedance multiples compared (when present).

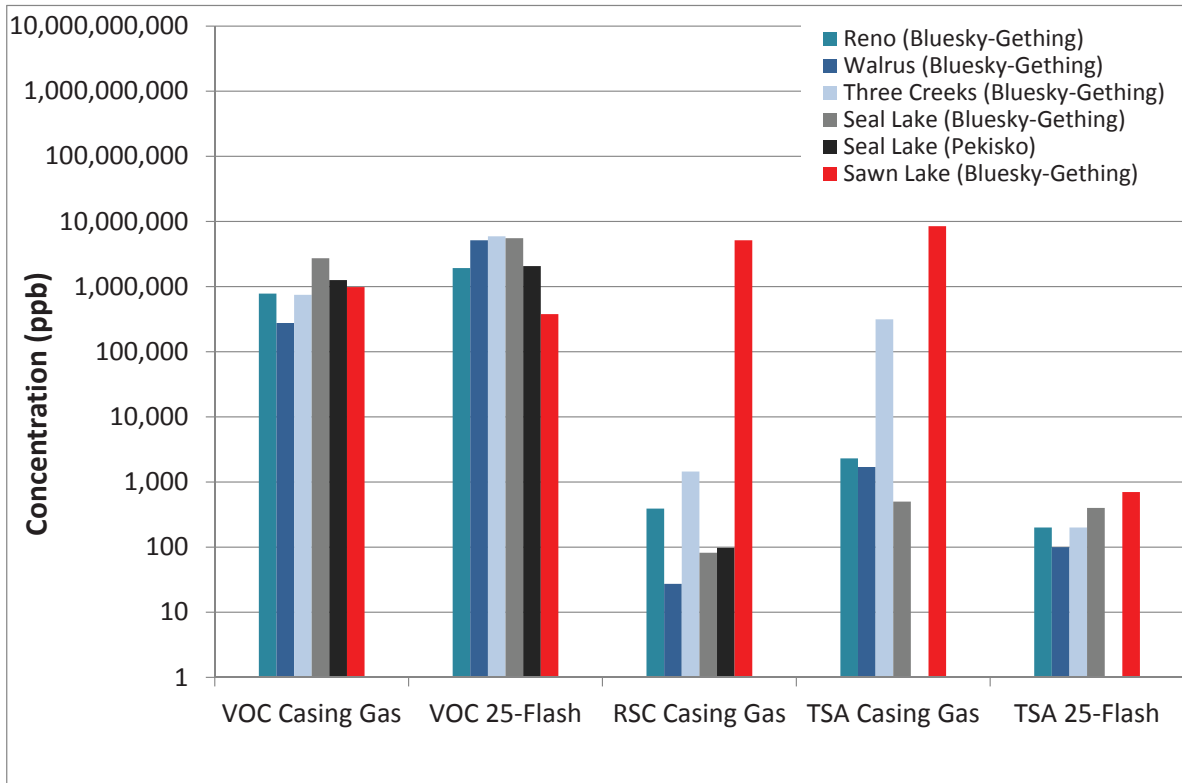


Figure 16. Graph of total VOC and RSC concentrations in casing gas and 25-flash gas samples in the PROS area. TSA is also RSC analysis using a different range in detection limits and analyzing for slightly fewer RSCs. The two analyses are not meant to be compared here.

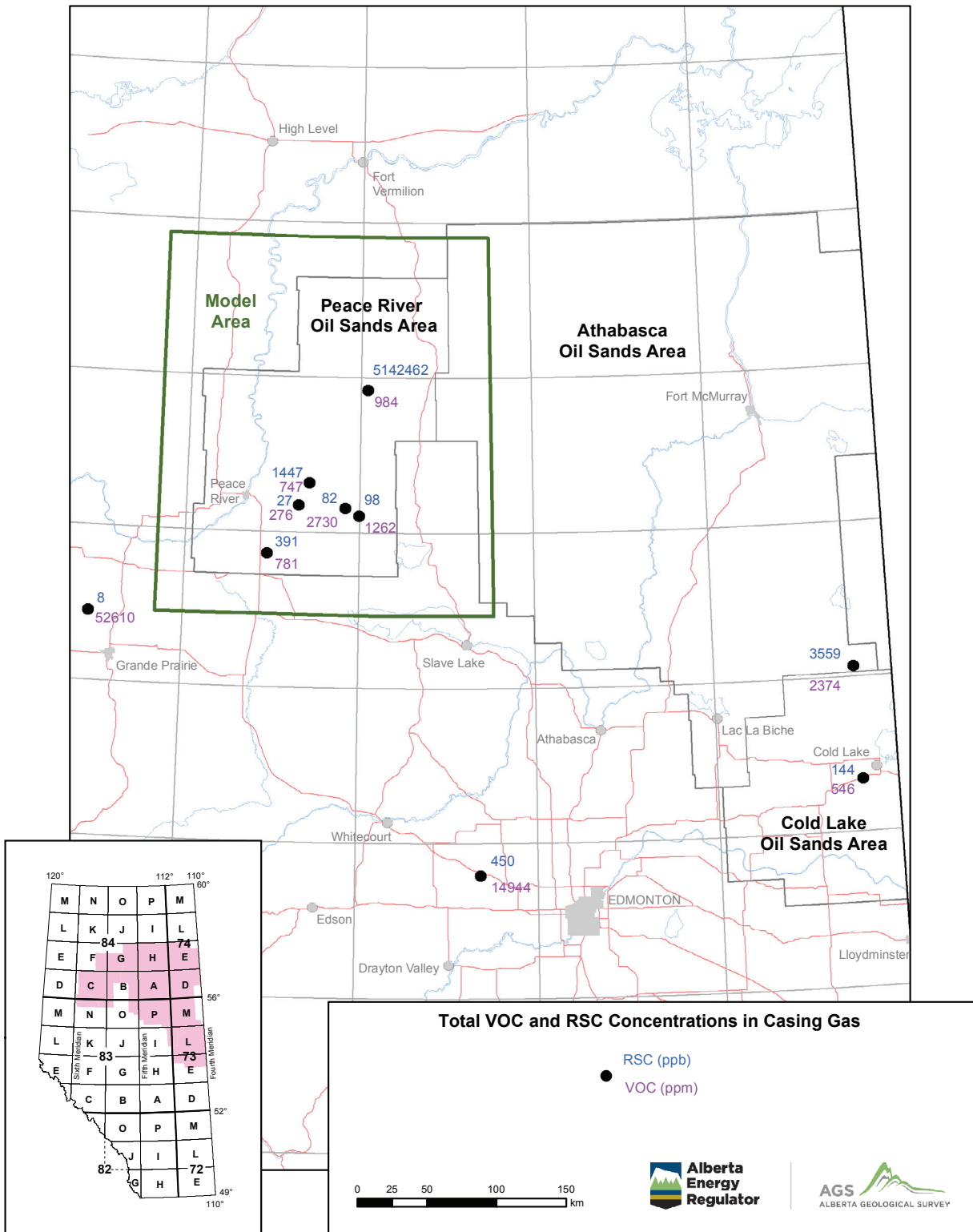


Figure 17. Map of total VOC and RSC concentrations in casing gas samples.

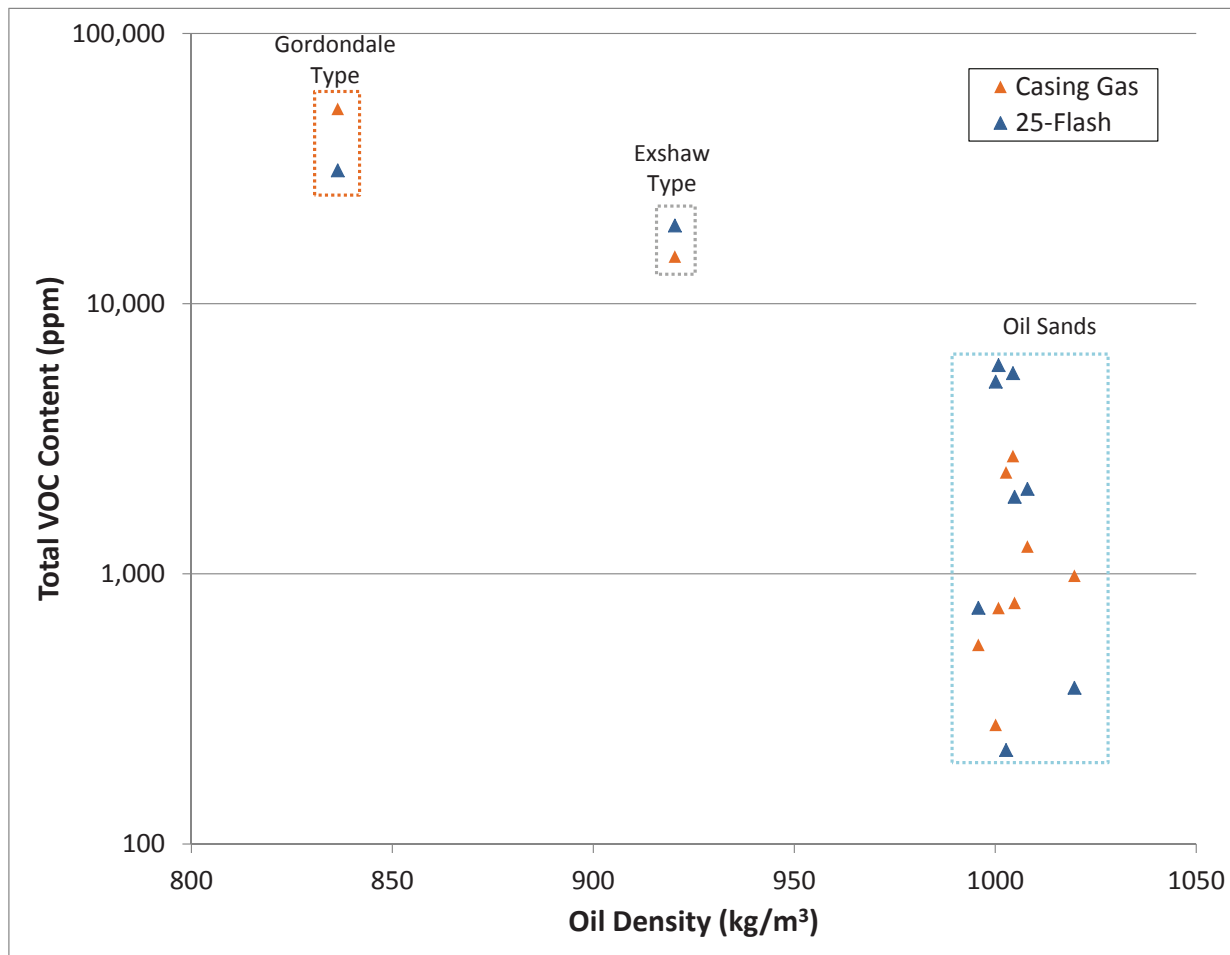


Figure 18. Graph of total VOCs in casing gas and 25-flash gas versus 15°C post-cleaning absolute oil density. The boxes represent producing formation for the type-oil samples, and oil sands designated heavy oil and bitumen samples.

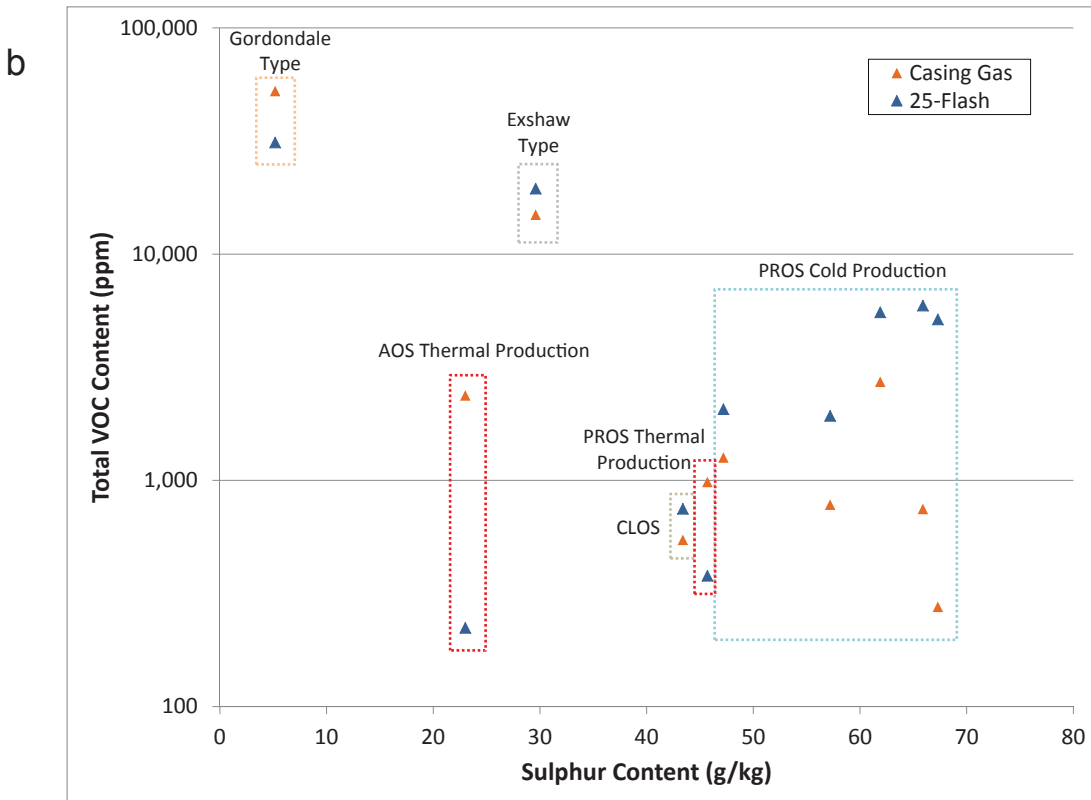
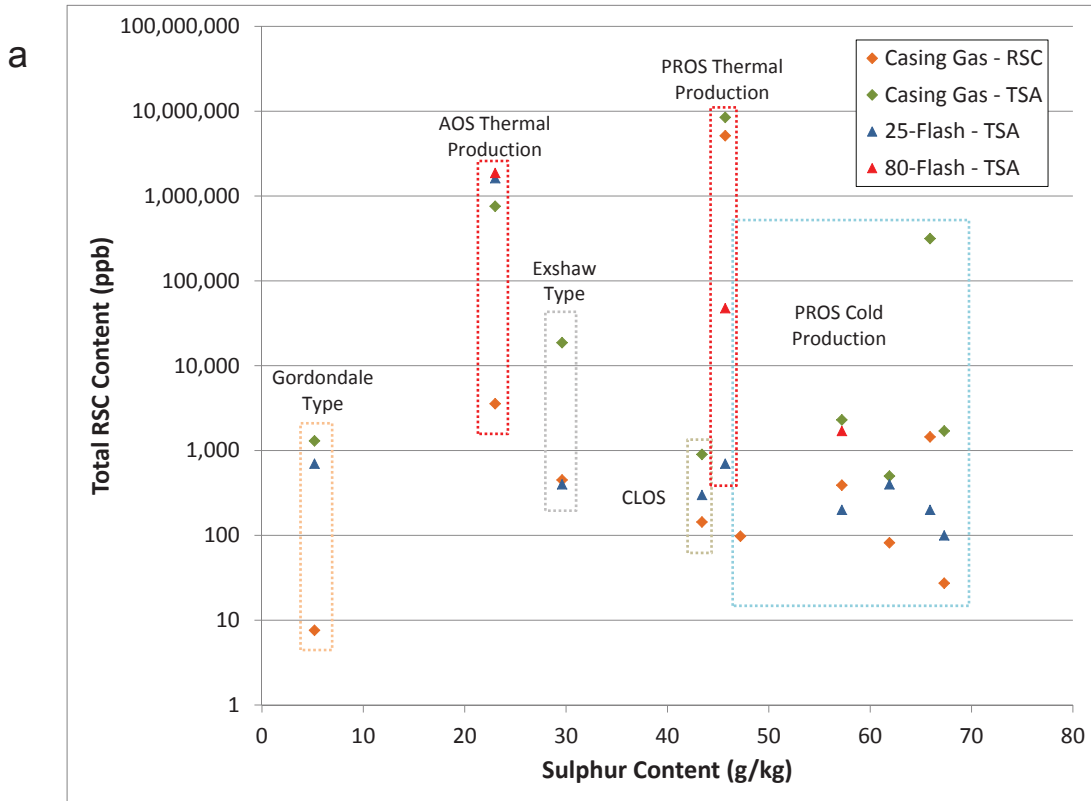


Figure 19. Graphs of total RSCs and VOCs versus total sulphur. The boxes represent producing formation for the type-oil samples and the OSA for the oil sands designated heavy oil and bitumen samples.

- Total RSC concentrations in casing gas samples are highest in wells undergoing thermal production (Figure 20).

The data indicate that regionally, the oil sands designated heavy oil and bitumen is similar with respect to total RSC and VOC concentrations, and that the total RSC concentrations cannot be directly correlated to the total sulphur content, contrary to what was hypothesized in the Peace River proceedings.

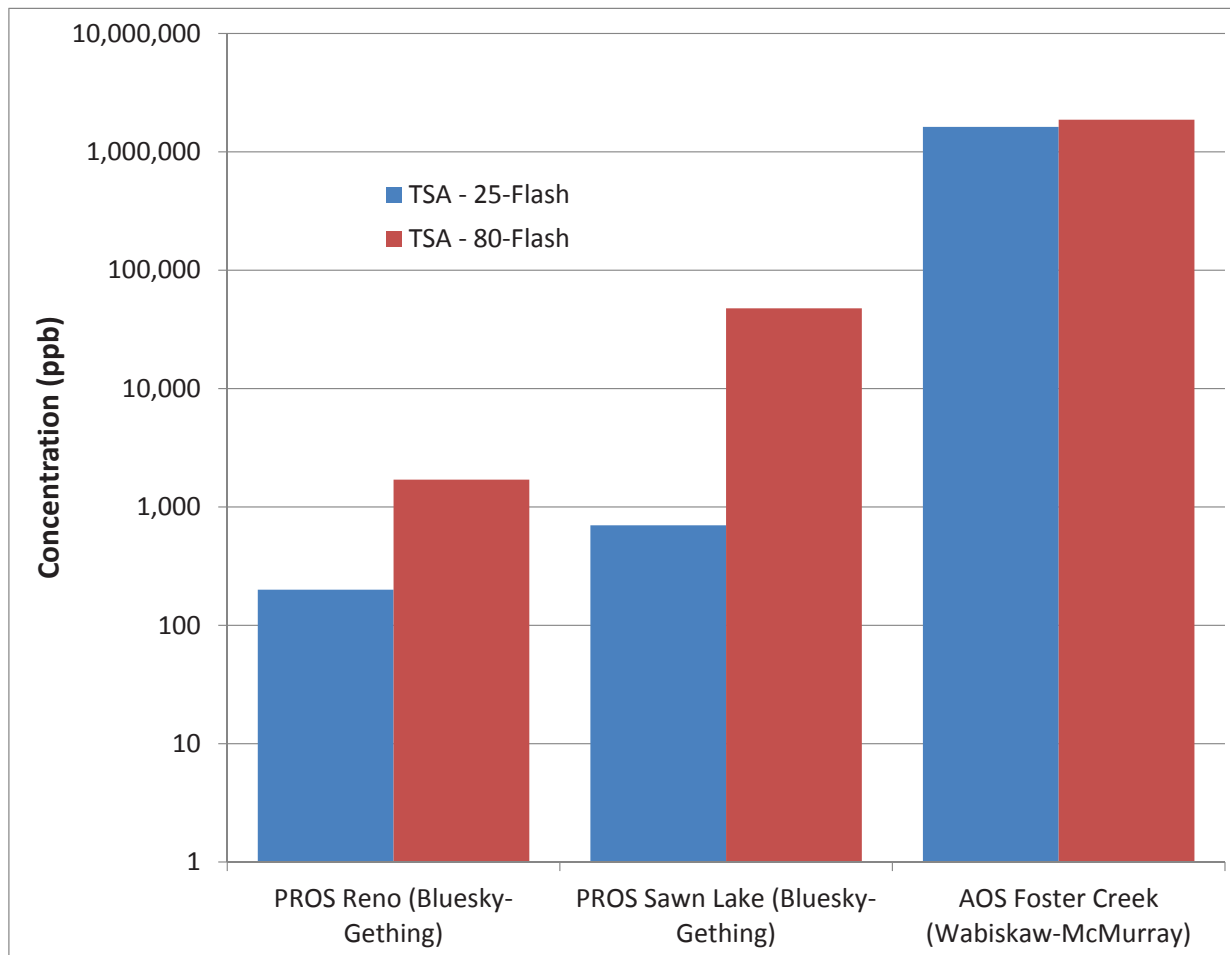
Liquid samples heated from 25°C to 80°C in the laboratory were analyzed in order to determine the effect of heating oil sands designated heavy oil and bitumen on RSC concentrations. When heated, the RSC concentrations in two of the three samples increased by orders of magnitude when you compared sample heated to 25°C to those heated to 80°C, one from PROS Reno and the other from PROS Sawm Lake (Figure 20). The third sample (AOS Foster Creek sample) had much smaller concentration increases (Figure 20); however, the fluids were already heated in excess of 200°C in the reservoir from thermal production methods in this well, therefore heating the sample to 25°C and 80°C was not very effective. Also, in this well, the concentration of RSCs in casing gas samples increased by orders of magnitude, indicating that these gases are released in the reservoir from heating in the ground. Heating of the oil clearly causes an increase in the amount of RSCs released. This is related in part to the boiling points of the compounds. Many of the RSCs have boiling points between initial reservoir temperature (~10–25°C) and temperatures obtained using cold production methods (heating the liquids in a tank at surface to approximately 80°C) or thermal production methods (some methods reaching more than 200°C) (Table 4). To further support this, RSC data show an increase in concentrations of individual RSCs that have boiling points between the average reservoir temperatures and the temperatures reached by thermal production (see Appendix 1 for data comparison).

According to these data, the main contributor to the increase in RSC concentrations is the addition of heat to the heavy oil and bitumen. The greater the difference between the reservoir temperature of the heavy oil and bitumen and the temperature it needs to be heated to in order to produce it (the heat differential), the greater concentrations of RSCs will be released.

### **5.2.2 Density and Viscosity**

Terms and classifications relating to heavy oil and bitumen vary around the world (Kashirtsev and Hein, 2012). In Alberta, heavy oil and bitumen are lumped together by the AER for administrative purposes, resulting in a very broad classification range for heavy oil and bitumen. There is significant difference between the scientific definitions and the AERs administrative definitions (see Section 1.1).

The 3-D model was used to integrate available datasets, including density, viscosity, and production data for heavy oil and bitumen in the PROS area. Integration of this data within the model allowed for multiple sets of data to be compared, showing data variability with depth and in context of geological units. Comparing density and viscosity data to where cold and thermal production methods are occurring shows that the combination of both density and viscosity are the key properties separating all heavy oil from oil sands designated heavy oil and bitumen (Figure 11). These data indicate there should be a density and viscosity break between all heavy oil and oil sands designated heavy oil and bitumen at a density of approximately 950 kg/m<sup>3</sup> and a viscosity of approximately 1000 cP (Figure 21). A surface representing this density and viscosity (the ‘base of PROS surface’) was created within the model to represent this division in 3-D space (details in Section 5.3). Oils with densities and viscosities higher than these cut-offs will either have difficulty flowing to the well or will not flow to the well at all and therefore will have a greater need to undergo some sort of heat treatment at the surface or in the reservoir in order to make the oil flow (cold or thermal production). Conversely, oils with densities and viscosities below the cut-offs will be less likely to require this sort of heat treatment.



**Figure 20. Graph of total RSC concentrations, comparing 25-flash and 80-flash gas samples, measured by trace sulphur analysis (TSA).**



**Table 4. Boiling points for reduced sulphur compounds analyzed for in this study.**

| <b>Compound</b>          | <b>Normal Boiling Point (°C)</b> |
|--------------------------|----------------------------------|
| Hydrogen sulphide        | -60                              |
| Carbonyl sulphide        | -50                              |
| Methyl mercaptan         | 6                                |
| Ethyl mercaptan          | 35                               |
| Dimethyl sulphide        | 38                               |
| Carbon disulphide        | 46                               |
| Isopropyl mercaptan      | 59                               |
| Tert-Butyl mercaptan     | 64                               |
| Methyl Ethyl Sulphide    | 67                               |
| Propyl mercaptan         | 68                               |
| Thiophene                | 84                               |
| Isobutyl mercaptan       | 88                               |
| Ethyl (diethyl) sulphide | 91                               |
| Diethyl disulphide       | 97                               |
| Butyl mercaptan          | 98                               |
| Dimethyl disulphide      | 109                              |
| 2-Methylthiophene        | 113                              |
| 3-Methylthiophene        | 114                              |
| Pentyl mercaptan         | 126                              |
| 2-Ethylthiophene         | 132                              |
| 2,5-Dimethylthiophene    | 134                              |

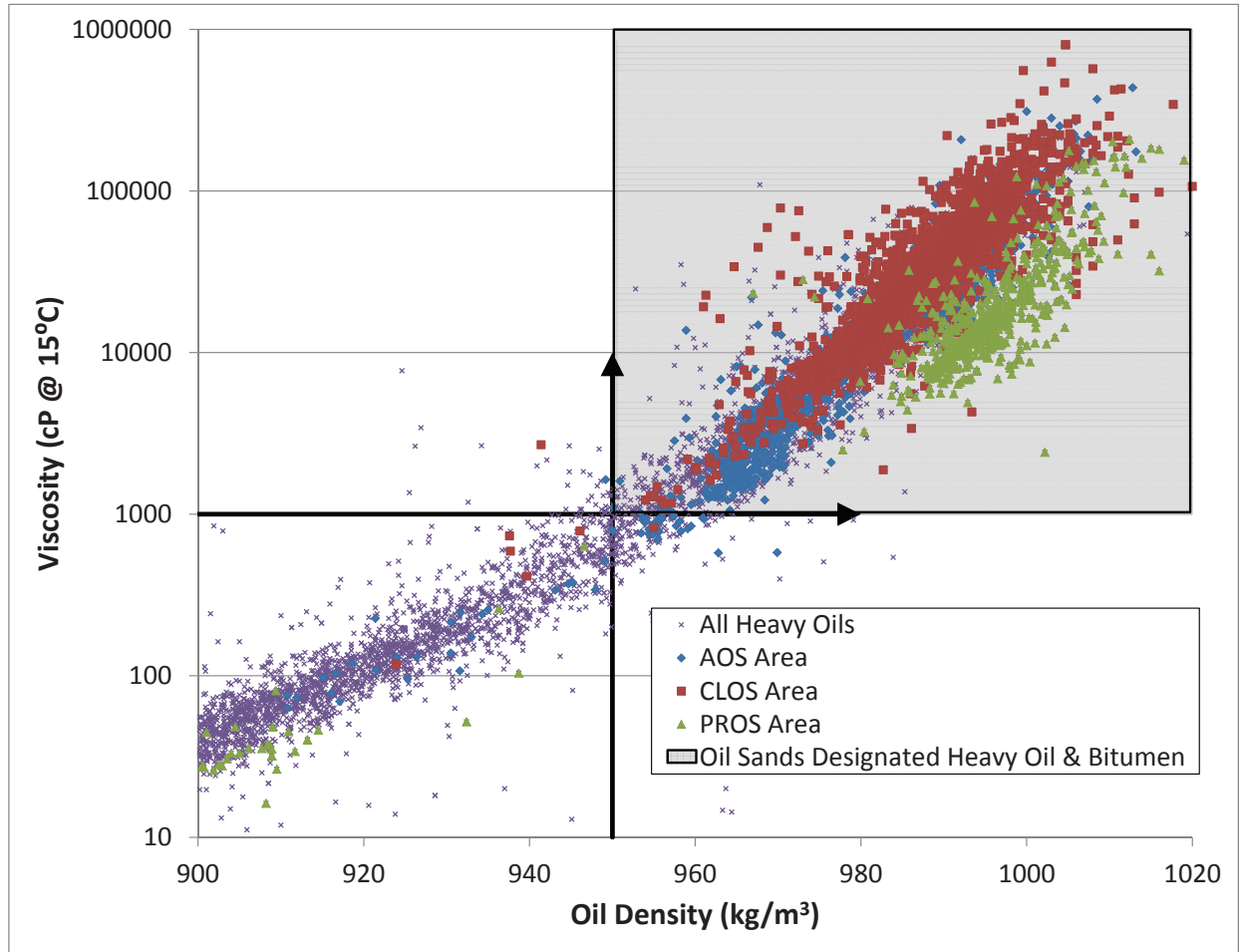


Figure 21. Graph of heavy oil and bitumen densities versus viscosities.

In the PROS area, oil sands designated heavy oil and bitumen can flow to the well but not with ease. Ranges of densities and viscosities completely straddle the AER and scientific definitions of heavy oil and bitumen (Figure 11), making this area a combination of both. Observations made in this study based on production methods and oil properties are as follows:

- Heavy oil has different oil properties and is produced differently than oil sands designated heavy oil and bitumen.
- In this study, oil sands designated heavy oil and bitumen are observed to have densities  $\geq 950 \text{ kg/m}^3$  and viscosities  $\geq 1000 \text{ cP}$ .
- The existence of oil sands designated heavy oil and bitumen is not limited to a single geological unit.

### 5.3 Geological Plays and Heavy Oil and Bitumen Deposits and Zones

The spatial relationship of the Bluesky, Gething, and older formations subcropping at the Sub-K creates complex reservoirs within the PROS area (Figure 3). Cretaceous strata lie directly in contact with a variety of sub-Cretaceous strata, including porous and nonporous clastic and carbonate units (Figure 4). Log-calculated porosities in formations directly below and above the Sub-K range from zero to greater than 30 per cent. Geological units that have produced or have an approved AER in situ scheme to produce oil sands designated heavy oil and bitumen in this area include the Bluesky-Gething, Belloy, Debolt, and Pekisko formations. These geological units were the focus of the work to define geological plays; however, oil sands designated heavy oil and bitumen in the PROS area is not limited to these geological units. The following geological plays are the focus of this section:

- Bluesky-Gething play
- Belloy play
- Debolt play
- Pekisko play

In the 3-D geological model, heavy oil and bitumen deposits were identified within each of the four geological plays listed above to aid regulatory response. In the PROS area, the heavy oil and bitumen deposits are identified using different methods based on available data and formation properties:

- The Bluesky-Gething heavy oil and bitumen deposit was defined using a net pay map generated applying a 6% mass bitumen cut-off in the Bluesky-Gething sands (Figure 22).
- The Belloy heavy oil and bitumen deposit is defined anywhere the Belloy is present, due to the lack of currently producing wells to help confine the deposit (Figure 22).
- The Debolt heavy oil and bitumen deposit was limited to the area showing a minimum of three metres of pay (pay defined as having less than 20 API gamma-ray geophysical well log response, an interval transit time of greater than 260  $\mu\text{s/m}$  from a sonic geophysical well log, and greater than 20 ohmm from a resistivity geophysical well log (Figure 22).
- The Pekisko heavy oil and bitumen deposit was estimated where the Pekisko isopach was greater than 7.5 m (because well density was insufficient to conduct log analysis) between the Debolt and Pekisko subcrop areas; this area shows increased porosity development in the Pekisko through intense dolomitization (Figure 22).

The spatial relationship of the heavy oil and bitumen deposits and the chemical properties of the oils suggest that, when in contact or near contact with each other, the deposits may act as a single reservoir or a group of related reservoirs (Figure 23).

The 3-D model helped to visualize the complex arrangement of the geological plays, which helped identify the heavy oil and bitumen deposits within each play. Connecting the geobodies representing each

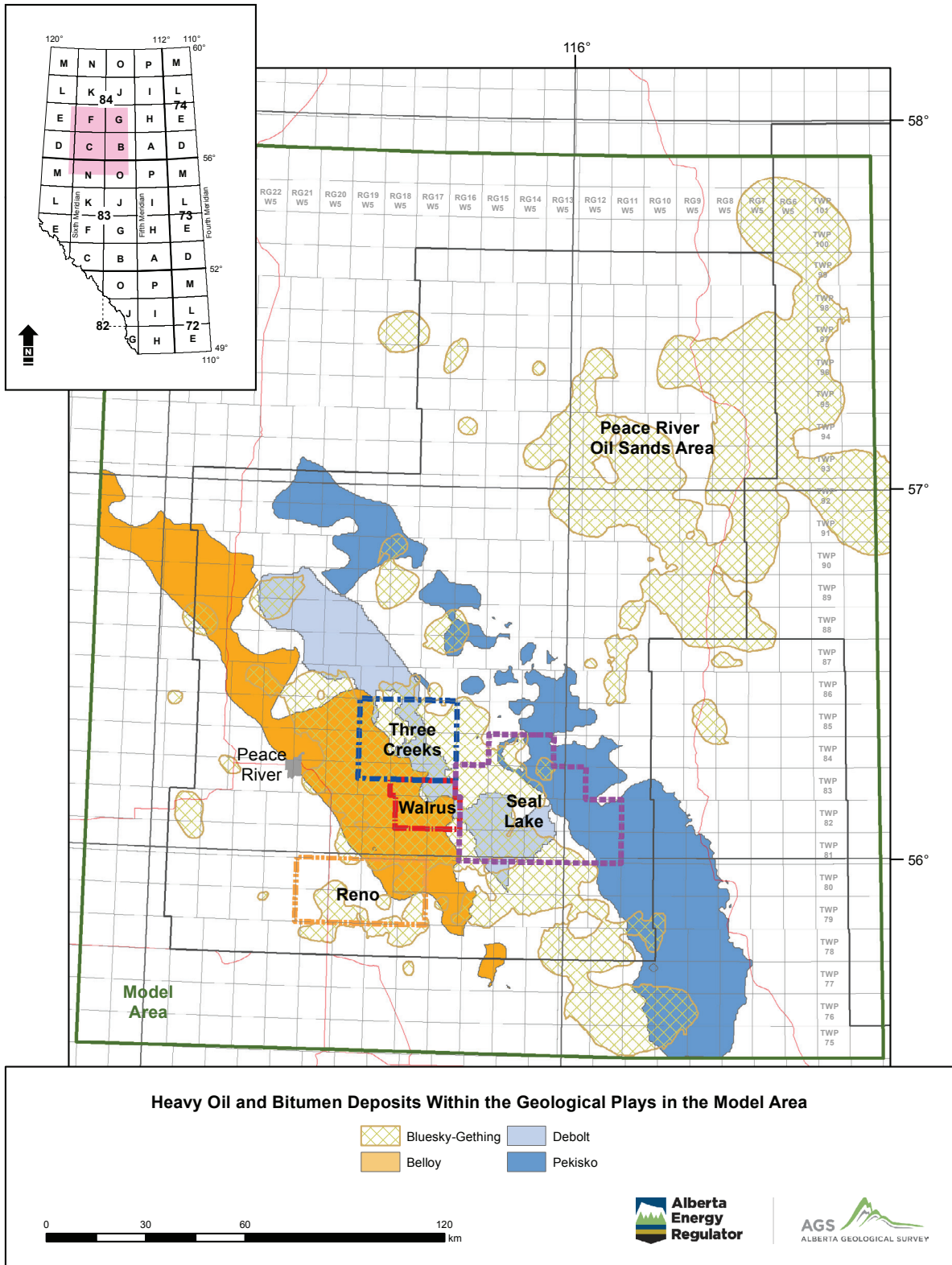


Figure 22. Map of the surface extent of the heavy oil and bitumen deposits identified within each geological play and within the model area.

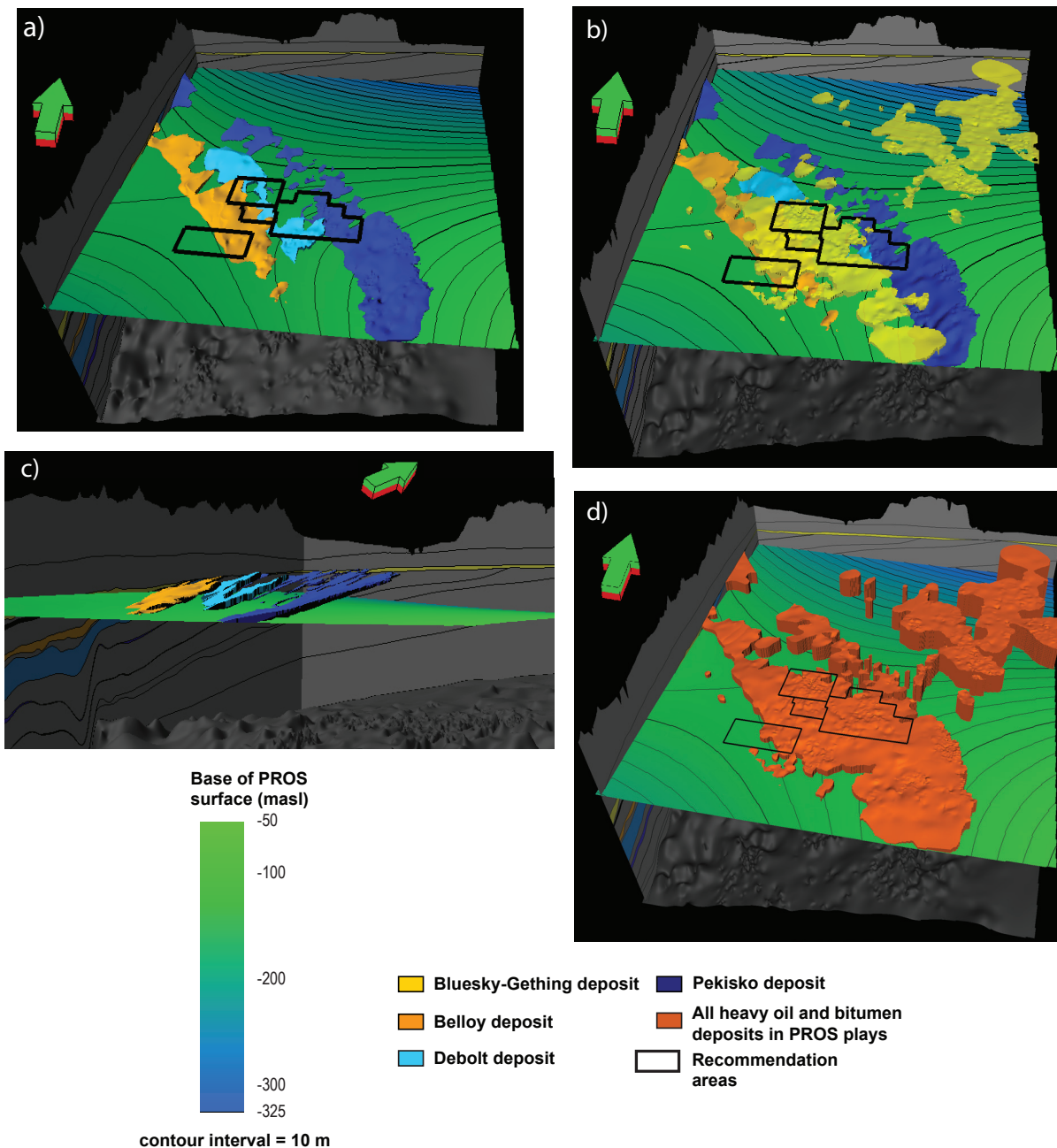


Figure 23. Peace River Oil Sands (PROS) Area heavy oil and bitumen deposits were identified within the four geological plays in the 3-D geological model area (shown at 50× vertical exaggeration) based on geological unit and spatial extent above the base of PROS surface which represents an oil density of ~950 kg/m<sup>3</sup>; a) the PROS heavy oil and bitumen deposits within the Belloy, Debolt, and Pekisko plays and above the base of PROS surface; b) the extent of the heavy oil and bitumen deposit within the Bluesky-Gething play showing overlap of the heavy oil and bitumen deposits shown in (a); c) a side view of the heavy oil and bitumen deposits (viewed from the southwest) showing how the deposit areas have been truncated by the base of PROS surface; d) the extent of the combined heavy oil and bitumen deposits.

deposit and using a defined top and base, we were able to create a geobody representing the cumulative heavy oil and bitumen deposits for the PROS. This geobody is a representation of the area where oil sands designated heavy oil and bitumen is currently most prospective. The top of this geobody is defined as the base of the Fort St. John Group, and the base of the geobody was determined using oil density and oil viscosity data. A surface was created to represent the depth at which the oil density approximates 950 kg/m<sup>3</sup>, called the ‘base of PROS surface.’ We verified that heavy oil and bitumen above this surface have oil densities  $\geq 950$  kg/m<sup>3</sup> and oil viscosities approximately  $\geq 1000$  cP. This surface was used as a base to the heavy oil and bitumen deposits and the cumulative geobody within the 3-D model (Figure 24).

In the future, the extents of the heavy oil and bitumen deposits will change and may include other geological units as more data become available; however, currently we only have indication of oil sands designated heavy oil and bitumen production in these four geological plays. Also, the model results indicate that the PROS area does not sufficiently cover the extent of the oil sands designated heavy oil and bitumen because the extent of the data modelling abruptly ends at the model area borders.

A 3-D heavy oil and bitumen odours and emissions assessment profile was created, identifying zones where the probability for releasing odours and emissions from heavy oil and bitumen is high, medium, or low (Figure 25). This assessment is based on the chemical composition and physical properties of oil and reflects the probability that oils will need to be heated by a significant degree during production. The profile is built using five surfaces: the ground surface, the base of the Fort St. John Group, the base of PROS surface, the ‘base of heavy oil surface,’ and the basement. In order to add the lowest probability zone to the profile, the ‘base of heavy oil surface’ was generated separating heavy crude oils ( $\geq 900$  kg/m<sup>3</sup>) from the lower density light and medium crude oils below (Figure 26). This surface was validated using oil density and viscosity data, confirming that the oils fall into the correct 3-D probability zone (Figure 26).

Any oil found within the red zone on the heavy oil and bitumen odours and emissions assessment profile (Figure 25) would have high probability for odours and emissions due to the high probability that

- the oil will have densities  $\geq 950$  kg/m<sup>3</sup> and viscosities approximately  $\geq 1000$  cP, and
- the oil will need to be heated to temperatures significantly higher than initial reservoir temperature (high temperature differential), either in the reservoir or at surface, to allow it to flow.

Oils in the yellow zone (Figure 25) have moderate probability for odours and emissions, and further testing of the oils and how they behave when heated should be considered if the oil has any of the above characteristics. Oils in the green interval (Figure 25) do not show significant probability of having the above characteristics.

The red zone, representing the highest probability of encountering heavy oil and bitumen likely responsible for odours and emissions, has been named the ‘PROS Heavy Oil / Bitumen Zone’ (Figure 25). The PROS Heavy Oil / Bitumen Zone is currently defined as the volume where the following conditions are found:

- heavy oil and bitumen with density  $\geq 950$  kg/m<sup>3</sup> and viscosity  $\geq 1000$  cP that is
- within the model area and
- occurring between the base of the Fort St. John Group and the base of PROS surface.

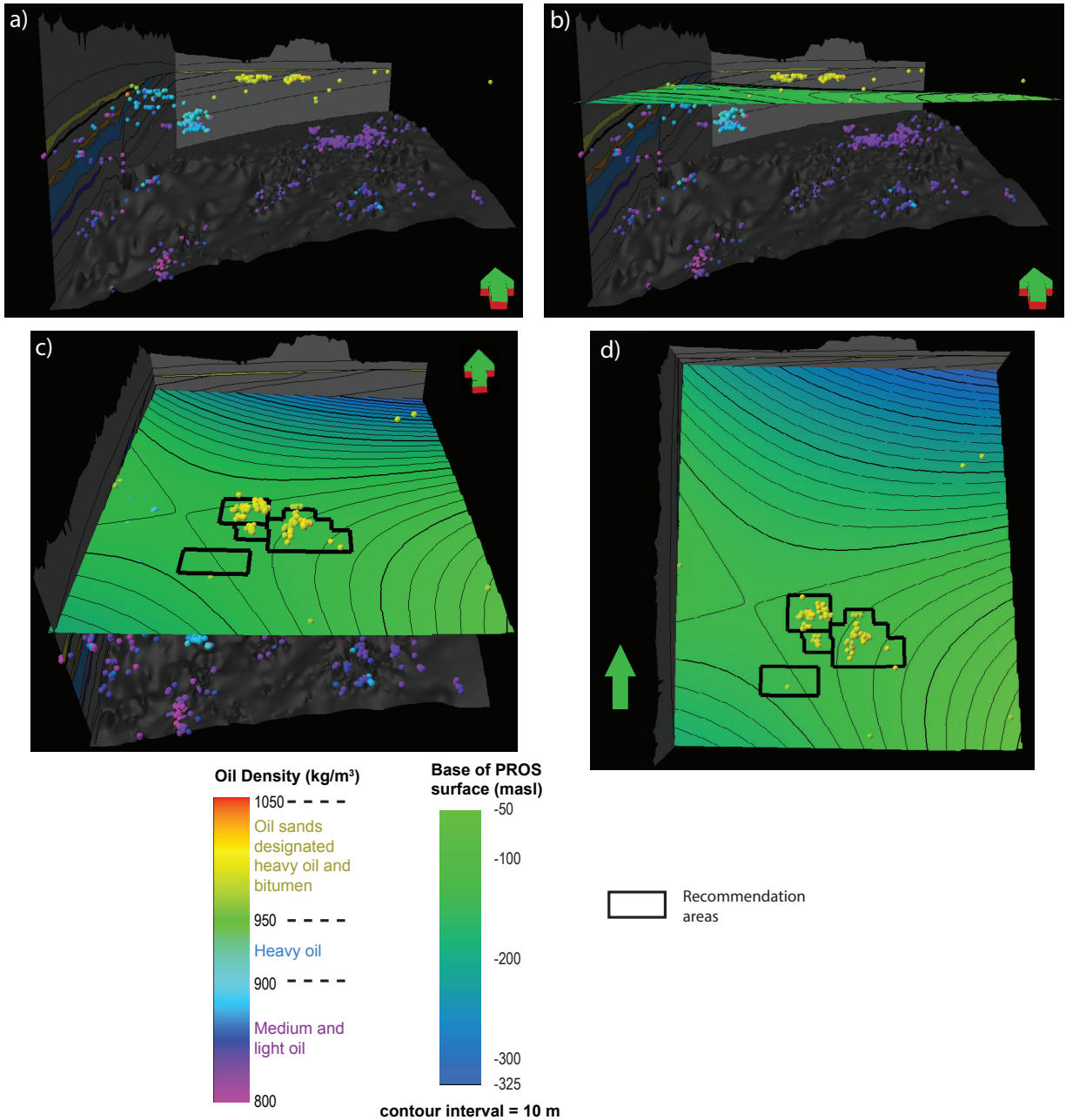


Figure 24. A series of images showing the creation of the base of PROS surface within the 3-D geological model from oil density (15°C post-cleaning, absolute density) data. All images of the model are shown at 50× vertical exaggeration. a) oil density data was plotted within the 3-D geological model to assess the spatial variability. b) The base of PROS surface created and integrated with the oil density data to test the validity of the base of PROS surface. The location of the Peace River recommendation areas in oblique view (c) and plan view (d).

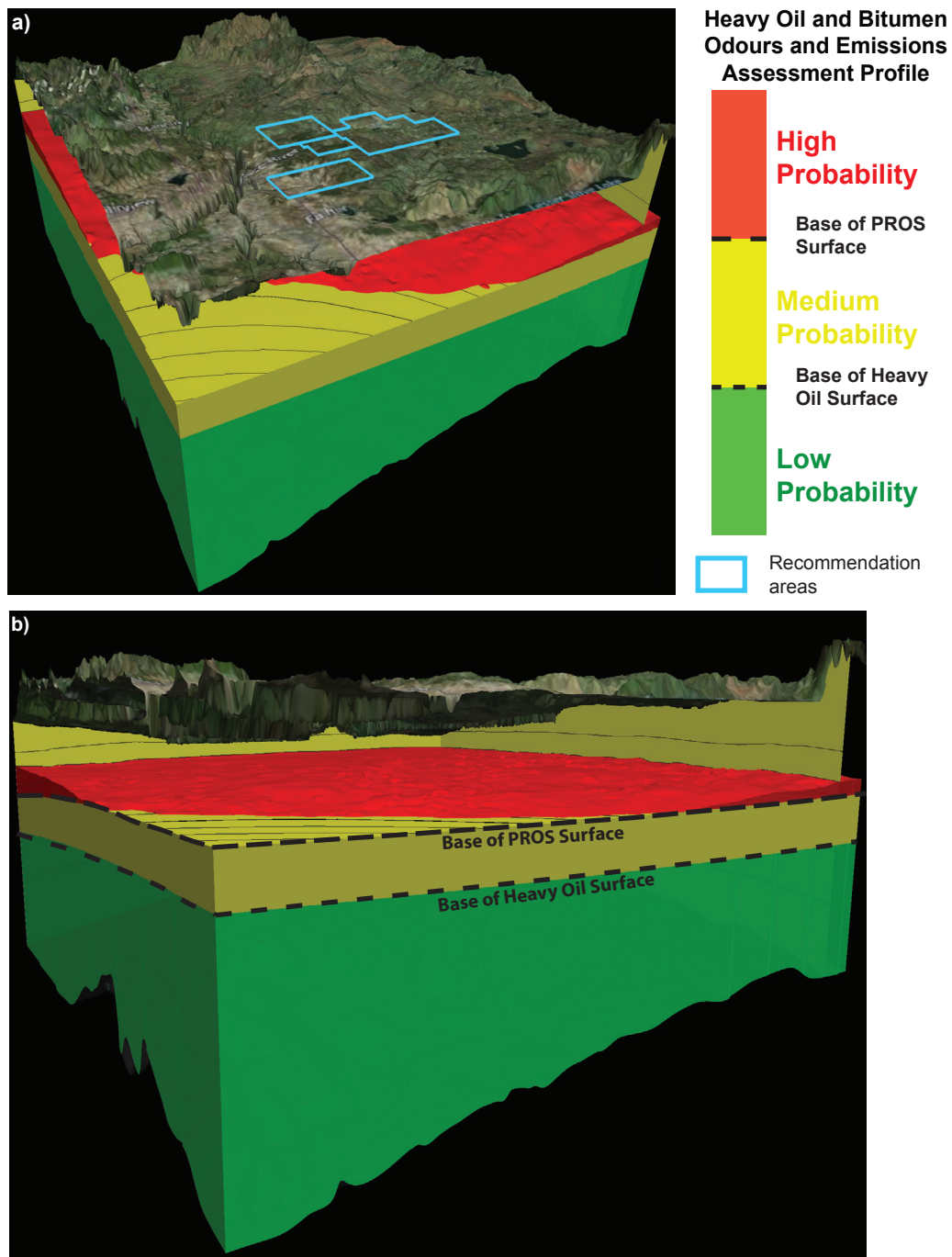


Figure 25. A heavy oil and bitumen odours and emissions assessment profile built within the 3-D geological model (shown at 50× vertical exaggeration) identifying the subsurface intervals of high, medium, and low probability for odours and emissions from heavy oil and bitumen in the PROS area. The assessment is based on properties of the oil and the requirement to heat the oil to a large degree in order to produce it; a) a view of the model showing the probability intervals and the location of the recommendation areas. The zone between the base of the Fort St. John Group and the base of PROS surface is considered high probability, the zone between the base of PROS surface and the base of heavy oil surface is medium probability, the zone below the base of heavy oil surface is considered low probability, and the area from the ground surface to the base of the Fort St. John Group is undetermined; b) an oblique view through the model.



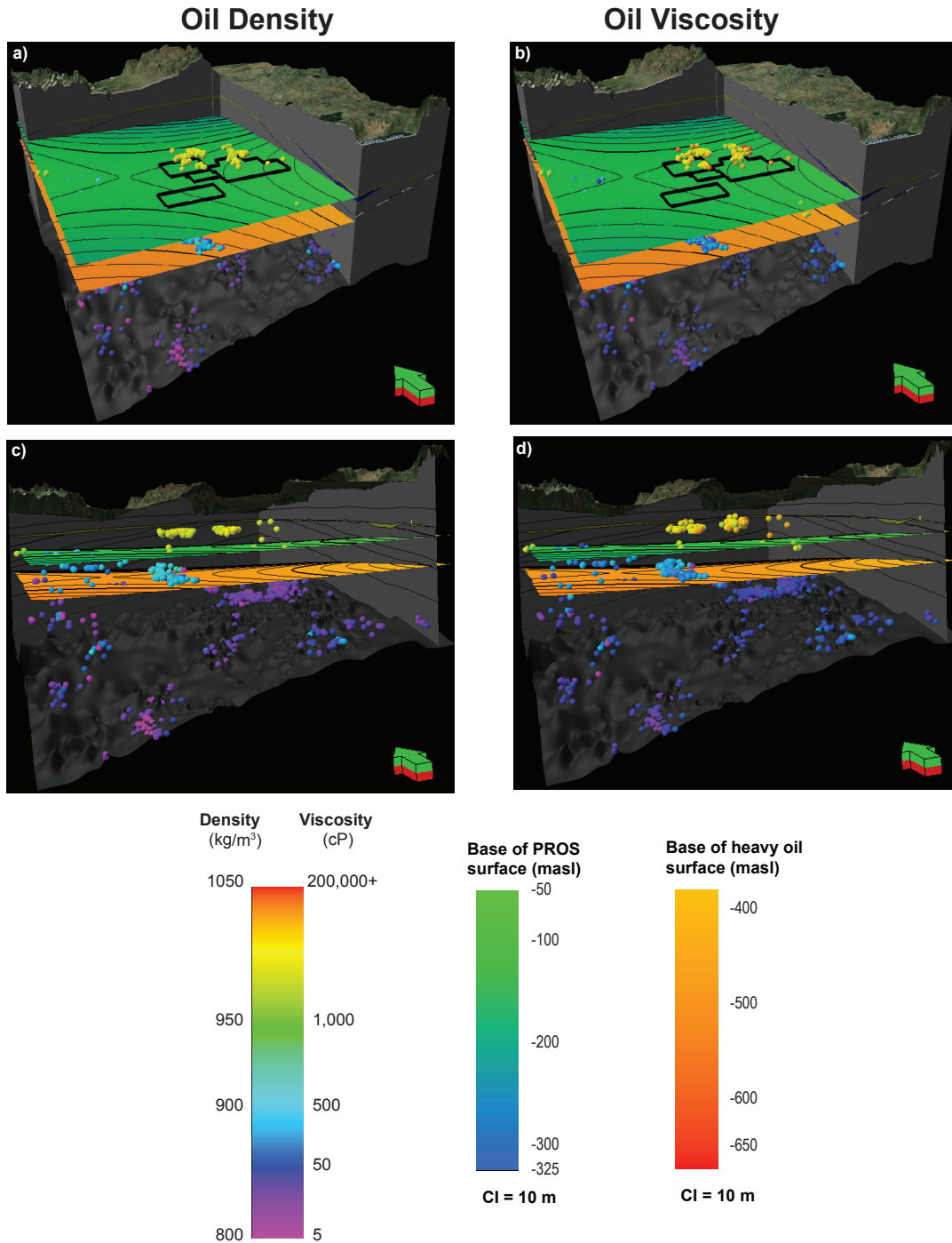


Figure 26. Data used to create the heavy oil and bitumen odours and emissions assessment profile for the PROS area. A base of heavy oil surface was created within the 3-D geological model (shown at 50× vertical exaggeration) and validated using a) oil density data (15°C post-cleaning, absolute density) and b) oil viscosity data (15°C kinematic viscosity). c) and d) provide side views of the model area showing the vertical separation of light and medium crude oil (darker blue and purple data points) from the heavy crude oils (light blue data points) by the base of heavy oil surface, and the oil sands designated heavy oil and bitumen (yellow and orange data points) by the base of PROS surface. The base of PROS surface has been included for reference in all images.

## 6 Conclusions

The following summarizes the results of this study:

- There are currently four geological plays in the PROS area with heavy oil and bitumen deposits: the Bluesky-Gething play, the Belloy play, the Debolt play, and the Pekisko play. The amalgamation of the heavy oil and bitumen deposits identified in each play was used to create a 3-D geobody representing the area currently prospective for oil sands designated heavy oil and bitumen.
- There is more Gordondale Member-sourced oil in these plays in the western part of the PROS area, and more Exshaw Formation-sourced oil in the eastern part of the PROS area as well as in deeper geological plays. However, stratigraphic architecture, the extensive faulting, and degree of homogenization of the oils through processes such as biodegradation make it impossible to draw a boundary separating their occurrence.
- The process and degree of biodegradation, not only the source rock, leads to increased sulphur content, and increased sulphur content does not appear to correlate to increased RSCs and VOCs in the samples.
- In the PROS area, the 3-D zone in the subsurface where the heavy oil and bitumen appears to have the highest probability for increased odours and emissions is related to depth, oil properties, and heat treatment during production, regardless of the geological play or source rock. This zone is called the 'PROS Heavy Oil / Bitumen Zone' and is defined as any zone above the depth where heavy oil and bitumen have densities  $\geq 950 \text{ kg/m}^3$ , viscosities  $\geq 1000 \text{ cP}$ , and below the base of the Fort St. John Group. This is the zone in each play where heavy oil and bitumen will need to be heated to temperatures significantly higher than initial reservoir temperature (high temperature differential), either in the reservoir or at surface, to allow it to flow.
- While both RSCs and VOCs are present in the produced oil sands designated heavy oil and bitumen, there is no correlation between their concentrations and the oil's source rock.
- There is a trend of increasing RSC concentrations released from the oil sands designated heavy oil and bitumen as the temperature difference between original reservoir temperatures and production temperatures increases.

## 7 References

- Adams, J., Larter, S., Bennett, B., Huang, H., Westrich, J. and van Kruisdijk, C. (2013): The dynamic interplay of oil mixing, charge timing, and biodegradation in forming the Alberta oil sands: insights from geologic modeling and biogeochemistry; *in* AAPG studies in geology #64: heavy-oil and oil-sand petroleum systems in Alberta and beyond, F. J. Hein, D. Leckie, S. Larter, and J. R. Suter (ed.), American Association of Petroleum Geologists, p. 23–102.
- Alberta Energy Regulator (2014a): Decision 2014 ABAER 005: report of recommendations on odours and emissions in the Peace River area; Alberta Energy Regulator, 74 p., URL <<http://www.aer.ca/documents/decisions/2014/2014-ABAER-005.pdf>> [February 2015].
- Alberta Energy Regulator (2014b): Report of recommendations on odours and emissions in the Peace River area – AER response; Alberta Energy Regulator, 15 p., URL <<http://www.aer.ca/documents/applications/hearings/2014-AER-response-PeaceRiverProceeding.pdf>> [February 2015].
- Asgar-Deen, M., Riediger, C. and Hall, R. (2004): The Gordondale Member: designation of a new member in the Fernie Formation to replace the informal “Nordegg Member” nomenclature of the subsurface of west-central Alberta; *Bulletin of Canadian Petroleum Geology*, v. 52, no. 2, p. 201–214.
- Berbesi, L.A., di Primio, R., Anka, Z., Horsfield, B. and Higley, D.K. (2012): Source rock contributions to the Lower Cretaceous heavy oil accumulations in Alberta: a basin modeling study; *American Association of Petroleum Geologists Bulletin*, v. 96, no. 7, p. 1211–1234.
- Creaney, S. and Allan, J. (1992): Petroleum systems in the Foreland Basin of western Canada; *in* *Foreland Basins and Fold Belts*, R.W. Macqueen and D.A. Leckie (ed.), American Association of Petroleum Geologists, Memoir 55, p. 279–307.
- Creaney, S., Allan J., Cole K.S., Fowler M.G., Brooks, P.W., Osadetz, O., Macqueen, R.W., Snowdon, L.R. and Riediger, C. (1994): Petroleum generation and migration in the Western Canada sedimentary basin; *in* *Geological atlas of the Western Canada sedimentary Basin*, G.D. Mossop and I. Shetsen (comp.), Canadian Society of Petroleum Geologists and Alberta Research Council, p. 455–468.
- Hubbard, S.M., Pemberton, S.G. and Howard, A.E. (1999): Regional geology and sedimentology of the basal Cretaceous Peace River Oil Sands deposit, north-central Alberta; *Bulletin of Canadian Petroleum Geology*, v. 47, no. 3, p. 270–297.
- Kashirtsev, V.A. and Hein, F.J. (2012): Overview of natural bitumen fields of the Siberian platform, Olenek uplift, Eastern Siberia, Russia; *in* AAPG studies in geology #64: heavy-oil and oil-sand petroleum systems in Alberta and beyond, F. J. Hein, D. Leckie, S. Larter, and J. R. Suter (ed.), American Association of Petroleum Geologists, p. 509–529.
- Marcano, N. I., Larter, S. and Mayer, B. (2010): The utility of the stable isotopic composition of severely biodegraded oils as petroleum system correlation parameters: frontiers of unconventional thinking; saddle up for the ride; American Association of Petroleum Geologists International Conference and Exhibition, TELUS Convention Centre, Calgary, Alberta, Canada, September 12–15.
- Nagata, Y. (2003): Measurement of odor threshold by triangle odor bag method; *Journal of Japan Air Cleaning Association*, v. 41, no. 2, p. 17–25.
- O’Connell, S.C. (1994): Geological history of the Peace River Arch; *in* *Geological atlas of the Western Canada Sedimentary Basin*, G.D. Mossop and I. Shetsen (comp.), Canadian Society of Petroleum Geologists and Alberta Research Council, p. 431–437.

- Riediger, C., Ness, S., Fowler, M.G. and Akpulat, T. (2000): Timing of oil migration: Paleozoic and Cretaceous bitumen and heavy-oil deposits, eastern Alberta; GeoCanada 2000: The Millennium Geoscience Summit, University of Calgary, Calgary, Alberta, Canada, May 29–June 2. Paper 419, 4 p.
- Ruth, J.H. (1986): Odor thresholds and irritation levels of several chemical substances: a review; American Industrial Hygiene Association, v. 47, p. 142–151.
- Schmitt, D. (2004): Oil sands and geophysics; Canadian Society of Exploration Geophysicists Recorder, technical luncheon, November 2004, Calgary, Alberta, Canada, URL <<http://74.3.176.63/publications/recorder/2004/11nov/nov04-oil-sands.pdf>> [February 2015].

## Appendix 1 – Supplementary Tables

**Table 5. Odour thresholds for select C1-C7 hydrocarbons, reduced sulphur compounds, and volatile organic compounds analyzed for in this study (from Nagata, 2003, and other government sources)**

### Legend

|                 |  |
|-----------------|--|
| Compound        | The name of the chemical compound analyzed for, as presented by the laboratory                         |
| Odour Threshold | The lowest concentration at which a compound may be detected by olfactory receptors and become odorous |
| Unit of Measure | Unit of measure for reported data, as presented by the laboratory                                      |
| Compound Group  | The related series of compounds with which the substance was analyzed                                  |
| *               | Odour thresholds are for single-bonded (alkane) hydrocarbons only                                      |

| Compound              | Odour Threshold | Unit of Measure | Compound Group |
|-----------------------|-----------------|-----------------|----------------|
| 1-Butene              | 0.36            | ppmv            | C1-C4          |
| Acetylene             | Odourless       | ppmv            | C1-C4          |
| cis-2-Butene          | Not Available   | ppmv            | C1-C4          |
| Ethane                | Not Available   | ppmv            | C1-C4          |
| Ethylacetylene        | Not Available   | ppmv            | C1-C4          |
| Ethylene              | Not Available   | ppmv            | C1-C4          |
| Isobutane             | Not Available   | ppmv            | C1-C4          |
| Isobutylene           | Not Available   | ppmv            | C1-C4          |
| Methane               | Odourless       | ppmv            | C1-C4          |
| n-Butane              | 1200            | ppmv            | C1-C4          |
| n-Propane             | 1500            | ppmv            | C1-C4          |
| Propylene             | 13              | ppmv            | C1-C4          |
| Propyne               | Not Available   | ppmv            | C1-C4          |
| trans-2-Butene        | Not Available   | ppmv            | C1-C4          |
| C1                    | Odourless       | frac            | C1-C7+*        |
| C2                    | 0.000899        | frac            | C1-C7+*        |
| C3                    | 0.0015          | frac            | C1-C7+*        |
| C4                    | 0.0012          | frac            | C1-C7+*        |
| C5                    | 0.0000014       | frac            | C1-C7+*        |
| C6                    | 0.00013         | frac            | C1-C7+*        |
| C7+                   | Not Available   | frac            | C1-C7+*        |
| iC4                   | Not Available   | frac            | C1-C7+*        |
| iC5                   | 0.0000013       | frac            | C1-C7+*        |
| Carbon dioxide        | Odourless       | ppmv            | Inert          |
| Helium                | Odourless       | frac            | Inert          |
| Hydrogen              | Odourless       | frac            | Inert          |
| Nitrogen              | Odourless       | ppmv            | Inert          |
| Oxygen                | Odourless       | ppmv            | Inert          |
| 2,5-Dimethylthiophene | Not Available   | ppbv            | RSC            |
| 2-Ethylthiophene      | Not Available   | ppbv            | RSC            |
| 2-Methylthiophene     | Not Available   | ppbv            | RSC            |
| 3-Methylthiophene     | Not Available   | ppbv            | RSC            |

| <b>Compound</b>           | <b>Odour Threshold</b> | <b>Unit of Measure</b> | <b>Compound Group</b> |
|---------------------------|------------------------|------------------------|-----------------------|
| Butyl mercaptan           | 0.0028                 | ppbv                   | RSC                   |
| Carbon disulphide         | 210                    | ppbv                   | RSC                   |
| Carbonyl sulphide         | 55                     | ppbv                   | RSC                   |
| Dimethyl disulphide       | 2.2                    | ppbv                   | RSC                   |
| Dimethyl sulphide         | 3                      | ppbv                   | RSC                   |
| Ethyl mercaptan           | 0.0087                 | ppbv                   | RSC                   |
| Ethyl sulphide            | Not Available          | ppbv                   | RSC                   |
| Hydrogen sulphide         | 0.41                   | ppbv                   | RSC                   |
| Isobutyl mercaptan        | Not Available          | ppbv                   | RSC                   |
| Isopropyl mercaptan       | 0.006                  | ppbv                   | RSC                   |
| Methyl mercaptan          | 0.07                   | ppbv                   | RSC                   |
| Pentyl mercaptan          | Not Available          | ppbv                   | RSC                   |
| Propyl mercaptan          | 0.013                  | ppbv                   | RSC                   |
| tert-Butyl mercaptan      | 0.029                  | ppbv                   | RSC                   |
| Thiophene                 | 0.56                   | ppbv                   | RSC                   |
| Carbonyl sulphide         | 55                     | ppbv                   | TSA                   |
| Diethyl disulphide        | 2                      | ppbv                   | TSA                   |
| Diethyl sulphide          | 0.033                  | ppbv                   | TSA                   |
| Dimethyl disulphide       | 2.2                    | ppbv                   | TSA                   |
| Dimethyl sulphide         | 3                      | ppbv                   | TSA                   |
| Ethyl mercaptan           | 0.0087                 | ppbv                   | TSA                   |
| Hydrogen sulphide         | 0.41                   | ppbv                   | TSA                   |
| Isobutyl mercaptan        | 0.0068                 | ppbv                   | TSA                   |
| Isopropyl mercaptan       | 0.006                  | ppbv                   | TSA                   |
| Methyl ethyl sulphide     | Not Available          | ppbv                   | TSA                   |
| Methyl mercaptan          | 0.07                   | ppbv                   | TSA                   |
| N-butyl Mercaptan         | 0.0028                 | ppbv                   | TSA                   |
| n-Propylmercaptan         | 0.013                  | ppbv                   | TSA                   |
| tert-Butyl mercaptan      | 0.029                  | ppbv                   | TSA                   |
| Thiophene                 | 0.56                   | ppbv                   | TSA                   |
| 1,1,1-Trichloroethane     | Not Available          | ppbv                   | VOC                   |
| 1,1,2,2-Tetrachloroethane | Not Available          | ppbv                   | VOC                   |
| 1,1,2-Trichloroethane     | Not Available          | ppbv                   | VOC                   |
| 1,1-Dichloroethane        | Not Available          | ppbv                   | VOC                   |
| 1,1-Dichloroethylene      | Not Available          | ppbv                   | VOC                   |
| 1,2,3-Trimethylbenzene    | Not Available          | ppbv                   | VOC                   |
| 1,2,4-Trichlorobenzene    | Not Available          | ppbv                   | VOC                   |
| 1,2,4-Trimethylbenzene    | 120                    | ppbv                   | VOC                   |
| 1,2-Dibromoethane         | Not Available          | ppbv                   | VOC                   |
| 1,2-Dichlorobenzene       | Not Available          | ppbv                   | VOC                   |
| 1,2-Dichloroethane        | Not Available          | ppbv                   | VOC                   |
| 1,2-Dichloropropane       | Not Available          | ppbv                   | VOC                   |
| 1,3,5-Trimethylbenzene    | 170                    | ppbv                   | VOC                   |
| 1,3-Butadiene             | 230                    | ppbv                   | VOC                   |

| <b>Compound</b>         | <b>Odour Threshold</b> | <b>Unit of Measure</b> | <b>Compound Group</b> |
|-------------------------|------------------------|------------------------|-----------------------|
| 1,3-Dichlorobenzene     | Not Available          | ppbv                   | VOC                   |
| 1,4-Dichlorobenzene     | Not Available          | ppbv                   | VOC                   |
| 1,4-Dioxane             | Not Available          | ppbv                   | VOC                   |
| 1-Butene                | 360                    | ppbv                   | VOC                   |
| 1-Hexene                | 140                    | ppbv                   | VOC                   |
| 1-Pentene               | 100                    | ppbv                   | VOC                   |
| 2,2,4-Trimethylpentane  | 670                    | ppbv                   | VOC                   |
| 2,2-Dimethylbutane      | 20000                  | ppbv                   | VOC                   |
| 2,3,4-Trimethylpentane  | Not Available          | ppbv                   | VOC                   |
| 2,3-Dimethylbutane      | 420                    | ppbv                   | VOC                   |
| 2,3-Dimethylpentane     | 4500                   | ppbv                   | VOC                   |
| 2,4-Dimethylpentane     | 940                    | ppbv                   | VOC                   |
| 2-Methylheptane         | 110                    | ppbv                   | VOC                   |
| 2-Methylhexane          | 420                    | ppbv                   | VOC                   |
| 2-Methylpentane         | 7000                   | ppbv                   | VOC                   |
| 3-Methylheptane         | 1500                   | ppbv                   | VOC                   |
| 3-Methylhexane          | 840                    | ppbv                   | VOC                   |
| 3-Methylpentane         | 8900                   | ppbv                   | VOC                   |
| Acetone                 | 42000                  | ppbv                   | VOC                   |
| Acrolein                | 3.6                    | ppbv                   | VOC                   |
| Benzene                 | 2700                   | ppbv                   | VOC                   |
| Benzyl chloride         | Not Available          | ppbv                   | VOC                   |
| Bromodichloromethane    | Not Available          | ppbv                   | VOC                   |
| Bromoform               | Not Available          | ppbv                   | VOC                   |
| Bromomethane            | Not Available          | ppbv                   | VOC                   |
| Carbon disulfide        | 210                    | ppbv                   | VOC                   |
| Carbon tetrachloride    | 4600                   | ppbv                   | VOC                   |
| Chlorobenzene           | Not Available          | ppbv                   | VOC                   |
| Chloroethane            | Not Available          | ppbv                   | VOC                   |
| Chloroform              | 3800                   | ppbv                   | VOC                   |
| Chloromethane           | Not Available          | ppbv                   | VOC                   |
| cis-1,2-Dichloroethene  | Not Available          | ppbv                   | VOC                   |
| cis-1,3-Dichloropropene | Not Available          | ppbv                   | VOC                   |
| cis-2-Butene            | Not Available          | ppbv                   | VOC                   |
| cis-2-Pentene           | Not Available          | ppbv                   | VOC                   |
| Cyclohexane             | 2500                   | ppbv                   | VOC                   |
| Cyclopentane            | Not Available          | ppbv                   | VOC                   |
| Dibromochloromethane    | Not Available          | ppbv                   | VOC                   |
| Ethanol                 | 520                    | ppbv                   | VOC                   |
| Ethyl acetate           | 870                    | ppbv                   | VOC                   |
| Ethylbenzene            | 170                    | ppbv                   | VOC                   |
| Freon-11                | Not Available          | ppbv                   | VOC                   |
| Freon-113               | Not Available          | ppbv                   | VOC                   |
| Freon-114               | Not Available          | ppbv                   | VOC                   |

| <b>Compound</b>             | <b>Odour Threshold</b> | <b>Unit of Measure</b> | <b>Compound Group</b> |
|-----------------------------|------------------------|------------------------|-----------------------|
| Freon-12                    | Not Available          | ppbv                   | VOC                   |
| Hexachloro-1,3-butadiene    | Not Available          | ppbv                   | VOC                   |
| Isobutane                   | Not Available          | ppbv                   | VOC                   |
| Isopentane                  | 1300                   | ppbv                   | VOC                   |
| Isoprene                    | 48                     | ppbv                   | VOC                   |
| Isopropyl alcohol           | 26000                  | ppbv                   | VOC                   |
| Isopropylbenzene            | 8.4                    | ppbv                   | VOC                   |
| m,p-Xylene                  | Not Available          | ppbv                   | VOC                   |
| m-Diethylbenzene            | 70                     | ppbv                   | VOC                   |
| Methyl butyl ketone         | 24                     | ppbv                   | VOC                   |
| Methyl ethyl ketone         | 440                    | ppbv                   | VOC                   |
| Methyl isobutyl ketone      | 170                    | ppbv                   | VOC                   |
| Methyl methacrylate         | 210                    | ppbv                   | VOC                   |
| Methyl tert butyl ether     | Not Available          | ppbv                   | VOC                   |
| Methylcyclohexane           | 150                    | ppbv                   | VOC                   |
| Methylcyclopentane          | 1700                   | ppbv                   | VOC                   |
| Methylene chloride          | Not Available          | ppbv                   | VOC                   |
| m-Ethyltoluene              | 18                     | ppbv                   | VOC                   |
| Naphthalene                 | Not Available          | ppbv                   | VOC                   |
| n-Butane                    | 1200000                | ppbv                   | VOC                   |
| n-Decane                    | 620                    | ppbv                   | VOC                   |
| n-Dodecane                  | 110                    | ppbv                   | VOC                   |
| n-Heptane                   | 670                    | ppbv                   | VOC                   |
| n-Hexane                    | 1500                   | ppbv                   | VOC                   |
| n-Nonane                    | 2200                   | ppbv                   | VOC                   |
| n-Octane                    | 1700                   | ppbv                   | VOC                   |
| n-Pentane                   | 1400                   | ppbv                   | VOC                   |
| n-Propylbenzene             | 3.8                    | ppbv                   | VOC                   |
| n-Undecane                  | 870                    | ppbv                   | VOC                   |
| o-Ethyltoluene              | 74                     | ppbv                   | VOC                   |
| o-Xylene                    | 380                    | ppbv                   | VOC                   |
| p-Diethylbenzene            | 0.39                   | ppbv                   | VOC                   |
| p-Ethyltoluene              | 8.3                    | ppbv                   | VOC                   |
| Styrene                     | 35                     | ppbv                   | VOC                   |
| Tetrachloroethylene         | 770                    | ppbv                   | VOC                   |
| Tetrahydrofuran             | Not Available          | ppbv                   | VOC                   |
| Toluene                     | 330                    | ppbv                   | VOC                   |
| trans-1,2-Dichloroethylene  | Not Available          | ppbv                   | VOC                   |
| trans-1,3-Dichloropropylene | Not Available          | ppbv                   | VOC                   |
| trans-2-Butene              | Not Available          | ppbv                   | VOC                   |
| trans-2-Pentene             | Not Available          | ppbv                   | VOC                   |
| Trichloroethylene           | 3900                   | ppbv                   | VOC                   |
| Vinyl acetate               | Not Available          | ppbv                   | VOC                   |
| Vinyl chloride              | Not Available          | ppbv                   | VOC                   |



**Table 6. Location and identifier information of the twelve wells sampled for the petroleum sampling and analysis program.**

**Legend**

|                  |  |
|------------------|--|
| Location UWI     | Well location (unique well identifier)                       |
| Well Name        | Name assigned to well when drilling began                    |
| Latitude NAD 83  | Well location (degrees latitude, North American Datum 1983)  |
| Longitude NAD 83 | Well location (degrees longitude, North American Datum 1983) |
| Year Drilled     | Year the well was drilled                                    |
| Sample Types     | Number of samples taken from the core                        |

| Location UWI         | Well Name                            | "Latitude NAD 83" | "Longitude NAD 83" | Year Drilled | Sample Types           |
|----------------------|--------------------------------------|-------------------|--------------------|--------------|------------------------|
| 102/16-30-091-12W5/0 | ANDORA 1L SAWN LK 16-30-91-12        | 56.920284         | -115.920301        | 2013         | casing gas and liquids |
| 100/13-09-062-03W4/0 | BAYTEX 13D HZ BEAVRDM 13-9-62-3      | 54.339494         | -110.402260        | 2013         | casing gas and liquids |
| 100/01-29-079-20W5/0 | BAYTEX N317 KIMIWAN 1-29-79-20       | 55.863101         | -117.056283        | 2010         | casing gas and liquids |
| 100/05-13-081-21W4/4 | CNRL CBP39-5D BRINT 8-13-81-21       | 56.020038         | -113.114878        | 2006         | liquids                |
| 100/16-24-063-17W5/0 | COPRC 100 HZ TWOCK 16-24-63-17       | 54.455352         | -116.407389        | 2013         | liquids                |
| 125/03-17-070-03W4/0 | CVE FCCL E12W04 FISHER 3-17-70-3     | 55.065633         | -110.427547        | 2013         | casing gas and liquids |
| 100/04-29-074-07W6/0 | ECA HZ LA GLACE 4-29-74-7            | 55.445196         | -119.063034        | 2013         | casing gas and liquids |
| 105/16-32-082-14W5/0 | MURPHY 16-31HZ S280 SEAL 16-32-82-14 | 56.157958         | -116.168051        | 2012         | casing gas and liquids |
| 102/12-17-082-13W5/0 | MURPHY SEAL 12-17-82-13              | 56.110667         | -116.007819        | 2008         | casing gas and liquids |
| 102/02-01-083-18W5/8 | PENN WEST HZ PEACE RVR 2-1-83-18     | 56.172579         | -116.703710        | 2013         | casing gas and liquids |
| 103/16-26-084-17W5/2 | SCL HZ S343 CLIFFD 16-26-84-17       | 56.317232         | -116.585791        | 2006         | casing gas and liquids |
| 100/08-35-055-05W5/0 | VH1 ALEXIS 8-35-55-5                 | 53.793068         | -114.625329        | 1968         | casing gas and liquids |

**Table 7. Identifying information for the twenty-two samples collected for the petroleum sampling and analysis program.**

**Legend**

|                       |  |
|-----------------------|--|
| Sample No.            | AGS sample number  |
| Location UWI          | Well location - unique well identifier                     |
| Sample Depth (metres) | Perforation depth interval in metres (measured depth - MD) |
| Sample Type           | Material sampled   |
| Area                  | Geographic location of the sampled well                    |
| Formation/Group       | Geological formation or group at depth of sample           |

| Sample No. | Location UWI         | Sample Depth (metres) | Sample Type | Area              | Formation/Group   |
|------------|----------------------|-----------------------|-------------|-------------------|-------------------|
| 14251      | 102/16-30-091-12W5/0 | 857.9–1647            | casing gas  | PROS Sawn Lake    | Bluesky-Gething   |
| 14252      | 102/16-30-091-12W5/0 | 857.9–1647            | liquids     | PROS Sawn Lake    | Bluesky-Gething   |
| 14253      | 100/13-09-062-03W4/0 | 572.5–1995            | casing gas  | CLOS Beaverdam    | Grand Rapids      |
| 14254      | 100/13-09-062-03W4/0 | 572.5–1995            | liquids     | CLOS Beaverdam    | Grand Rapids      |
| 14255      | 100/01-29-079-20W5/0 | 920.2–2777            | casing gas  | PROS Reno         | Bluesky-Gething   |
| 14256      | 100/01-29-079-20W5/0 | 920.2–2777            | liquids     | PROS Reno         | Bluesky-Gething   |
| 14257      | 100/05-13-081-21W4/4 | 586–2920              | liquids     | AOS Brintnell     | Wabiskaw-McMurray |
| 14258      | 100/16-24-063-17W5/0 | 3283–4658             | liquids     | Two Creek         | Duvernay          |
| 14259      | 125/03-17-070-03W4/0 | 775–1564              | casing gas  | AOS Foster Creek  | Wabiskaw-McMurray |
| 14260      | 125/03-17-070-03W4/0 | 775–1564              | liquids     | AOS Foster Creek  | Wabiskaw-McMurray |
| 14261      | 100/04-29-074-07W6/0 | 2036.9–3214           | casing gas  | La Glace          | Gordondale        |
| 14262      | 100/04-29-074-07W6/0 | 2036.9–3214           | liquids     | La Glace          | Gordondale        |
| 14263      | 105/16-32-082-14W5/0 | 745–2150              | casing gas  | PROS Seal Lake    | Bluesky-Gething   |
| 14264      | 105/16-32-082-14W5/0 | 745–2150              | liquids     | PROS Seal Lake    | Bluesky-Gething   |
| 14265      | 102/12-17-082-13W5/0 | 756–798               | casing gas  | PROS Seal Lake    | Pekisko           |
| 14266      | 102/12-17-082-13W5/0 | 756–798               | liquids     | PROS Seal Lake    | Pekisko           |
| 14267      | 102/02-01-083-18W5/8 | 822–2054              | casing gas  | PROS Walrus       | Bluesky-Gething   |
| 14268      | 102/02-01-083-18W5/8 | 822–2054              | liquids     | PROS Walrus       | Bluesky-Gething   |
| 14269      | 103/16-26-084-17W5/2 | 754–2205              | casing gas  | PROS Three Creeks | Bluesky-Gething   |
| 14270      | 103/16-26-084-17W5/2 | 754–2205              | liquids     | PROS Three Creeks | Bluesky-Gething   |
| 14271      | 100/08-35-055-05W5/0 | 1377–1390.4           | casing gas  | St. Anne          | Exshaw            |
| 14272      | 100/08-35-055-05W5/0 | 1377–1390.4           | liquids     | St. Anne          | Exshaw            |

**Table 8. Results of the petroleum sampling and analysis program as provided by the laboratories.**

**Legend**

|                   |   |
|-------------------|---|
| Sample No.        | AGS sample number   |
| UWI               | Unique well identifier  |
| Area              | Geographic location of the sampled well   |
| Laboratory        | Name or abbreviation of the external organization where analysis took place   |
| Sample Type       | Fluid analysed by the laboratory  |
| Compound          | The name of the chemical compound analyzed for, as presented by the laboratory  |
| Compound Category | The related series of compounds with which the substance was analyzed   |
| Result            | Measured concentration as reported by the laboratory  |
| Units             | Unit of measure for reported data, as presented by the laboratory   |
| Detection Limit   | The lowest concentration at which the compound can be distinguished from being absent, measured in the units listed in the "Units" column |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound              | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------|-------------------|--------|-------|-----------------|
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1-Butene              | C4                | 36.91  | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Acetylene             | C2                | <0.05  | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | cis-2-Butene          | C4                | 53.57  | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Ethane                | C2                | 1527.7 | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Ethylacetylene        | C4                | <0.05  | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Ethylene              | C2                | <0.05  | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isobutane             | C4                | 829.24 | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isobutylene           | C4                | 26.17  | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Methane               | C1                | 635850 | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | n-Butane              | C4                | 525.02 | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | n-Propane             | C3                | 880.95 | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Propylene             | C3                | 93.26  | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Propyne               | C3                | <0.05  | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | trans-2-Butene        | C4                | 32.8   | ppmv  | 0.05            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Carbon dioxide        | CO2               | 234200 | ppmv  | 600.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Nitrogen              | N2                | 12000  | ppmv  | 2000.00         |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Oxygen                | O2                | 2300   | ppmv  | 2000.00         |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2,5-Dimethylthiophene | RSC               | 2895   | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2-Ethylthiophene      | RSC               | <400.0 | ppbv  | 400.00          |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                  | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|---------------------------|-------------------|---------|-------|-----------------|
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2-Methylthiophene         | RSC               | 4950    | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 3-Methylthiophene         | RSC               | 4859    | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Butyl mercaptan           | RSC               | <400.0  | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Carbon disulphide         | RSC               | <400.0  | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Carbonyl sulphide         | RSC               | <400.0  | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Dimethyl disulphide       | RSC               | 4947    | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Dimethyl sulphide         | RSC               | 3245    | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | 19530   | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | <400.0  | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | 5035000 | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | <400.0  | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | 5454    | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | 45680   | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <400.0  | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | 9204    | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | <400.0  | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Thiophene                 | RSC               | 6698    | ppbv  | 400.00          |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene    | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene    | VOC               | 60.2    | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,2-Dibromoethane         | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,2-Dichlorobenzene       | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,2-Dichloroethane        | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,2-Dichloropropane       | VOC               | <7.56   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene    | VOC               | <7.56   | ppbv  | 7.56            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound               | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|------------------------|-------------------|--------|-------|-----------------|
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,3-Butadiene          | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,3-Dichlorobenzene    | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,4-Dichlorobenzene    | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1,4-Dioxane            | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1-Butene               | VOC               | 37300  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1-Hexene               | VOC               | 6120   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 1-Pentene              | VOC               | 8480   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2,2,4-Trimethylpentane | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2,2-Dimethylbutane     | VOC               | 3470   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2,3,4-Trimethylpentane | VOC               | 182    | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2,3-Dimethylbutane     | VOC               | 3520   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2,3-Dimethylpentane    | VOC               | 1100   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2,4-Dimethylpentane    | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2-Methylheptane        | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2-Methylhexane         | VOC               | 1340   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 2-Methylpentane        | VOC               | 14000  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 3-Methylheptane        | VOC               | 616    | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 3-Methylhexane         | VOC               | 2310   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | 3-Methylpentane        | VOC               | 7010   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Acetone                | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Acrolein               | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Benzene                | VOC               | 314    | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Benzyl chloride        | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Bromodichloromethane   | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Bromoform              | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Bromomethane           | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Carbon disulfide       | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Carbon tetrachloride   | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Chlorobenzene          | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Chloroethane           | VOC               | <7.56  | ppbv  | 7.56            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|--------------------------|-------------------|--------|-------|-----------------|
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Chloroform               | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Chloromethane            | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | cis-1,2-Dichloroethene   | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | cis-1,3-Dichloropropene  | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | cis-2-Butene             | VOC               | 6060   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | cis-2-Pentene            | VOC               | 2670   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Cyclohexane              | VOC               | 2210   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Cyclopentane             | VOC               | 4510   | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Ethanol                  | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Ethylbenzene             | VOC               | 182    | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Freon-11                 | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Freon-113                | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Freon-114                | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Freon-12                 | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isobutane                | VOC               | 170000 | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isopentane               | VOC               | 193000 | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isoprene                 | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | m,p-Xylene               | VOC               | 476    | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | m-Diethylbenzene         | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Methyl butyl ketone      | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Methyl ethyl ketone      | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Methyl isobutyl ketone   | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Methyl methacrylate      | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Methyl tert butyl ether  | VOC               | <7.56  | ppbv  | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas  | Methylcyclohexane        | VOC               | 1630   | ppbv  | 7.56            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------------|-------------------|--------|----------|-----------------|
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Methylcyclopentane          | VOC               | 2640   | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Methylene chloride          | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | m-Ethyltoluene              | VOC               | 50.5   | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Naphthalene                 | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Butane                    | VOC               | 299000 | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Decane                    | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Dodecane                  | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Heptane                   | VOC               | 3790   | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Hexane                    | VOC               | 13600  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Nonane                    | VOC               | 528    | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Octane                    | VOC               | 1880   | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Pentane                   | VOC               | 139000 | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Propylbenzene             | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | n-Undecane                  | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | o-Ethyltoluene              | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | o-Xylene                    | VOC               | 128    | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | p-Diethylbenzene            | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | p-Ethyltoluene              | VOC               | 42.4   | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Styrene                     | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Tetrachloroethylene         | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Tetrahydrofuran             | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Toluene                     | VOC               | 1030   | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | trans-1,2-Dichloroethylene  | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | trans-1,3-Dichloropropylene | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | trans-2-Butene              | VOC               | 42200  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | trans-2-Pentene             | VOC               | 13400  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Trichloroethylene           | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Vinyl acetate               | VOC               | <7.56  | ppbv     | 7.56            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | Casing Gas      | Vinyl chloride              | VOC               | <7.56  | ppbv     | 7.56            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Methane                     | C1                | 0.0186 | fraction |                 |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Ethane                | C2                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Propane               | C3                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Isobutane             | C4                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Butane                | C4                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Isopentane            | C5                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Pentane               | C5                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Hexane                | C6                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Heptanes plus         | C7+               | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Hydrogen              | H2                | 0.0009 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Helium                | He                | 0      | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Nitrogen              | N2                | 0.9657 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Carbon dioxide        | CO2               | 0.0148 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | RSC               | 0.7    | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Methyl mercaptan      | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Methane               | C1                | 0.0184 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Ethane                | C2                | 0.0001 | fraction |                 |



| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Propane               | C3                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Isobutane             | C4                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Butane                | C4                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Isopentane            | C5                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Pentane               | C5                | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Hexane                | C6                | 0.0001 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Heptanes plus         | C7+               | 0.0001 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Hydrogen              | H2                | 0.0006 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Helium                | He                | 0      | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Nitrogen              | N2                | 0.9416 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Carbon dioxide        | CO2               | 0.0391 | fraction |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Hydrogen sulphide     | RSC               | 35     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Carbonyl sulphide     | RSC               | 6.9    | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Methyl mercaptan      | RSC               | 4.2    | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Ethyl mercaptan       | RSC               | 0.9    | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Dimethyl sulphide     | RSC               | 0.3    | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Isopropyl mercaptan   | RSC               | 0.2    | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | n-Propylmercaptan     | RSC               | 0.2    | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.10            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | 80C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.10            |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas      | Methane               | C1                | 0.5495 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas      | Ethane                | C2                | 0.0014 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas      | Propane               | C3                | 0.0008 | fraction |                 |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------|-------------------|--------|----------|-----------------|
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Isobutane             | C4                | 0.0003 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Butane                | C4                | 0.0005 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Isopentane            | C5                | 0.0004 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Pentane               | C5                | 0.0003 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Hexane                | C6                | 0.0003 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Heptanes plus         | C7+               | 0.0002 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Hydrogen sulphide     | H2S               | 0.0084 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Hydrogen              | H2                | 0.0262 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Helium                | He                | 0      | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Nitrogen              | N2                | 0.0055 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Carbon dioxide        | CO2               | 0.4062 | fraction |                 |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Hydrogen sulphide     | RSC               | 8395   | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Carbonyl sulphide     | RSC               | 0.2    | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Methyl mercaptan      | RSC               | 47     | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Ethyl mercaptan       | RSC               | 15     | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Dimethyl sulphide     | RSC               | 1      | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Isopropyl mercaptan   | RSC               | 1.4    | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | tert-Butyl mercaptan  | RSC               | 0.3    | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | n-Propylmercaptan     | RSC               | 2.8    | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Thiophene             | RSC               | 0.4    | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | N-butyl Mercaptan     | RSC               | 0.3    | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Dimethyl disulphide   | RSC               | 0.1    | ppm      | 0.1             |
| 14251      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Oil         | Nickel                |                   | 68.7   | mg/kg    |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Oil         | Vanadium              |                   | 180.1  | mg/kg    |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Oil         | V/Ni                  |                   | 2.622  | ratio    |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Oil         | Sulphur               | S                 | 45.7   | g/kg     |                 |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound              | Compound Category | Result     | Units             | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------|-------------------|------------|-------------------|-----------------|
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Oil         | API Gravity           |                   | 7.2        | degrees           |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Oil         | Density               |                   | 1019.7     | kg/m <sup>3</sup> |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Oil         | Pour Point            |                   | 26         | °C                |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | Corelab    | Oil         | Viscosity             |                   | 1209941.34 | cP@15°C           |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | UOttawa    | Oil         | Total Nitrogen        |                   | 0.45       | %                 |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | UOttawa    | Oil         | delta 15N             |                   | 2.07       | % Air             |                 |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | UOttawa    | Oil         | delta 34S             |                   | 1.31       | % CDT             |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1-Butene              | C4                | <0.05      | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Acetylene             | C2                | <0.05      | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | cis-2-Butene          | C4                | 88.38      | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Ethane                | C2                | 2314.1     | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Ethylacetylene        | C4                | <0.05      | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Ethylene              | C2                | <0.05      | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isobutane             | C4                | 150.86     | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isobutylene           | C4                | 1.22       | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methane               | C1                | 985569     | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | n-Butane              | C4                | 228.95     | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | n-Propane             | C3                | 413.89     | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Propylene             | C3                | 15.51      | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Propyne               | C3                | <0.05      | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | trans-2-Butene        | C4                | 5.37       | ppmv              | 0.05            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Carbon dioxide        | CO2               | <600       | ppmv              | 600             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Nitrogen              | N2                | 44000      | ppmv              | 2000            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Oxygen                | O2                | 11000      | ppmv              | 2000            |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2,5-Dimethylthiophene | RSC               | 8          | ppbv              | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2-Ethylthiophene      | RSC               | 7.1        | ppbv              | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2-Methylthiophene     | RSC               | 14.3       | ppbv              | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 3-Methylthiophene     | RSC               | 13.6       | ppbv              | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Butyl mercaptan       | RSC               | <1.0       | ppbv              | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Carbon disulphide     | RSC               | <1.0       | ppbv              | 1               |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Carbonyl sulphide         | RSC               | 3.4    | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Dimethyl disulphide       | RSC               | 17.5   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Dimethyl sulphide         | RSC               | 11.5   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | <1.0   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | 16.9   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | 14.3   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | 22.9   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | <1.0   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | <1.0   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <1.0   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | <1.0   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | <1.0   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Thiophene                 | RSC               | 14.2   | ppbv  | 1               |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | 306    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene    | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene    | VOC               | 905    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,2-Dibromoethane         | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,2-Dichlorobenzene       | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,2-Dichloroethane        | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,2-Dichloropropane       | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene    | VOC               | 732    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,3-Butadiene             | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,3-Dichlorobenzene       | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,4-Dichlorobenzene       | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1,4-Dioxane               | VOC               | <8.39  | ppbv  | 8.3916          |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-------------------------|-------------------|--------|-------|-----------------|
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1-Butene                | VOC               | 1610   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1-Hexene                | VOC               | 294    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 1-Pentene               | VOC               | 678    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2,2,4-Trimethylpentane  | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2,2-Dimethylbutane      | VOC               | 9400   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2,3,4-Trimethylpentane  | VOC               | 631    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2,3-Dimethylbutane      | VOC               | 8680   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2,3-Dimethylpentane     | VOC               | 2270   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2,4-Dimethylpentane     | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2-Methylheptane         | VOC               | 1490   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2-Methylhexane          | VOC               | 1250   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 2-Methylpentane         | VOC               | 8370   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 3-Methylheptane         | VOC               | 238    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 3-Methylhexane          | VOC               | 1620   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | 3-Methylpentane         | VOC               | 5450   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Acetone                 | VOC               | 32000  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Acrolein                | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Benzene                 | VOC               | 4600   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Benzyl chloride         | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Bromodichloromethane    | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Bromoform               | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Bromomethane            | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Carbon disulfide        | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Carbon tetrachloride    | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Chlorobenzene           | VOC               | 182    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Chloroethane            | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Chloroform              | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Chloromethane           | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | cis-1,2-Dichloroethene  | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | cis-1,3-Dichloropropene | VOC               | <8.39  | ppbv  | 8.3916          |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|--------------------------|-------------------|--------|-------|-----------------|
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | cis-2-Butene             | VOC               | 1550   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | cis-2-Pentene            | VOC               | 330    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Cyclohexane              | VOC               | 30400  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Cyclopentane             | VOC               | 11900  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Ethanol                  | VOC               | 784    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Ethylbenzene             | VOC               | 1010   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Freon-11                 | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Freon-113                | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Freon-114                | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Freon-12                 | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isobutane                | VOC               | 106000 | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isopentane               | VOC               | 45700  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isoprene                 | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | 4960   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | 623    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | m,p-Xylene               | VOC               | 2740   | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | m-Diethylbenzene         | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methyl butyl ketone      | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methyl ethyl ketone      | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methyl isobutyl ketone   | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methyl methacrylate      | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methyl tert butyl ether  | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methylcyclohexane        | VOC               | 15900  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methylcyclopentane       | VOC               | 14000  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Methylene chloride       | VOC               | <8.39  | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | m-Ethyltoluene           | VOC               | 588    | ppbv  | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas  | Naphthalene              | VOC               | <8.39  | ppbv  | 8.3916          |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------------|-------------------|--------|----------|-----------------|
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Butane                    | VOC               | 164000 | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Decane                    | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Dodecane                  | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Heptane                   | VOC               | 1860   | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Hexane                    | VOC               | 8530   | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Nonane                    | VOC               | 758    | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Octane                    | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Pentane                   | VOC               | 39400  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Propylbenzene             | VOC               | 244    | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | n-Undecane                  | VOC               | 586    | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | o-Ethyltoluene              | VOC               | 388    | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | o-Xylene                    | VOC               | 1160   | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | p-Diethylbenzene            | VOC               | 340    | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | p-Ethyltoluene              | VOC               | 177    | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | Styrene                     | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | Tetrachloroethylene         | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | Tetrahydrofuran             | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | Toluene                     | VOC               | 10100  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | trans-1,2-Dichloroethylene  | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | trans-1,3-Dichloropropylene | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | trans-2-Butene              | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | trans-2-Pentene             | VOC               | 1080   | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | Trichloroethylene           | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | Vinyl acetate               | VOC               | <8.39  | ppbv     | 8.3916          |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | Casing Gas      | Vinyl chloride              | VOC               | <8.39  | ppbv     | 8.3916          |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Methane                     | C1                | 0.9554 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Ethane                      | C2                | 0.0029 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Propane                     | C3                | 0.0005 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Isobutane                   | C4                | 0.0002 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Butane                      | C4                | 0.0003 | fraction |                 |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Isopentane            | C5                | 0.0001 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Pentane               | C5                | 0.0001 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Hexane                | C6                | 0.0001 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Heptanes plus         | C7+               | 0.0001 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Hydrogen              | H2                | 0.0002 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Helium                | He                | Trace  | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Nitrogen              | N2                | 0.0373 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Carbon dioxide        | CO2               | 0.0028 | fraction |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | RSC               | 0.3    | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas      | Methane               | C1                | 0.9901 | fraction |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas      | Ethane                | C2                | 0.0022 | fraction |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas      | Propane               | C3                | 0.0004 | fraction |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas      | Isobutane             | C4                | 0.0001 | fraction |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas      | Butane                | C4                | 0.0002 | fraction |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas      | Isopentane            | C5                | Trace  | fraction |                 |



| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound              | Compound Category | Result | Units             | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------|-------------------|--------|-------------------|-----------------|
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Pentane               | C5                | Trace  | fraction          |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Hexane                | C6                | 0.0002 | fraction          |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Heptanes plus         | C7+               | 0.0001 | fraction          |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Hydrogen sulphide     | H2S               | Trace  | fraction          |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Hydrogen              | H2                | Trace  | fraction          |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Helium                | He                | Trace  | fraction          |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Nitrogen              | N2                | 0.0052 | fraction          |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Carbon dioxide        | CO2               | 0.0015 | fraction          |                 |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Hydrogen sulphide     | RSC               | 0.3    | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Carbonyl sulphide     | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Methyl mercaptan      | RSC               | 0.1    | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Ethyl mercaptan       | RSC               | 0.4    | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Dimethyl sulphide     | RSC               | 0.1    | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Isopropyl mercaptan   | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | tert-Butyl mercaptan  | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | n-Propylmercaptan     | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Methyl ethyl sulphide | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Thiophene             | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Isobutyl mercaptan    | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Diethyl sulphide      | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | N-butyl Mercaptan     | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Dimethyl disulphide   | RSC               | nd     | ppm               | 0.1             |
| 14253      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd     | ppm               | 0.1             |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Oil         | Nickel                |                   | 73     | mg/kg             |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Oil         | Vanadium              |                   | 170    | mg/kg             |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Oil         | V/Ni                  |                   | 2.329  | ratio             |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Oil         | Sulphur               | S                 | 43.4   | g/kg              |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Oil         | API Gravity           |                   | 10.5   | degrees           |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Oil         | Density               |                   | 995.8  | kg/m <sup>3</sup> |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Oil         | Pour Point            |                   | 12     | °C                |                 |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound              | Compound Category | Result      | Units   | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------|-------------------|-------------|---------|-----------------|
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | Corelab    | Oil         | Viscosity             |                   | 34929.47134 | cP@15°C |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | UOttawa    | Oil         | Total Nitrogen        |                   | 0.39        | %       |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | UOttawa    | Oil         | delta 15N             |                   | 3.46        | % Air   |                 |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | UOttawa    | Oil         | delta 34S             |                   | 9.36        | % CDT   |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | 1-Butene              | C4                | <0.05       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Acetylene             | C2                | <0.05       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | cis-2-Butene          | C4                | 31.59       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Ethane                | C2                | 2172.9      | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Ethylacetylene        | C4                | <0.05       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Ethylene              | C2                | <0.05       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Isobutane             | C4                | 109.36      | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Isobutylene           | C4                | <0.05       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Methane               | C1                | 996727      | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | n-Butane              | C4                | 91.11       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | n-Propane             | C3                | 177.28      | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Propylene             | C3                | <0.05       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Propyne               | C3                | <0.05       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | trans-2-Butene        | C4                | <0.05       | ppmv    | 0.05            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Carbon dioxide        | CO2               | 25790       | ppmv    | 600             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Nitrogen              | N2                | 20000       | ppmv    | 2000            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Oxygen                | O2                | 4900        | ppmv    | 2000            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | 2,5-Dimethylthiophene | RSC               | 14.3        | ppbv    | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | 2-Ethylthiophene      | RSC               | 4.9         | ppbv    | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | 2-Methylthiophene     | RSC               | 8.2         | ppbv    | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | 3-Methylthiophene     | RSC               | 56.7        | ppbv    | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Butyl mercaptan       | RSC               | <0.1        | ppbv    | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Carbon disulphide     | RSC               | <0.1        | ppbv    | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Carbonyl sulphide     | RSC               | <0.1        | ppbv    | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Dimethyl disulphide   | RSC               | <0.1        | ppbv    | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | Casing Gas  | Dimethyl sulphide     | RSC               | <0.1        | ppbv    | 0.1             |

| Sample No. | UWI                  | Area      | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-----------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | 8.9    | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | <0.1   | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | 221.7  | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | <0.1   | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | 13     | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | 4      | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | <0.1   | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Thiophene                 | RSC               | 59     | ppbv  | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | 142    | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene    | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene    | VOC               | 213    | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,2-Dibromoethane         | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,2-Dichlorobenzene       | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,2-Dichloroethane        | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,2-Dichloropropane       | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene    | VOC               | 76.9   | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,3-Butadiene             | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,3-Dichlorobenzene       | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,4-Dichlorobenzene       | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1,4-Dioxane               | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1-Butene                  | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1-Hexene                  | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 1-Pentene                 | VOC               | <9.36  | ppbv  | 9.36            |

| Sample No. | UWI                  | Area      | Laboratory | Sample Type | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-----------|------------|-------------|-------------------------|-------------------|--------|-------|-----------------|
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2,2,4-Trimethylpentane  | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2,2-Dimethylbutane      | VOC               | 17500  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2,3,4-Trimethylpentane  | VOC               | 1770   | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2,3-Dimethylbutane      | VOC               | 28800  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2,3-Dimethylpentane     | VOC               | 15200  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2,4-Dimethylpentane     | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2-Methylheptane         | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2-Methylhexane          | VOC               | 9140   | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 2-Methylpentane         | VOC               | 46900  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 3-Methylheptane         | VOC               | 3010   | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 3-Methylhexane          | VOC               | 15400  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | 3-Methylpentane         | VOC               | 43500  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Acetone                 | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Acrolein                | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Benzene                 | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Benzyl chloride         | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Bromodichloromethane    | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Bromoform               | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Bromomethane            | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Carbon disulfide        | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Carbon tetrachloride    | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Chlorobenzene           | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Chloroethane            | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Chloroform              | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Chloromethane           | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | cis-1,2-Dichloroethene  | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | cis-1,3-Dichloropropene | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | cis-2-Butene            | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | cis-2-Pentene           | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Cyclohexane             | VOC               | 108000 | ppbv  | 9.36            |

| Sample No. | UWI                  | Area      | Laboratory | Sample Type | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-----------|------------|-------------|--------------------------|-------------------|--------|-------|-----------------|
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Cyclopentane             | VOC               | 30400  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Ethanol                  | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Ethylbenzene             | VOC               | 683    | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Freon-11                 | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Freon-113                | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Freon-114                | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Freon-12                 | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Isobutane                | VOC               | 66400  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Isopentane               | VOC               | 128000 | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Isoprene                 | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | 208    | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | m,p-Xylene               | VOC               | 983    | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | m-Diethylbenzene         | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methyl butyl ketone      | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methyl ethyl ketone      | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methyl isobutyl ketone   | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methyl methacrylate      | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methyl tert butyl ether  | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methylcyclohexane        | VOC               | 90100  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methylcyclopentane       | VOC               | 51000  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Methylene chloride       | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | m-Ethyltoluene           | VOC               | 216    | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | Naphthalene              | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | n-Butane                 | VOC               | 58000  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | n-Decane                 | VOC               | <9.36  | ppbv  | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas  | n-Dodecane               | VOC               | <9.36  | ppbv  | 9.36            |

| Sample No. | UWI                  | Area      | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|-----------|------------|-----------------|-----------------------------|-------------------|--------|----------|-----------------|
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | n-Heptane                   | VOC               | 2730   | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | n-Hexane                    | VOC               | 18200  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | n-Nonane                    | VOC               | 145    | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | n-Octane                    | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | n-Pentane                   | VOC               | 42500  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | n-Propylbenzene             | VOC               | 191    | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | n-Undecane                  | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | o-Ethyltoluene              | VOC               | 157    | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | o-Xylene                    | VOC               | 386    | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | p-Diethylbenzene            | VOC               | 101    | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | p-Ethyltoluene              | VOC               | 92.9   | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | Styrene                     | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | Tetrachloroethylene         | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | Tetrahydrofuran             | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | Toluene                     | VOC               | 686    | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | trans-1,2-Dichloroethylene  | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | trans-1,3-Dichloropropylene | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | trans-2-Butene              | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | trans-2-Pentene             | VOC               | 135    | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | Trichloroethylene           | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | Vinyl acetate               | VOC               | <9.36  | ppbv     | 9.36            |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | Casing Gas      | Vinyl chloride              | VOC               | <9.36  | ppbv     | 9.36            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Methane                     | C1                | 0.4456 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Ethane                      | C2                | 0.0032 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Propane                     | C3                | 0.0004 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Isobutane                   | C4                | 0.0003 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Butane                      | C4                | 0.0003 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Isopentane                  | C5                | 0.0006 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Pentane                     | C5                | 0.0002 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Hexane                      | C6                | 0.0012 | fraction |                 |

| Sample No. | UWI                  | Area      | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|-----------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Heptanes plus         | C7+               | 0.0008 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Hydrogen              | H2                | Trace  | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Helium                | He                | Trace  | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Nitrogen              | N2                | 0.5141 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Carbon dioxide        | CO2               | 0.0333 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | RSC               | 0.2    | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Methane               | C1                | 0.4123 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Ethane                | C2                | 0.0031 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Propane               | C3                | 0.0004 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Isobutane             | C4                | 0.0003 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Butane                | C4                | 0.0003 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Isopentane            | C5                | 0.0009 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Pentane               | C5                | 0.0004 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Hexane                | C6                | 0.0035 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Heptanes plus         | C7+               | 0.0047 | fraction |                 |

| Sample No. | UWI                  | Area      | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|-----------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Hydrogen              | H2                | Trace  | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Helium                | He                | Trace  | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Nitrogen              | N2                | 0.5379 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Carbon dioxide        | CO2               | 0.0362 | fraction |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Hydrogen sulphide     | RSC               | 0.2    | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Methyl mercaptan      | RSC               | 0.5    | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Dimethyl disulphide   | RSC               | 1      | ppm      | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | 80C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Methane               | C1                | 0.9609 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Ethane                | C2                | 0.0021 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Propane               | C3                | 0.0002 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Isobutane             | C4                | 0.0001 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Butane                | C4                | 0.0001 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Isopentane            | C5                | 0.0002 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Pentane               | C5                | 0.0001 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Hexane                | C6                | 0.0005 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Heptanes plus         | C7+               | 0.0004 | fraction |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas      | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |



| Sample No. | UWI                  | Area      | Laboratory | Sample Type | Compound              | Compound Category | Result      | Units             | Detection Limit |
|------------|----------------------|-----------|------------|-------------|-----------------------|-------------------|-------------|-------------------|-----------------|
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Hydrogen              | H2                | 0           | fraction          |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Helium                | He                | Trace       | fraction          |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Nitrogen              | N2                | 0.0022      | fraction          |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Carbon dioxide        | CO2               | 0.0332      | fraction          |                 |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Hydrogen sulphide     | RSC               | 2.3         | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Carbonyl sulphide     | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Methyl mercaptan      | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Ethyl mercaptan       | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Dimethyl sulphide     | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Isopropyl mercaptan   | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | tert-Butyl mercaptan  | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | n-Propylmercaptan     | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Methyl ethyl sulphide | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Thiophene             | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Isobutyl mercaptan    | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Diethyl sulphide      | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | N-butyl Mercaptan     | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Dimethyl disulphide   | RSC               | nd          | ppm               | 0.1             |
| 14255      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd          | ppm               | 0.1             |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Oil         | Nickel                |                   | 80          | mg/kg             |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Oil         | Vanadium              |                   | 257         | mg/kg             |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Oil         | V/Ni                  |                   | 3.213       | ratio             |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Oil         | Sulphur               | S                 | 57.2        | g/kg              |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Oil         | API Gravity           |                   | 9.2         | degrees           |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Oil         | Density               |                   | 1004.8      | kg/m <sup>3</sup> |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Oil         | Pour Point            |                   | 12          | °C                |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | Corelab    | Oil         | Viscosity             |                   | 36131.30481 | cP@15°C           |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | UOttawa    | Oil         | Total Nitrogen        |                   | 0.38        | %                 |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | UOttawa    | Oil         | delta 15N             |                   | 0.88        | % Air             |                 |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | UOttawa    | Oil         | delta 34S             |                   | 1.31        | % CDT             |                 |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type | Compound       | Compound Category | Result      | Units             | Detection Limit |
|------------|----------------------|------------------|------------|-------------|----------------|-------------------|-------------|-------------------|-----------------|
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | Corelab    | Oil         | Nickel         |                   | 75          | mg/kg             |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | Corelab    | Oil         | Vanadium       |                   | 195         | mg/kg             |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | Corelab    | Oil         | V/Ni           |                   | 2.6         | ratio             |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | Corelab    | Oil         | Sulphur        | S                 | 44.2        | g/kg              |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | Corelab    | Oil         | API Gravity    |                   | 13.6        | degrees           |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | Corelab    | Oil         | Density        |                   | 974.8       | kg/m <sup>3</sup> |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | Corelab    | Oil         | Pour Point     |                   | 0           | °C                |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | Corelab    | Oil         | Viscosity      |                   | 3575.795802 | cP@15°C           |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | UOttawa    | Oil         | Total Nitrogen |                   | 0.42        | %                 |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | UOttawa    | Oil         | delta 15N      |                   | 3.14        | % Air             |                 |
| 14257      | 100/05-13-081-21W4/4 | AOS Brintnell    | UOttawa    | Oil         | delta 34S      |                   | 7.8         | % CDT             |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | Corelab    | Oil         | Nickel         |                   | 0           | mg/kg             |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | Corelab    | Oil         | Vanadium       |                   | 0           | mg/kg             |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | Corelab    | Oil         | V/Ni           |                   |             | ratio             |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | Corelab    | Oil         | Sulphur        | S                 | 0           | g/kg              |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | Corelab    | Oil         | API Gravity    |                   | 43.8        | degrees           |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | Corelab    | Oil         | Density        |                   | 806.6       | kg/m <sup>3</sup> |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | Corelab    | Oil         | Pour Point     |                   | -36         | °C                |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | Corelab    | Oil         | Viscosity      |                   | 2.629611072 | cP@15°C           |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | UOttawa    | Oil         | Total Nitrogen |                   |             | %                 |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | UOttawa    | Oil         | delta 15N      |                   |             | % Air             |                 |
| 14258      | 100/16-24-063-17W5/0 | Two Creek        | UOttawa    | Oil         | delta 34S      |                   |             | % CDT             |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1-Butene       | C4                | <0.05       | ppmv              | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Acetylene      | C2                | <0.05       | ppmv              | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | cis-2-Butene   | C4                | 56.01       | ppmv              | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Ethane         | C2                | 11209       | ppmv              | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Ethylacetylene | C4                | <0.05       | ppmv              | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Ethylene       | C2                | <0.05       | ppmv              | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isobutane      | C4                | 424.64      | ppmv              | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isobutylene    | C4                | 10.74       | ppmv              | 0.05            |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|------------------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methane                   | C1                | 717526 | ppmv  | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Butane                  | C4                | 544.4  | ppmv  | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Propane                 | C3                | 3223.2 | ppmv  | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Propylene                 | C3                | 194.7  | ppmv  | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Propyne                   | C3                | <0.05  | ppmv  | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | trans-2-Butene            | C4                | 19.55  | ppmv  | 0.05            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Carbon dioxide            | CO2               | 181300 | ppmv  | 600             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Nitrogen                  | N2                | 50000  | ppmv  | 2000            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Oxygen                    | O2                | 13000  | ppmv  | 2000            |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2,5-Dimethylthiophene     | RSC               | 2.8    | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2-Ethylthiophene          | RSC               | <0.5   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2-Methylthiophene         | RSC               | 15.1   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 3-Methylthiophene         | RSC               | 11.6   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Butyl mercaptan           | RSC               | 13     | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Carbon disulphide         | RSC               | <0.5   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Carbonyl sulphide         | RSC               | <0.5   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Dimethyl disulphide       | RSC               | 29.3   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Dimethyl sulphide         | RSC               | 262.2  | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | 147.7  | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | 8.1    | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | 1700   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | <0.5   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | 31     | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | 1308   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <0.5   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | 17.2   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | <0.5   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Thiophene                 | RSC               | 13.6   | ppbv  | 0.5             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <8.54  | ppbv  | 8.5428          |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type | Compound               | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|------------------|------------|-------------|------------------------|-------------------|--------|-------|-----------------|
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,1,2-Trichloroethane  | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,1-Dichloroethane     | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,1-Dichloroethylene   | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene | VOC               | 140    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene | VOC               | 360    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,2-Dibromoethane      | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,2-Dichlorobenzene    | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,2-Dichloroethane     | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,2-Dichloropropane    | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene | VOC               | 141    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,3-Butadiene          | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,3-Dichlorobenzene    | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,4-Dichlorobenzene    | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1,4-Dioxane            | VOC               | 209    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1-Butene               | VOC               | 15200  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1-Hexene               | VOC               | 1010   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 1-Pentene              | VOC               | 1230   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2,2,4-Trimethylpentane | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2,2-Dimethylbutane     | VOC               | 1830   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2,3,4-Trimethylpentane | VOC               | 172    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2,3-Dimethylbutane     | VOC               | 2060   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2,3-Dimethylpentane    | VOC               | 942    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2,4-Dimethylpentane    | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2-Methylheptane        | VOC               | 1710   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2-Methylhexane         | VOC               | 1530   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 2-Methylpentane        | VOC               | 11300  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 3-Methylheptane        | VOC               | 650    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 3-Methylhexane         | VOC               | 2370   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | 3-Methylpentane        | VOC               | 4910   | ppbv  | 8.5428          |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type | Compound                 | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|------------------|------------|-------------|--------------------------|-------------------|---------|-------|-----------------|
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Acetone                  | VOC               | 1060000 | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Acrolein                 | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Benzene                  | VOC               | 443000  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Benzyl chloride          | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Bromodichloromethane     | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Bromoform                | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Bromomethane             | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Carbon disulfide         | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Carbon tetrachloride     | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Chlorobenzene            | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Chloroethane             | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Chloroform               | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Chloromethane            | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | cis-1,2-Dichloroethene   | VOC               | 2810    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | cis-1,3-Dichloropropene  | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | cis-2-Butene             | VOC               | 3950    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | cis-2-Pentene            | VOC               | 869     | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Cyclohexane              | VOC               | 6720    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Cyclopentane             | VOC               | 8690    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Ethanol                  | VOC               | 19100   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Ethylbenzene             | VOC               | 2170    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Freon-11                 | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Freon-113                | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Freon-114                | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Freon-12                 | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <8.54   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isobutane                | VOC               | 154000  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isopentane               | VOC               | 49600   | ppbv  | 8.5428          |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|------------------|------------|-------------|-------------------------|-------------------|--------|-------|-----------------|
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isoprene                | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isopropyl alcohol       | VOC               | 187000 | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Isopropylbenzene        | VOC               | 65.5   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | m,p-Xylene              | VOC               | 10100  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | m-Diethylbenzene        | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methyl butyl ketone     | VOC               | 1040   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methyl ethyl ketone     | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methyl isobutyl ketone  | VOC               | 828    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methyl methacrylate     | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methyl tert butyl ether | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methylcyclohexane       | VOC               | 3170   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methylcyclopentane      | VOC               | 5060   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Methylene chloride      | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | m-Ethyltoluene          | VOC               | 230    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Naphthalene             | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Butane                | VOC               | 199000 | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Decane                | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Dodecane              | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Heptane               | VOC               | 4040   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Hexane                | VOC               | 35800  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Nonane                | VOC               | 788    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Octane                | VOC               | 1690   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Pentane               | VOC               | <8.54  | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Propylbenzene         | VOC               | 82     | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | n-Undecane              | VOC               | 158    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | o-Ethyltoluene          | VOC               | 97.6   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | o-Xylene                | VOC               | 3010   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | p-Diethylbenzene        | VOC               | 30.2   | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | p-Ethyltoluene          | VOC               | 128    | ppbv  | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas  | Styrene                 | VOC               | <8.54  | ppbv  | 8.5428          |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|------------------|------------|-----------------|-----------------------------|-------------------|--------|----------|-----------------|
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | Tetrachloroethylene         | VOC               | <8.54  | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | Tetrahydrofuran             | VOC               | 1140   | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | Toluene                     | VOC               | 121000 | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | trans-1,2-Dichloroethylene  | VOC               | <8.54  | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | trans-1,3-Dichloropropylene | VOC               | <8.54  | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | trans-2-Butene              | VOC               | <8.54  | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | trans-2-Pentene             | VOC               | 2370   | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | Trichloroethylene           | VOC               | <8.54  | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | Vinyl acetate               | VOC               | <8.54  | ppbv     | 8.5428          |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | Casing Gas      | Vinyl chloride              | VOC               | <8.54  | ppbv     | 8.5428          |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Methane                     | C1                | 0.596  | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Ethane                      | C2                | 0.0035 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Propane                     | C3                | 0.0006 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Isobutane                   | C4                | 0.0001 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Butane                      | C4                | 0.0001 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Isopentane                  | C5                | Trace  | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Pentane                     | C5                | Trace  | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Hexane                      | C6                | Trace  | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Heptanes plus               | C7+               | Trace  | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Hydrogen sulphide           | H2S               | 0.0016 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Hydrogen                    | H2                | 0.0706 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Helium                      | He                | Trace  | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Nitrogen                    | N2                | 0.1483 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Carbon dioxide              | CO2               | 0.1792 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Hydrogen sulphide           | RSC               | 1570   | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Carbonyl sulphide           | RSC               | 0.8    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Methyl mercaptan            | RSC               | 51     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Ethyl mercaptan             | RSC               | 0.8    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Dimethyl sulphide           | RSC               | 2.5    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Isopropyl mercaptan         | RSC               | 0.3    | ppm      | 0.1             |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|------------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | 0.1    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | 0.1    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Methane               | C1                | 0.5573 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Ethane                | C2                | 0.0043 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Propane               | C3                | 0.0011 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Isobutane             | C4                | 0.0001 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Butane                | C4                | 0.0002 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Isopentane            | C5                | 0.0001 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Pentane               | C5                | 0.0001 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Hexane                | C6                | 0.0001 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Heptanes plus         | C7+               | 0.0002 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Hydrogen sulphide     | H2S               | 0.0017 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Hydrogen              | H2                | 0.06   | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Helium                | He                | Trace  | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Nitrogen              | N2                | 0.1295 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Carbon dioxide        | CO2               | 0.2453 | fraction |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Hydrogen sulphide     | RSC               | 1693   | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Carbonyl sulphide     | RSC               | 0.9    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Methyl mercaptan      | RSC               | 163    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Ethyl mercaptan       | RSC               | 3.7    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Dimethyl sulphide     | RSC               | 7.8    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Isopropyl mercaptan   | RSC               | 0.9    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |



| Sample No. | UWI                  | Area             | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|------------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | n-Propylmercaptan     | RSC               | 0.4    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Methyl ethyl sulphide | RSC               | 0.2    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Thiophene             | RSC               | 0.5    | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Dimethyl disulphide   | RSC               | 1      | ppm      | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | 80C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Methane               | C1                | 0.6409 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Ethane                | C2                | 0.0103 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Propane               | C3                | 0.003  | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Isobutane             | C4                | 0.0004 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Butane                | C4                | 0.0005 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Isopentane            | C5                | 0.0001 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Pentane               | C5                | 0.0001 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Hexane                | C6                | 0.001  | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Heptanes plus         | C7+               | 0.0003 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Hydrogen sulphide     | H2S               | 0.0004 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Hydrogen              | H2                | 0.0598 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Helium                | He                | 0.0001 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Nitrogen              | N2                | 0.0062 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Carbon dioxide        | CO2               | 0.2769 | fraction |                 |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Hydrogen sulphide     | RSC               | 404    | ppm      | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Carbonyl sulphide     | RSC               | 1      | ppm      | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Methyl mercaptan      | RSC               | 251    | ppm      | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Ethyl mercaptan       | RSC               | 25     | ppm      | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Dimethyl sulphide     | RSC               | 62     | ppm      | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | Isopropyl mercaptan   | RSC               | 6.5    | ppm      | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas      | n-Propylmercaptan     | RSC               | 1.9    | ppm      | 0.1             |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type | Compound              | Compound Category | Result | Units             | Detection Limit |
|------------|----------------------|------------------|------------|-------------|-----------------------|-------------------|--------|-------------------|-----------------|
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas  | Methyl ethyl sulphide | RSC               | 5.1    | ppm               | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas  | Thiophene             | RSC               | 0.5    | ppm               | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas  | Isobutyl mercaptan    | RSC               | nd     | ppm               | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas  | Diethyl sulphide      | RSC               | 0.4    | ppm               | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas  | N-butyl Mercaptan     | RSC               | 0.5    | ppm               | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas  | Dimethyl disulphide   | RSC               | 0.6    | ppm               | 0.1             |
| 14259      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd     | ppm               | 0.1             |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Oil         | Nickel                |                   |        | mg/kg             |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Oil         | Vanadium              |                   |        | mg/kg             |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Oil         | V/Ni                  |                   |        | ratio             |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Oil         | Sulphur               | S                 | 23     | g/kg              |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Oil         | API Gravity           |                   |        | degrees           |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Oil         | Density               |                   |        | kg/m <sup>3</sup> |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Oil         | Pour Point            |                   |        | °C                |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | Corelab    | Oil         | Viscosity             |                   |        | cP@15°C           |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | UOttawa    | Oil         | Total Nitrogen        |                   |        | %                 |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | UOttawa    | Oil         | delta 15N             |                   |        | % Air             |                 |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | UOttawa    | Oil         | delta 34S             |                   |        | % CDT             |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | 1-Butene              | C4                | <0.05  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | Acetylene             | C2                | <0.05  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | cis-2-Butene          | C4                | 17.02  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | Ethane                | C2                | 67461  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | Ethylacetylene        | C4                | <0.05  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | Ethylene              | C2                | <0.05  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | Isobutane             | C4                | 3494.8 | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | Isobutylene           | C4                | <0.05  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | Methane               | C1                | 440055 | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | n-Butane              | C4                | 11212  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | n-Propane             | C3                | 31335  | ppmv              | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace         | AITF       | Casing Gas  | Propylene             | C3                | <0.05  | ppmv              | 0.05            |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Propyne                   | C3                | <0.05  | ppmv  | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | trans-2-Butene            | C4                | <0.05  | ppmv  | 0.05            |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Carbon dioxide            | CO2               | 11000  | ppmv  | 1062            |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Nitrogen                  | N2                | 380000 | ppmv  | 3540            |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Oxygen                    | O2                | 110000 | ppmv  | 3540            |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2,5-Dimethylthiophene     | RSC               | 0.7    | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2-Ethylthiophene          | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2-Methylthiophene         | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 3-Methylthiophene         | RSC               | 0.3    | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Butyl mercaptan           | RSC               | 2.8    | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Carbon disulphide         | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Carbonyl sulphide         | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Dimethyl disulphide       | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Dimethyl sulphide         | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | 0.5    | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | 0.5    | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | 2.8    | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Thiophene                 | RSC               | <0.2   | ppbv  | 0.177           |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <797   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <797   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <797   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <797   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <797   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | <797   | ppbv  | 797.04          |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type | Compound               | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|----------|------------|-------------|------------------------|-------------------|---------|-------|-----------------|
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,2-Dibromoethane      | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,2-Dichlorobenzene    | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,2-Dichloroethane     | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,2-Dichloropropane    | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,3-Butadiene          | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,3-Dichlorobenzene    | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,4-Dichlorobenzene    | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1,4-Dioxane            | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1-Butene               | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1-Hexene               | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 1-Pentene              | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2,2,4-Trimethylpentane | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2,2-Dimethylbutane     | VOC               | 58000   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2,3,4-Trimethylpentane | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2,3-Dimethylbutane     | VOC               | 169000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2,3-Dimethylpentane    | VOC               | 119000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2,4-Dimethylpentane    | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2-Methylheptane        | VOC               | 195000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2-Methylhexane         | VOC               | 330000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 2-Methylpentane        | VOC               | 1610000 | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 3-Methylheptane        | VOC               | 64200   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 3-Methylhexane         | VOC               | 366000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | 3-Methylpentane        | VOC               | 919000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Acetone                | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Acrolein               | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Benzene                | VOC               | 258000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Benzyl chloride        | VOC               | <797    | ppbv  | 797.04          |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type | Compound                 | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|----------|------------|-------------|--------------------------|-------------------|---------|-------|-----------------|
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Bromodichloromethane     | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Bromoform                | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Bromomethane             | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Carbon disulfide         | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Carbon tetrachloride     | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Chlorobenzene            | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Chloroethane             | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Chloroform               | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Chloromethane            | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | cis-1,2-Dichloroethene   | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | cis-1,3-Dichloropropene  | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | cis-2-Butene             | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | cis-2-Pentene            | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Cyclohexane              | VOC               | 434000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Cyclopentane             | VOC               | 353000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Ethanol                  | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Ethylbenzene             | VOC               | 16100   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Freon-11                 | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Freon-113                | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Freon-114                | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Freon-12                 | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Isobutane                | VOC               | 7110000 | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Isopentane               | VOC               | 5620000 | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Isoprene                 | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | <797    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | m,p-Xylene               | VOC               | 27900   | ppbv  | 797.04          |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type | Compound                   | Compound Category | Result   | Units | Detection Limit |
|------------|----------------------|----------|------------|-------------|----------------------------|-------------------|----------|-------|-----------------|
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | m-Diethylbenzene           | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methyl butyl ketone        | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methyl ethyl ketone        | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methyl isobutyl ketone     | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methyl methacrylate        | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methyl tert butyl ether    | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methylcyclohexane          | VOC               | 334000   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methylcyclopentane         | VOC               | 354000   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Methylene chloride         | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | m-Ethyltoluene             | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Naphthalene                | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Butane                   | VOC               | 21900000 | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Decane                   | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Dodecane                 | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Heptane                  | VOC               | 906000   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Hexane                   | VOC               | 2840000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Nonane                   | VOC               | 40300    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Octane                   | VOC               | 231000   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Pentane                  | VOC               | 8090000  | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Propylbenzene            | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | n-Undecane                 | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | o-Ethyltoluene             | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | o-Xylene                   | VOC               | 11800    | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | p-Diethylbenzene           | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | p-Ethyltoluene             | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Styrene                    | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Tetrachloroethylene        | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Tetrahydrofuran            | VOC               | <797     | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | Toluene                    | VOC               | 254000   | ppbv  | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas  | trans-1,2-Dichloroethylene | VOC               | <797     | ppbv  | 797.04          |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------|------------|-----------------|-----------------------------|-------------------|--------|----------|-----------------|
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas      | trans-1,3-Dichloropropylene | VOC               | <797   | ppbv     | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas      | trans-2-Butene              | VOC               | <797   | ppbv     | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas      | trans-2-Pentene             | VOC               | <797   | ppbv     | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas      | Trichloroethylene           | VOC               | <797   | ppbv     | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas      | Vinyl acetate               | VOC               | <797   | ppbv     | 797.04          |
| 14261      | 100/04-29-074-07W6/0 | La Glace | AITF       | Casing Gas      | Vinyl chloride              | VOC               | <797   | ppbv     | 797.04          |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Methane                     | C1                | 0.7293 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Ethane                      | C2                | 0.1172 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Propane                     | C3                | 0.0514 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Isobutane                   | C4                | 0.0048 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Butane                      | C4                | 0.0145 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Isopentane                  | C5                | 0.0031 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Pentane                     | C5                | 0.0043 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Hexane                      | C6                | 0.003  | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Heptanes plus               | C7+               | 0.0011 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Hydrogen sulphide           | H2S               | Trace  | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Hydrogen                    | H2                | Trace  | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Helium                      | He                | Trace  | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Nitrogen                    | N2                | 0.0566 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Carbon dioxide              | CO2               | 0.0147 | fraction |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Hydrogen sulphide           | RSC               | 0.7    | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Carbonyl sulphide           | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Methyl mercaptan            | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Ethyl mercaptan             | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Dimethyl sulphide           | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Isopropyl mercaptan         | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan        | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | n-Propylmercaptan           | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide       | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Thiophene                   | RSC               | nd     | ppm      | 0.1             |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Methane               | C1                | 0.7555 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Ethane                | C2                | 0.1156 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Propane               | C3                | 0.0555 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Isobutane             | C4                | 0.006  | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Butane                | C4                | 0.0191 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Isopentane            | C5                | 0.0047 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Pentane               | C5                | 0.0069 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Hexane                | C6                | 0.005  | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Heptanes plus         | C7+               | 0.0015 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Hydrogen              | H2                | Trace  | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Helium                | He                | 0.0001 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Nitrogen              | N2                | 0.0151 | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Carbon dioxide        | CO2               | 0.015  | fraction |                 |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Hydrogen sulphide     | RSC               | 1.3    | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace | Corelab    | Casing Gas      | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |



| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound            | Compound Category | Result      | Units             | Detection Limit |
|------------|----------------------|----------------|------------|-------------|---------------------|-------------------|-------------|-------------------|-----------------|
| 14261      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Casing Gas  | Diethyl sulphide    | RSC               | nd          | ppm               | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Casing Gas  | N-butyl Mercaptan   | RSC               | nd          | ppm               | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Casing Gas  | Dimethyl disulphide | RSC               | nd          | ppm               | 0.1             |
| 14261      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Casing Gas  | Diethyl disulphide  | RSC               | nd          | ppm               | 0.1             |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Oil         | Nickel              |                   | 0           | mg/kg             |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Oil         | Vanadium            |                   | 0.1         | mg/kg             |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Oil         | V/Ni                |                   |             | ratio             |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Oil         | Sulphur             | S                 | 5.18        | g/kg              |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Oil         | API Gravity         |                   | 37.6        | degrees           |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Oil         | Density             |                   | 836.4       | kg/m <sup>3</sup> |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Oil         | Pour Point          |                   | 3           | °C                |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | Corelab    | Oil         | Viscosity           |                   | 6.843274399 | cP@15°C           |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | UOttawa    | Oil         | Total Nitrogen      |                   | 0           | %                 |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | UOttawa    | Oil         | delta 15N           |                   | n/a         | % Air             |                 |
| 14262      | 100/04-29-074-07W6/0 | La Glace       | UOttawa    | Oil         | delta 34S           |                   | -0.17       | % CDT             |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1-Butene            | C4                | <0.05       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Acetylene           | C2                | <0.05       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-2-Butene        | C4                | 35.51       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethane              | C2                | 1945.1      | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethylacetylene      | C4                | <0.05       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethylene            | C2                | <0.05       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isobutane           | C4                | 1230.6      | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isobutylene         | C4                | <0.05       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methane             | C1                | 968654      | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Butane            | C4                | 856.98      | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Propane           | C3                | 1318.7      | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Propylene           | C3                | <0.05       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Propyne             | C3                | <0.05       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-2-Butene      | C4                | <0.05       | ppmv              | 0.05            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbon dioxide      | CO2               | 51470       | ppmv              | 600             |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Nitrogen                  | N2                | 47000  | ppmv  | 2000            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Oxygen                    | O2                | 13000  | ppmv  | 2000            |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,5-Dimethylthiophene     | RSC               | 5.6    | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Ethylthiophene          | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Methylthiophene         | RSC               | 6.4    | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 3-Methylthiophene         | RSC               | 9.2    | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Butyl mercaptan           | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbon disulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbonyl sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Dimethyl disulphide       | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Dimethyl sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | 15.9   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | 25     | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | 2.2    | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | 2      | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Thiophene                 | RSC               | 15.6   | ppbv  | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2-Dibromoethane         | VOC               | <240   | ppbv  | 240.361         |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound               | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|------------------------|-------------------|--------|-------|-----------------|
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2-Dichlorobenzene    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2-Dichloroethane     | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2-Dichloropropane    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,3-Butadiene          | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,3-Dichlorobenzene    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,4-Dichlorobenzene    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,4-Dioxane            | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1-Butene               | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1-Hexene               | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1-Pentene              | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,2,4-Trimethylpentane | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,2-Dimethylbutane     | VOC               | 27700  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,3,4-Trimethylpentane | VOC               | 3070   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,3-Dimethylbutane     | VOC               | 88800  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,3-Dimethylpentane    | VOC               | 44100  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,4-Dimethylpentane    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Methylheptane        | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Methylhexane         | VOC               | 2650   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Methylpentane        | VOC               | 53000  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 3-Methylheptane        | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 3-Methylhexane         | VOC               | 10900  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 3-Methylpentane        | VOC               | 144000 | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Acetone                | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Acrolein               | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Benzene                | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Benzyl chloride        | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Bromodichloromethane   | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Bromoform              | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Bromomethane           | VOC               | <240   | ppbv  | 240.361         |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|--------------------------|-------------------|--------|-------|-----------------|
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbon disulfide         | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbon tetrachloride     | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Chlorobenzene            | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Chloroethane             | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Chloroform               | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Chloromethane            | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-1,2-Dichloroethene   | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-1,3-Dichloropropene  | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-2-Butene             | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-2-Pentene            | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Cyclohexane              | VOC               | 48900  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Cyclopentane             | VOC               | 17400  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethanol                  | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethylbenzene             | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Freon-11                 | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Freon-113                | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Freon-114                | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Freon-12                 | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isobutane                | VOC               | 833000 | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isopentane               | VOC               | 674000 | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isoprene                 | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | m,p-Xylene               | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | m-Diethylbenzene         | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl butyl ketone      | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl ethyl ketone      | VOC               | <240   | ppbv  | 240.361         |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl isobutyl ketone      | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl methacrylate         | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl tert butyl ether     | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methylcyclohexane           | VOC               | 61900  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methylcyclopentane          | VOC               | 39900  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methylene chloride          | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | m-Ethyltoluene              | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Naphthalene                 | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Butane                    | VOC               | 611000 | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Decane                    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Dodecane                  | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Heptane                   | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Hexane                    | VOC               | 6050   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Nonane                    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Octane                    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Pentane                   | VOC               | 63300  | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Propylbenzene             | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Undecane                  | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | o-Ethyltoluene              | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | o-Xylene                    | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | p-Diethylbenzene            | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | p-Ethyltoluene              | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Styrene                     | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Tetrachloroethylene         | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Tetrahydrofuran             | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Toluene                     | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-1,2-Dichloroethylene  | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-1,3-Dichloropropylene | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-2-Butene              | VOC               | <240   | ppbv  | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-2-Pentene             | VOC               | <240   | ppbv  | 240.361         |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas      | Trichloroethylene     | VOC               | <240   | ppbv     | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas      | Vinyl acetate         | VOC               | <240   | ppbv     | 240.361         |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | Casing Gas      | Vinyl chloride        | VOC               | <240   | ppbv     | 240.361         |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Methane               | C1                | 0.7945 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Ethane                | C2                | 0.0055 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Propane               | C3                | 0.0038 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Isobutane             | C4                | 0.0031 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Butane                | C4                | 0.002  | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Isopentane            | C5                | 0.0017 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Pentane               | C5                | 0.0001 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Hexane                | C6                | 0.0008 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Heptanes plus         | C7+               | 0.0005 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Hydrogen              | H2                | Trace  | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Helium                | He                | Trace  | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Nitrogen              | N2                | 0.0262 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Carbon dioxide        | CO2               | 0.1618 | fraction |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | RSC               | 0.4    | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Methane               | C1                | 0.9118 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Ethane                | C2                | 0.0017 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Propane               | C3                | 0.0012 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Isobutane             | C4                | 0.001  | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Butane                | C4                | 0.0008 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Isopentane            | C5                | 0.0008 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Pentane               | C5                | Trace  | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Hexane                | C6                | 0.0005 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Heptanes plus         | C7+               | 0.0004 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Hydrogen              | H2                | Trace  | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Helium                | He                | Trace  | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Nitrogen              | N2                | 0.0025 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Carbon dioxide        | CO2               | 0.0793 | fraction |                 |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Hydrogen sulphide     | RSC               | 0.5    | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound              | Compound Category | Result      | Units             | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------|-------------------|-------------|-------------------|-----------------|
| 14263      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd          | ppm               | 0.1             |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Oil         | Nickel                |                   | 88          | mg/kg             |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Oil         | Vanadium              |                   | 234         | mg/kg             |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Oil         | V/Ni                  |                   | 2.659       | ratio             |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Oil         | Sulphur               | S                 | 61.9        | g/kg              |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Oil         | API Gravity           |                   | 9.3         | degrees           |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Oil         | Density               |                   | 1004.4      | kg/m <sup>3</sup> |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Oil         | Pour Point            |                   | 12          | °C                |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | Corelab    | Oil         | Viscosity             |                   | 89517.78327 | cP@15°C           |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | UOttawa    | Oil         | Total Nitrogen        |                   | 0.44        | %                 |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | UOttawa    | Oil         | delta 15N             |                   | 2.58        | % Air             |                 |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | UOttawa    | Oil         | delta 34S             |                   | 5.17        | % CDT             |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1-Butene              | C4                | <0.05       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Acetylene             | C2                | <0.05       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-2-Butene          | C4                | 23.21       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethane                | C2                | 23535       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethylacetylene        | C4                | <0.05       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethylene              | C2                | <0.05       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isobutane             | C4                | 474.39      | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isobutylene           | C4                | <0.05       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methane               | C1                | 950438      | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Butane              | C4                | 483.9       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Propane             | C3                | 3746.7      | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Propylene             | C3                | <0.05       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Propyne               | C3                | <0.05       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-2-Butene        | C4                | <0.05       | ppmv              | 0.05            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbon dioxide        | CO2               | 73370       | ppmv              | 600             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Nitrogen              | N2                | 27000       | ppmv              | 2000            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Oxygen                | O2                | 6100        | ppmv              | 2000            |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,5-Dimethylthiophene | RSC               | 30.6        | ppbv              | 0.1             |



| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Ethylthiophene          | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Methylthiophene         | RSC               | 7.5    | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 3-Methylthiophene         | RSC               | 6.8    | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Butyl mercaptan           | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbon disulphide         | RSC               | 1      | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbonyl sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Dimethyl disulphide       | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Dimethyl sulphide         | RSC               | 4.3    | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | 3.9    | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | 3.9    | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | 37.9   | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Thiophene                 | RSC               | 1.8    | ppbv  | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2-Dibromoethane         | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2-Dichlorobenzene       | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2-Dichloroethane        | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,2-Dichloropropane       | VOC               | <450   | ppbv  | 450.36          |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound               | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|------------------------|-------------------|--------|-------|-----------------|
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,3-Butadiene          | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,3-Dichlorobenzene    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,4-Dichlorobenzene    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1,4-Dioxane            | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1-Butene               | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1-Hexene               | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 1-Pentene              | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,2,4-Trimethylpentane | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,2-Dimethylbutane     | VOC               | 22000  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,3,4-Trimethylpentane | VOC               | 2050   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,3-Dimethylbutane     | VOC               | 34600  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,3-Dimethylpentane    | VOC               | 11100  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2,4-Dimethylpentane    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Methylheptane        | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Methylhexane         | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 2-Methylpentane        | VOC               | 12700  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 3-Methylheptane        | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 3-Methylhexane         | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | 3-Methylpentane        | VOC               | 14400  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Acetone                | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Acrolein               | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Benzene                | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Benzyl chloride        | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Bromodichloromethane   | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Bromoform              | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Bromomethane           | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbon disulfide       | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Carbon tetrachloride   | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Chlorobenzene          | VOC               | <450   | ppbv  | 450.36          |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|--------------------------|-------------------|--------|-------|-----------------|
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Chloroethane             | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Chloroform               | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Chloromethane            | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-1,2-Dichloroethene   | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-1,3-Dichloropropene  | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-2-Butene             | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | cis-2-Pentene            | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Cyclohexane              | VOC               | 14800  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Cyclopentane             | VOC               | 12000  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethanol                  | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Ethylbenzene             | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Freon-11                 | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Freon-113                | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Freon-114                | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Freon-12                 | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isobutane                | VOC               | 393000 | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isopentane               | VOC               | 184000 | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isoprene                 | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | m,p-Xylene               | VOC               | 7940   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | m-Diethylbenzene         | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl butyl ketone      | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl ethyl ketone      | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl isobutyl ketone   | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl methacrylate      | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methyl tert butyl ether  | VOC               | <450   | ppbv  | 450.36          |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methylcyclohexane           | VOC               | 12500  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methylcyclopentane          | VOC               | 9450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Methylene chloride          | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | m-Ethyltoluene              | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Naphthalene                 | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Butane                    | VOC               | 403000 | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Decane                    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Dodecane                  | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Heptane                   | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Hexane                    | VOC               | 10200  | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Nonane                    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Octane                    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Pentane                   | VOC               | 118000 | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Propylbenzene             | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | n-Undecane                  | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | o-Ethyltoluene              | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | o-Xylene                    | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | p-Diethylbenzene            | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | p-Ethyltoluene              | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Styrene                     | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Tetrachloroethylene         | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Tetrahydrofuran             | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Toluene                     | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-1,2-Dichloroethylene  | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-1,3-Dichloropropylene | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-2-Butene              | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | trans-2-Pentene             | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Trichloroethylene           | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Vinyl acetate               | VOC               | <450   | ppbv  | 450.36          |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | Casing Gas  | Vinyl chloride              | VOC               | <450   | ppbv  | 450.36          |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Methane               | C1                | 0.8929 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Ethane                | C2                | 0.0269 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Propane               | C3                | 0.0049 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Isobutane             | C4                | 0.0007 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Butane                | C4                | 0.0008 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Isopentane            | C5                | 0.0005 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Pentane               | C5                | 0.0008 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Hexane                | C6                | 0.0016 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Heptanes plus         | C7+               | 0.0006 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | H2S               | 0      | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Hydrogen              | H2                | Trace  | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Helium                | He                | 0.0001 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Nitrogen              | N2                | 0.006  | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Carbon dioxide        | CO2               | 0.0642 | fraction |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas      | Methane               | C1                | 0.8792 | fraction |                 |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------|-------------------|--------|----------|-----------------|
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Ethane                | C2                | 0.0227 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Propane               | C3                | 0.0037 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Isobutane             | C4                | 0.0004 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Butane                | C4                | 0.0005 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Isopentane            | C5                | 0.0001 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Pentane               | C5                | 0.0001 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Hexane                | C6                | 0.0001 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Heptanes plus         | C7+               | 0.0002 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Hydrogen sulphide     | H2S               | 0      | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Hydrogen              | H2                | Trace  | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Helium                | He                | 0.0001 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Nitrogen              | N2                | 0.0045 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Carbon dioxide        | CO2               | 0.0884 | fraction |                 |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Hydrogen sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14265      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Oil         | Nickel                |                   | 81     | mg/kg    |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Oil         | Vanadium              |                   | 210    | mg/kg    |                 |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type | Compound              | Compound Category | Result      | Units             | Detection Limit |
|------------|----------------------|----------------|------------|-------------|-----------------------|-------------------|-------------|-------------------|-----------------|
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Oil         | V/Ni                  |                   | 2.593       | ratio             |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Oil         | Sulphur               | S                 | 47.2        | g/kg              |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Oil         | API Gravity           |                   | 8.8         | degrees           |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Oil         | Density               |                   | 1008        | kg/m <sup>3</sup> |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Oil         | Pour Point            |                   | 12          | °C                |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | Corelab    | Oil         | Viscosity             |                   | 71532.63661 | cP@15°C           |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | UOttawa    | Oil         | Total Nitrogen        |                   | 0.46        | %                 |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | UOttawa    | Oil         | delta 15N             |                   | 2.62        | ‰ Air             |                 |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | UOttawa    | Oil         | delta 34S             |                   | 7.8         | ‰ CDT             |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | 1-Butene              | C4                | <0.05       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Acetylene             | C2                | <0.05       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | cis-2-Butene          | C4                | 19.96       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Ethane                | C2                | 1466.5      | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Ethylacetylene        | C4                | <0.05       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Ethylene              | C2                | <0.05       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Isobutane             | C4                | 797.54      | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Isobutylene           | C4                | <0.05       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Methane               | C1                | 984537      | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | n-Butane              | C4                | 159.09      | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | n-Propane             | C3                | 547.48      | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Propylene             | C3                | <0.05       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Propyne               | C3                | <0.05       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | trans-2-Butene        | C4                | <0.05       | ppmv              | 0.05            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Carbon dioxide        | CO2               | 70750       | ppmv              | 600             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Nitrogen              | N2                | 28000       | ppmv              | 2000            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | Oxygen                | O2                | 7300        | ppmv              | 2000            |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | 2,5-Dimethylthiophene | RSC               | 4           | ppbv              | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | 2-Ethylthiophene      | RSC               | <0.1        | ppbv              | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | 2-Methylthiophene     | RSC               | 0.1         | ppbv              | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus    | AITF       | Casing Gas  | 3-Methylthiophene     | RSC               | 1.4         | ppbv              | 0.1             |

| Sample No. | UWI                  | Area        | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Butyl mercaptan           | RSC               | <0.1   | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Carbon disulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Carbonyl sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Dimethyl disulphide       | RSC               | 1.9    | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Dimethyl sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | 5.9    | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | <0.1   | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | 4.7    | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | 1.5    | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | 3.2    | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | 1.4    | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | 1.2    | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Thiophene                 | RSC               | 2      | ppbv  | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | 853    | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene    | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene    | VOC               | 1680   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,2-Dibromoethane         | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,2-Dichlorobenzene       | VOC               | 554    | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,2-Dichloroethane        | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,2-Dichloropropane       | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene    | VOC               | 1120   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,3-Butadiene             | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,3-Dichlorobenzene       | VOC               | 649    | ppbv  | 103.216         |



| Sample No. | UWI                  | Area        | Laboratory | Sample Type | Compound               | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------|------------|-------------|------------------------|-------------------|--------|-------|-----------------|
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,4-Dichlorobenzene    | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1,4-Dioxane            | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1-Butene               | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1-Hexene               | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 1-Pentene              | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2,2,4-Trimethylpentane | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2,2-Dimethylbutane     | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2,3,4-Trimethylpentane | VOC               | 1100   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2,3-Dimethylbutane     | VOC               | 1650   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2,3-Dimethylpentane    | VOC               | 1640   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2,4-Dimethylpentane    | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2-Methylheptane        | VOC               | 2370   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2-Methylhexane         | VOC               | 3430   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 2-Methylpentane        | VOC               | 11600  | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 3-Methylheptane        | VOC               | 1070   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 3-Methylhexane         | VOC               | 3840   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | 3-Methylpentane        | VOC               | 7280   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Acetone                | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Acrolein               | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Benzene                | VOC               | 4250   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Benzyl chloride        | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Bromodichloromethane   | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Bromoform              | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Bromomethane           | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Carbon disulfide       | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Carbon tetrachloride   | VOC               | 761    | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Chlorobenzene          | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Chloroethane           | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Chloroform             | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Chloromethane          | VOC               | <103   | ppbv  | 103.216         |

| Sample No. | UWI                  | Area        | Laboratory | Sample Type | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------|------------|-------------|--------------------------|-------------------|--------|-------|-----------------|
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | cis-1,2-Dichloroethene   | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | cis-1,3-Dichloropropene  | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | cis-2-Butene             | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | cis-2-Pentene            | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Cyclohexane              | VOC               | 6010   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Cyclopentane             | VOC               | 4140   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Ethanol                  | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Ethylbenzene             | VOC               | 1490   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Freon-11                 | VOC               | 699    | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Freon-113                | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Freon-114                | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Freon-12                 | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | 528    | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Isobutane                | VOC               | 26400  | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Isopentane               | VOC               | 40800  | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Isoprene                 | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | 675    | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | m,p-Xylene               | VOC               | 3330   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | m-Diethylbenzene         | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methyl butyl ketone      | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methyl ethyl ketone      | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methyl isobutyl ketone   | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methyl methacrylate      | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methyl tert butyl ether  | VOC               | <103   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methylcyclohexane        | VOC               | 3910   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methylcyclopentane       | VOC               | 5220   | ppbv  | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas  | Methylene chloride       | VOC               | 1890   | ppbv  | 103.216         |

| Sample No. | UWI                  | Area        | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|-------------|------------|-----------------|-----------------------------|-------------------|--------|----------|-----------------|
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | m-Ethyltoluene              | VOC               | 1010   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | Naphthalene                 | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Butane                    | VOC               | 29500  | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Decane                    | VOC               | 970    | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Dodecane                  | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Heptane                   | VOC               | 8240   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Hexane                    | VOC               | 22300  | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Nonane                    | VOC               | 1300   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Octane                    | VOC               | 3080   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Pentane                   | VOC               | 56300  | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Propylbenzene             | VOC               | 1180   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | n-Undecane                  | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | o-Ethyltoluene              | VOC               | 975    | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | o-Xylene                    | VOC               | 1520   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | p-Diethylbenzene            | VOC               | 1050   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | p-Ethyltoluene              | VOC               | 1560   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | Styrene                     | VOC               | 3400   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | Tetrachloroethylene         | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | Tetrahydrofuran             | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | Toluene                     | VOC               | 4680   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | trans-1,2-Dichloroethylene  | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | trans-1,3-Dichloropropylene | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | trans-2-Butene              | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | trans-2-Pentene             | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | Trichloroethylene           | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | Vinyl acetate               | VOC               | <103   | ppbv     | 103.216         |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | Casing Gas      | Vinyl chloride              | VOC               | <103   | ppbv     | 103.216         |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Methane                     | C1                | 0.8316 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Ethane                      | C2                | 0.0014 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Propane                     | C3                | 0.0007 | fraction |                 |

| Sample No. | UWI                  | Area        | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|-------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Isobutane             | C4                | 0.001  | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Butane                | C4                | 0.0003 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Isopentane            | C5                | 0.0009 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Pentane               | C5                | Trace  | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Hexane                | C6                | 0.0008 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Heptanes plus         | C7+               | 0.0008 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Hydrogen              | H2                | 0.0001 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Helium                | He                | Trace  | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Nitrogen              | N2                | 0.0287 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Carbon dioxide        | CO2               | 0.1337 | fraction |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | RSC               | 0.1    | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas      | Methane               | C1                | 0.8919 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas      | Ethane                | C2                | 0.0014 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas      | Propane               | C3                | 0.0006 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas      | Isobutane             | C4                | 0.0007 | fraction |                 |

| Sample No. | UWI                  | Area        | Laboratory | Sample Type | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|-------------|------------|-------------|-----------------------|-------------------|--------|----------|-----------------|
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Butane                | C4                | 0.0002 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Isopentane            | C5                | 0.0004 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Pentane               | C5                | Trace  | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Hexane                | C6                | 0.0002 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Heptanes plus         | C7+               | 0.0002 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Hydrogen              | H2                | 0      | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Helium                | He                | Trace  | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Nitrogen              | N2                | 0.0015 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Carbon dioxide        | CO2               | 0.1029 | fraction |                 |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Hydrogen sulphide     | RSC               | 1.7    | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14267      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Oil         | Nickel                |                   | 78     | mg/kg    |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Oil         | Vanadium              |                   | 225    | mg/kg    |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Oil         | V/Ni                  |                   | 2.885  | ratio    |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Oil         | Sulphur               | S                 | 67.3   | g/kg     |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | Corelab    | Oil         | API Gravity           |                   | 9.9    | degrees  |                 |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type | Compound              | Compound Category | Result      | Units             | Detection Limit |
|------------|----------------------|-------------------|------------|-------------|-----------------------|-------------------|-------------|-------------------|-----------------|
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | Corelab    | Oil         | Density               |                   | 1000.1      | kg/m <sup>3</sup> |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | Corelab    | Oil         | Pour Point            |                   | 12          | °C                |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | Corelab    | Oil         | Viscosity             |                   | 48579.55074 | cP@15°C           |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | UOttawa    | Oil         | Total Nitrogen        |                   | 0.36        | %                 |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | UOttawa    | Oil         | delta 15N             |                   | 2.95        | % Air             |                 |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | UOttawa    | Oil         | delta 34S             |                   | 2.66        | ‰ CDT             |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1-Butene              | C4                | <0.05       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Acetylene             | C2                | <0.05       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | cis-2-Butene          | C4                | 24.15       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Ethane                | C2                | 4559        | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Ethylacetylene        | C4                | <0.05       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Ethylene              | C2                | <0.05       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isobutane             | C4                | 754.26      | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isobutylene           | C4                | <0.05       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methane               | C1                | 974493      | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | n-Butane              | C4                | 267.93      | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | n-Propane             | C3                | 1660.2      | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Propylene             | C3                | <0.05       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Propyne               | C3                | <0.05       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | trans-2-Butene        | C4                | <0.05       | ppmv              | 0.05            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Carbon dioxide        | CO2               | 63910       | ppmv              | 600             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Nitrogen              | N2                | 34000       | ppmv              | 2000            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Oxygen                | O2                | 9400        | ppmv              | 2000            |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2,5-Dimethylthiophene | RSC               | 15.4        | ppbv              | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2-Ethylthiophene      | RSC               | <0.1        | ppbv              | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2-Methylthiophene     | RSC               | <0.1        | ppbv              | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 3-Methylthiophene     | RSC               | <0.1        | ppbv              | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Butyl mercaptan       | RSC               | <0.1        | ppbv              | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Carbon disulphide     | RSC               | 1.3         | ppbv              | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Carbonyl sulphide     | RSC               | <0.1        | ppbv              | 0.1             |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Dimethyl disulphide       | RSC               | 16.1   | ppbv  | 0.5             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Dimethyl sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Ethyl mercaptan           | RSC               | 48.1   | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | <0.1   | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | 1291   | ppbv  | 0.5             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | <0.1   | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | 13.6   | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | 29.4   | ppbv  | 0.5             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | 25.4   | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Thiophene                 | RSC               | 6.6    | ppbv  | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene    | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene    | VOC               | 97.7   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,2-Dibromoethane         | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,2-Dichlorobenzene       | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,2-Dichloroethane        | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,2-Dichloropropane       | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene    | VOC               | 59.7   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,3-Butadiene             | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,3-Dichlorobenzene       | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,4-Dichlorobenzene       | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1,4-Dioxane               | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1-Butene                  | VOC               | <12.4  | ppbv  | 12.3588         |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------------|------------|-------------|-------------------------|-------------------|--------|-------|-----------------|
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1-Hexene                | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 1-Pentene               | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2,2,4-Trimethylpentane  | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2,2-Dimethylbutane      | VOC               | 5000   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2,3,4-Trimethylpentane  | VOC               | 401    | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2,3-Dimethylbutane      | VOC               | 11800  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2,3-Dimethylpentane     | VOC               | 5570   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2,4-Dimethylpentane     | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2-Methylheptane         | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2-Methylhexane          | VOC               | 3310   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 2-Methylpentane         | VOC               | 28900  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 3-Methylheptane         | VOC               | 767    | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 3-Methylhexane          | VOC               | 6850   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | 3-Methylpentane         | VOC               | 26200  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Acetone                 | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Acrolein                | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Benzene                 | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Benzyl chloride         | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Bromodichloromethane    | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Bromoform               | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Bromomethane            | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Carbon disulfide        | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Carbon tetrachloride    | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Chlorobenzene           | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Chloroethane            | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Chloroform              | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Chloromethane           | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | cis-1,2-Dichloroethene  | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | cis-1,3-Dichloropropene | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | cis-2-Butene            | VOC               | <12.4  | ppbv  | 12.3588         |



| Sample No. | UWI                  | Area              | Laboratory | Sample Type | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------------|------------|-------------|--------------------------|-------------------|--------|-------|-----------------|
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | cis-2-Pentene            | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Cyclohexane              | VOC               | 22100  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Cyclopentane             | VOC               | 12100  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Ethanol                  | VOC               | 3150   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Ethylbenzene             | VOC               | 86.8   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Freon-11                 | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Freon-113                | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Freon-114                | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Freon-12                 | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isobutane                | VOC               | 321000 | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isopentane               | VOC               | 113000 | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isoprene                 | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | 69.7   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | m,p-Xylene               | VOC               | 172    | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | m-Diethylbenzene         | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methyl butyl ketone      | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methyl ethyl ketone      | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methyl isobutyl ketone   | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methyl methacrylate      | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methyl tert butyl ether  | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methylcyclohexane        | VOC               | 21800  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methylcyclopentane       | VOC               | 19900  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Methylene chloride       | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | m-Ethyltoluene           | VOC               | 55.4   | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | Naphthalene              | VOC               | <12.4  | ppbv  | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas  | n-Butane                 | VOC               | 124000 | ppbv  | 12.3588         |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|-------------------|------------|-----------------|-----------------------------|-------------------|--------|----------|-----------------|
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Decane                    | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Dodecane                  | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Heptane                   | VOC               | 427    | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Hexane                    | VOC               | 5120   | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Nonane                    | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Octane                    | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Pentane                   | VOC               | 15000  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Propylbenzene             | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | n-Undecane                  | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | o-Ethyltoluene              | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | o-Xylene                    | VOC               | 111    | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | p-Diethylbenzene            | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | p-Ethyltoluene              | VOC               | 49.4   | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | Styrene                     | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | Tetrachloroethylene         | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | Tetrahydrofuran             | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | Toluene                     | VOC               | 179    | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | trans-1,2-Dichloroethylene  | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | trans-1,3-Dichloropropylene | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | trans-2-Butene              | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | trans-2-Pentene             | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | Trichloroethylene           | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | Vinyl acetate               | VOC               | <12.4  | ppbv     | 12.3588         |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | Casing Gas      | Vinyl chloride              | VOC               | <12.4  | ppbv     | 12.3588         |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Methane                     | C1                | 0.8188 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Ethane                      | C2                | 0.0084 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Propane                     | C3                | 0.0055 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Isobutane                   | C4                | 0.0037 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Butane                      | C4                | 0.0015 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Isopentane                  | C5                | 0.0019 | fraction |                 |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|-------------------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Pentane               | C5                | 0.0003 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Hexane                | C6                | 0.0025 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Heptanes plus         | C7+               | 0.0016 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Hydrogen              | H2                | Trace  | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Helium                | He                | Trace  | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Nitrogen              | N2                | 0.0062 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Carbon dioxide        | CO2               | 0.1496 | fraction |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | RSC               | 0.2    | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas      | Methane               | C1                | 0.893  | fraction |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas      | Ethane                | C2                | 0.0047 | fraction |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas      | Propane               | C3                | 0.0016 | fraction |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas      | Isobutane             | C4                | 0.0007 | fraction |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas      | Butane                | C4                | 0.0003 | fraction |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas      | Isopentane            | C5                | 0.0003 | fraction |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas      | Pentane               | C5                | Trace  | fraction |                 |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type | Compound              | Compound Category | Result      | Units             | Detection Limit |
|------------|----------------------|-------------------|------------|-------------|-----------------------|-------------------|-------------|-------------------|-----------------|
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Hexane                | C6                | 0.0003      | fraction          |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Heptanes plus         | C7+               | 0.0005      | fraction          |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Hydrogen sulphide     | H2S               | 0.0003      | fraction          |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Hydrogen              | H2                | Trace       | fraction          |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Helium                | He                | Trace       | fraction          |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Nitrogen              | N2                | 0.0015      | fraction          |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Carbon dioxide        | CO2               | 0.0968      | fraction          |                 |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Hydrogen sulphide     | RSC               | 315         | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Carbonyl sulphide     | RSC               | 0.1         | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Methyl mercaptan      | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Ethyl mercaptan       | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Dimethyl sulphide     | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Isopropyl mercaptan   | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | tert-Butyl mercaptan  | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | n-Propylmercaptan     | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Methyl ethyl sulphide | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Thiophene             | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Isobutyl mercaptan    | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Diethyl sulphide      | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | N-butyl Mercaptan     | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Dimethyl disulphide   | RSC               | nd          | ppm               | 0.1             |
| 14269      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd          | ppm               | 0.1             |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Oil         | Nickel                |                   | 71          | mg/kg             |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Oil         | Vanadium              |                   | 203         | mg/kg             |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Oil         | V/Ni                  |                   | 2.859       | ratio             |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Oil         | Sulphur               | S                 | 65.9        | g/kg              |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Oil         | API Gravity           |                   | 9.8         | degrees           |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Oil         | Density               |                   | 1000.8      | kg/m <sup>3</sup> |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Oil         | Pour Point            |                   | 12          | °C                |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | Corelab    | Oil         | Viscosity             |                   | 12121.65831 | cP@15°C           |                 |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type | Compound              | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------------|------------|-------------|-----------------------|-------------------|--------|-------|-----------------|
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | UOttawa    | Oil         | Total Nitrogen        |                   | 0.49   | %     |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | UOttawa    | Oil         | delta 15N             |                   | 1.38   | ‰ Air |                 |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | UOttawa    | Oil         | delta 34S             |                   | 3.26   | ‰ CDT |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | 1-Butene              | C4                | <0.05  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Acetylene             | C2                | <0.05  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | cis-2-Butene          | C4                | <0.05  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Ethane                | C2                | 135880 | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Ethylacetylene        | C4                | <0.05  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Ethylene              | C2                | <0.05  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Isobutane             | C4                | 7115.5 | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Isobutylene           | C4                | <0.05  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Methane               | C1                | 891581 | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | n-Butane              | C4                | 12756  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | n-Propane             | C3                | 50430  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Propylene             | C3                | <0.05  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Propyne               | C3                | <0.05  | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | trans-2-Butene        | C4                | 2.25   | ppmv  | 0.05            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Carbon dioxide        | CO2               | 16160  | ppmv  | 600             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Nitrogen              | N2                | 14000  | ppmv  | 2000            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Oxygen                | O2                | 2300   | ppmv  | 2000            |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | 2,5-Dimethylthiophene | RSC               | 0.8    | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | 2-Ethylthiophene      | RSC               | 1.7    | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | 2-Methylthiophene     | RSC               | 6.2    | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | 3-Methylthiophene     | RSC               | 1.4    | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Butyl mercaptan       | RSC               | 6      | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Carbon disulphide     | RSC               | 176.7  | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Carbonyl sulphide     | RSC               | <0.1   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Dimethyl disulphide   | RSC               | <0.1   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Dimethyl sulphide     | RSC               | <0.1   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne          | AITF       | Casing Gas  | Ethyl mercaptan       | RSC               | 33.4   | ppbv  | 0.1             |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------|------------|-------------|---------------------------|-------------------|--------|-------|-----------------|
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Ethyl sulphide            | RSC               | 3.8    | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Hydrogen sulphide         | RSC               | <0.1   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Isobutyl mercaptan        | RSC               | <0.1   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Isopropyl mercaptan       | RSC               | 123.5  | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Pentyl mercaptan          | RSC               | <0.1   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Propyl mercaptan          | RSC               | 28.1   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | tert-Butyl mercaptan      | RSC               | 9      | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Thiophene                 | RSC               | 59.6   | ppbv  | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,1,1-Trichloroethane     | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,1,2,2-Tetrachloroethane | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,1,2-Trichloroethane     | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,1-Dichloroethane        | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,1-Dichloroethylene      | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,2,3-Trimethylbenzene    | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,2,4-Trichlorobenzene    | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,2,4-Trimethylbenzene    | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,2-Dibromoethane         | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,2-Dichlorobenzene       | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,2-Dichloroethane        | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,2-Dichloropropane       | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,3,5-Trimethylbenzene    | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,3-Butadiene             | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,3-Dichlorobenzene       | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,4-Dichlorobenzene       | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1,4-Dioxane               | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1-Butene                  | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1-Hexene                  | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 1-Pentene                 | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2,2,4-Trimethylpentane    | VOC               | <360   | ppbv  | 360.36          |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------|------------|-------------|-------------------------|-------------------|--------|-------|-----------------|
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2,2-Dimethylbutane      | VOC               | 28000  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2,3,4-Trimethylpentane  | VOC               | 1170   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2,3-Dimethylbutane      | VOC               | 63000  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2,3-Dimethylpentane     | VOC               | 24300  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2,4-Dimethylpentane     | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2-Methylheptane         | VOC               | 18400  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2-Methylhexane          | VOC               | 53100  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 2-Methylpentane         | VOC               | 325000 | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 3-Methylheptane         | VOC               | 10400  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 3-Methylhexane          | VOC               | 56400  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | 3-Methylpentane         | VOC               | 194000 | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Acetone                 | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Acrolein                | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Benzene                 | VOC               | 87700  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Benzyl chloride         | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Bromodichloromethane    | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Bromoform               | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Bromomethane            | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Carbon disulfide        | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Carbon tetrachloride    | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Chlorobenzene           | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Chloroethane            | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Chloroform              | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Chloromethane           | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | cis-1,2-Dichloroethene  | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | cis-1,3-Dichloropropene | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | cis-2-Butene            | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | cis-2-Pentene           | VOC               | <360   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Cyclohexane             | VOC               | 113000 | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Cyclopentane            | VOC               | 107000 | ppbv  | 360.36          |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type | Compound                 | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|----------|------------|-------------|--------------------------|-------------------|---------|-------|-----------------|
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Dibromochloromethane     | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Ethanol                  | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Ethyl acetate            | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Ethylbenzene             | VOC               | 5230    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Freon-11                 | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Freon-113                | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Freon-114                | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Freon-12                 | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Hexachloro-1,3-butadiene | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Isobutane                | VOC               | 3380000 | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Isopentane               | VOC               | 1540000 | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Isoprene                 | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Isopropyl alcohol        | VOC               | 54400   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Isopropylbenzene         | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | m,p-Xylene               | VOC               | 9840    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | m-Diethylbenzene         | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methyl butyl ketone      | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methyl ethyl ketone      | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methyl isobutyl ketone   | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methyl methacrylate      | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methyl tert butyl ether  | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methylcyclohexane        | VOC               | 69000   | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methylcyclopentane       | VOC               | 107000  | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Methylene chloride       | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | m-Ethyltoluene           | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | Naphthalene              | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | n-Butane                 | VOC               | 6430000 | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | n-Decane                 | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | n-Dodecane               | VOC               | <360    | ppbv  | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas  | n-Heptane                | VOC               | 112000  | ppbv  | 360.36          |



| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound                    | Compound Category | Result  | Units    | Detection Limit |
|------------|----------------------|----------|------------|-----------------|-----------------------------|-------------------|---------|----------|-----------------|
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | n-Hexane                    | VOC               | 476000  | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | n-Nonane                    | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | n-Octane                    | VOC               | 30700   | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | n-Pentane                   | VOC               | 1600000 | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | n-Propylbenzene             | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | n-Undecane                  | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | o-Ethyltoluene              | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | o-Xylene                    | VOC               | 2980    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | p-Diethylbenzene            | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | p-Ethyltoluene              | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | Styrene                     | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | Tetrachloroethylene         | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | Tetrahydrofuran             | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | Toluene                     | VOC               | 45700   | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | trans-1,2-Dichloroethylene  | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | trans-1,3-Dichloropropylene | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | trans-2-Butene              | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | trans-2-Pentene             | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | Trichloroethylene           | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | Vinyl acetate               | VOC               | <360    | ppbv     | 360.36          |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | AITF       | Casing Gas      | Vinyl chloride              | VOC               | <360    | ppbv     | 360.36          |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Methane                     | C1                | 0.7813  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Ethane                      | C2                | 0.1211  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Propane                     | C3                | 0.0479  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Isobutane                   | C4                | 0.006   | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Butane                      | C4                | 0.0101  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Isopentane                  | C5                | 0.0021  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Pentane                     | C5                | 0.002   | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Hexane                      | C6                | 0.0012  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Heptanes plus               | C7+               | 0.0004  | fraction |                 |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound              | Compound Category | Result | Units    | Detection Limit |
|------------|----------------------|----------|------------|-----------------|-----------------------|-------------------|--------|----------|-----------------|
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Hydrogen              | H2                | Trace  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Helium                | He                | 0.0001 | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Nitrogen              | N2                | 0.0088 | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Carbon dioxide        | CO2               | 0.019  | fraction |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Hydrogen sulphide     | RSC               | 0.4    | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Carbonyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Methyl mercaptan      | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Ethyl mercaptan       | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Dimethyl sulphide     | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Isopropyl mercaptan   | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | tert-Butyl mercaptan  | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | n-Propylmercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Methyl ethyl sulphide | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Thiophene             | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Isobutyl mercaptan    | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Diethyl sulphide      | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | N-butyl Mercaptan     | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Dimethyl disulphide   | RSC               | nd     | ppm      | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | 25C Flashed Gas | Diethyl disulphide    | RSC               | nd     | ppm      | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Methane               | C1                | 0.777  | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Ethane                | C2                | 0.1223 | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Propane               | C3                | 0.0479 | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Isobutane             | C4                | 0.0066 | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Butane                | C4                | 0.012  | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Isopentane            | C5                | 0.0029 | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Pentane               | C5                | 0.003  | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Hexane                | C6                | 0.0025 | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Heptanes plus         | C7+               | 0.0007 | fraction |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas      | Hydrogen sulphide     | H2S               | Trace  | fraction |                 |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type | Compound              | Compound Category | Result      | Units             | Detection Limit |
|------------|----------------------|----------|------------|-------------|-----------------------|-------------------|-------------|-------------------|-----------------|
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Hydrogen              | H2                | Trace       | fraction          |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Helium                | He                | 0.0001      | fraction          |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Nitrogen              | N2                | 0.0054      | fraction          |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Carbon dioxide        | CO2               | 0.0196      | fraction          |                 |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Hydrogen sulphide     | RSC               | 18          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Carbonyl sulphide     | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Methyl mercaptan      | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Ethyl mercaptan       | RSC               | 0.3         | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Dimethyl sulphide     | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Isopropyl mercaptan   | RSC               | 0.4         | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | tert-Butyl mercaptan  | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | n-Propylmercaptan     | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Methyl ethyl sulphide | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Thiophene             | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Isobutyl mercaptan    | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Diethyl sulphide      | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | N-butyl Mercaptan     | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Dimethyl disulphide   | RSC               | nd          | ppm               | 0.1             |
| 14271      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Casing Gas  | Diethyl disulphide    | RSC               | nd          | ppm               | 0.1             |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Oil         | Nickel                |                   | 26          | mg/kg             |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Oil         | Vanadium              |                   | 70          | mg/kg             |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Oil         | V/Ni                  |                   | 2.692       | ratio             |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Oil         | Sulphur               | S                 | 29.6        | g/kg              |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Oil         | API Gravity           |                   | 22.2        | degrees           |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Oil         | Density               |                   | 920.3       | kg/m <sup>3</sup> |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Oil         | Pour Point            |                   | -30         | °C                |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | Corelab    | Oil         | Viscosity             |                   | 113.2951465 | cP@15°C           |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | UOttawa    | Oil         | Total Nitrogen        |                   | 0.14        | %                 |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | UOttawa    | Oil         | delta 15N             |                   | 11.36       | % Air             |                 |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | UOttawa    | Oil         | delta 34S             |                   | 6.6         | % CDT             |                 |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound               | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|------------------------|-------------------|---------|-------|-----------------|
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 3-Methylhexane         | VOC               | 9810    | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2-Methylpentane        | VOC               | 96400   | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | m,p-Xylene             | VOC               | 932     | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Pentane              | VOC               | 84600   | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Hexane               | VOC               | 6330    | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methylcyclohexane      | VOC               | 62600   | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methylcyclopentane     | VOC               | 54200   | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Cyclohexane            | VOC               | 53200   | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane    | VOC               | 46900   | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 3-Methylheptane        | VOC               | 437     | ppbv  | 0.02            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane     | VOC               | 41900   | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene | VOC               | 296     | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2-Methylhexane         | VOC               | 2820    | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane | VOC               | 2560    | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | trans-2-Pentene        | VOC               | 256     | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Ethylbenzene           | VOC               | 232     | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene | VOC               | 220     | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isobutane              | VOC               | 2150000 | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 3-Methylpentane        | VOC               | 194000  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | o-Xylene               | VOC               | 191     | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Cyclopentane           | VOC               | 18400   | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Toluene                | VOC               | 1740    | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane     | VOC               | 150000  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene | VOC               | 135     | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isopentane             | VOC               | 1310000 | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Butane               | VOC               | 1240000 | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isopropylbenzene       | VOC               | 123     | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Heptane              | VOC               | 1190    | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Benzene                | VOC               | 1050    | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane  | VOC               | <54.9   | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|---------------------------|-------------------|--------|-------|-----------------|
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1-Dichloroethane        | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene      | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene    | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2-Dibromoethane         | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene       | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2-Dichloroethane        | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2-Dichloropropane       | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,3-Butadiene             | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene       | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene       | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,4-Dioxane               | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1-Butene                  | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1-Hexene                  | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1-Pentene                 | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane    | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane       | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2-Methylheptane           | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Acetone                   | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Acrolein                  | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Benzyl chloride           | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Bromodichloromethane      | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Bromoform                 | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Bromomethane              | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Carbon disulfide          | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Carbon tetrachloride      | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Chlorobenzene             | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Chloroethane              | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Chloroform                | VOC               | <54.9  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|--------------------------|-------------------|--------|-------|-----------------|
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Chloromethane            | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene   | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene  | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | cis-2-Butene             | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | cis-2-Pentene            | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Dibromochloromethane     | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Ethanol                  | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Ethyl acetate            | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Freon-11                 | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Freon-113                | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Freon-114                | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Freon-12                 | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isoprene                 | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isopropyl alcohol        | VOC               | <54.9  | ppbv  | 0.06            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | m-Diethylbenzene         | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | m-Ethyltoluene           | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl butyl ketone      | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl ethyl ketone      | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl isobutyl ketone   | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl methacrylate      | VOC               | <54.9  | ppbv  | 0.05            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl tert butyl ether  | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methylene chloride       | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Decane                 | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Dodecane               | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Nonane                 | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Octane                 | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Propylbenzene          | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Undecane               | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Naphthalene              | VOC               | <54.9  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|------------------|------------|-----------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | o-Ethyltoluene              | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | p-Diethylbenzene            | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | p-Ethyltoluene              | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | Styrene                     | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | Tetrachloroethylene         | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | Tetrahydrofuran             | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <54.9  | ppbv  | 0.03            |
| 14264      | 105/16-32-082-14W5/0 | PROS Seal Lake   | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <54.9  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1-Pentene                   | VOC               | 994    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Toluene                     | VOC               | 9620   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Cyclohexane                 | VOC               | 842    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane          | VOC               | 823    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Butane                    | VOC               | 66200  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Isobutane                   | VOC               | 61000  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Methylcyclohexane           | VOC               | 572    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 3-Methylhexane              | VOC               | 557    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2-Methylheptane             | VOC               | 485    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2-Methylhexane              | VOC               | 439    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2-Methylpentane             | VOC               | 4170   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | cis-2-Butene                | VOC               | 3920   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Hexane                    | VOC               | 3330   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Octane                    | VOC               | 320    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Pentane                   | VOC               | 22000  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 3-Methylpentane             | VOC               | 2170   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Isopentane                  | VOC               | 20800  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | trans-2-Pentene             | VOC               | 1850   | ppbv  | 0.03            |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type     | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|------------------|------------|-----------------|---------------------------|-------------------|--------|-------|-----------------|
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | m,p-Xylene                | VOC               | 185    | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1-Butene                  | VOC               | 15600  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Methylcyclopentane        | VOC               | 1540   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Cyclopentane              | VOC               | 1530   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Benzene                   | VOC               | 1440   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane        | VOC               | 1310   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Heptane                 | VOC               | 1060   | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane     | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,1-Dichloroethane        | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene      | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,2-Dibromoethane         | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene       | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,2-Dichloroethane        | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,2-Dichloropropane       | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,3-Butadiene             | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene       | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene       | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1,4-Dioxane               | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 1-Hexene                  | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane       | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane       | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | 3-Methylheptane           | VOC               | <60.0  | ppbv  | 0.02            |



| Sample No. | UWI                  | Area             | Laboratory | Sample Type     | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|------------------|------------|-----------------|--------------------------|-------------------|--------|-------|-----------------|
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Acetone                  | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Acrolein                 | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Benzyl chloride          | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Bromodichloromethane     | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Bromoform                | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Bromomethane             | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Carbon disulfide         | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Carbon tetrachloride     | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Chlorobenzene            | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Chloroethane             | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Chloroform               | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Chloromethane            | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene   | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene  | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | cis-2-Pentene            | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Dibromochloromethane     | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Ethanol                  | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Ethyl acetate            | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Ethylbenzene             | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Freon-11                 | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Freon-113                | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Freon-114                | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Freon-12                 | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Isoprene                 | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Isopropyl alcohol        | VOC               | <60.0  | ppbv  | 0.06            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Isopropylbenzene         | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | m-Diethylbenzene         | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | m-Ethyltoluene           | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Methyl butyl ketone      | VOC               | <60.0  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area             | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|------------------|------------|-----------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Methyl ethyl ketone         | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Methyl isobutyl ketone      | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Methyl methacrylate         | VOC               | <60.0  | ppbv  | 0.05            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Methyl tert butyl ether     | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Methylene chloride          | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Decane                    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Dodecane                  | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Nonane                    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Propylbenzene             | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | n-Undecane                  | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Naphthalene                 | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | o-Ethyltoluene              | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | o-Xylene                    | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | p-Diethylbenzene            | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | p-Ethyltoluene              | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Styrene                     | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Tetrachloroethylene         | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Tetrahydrofuran             | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <60.0  | ppbv  | 0.03            |
| 14260      | 125/03-17-070-03W4/0 | AOS Foster Creek | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <60.0  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam   | AITF       | 25C Flashed Gas | trans-2-Pentene             | VOC               | 913    | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam   | AITF       | 25C Flashed Gas | Cyclopentane                | VOC               | 8980   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam   | AITF       | 25C Flashed Gas | 2-Methylhexane              | VOC               | 8850   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam   | AITF       | 25C Flashed Gas | n-Decane                    | VOC               | 8420   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam   | AITF       | 25C Flashed Gas | o-Xylene                    | VOC               | 7360   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam   | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane          | VOC               | 6920   | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound               | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|------------------------|-------------------|--------|-------|-----------------|
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane     | VOC               | 6560   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane | VOC               | 624    | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Benzene                | VOC               | 6130   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Ethylbenzene           | VOC               | 5700   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 3-Methylheptane        | VOC               | 5630   | ppbv  | 0.02            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1-Pentene              | VOC               | 533    | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Pentane              | VOC               | 46300  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Isopentane             | VOC               | 46100  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane    | VOC               | 4240   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Hexane               | VOC               | 35500  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Heptane              | VOC               | 32500  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene | VOC               | 3240   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | m-Ethyltoluene         | VOC               | 2930   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Octane               | VOC               | 29000  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Undecane             | VOC               | 2390   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Cyclohexane            | VOC               | 22900  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Methylcyclohexane      | VOC               | 22100  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Toluene                | VOC               | 21100  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | o-Ethyltoluene         | VOC               | 2070   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Nonane               | VOC               | 17800  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Butane               | VOC               | 176000 | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 2-Methylpentane        | VOC               | 17400  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Propylbenzene        | VOC               | 1500   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene | VOC               | 1470   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | p-Ethyltoluene         | VOC               | 1440   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Isobutane              | VOC               | 136000 | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Isopropylbenzene       | VOC               | 1360   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Methylcyclopentane     | VOC               | 12500  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene | VOC               | 1200   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | m,p-Xylene             | VOC               | 11700  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|---------------------------|-------------------|--------|-------|-----------------|
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 2-Methylheptane           | VOC               | 11600  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 3-Methylpentane           | VOC               | 10700  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 3-Methylhexane            | VOC               | 10300  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | cis-2-Butene              | VOC               | 1000   | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane     | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,1-Dichloroethane        | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene      | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene    | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,2-Dibromoethane         | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene       | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,2-Dichloroethane        | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,2-Dichloropropane       | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,3-Butadiene             | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene       | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene       | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1,4-Dioxane               | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1-Butene                  | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 1-Hexene                  | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane    | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane       | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Acetone                   | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Acrolein                  | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Benzyl chloride           | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Bromodichloromethane      | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Bromoform                 | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Bromomethane              | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Carbon disulfide          | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Carbon tetrachloride      | VOC               | <74.9  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|--------------------------|-------------------|--------|-------|-----------------|
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Chlorobenzene            | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Chloroethane             | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Chloroform               | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Chloromethane            | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene   | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene  | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | cis-2-Pentene            | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Dibromochloromethane     | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Ethanol                  | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Ethyl acetate            | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Freon-11                 | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Freon-113                | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Freon-114                | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Freon-12                 | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Isoprene                 | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Isopropyl alcohol        | VOC               | <74.9  | ppbv  | 0.06            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | m-Diethylbenzene         | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Methyl butyl ketone      | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Methyl ethyl ketone      | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Methyl isobutyl ketone   | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Methyl methacrylate      | VOC               | <74.9  | ppbv  | 0.05            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Methyl tert butyl ether  | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Methylene chloride       | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | n-Dodecane               | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Naphthalene              | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | p-Diethylbenzene         | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Styrene                  | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Tetrachloroethylene      | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Tetrahydrofuran          | VOC               | <74.9  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <74.9  | ppbv  | 0.03            |
| 14254      | 100/13-09-062-03W4/0 | CLOS Beaverdam | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <74.9  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | o-Xylene                    | VOC               | 972    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | Benzene                     | VOC               | 920    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane          | VOC               | 78000  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | Cyclopentane                | VOC               | 77500  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | n-Decane                    | VOC               | 680    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene      | VOC               | 603    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | Isopropylbenzene            | VOC               | 575    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 3-Methylheptane             | VOC               | 5390   | ppbv  | 0.02            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | n-Heptane                   | VOC               | 4850   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene      | VOC               | 485    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane          | VOC               | 44800  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 2-Methylheptane             | VOC               | 4300   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | Isopentane                  | VOC               | 402000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene      | VOC               | 377    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | n-Hexane                    | VOC               | 37500  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | n-Propylbenzene             | VOC               | 325    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 3-Methylhexane              | VOC               | 31700  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane      | VOC               | 3070   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane         | VOC               | 29800  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | o-Ethyltoluene              | VOC               | 277    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | m-Ethyltoluene              | VOC               | 276    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | Cyclohexane                 | VOC               | 223000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | p-Ethyltoluene              | VOC               | 192    | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno      | AITF       | 25C Flashed Gas | n-Undecane                  | VOC               | 1880   | ppbv  | 0.03            |

| Sample No. | UWI                  | Area      | Laboratory | Sample Type     | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-----------|------------|-----------------|---------------------------|-------------------|--------|-------|-----------------|
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Isobutane                 | VOC               | 180000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 2-Methylhexane            | VOC               | 17800  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Methylcyclohexane         | VOC               | 169000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | m,p-Xylene                | VOC               | 1580   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Toluene                   | VOC               | 1570   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | n-Butane                  | VOC               | 144000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | n-Pentane                 | VOC               | 124000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 2-Methylpentane           | VOC               | 119000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Methylcyclopentane        | VOC               | 119000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Ethylbenzene              | VOC               | 1160   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 3-Methylpentane           | VOC               | 102000 | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane     | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,1-Dichloroethane        | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene      | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene    | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,2-Dibromoethane         | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene       | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,2-Dichloroethane        | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,2-Dichloropropane       | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,3-Butadiene             | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene       | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene       | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1,4-Dioxane               | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1-Butene                  | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1-Hexene                  | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 1-Pentene                 | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane    | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane       | VOC               | <82.2  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area      | Laboratory | Sample Type     | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-----------|------------|-----------------|--------------------------|-------------------|--------|-------|-----------------|
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Acetone                  | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Acrolein                 | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Benzyl chloride          | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Bromodichloromethane     | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Bromoform                | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Bromomethane             | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Carbon disulfide         | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Carbon tetrachloride     | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Chlorobenzene            | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Chloroethane             | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Chloroform               | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Chloromethane            | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene   | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene  | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | cis-2-Butene             | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | cis-2-Pentene            | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Dibromochloromethane     | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Ethanol                  | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Ethyl acetate            | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Freon-11                 | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Freon-113                | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Freon-114                | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Freon-12                 | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Isoprene                 | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Isopropyl alcohol        | VOC               | <82.2  | ppbv  | 0.06            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | m-Diethylbenzene         | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Methyl butyl ketone      | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Methyl ethyl ketone      | VOC               | <82.2  | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Methyl isobutyl ketone   | VOC               | <82.2  | ppbv  | 0.03            |



| Sample No. | UWI                  | Area      | Laboratory | Sample Type     | Compound                    | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|-----------|------------|-----------------|-----------------------------|-------------------|---------|-------|-----------------|
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Methyl methacrylate         | VOC               | <82.2   | ppbv  | 0.05            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Methyl tert butyl ether     | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Methylene chloride          | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | n-Dodecane                  | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | n-Nonane                    | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | n-Octane                    | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Naphthalene                 | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | p-Diethylbenzene            | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Styrene                     | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Tetrachloroethylene         | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Tetrahydrofuran             | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | trans-2-Pentene             | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <82.2   | ppbv  | 0.03            |
| 14256      | 100/01-29-079-20W5/0 | PROS Reno | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <82.2   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | 2-Methylheptane             | VOC               | 98700   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | 3-Methylpentane             | VOC               | 711000  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | 3-Methylheptane             | VOC               | 65600   | ppbv  | 0.02            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | m-Ethyltoluene              | VOC               | 6160    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | n-Heptane                   | VOC               | 557000  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | n-Nonane                    | VOC               | 54800   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene      | VOC               | 5280    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane      | VOC               | 5250    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | m,p-Xylene                  | VOC               | 52000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | Isobutane                   | VOC               | 4390000 | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane          | VOC               | 42200   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace  | AITF       | 25C Flashed Gas | n-Pentane                   | VOC               | 4170000 | ppbv  | 0.03            |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound                  | Compound Category | Result   | Units | Detection Limit |
|------------|----------------------|----------|------------|-----------------|---------------------------|-------------------|----------|-------|-----------------|
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | o-Ethyltoluene            | VOC               | 4070     | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | trans-2-Pentene           | VOC               | 389      | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Isopropylbenzene          | VOC               | 3730     | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | n-Propylbenzene           | VOC               | 3390     | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Cyclohexane               | VOC               | 328000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Isopentane                | VOC               | 3120000  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Methylcyclopentane        | VOC               | 308000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Ethylbenzene              | VOC               | 29700    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 3-Methylhexane            | VOC               | 279000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Cyclopentane              | VOC               | 274000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Methylcyclohexane         | VOC               | 273000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | o-Xylene                  | VOC               | 27100    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | p-Ethyltoluene            | VOC               | 2460     | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 2-Methylhexane            | VOC               | 234000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene    | VOC               | 2320     | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Benzene                   | VOC               | 219000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | n-Hexane                  | VOC               | 2100000  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene    | VOC               | 1880     | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Toluene                   | VOC               | 184000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | n-Octane                  | VOC               | 161000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane        | VOC               | 150000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | n-Undecane                | VOC               | 1370     | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 2-Methylpentane           | VOC               | 1280000  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | n-Butane                  | VOC               | 11900000 | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | n-Decane                  | VOC               | 11100    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane       | VOC               | 101000   | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane     | VOC               | <64.7    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <64.7    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <64.7    | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,1-Dichloroethane        | VOC               | <64.7    | ppbv  | 0.03            |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------|------------|-----------------|-------------------------|-------------------|--------|-------|-----------------|
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene    | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene  | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,2-Dibromoethane       | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene     | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,2-Dichloroethane      | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,2-Dichloropropane     | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,3-Butadiene           | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene     | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene     | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1,4-Dioxane             | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1-Butene                | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1-Hexene                | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 1-Pentene               | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane  | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane     | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Acetone                 | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Acrolein                | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Benzyl chloride         | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Bromodichloromethane    | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Bromoform               | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Bromomethane            | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Carbon disulfide        | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Carbon tetrachloride    | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Chlorobenzene           | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Chloroethane            | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Chloroform              | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Chloromethane           | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene  | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | cis-2-Butene            | VOC               | <64.7  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------|------------|-----------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | cis-2-Pentene               | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Dibromochloromethane        | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Ethanol                     | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Ethyl acetate               | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Freon-11                    | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Freon-113                   | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Freon-114                   | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Freon-12                    | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene    | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Isoprene                    | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Isopropyl alcohol           | VOC               | <64.7  | ppbv  | 0.06            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | m-Diethylbenzene            | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Methyl butyl ketone         | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Methyl ethyl ketone         | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Methyl isobutyl ketone      | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Methyl methacrylate         | VOC               | <64.7  | ppbv  | 0.05            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Methyl tert butyl ether     | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Methylene chloride          | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | n-Dodecane                  | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Naphthalene                 | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | p-Diethylbenzene            | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Styrene                     | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Tetrachloroethylene         | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Tetrahydrofuran             | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <64.7  | ppbv  | 0.03            |
| 14262      | 100/04-29-074-07W6/0 | La Glace | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <64.7  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area        | Laboratory | Sample Type     | Compound               | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|-------------|------------|-----------------|------------------------|-------------------|---------|-------|-----------------|
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | p-Ethyltoluene         | VOC               | 960     | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | m,p-Xylene             | VOC               | 9390    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene | VOC               | 935     | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene | VOC               | 891     | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 3-Methylhexane         | VOC               | 72000   | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2-Methylheptane        | VOC               | 7090    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Decane               | VOC               | 6300    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Ethylbenzene           | VOC               | 5550    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane    | VOC               | 52400   | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Benzene                | VOC               | 5180    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane     | VOC               | 49300   | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | o-Xylene               | VOC               | 3920    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 3-Methylheptane        | VOC               | 3660    | ppbv  | 0.02            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Butane               | VOC               | 345000  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2-Methylhexane         | VOC               | 32200   | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane | VOC               | 3220    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 3-Methylpentane        | VOC               | 318000  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Undecane             | VOC               | 3120    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2-Methylpentane        | VOC               | 242000  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene | VOC               | 2360    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | m-Ethyltoluene         | VOC               | 2020    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Heptane              | VOC               | 19600   | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Toluene                | VOC               | 18300   | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Cyclohexane            | VOC               | 181000  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Methylcyclohexane      | VOC               | 176000  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Methylcyclopentane     | VOC               | 171000  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane     | VOC               | 159000  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Isopentane             | VOC               | 1560000 | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | o-Ethyltoluene         | VOC               | 1520    | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Isobutane              | VOC               | 1420000 | ppbv  | 0.03            |

| Sample No. | UWI                  | Area        | Laboratory | Sample Type     | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------|------------|-----------------|---------------------------|-------------------|--------|-------|-----------------|
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Cyclopentane              | VOC               | 142000 | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Propylbenzene           | VOC               | 1390   | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Nonane                  | VOC               | 11500  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Hexane                  | VOC               | 106000 | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Pentane                 | VOC               | 10600  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Isopropylbenzene          | VOC               | 1040   | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane     | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,1-Dichloroethane        | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene      | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene    | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,2-Dibromoethane         | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene       | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,2-Dichloroethane        | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,2-Dichloropropane       | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,3-Butadiene             | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene       | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene       | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1,4-Dioxane               | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1-Butene                  | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1-Hexene                  | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 1-Pentene                 | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane    | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane       | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Acetone                   | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Acrolein                  | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Benzyl chloride           | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Bromodichloromethane      | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Bromoform                 | VOC               | <56.4  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area        | Laboratory | Sample Type     | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------|------------|-----------------|--------------------------|-------------------|--------|-------|-----------------|
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Bromomethane             | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Carbon disulfide         | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Carbon tetrachloride     | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Chlorobenzene            | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Chloroethane             | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Chloroform               | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Chloromethane            | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene   | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene  | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | cis-2-Butene             | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | cis-2-Pentene            | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Dibromochloromethane     | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Ethanol                  | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Ethyl acetate            | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Freon-11                 | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Freon-113                | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Freon-114                | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Freon-12                 | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Isoprene                 | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Isopropyl alcohol        | VOC               | <56.4  | ppbv  | 0.06            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | m-Diethylbenzene         | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Methyl butyl ketone      | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Methyl ethyl ketone      | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Methyl isobutyl ketone   | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Methyl methacrylate      | VOC               | <56.4  | ppbv  | 0.05            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Methyl tert butyl ether  | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | Methylene chloride       | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Dodecane               | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus | AITF       | 25C Flashed Gas | n-Octane                 | VOC               | <56.4  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------------|------------|-----------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | Naphthalene                 | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | p-Diethylbenzene            | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | Styrene                     | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | Tetrachloroethylene         | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | Tetrahydrofuran             | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | trans-2-Pentene             | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <56.4  | ppbv  | 0.03            |
| 14268      | 102/02-01-083-18W5/8 | PROS Walrus       | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <56.4  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Ethylbenzene                | VOC               | 968    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 3-Methylhexane              | VOC               | 86300  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Nonane                    | VOC               | 855    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Butane                    | VOC               | 806000 | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Isopropylbenzene            | VOC               | 782    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Benzene                     | VOC               | 6920   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane         | VOC               | 65200  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Hexane                    | VOC               | 64800  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Heptane                   | VOC               | 6220   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene      | VOC               | 558    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane          | VOC               | 53400  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane      | VOC               | 4860   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2-Methylheptane             | VOC               | 4740   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2-Methylhexane              | VOC               | 44700  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Propylbenzene             | VOC               | 363    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene      | VOC               | 317    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2-Methylpentane             | VOC               | 290000 | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | o-Ethyltoluene              | VOC               | 284    | ppbv  | 0.03            |



| Sample No. | UWI                  | Area              | Laboratory | Sample Type     | Compound                  | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|-------------------|------------|-----------------|---------------------------|-------------------|---------|-------|-----------------|
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene    | VOC               | 280     | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 3-Methylpentane           | VOC               | 263000  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Methylcyclohexane         | VOC               | 246000  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Toluene                   | VOC               | 2350    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Cyclohexane               | VOC               | 231000  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Pentane                 | VOC               | 223000  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | p-Ethyltoluene            | VOC               | 217     | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Isobutane                 | VOC               | 2000000 | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Methylcyclopentane        | VOC               | 199000  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | m-Ethyltoluene            | VOC               | 191     | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Decane                  | VOC               | 1440    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Undecane                | VOC               | 1430    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Cyclopentane              | VOC               | 136000  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | m,p-Xylene                | VOC               | 1270    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane        | VOC               | 112000  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 3-Methylheptane           | VOC               | 10700   | ppbv  | 0.02            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Isopentane                | VOC               | 1060000 | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | o-Xylene                  | VOC               | 1050    | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane     | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,1-Dichloroethane        | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene      | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene    | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,2-Dibromoethane         | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene       | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,2-Dichloroethane        | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,2-Dichloropropane       | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,3-Butadiene             | VOC               | <79.3   | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene       | VOC               | <79.3   | ppbv  | 0.03            |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type     | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------------|------------|-----------------|-------------------------|-------------------|--------|-------|-----------------|
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene     | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1,4-Dioxane             | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1-Butene                | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1-Hexene                | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 1-Pentene               | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane  | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane     | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Acetone                 | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Acrolein                | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Benzyl chloride         | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Bromodichloromethane    | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Bromoform               | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Bromomethane            | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Carbon disulfide        | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Carbon tetrachloride    | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Chlorobenzene           | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Chloroethane            | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Chloroform              | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Chloromethane           | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene  | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | cis-2-Butene            | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | cis-2-Pentene           | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Dibromochloromethane    | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Ethanol                 | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Ethyl acetate           | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Freon-11                | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Freon-113               | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Freon-114               | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Freon-12                | VOC               | <79.3  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area              | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|-------------------|------------|-----------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene    | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Isoprene                    | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Isopropyl alcohol           | VOC               | <79.3  | ppbv  | 0.06            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | m-Diethylbenzene            | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Methyl butyl ketone         | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Methyl ethyl ketone         | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Methyl isobutyl ketone      | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Methyl methacrylate         | VOC               | <79.3  | ppbv  | 0.05            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Methyl tert butyl ether     | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Methylene chloride          | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Dodecane                  | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | n-Octane                    | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Naphthalene                 | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | p-Diethylbenzene            | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Styrene                     | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Tetrachloroethylene         | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Tetrahydrofuran             | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | trans-2-Pentene             | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <79.3  | ppbv  | 0.03            |
| 14270      | 103/16-26-084-17W5/2 | PROS Three Creeks | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <79.3  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake    | AITF       | 25C Flashed Gas | Isobutane                   | VOC               | 804000 | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake    | AITF       | 25C Flashed Gas | n-Butane                    | VOC               | 737000 | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake    | AITF       | 25C Flashed Gas | Methylcyclopentane          | VOC               | 7120   | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake    | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane          | VOC               | 66800  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake    | AITF       | 25C Flashed Gas | Ethylbenzene                | VOC               | 636    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake    | AITF       | 25C Flashed Gas | n-Heptane                   | VOC               | 621    | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                  | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|---------------------------|-------------------|--------|-------|-----------------|
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene    | VOC               | 58.7   | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Benzene                   | VOC               | 544    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | o-Ethyltoluene            | VOC               | 49.2   | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2-Methylhexane            | VOC               | 442    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane        | VOC               | 40800  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene    | VOC               | 404    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | p-Ethyltoluene            | VOC               | 301    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane    | VOC               | 2620   | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isopropylbenzene          | VOC               | 231    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | o-Xylene                  | VOC               | 222    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | m,p-Xylene                | VOC               | 2210   | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene    | VOC               | 220    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | m-Ethyltoluene            | VOC               | 195    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isopentane                | VOC               | 190000 | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Toluene                   | VOC               | 1610   | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2-Methylpentane           | VOC               | 13800  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane       | VOC               | 13700  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methylcyclohexane         | VOC               | 13700  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Hexane                  | VOC               | 13400  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 3-Methylpentane           | VOC               | 12600  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Propylbenzene           | VOC               | 122    | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 3-Methylhexane            | VOC               | 1190   | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Pentane                 | VOC               | 116000 | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Cyclohexane               | VOC               | 11600  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Cyclopentane              | VOC               | 10800  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane     | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1-Dichloroethane        | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene      | VOC               | <43.6  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-------------------------|-------------------|--------|-------|-----------------|
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene  | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2-Dibromoethane       | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene     | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2-Dichloroethane      | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,2-Dichloropropane     | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,3-Butadiene           | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene     | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene     | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1,4-Dioxane             | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1-Butene                | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1-Hexene                | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 1-Pentene               | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane  | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane     | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 2-Methylheptane         | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | 3-Methylheptane         | VOC               | <43.6  | ppbv  | 0.02            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Acetone                 | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Acrolein                | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Benzyl chloride         | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Bromodichloromethane    | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Bromoform               | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Bromomethane            | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Carbon disulfide        | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Carbon tetrachloride    | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Chlorobenzene           | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Chloroethane            | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Chloroform              | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Chloromethane           | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene  | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene | VOC               | <43.6  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                   | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|----------------------------|-------------------|--------|-------|-----------------|
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | cis-2-Butene               | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | cis-2-Pentene              | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Dibromochloromethane       | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Ethanol                    | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Ethyl acetate              | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Freon-11                   | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Freon-113                  | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Freon-114                  | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Freon-12                   | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene   | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isoprene                   | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Isopropyl alcohol          | VOC               | <43.6  | ppbv  | 0.06            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | m-Diethylbenzene           | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl butyl ketone        | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl ethyl ketone        | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl isobutyl ketone     | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl methacrylate        | VOC               | <43.6  | ppbv  | 0.05            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methyl tert butyl ether    | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Methylene chloride         | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Decane                   | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Dodecane                 | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Nonane                   | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Octane                   | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | n-Undecane                 | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Naphthalene                | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | p-Diethylbenzene           | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Styrene                    | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Tetrachloroethylene        | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Tetrahydrofuran            | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene | VOC               | <43.6  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | trans-2-Pentene             | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <43.6  | ppbv  | 0.03            |
| 14266      | 102/12-17-082-13W5/0 | PROS Seal Lake | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <43.6  | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Toluene                     | VOC               | 9160   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | m,p-Xylene                  | VOC               | 913    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Methylcyclohexane           | VOC               | 8670   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Cyclohexane                 | VOC               | 7410   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane          | VOC               | 691    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 3-Methylpentane             | VOC               | 6630   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Heptane                   | VOC               | 6390   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Pentane                   | VOC               | 56800  | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Isobutane                   | VOC               | 51400  | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Methylcyclopentane          | VOC               | 4450   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Isopentane                  | VOC               | 41400  | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Cyclopentane                | VOC               | 2730   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 3-Methylhexane              | VOC               | 2670   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Octane                    | VOC               | 2590   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2-Methylhexane              | VOC               | 2320   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane          | VOC               | 2210   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Benzene                     | VOC               | 2130   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Hexane                    | VOC               | 18900  | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Butane                    | VOC               | 138000 | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2-Methylheptane             | VOC               | 1370   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2-Methylpentane             | VOC               | 11900  | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane       | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane   | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane       | VOC               | <207   | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound               | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|------------------------|-------------------|--------|-------|-----------------|
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,1-Dichloroethane     | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene   | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,2-Dibromoethane      | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene    | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,2-Dichloroethane     | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,2-Dichloropropane    | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,3-Butadiene          | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene    | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene    | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1,4-Dioxane            | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1-Butene               | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1-Hexene               | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 1-Pentene              | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane    | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane    | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | 3-Methylheptane        | VOC               | <207   | ppbv  | 0.02            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Acetone                | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Acrolein               | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Benzyl chloride        | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Bromodichloromethane   | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Bromoform              | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Bromomethane           | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Carbon disulfide       | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Carbon tetrachloride   | VOC               | <207   | ppbv  | 0.03            |



| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                 | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|--------------------------|-------------------|--------|-------|-----------------|
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Chlorobenzene            | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Chloroethane             | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Chloroform               | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Chloromethane            | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene   | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene  | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | cis-2-Butene             | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | cis-2-Pentene            | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Dibromochloromethane     | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Ethanol                  | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Ethyl acetate            | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Ethylbenzene             | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Freon-11                 | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Freon-113                | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Freon-114                | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Freon-12                 | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Isoprene                 | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Isopropyl alcohol        | VOC               | <207   | ppbv  | 0.06            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Isopropylbenzene         | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | m-Diethylbenzene         | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | m-Ethyltoluene           | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Methyl butyl ketone      | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Methyl ethyl ketone      | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Methyl isobutyl ketone   | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Methyl methacrylate      | VOC               | <207   | ppbv  | 0.05            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Methyl tert butyl ether  | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Methylene chloride       | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Decane                 | VOC               | <207   | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Dodecane               | VOC               | <207   | ppbv  | 0.03            |

| Sample No. | UWI                  | Area           | Laboratory | Sample Type     | Compound                    | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|----------------|------------|-----------------|-----------------------------|-------------------|---------|-------|-----------------|
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Nonane                    | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Propylbenzene             | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | n-Undecane                  | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Naphthalene                 | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | o-Ethyltoluene              | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | o-Xylene                    | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | p-Diethylbenzene            | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | p-Ethyltoluene              | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Styrene                     | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Tetrachloroethylene         | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Tetrahydrofuran             | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | trans-2-Pentene             | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <207    | ppbv  | 0.03            |
| 14252      | 102/16-30-091-12W5/0 | PROS Sawn Lake | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <207    | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | 1,2,4-Trimethylbenzene      | VOC               | 881     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | n-Nonane                    | VOC               | 8710    | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | trans-2-Pentene             | VOC               | 864     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | 3-Methylhexane              | VOC               | 85100   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | n-Undecane                  | VOC               | 833     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | 2-Methylhexane              | VOC               | 79200   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | Toluene                     | VOC               | 78500   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | 2,3-Dimethylbutane          | VOC               | 75700   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | n-Butane                    | VOC               | 7050000 | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | Ethylbenzene                | VOC               | 6980    | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | n-Hexane                    | VOC               | 677000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne       | AITF       | 25C Flashed Gas | n-Propylbenzene             | VOC               | 641     | ppbv  | 0.03            |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound                  | Compound Category | Result  | Units | Detection Limit |
|------------|----------------------|----------|------------|-----------------|---------------------------|-------------------|---------|-------|-----------------|
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | o-Ethyltoluene            | VOC               | 641     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Isopropylbenzene          | VOC               | 582     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | cis-2-Butene              | VOC               | 516     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 2-Methylpentane           | VOC               | 500000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Isobutane                 | VOC               | 4690000 | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | n-Octane                  | VOC               | 46100   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | p-Ethyltoluene            | VOC               | 440     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,2,3-Trimethylbenzene    | VOC               | 413     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,3,5-Trimethylbenzene    | VOC               | 393     | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | o-Xylene                  | VOC               | 3790    | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 2-Methylheptane           | VOC               | 30100   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 2,3-Dimethylpentane       | VOC               | 29300   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 2,2-Dimethylbutane        | VOC               | 27100   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 3-Methylpentane           | VOC               | 270000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | n-Pentane                 | VOC               | 2480000 | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Isopentane                | VOC               | 2440000 | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | n-Decane                  | VOC               | 2310    | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Cyclopentane              | VOC               | 178000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Methylcyclopentane        | VOC               | 159000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | n-Heptane                 | VOC               | 153000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 2,3,4-Trimethylpentane    | VOC               | 1500    | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Benzene                   | VOC               | 139000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 3-Methylheptane           | VOC               | 13700   | ppbv  | 0.02            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Cyclohexane               | VOC               | 133000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | m,p-Xylene                | VOC               | 11800   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Methylcyclohexane         | VOC               | 102000  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | m-Ethyltoluene            | VOC               | 1000    | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,1,1-Trichloroethane     | VOC               | <36.4   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,1,2,2-Tetrachloroethane | VOC               | <36.4   | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,1,2-Trichloroethane     | VOC               | <36.4   | ppbv  | 0.03            |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound                | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------|------------|-----------------|-------------------------|-------------------|--------|-------|-----------------|
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,1-Dichloroethane      | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,1-Dichloroethylene    | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,2,4-Trichlorobenzene  | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,2-Dibromoethane       | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,2-Dichlorobenzene     | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,2-Dichloroethane      | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,2-Dichloropropane     | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,3-Butadiene           | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,3-Dichlorobenzene     | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,4-Dichlorobenzene     | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1,4-Dioxane             | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1-Butene                | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1-Hexene                | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 1-Pentene               | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 2,2,4-Trimethylpentane  | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | 2,4-Dimethylpentane     | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Acetone                 | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Acrolein                | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Benzyl chloride         | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Bromodichloromethane    | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Bromoform               | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Bromomethane            | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Carbon disulfide        | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Carbon tetrachloride    | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Chlorobenzene           | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Chloroethane            | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Chloroform              | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Chloromethane           | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | cis-1,2-Dichloroethene  | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | cis-1,3-Dichloropropene | VOC               | <36.4  | ppbv  | 0.03            |

| Sample No. | UWI                  | Area     | Laboratory | Sample Type     | Compound                    | Compound Category | Result | Units | Detection Limit |
|------------|----------------------|----------|------------|-----------------|-----------------------------|-------------------|--------|-------|-----------------|
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | cis-2-Pentene               | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Dibromochloromethane        | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Ethanol                     | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Ethyl acetate               | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Freon-11                    | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Freon-113                   | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Freon-114                   | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Freon-12                    | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Hexachloro-1,3-butadiene    | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Isoprene                    | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Isopropyl alcohol           | VOC               | <36.4  | ppbv  | 0.06            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | m-Diethylbenzene            | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Methyl butyl ketone         | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Methyl ethyl ketone         | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Methyl isobutyl ketone      | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Methyl methacrylate         | VOC               | <36.4  | ppbv  | 0.05            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Methyl tert butyl ether     | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Methylene chloride          | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | n-Dodecane                  | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Naphthalene                 | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | p-Diethylbenzene            | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Styrene                     | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Tetrachloroethylene         | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Tetrahydrofuran             | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | trans-1,2-Dichloroethylene  | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | trans-1,3-Dichloropropylene | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | trans-2-Butene              | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Trichloroethylene           | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Vinyl acetate               | VOC               | <36.4  | ppbv  | 0.03            |
| 14272      | 100/08-35-055-05W5/0 | St. Anne | AITF       | 25C Flashed Gas | Vinyl chloride              | VOC               | <36.4  | ppbv  | 0.03            |



Table 10. CoreLabCoreLab casing gas data.

| Well Name                            | Area - Fm                             | Casing Gas Data |          |        |        |         |         |         |         |        |        |        |        |                   |                   |                  |                 |                   |                     |                      |                   |           |                    |                  |                   |                     |                    |       |
|--------------------------------------|---------------------------------------|-----------------|----------|--------|--------|---------|---------|---------|---------|--------|--------|--------|--------|-------------------|-------------------|------------------|-----------------|-------------------|---------------------|----------------------|-------------------|-----------|--------------------|------------------|-------------------|---------------------|--------------------|-------|
|                                      |                                       | C1-C7+**        |          |        |        |         |         | H2S     | Inert   |        |        |        | TSA    |                   |                   |                  |                 |                   |                     |                      |                   |           |                    |                  |                   |                     |                    |       |
| Group                                |                                       | C1              | C2       | C3     | C4     | iC5     | C5      | C6      | H2S     | H2     | He     | N2     | CO2    | Hydrogen sulphide | Carbonyl sulphide | Methyl mercaptan | Ethyl mercaptan | Dimethyl sulphide | Isopropyl mercaptan | tert-Butyl mercaptan | n-Propylmercaptan | Thiophene | Isobutyl mercaptan | Diethyl sulphide | N-butyl Mercaptan | Dimethyl disulphide | Diethyl disulphide |       |
| Odour Threshold*                     |                                       | OL              | 0.000899 | 0.0015 | 0.0012 | 1.3E-06 | 1.4E-06 | 0.00013 | 0.00041 | OL     | OL     | OL     | OL     | 0.41              | 55                | 0.07             | 0.0087          | 3                 | 0.006               | 0.029                | 0.013             | 0.56      | 0.0068             | 0.033            | 0.0028            | 2.2                 | 2                  |       |
| Method Detection Limit               |                                       | 0.0001          | 0.0001   | 0.0001 | 0.0001 | 0.0001  | 0.0001  | 0.0001  | 100     | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 100               | 100               | 100              | 100             | 100               | 100                 | 100                  | 100               | 100       | 100                | 100              | 100               | 100                 | 100                | 100   |
| Units                                |                                       | frac            | frac     | frac   | frac   | frac    | frac    | frac    | ppmv    | frac   | frac   | frac   | frac   | ppbv              | ppbv              | ppbv             | ppbv            | ppbv              | ppbv                | ppbv                 | ppbv              | ppbv      | ppbv               | ppbv             | ppbv              | ppbv                | ppbv               | ppbv  |
| ANDORA 1L SAWN LK 16-30-91-12        | PROS Sawn Lake - Bluesky-Gething      | Green           | Orange   | Green  | Green  | Red     | Red     | Orange  | Green   | Green  | Green  | Green  | Green  | Green             | Orange            | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |
| BAYTEX 13D HZ BEAVRDM 13-9-62-3      | CLOS Beaverdam - Grand Rapids         | Green           | Orange   | Green  | Green  | Green   | Green   | Orange  | Green   | Green  | Green  | Green  | Green  | Green             | Red               | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |
| BAYTEX N317 KIMIWAN 1-29-79-20       | PROS Reno - Bluesky-Gething           | Green           | Orange   | Green  | Green  | Red     | Yellow  | Orange  | Green   | Green  | Green  | Green  | Green  | Green             | Green             | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |
| CVE FCCL E12W04 FISHER 3-17-70-3     | ABOS Foster Creek - Wabiskaw-McMurray | Green           | Yellow   | Orange | Green  | Yellow  | Yellow  | Orange  | Green   | Green  | Green  | Green  | Green  | Green             | Yellow            | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Red                | Green            | Green             | Green               | Green              | Green |
| ECA HZ LA GLACE 4-29-74-7            | Gordondale Type LaGlance - Nordegg    | Green           | Red      | Yellow | Yellow | Red     | Red     | Yellow  | Green   | Green  | Green  | Green  | Green  | Green             | Green             | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |
| MURPHY 16-31HZ S280 SEAL 16-32-82-14 | PROS Seal Lake - Bluesky-Gething      | Green           | Orange   | Green  | Green  | Red     | Green   | Orange  | Green   | Green  | Green  | Green  | Green  | Green             | Green             | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |
| MURPHY SEAL 12-17-82-13              | PROS Seal Lake - Pekisko              | Green           | Yellow   | Orange | Green  | Yellow  | Yellow  | Green   | Green   | Green  | Green  | Green  | Green  | Green             | Green             | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |
| PENN WEST HZ PEACE RVR 2-1-83-18     | PROS Walrus - Bluesky-Gething         | Green           | Orange   | Green  | Green  | Red     | Green   | Orange  | Green   | Green  | Green  | Green  | Green  | Green             | Green             | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |
| SCL HZ S343 CLIFFD 16-26-84-17       | PROS Three Creeks - Bluesky-Gething   | Green           | Orange   | Orange | Green  | Green   | Green   | Orange  | Green   | Green  | Green  | Green  | Green  | Green             | Green             | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |
| VH1 ALEXIS 8-35-55-5                 | Exshaw Type St.Anne - Banff           | Green           | Red      | Yellow | Orange | Red     | Red     | Yellow  | Green   | Green  | Green  | Green  | Green  | Green             | Green             | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green |





Table 12. CoreLab 25C flash gas data.

| Well Name                            | Area - Fm                             | Group    |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 | Units             |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
|--------------------------------------|---------------------------------------|----------|----|----|----|-----|----|-----|-------|----|----|----|-----|-------------------|-------------------|------------------|-----------------|-------------------|------------------------|----------------------|--------------------|-----------|--------------------|------------------|-------------------|---------------------|--------------------|--|
|                                      |                                       | C1-C7+** |    |    |    |     |    | H2S | Inert |    |    |    | TSA |                   |                   |                  |                 |                   | Method Detection Limit | Odour Threshold*     |                    |           |                    |                  |                   |                     |                    |  |
|                                      |                                       | C1       | C2 | C3 | C4 | iC5 | C5 | C6  | H2S   | H2 | He | N2 | CO2 | Hydrogen sulphide | Carbonyl sulphide | Methyl mercaptan | Ethyl mercaptan | Dimethyl sulphide | Isopropyl mercaptan    | tert-Butyl mercaptan | n-Propyl mercaptan | Thiophene | Isobutyl mercaptan | Diethyl sulphide | N-butyl Mercaptan | Dimethyl disulphide | Diethyl disulphide |  |
| ANDORA 1L SAWN LK 16-30-91-12        | PROS Sawn Lake - Bluesky-Gething      |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| BAYTEX 13D HZ BEAVRDM 13-9-62-3      | CLOS Beaverdam - Grand Rapids         |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| BAYTEX N317 KIMIWAN 1-29-79-20       | PROS Reno - Bluesky-Gething           |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| CVE FCCL E12W04 FISHER 3-17-70-3     | ABOS Foster Creek - Wabiskaw-McMurray |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| ECA HZ LA GLACE 4-29-74-7            | Gordondale Type LaGlance - Nordegg    |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| MURPHY 16-31HZ S280 SEAL 16-32-82-14 | PROS Seal Lake - Bluesky-Gething      |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| MURPHY SEAL 12-17-82-13              | PROS Seal Lake - Pekisko              |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| PENN WEST HZ PEACE RVR 2-1-83-18     | PROS Walrus - Bluesky-Gething         |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| SCL HZ S343 CLIFFD 16-26-84-17       | PROS Three Creeks - Bluesky-Gething   |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |
| VH1 ALEXIS 8-35-55-5                 | Exshaw Type St.Anne - Banff           |          |    |    |    |     |    |     |       |    |    |    |     |                   |                   |                  |                 |                   |                        |                      |                    |           |                    |                  |                   |                     |                    |  |

Table 13. CoreLab 80C flash gas data.

| 80C Flash Gas Data               |                                       | Units |        | Method Detection Limit |       | Odour Threshold* |        | Group  |       |       |       |       |       |                   |                   |                  |                 |                   |                     |                      |                   |           |                    |                  |                   |                     |                    |       |       |
|----------------------------------|---------------------------------------|-------|--------|------------------------|-------|------------------|--------|--------|-------|-------|-------|-------|-------|-------------------|-------------------|------------------|-----------------|-------------------|---------------------|----------------------|-------------------|-----------|--------------------|------------------|-------------------|---------------------|--------------------|-------|-------|
|                                  |                                       | frac  | frac   | frac                   | frac  | frac             | frac   | ppmv   | frac  | frac  | frac  | frac  | ppbv  | ppbv              | ppbv              | ppbv             | ppbv            | ppbv              | ppbv                | ppbv                 |                   |           |                    |                  |                   |                     |                    |       |       |
| Well Name                        | Area - Fm                             | C1    | C2     | C3                     | C4    | iC5              | C5     | C6     | H2S   | H2    | He    | N2    | CO2   | Hydrogen sulphide | Carbonyl sulphide | Methyl mercaptan | Ethyl mercaptan | Dimethyl sulphide | Isopropyl mercaptan | tert-Butyl mercaptan | n-Propylmercaptan | Thiophene | Isobutyl mercaptan | Diethyl sulphide | N-butyl Mercaptan | Dimethyl disulphide | Diethyl disulphide |       |       |
| ANDORA 1L SAWN LK 16-30-91-12    | PROS Sawn Lake - Bluesky-Gething      | Green | Green  | Green                  | Green | Green            | Green  | Green  | Green | Green | Green | Green | Green | Green             | Red               | Red              | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Green              | Green | Green |
| BAYTEX N317 KIMIWAN 1-29-79-20   | PROS Reno - Bluesky-Gething           | Green | Orange | Green                  | Green | Red              | Red    | Yellow | Green | Green | Green | Green | Green | Green             | Red               | Green            | Green           | Green             | Green               | Green                | Green             | Green     | Green              | Green            | Green             | Green               | Red                | Green |       |
| CVE FCCL E12W04 FISHER 3-17-70-3 | ABOS Foster Creek - Wabiskaw-McMurray | Green | Orange | Green                  | Green | Yellow           | Yellow | Green  | Green | Green | Green | Green | Green | Green             | Green             | Yellow           | Green           | Green             | Green               | Green                | Green             | Green     | Red                | Green            | Green             | Green               | Red                | Green |       |