October 25, 2013

SUBJECT

Lodgepole Formation

Daly Sinclair – Lodgepole D (01 59D)

Daly Sinclair Field, Manitoba

Proposed Unitization of Daly Unit No. 6 – S/2 22-9-29W1

Application for Enhanced Oil Recovery Waterflood Project - Daly Unit No. 6

INTRODUCTION

The Daly portion of the Daly Sinclair Oilfield is located in Townships 8, 9, 10 and 11, of Ranges 27, 28 & 29 WPM (Figure 1). Within the Daly oilfield, most Lodgepole reservoirs have been developed with vertical producing wells on Primary Production and 40 acre spacing. Horizontal producing wells have recently been drilled by Tundra Oil and Gas (Tundra) in the southern part of the Daly field. In addition, most vertical wells are commingled between the Lodgepole and Bakken zones.

Within the area, potential exists for incremental production and reserves from a Waterflood EOR project in the Lodgepole D oil reservoir. The following represents an application by Tundra Oil and Gas Partnership (Tundra) to establish Daly Unit No. 6 and implement a Secondary Waterflood EOR scheme within the Lodgepole formation as outlined on Figure 2.

The proposed project area falls within an existing designated Lodgepole D 01-59D Pool of the Daly Sinclair Oilfield (Figure 3).

CONCLUSIONS

1. The proposed Daly Unit No. 6 will include 7 producing wells within a ½ section of the Lodgepole producing reservoir. The project is located in the southern end of the Daly field in Section 22-9-29 W1 (Figure 1).

2. Total Original Oil in Place (OOIP) in the project area has been calculated to be **9,388,000** bbls for an average of ~ 1,173,000 gross bbls OOIP per 40 acre LSD. OOIP values are gross bbls with a 9% porosity cutoff applied.

3. Cumulative production to the end of June 2013 from the 9 wells within the proposed Daly Unit No. 6 project area was 117,614 bbls of oil and 112,478 bbls of water, representing a **1.3%** Recovery Factor (RF) of the calculated gross OOIP.

4. Estimated Ultimate Recovery (EUR) of Primary producing oil reserves in the proposed Daly Unit No. 6 project area has been estimated to be **141,407** bbls, with 23,793 bbls remaining as of the end of June 2013.

5. Ultimate oil recovery of the proposed Daly Unit No. 6 gross OOIP, under the current Primary production method, is forecasted to be **1.5%**.

6. Figure 4 shows the production from the Daly Unit No. 6 area peaked during September 2003 at 79.5 bbls of oil per day (OPD). As of June 2013, production was 7.1 bbls OPD, 4.2 bbls water per day (WPD) and a 36.94% watercut (WCUT).

7. In September 2003, production averaged 9.9 bbl OPD per well in Daly Unit No. 6. As of June 2013, average per well production has declined to 1.8 bbl OPD. Decline analysis of the group primary production data forecasts total oil to continue declining at an annual rate of approximately **11.5%** in the project area.

8. Estimated Ultimate Recovery (EUR) of proved oil reserves under Secondary WF EOR for the proposed Daly Unit No. 6 has been estimated to be **202,600** bbls. An incremental **61,200** bbls of proved oil reserves are forecasted to be recovered under the proposed Unitization and Secondary EOR production vs the existing Primary Production method.

9. Total RF under Secondary WF in the proposed Daly Unit No. 6 is estimated to be **2.2%**.

10. Based on waterflood response in the adjacent main portion of the Sinclair field, the Lodgepole formation in the proposed project area is believed to be suitable reservoirs for WF EOR operations.

11. Proposed future horizontal injector, with multi-stage hydraulic fractures, will be drilled between existing vertical producing wells (Figure 5) within the proposed Daly Unit No. 6, to complete waterflood patterns with effective 20 acre spacing similar to that of Sinclair Unit No. 1.

12. The proposed Daly Unit No. 6 will be unitized commingled with the Bakken proposed Daly Unit No. 7. The production will be allocated between zones with an added emphasis on testing frequency and the generally accepted practice of sulfur content difference between the Lodgepole and Bakken oil.

DISCUSSION

The proposed Daly Unit No. 6 project area is located entirely within Township 9, Range 29 W1 of the Daly oil field (Figure 1). The proposed Daly Unit No. 6 currently consists of 7 producing vertical wells within the south ½ of Section 22 (Figure 2). A project area well list is attached as Table 3.

Within the proposed Unit, potential exists for incremental production and reserves from a Waterflood EOR project in the Lodgepole oil reservoir.

Geology

Stratigraphy:

The stratigraphy of the reservoir section in Daly Unit 6 is shown on the Type Log attached as Appendix 1 and the cross-section (Appendix 2). The line of section is shown on each of the maps attached as appendices and runs SW-NE approximately through the mid-point of Unit 6. The stratigraphic nomenclature used for the Lodgepole is slightly different than standard and is based on facies associations rather than marker beds which are difficult to trace from well to well consistently. The Lodgepole section is subdivided into 4 facies units. In ascending order these are: the Basal Lodgepole Limestone, the Cromer Shale, the Lodgepole Limestone facies and the Lodgepole Dolomite facies. The Lodgepole Dolomite facies is roughly equivalent to the Upper Daly Member and the Lodgepole Limestone facies is more or less equivalent to the Middle Daly. Most of the production in the South half of Section 22 has come from the Lodgepole Dolomite. The Watrous Red Beds unconformity overlays the Lodgepole formation and consists of red argillaceous siltstones and anhydrite which form an effective secondary seal for the Lodgepole reservoir. The structural cross-section (Appendix 2) shows the correlations of the various units in the Lodgepole section as well as the overlying Watrous Red Beds and Watrous Evaporite. Little structure is evident in the area of Daly Unit 6 except for minor erosional relief on the Lodgepole unconformity surface.

Sedimentology:

The whole of the Lodgepole formation in the Daly area consists of a single shallowing upward cycle which begins with the Upper Bakken transgressive cycle and continues to the Lodgepole Dolomite facies which represents the shallowest part of the cycle preserved. The Lodgepole Dolomite reservoir consists of a series of “brining upward” cycles consisting of 1-2 m sequences that begin with an erosional base with coarser grained carbonate grainstones which rapidly grade upward into fine-grained dolomitic mudstones that comprise the bulk of the cycle and the sequence is finally capped by an anhydrite layer of variable thickness. The coarser grained grainstones at the base of each cycle generally consist of fossil fragments which are often replaced by chert or are tightly cemented. The fine grained dolomitic mudstones bear rare fossils, generally fragmental, consisting of corals, brachiopods and crinoids. The intimate association of the anhydrites with the dolomitized part of the Upper Lodgepole suggests dolomitization by seepage reflux with the Mg rich brines provided by the deposition of the anydrites which cap each cycle. Other diagenetic processes include mobilization and re-precipitation of silica in the form of chert which is present in the form of nodules of massive

dense grey chert or as white “chalky” chert which can have considerable micro-porosity but is non-reservoir. The presence of the anhydrite beds within the Lodgepole Dolomite suggests deposition on a shallow carbonate ramp which was subject to desiccation between cycles.

Reservoir development within these cycles is due to secondary processes, as most of the primary reservoir was likely cemented during deposition and early diagenesis. Reservoir in the Lodgepole Dolomite was created by a variety of processes that likely operated while the Lodgepole was exhumed and eroded, but prior to deposition of the Watrous Red Beds. These include leaching of fossils, grains and cements, conversion of anhydrite to gypsum and the leaching of the gypsum and leaching of anhydrite cements.

The Lodgepole Limestone facies lies between the Cromer Shale and the Lodgepole Dolomite and also shows evidence of cyclic deposition but is generally more open marine in character, lacking the anhydrite beds that characterize the Dolomite facies. The Limestone facies cycles generally contain more grainstones, especially at the base of each cycle and grade up into finer grained wackestones or mudstones. Generally reservoir quality is better in the Lodgepole Limestone than in the Dolomite, but in the area of Daly Unit 6 the Lodgepole Limestone is generally below the O/W contact (See Structural Cross-Section Appendix 2). The lack of anhydrite beds and the presence of significantly more grainstones suggest deposition on a slightly more distal part of the carbonate ramp than the Lodgepole Dolomite facies.

The Cromer Shale is an argillaceous carbonate that appears as a higher GR unit on logs and lies between the Lodgepole Limestone and the Basal Limestone. Typically the Cromer Shale is considered non-reservoir.

The Basal Lodgepole Limestone lies between the Cromer Shale and the Upper Bakken Shale. Where cored the Basal Limestone consists of a nodular lime mudstone to wackestone with numerous fossil fragments including crinoids, corals and brachiopods. The Basal Limestone is thought to represent deep water conditions following the Upper Bakken transgression. The Basal Lodgepole Limestone is also considered non-reservoir.

Isopach maps are provided for each total Lodgepole as well as for the Lodgepole dolomite facies as Appendices 3 and 4.

Structure:

Structure contour maps are provided for the top of each major reservoir and non-reservoir unit (Appendices 5 and 6). Structure on the top of the Lodgepole Dolomite reflects the erosional relief at the Unconformity surface. Structure within the Unit consists of a structural high on the unconformity surface that runs ENE-SSW through the proposed unit with lows in the area of Daly 6 flanked by structural lows.

Reservoir Quality:

Porosity (Phi-h in por*m), permeability (k-h in mD*m), SW and oil/water contact maps for the Lodgepole Dolomite facies are provided. These maps are generated using both core and log data. Where logs are used to determine net pay, a 9% porosity cut-off was used to approximate the 0.5 md cutoff used in the core data. No cores were cut in any of the wells within Daly Unit 6,

but several wells in the vicinity were cored and this data was incorporated in the Phi-h and k-h maps (Appendices 7 and 8). The map of SW is included as Appendix 9 and the O/W contact structure is Appendix 10. A plot of the porosity to permeability relationship from cores adjacent to Daly Unit 6 is also included as Appendix 11.

Fluid Contacts:

The oil/water contact for the Lodgepole is determined from petro-physical log analsysis and is shown on the cross-section (Appendix 2). The O/W contact generally correlates with the base of the Lodgepole Dolomite in this area and shows a gentle dip to the SW. This apparent dip is likely due to the vertical compartmentalization of the dolomite reservoir by the cycle capping anhydrite beds

Gross OOIP Estimates

Total volumetric OOIP for the Lodgepole, within the proposed Daly Unit No. 6 area, has been estimated at 9,388 Mbbls. Table 4 outlines the Daly Unit No. 6 gross volumetric OOIP estimates on an individual LSD basis with a 9% porosity cutoff applied. The gross OOIP values were determined internally using Tundra generated maps. Average OOIP by individual LSD was determined to be 1,173 Mbbls.

A complete listing of Lodgepole formation rock and fluid properties used to characterize the reservoir and calculate the OOIP estimates are provided in Table 5.

Historical Production

A historical group production history plot for the proposed Daly Unit No. 6 is shown as Figure 4. Oil production commenced from the proposed Unit area in October 1993 and peaked during September 2003 at 79.5 bbls OPD. As of June 2013, production was 7.1 bbls OPD, 4.2 bbls water per day (WPD) and a 36.94% WCUT.

From peak production in September 2003 to date, oil production is declining at an annual rate of approximately **11.5%** under the current Primary Production method.

Reserves Recovery Profiles and Production Forecasts

The primary waterflood performance predictions for the proposed Daly Unit No. 6 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. Even though Sinclair Unit No. 1 injects into the Bakken and the proposed Daly Unit No. 6 will be injecting into the Lodgepole, each formation is potentially capable of injecting water into a tight Mississippian member using openhole horizontal injectors.

Based on the geological description, primary production decline rate, and waterflood response in the adjacent main portion of the Sinclair field, the Lodgepole formation in the project area is believed to be a suitable reservoir for WF EOR operations.

Primary Production (current)

Cumulative production in the Daly Unit No. 6 project area, to the end of June 2013, was 117,614 bbls of oil and 112,478 bbls of water for a recovery factor of **1.3%** of the calculated gross OOIP.

Remaining Producing Primary Reserves to the end of June 2013 has been estimated to be 23,793 bbls. The expected production decline and forecasted cumulative oil recovery under continued Primary Production is shown in Figure 8.

Secondary EOR Production (proposed)

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 Daly Unit No. 6 Secondary Waterflood oil production forecast over time is plotted on Figure 7. Total Proved EOR recoverable reserves in the proposed Daly Unit No. 6 project under Secondary WF has been estimated at **202.6** Mbbl, resulting in a **2.2%** overall RF of calculated Net OOIP.

An incremental **61.2** Mbbl of oil reserves is forecasted, based on a recovery factor estimate using Sinclair Unit 1 as an analogy, to be recovered under the proposed Unitization and Secondary EOR production scheme vs. the existing Primary Production method.

Technical Studies

The waterflood performance predictions for the proposed Daly Unit No. 6 Lodgepole project are based on internal engineering assessments. Project area specific reservoir and geological parameters were utilized and then compared to Sinclair Unit 1 parameters, yielding the WF EOR response observed there to date.

A numerical reservoir simulation model for the project area is currently being constructed. Tundra anticipates model completion and history matching through the end of Q1 2014. Predictive runs of future production rates from the EOR project are expected by the end of Q2 2014 for comparison to the initial engineering assessments presented.

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 Daly Unit No. 6.

Unit Operator

Tundra Oil and Gas Partnership (Tundra) will be the Operator of record for Daly Unit No. 6.

Unitized Zone

The unitized zone(s) to be waterflooded in Daly Unit No. 6 will be the Lodgepole formation.

Unit Wells

The 7 wells to be included in the proposed Daly Unit No. 6 are outlined in Table 3.

Unit Lands

The Daly Unit No. 6 will consist of a ½ Section as follows:

South ½ of Section 22, of Township 9, Range 29, W1M

Daly Unit No. 6 will consist of 8 LSD's. The lands included in the 40 acre tracts are outlined in Table 1.

Tract Factors

The proposed Daly Unit No. 6 will consist of 8 Tracts, based on the 40 acre Legal Sub Divisions (LSD) within the south ½ of Section 22-9-29 W1.

The Tract Factor contribution for each of the LSD's within the proposed Daly Unit No. 6 was calculated as follows:

- Total oil production from the first 90 operating days (2,160 hours) for each LSD/well, and the OOIP on an LSD basis, were used to determine the proposed Unit tract factors. Both 90

day production volume and OOIP each received an equal 50% weighting in calculating overall individual tract factors. The production from the abandoned producers at 100/01-22 and 100/07-22-009-29W1 was included in the tract factor and OOIP calculations.

Tract Factor calculations for all individual LSD's 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 Daly Unit No. 6. Tundra Oil and Gas Partnership holds a 100% WI ownership in all the proposed Tracts.

Tundra Oil and Gas Partnership will have a 100% working interest in the proposed Daly Unit No. 6.

WATERFLOOD EOR DEVELOPMENT

A new horizontal injection well will be drilled between the existing vertical producing wells (Figure 5). Tundra proposes to drill only 1 new horizontal injection well and create one 20 acre waterflood pattern within Daly Unit No. 6. The very low reservoir permeability within the proposed Daly Unit No. 6 project area poses significant injection rate risks over time which may prove insufficient to replace production voidage. Such uncertainty around the WF EOR project success dictates an initially conservative 1 single pattern development approach.

Waterflood Operating Strategy

Water Source and Injection Wells

The injection water for the proposed Daly Unit No. 6 water will be supplied from the existing Sinclair Unit 1 source and injection water system. All Unit 1 injection water is obtained from the Lodgepole formation in the 102/16-32-7-29 W1 licensed water source well. Lodgepole water from the 102/16-32 source well is pumped to the main Unit 1 Water Plant at 3-4-8-29 W1, filtered, and pumped up to injection system pressure. A diagram of the existing high pressure injection system and required new pipeline to reach the project area is shown as Figure 9.

Tundra does not foresee any compatibility issues between the produced and injection waters based on previous testing.

The new future water injection well for the proposed Daly Unit No. 6 will be drilled, cleaned out, and configured downhole for injection as shown in Figure 10. The horizontal injection well will be stimulated by multiple hydraulic fracture treatments to obtain suitable injection rates. 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 well 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:

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

Tundra has a thorough understanding of area fracture gradients. A management program will be implemented 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 will be surface equipped with injection volume metering and rate/pressure control. 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 Daly Unit No. 6 horizontal water injection well rate is forecasted to average 10 – 25 m^3 WPD, based on expected reservoir permeability and pressure.

Estimated Fracture Pressure

The estimated fracture pressure for the Lodgepole is 22.0 Mpa, based on completion data from the producing wells in the area.

Reservoir Pressure

No representative initial pressure surveys are available for the proposed Daly Unit No. 6 project area in the Lodgepole because almost all the wells in the area are commingled with the Bakken zone. The 102/07-22-009-29W1/0 Lodgepole zone was shut-in from Feb 10th - Mar 10th, 2013 and was not able to obtain a stabilized pressure. The extremely long shut-in and build-up times required to obtain any possible representative surveys from the producing wells are economically prohibitive. The Lodgepole and Bakken zones in the 102/07-22-009-29W1 commingled well were segregated with a packer before the pressure survey was done. The 102/07-22 Lodgepole pressure survey is included as Appendix 13. Tundra will make all attempts to capture a reservoir pressure survey in the proposed horizontal injection well during the completion of the well and prior to injection or production.

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 Voidage Replacement Ratio (VRR) is expected to be approximately 1.25 to 1.75 within the pattern 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

Daly Unit 6 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
- Sulfur content and oil density testing

The above surveillance methods will provide an ever increasing understanding of reservoir performance, and provide data to continually control and optimize the Daly Unit No. 6 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 Daly Unit No. 6.

Economic Justification

Due to the initial high capital investment and the uncertainty of the project's success, Tundra does not expect the project is economic. However, if successful, this project will enhance current recovery and open up a larger area for similar future EOR development.

Wells To Be Converted

No existing producer wells within the proposed Daly Unit No. 6 project are planned for conversion to water injection. One drilled-for-purpose new injection well is planned as described in Waterflood Development.

Water Injection Facilities

The Daly Unit No. 6 waterflood operation will utilize the existing Tundra operated source well supply and water plant (WP) facilities located at 3-4-8-29 W1M. The new injection well will be connected to the existing high pressure water pipeline system supplying Sinclair Unit 1.

A complete description of all planned system design and operational practices to prevent corrosion related failures is shown on Appendix 12.

Other Considerations

Tundra is requesting approval to continue to produce the vertical wells commingled between the Bakken and Lodgepole zones. The current practice of splitting production between Bakken and Lodgepole using the sulfur content difference will continue to be used. In addition,

1. Tundra will start with waterflooding the Lodgepole zone. Once Tundra is certain of a waterflood response from the Lodgepole, Tundra will then convert the newly drilled (proposed at this time) horizontal Daly (8-21) 8-22-9-29W1 Bakken well into a water injector. By not suspending or abandoning the Bakken zone in the vertical wells once injection in the Lodgepole zone commences, Tundra will ensure that the most optimum utilization of existing wellbores is achieved (reduced ground disturbance).

2. Tundra will also monitor the total fluid via fluid level in the vertical wells in order to manage the waterflood response. Once a waterflood response is observed, Tundra will ensure that sulfur content and oil density tests are done in order to accurately assign production for each zone. Table 6 summarizes Tundra's planned testing protocol.

3. Tundra will plan an injection conversion schedule to allow for the most expeditious development of the waterflood within the proposed Daly Unit No. 6, while maximizing reservoir knowledge. Tundra plans to stagger the start of injection between the proposed Daly Unit No. 6 Lodgepole injector and Daly Unit No. 7 Bakken injector to ensure the waterflood response for each zone is distinct and observable (Table 7).

4. In order to minimize potential cross-flow between the Lodgepole and Bakken zones, Tundra will continually monitor the fluid levels in the offsetting vertical wells and adjust the pump speed in order to maintain pump-off conditions in the wellbore. As this is an important project, Tundra will endeavor to service problems wells in an expedited manner so wells are never shut-in for prolonged periods of time. In the event one zone becomes uneconomic, it will be abandoned accordingly.

Notification of Mineral and Surface Rights Owners

Tundra will notify all mineral rights and surface rights owners of the proposed EOR project and formation of Daly Unit No. 6. Copies of the Notices, and proof of service, to all surface rights owners will be forwarded to the Petroleum Branch, when available, to complete the Daly Unit No. 6 Application.

Daly Unit No. 6 Unitization, and execution of the formal Daly Unit No. 6 Agreement by affected Mineral Owners, is expected during Q4 2013. Copies of same will be forwarded to the Petroleum Branch, when available, to complete the Daly Unit No. 6 Application.

TUNDRA OIL & GAS PARTNERSHIP

Calgary, AB