PROPOSED SINCLAIR UNIT NO. 14

Application for Enhanced Oil Recovery Waterflood Project

Middle Bakken/Three Forks Formations

Bakken – Three Forks B Pool (01 62B)

Daly Sinclair Field, Manitoba

December 12th , 2014
Tundra Oil and Gas Partnership

INTRODUCTION

The Sinclair portion of the Daly Sinclair Oil Field is located in Ranges 28 and 29 W1 in Townships 7 and 8. Since discovery in 2004, the main oilfield area was developed with vertical and horizontal wells at 40 acre spacing on Primary Production. Since early 2009, a significant portion of the main oilfield has been unitized and placed on Secondary Waterflood (WF) Enhanced Oil Recovery (EOR) Production, mainly from the Lyleton 'A' & 'B' members of the Three Forks Formation. Tundra Oil and Gas Ltd. (Tundra) currently operates and continues to develop Sinclair Units 1, 2, 3, 5, 6, 7, 8, 10 and 11 as shown on Figure 1.

In the southeast part of the Sinclair field, potential exists for incremental production and reserves from a Waterflood EOR project in the Three Forks and Middle Bakken oil reservoirs. The following represents an application by Tundra to establish Sinclair Unit No. 14 (E/2 & SW/4 Section 26, SE/4 Section 35 and SW/4 Section 36 of Township 7, Range 29) and implement a Secondary Waterflood EOR scheme within the Three Forks and Middle Bakken formations as outlined on Figure 2.

The proposed project area falls within the existing designated 01-62B Bakken-Three Forks Pool of the Daly Sinclair Oilfield (Figure 3).

CONCLUSIONS

1. The proposed Sinclair Unit No. 14 currently includes 2 producing horizontal wells and 4 producing vertical wells, within 20 Legal Sub Divisions (LSD) of the Middle Bakken/Three Forks producing reservoir. The project is located east of Sinclair Unit No. 11 and northwest of Sinclair Unit No. 2 (Figure 2).

2. Total Net Original Oil in Place (OOIP) in Sinclair Unit No. 14 has been calculated to be 1226.7 e3m3 (7716 Mbbl) for an average of 61.3 net e3m3 (385.8 Mbbl) OOIP per 40 acre LSD.

3. Cumulative production to the end June 2014 from the 6 wells within the proposed Sinclair Unit No. 14 project area was 18.2 e3m3 (114.8 Mbbl) of oil, and 32.3 e3m3 (203.3 Mbbl) of water, representing a 1.5% Recovery Factor (RF) of the Net OOIP.

4. Estimated Ultimate Recovery (EUR) of existing primary wells in the proposed Sinclair Unit No. 14 project area has been calculated to be 21.0 e3m3 (132.3 Mbbl), with 2.8 e3m3 (17.6 Mbbl) remaining as of the end of June 2014 (Figure 7).

5. Ultimate oil recovery of the proposed Sinclair Unit No. 14 OOIP, under the current Primary Production method, is forecasted to be 1.7%

6. Figure 4 shows the production from the Sinclair Unit No. 14 which peaked in January 2010 at 20.8 m3 (131.0 bbl) of oil per day (OPD). As of June 2014, production was 3.4 m3 (21.3 bbl) OPD, 5.7 m3 (35.7 bbl) of water per day (WPD) and a 62.6% watercut.

7. In January 2010, from 6 producing wells, production averaged 3.5 m3 (21.8 bbl) OPD per well in Sinclair Unit No. 14. As of June 2014, from 4 producing wells, average per well production has declined to 0.8 m3 (5.3 bbl) OPD. Decline analysis of the group primary production data forecasts total oil to continue declining at an annual rate of approximately 22% in the project area.

8. Currently there are 14 underdeveloped LSD's within proposed Sinclair Unit No. 14 that will initially be developed with 4 HZ primary wells. With the addition of these primary HZ drills the EUR for the proposed Sinclair Unit No. 14 project area has been calculated to be 48.9 e3m3 (307.3 Mbbl), with 30.6 e3m3 (192.6 Mbbl) remaining as of the end of June 2014. This increases the ultimate primary oil recovery factor to 4.0%

9. EUR of incremental oil reserves under Secondary WF EOR for the proposed Sinclair Unit No. 14 has been calculated to be 72.3 e3m3 (454.8 Mbbl) (Figure 9), or an incremental 5.9% are forecasted to be recovered under the proposed Unitization and Secondary EOR production vs the Primary Production method.

10. Total RF under Secondary WF in the proposed Sinclair Unit No. 14 is estimated to be 9.8%.

11. Based on waterflood response in the adjacent main portion of the Sinclair field, the Three Forks and Middle Bakken Formations in the proposed project area are believed to be suitable reservoirs for WF EOR operations.

12. Future horizontal injectors, with multi-stage hydraulic fractures, will be drilled between existing vertical & horizontal producing wells (Figure 5) within the proposed Sinclair Unit No. 14, to complete waterflood patterns with effective 20 acre spacing similar to that of Sinclair Unit No. 1.

DISCUSSION

RESOURCE POTENTIAL IN PROPOSED SINCLAIR UNIT NO. 14

The proposed Sinclair Unit No. 14 project area is located within Township 7, Range 29 W1 of the Daly Sinclair oil field. The proposed Sinclair Unit No. 14 currently consists of 2 producing horizontal wells and 4 producing vertical wells, within an area covering 20 LSDs (Figure 2). This includes the east half and southwest quarter of Section 36, the southeast quarter of Section 35 and the southwest quarter of Section 36. A project area well list complete with recent production statistics is attached as Table 3.

Tundra believes that the waterflood response in the adjacent main portion of the Sinclair field demonstrates potential for incremental production and reserves from a WF EOR project in the subject Middle Bakken and/or Three Forks oil reservoirs.

Geology

Stratigraphy:

The stratigraphy of the reservoir section for the proposed unit is shown on the structural cross section attached as Appendix 1. The section runs NW to SE approximately through the mid-point of the proposed unit. The producing sequence in descending order consists of the Upper Bakken Shale, Middle Bakken Siltstone, Lyleton A Siltstone, the Red Shale Marker, Lyleton B Siltstone and the Torquay silty shale. The reservoir units are represented by the Middle Bakken, Upper Lyleton A, and Lower Lyleton A siltstones. The Upper Bakken Shale is a black, organic rich, platy shale which forms the top seal for the underlying Middle Bakken/Lyleton reservoirs. The Red Shale Marker is a very fine grained, dolomitic siltstone with low permeability that is considered to be non-reservoir. The reservoir units in the proposed unit are a continuation of the Bakken / Lyleton producing reservoirs that have been unitized offsetting the proposed unit (Sinclair Units 2 and 11) as show by Appendix 2.

Sedimentology:

The Middle Bakken reservoir consists of fine to coarse grained grey siltstone to fine sandstone which may be subdivided on the basis of lithologic characteristics into upper and lower units. The upper portion is very often heavily bioturbated and is generally non-reservoir. These bioturbated beds often contain an impoverished fauna consisting of well-worn brachiopod, coral and occasional crinoid fragments suggesting deposition in a marginal marine environment. The lower part of the Middle Bakken is generally finely laminated with alternating light and dark laminations with occasional bioturbation. Reservoir quality is highly variable within the Unit area ranging from less than 1 m to just over 5 m thick (Appendix 3).

The Lyleton A reservoir consists of buff to tan medium to coarse siltstone (occasionally fine sandstone) made up of quartz, feldspar and detrital dolomite with minor mica and clay mostly in the form of clay clasts or chips. Clays do not generally occur as pore filling material, but rather as discrete grains within the siltstone. The Upper part is generally well bedded and shows evidence of parallel lamination with occasional wind ripples. The coarser siltstones are interbedded with finer grained grey-green siltstone similar in composition to the reservoir siltstone, but generally with lower permeability (i.e. < 0.1 md). These finer grained siltstones show evidence of haloturbation producing smeared siltstone clasts floating in a fine grained grey-green siltstone matrix. The lower part of the Lyleton A generally shows a greater proportion of the grey-green fine-grained siltstone than the Upper and is generally a poorer reservoir. It also tends to exhibit greater amounts of haloturbation and pseudobreccia of siltstone clasts in a finer grained siltstone matrix. Because of the fine grained matrix in this pseudobreccia the connectivity between the clasts is much lower than the bedded siltstone and the Lower part of the Lyleton A is generally a poorer reservoir than the Upper part of the Lyleton A.

Within the area of the proposed unit the Upper Lyleton A between 0 and 5 m thick. The Upper Lyleton A is thickest in the central part of the proposed unit thinning to the Southeast and also the North as result of pre-Middle Bakken erosion removing the upper part of the Lyleton A (Appendix 4). The Lower Lyleton A has a fairly uniform thickness of 2 – 3 m across the proposed unit (Appendix 5).

The Red Shale Marker consists of brick red dolomitic siltstone which is highly water soluble, it is considered non reservoir, and is generally between 3 and 4 m thick within the Unit area (Appendix 6).

The Lyleton B is similar to the Lower Lyleton A, but with thinner beds of siltstone interbedded with darker grey-green very fine grained siltstone. The siltstone beds display marginal reservoir quality within the proposed unit area. The Lyleton B is generally between 4.5 and 5.5 m thick and shows no evidence of erosional thinning within the proposed unit area (Appendix 7).

The Torquay (Three Forks) forms the base of the reservoir sequence and is a brick red dolomitic fine to very fine siltstone similar to the Red Shale Marker that forms a good basal seal to the Lyleton B reservoir.

Structure:

Structure contour maps are provided for the top of each major reservoir and non-reservoir unit (Appendices 8 through 13). The structure within the proposed unit area generally consists of a gentle dip to the SW. Structural variations in the area are interpreted as being caused by dissolution of the underlying Prairie Evaporites. Structural variations cause by dissolution are common in the Sinclair Field but do not appear to represent continuous barriers to lateral fluid flow within the reservoir as they do not appear to interrupt the lateral continuity of the reservoir beds (see cross section Appendix 1).
No direct evidence of natural faulting is noted from either proprietary seismic data or well/production data in the vicinity of the proposed unit area.

Reservoir Continuity:

Lateral continuity of the reservoir units is an essential requirement of a successful waterflood and as demonstrated by the cross section (Appendix 1) and the isopach maps, the lateral continuity of the reservoir within the proposed unit is variable. Specifically, the Upper Lyleton A (which is the primary producing interval in the adjacent units to the North and East) isopach thins in the middle of the proposed unit. In areas where the Upper Lyleton A is thin, the Middle Bakken isopach is thicker; as a result, the total isopach from the top of the Lower Lyleton A to top of Middle Bakken does not change. Vertical continuity between the Middle Bakken and underlying Lyleton A reservoir is also good as there is no evidence of an intervening aquitard between these units. As a result, even though the two units vary in thickness over the over the proposed unit area, reservoir continuity is not a concern.

Reservoir Quality:

Porosity (Phi-h in por*m) and permeability (k-h in mD*m) maps for the three reservoir units are provided (Appendices 14 through 19). These maps are generated using core data and are generated as follows. First the core is divided into the reservoir units present. This data is then subject to a permeability cutoff (1.0 md in the Upper and Lower Lyleton A, 0.5 md cutoff in the MBKKN and Lyleton B) permeability and intervals that meet or exceed this criteria are multiplied by the interval thickness and then summed to get the total value for the Phi-h or k-h for that particular reservoir unit. This cutoff is similar to the cutoff used by GLJ to generate the OOIP, but doesn't utilize the 12 percent porosity cutoff since for core data the 1 md cutoff effectively removes all porosity less than 12 percent.

As can be noted from the Phi-h and k-h maps the bulk of the reservoir in the proposed unit is contained in the Middle Bakken and Lower Lyleton A section. It is important to note however that the 1.0 md cutoff effectively ignores a considerable pore volume with permeability between 0.2 and 0.99 md that may contain moveable oil. Maps of Phi-h and k-h for the Middle Bakken are included as Appendices 14 and 15, Upper Lyleton A maps as Appendices 16 and 17 and Lower Lyleton A maps for the project area as Appendices 18 and 19.

Fluid Contacts:

The oil/water contact for the Middle Bakken and Lyleton reservoir is estimated from production to be at about -525 m subsea. In tight reservoirs such as these the transition zone could be considerable and the top of the transition zone is estimated to be at about -490 m subsea based on production and simulation studies of the reservoir. The postulated oil/water contact at -525 m subsea is below the lowest contour on any of the attached structure contour maps.

Gross OOIP Estimates

Total volumetric OOIP for the Middle Bakken, Lyleton 'A', and Lyleton 'B' members of the Three Forks formation, within the proposed Sinclair Unit No. 14, has been calculated to be **2634** Mbbl. Table 4 outlines the proposed Sinclair Unit No. 14 volumetric OOIP estimates on an individual LSD basis by formation. Average OOIP by individual LSD was determined to be **131.7** Mbbl for Sinclair Unit No. 14.

OOIP values were calculated with a 1.0 millidarcy (mD) permeability cutoff in the Upper and Lower Lyleton 'A' zone and a 0.5 millidarcy (mD) permeability cutoff for the Lyleton 'B' and Middle Bakken zones and a 12% porosity net pay cutoff.

A complete listing of Middle Bakken/Three Forks formation rock and fluid properties used to characterize the reservoir are provided in Table 5.

Historical Production

A historical group production history plot for the proposed Sinclair Unit No. 14 is shown as Figure 4. Oil production commenced from the proposed Unit area in December 2004 and peaked in January 2010 at 131.0 bbl OPD. As of June 2014, production was 21.2 bbl OPD, 35.7 bbl WPD and a 62.6% watercut.

From peak production in December 2010 to date, oil production is declining at an annual rate of approximately **27.4%** under the current Primary Production method.

Based on the geological description, primary production decline rate, and waterflood response in the adjacent main portion of the Sinclair field, the Three Forks and Middle Bakken Formations in the project area are believed to be suitable reservoirs for WF EOR operations.

UNITIZATION

Unitization and implementation of a Waterflood EOR project is forecasted to increase overall recovery of OOIP from the proposed project area. The basis for unitization is to develop the lands in an effective manner that will be conducive to waterflooding.

Unit Name

Tundra proposes that the official name of the new Unit shall be Sinclair Unit No. 14.

Unit Operator

Tundra Oil and Gas Partnership (Tundra) will be the Operator of record for Sinclair Unit No. 14.

Unitized Zone

The Unitized zone(s) to be waterflooded in the Sinclair Unit No. 14 will be the Middle Bakken and Three Forks formations.

Unit Wells

The 2 horizontal wells and 4 vertical wells to be included in the proposed Sinclair Unit No. 14 are outlined in Table 3.

Unit Lands

The Sinclair Unit No. 14 will consist of 20 LSDs as follows:

E ½ & SW ¼ of Section 26 of Township 7, Range 29, W1M
SE ¼ of Section 35 of Township 7, Range 29, W1M
SW ¼ of Section 36 of Township 7, Range 29, W1M

The lands included in the 40 acre tracts are outlined in Table 1.

Tract Factors

The proposed Sinclair Unit No. 14 will consist of 20 Tracts based on the 40 acre LSD containing the existing 2 horizontal and 4 vertical producing wells.

The Tract Factor contribution for each of the LSD's within the proposed Sinclair Unit No. 14 was calculated as follows:

- Gross OOIP by LSD, minus cumulative production to date for the LSD as distributed by the LSD specific Production Allocation (PA) % in the applicable producing horizontal or vertical well (to yield Remaining Gross OOIP)
- Tract Factor by LSD = the product of Remaining Gross OOIP by LSD as a % of total proposed Unit Remaining Gross OOIP

Tract Factor calculations for all individual LSDs based on the above methodology are outlined within Table 2.

Working Interest Owners

Table 1 outlines the working interest (WI) for each recommended Tract within the proposed Sinclair Unit No. 14. Tundra Oil and Gas Partnership holds a 100% WI ownership in all the proposed Tracts.

Tundra Oil and Gas Partnership will have a 100% WI in the proposed Sinclair Unit No. 14.

WATERFLOOD EOR DEVELOPMENT

Technical Studies

The waterflood performance predictions for the proposed Sinclair Unit No. 14 Bakken project are based on internal engineering assessments. Project area specific reservoir and geological parameters were utilized and then compared to Sinclair Unit No. 1 parameters, yielding the WF EOR response observed there to date.

As Tundra has a direct comparison of waterflood performance in Sinclair Unit 1, Tundra does not feel it is crucial to construct a simulation model for this area.

Pre-Production of New Horizontal Injection Wells

New horizontal injection wells will be drilled between the existing vertical producing wells as shown in Figure 5. No future horizontal injection wells have been drilled to date; there are plans to drill four (4) horizontal water injection wells (WIW's), which will result in an effective 20 acre line drive waterflood pattern within Sinclair Unit No. 14.

Primary production from the original vertical/horizontal producing wells in the proposed Sinclair Unit No. 14 has declined significantly from peak rate indicating a need for secondary pressure support. However, through the process of developing similar waterfloods, Tundra has measured a significant variation in reservoir pressure depletion by the existing primary producing wells. Placing new horizontal wells immediately on water injection in areas without significant reservoir pressure depletion has been problematic in similar low permeability formations, and has a negative impact on the ultimate total recovery factor of OOIP.

Considering the expected reservoir pressures and reservoir lithology described, Tundra believes an initial period of producing all 4 new horizontal injection wells prior to placing them on permanent water injection is essential and all Unit mineral owners will benefit.

Tundra monitors reservoir pressure, fluid production and decline rates in each pattern to determine when the well will be converted to water injection.

Reserves Recovery Profiles and Production Forecasts

The primary waterflood performance predictions for the proposed Sinclair Unit No. 14 are based on oil production decline curve analysis, and the secondary predictions are based on internal engineering analysis performed by the Tundra reservoir engineering group using Sinclair Unit No. 1 as an analogy because it is developed with a similar waterflood pattern design of a horizontal injector with offsetting vertical producers.

Primary Production Forecast

Cumulative production in the Sinclair Unit No. 14 project area, to the end of June 2014 from 6 wells, was 18.2 e3m3 (114.7 Mbbl) of oil and 32.3 e3m3 (203.5) Mbbl of water for a recovery factor of **1.5%** of the calculated Net OOIP.

Ultimate Primary Proved Producing oil reserves recovery for Sinclair Unit No. 14 has been estimated to be **132.3** Mbbl, or a **1.7**% Recovery Factor (RF) of OOIP. Remaining Producing Primary Reserves has been estimated to be **17.6** Mbbl to the end of June 2014. The expected production decline and forecasted cumulative oil recovery under continued Primary Production is shown in Figures 7-8.

There are 14 LSDs which currently do not have producing wells. Tundra plans to drill 4 horizontal wells in four undrilled LSDs as shown in Figure 5. Tundra estimates that the new drills should add approximately 175 Mbbl of reserves from primary production methods.

Pre-Production Schedule/Timing for Conversion of Horizontal Wells to Water Injection

Tundra will plan an injection conversion schedule to allow for the most expeditious development of the waterflood within the proposed Sinclair Unit No. 14, while maximizing reservoir knowledge.

Criteria for Conversion to Water Injection Well

Tundra will monitor the following parameters to assess the best timing for each individual horizontal well to be converted from primary production to water injection service.

- Measured reservoir pressures at start of and/or through primary production
- Fluid production rates and any changes in decline rate
- Any observed production interference effects with adjacent vertical and horizontal wells
- Pattern mass balance and/or oil recovery factor estimates
- Reservoir pressure relative to bubble point pressure

Four (4) horizontal injection wells are required for this proposed Unit. They will be placed on production followed by permanent water injection service as shown in Figure 5. No existing vertical producer wells within the proposed Sinclair Unit No. 14 project are planned for conversion to water injection, as oil production response is better with horizontal injectors than with four vertical injectors.

The above schedule allows for the proposed Sinclair Unit No. 14 project to be developed equitably, efficiently, and moves to project to the best condition for the start of waterflood as quickly as possible. It also provides the Unit Operator flexibility to manage the reservoir conditions and response to help ensure maximum ultimate recovery of OOIP.

Secondary EOR Production Forecast

The proposed project oil production profile under Secondary Waterflood has been developed based on the response observed to date in the Sinclair Pilot WF (Figure 6).

The proposed Sinclair Unit No. 14 Secondary Waterflood oil production forecast over time is plotted on Figure 9. Total Proved EOR recoverable reserves in the proposed Sinclair Unit No. 14 project under Secondary WF has been estimated at **762.1** Mbbl (Figure 10), resulting in a **9.8%** overall RF of calculated Net OOIP.

An incremental **629.8** Mbbl of oil reserves is forecasted, based on a recovery factor estimate using Sinclair Units 1-3 analogy, to be recovered under the proposed Unitization and Secondary EOR production scheme vs. the existing Primary Production method. Incremental Secondary RF is forecasted to be **x.x%** of the calculated OOIP.

Estimated Fracture Pressure

Completion data from the existing producing wells within the project area indicate an actual fracture pressure gradient range of 18.5 to 22.0 kPa/m true vertical depth (TVD). Tundra expects the fracture gradient encountered during completion of the proposed horizontal injection well will be somewhat lower than these values due to expected reservoir pressure depletion.

WATERFLOOD OPERATING STRATEGY

Water Source

The injection water for the proposed Sinclair Unit No. 14 will be supplied from the existing Sinclair Units 1-8 source and injection water system. All existing injection water is obtained from the Lodgepole formation in the 102/16-32-7-29W1 licensed water source well. Lodgepole water from the 102/16-32 source well is pumped to the main Sinclair Units Water Plant at 3-4-8-29W1, filtered, and pumped up to injection system pressure. A diagram of the Sinclair water injection system and new pipeline connection to the proposed Sinclair Unit No. 14 project area injection wells is shown as Figures 13-14.

Produced water is not currently used for any water injection in the Tundra operated Sinclair Units and there are no current plans to use produced water as a source supply for Sinclair Unit No. 14

Since all producing Middle Bakken/Three Forks wells in the Daly Sinclair areas, whether vertical or horizontal, have been hydraulically fractured, produced waters from these wells are inherently a mixture of Three Forks and Bakken native sources. This mixture of produced waters has been extensively tested for compatibility with 102/16-32 source Lodgepole water, by a highly qualified third party, prior to implementation by Tundra in Sinclair Unit 1. All potential mixture ratios between the two waters, under a range of temperatures, have been simulated and evaluated for scaling and precipitate producing tendencies. Testing of multiple scale inhibitors has also been conducted and minimum inhibition concentration requirements for the source water volume determined. At present, continuous scale inhibitor application is maintained into the source water stream out of the Sinclair injection water facility. Review and monitoring of the source water scale inhibition system is also part of an existing routine maintenance program.

Injection Wells

New water injection wells for the proposed Sinclair Unit No. 14 will be drilled, cleaned out, and configured downhole for injection as shown in Figure 12. The horizontal injection well will be stimulated by multiple hydraulic fracture treatments to obtain suitable injection rates in either an openhole or cemented liner completion. Tundra has extensive experience with horizontal fracturing in the area, and all jobs are rigorously programmed and monitored during execution. This helps ensure optimum placement of each

fracture stage to prevent, or minimize, the potential for out-of-zone fracture growth and thereby limit the potential for future out-of-zone injection.

The new water injection wells will be placed on injection after the pre-production period and approval to inject. Wellhead injection pressures will be maintained below the least value of either:

- the area specific known and calculated fracture gradient, or
- the licensed surface injection Maximum Allowable Pressure (MOP)

Tundra has a thorough understanding of area fracture gradients. A management program will be utilized to set and routinely review injection target rates and pressures vs. surface MOP and the known area formation fracture pressures.

All new water injection wells are surface equipped with injection volume metering and rate/pressure control (Figure 10). An operating procedure for monitoring water injection volumes and meter balancing will also be utilized to monitor the entire system measurement and integrity on a daily basis.

The proposed Sinclair Unit No. 14 horizontal water injection well rate is forecasted to average **10 – 25** m^3 WPD, based on expected reservoir permeability and pressure.

Reservoir Pressure

No recent or representative initial pressure surveys are currently available for the vertical producing wells within the proposed Sinclair Unit No. 14 project area in the Bakken formation. The extremely long shut-in and build-up times required to obtain any possible representative surveys from the producing wells are economically prohibitive. Tundra will make all attempts to capture a reservoir pressure survey in the proposed horizontal injection wells during the completion of the wells and prior to injection or production.

Reservoir Pressure Management during Waterflood

Tundra expects to inject water for a minimum 2-4 year period to re-pressurize the reservoir due to cumulative primary production voidage and pressure depletion. Initial monthly Voidage Replacement Ratio (VRR) is expected to be approximately 1.25 to 2.00 within the patterns during the fill up period. As the cumulative VRR approaches 1, target reservoir operating pressure for waterflood operations will be 75-90% of original reservoir pressure.

Waterflood Surveillance and Optimization

Sinclair Unit No. 14 EOR response and waterflood surveillance will consist of the following:

- Regular production well rate and WCT testing
- Daily water injection rate and pressure monitoring vs target
- Water injection rate/pressure/time vs. cumulative injection plot
- Reservoir pressure surveys as required to establish pressure trends
- Pattern VRR
- Potential use of chemical tracers to track water injector/producer responses

- Use of some or all of: Water Oil Ratio (WOR) trends, Log WOR vs Cum Oil, Hydrocarbon Pore Volumes Injected, Conformance Plots

The above surveillance methods will provide an ever increasing understanding of reservoir performance, and provide data to continually control and optimize the Sinclair Unit No. 14 waterflood operation. Controlling the waterflood operation will significantly reduce or eliminate the potential for out-of-zone injection, undesired channeling or water breakthrough, or out-of-Unit migration.
The monitoring and surveillance will also provide early indicators of any such issues so that waterflood operations may be altered to maximize ultimate secondary reserves recovery from the proposed Sinclair Unit No. 14.

Economic Limits

Under the current Primary recovery method, existing wells within the proposed Sinclair Unit No. 14 will be deemed uneconomic when the net oil rate and net oil price revenue stream becomes less than the current producing operating costs. With any positive oil production response under the proposed Secondary recovery method, the economic limit will be significantly pushed out into the future. The actual economic cut off point will then again be a function of net oil price, the magnitude and duration of production rate response to the waterflood, and then current operating costs. Waterflood projects generally become uneconomic to operate when Water Oil Ratios (WOR's) exceed 100.

WATER INJECTION FACILITIES

The Sinclair Unit No. 14 waterflood operation will utilize the existing Tundra operated source well supply and water plant (WP) facilities located at 3-4-8-29 W1M which supplies the existing Sinclair Units.

A complete description of all planned system design and operational practices to prevent corrosion related failures is shown in Figure 11.

NOTIFICATION OF MINERAL AND SURFACE RIGHTS OWNERS

Tundra is in the process of notifying all mineral rights and surface rights owners of this proposed EOR project and formation of Sinclair Unit No. 14. Copies of the notices and proof of service, to all surface and mineral rights owners will be forwarded to the Petroleum Branch when available to complete the Sinclair Unit No. 14 Application.

Sinclair Unit No. 14 Unitization, and execution of the formal Sinclair Unit No. 14 Agreement by affected Mineral Owners, is expected during Q4. Copies of same will be forwarded to the Petroleum Branch, when available, to complete the Sinclair Unit No. 14 Application.

TUNDRA OIL & GAS PARTNERSHIP

Calgary, AB

Proposed Sinclair Unit No. 14

Application for Enhanced Oil Recovery Waterflood Project

LIST OF APPENDICES

Proposed Sinclair Unit No. 14

Application for Enhanced Oil Recovery Waterflood Project

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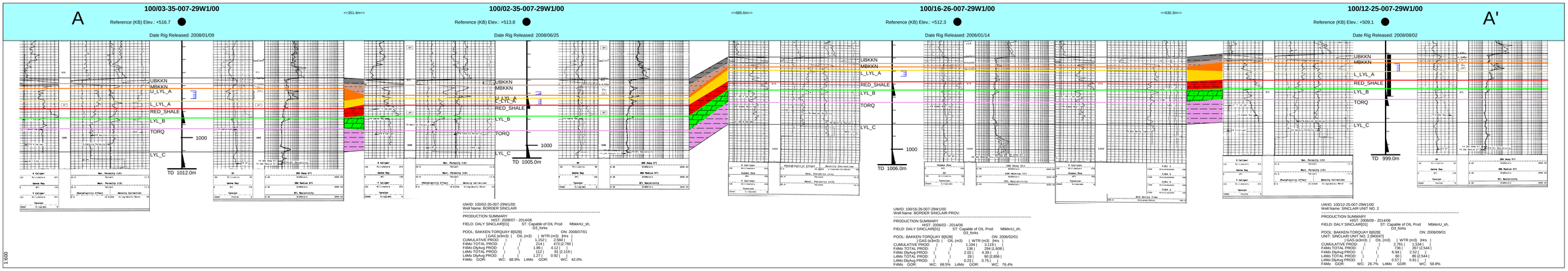

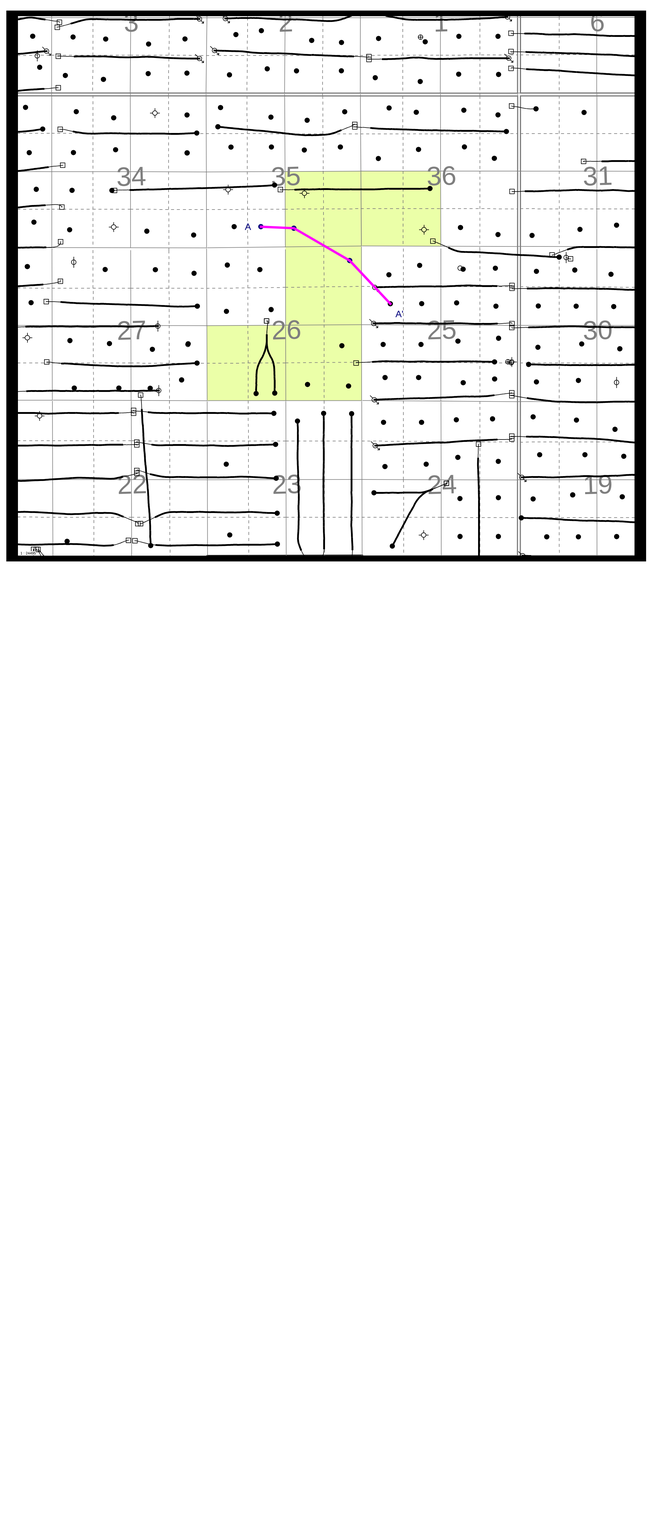

Tundra Oil and Gas Ltd

Structural Cross Section A - A'

Proposed Unit Area

Appendix No. 1

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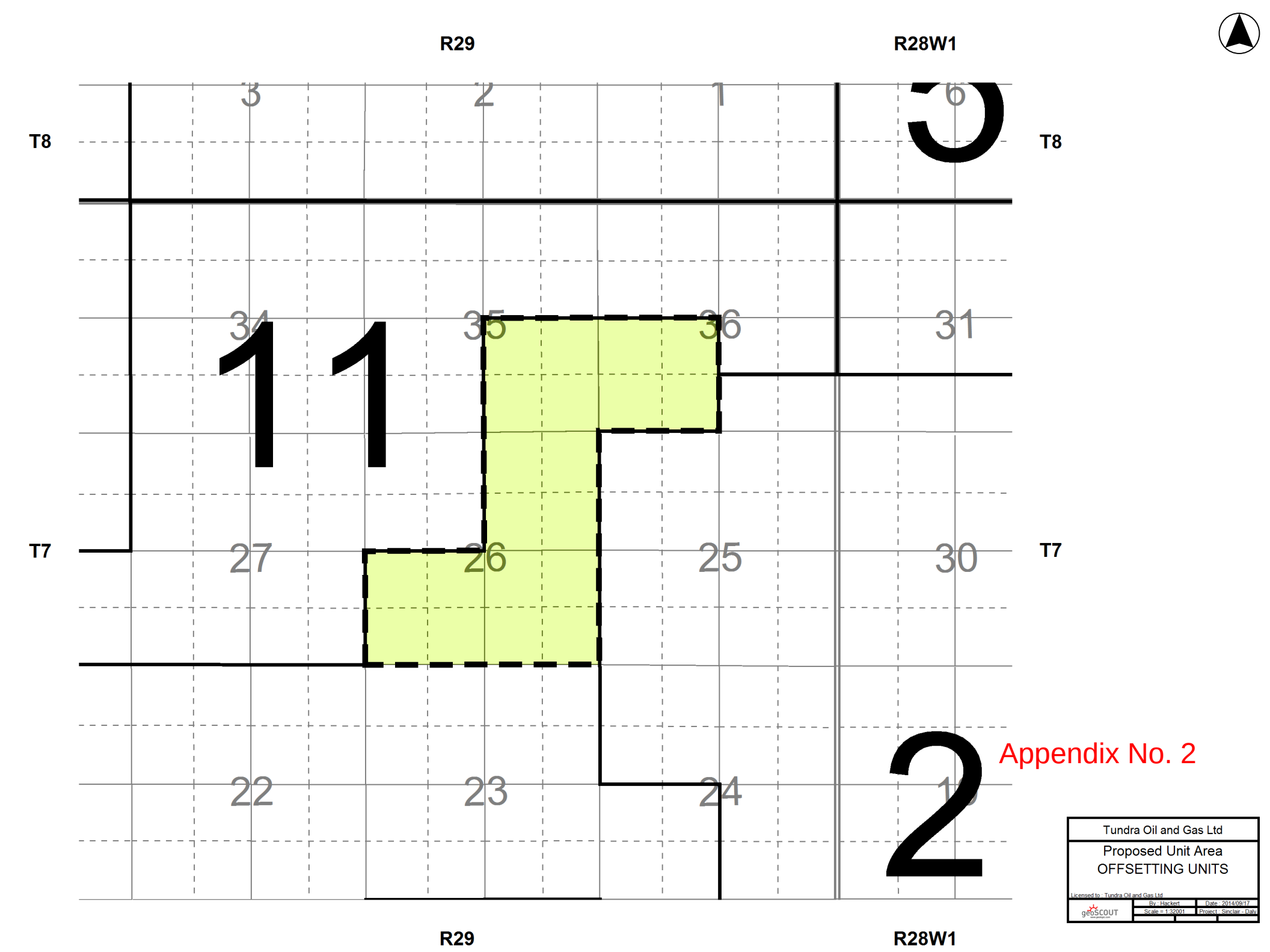
Interval : From UBKKN to T.D.		



Appendix No. 2

Tundra Oil and Gas Ltd

Proposed Unit Area

OFFSETTING UNITS

Licensed to : Tundra Oil and Gas Ltd

geoSCOUT

By : Hackert | Date : 2014/09/17

Scale = 1:32001 | Project : Sinclair - Daly

Appendix No. 3

Tundra Oil & Gas Partnership

Proposed Unit Area

MIDDLE BAKKEN ISOPACH

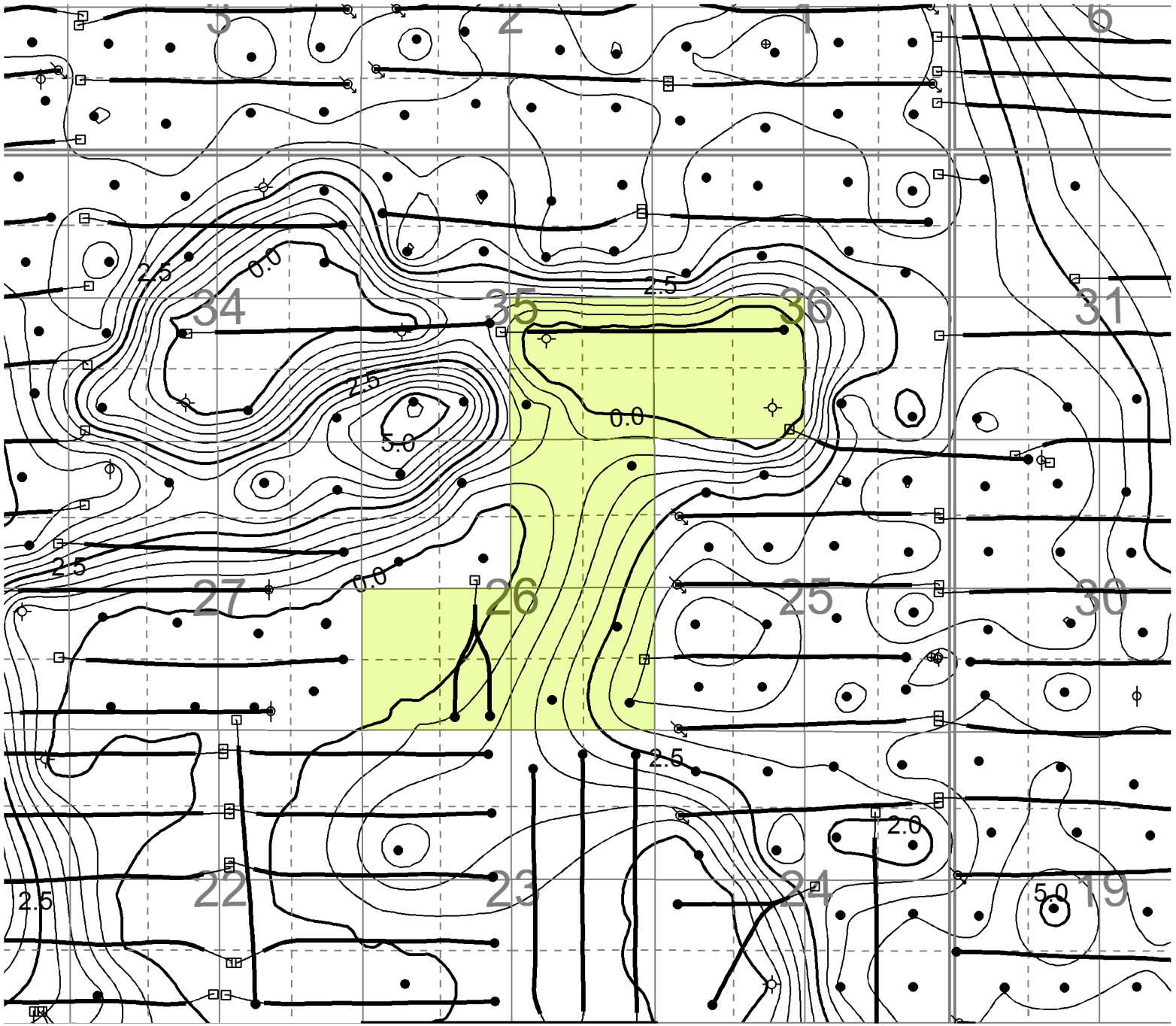
CI=0.5m

Licensed to : Tundra Oil and Gas Ltd

geoSCOUT

By : Hackert | Date : 2014/09/17

Scale = 1:32001 | Project : Sinclair - Daly



Appendix No. 4

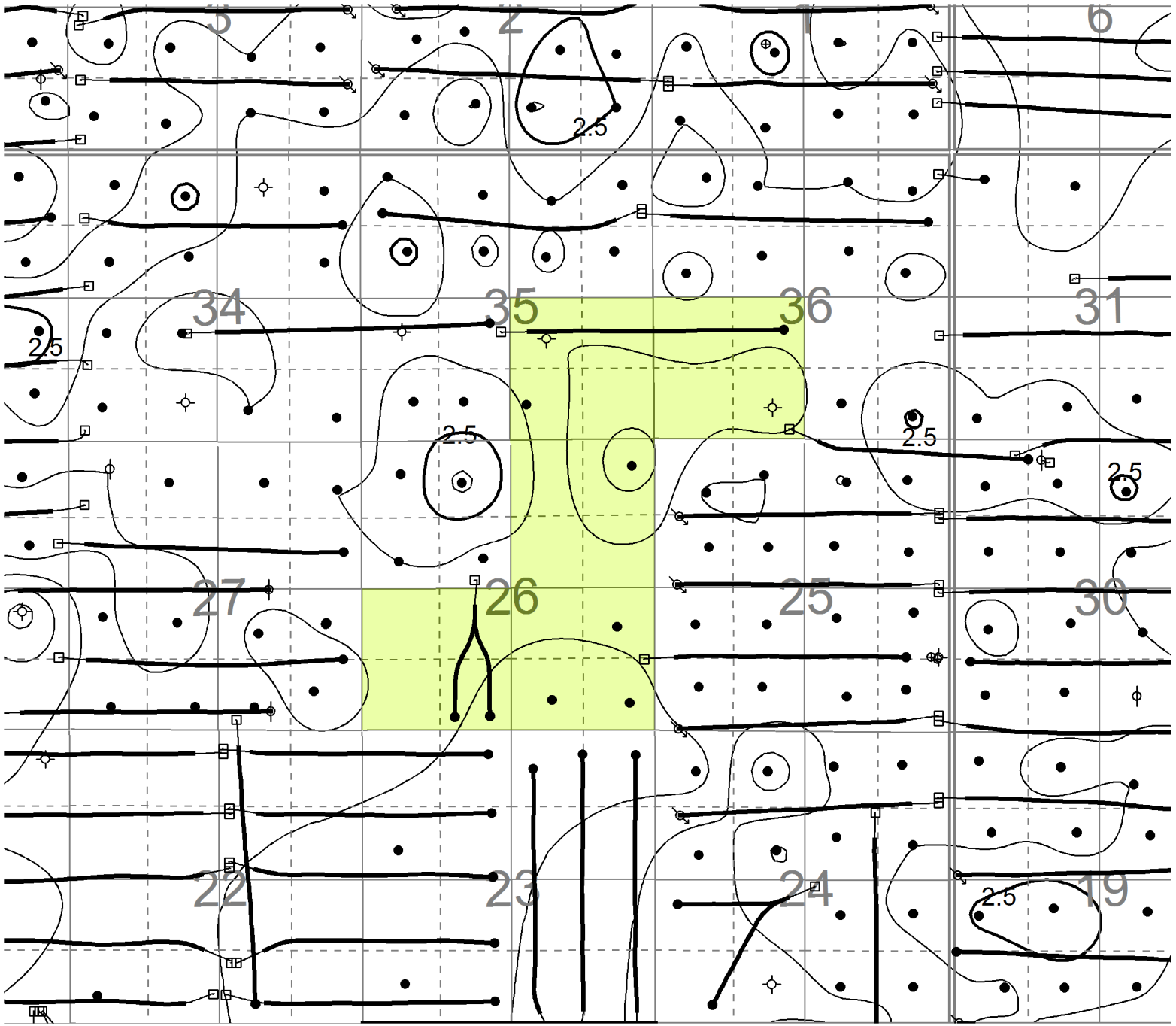
Tundra Oil & Gas Partnership		
Proposed Unit Area UPPER LYLETON A ISOPACH CI=0.5m		
Licensed to : Tundra Oil & Gas Partnership		
geoSCOUT	By : Hackert Scale = 1:32001	Date : 2014/09/17 Project : Sinclair - Daly

R29 R28W1

T8 T8

T7 T7

R29 R28W1



Appendix No. 5

Tundra Oil & Gas Partnership		
Proposed Unit Area LOWER LYLETON A ISOPACH CI=0.5m		
Licensed to : Tundra Oil & Gas Partnership		
geoSCOUT	By : Hackert Scale = 1:32001	Date : 2014/09/17 Project : Sinclair - Daly

R29 R28W1

T8 T8

T7 T7

Appendix No. 6

Tundra Oil & Gas Partnership		
Proposed Unit Area RED SHALE ISOPACH CI=0.5m		
Licensed to : Tundra Oil & Gas Partnership		
geoSCOUT	By : Hackert Scale = 1:32001	Date : 2014/09/17 Project : Sinclair - Daly

R29 R28W1

R29

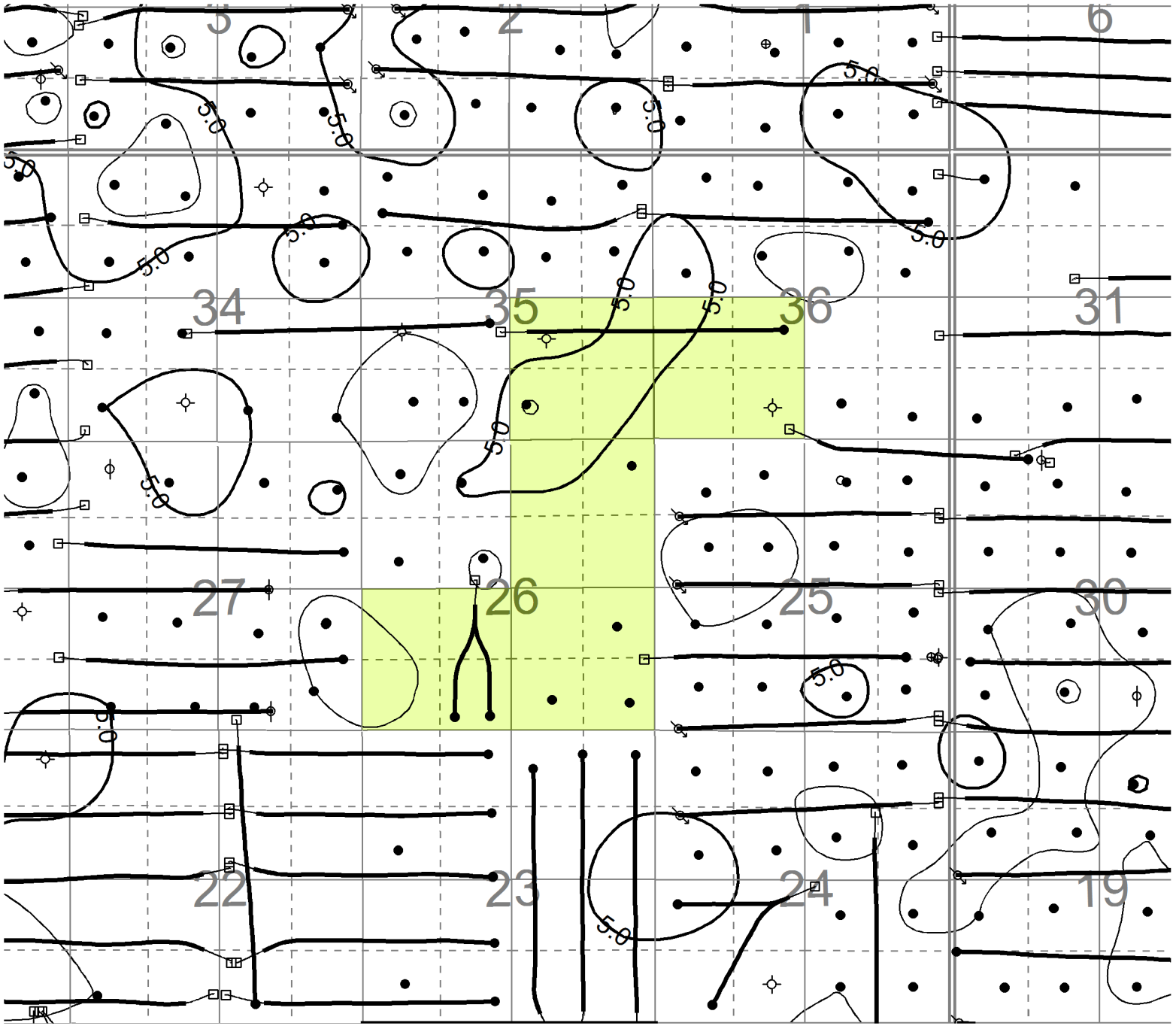
R28W1

T8

T8

T7

T7

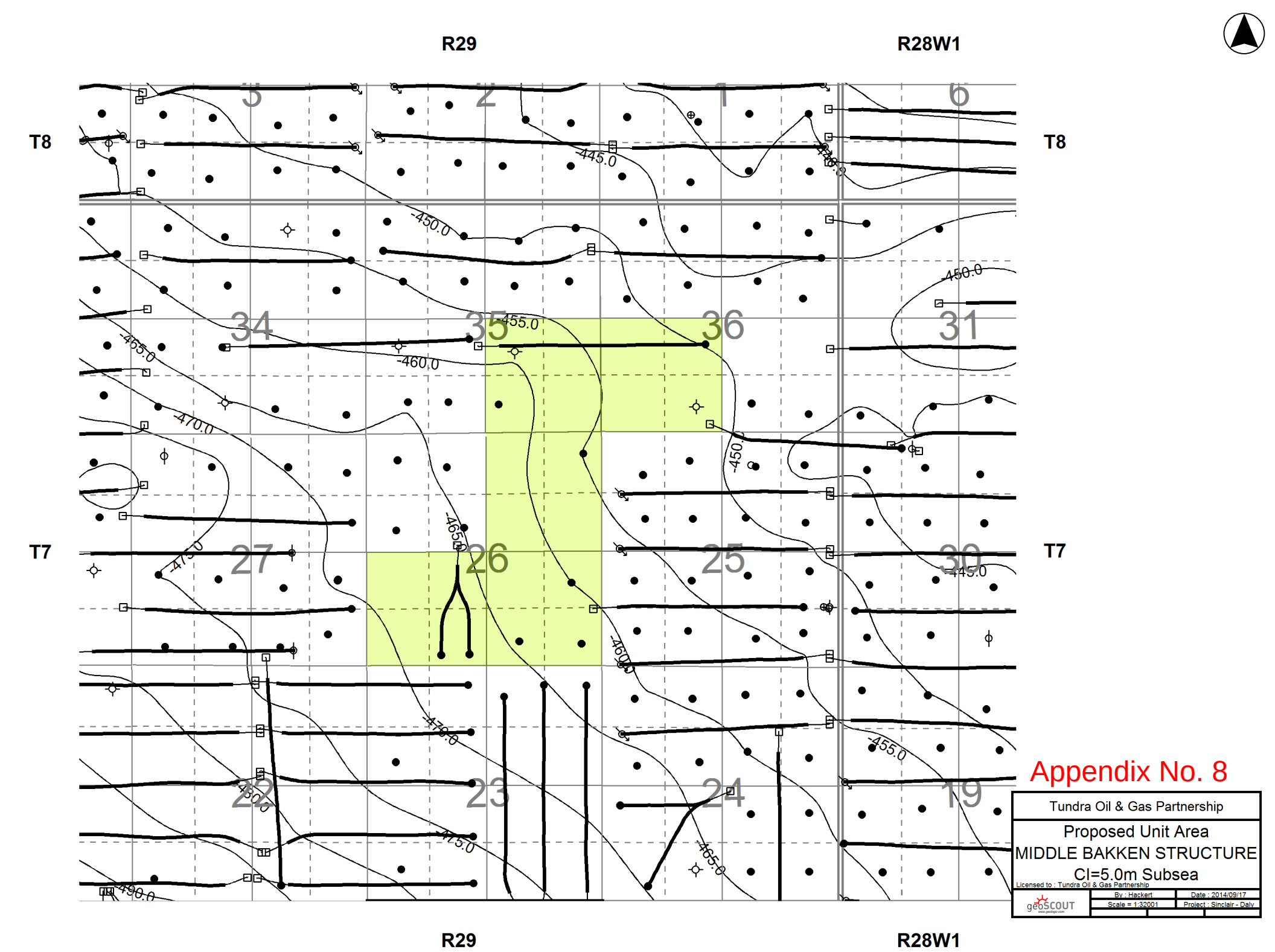


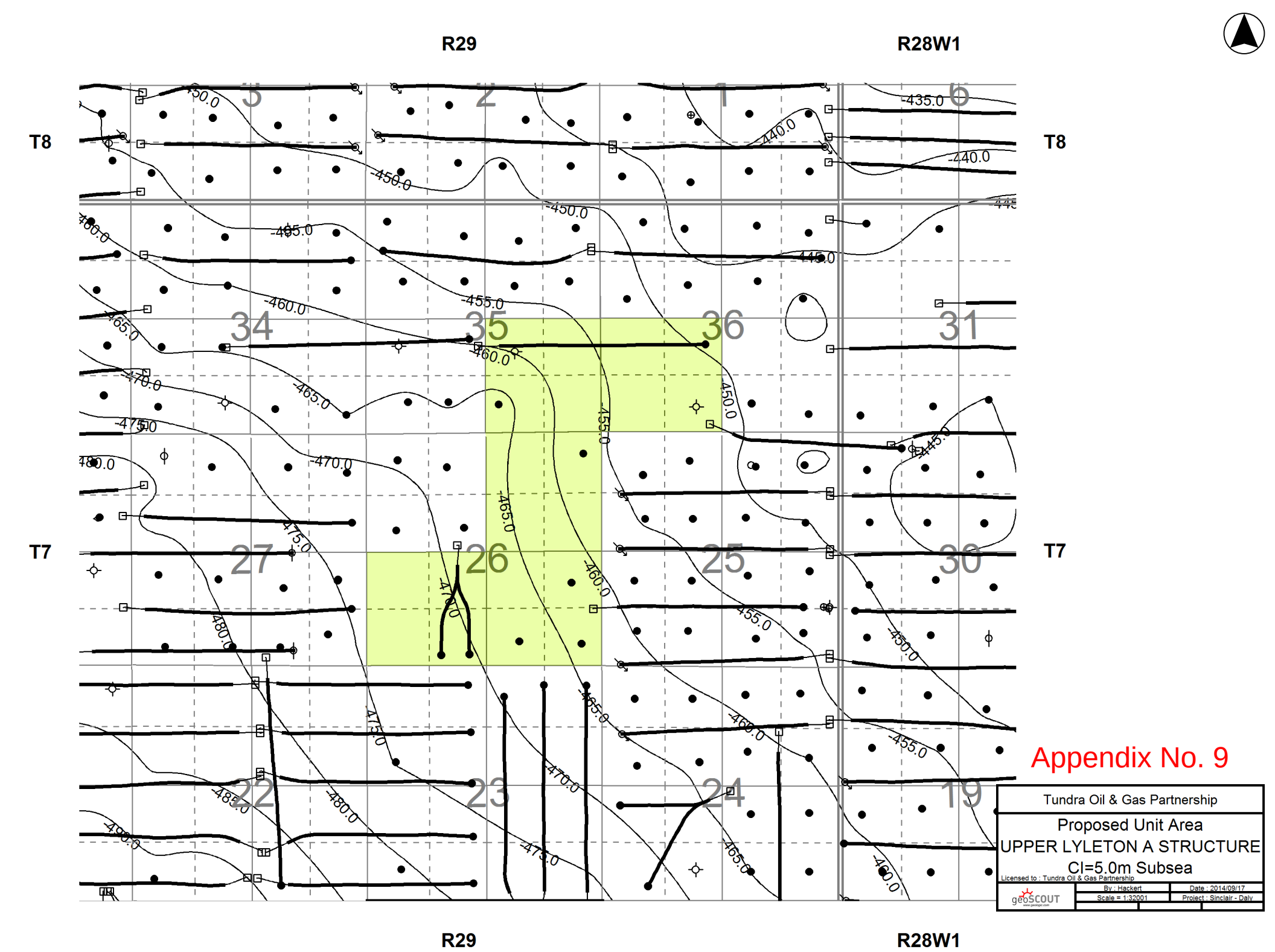
R29

R28W1

Appendix No, 7

Tundra Oil & Gas Partnership		
Proposed Unit Area LYLETON B ISOPACH CI=0.5m		
Licensed to : Tundra Oil & Gas Partnership		
geoSCOUT	By : Hackert Scale = 1:32001	Date : 2014/09/17 Project : Sinclair - Daly


R29
R28W1
T8
T8
T7
T7
R29
R28W1
5
2
1
6
34
35
36
31
27
26
25
30
22
23
24
19
-445.0
-450.0
-455.0
-460.0
-465.0
-470.0
-475.0
-480.0
-490.0
Appendix No. 8
Tundra Oil & Gas Partnership
Proposed Unit Area
MIDDLE BAKKEN STRUCTURE
CI=5.0m Subsea
Licensed to : Tundra Oil & Gas Partnership
geoSCOUT
By : Hackert
Date : 2014/09/17
Scale = 1:32001
Project : Sinclair - Daly


R29
R28W1
T8
T7
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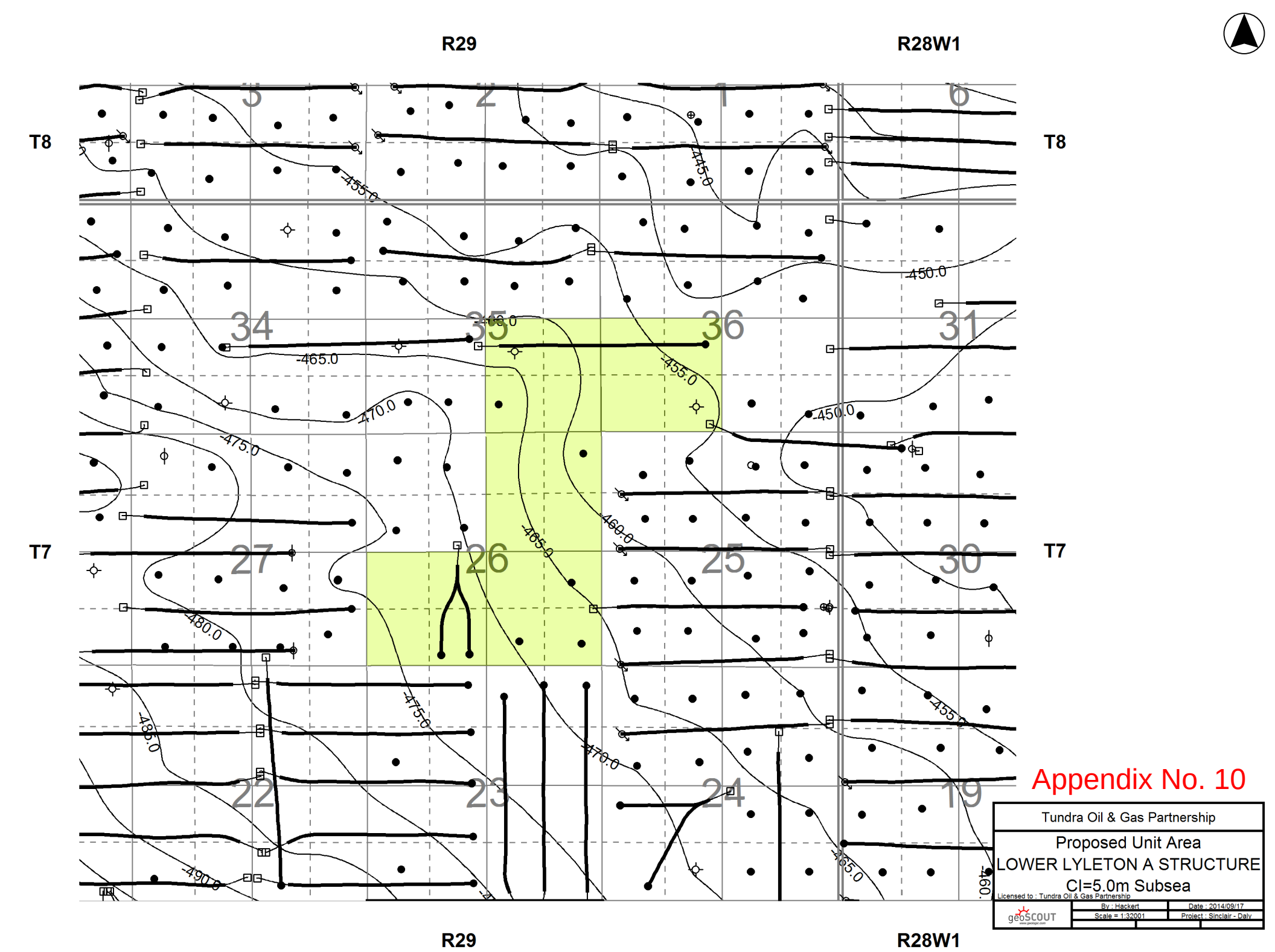
-445.0
-450.0
-455.0
-460.0
-465.0
-470.0
-475.0
-480.0
-485.0
-490.0
Appendix No. 9
Tundra Oil & Gas Partnership
Proposed Unit Area
UPPER LYLETON A STRUCTURE
CI=5.0m Subsea
Licensed to : Tundra Oil & Gas Partnership
geoSCOUT
By : Hackert
Date : 2014/09/17
Scale = 1:32001
Project : Sinclair - Daly


R29
R28W1
T8
T8
T7
T7
R29
R28W1
6
5
4
3
2
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28
27
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20
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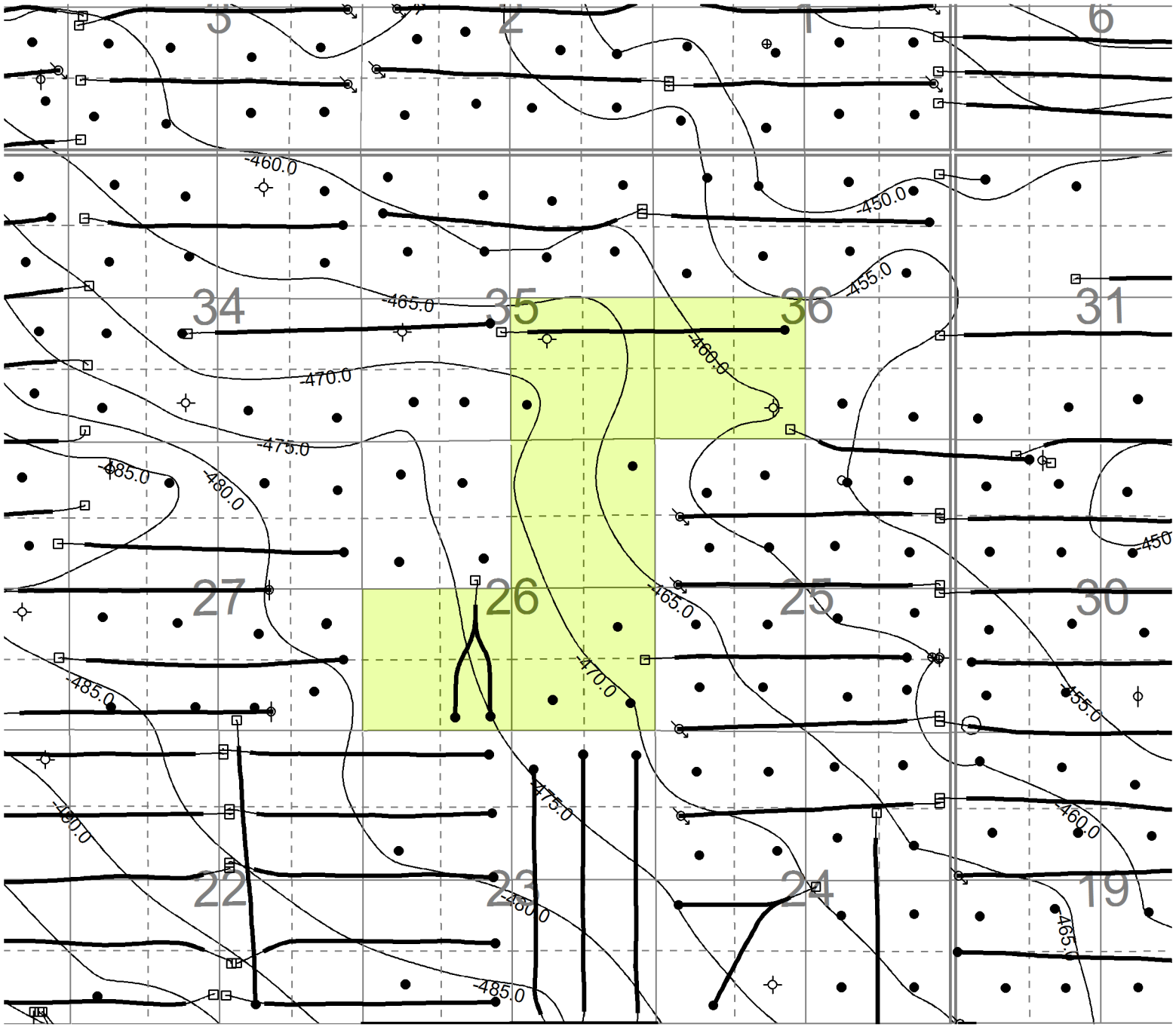
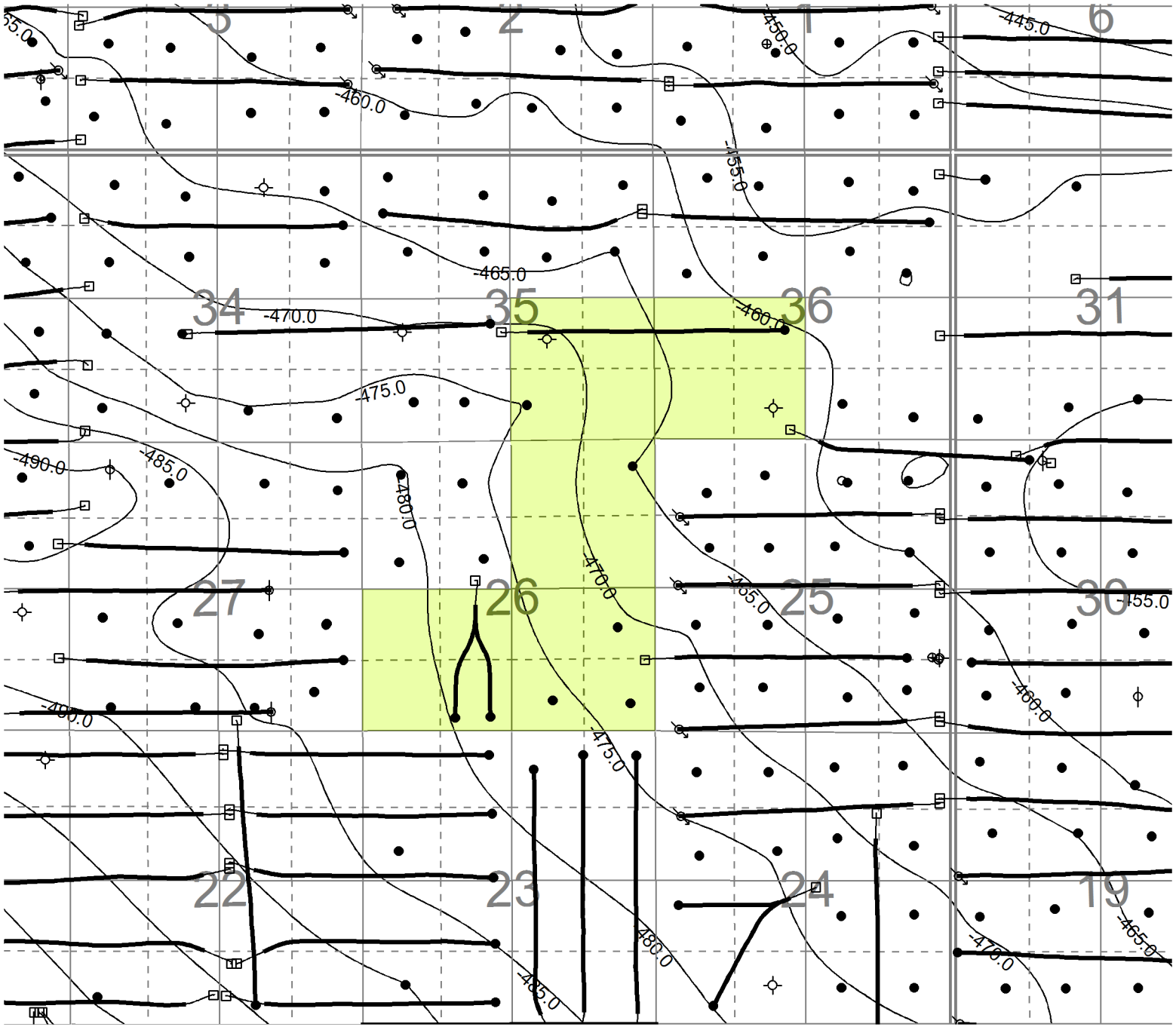
22
23
24
-455.0
-450.0
-465.0
-470.0
-475.0
-480.0
-485.0
-490.0
-460.0
Appendix No. 10
Tundra Oil & Gas Partnership
Proposed Unit Area
LOWER LYLETON A STRUCTURE
CI=5.0m Subsea
Licensed to : Tundra Oil & Gas Partnership
geoSCOUT
By : Hackert
Date : 2014/09/17
Scale = 1:32001
Project : Sinclair - Daly



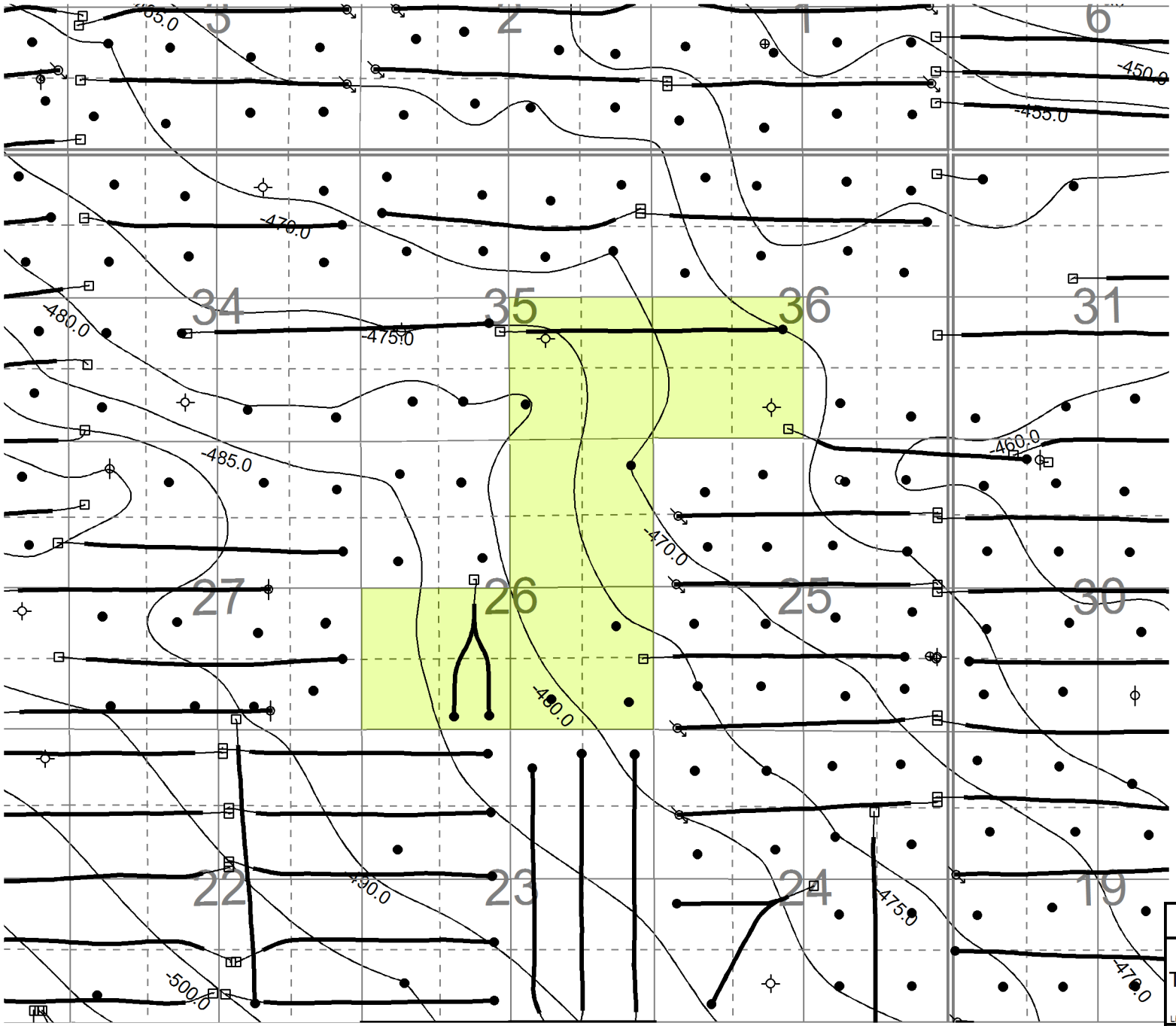
Appendix No. 11

Tundra Oil & Gas Partnership		
Proposed Unit Area RED SHALE STRUCTURE CI=5.0m Subsea		
Licensed to : Tundra Oil & Gas Partnership		
geoSCOUT	By : Hackert Scale = 1:32060	Date : 2014/09/17 Project : Sinclair - Daly



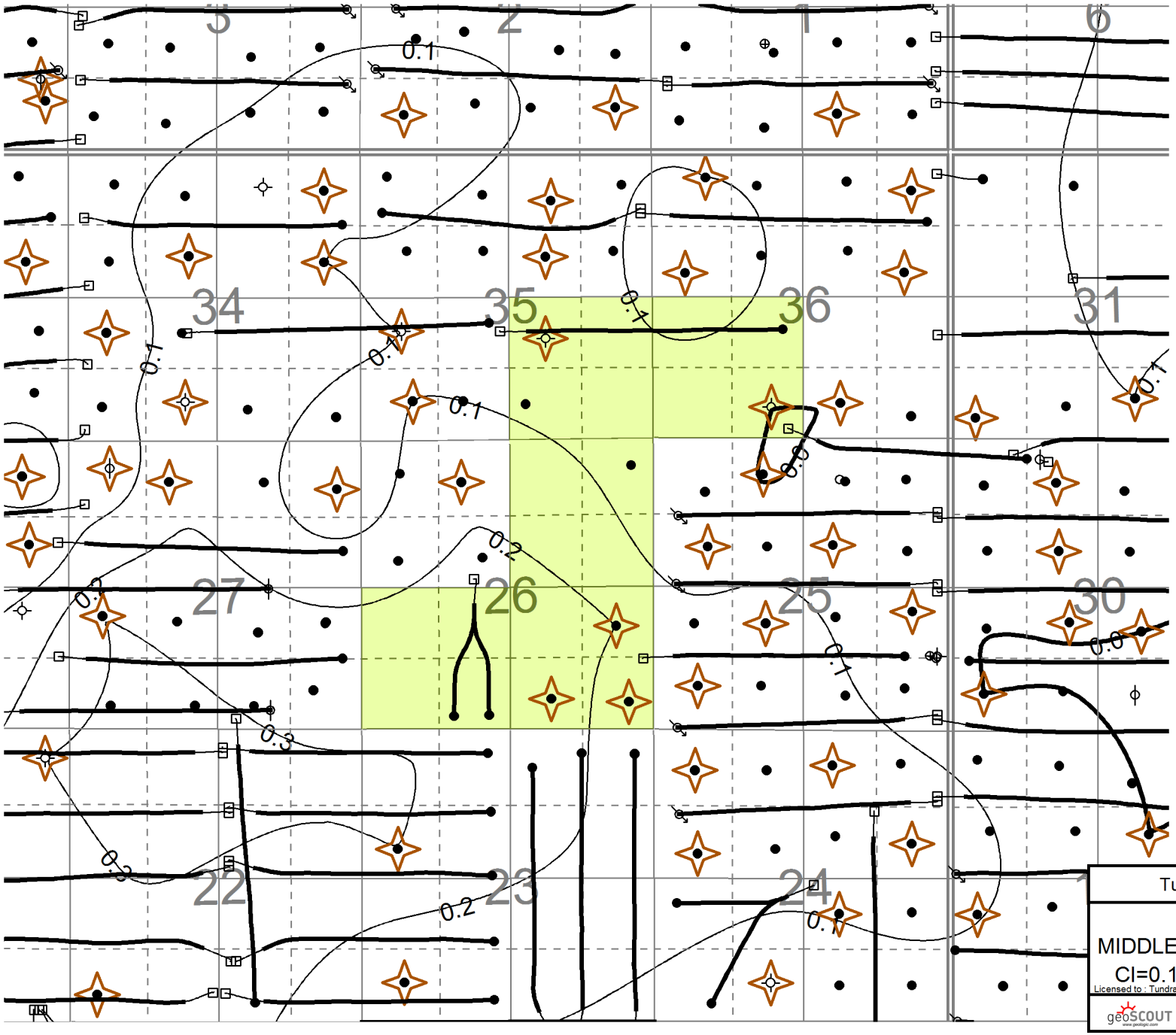
Appendix No. 12

Tundra Oil & Gas Partnership		
Proposed Unit Area LYLETON B STRUCTURE CI=5.0m Subsea		
Licensed to : Tundra Oil & Gas Partnership		
geoSCOUT	By : Hackert	Date : 2014/09/17
	Scale = 1:32060	Project : Sinclair - Daly



Appendix No. 13

Tundra Oil & Gas Partnership		
Proposed Unit Area TORQUAY SHALE STRUCTURE CI=5.0m Subsea		
Licensed to : Tundra Oil & Gas Partnership		
geoSCOUT	By : Hackert Scale = 1:32060	Date : 2014/09/17 Project : Sinclair - Daly



Appendix No. 14

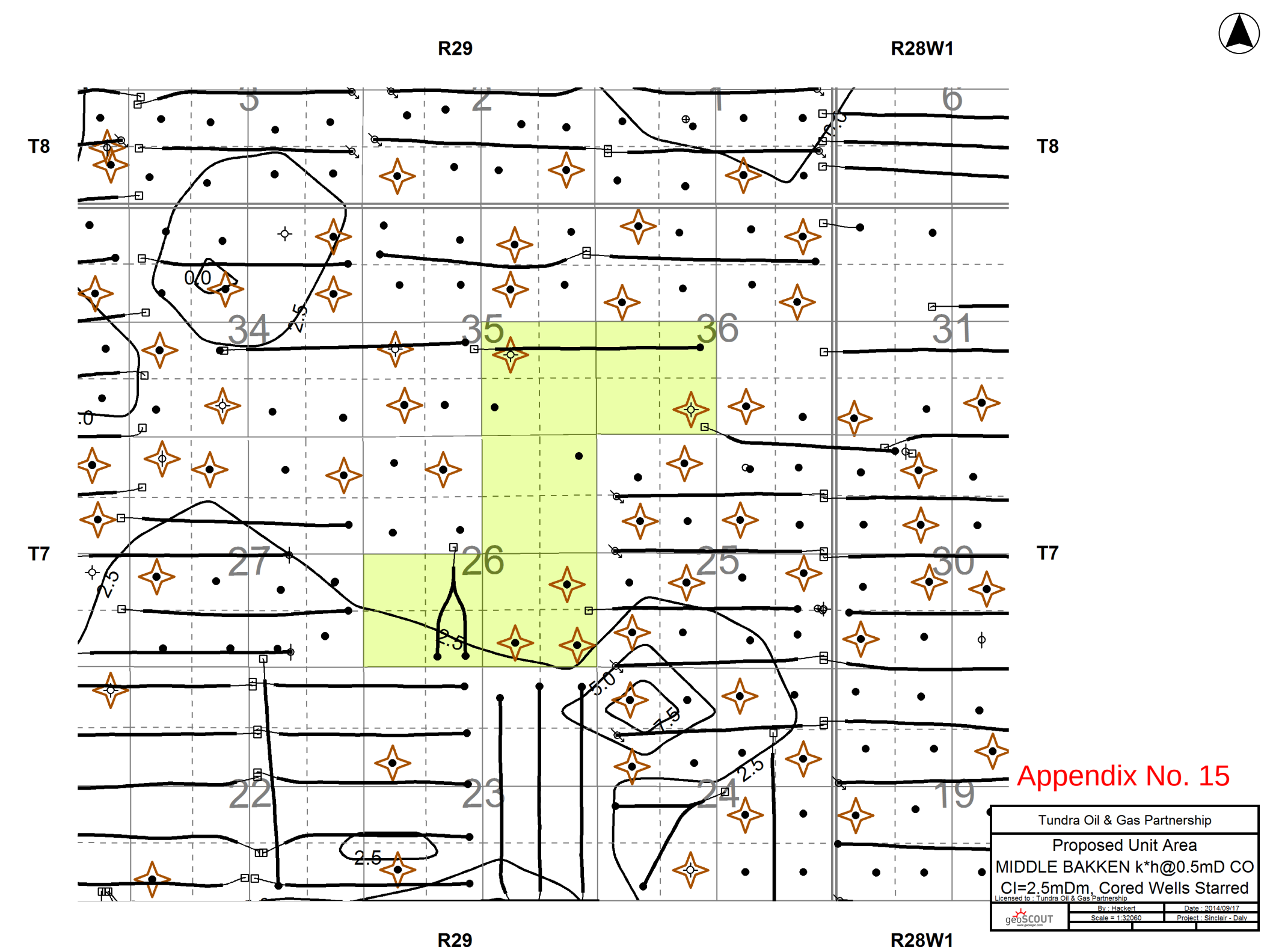
Tundra Oil & Gas Partnership

Proposed Unit Area
MIDDLE BAKKEN phi*h@0.5mD CO
CI=0.1phim, Cored Wells Starred

Licensed to : Tundra Oil & Gas Partnership

geoSCOUT

By : Hackert	Date : 2014/09/17
Scale = 1:32060	Project : Sinclair - Daly


R29
R28W1
T8
T7
6
5
4
3
2
1
31
32
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34
35
36
25
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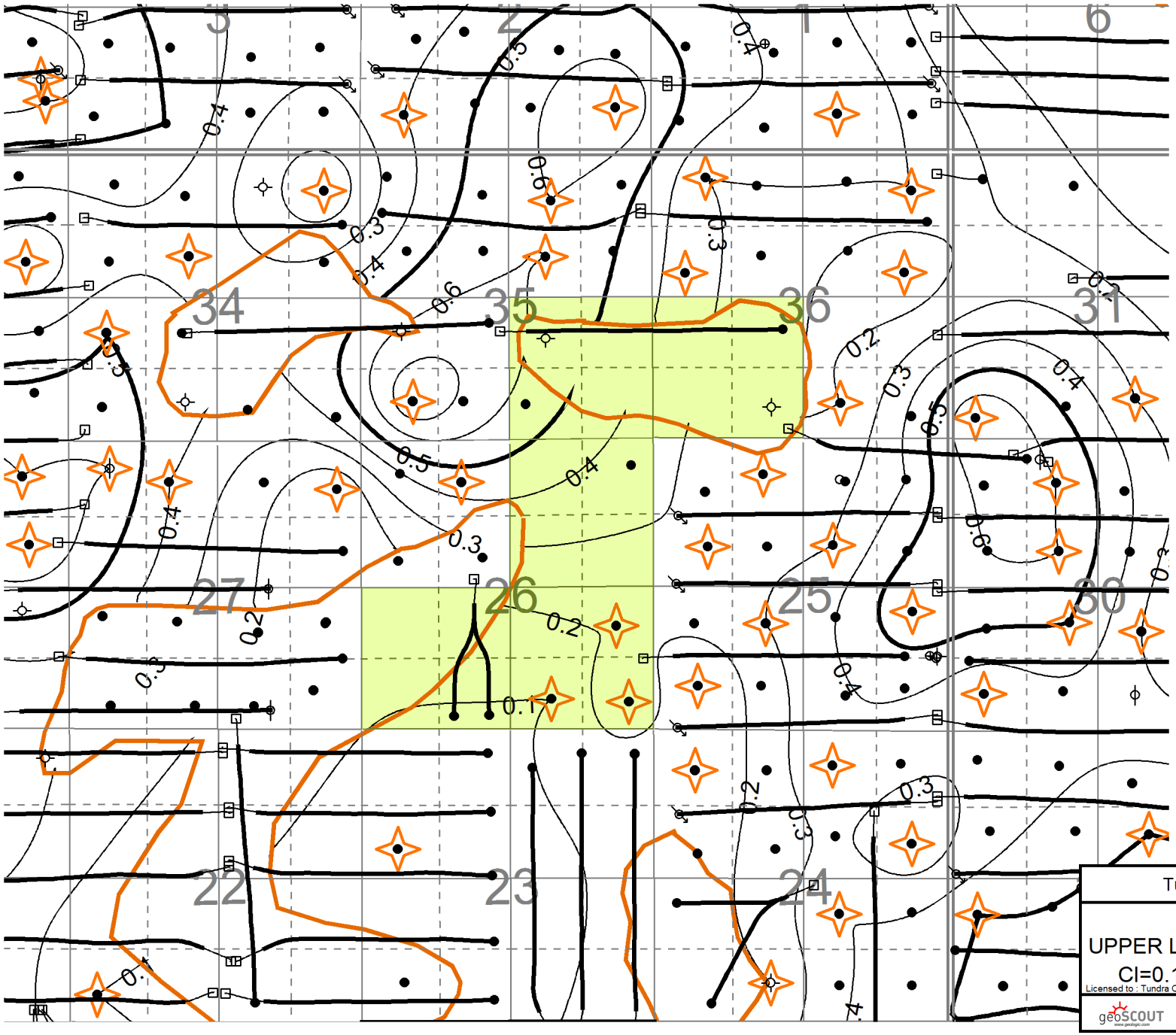
27
28
29
30
19
20
21
22
23
24
0.0
2.5
5.0
7.5
Appendix No. 15
Tundra Oil & Gas Partnership
Proposed Unit Area
MIDDLE BAKKEN k*h@0.5mD CO
CI=2.5mDm, Cored Wells Starred
Licensed to : Tundra Oil & Gas Partnership
geoSCOUT
By : Hackert
Date : 2014/09/17
Scale = 1:32060
Project : Sinclair - Daly



Appendix No. 16

Tundra Oil & Gas Partnership

Proposed Unit Area

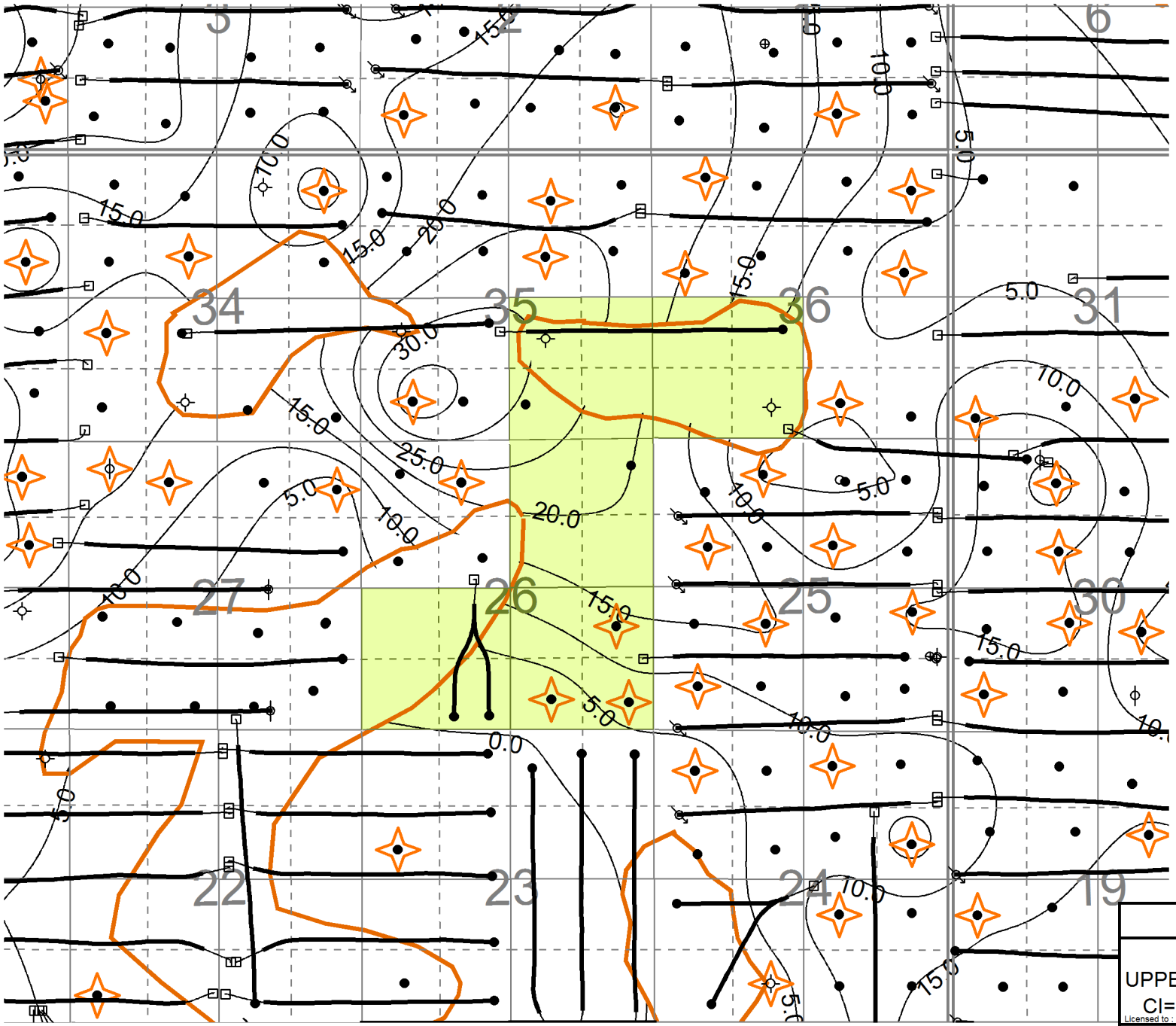
UPPER LYLETON A phi*h@1.0mD CO

CI=0.1phim, Cored Wells Starred

Licensed to : Tundra Oil & Gas Partnership

geoSCOUT

By : Hackert	Date : 2014/09/17
Scale = 1:32060	Project : Sinclair - Daly



Appendix No. 17

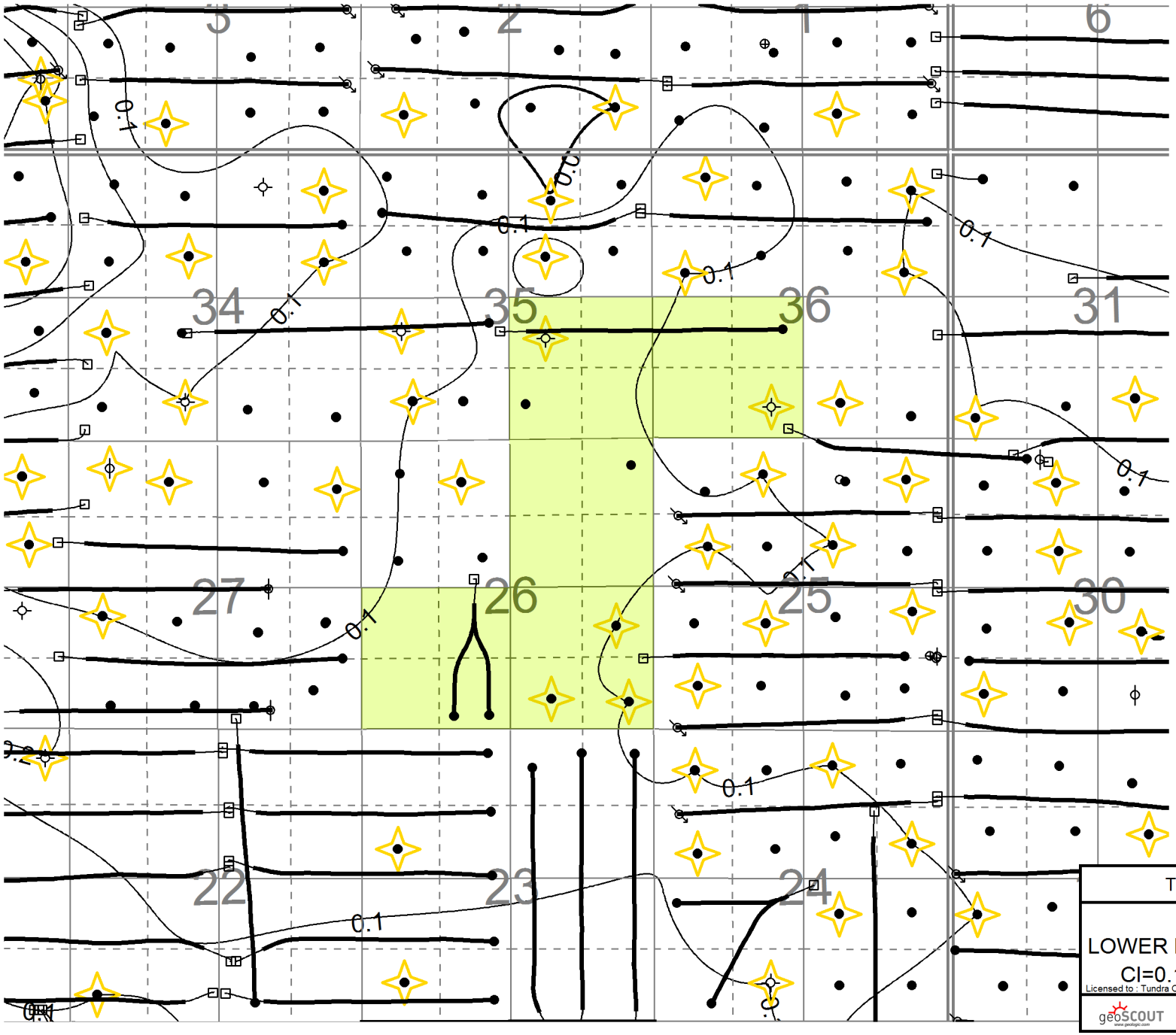
Tundra Oil & Gas Partnership

Proposed Unit Area
UPPER LYLETON A k*h@1.0mD CO
CI=5.0mDm, Cored Wells Starred

Licensed to : Tundra Oil & Gas Partnership

geoSCOUT

By : Hackert | Date : 2014/09/17
Scale = 1:32060 | Project : Sinclair - Daly



Appendix No. 18

Tundra Oil & Gas Partnership

Proposed Unit Area

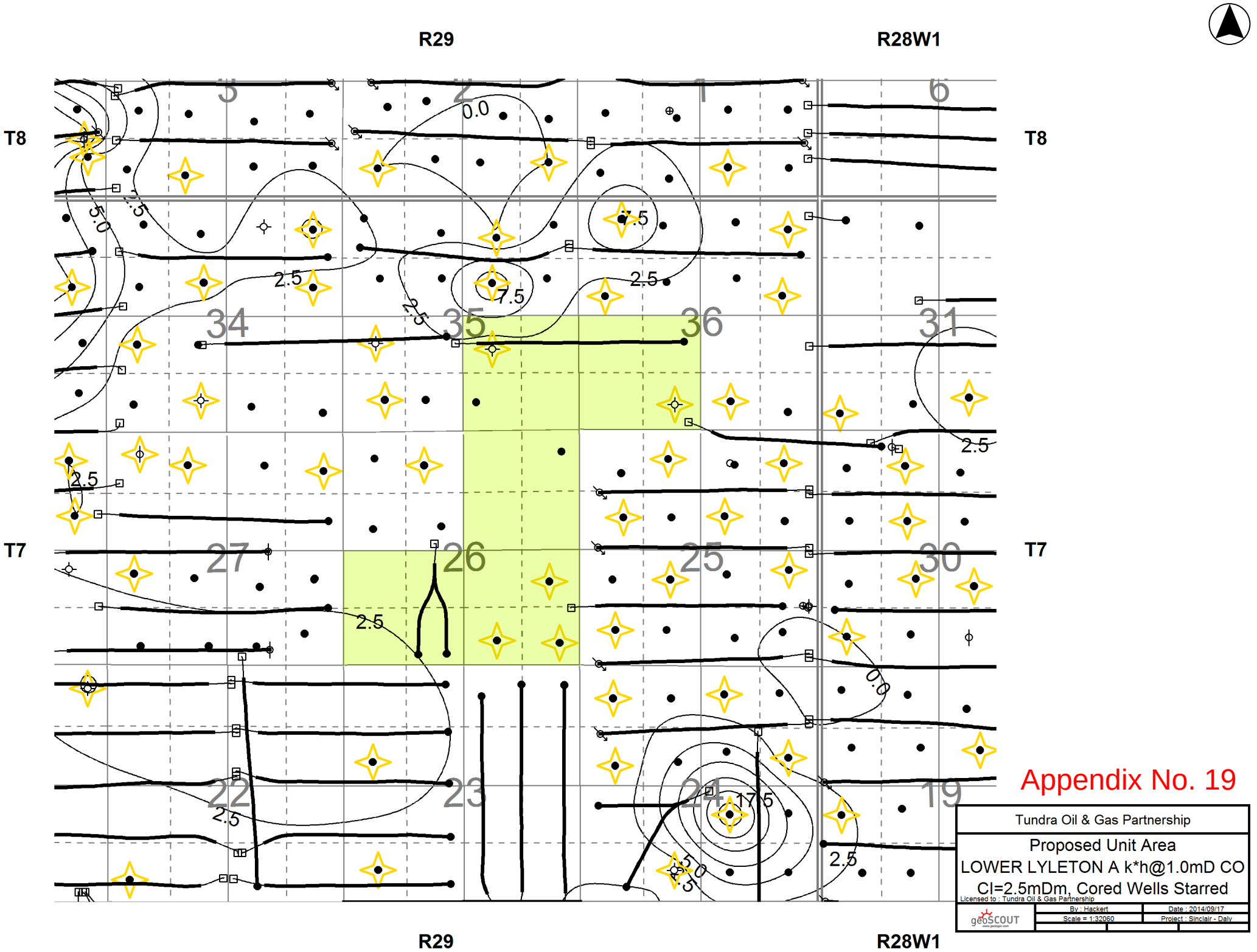
LOWER LYLETON A phi*h@1.0mD CO

CI=0.1phim, Cored Wells Starred

Licensed to : Tundra Oil & Gas Partnership

geoSCOUT

By : Hackert	Date : 2014/09/17
Scale = 1:32060	Project : Sinclair - Daly



Appendix No. 19

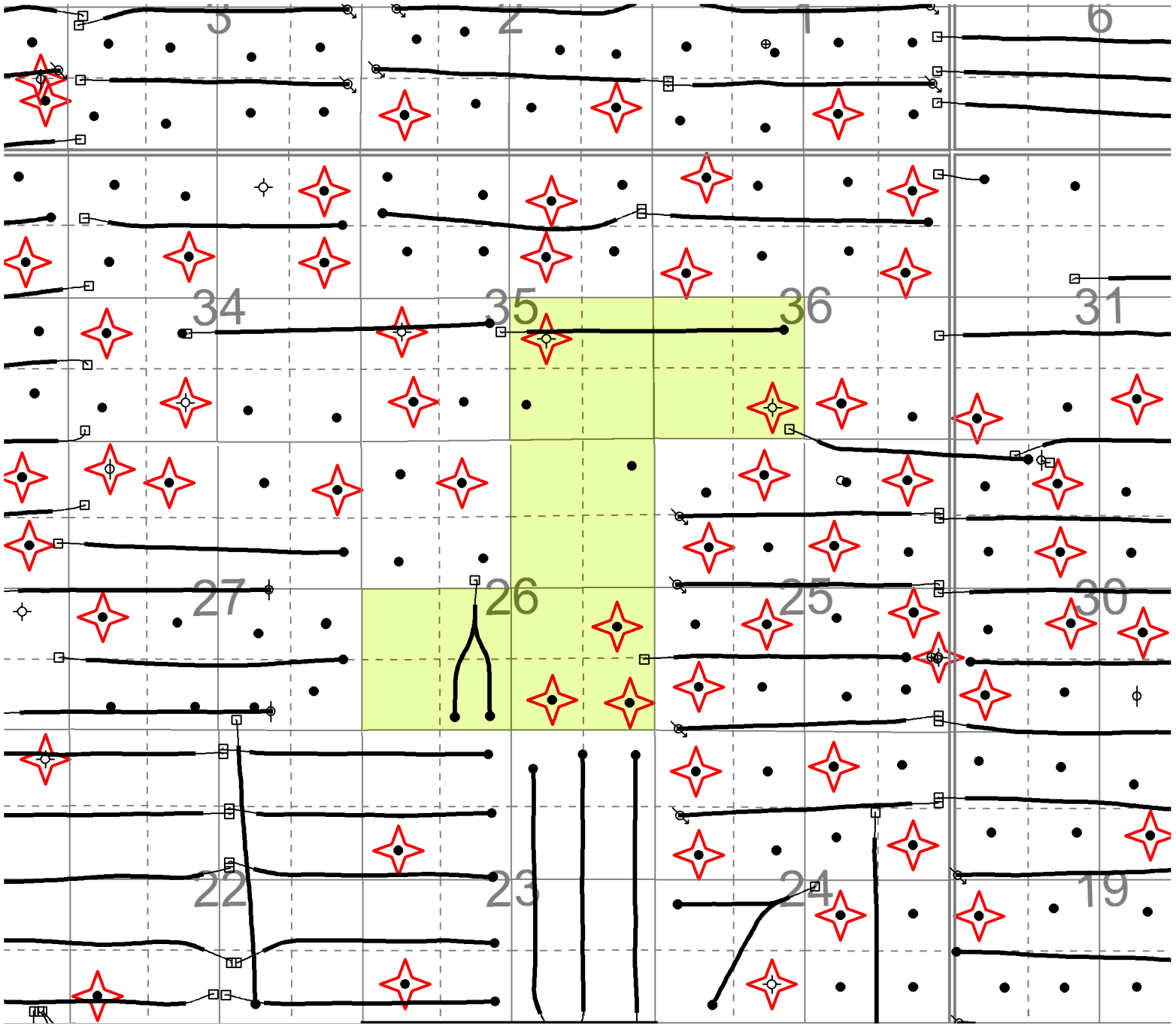
Tundra Oil & Gas Partnership

Proposed Unit Area
LOWER LYLETON A k*h@1.0mD CO
CI=2.5mDm, Cored Wells Starred

Licensed to : Tundra Oil & Gas Partnership

geoSCOUT

By : Hackert | Date : 2014/09/17
Scale = 1:32060 | Project : Sinclair - Daly



Appendix No. 20

Tundra Oil and Gas Ltd

Proposed Unit Area
AREA CORED WELLS

Licensed to : Tundra Oil and Gas Ltd

geoSCOUT

By : Hackert | Date : 2014/09/17
Scale = 1:32001 | Project : Sinclair - Daly

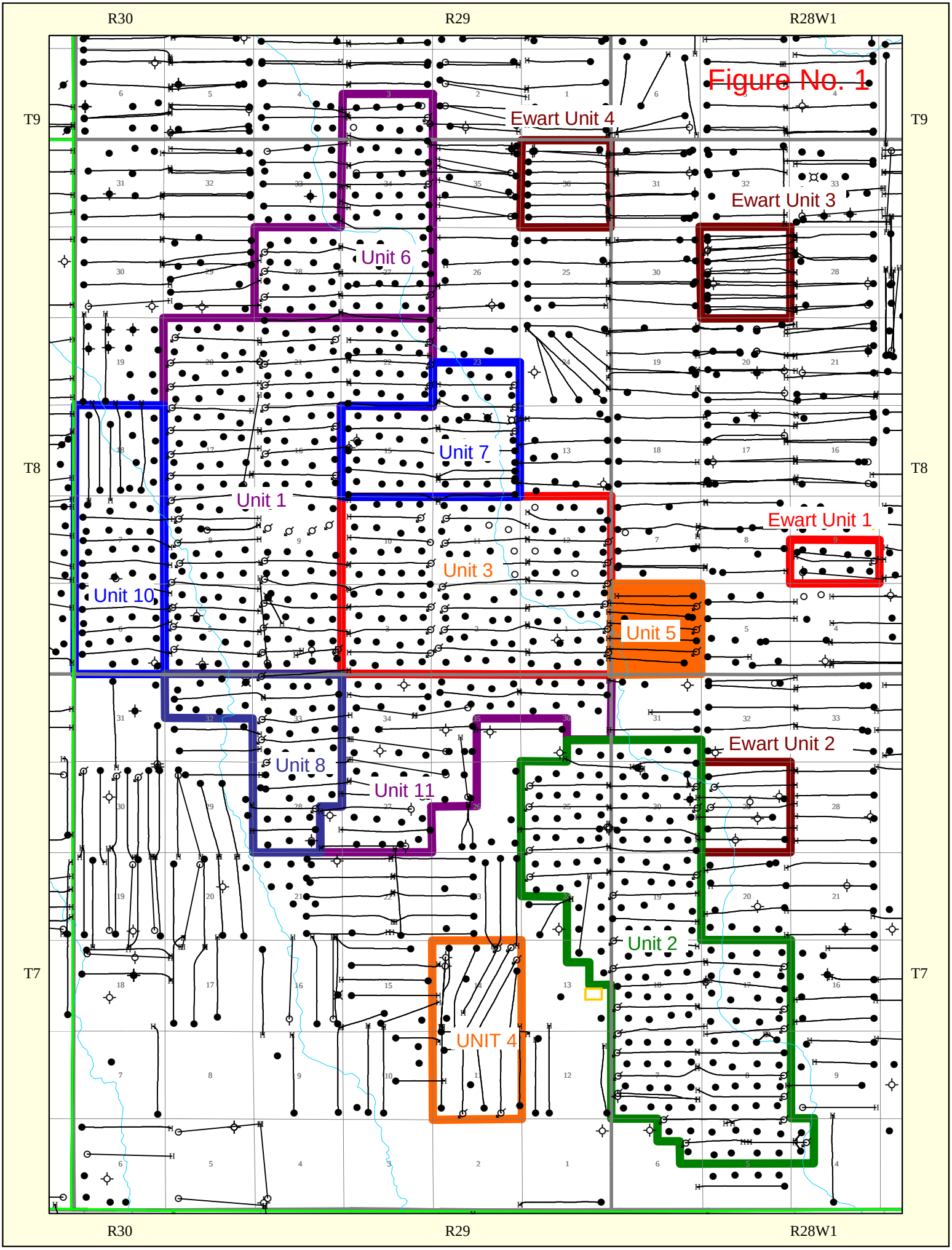
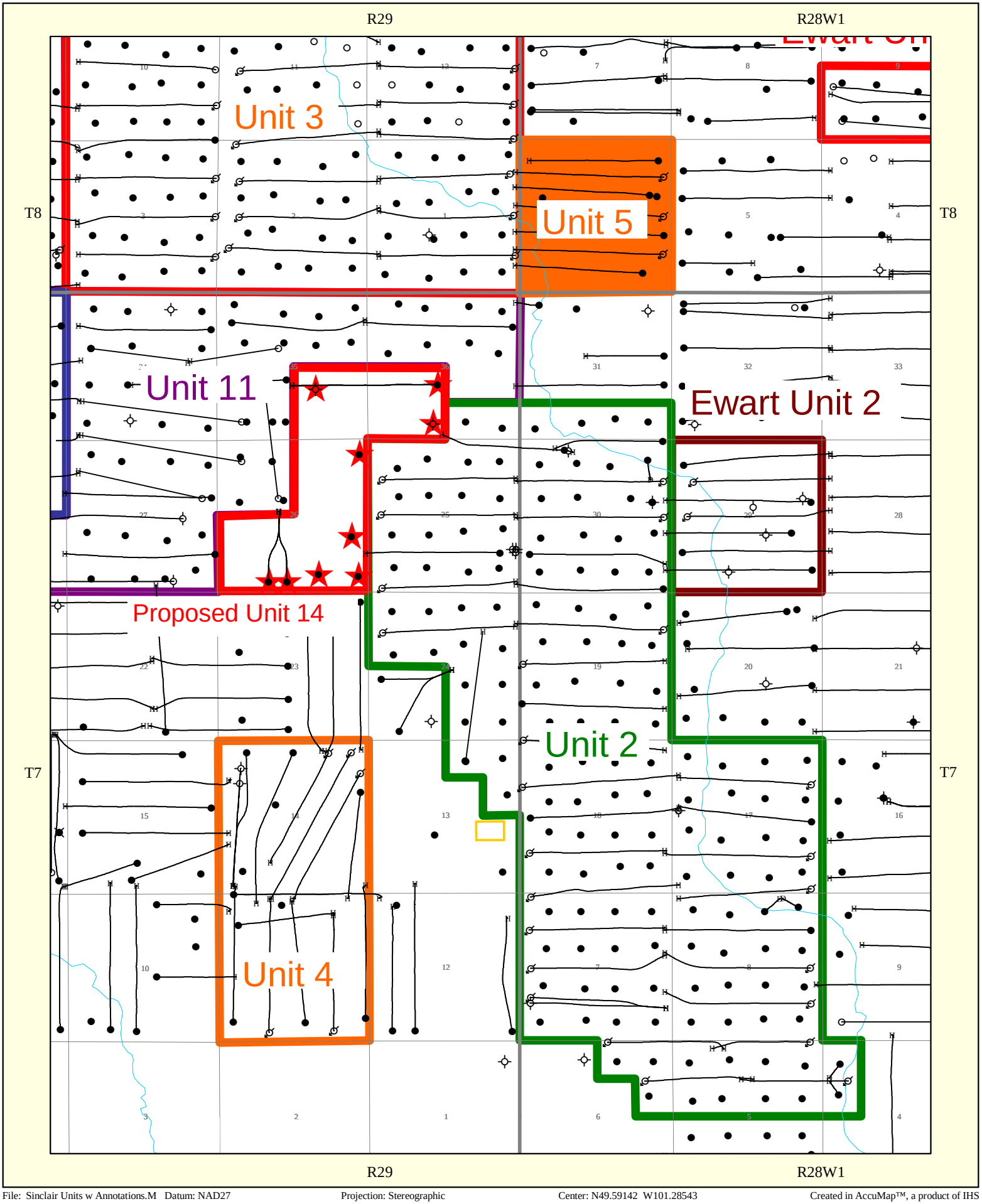


Figure No. 1
R30
R29
R28W1
T9
T8
T7
Ewart Unit 4
Ewart Unit 3
Unit 6
Unit 7
Unit 1
Ewart Unit 1
Unit 3
Unit 10
Unit 5
Unit 8
Unit 11
Ewart Unit 2
Unit 2
UNIT 4

Figure No. 2



File: Sinclair Units w Annotations.M Datum: NAD27 Projection: Stereographic Center: N49.59142 W101.28543 Created in AccuMap™, a product of IHS

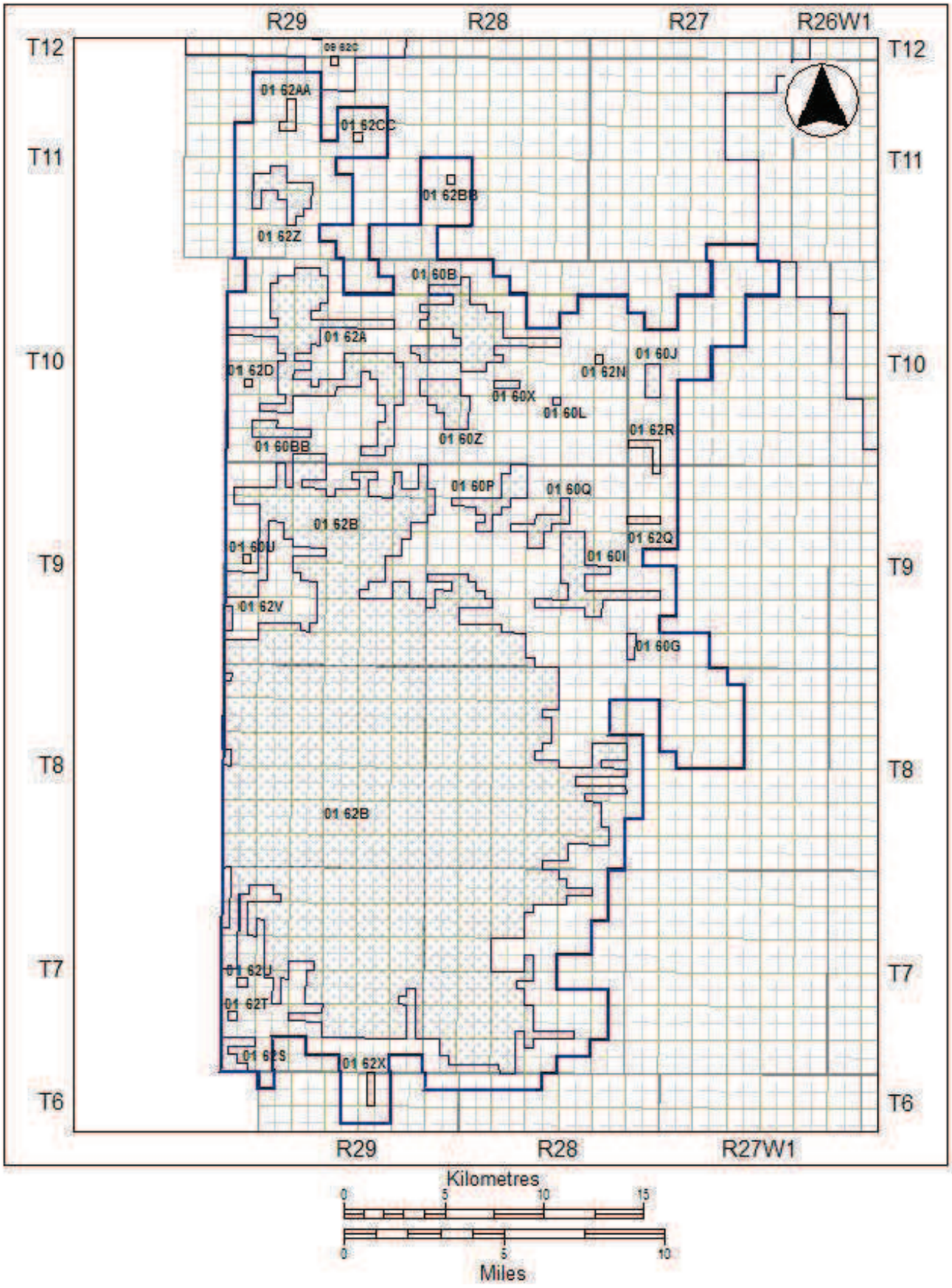
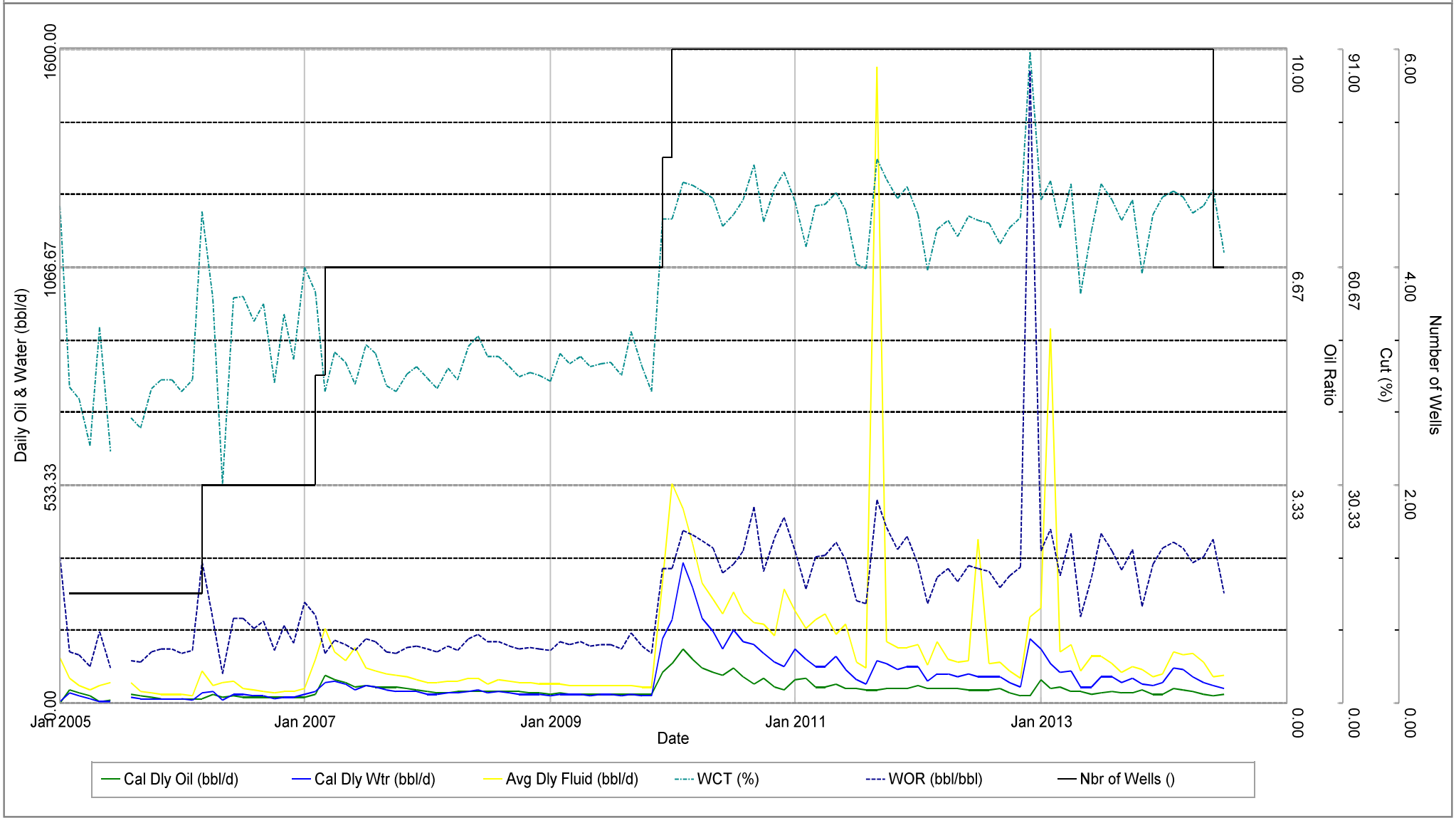


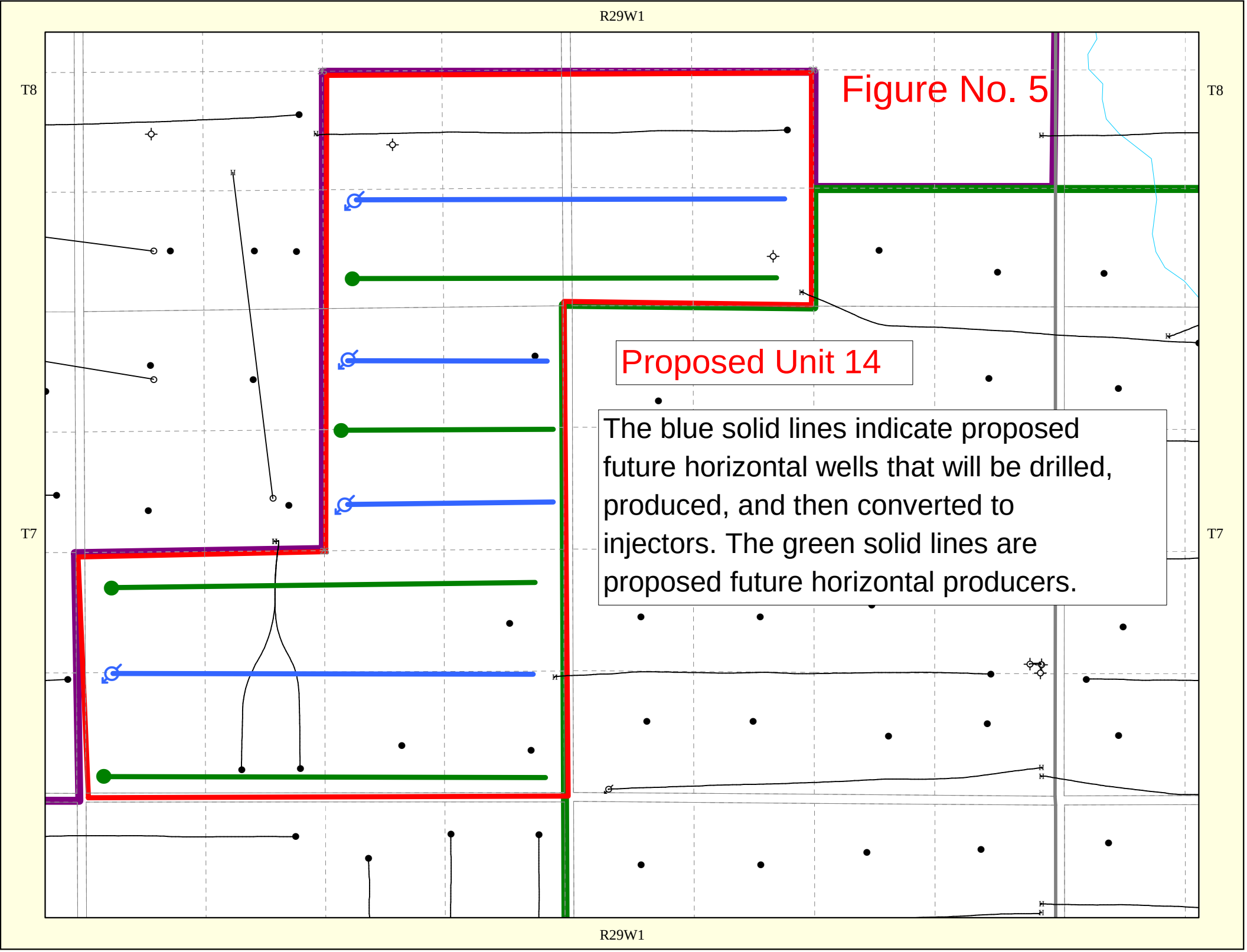
FIGURE 14 - DALY SINCLAIR BAKKEN & BAKKEN-THREE FORKS POOLS (01 60A - 01 60BB & 01 62A – 01 62CC) (Drawn on the DLS System Quarter Section Grid)

Figure No. 4

Production Graph

# of Wells:	6	**Prod Zone:**	BAKKEN	**On Prod:**	2004-12 to 2014-06
		Field:	DALY (1)	**Cum Oil:**	114757.4 bbl
Fluid:	Oil	**Pool Code:**	62B	**Cum Gas:**	0.0 mcf
Mode:	Producing	**Unit Code:**		**Cum Wtr:**	203552.3 bbl





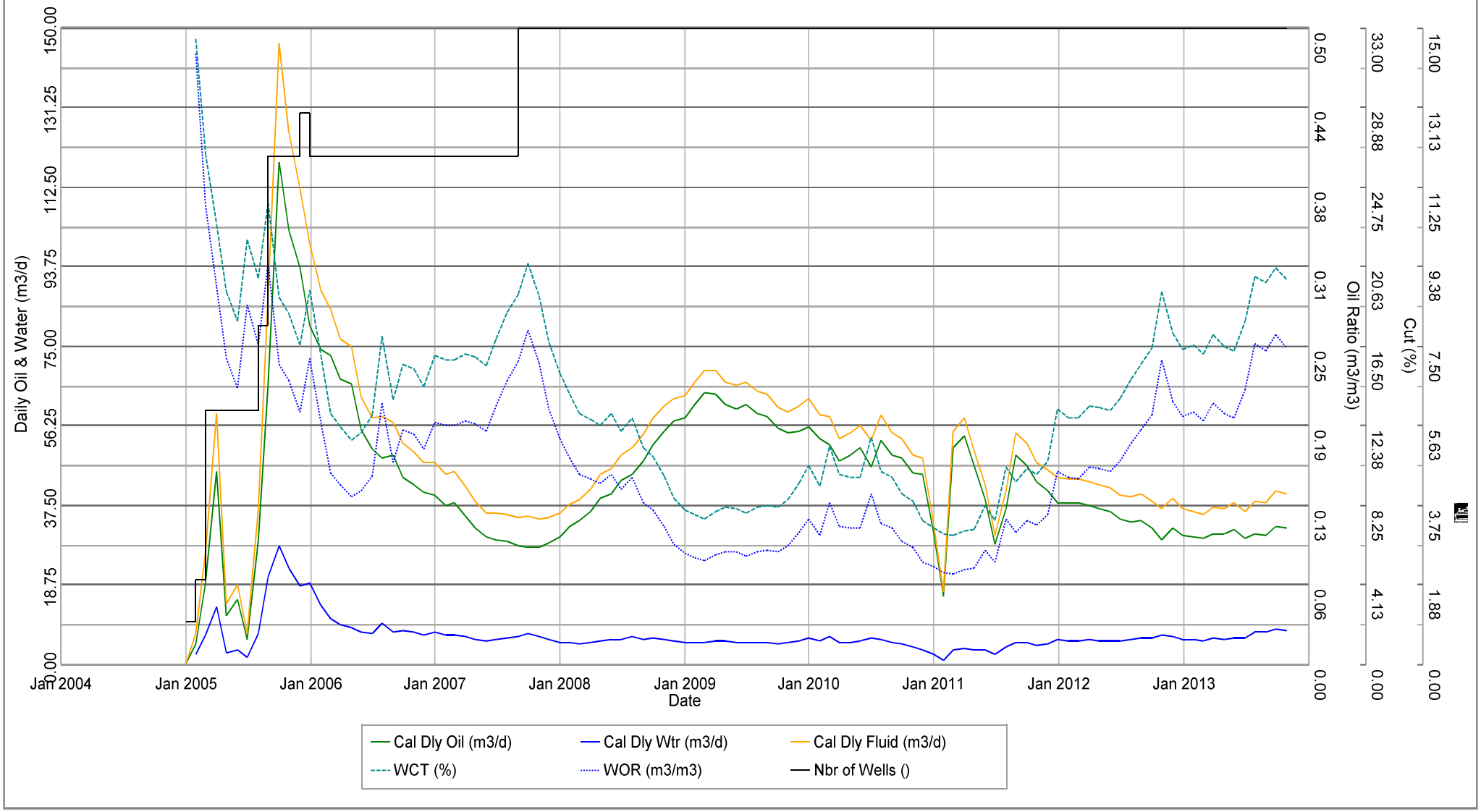
File: Unit 15 Dev Plan.MAP Datum: NAD27 Projection: Stereographic Center: N49.60165 W101.30126 Created in AccuMap™, a product of IHS

Sinclair Unit 1 Pilot Waterflood

Figure No. 6

Production Graph

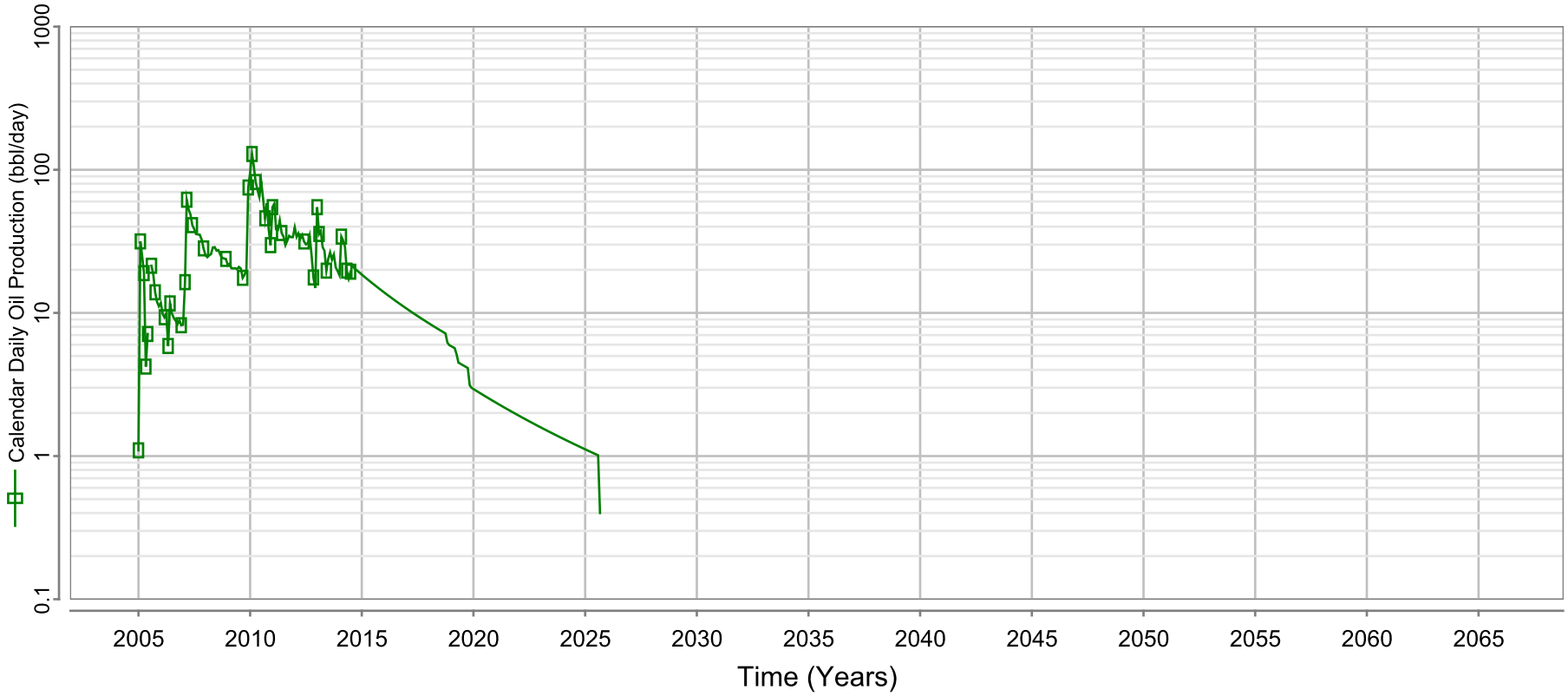
# of Wells:	16	**Prod Zone:**	BAKKEN; TORQUAY	**On Prod:**	2004-12 to 2013-10
		Field:	DALY (1)	**Cum Oil:**	141701.5 m3
Fluid:	Oil; Water Injection	**Pool Code:**	62B	**Cum Gas:**	0.0 E3m3
Mode:	Producing; Injection	**Unit Code:**	162B01	**Cum Wtr:**	21722.6 m3



Tundra Oil & Gas Limited
CONSOLIDATED PRODUCTION AND FORECAST

Figure No. 7

Effective January 01, 2014
Selection: Current selection from current workbench list
Type:
Category: Base



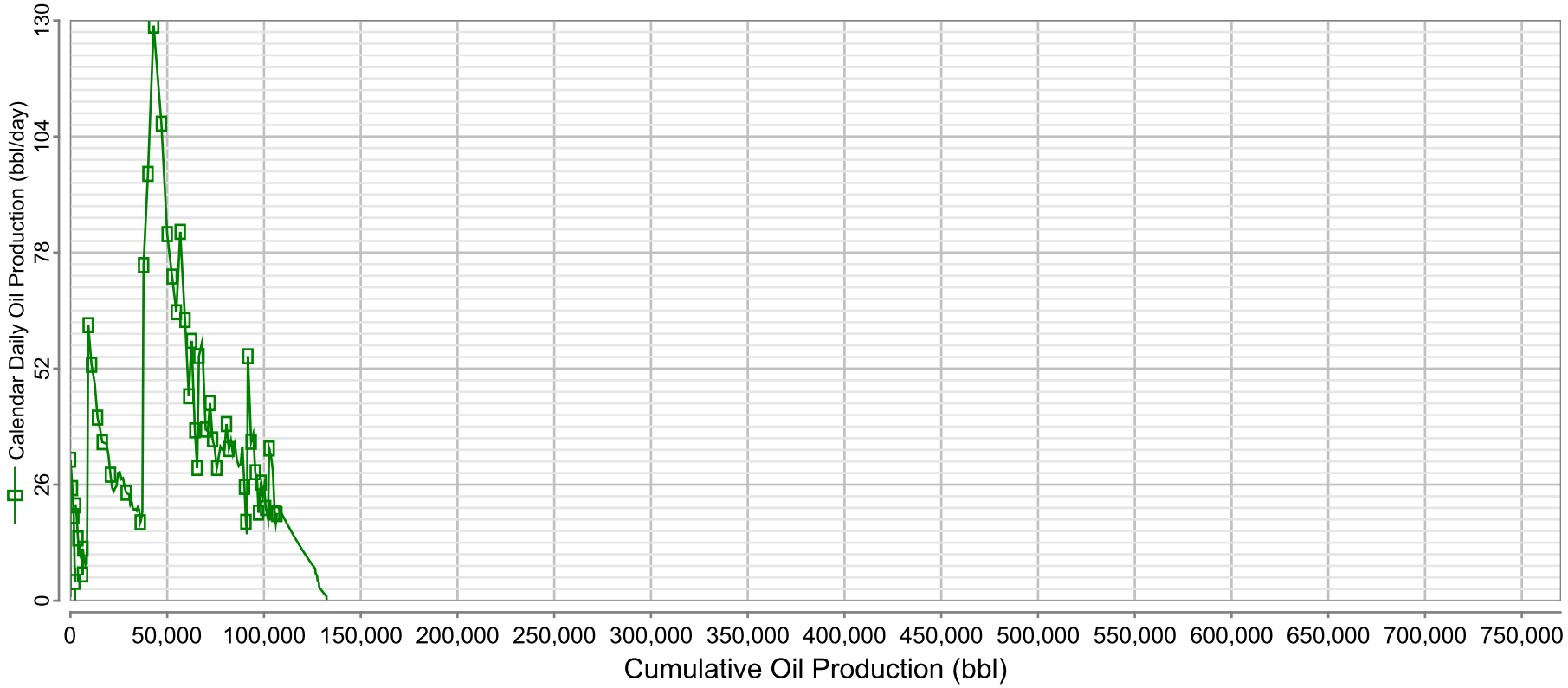
Cum Oil (bbl)	106,658	Cum Gas (Mcf)	0	Cum Water (bbl)	182,887	Cum Cond (bbl)	0
Forecast Start	2014/07/01	Calculation Type		Est. Cum Prod (bbl)	103,253	Decline Exponent	
Forecast End	2025/08/31	OVIP (bbl)		Remaining (bbl)	29,090	Intial Decline (%/yr)	97.5
Initial Rate (bbl/day)	40.5	Recovery Factor		Surface Loss		Life Index	4.66
Final Rate (bbl/day)	1.0	Ult. Recoverable (bbl)	132,343	Total Sales (Mcf)		Half Life (years)	1.82

Report Time: Wed, 08 Oct 2014 15:01
Economic Case: Tundra Deck effective January 1st, 2014 /
Hierarchy: Property
DB: WORKING_CARY : Mosaic10 Version: 2014.1.1

Tundra Oil & Gas Limited
CONSOLIDATED PRODUCTION AND FORECAST

Figure No. 8

Effective January 01, 2014
Selection: Current selection from current workbench list
Type:
Category: Base



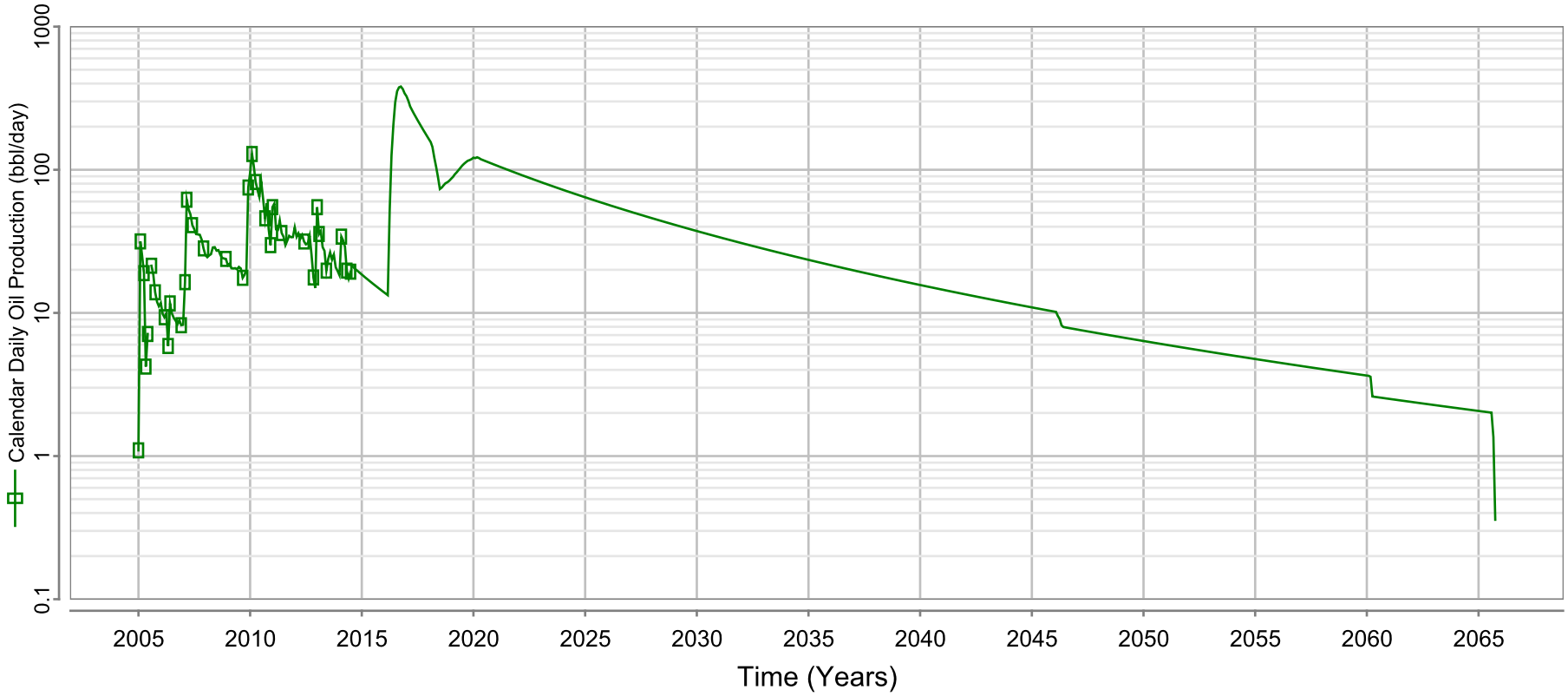
Cum Oil (bbl)	106,658	Cum Gas (Mcf)	0	Cum Water (bbl)	182,887	Cum Cond (bbl)	0
Forecast Start	2014/07/01	Calculation Type		Est. Cum Prod (bbl)	103,253	Decline Exponent	
Forecast End	2025/08/31	OVIP (bbl)		Remaining (bbl)	29,090	Intial Decline (%/yr)	97.5
Initial Rate (bbl/day)	40.5	Recovery Factor		Surface Loss		Life Index	4.66
Final Rate (bbl/day)	1.0	Ult. Recoverable (bbl)	132,343	Total Sales (Mcf)		Half Life (years)	1.82

Report Time: Wed, 08 Oct 2014 15:01
Economic Case: Tundra Deck effective January 1st, 2014 /
Hierarchy: Property
DB: WORKING_CARY : Mosaic10 Version: 2014.1.1

Tundra Oil & Gas Limited
CONSOLIDATED PRODUCTION AND FORECAST

Figure No. 9

Effective January 01, 2014
Selection: Current selection from current workbench list
Type:
Category: Base + Growth 1



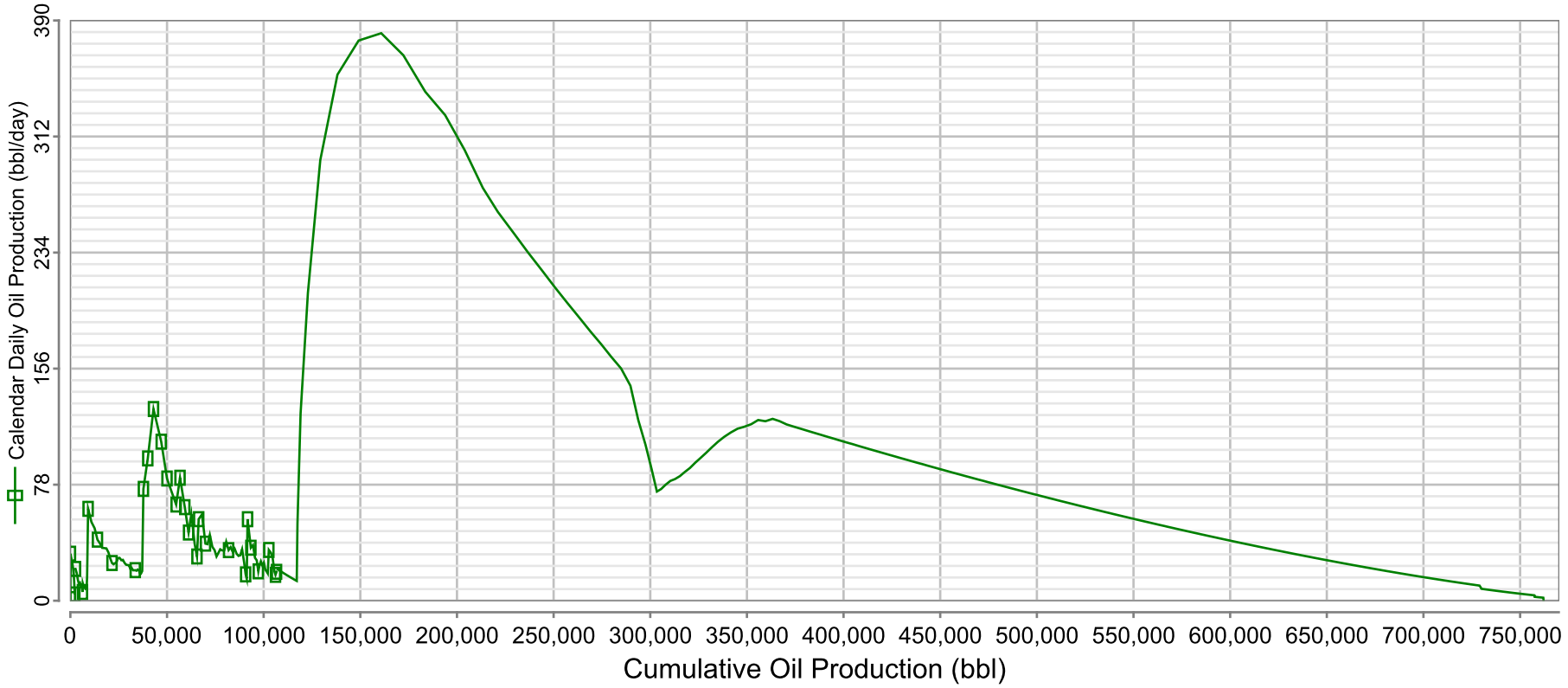
Cum Oil (bbl)	106,658	Cum Gas (Mcf)	0	Cum Water (bbl)	182,887	Cum Cond (bbl)	0
Forecast Start	2014/07/01	Calculation Type		Est. Cum Prod (bbl)	103,253	Decline Exponent	
Forecast End	2065/09/30	OVIP (bbl)		Remaining (bbl)	658,868	Intial Decline (%/yr)	97.5
Initial Rate (bbl/day)	40.5	Recovery Factor		Surface Loss		Life Index	105.53
Final Rate (bbl/day)	1.0	Ult. Recoverable (bbl)	762,122	Total Sales (Mcf)		Half Life (years)	7.43

Report Time: Wed, 08 Oct 2014 15:02
Economic Case: Tundra Deck effective January 1st, 2014 /
Hierarchy: Property
DB: WORKING_CARY : Mosaic10 Version: 2014.1.1

Tundra Oil & Gas Limited
CONSOLIDATED PRODUCTION AND FORECAST

Figure No. 10

Effective January 01, 2014
Selection: Current selection from current workbench list
Type:
Category: Base + Growth 1



Cum Oil (bbl)	106,658	Cum Gas (Mcf)	0	Cum Water (bbl)	182,887	Cum Cond (bbl)	0
Forecast Start	2014/07/01	Calculation Type		Est. Cum Prod (bbl)	103,253	Decline Exponent	
Forecast End	2065/09/30	OVIP (bbl)		Remaining (bbl)	658,868	Intial Decline (%/yr)	97.5
Initial Rate (bbl/day)	40.5	Recovery Factor		Surface Loss		Life Index	105.53
Final Rate (bbl/day)	1.0	Ult. Recoverable (bbl)	762,122	Total Sales (Mcf)		Half Life (years)	7.43

Report Time: Wed, 08 Oct 2014 15:02
Economic Case: Tundra Deck effective January 1st, 2014 /
Hierarchy: Property
DB: WORKING_CARY : Mosaic10 Version: 2014.1.1

Figure No. 11

Sinclair Unit No. 14

EOR Waterflood Project

Planned Corrosion Control Program **

Source Well

- Continuous downhole corrosion inhibition
- Continuous surface corrosion inhibitor injection
- Downhole scale inhibitor injection
- Corrosion resistant valves and internally coated surface piping

Pipelines

- Source well to 3-4-8-29 Water Plant – Fiberglass
- New High Pressure Pipeline to Unit 9 injection wells – 2000 psi high pressure Fiberglass

Facilities

- 3-4-8-29 Water Plant and New Injection Pump Station
  - Plant piping – 600 ANSI schedule 80 pipe, Fiberglass or Internally coated
  - Filtration – Stainless steel bodies and PVC piping
  - Pumping – Ceramic plungers, stainless steel disc valves
  - Tanks – Fiberglass shell, corrosion resistant valves

Injection Wellhead / Surface Piping

- Corrosion resistant valves and stainless steel and/or internally coated steel surface piping

Injection Well

- Casing cathodic protection where required
- Wetted surfaces coated downhole packer
- Corrosion inhibited water in the annulus between tubing / casing
- Internally coated tubing surface to packer
- Surface freeze protection of annular fluid
- Corrosion resistant master valve
- Corrosion resistant pipeline valve

Producing Wells

- Casing cathodic protection where required
- Downhole batch corrosion inhibition as required
- Downhole scale inhibitor injection as required

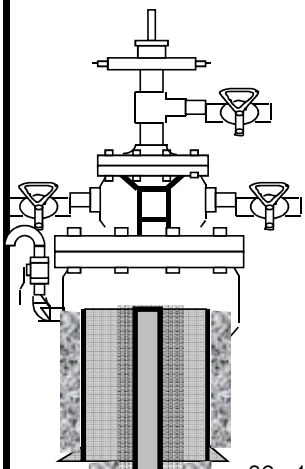
Figure 11

** subject to final design and engineering

Figure No. 12

Tundra Oil And Gas Partnership

TYPICAL OPEN HOLE WATER INJECTION WELL (WIW) DOWNHOLE DIAGRAM



SC = 140mKB

WELL NAME:	Tundra Sinclair Unit 14 HZNTL Open Hole WIW				**WELL LICENCE:**	
Prepared by	WRJ	(average depths)		Date:	2012	
Elevations :						
KB [m]		KB to THF [m]			TD [m]	2400.0
GL [m]		CF (m)			PBTD [m]	
Current Perfs:	**Open Hole**			1010.0	to	2400.0
Current Perfs:					to	
KOP:	700 m MD		Total Interval		to	

Tubulars	**Size [mm]**	**Wt - Kg/m**	**Grade**	**Landing Depth [mKB]**		
Surface Casing	244.5	48.06	H-40 - ST&C	Surface	to	140.0
Intermed Csg (if run)	177.8	34.23 & 29.76	J-55 - LT&C	Surface	to	975.0
Open Hole Latera	none	none	none	950.0	to	2400.0
Tubing	60.3 or 73.0 - TK-99	6.99 or 9.67	J-55	Surface	to	975.0

Date of Tubing Installation:

Item	Description	K.B.--Tbg. Flg.	Length 0.00	Top @ m KB
	Corrosion Protected ENC Coated Packer (set within 15 m of Intermed Csg shoe)			
	60.3 mm or 73 mm TK-99 Internally Coated Tubing			
	TK-99 Internally Coated Tubing Pup Jt			
	Coated Split Dognut			
	Annular space above injection packer filled with inhibited fresh water			
	Bottom of Tubing mKB			

Rod String :

Date of Rod Installation:

Bottomhole Pump:

Directions:

KOP = ~ 700 mMD

Inhibited Annular Fluid

Injection Packer set within 15 m of Intermediate Casing Shoe

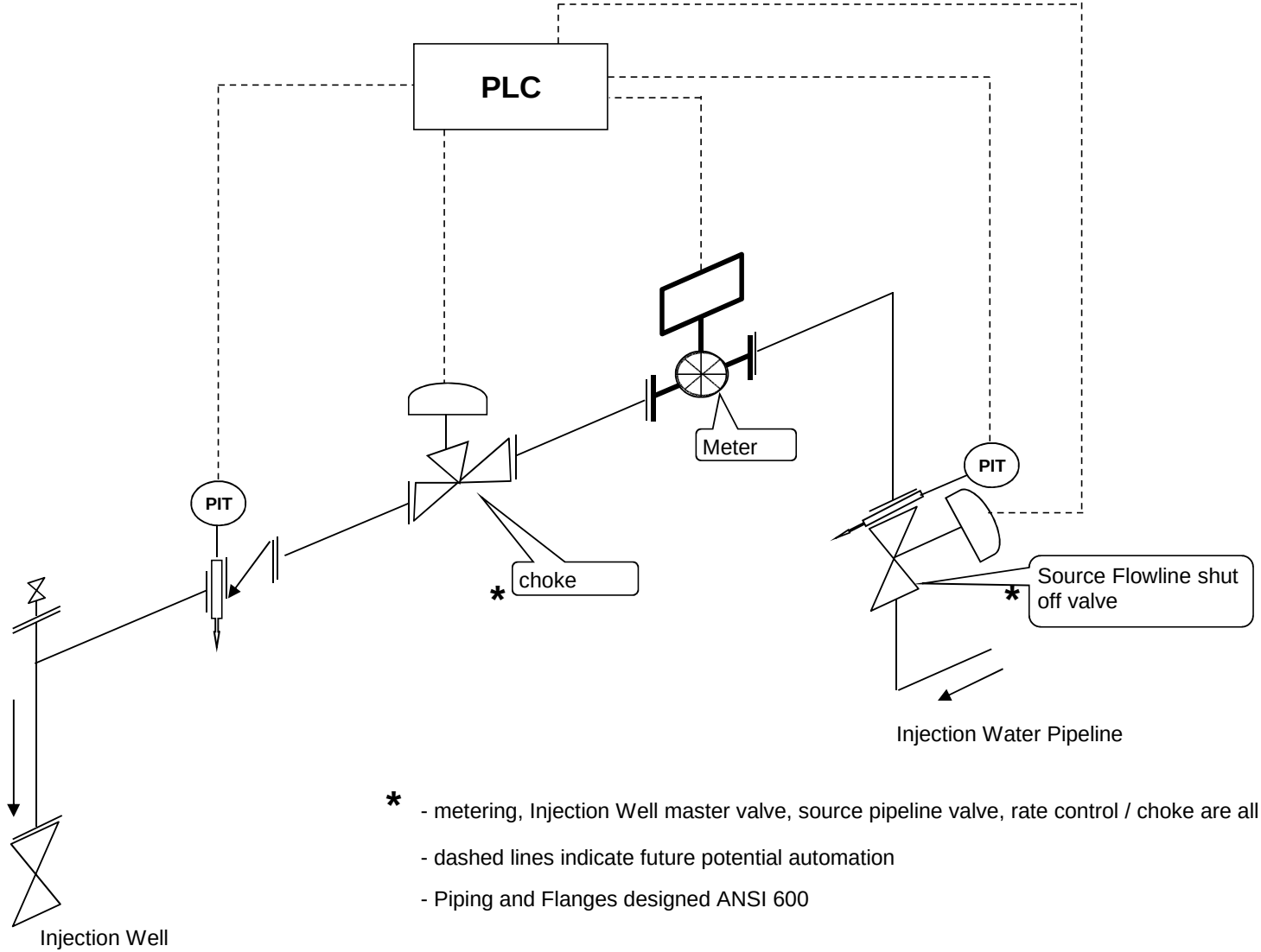
Intermediate Casing Shoe

Open Hole Fractures

Figure No. 13

Sinclair Unit No. 14

Proposed Injection Well Surface Piping P&ID



* - metering, Injection Well master valve, source pipeline valve, rate control / choke are all standard

- dashed lines indicate future potential automation
- Piping and Flanges designed ANSI 600

FIGURE NO. 14

Sinclair Water Injection System

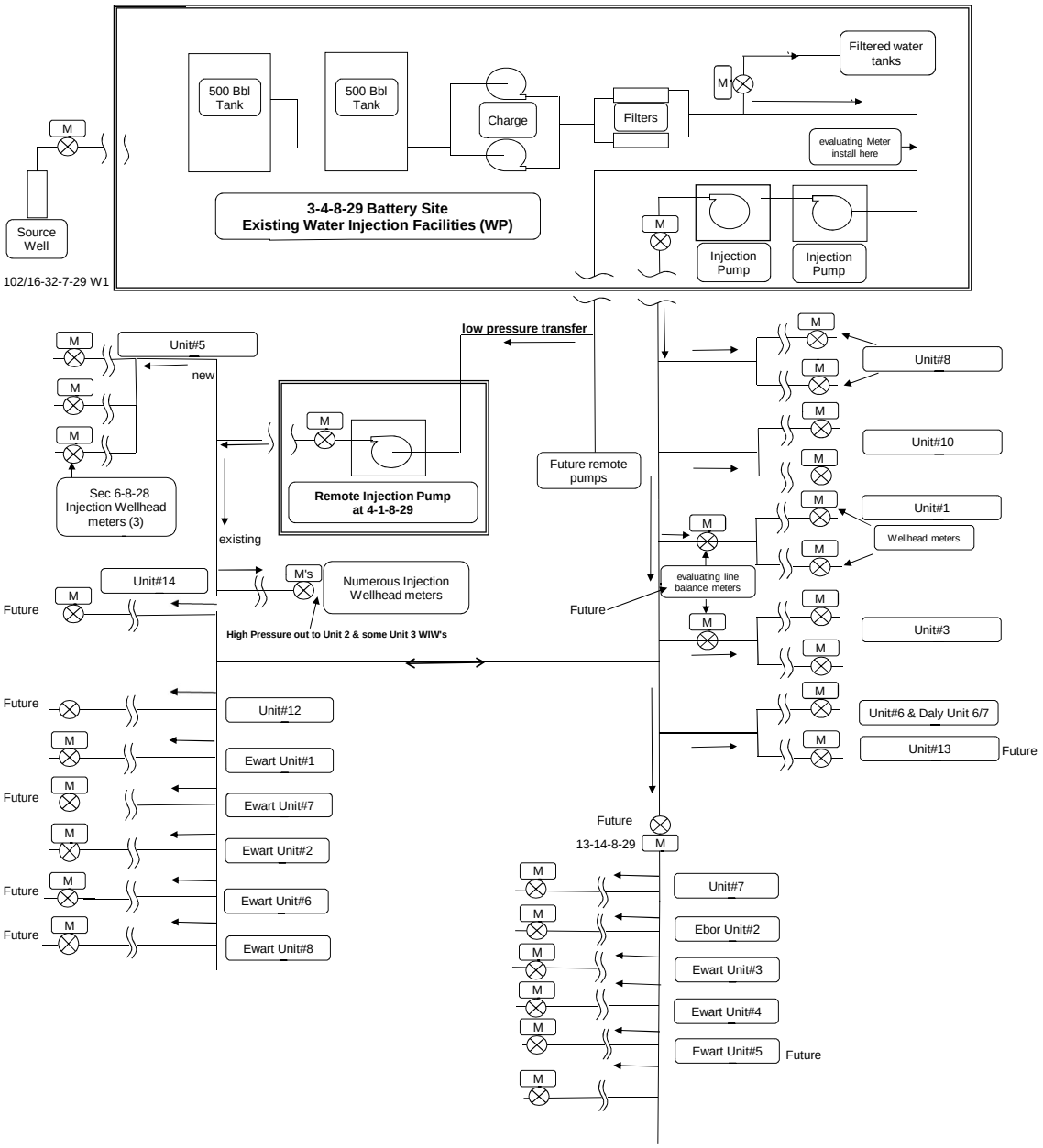


TABLE NO. 1: TRACT PARTICIPATION FOR PROPOSED SINCLAIR UNIT NO. 14

Working Interest				Royalty Interest		Tract Participation
Tract No.	Land Description	Owner	Share (%)	Owner	Share (%)	
1	01-26-007-29W1M	Tundra Oil & Gas Partnership	100%	Godenir Holdings Ltd.	100%	4.280373287%
2	02-26-007-29W1M	Tundra Oil & Gas Partnership	100%	Godenir Holdings Ltd.	100%	5.064488407%
3	03-26-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	5.387605363%
4	04-26-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	5.286855740%
5	05-26-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	3.618110899%
6	06-26-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	5.303511109%
7	07-26-007-29W1M	Tundra Oil & Gas Partnership	100%	Godenir Holdings Ltd.	100%	5.278827772%
8	08-26-007-29W1M	Tundra Oil & Gas Partnership	100%	Godenir Holdings Ltd.	100%	4.464005326%
9	09-26-007-29W1M	Tundra Oil & Gas Partnership	100%	Manitoba Mineral Resources	100%	4.921607516%
10	10-26-007-29W1M	Tundra Oil & Gas Partnership	100%	Manitoba Mineral Resources	100%	5.488225887%
11	15-26-007-29W1M	Tundra Oil & Gas Partnership	100%	Manitoba Mineral Resources	100%	5.947620575%
12	16-26-007-29W1M	Tundra Oil & Gas Partnership	100%	Manitoba Mineral Resources	100%	4.982007835%
13	01-35-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	5.321756884%
14	02-35-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	6.322565447%
15	07-35-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	6.503142865%
16	08-35-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	5.918064969%
17	03-36-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	3.268208563%
18	04-36-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	4.307425854%
19	05-36-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	4.824700604%
20	06-36-007-29W1M	Tundra Oil & Gas Partnership	100%	4943091 Manitoba Ltd.	100%	3.510895098%
						100.000000000%

TABLE NO. 2: TRACT FACTOR CALCULATIONS FOR SINCLAIR UNIT NO. 14

TRACT FACTORS BASED ON OIL-IN-PLACE (OOIP) MINUS CUMULATIVE PRODUCTION TO JUNE 2014

LS-SE	Tract	*OOIP (m3)*	HZ Wells Alloc Prod (m3)	Vert Wells Cum Prodn (m3)	Sum Hz + Vert Alloc Cum Prodn	OOIP - Cum Prodn	Tract Factor	Tract
01-26	01-26-007-29W1M	55,495	0.0	3764.0	3764.0	51730.9	4.280373287%	01-26-007-29W1M
02-26	02-26-007-29W1M	63,417	0.0	2209.2	2209.2	61207.4	5.064488407%	02-26-007-29W1M
03-26	03-26-007-29W1M	66,029	916.3	0.0	916.3	65112.5	5.387605363%	03-26-007-29W1M
04-26	04-26-007-29W1M	64,811	916.3	0.0	916.3	63894.8	5.286855740%	04-26-007-29W1M
05-26	05-26-007-29W1M	43,727	0.0	0.0	0.0	43727.1	3.618110899%	05-26-007-29W1M
06-26	06-26-007-29W1M	65,012	916.3	0.0	916.3	64096.1	5.303511109%	06-26-007-29W1M
07-26	07-26-007-29W1M	63,798	0.0	0.0	0.0	63797.8	5.278827772%	07-26-007-29W1M
08-26	08-26-007-29W1M	57,330	0.0	3379.6	3379.6	53950.2	4.464005326%	08-26-007-29W1M
09-26	09-26-007-29W1M	59,481	0.0	0.0	0.0	59480.6	4.921607516%	09-26-007-29W1M
10-26	10-26-007-29W1M	66,329	0.0	0.0	0.0	66328.5	5.488225887%	10-26-007-29W1M
15-26	15-26-007-29W1M	71,881	0.0	0.0	0.0	71880.6	5.947620575%	15-26-007-29W1M
16-26	16-26-007-29W1M	61,405	0.0	1194.5	1194.5	60210.6	4.982007835%	16-26-007-29W1M
01-35	01-35-007-29W1M	64,317	0.0	0.0	0.0	64316.6	5.321756884%	01-35-007-29W1M
02-35	02-35-007-29W1M	76,412	0.0	0.0	0.0	76412.0	6.322565447%	02-35-007-29W1M
07-35	07-35-007-29W1M	79,822	1228.0	0.0	1228.0	78594.4	6.503142865%	07-35-007-29W1M
08-35	08-35-007-29W1M	72,751	1228.0	0.0	1228.0	71523.4	5.918064969%	08-35-007-29W1M
03-36	03-36-007-29W1M	39,498	0.0	0.0	0.0	39498.3	3.268208563%	03-36-007-29W1M
04-36	04-36-007-29W1M	52,058	0.0	0.0	0.0	52057.8	4.307425854%	04-36-007-29W1M
05-36	05-36-007-29W1M	59,537	1228.0	0.0	1228.0	58309.4	4.824700604%	05-36-007-29W1M
06-36	06-36-007-29W1M	43,659	1228.0	0.0	1228.0	42431.3	3.510895098%	06-36-007-29W1M
	m3	1,226,769				**1208560.4**	**100.000000000%**	
	Mbbl	7,716						

TABLE NO. 3: SINCLAIR UNIT NO. 14 WELL LIST

UWI	*License Number*	*Type*	*Pool Name*	*Producing Zone*	*Mode*	*On Prod Date*	*Last Prod Date*	Cal Dly Oil (m3/d)	Monthly Oil (m3)	Cum Prd Oil (m3)	Cal Dly Water (m3/d)	Monthly Water (m3)	Cum Prd Water (m3)	WCT (%)
100/01-26-007-29W1/0	006182	Vertical	BAKKEN-THREE FORKS B	BAKKEN	Producing	1/1/2007	Jun-2014	0.6	17.3	3764.0	0.3	9.2	1707.6	34.72
100/02-26-007-29W1/0	006262	Vertical	BAKKEN-THREE FORKS B	BAKKEN	Producing	2/1/2007	Apr-2014	0.0	0.9	2209.2	0.0	0.3	2532.4	25.00
100/03-26-007-29W1/0	007094	Horizontal	BAKKEN-THREE FORKS B	BAKKEN	Producing	12/1/2009	Apr-2014	0.2	7.1	2776.8	0.9	28.4	10759.6	80.00
100/06-36-007-29W1/0	007086	Horizontal	BAKKEN-THREE FORKS B	BAKKEN	Producing	11/1/2009	Jun-2014	2.2	65.0	4912.0	4.2	127.2	11925.4	66.18
100/08-26-007-29W1/0	005361	Vertical	BAKKEN-THREE FORKS B	BAKKEN	Producing	12/1/2004	Jun-2014	0.3	10.2	3379.6	0.5	15.4	2302.1	60.16
100/16-26-007-29W1/0	005764	Vertical	BAKKEN-THREE FORKS B	BAKKEN	Producing	2/1/2006	Jun-2014	0.3	8.8	1194.5	0.6	18.3	3119.4	67.53

These locations are abandoned, did not produce and will not be included in the Unit Well list.
00/03-26-007-29W1/2
00/03-36-007-29W1/0
00/07-35-007-29W1/0

TABLE NO. 4: OOIP FOR SINCLAIR UNIT NO. 14

					Total OOIP								
UWI	**MBKKN**	**Lyleton UA**	**Lyleton LA**	**Lyleton B**	**GLJ cut offs (m3)**	**MB Phi-h**	**UA Phi-h**	**LA Phi-h**	**LB Phi-h**	**SW MBKKN**	**SW Lyleton UA**	**SW Lyleton LA**	**SW Lyleton B**
	0.5 md	**1.0 md**	**1.0 md**	**0.5 md**	**0.5 md**	**0.5 md**	**1.0 md**	**1.0 md**	**0.5 md**				
01-26-007-29W1M	14445	19610	8445	12995	55495	0.140477641	0.189579868	0.088443224	0.136099445	0.45	0.35	0.40	0.40
02-26-007-29W1M	21694	17873	10739	13111	63417	0.257034701	0.172786624	0.112473579	0.137313251	0.45	0.35	0.40	0.40
03-26-007-29W1M	27032	13360	12548	13089	66029	0.296740755	0.129160244	0.131415841	0.137079758	0.45	0.35	0.40	0.40
04-26-007-29W1M	26652	12421	13207	12531	64811	0.300085022	0.120084053	0.138321364	0.131238208	0.45	0.35	0.40	0.40
05-26-007-29W1M	21465	0	11753	10510	43727	0.246497385	0	0.123089571	0.110069736	0.45	0.35	0.40	0.40
06-26-007-29W1M	22069	19526	12622	10796	65012	0.250001965	0.188766105	0.132189427	0.113067671	0.45	0.35	0.40	0.40
07-26-007-29W1M	18660	21985	12208	10945	63798	0.224998335	0.212540388	0.127854869	0.114631894	0.45	0.35	0.40	0.40
08-26-007-29W1M	12538	23548	10497	10746	57330	0.125606813	0.22765441	0.10993636	0.112549575	0.45	0.35	0.40	0.40
09-26-007-29W1M	9390	29016	12025	9050	59481	0.105001312	0.280513222	0.125936794	0.094780068	0.45	0.35	0.40	0.40
10-26-007-29W1M	14425	29884	13186	8834	66329	0.165461907	0.288904072	0.138099358	0.092515192	0.45	0.35	0.40	0.40
15-26-007-29W1M	10816	41327	12566	7171	71881	0.127157798	0.399536738	0.131609608	0.075102853	0.45	0.35	0.40	0.40
16-26-007-29W1M	6534	36211	10624	8036	61405	0.074245858	0.350074394	0.111263033	0.084167561	0.45	0.35	0.40	0.40
01-35-007-29W1M	5758	41941	8802	7815	64317	0.063498648	0.405470018	0.092185215	0.081851276	0.45	0.35	0.40	0.40
02-35-007-29W1M	6387	53821	10514	5690	76412	0.072176432	0.520320203	0.11011258	0.059594954	0.45	0.35	0.40	0.40
07-35-007-29W1M	2769	58045	11206	7802	79822	0.042555208	0.561153771	0.117368013	0.08171665	0.45	0.35	0.40	0.40
08-35-007-29W1M	5731	47521	10775	8725	72751	0.069532255	0.459411427	0.112847748	0.091382115	0.45	0.35	0.40	0.40
03-36-007-29W1M	3852	22448	1764	11434	39498	0.044095029	0.217014101	0.01847374	0.119755175	0.45	0.35	0.40	0.40
04-36-007-29W1M	5147	31221	5834	9856	52058	0.060625564	0.301835608	0.061102332	0.103221312	0.45	0.35	0.40	0.40
05-36-007-29W1M	8359	34531	7241	9407	59537	0.110538441	0.333827706	0.075834034	0.098520626	0.45	0.35	0.40	0.40
06-36-007-29W1M	6536	23430	4045	9648	43659	0.07148635	0.226511577	0.042367674	0.101041656	0.45	0.35	0.40	0.40
					1226769	**m3**							
					7716	**Mbbl**							

Table No. 5

Proposed Sinclair Unit No. 14

LYLETON / THREE FORKS FORMATION ROCK & FLUID PARAMETERS

Formation Pressure		9500 kPa	Initial Average Reservoir Pressure
Formation Temperature		31°C	
Saturation Pressure		2,034 Kpa	Bubble Point
GOR		6 - 10 m3/m3	Gas Oil Ratio
API Oil Gravity		40	
Swi (fraction)		0.40	Initial Water Saturation
Produced Water Specific Gravity		1.08	
Produced Water pH		7.1 - 7.3	
Produced Water TDS		125,000	
Wettability		Moderately oil-wet	
Average Air Permeability*	Middle Bakken	0.67	Wt. Average Core Data
	Lyleton Upper A	4.11	Wt. Average Core Data
	Lyleton Lower A	2.45	Wt. Average Core Data
	Lyleton B	0.65	Wt. Average Core Data
Average Porosity (fraction)*	Middle Bakken	14.440	Wt. Average Core Data
	Lyleton Upper A	14.840	Wt. Average Core Data
	Lyleton Lower A	15.060	Wt. Average Core Data
	Lyleton B	14.890	Wt. Average Core Data

* Wt. Average from MBKKEN/Lyleton cores in sections 25, 26, 35 and 36 of Township 007, Range 29.