API Well Number: 43041500130000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☑

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
Trans-Western Petroleum AGT 1-34

2. TYPE OF WORK
DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○

3. FIELD OR WILDCAT
WILDCAT

4. TYPE OF WELL
Oil Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME

6. NAME OF OPERATOR
TRANS-WESTERN PETROLEUM, LTD., INC.

7. OPERATOR PHONE
303 279-4567

8. ADDRESS OF OPERATOR
P.O. Box 276, Golden, CO, 80402

9. OPERATOR E-MAIL
dougisern@gmail.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
FEE

11. MINERAL OWNERSHIP
FEDERAL ○ INDIAN ○ STATE ○ FEE ◉

12. SURFACE OWNERSHIP
FEDERAL ○ INDIAN ○ STATE ○ FEE ◉

13. NAME OF SURFACE OWNER (if box 12 = 'fee')
American Gypsum Trust

14. SURFACE OWNER PHONE (if box 12 = 'fee')
801-455-1544

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')
6150 S Bineway Cr, Murray, UT 84121

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
jones.scotty@gmail.com

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ○ (Submit Commingling Application) NO ◉

19. SLANT
VERTICAL ○ DIRECTIONAL ◉ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2238 FNL 382 FWL	SWNW	34	22.0 S	1.0 W	S
Top of Uppermost Producing Zone	2274 FNL 202 FWL	SWNW	34	22.0 S	1.0 W	S
At Total Depth	2274 FNL 202 FWL	SWNW	34	22.0 S	1.0 W	S

21. COUNTY
SEVIER

22. DISTANCE TO NEAREST LEASE LINE (Feet)
2438

23. NUMBER OF ACRES IN DRILLING UNIT
40

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
5280

26. PROPOSED DEPTH
MD: 9609 TVD: 9600

27. ELEVATION - GROUND LEVEL
5974

28. BOND NUMBER
025934540

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
Sigurd culinary

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	12.25	9.625	0 - 2000	36.0	J-55 LT&C	9.0	Varocem	212	3.33	11.0
							Class G	205	1.148	15.8
PROD	8.75	5.5	0 - 9609	17.0	L-80 LT&C	10.5	Halliburton Light , Type Unknown	511	3.989	11.0
							Halliburton Premium , Type Unknown	478	1.425	13.5

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ COMPLETE DRILLING PLAN
- ☑ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)
- ☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
- ☑ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)
- ☑ TOPOGRAPHICAL MAP

NAME John C. Magill | **TITLE** Consulting Engineer | **PHONE** 308 848-3279

SIGNATURE | **DATE** 12/30/2014 | **EMAIL** oakbrook@gpcom.net

API NUMBER ASSIGNED
43041500130000

APPROVAL

Permit Manager

RECEIVED: February 02, 2015

Trans-Western Petroleum, LTD

Drilling Plan

Trans-Western Petroleum AGT 1-34

Surface Location: SW/4 NW/4 Section 34, Township 22 South, Range 1 West, S.L.B. & M.

Sevier County, Utah

Plan Summary:

It is planned to drill this confidential exploratory well as a directional bore hole due to surface topography constraints and in accordance with the attached directional drilling plan. The well will be drilled to a measured depth of 9609 ft MD (9600 ft TVD) to test the Twin Creek and Navajo formations. Well path deviation (outside the planned well path) caused by subsurface geologic irregularities is expected to be the primary drilling concern in this area. No abnormal pressure is anticipated.

The planned coordinates follow:

Surface location	2238' FNL/382' FWL-Sec. 34-T22S-R1W, S.L.B.&M.
@ Navajo target	2274' FNL/202' FWL-Sec. 34-T22S-R1W, S.L.B.&M.
BHL @ TD	2274' FNL/202' FWL-Sec. 34-T22S-R1W, S.L.B.&M.

Conductor casing will be set at approximately 105 ft GL and cemented to surface. A 12-1/4" hole will be drilled vertically to 9-5/8" casing setting depth at 2000' MD (2000' TVD). From surface casing shoe 8-3/4" hole will be drilled to kick-off-point (KOP) at 2300' MD (2300' TVD). Starting at KOP inclination will be increased at a build rate of 1.5 degrees/100 feet to a final inclination of 7 degrees at 2767 ft MD (2766 ft TVD). The inclination will be held at 7 degrees to a depth of approximately 3557 ft MD (3550 ft TVD) and then allowed to drop at a drop rate of 1.5 degrees/100 feet to vertical at 4258 ft MD (4249 ft TVD). The well bore will be vertical when penetrating the Twin Creek and Navajo formations. The well is expected to be drilled to a total depth of 9609 ft MD (9600 ft TVD) where logs will be run in the open hole. 5-1/2" production casing will be set and cemented if justified by the drilling/evaluation results.

RECEIVED: December 30, 2014

Trans-Western Petroleum, LTD
APD Drilling Program
Trans-Western Petroleum AGT 1-34

Drilling activities at this well are expected to commence in February 2015.

Well Name:	Trans-Western Petroleum AGT 1-34
Surface Location:	2238' FNL, 382' FWL, SW/4 NW/4 Section 34, T22S, R1W, S.L.B.&M., Sevier County
TD Bottom-hole location:	2274' FNL, 202' FWL, SW/4 NW/4 Section 34, T22S, R1W, S.L.B.&M.
Elevation:	5974' GL, 5996' DF (22' DF-GL)

1. **Geology:**

Tops of important geologic markers and anticipated water, oil, gas and mineral content are as follows:

Formation	TVD Interval (DF)	MD Interval (DF)	Contents	Pressure Gradient
Arapien	22'-7855'	22'-7864'		
Twin Creek	7855'-8147'	7864"-8156'	O&W	0.433 psi/ft
Spike BB	8147'-8183'	8156'-8192'		
Spike AA	8183'-8229'	8192'-8238'		
Shale break-White Throne (UN)	8229'-8244'	8238'-8253'		
White Throne (Upper Navajo)	8244'-8473'	8253'-8482'		
Shale break (TN)	8473'-8500'	8482'-8509'	O&W	0.433 psi/ft
Navajo	8500'-9600'	8509'-9609'		
Total Depth	9600'	9609'		

2. **Well Control**

A rotating head will be installed on the conductor casing to divert any unexpected flow away from the well bore.

The contracted drilling rig is expected to have a 3000 psi rated BOP system which will satisfy the anticipated pressure requirements. BOPE will be in place and tested prior to drilling out the surface casing shoe. See attached schematic of the BOPE.

RECEIVED: December 30, 2014

A. **The BOPE** will, as a minimum, include the following:

SRRA Wellhead Equipment (3M rating minimum)

BOPE Item	**Flange Size and Minimum Rating**
Annular Preventer	11" 3M
Double Rams (4½" or 5" top, blind bottom)	11" 3M
Drilling Spool w/ 2 side outlets (3" min. choke side, 2" min. kill side)	11" 3M
Casing head (11" x 9⅝ SOW w/ 2 ea. 2-1/16" SSO's)	11" 3M

Auxiliary Equipment (3M minimum rating)

BOPE Item
3" diameter choke line with 2 ea. valves (3 inch minimum)
2" kill line with 2 ea. 2" kill line valves (one of which will be a check valve)
2 ea chokes with one remotely controlled at a location readily accessible to the driller
Upper kelly cock valve with handle available
Safety valves and subs to fit all drill string connections in use
Inside BOP or float sub
Pressure gauge on choke manifold
All BOPE connections subjected to well pressure to be flanged, welded or clamped
Fill-up line above the uppermost preventer
Wear bushing in the casing head

B. **Choke manifold** will be functionally equipped and sized at a minimum as shown on the attached diagram. All choke lines will be straight lines unless turns have tee blocks or are targeted with running tees and all choke lines will be anchored. All valves (except chokes) in the kill line, choke manifold and choke line will be full opening and allow straight through flow.

C. **System accumulator** will have sufficient capacity to open the hydraulically-controlled gate valve and close all rams plus the annular preventer and retain a minimum pressure of 200 psi above precharge on the closing manifold without use of the closing unit pumps. The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir

RECEIVED: December 30, 2014

will be maintained at the manufacturer's recommendations. Two independent sources of power will be available for powering the closing unit pumps. Sufficient nitrogen bottles are suitable as a backup power source only, and shall be recharged when the pressure falls below manufacturer's specifications.

D. **Accumulator pre-charge pressure test** will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum specified limits. Only nitrogen gas will be used to precharge.

E. **Power for the closing unit pumps** will be available to the unit at all times so that the pumps will automatically start when the closing unit manifold pressure has decreased to the pre-set level.

F. **Accumulator pump capacity** will be such that, with the accumulator system isolated from service, the pumps will be capable of opening the hydraulically-operated gate valve, plus closing the annular preventer on the smallest size drill pipe to be used within two minutes, and retaining a minimum of 200 psi above the specified accumulator pre-charge pressure.

G. **Locking devices**, either manual (i.e. hand wheels) or automatic, will be installed on the ram type preventers.

H. **Remote controls** will be readily accessible to the driller and will be capable of initiating and maintaining both opening and closing of all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve.

I. **Well control equipment testing** will be performed using clear water when the equipment is initially installed, whenever any seal subject to test pressure is broken, following related repairs and as a minimum, every 30 day interval. The tests will apply to all related well control equipment.
Ram type preventers and associated equipment will be isolated and tested to 3000 psi. The annular preventer will be tested to 1500 psi. Pressure will be maintained for at least 10 minutes or until requirements of the test are met, whichever is longer, for all tests. A casing head valve will be open below the test plug during testing of the BOP stack. Valves will be tested from the working pressure side with all down-stream valves open. Kill line valves will be tested with the check valve held open (unless it is the check valve that is being tested) and any ball valve

RECEIVED: December 30, 2014

(outside of the valve being tested) in the open position so that any leak in the valve being tested can be observed.

Pipe and blind rams will be activated each trip, but not more than once a day. The annular preventer will be functionally operated at least weekly. A pit level drill will be conducted, at a minimum, weekly for each crew. All BOPE drills and tests will be recorded in the IADC drillers' log.

3. Casing and Cementing

A. Casing Program (all new or inspected to new standards casing)

Hole Size (in)	Casing Size (in)	Weight (lb/ft)	Grade	Conn.	Coupling Diameter	Setting Depth
17-1/2	13-3/8	68	J-55	BTC	14-3/8	105' GL
12¼	9⅝	36	J55	LTC	10⅝"	2000' TVD DF
8¾	5½	17	L-80	LTC	6.05"	9600' TVD DF

	Surface	Production
Casing OD	9.625	5.5
Casing grade	J55	L80
Weight of pipe (lb/ft)	36.0	17.0
Connection	LTC	LTC
Top setting depth – MD (ft)	22 (0 GL)	22 (0 GL)
Top setting depth – TVD (ft)	22 (0 GL)	22 (0 GL)
Bottom setting depth – MD (ft)	2000	9609
Bottom setting depth – TVD (ft)	2000	9600
Maximum mud weight – Inside (ppg)	9.0	10.5*
Maximum pore pressure – Inside (ppg)	8.34	8.34
Maximum mud weight – Outside (ppg)	9.0	10.5*
Maximum pore pressure – Outside (ppg)	8.34	8.34
Design cement top – MD (ft)	22 (0 GL)	1500
Design cement top – TVD (ft)	22 (0 GL)	1500
Max. hydrostatic pressure inside w/ dry outside (psi)	935[1]	5236[6]
Casing burst rating (psi)	3520	7740
Burst Design Factor (1.10 minimum)	3.76[2]	1.48[7]
Max. hydrostatic outside w/ dry inside (psi)	935[1]	5236[6]
Casing collapse rating (psi)	2020	6290
Collapse Design Factor (1.125 minimum)	2.16[3]	1.20[8]

RECEIVED: December 30, 2014

Casing weight in air (kips)	72.0[4]	125.8[9]
Body yield strength (kips)	564	397
Joint strength (kips)	453	338
Tension Design Factor (1.80 minimum)	6.29[5]	2.07[10]

*Due to salt saturated mud used to prevent washouts in salt (halite) zones

Casing with the same or greater burst, collapse and tension rating may be substituted for any of the planned casings depending on availability and actual conditions.

[1] $P = \frac{2000}{19.25} \times 9.0 = 935\ psi$

[2] $DF_b = \frac{3520}{935} = 3.76$

[3] $DF_c = \frac{2020}{935} = 2.16$

[4] $W = 36\frac{lb}{ft} \times 2000ft \times \frac{kip}{1000lb} = 72\ kips$ (air weight, neglect buoyancy)

[5] $DF_t = \frac{453}{72} = 6.29$

[6] $P = \frac{9600}{19.25} \times 10.5 = 5236\ psi$

[7] $DF_b = \frac{7740}{5236} = 1.48$

[8] $DF_c = \frac{6290}{5236} = 1.20$

[9] $W = 17\frac{lb}{ft} \times 9600ft \times \frac{kip}{1000lb} = 163.2\ kips$ (air weight, neglect buoyancy)

[10] $DF_t = \frac{338}{163.2} = 2.07$

B. Cementing Program

Casing size	Cement slurry	Quantity (sx)	Density (ppg)	Yield (cf/sk)	Excess Factor
9⅝"	Lead: Varicem ™	212[1]	11.0	3.33	1.5
	Tail: Cl. G or Premium to 1500'	205[2]	15.8	1.148	1.5
5½"	Lead: Extendacem ™	511[3]	11.0	3.989	1.2
	Tail: Expandacem ™ to 7355'TVD	478[4]	13.5	1.425	1.2

[1] $v = (1500 - 0)\frac{\pi}{4}(12.25^2 - 9.625^2)\left(\frac{1}{144}\right)(1.5)\left(\frac{1}{3.33}\right) = 212$ sx

[2] $v = (2000 - 1500)\frac{\pi}{4}(12.25^2 - 9.625^2)\left(\frac{1}{144}\right)(1.5)\left(\frac{1}{1.148}\right) = 205$ sx

[3] $v = (7364 - 1500)\frac{\pi}{4}(8.75^2 - 5.5^2)\left(\frac{1}{144}\right)(1.2)\left(\frac{1}{3.48}\right) = 511$ sx

[4] $v = (9609 - 7364)\frac{\pi}{4}(8.75^2 - 5.5^2)\left(\frac{1}{144}\right)(1.2)\left(\frac{1}{1.425}\right) = 478$ sx

RECEIVED: December 30, 2014

Surface: 9⅝" surface casing will be cemented in one stage from setting depth (2000' DF) to GL using Halliburton light density lead cement (Varicem ™) and Halliburton "premium" tail cement. Cement will be topped off with neat cement if necessary. Slurry volume will be based on calculated annulus volume plus 50% excess. Hardware will include a self fill float shoe, self fill float collar, top cementing plug and a minimum of one centralizer per joint on the bottom three (3) casing joints. Water or other preflush fluid, pumped ahead of the slurry, will separate cement from the drilling fluid.

Production: 5½" production casing will be cemented in one stage from setting depth (9600' TVD) to 1500' TVD (500' inside the surface casing) using Halliburton light weight lead cement (Extendacem ™) and Halliburton designed (Expandacem ™) tail cement (tail cement across the producing interval from TD to 500’ above the top of the Twin Creek formation). If measured BHT exceeds 230°F, silica flour will be added to the tail slurry to provide temperature induced cement strength degradation resistance. Actual slurry volume will be based on calipered hole size plus 20% excess. Hardware will include a self fill-up float shoe, self fill-up float collar, and bottom & top cementing plugs. Centralizers will be placed as needed across any pay zones and massive salt zones. Salt water and preflush fluid pumped ahead of the slurry will separate cement from the drilling fluid.

Other: - UDOGM will be notified at least twenty-four hours prior to running and cementing the surface and production casing strings.

- Actual cement slurries for all casing will be based on final service company recommendations.

- The size, weight, grade, type of thread, number of joints and footage of all casing run will be recorded in the drillers' log, the IADC report sheet. The amount and type of all cement pumped will be recorded in the drillers' log, the IADC report sheet.

- Surface casing string will be tested to 1500 psi before drilling out and if pressure declines by more than 10% in 30 minutes corrective action will be taken.

- For the surface casing string, adequate time will be allowed to achieve a minimum 500 psi compressive strength before drilling out the cement at the surface casing shoe.

- Before drilling more than 20 feet of new hole below the surface casing

RECEIVED: December 30, 2014

shoe a pressure integrity test of the casing shoe will be performed to a minimum of the mud weight equivalent anticipated to control the pore pressure at total depth of the well.

4. Mud Program

Depth Interval (TVD)	Mud Weight (ppg)	Mud Type	Viscosity	Fluid Loss
0 – 2000'	8.4 – 9.0	Low solids, non-dispersed, fresh water mud	26 – 50	N/C to 12 cc
2000' – TD	9.2 – 10.5	Salt saturated	36 – 50	N/C to 4 cc

A. After mudding up, slow pump rates will be taken daily and recorded in the drillers' log.
B. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume.
C. Abnormal pressure is not anticipated. For the production hole, in the event such pressure is encountered electro-mechanical mud monitoring equipment will be in place and include as a minimum: pit volume totalizer (PVT), stroke counter and flow line flow sensor.
D. A mud test will be performed, as a minimum, every 24 hours after mudding up to determine: density, viscosity, gel strength, filtration and pH.
E. Use of the trip tank is not anticipated for this well.
F. For the production hole, gas detecting equipment will be installed in the mud return system prior to penetrating the Twin Creek formation and hydrocarbon gas shall be monitored for pore pressure changes. The presence of hydrogen sulfide gas is not expected but appropriate precautions will be taken in the event that it is encountered.
G. The need to vent combustible or noncombustible gas is not expected. For the production hole, a flare system designed to gather and burn all gas will be available. The flare line discharge will be located at approximately 150 feet from the wellhead (Utah regulation minimum of 150'). The flare line is intended to have straight lines. Required turns will be through targeted tees.

RECEIVED: December 30, 2014

The line will be anchored along its length from the choke house/gas buster to the flare pit. The flare outlet will have an effective ignition mechanism.

H. Abnormal pressure is not expected. Nevertheless, a mud gas separator (gas buster) will be installed and operable beginning at a point 500 feet above the Twin Creek formation.

5. Evaluation

A. Mud Log: A mud logging unit will be in operation from a depth of approximately 4000 feet to TD. Samples well be caught, cleaned, cataloged and marked as required by Trans-Western.

B. Drill Stem Tests: There are no DST's planned.

C. Coring: There are no cores planned.

D. Wireline logs: Wireline logs will be run as hole conditions allow from TD to surface casing shoe to assist in determining lithology and potential for hydrocarbon recovery. The logging tools will, at a minimum, survey resistivity, gamma radiation and sonic velocity.

6. Expected Bottom-hole pressure and abnormal conditions

A. Hydrogen sulfide: The presence of hydrogen sulfide (H_2S) gas is unlikely. However, there is a possibility of encountering H_2S in or below the Twin Creek formation. Appropriate safety procedures are to be in place before penetrating the Twin Creek formation.

B. Abnormal pressure: No abnormal pressured zones are expected in this well. The pressure gradient for all potentially productive formations is expected to be 0.433 psi/ft or less.

C. Temperature: Bottom-hole temperature at 2000 ft is expected to be approximately 100°F. Bottom-hole temperature at TD is expected to be approximately 195°F.

end

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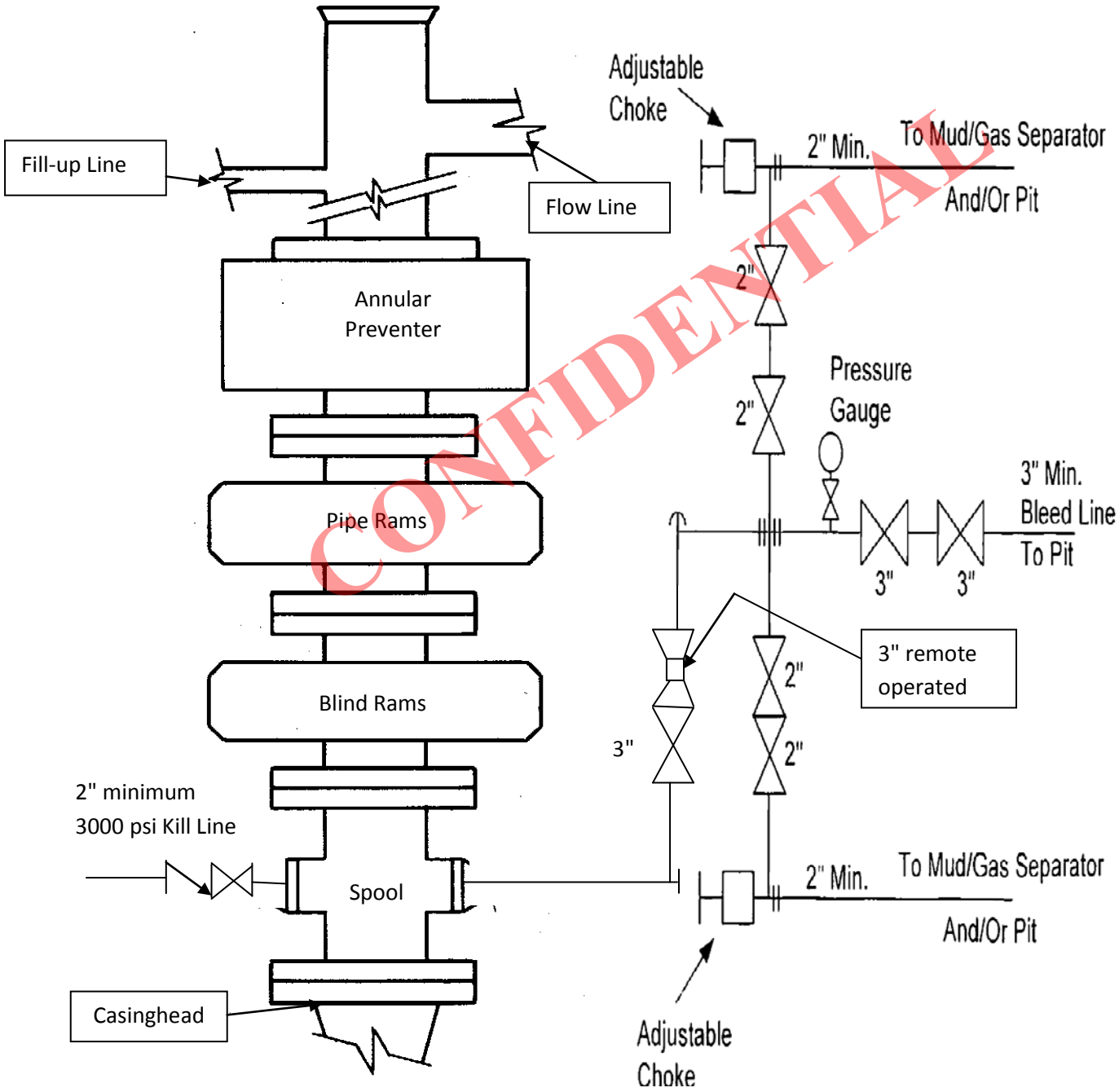
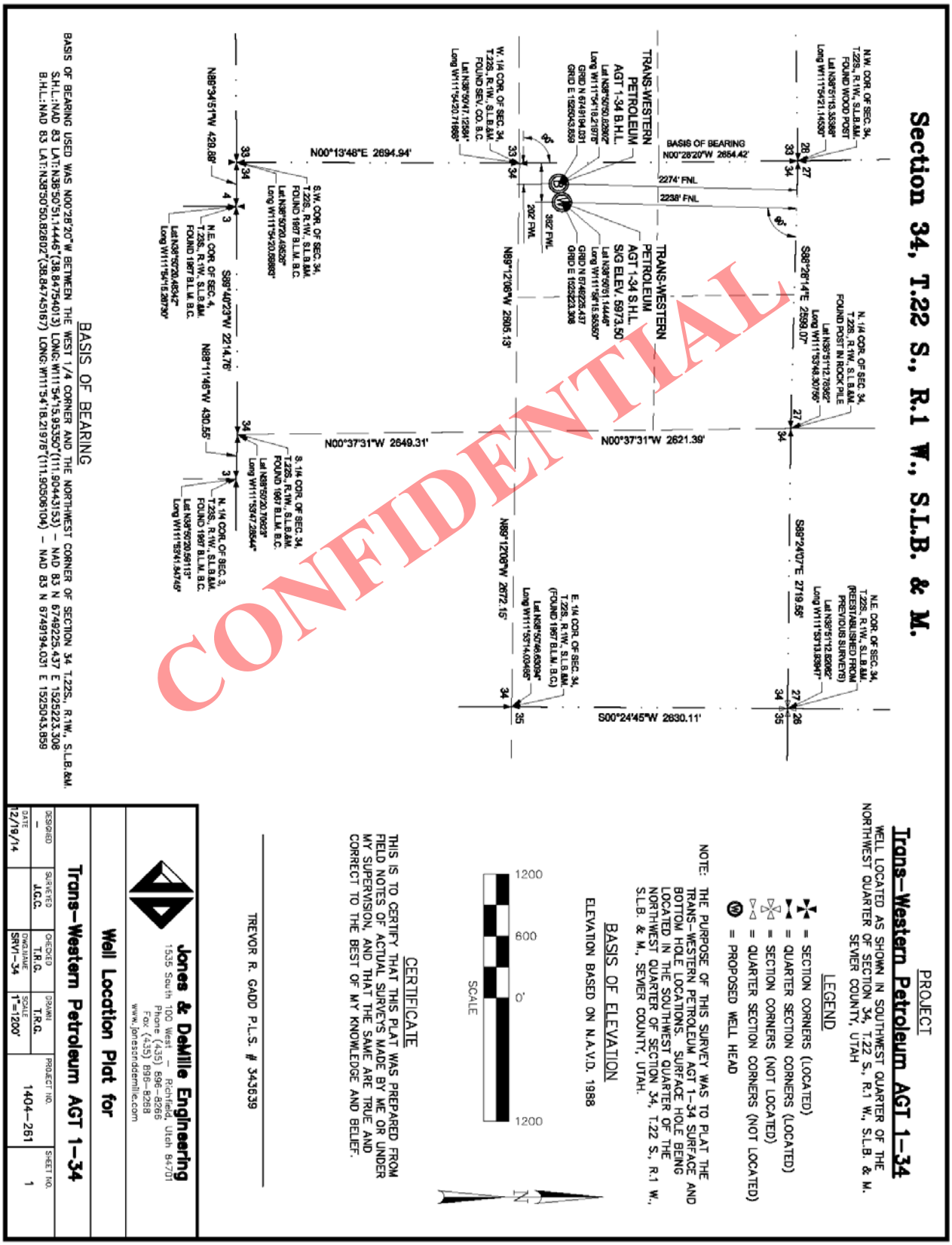
Trans-Western Petroleum USG #2
BOPE Schematic



RECEIVED: December 30, 2014

Trans-Western Petroleum, LTD
APD Drilling Program
Trans-Western Petroleum AGT 1-34



Trans-Western Petroleum, LTD
APD Drilling Program
Trans-Western Petroleum AGT 1-34

Trans-Western Petroleum

PATHFINDER
A Schlumberger Company

Borehole:	Well:	Field:	Structure:
Original Hole / Rev 0	AGT 1-34	UT, Sevier County	Sec 34-T22S-R01W / SST 54

Gravity & Magnetic Parameters
Model: BGGM 2014 Dip: 64.366° Date: 18-Dec-2014
MagDec: 11.505° FS: 50863.775nT Gravity FS: 998.782mgn (9.80665 Based)

Surface Location NAD83 Utah State Plane, Central Zone, US Feet
Lat: N 38 50 51.08 Northing: 6749219.4ftUS Grid Conv: -0.2591°
Lon: W 111 54 16.13 Easting: 1525209.58ftUS Scale Fact: 1.00004603

Miscellaneous
Slot: AGT 1-34 TVD Ref: RKB 22ft @ 5996ft / GL 5974ft above MSL
Plan: AGT 1-34 Rev0 KW 18Dec2014

Surface Location
Northing: 6749219.402 Easting: 1525209.579 Latitude: N 38 50 51.08 Longitude: W 111 54 16.13 VSec Azimuth: 261.037

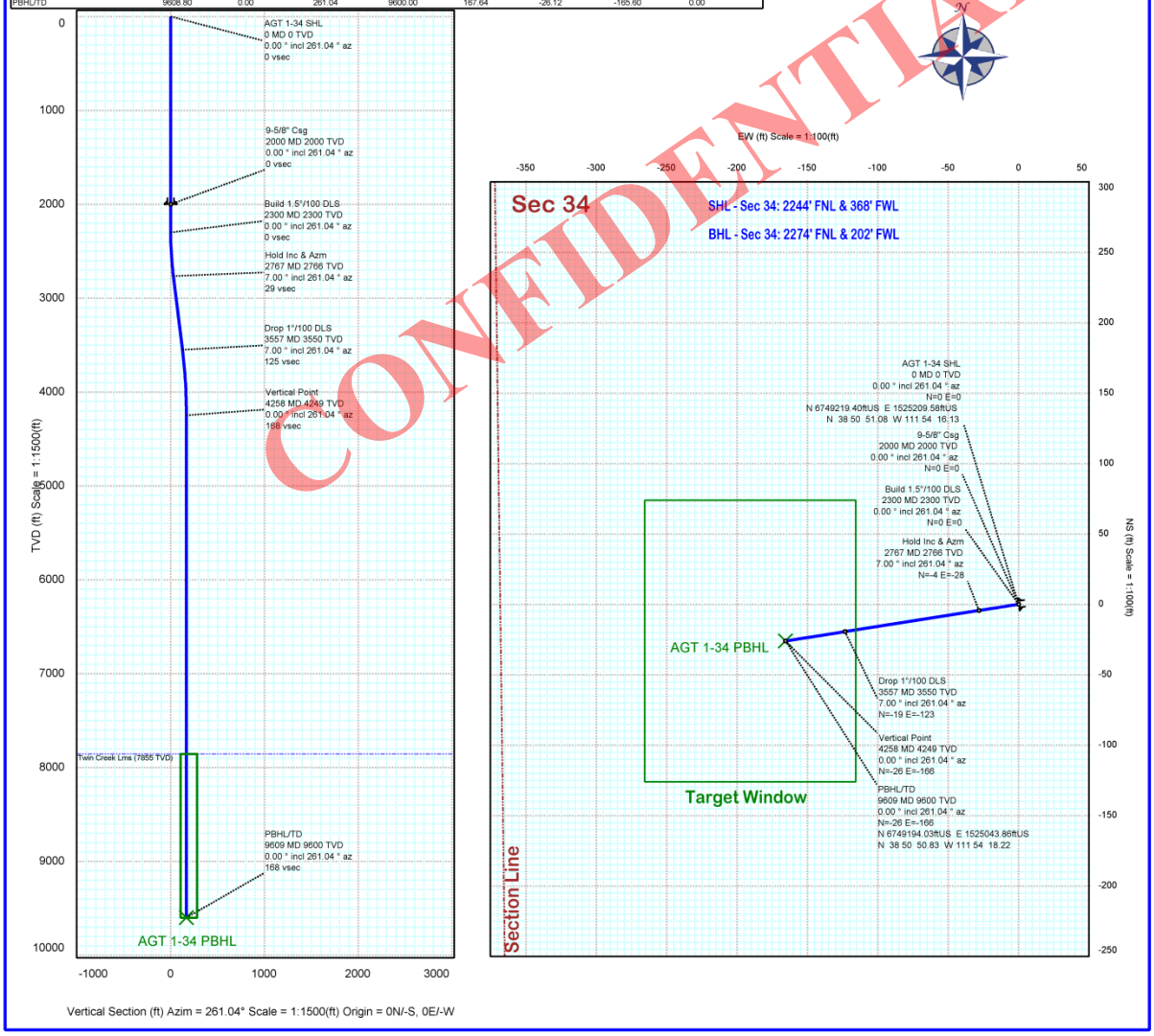
Target Description	Grid Coord						Local Coord	
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
AGT 1-34 Sec.34-T22S-R01W	N 38 50 51.08	W 111 54 16.13	6749219.40	1525209.58	5996.00	0.00	0.00	0.00
AGT 1-34 Drillers Tgt Window	N 38 50 50.83	W 111 54 18.22	6749194.03	1525043.86	7855.00	167.65	-26.12	-165.60
AGT 1-34 PBHL	N 38 50 50.83	W 111 54 18.22	6749194.03	1525043.86	9600.00	167.64	-26.12	-165.60

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
AGT 1-34 SHL	0.00	0.00	261.04	0.00	0.00	0.00	0.00	
9-5/8" Csg	2000.00	0.00	261.04	2000.00	0.00	0.00	0.00	0.00
Build 1.5°/100 DLS	2300.00	0.00	261.04	2300.00	0.00	0.00	0.00	0.00
Hold Inc & Azm	2766.91	7.00	261.04	2765.74	28.50	-4.44	-28.15	1.50
Drop 1°/100 DLS	3557.44	7.00	261.04	3550.38	124.89	-19.46	-123.37	0.00
Vertical Point	4257.80	0.00	261.04	4249.00	167.64	-26.12	-165.60	1.00
Twin Creek Lms	7863.80	0.00	261.04	7855.00	167.64	-26.12	-165.60	0.00
Spike BB	8155.80	0.00	261.04	8147.00	167.64	-26.12	-165.60	0.00
Spike AA	8191.80	0.00	261.04	8183.00	167.64	-26.12	-165.60	0.00
Shale Break - White Throne (UN)	8237.80	0.00	261.04	8229.00	167.64	-26.12	-165.60	0.00
White Throne (Upper Navajo)	8252.80	0.00	261.04	8244.00	167.64	-26.12	-165.60	0.00
Shale Break (TN)	8481.80	0.00	261.04	8473.00	167.64	-26.12	-165.60	0.00
Navajo	8508.80	0.00	261.04	8500.00	167.64	-26.12	-165.60	0.00
Navajo + 300ft	8808.80	0.00	261.04	8800.00	167.64	-26.12	-165.60	0.00
PBHL/TD	9608.80	0.00	261.04	9600.00	167.64	-26.12	-165.60	0.00

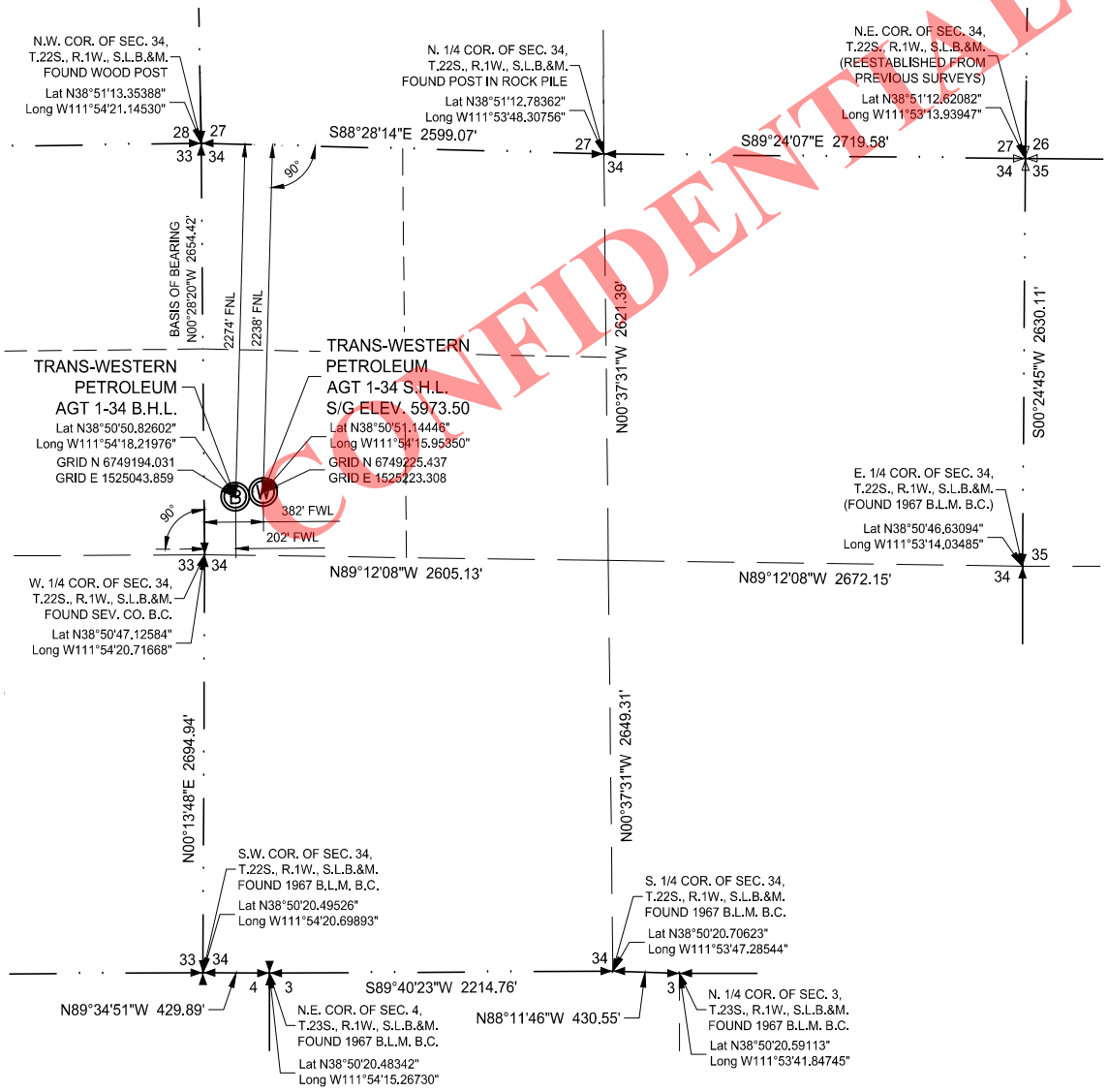
True Grid Mag

True North
Tot Corr (M->T 11.505°)
Mag Dec (11.505°)
Grid Conv (-0.259°)



RECEIVED: December 30, 2014

Section 34, T.22 S., R.1 W., S.L.B. & M.



BASIS OF BEARING

BASIS OF BEARING USED WAS N00°28'20"W BETWEEN THE WEST 1/4 CORNER AND THE NORTHWEST CORNER OF SECTION 34 T.22S., R.1W., S.L.B.&M.
S.H.L.: NAD 83 LAT: N38°50'51.14446"(38.84754013) LONG: W111°54'15.95350"(111.90443153) – NAD 83 N 6749225.437 E 1525223.308
B.H.L.: NAD 83 LAT: N38°50'50.82602"(38.84745167) LONG: W111°54'18.21976"(111.90506104) – NAD 83 N 6749194.031 E 1525043.859

PROJECT

Trans–Western Petroleum AGT 1–34

WELL LOCATED AS SHOWN IN SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 34, T.22 S., R.1 W., S.L.B. & M. SEVIER COUNTY, UTAH

LEGEND

= SECTION CORNERS (LOCATED)
= QUARTER SECTION CORNERS (LOCATED)
= SECTION CORNERS (NOT LOCATED)
= QUARTER SECTION CORNERS (NOT LOCATED)
= PROPOSED WELL HEAD

NOTE: THE PURPOSE OF THIS SURVEY WAS TO PLAT THE TRANS–WESTERN PETROLEUM AGT 1–34 SURFACE AND BOTTOM HOLE LOCATIONS. SURFACE HOLE BEING LOCATED IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 34, T.22 S., R.1 W., S.L.B. & M., SEVIER COUNTY, UTAH.

BASIS OF ELEVATION

ELEVATION BASED ON N.A.V.D. 1988

1200 600 0' 1200
SCALE

N

CERTIFICATE

THIS IS TO CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

TREVOR R. GADD P.L.S. # 343639

Jones & DeMille Engineering
1535 South 100 West – Richfield, Utah 84701
Phone (435) 896–8266
Fax (435) 896–8268
www.jonesanddemille.com

Well Location Plat for

Trans–Western Petroleum AGT 1–34

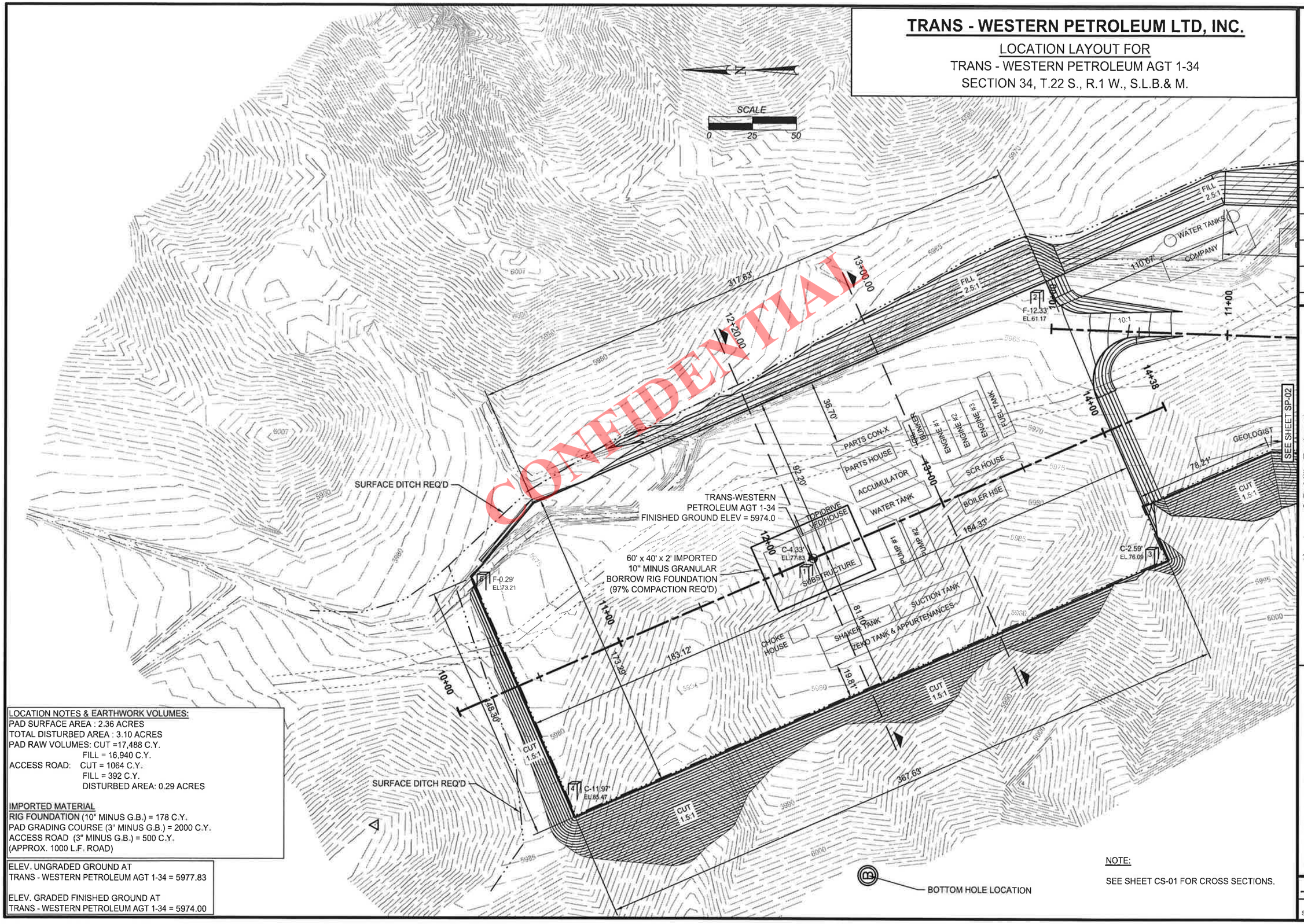
DESIGNED	SURVEYED	CHECKED	DRAWN	PROJECT NO.	SHEET NO.
–	J.G.C.	T.R.G.	T.R.G.	1404–261	1
DATE		DWG.NAME	SCALE		
12/19/14		SRV1–34	1"=1200'		

RECEIVED: December 30, 2014

API Well Number: 43041500130000

TRANS - WESTERN PETROLEUM LTD, INC.

LOCATION LAYOUT FOR
TRANS - WESTERN PETROLEUM AGT 1-34
SECTION 34, T.22 S., R.1 W., S.L.B.& M.



LOCATION NOTES & EARTHWORK VOLUMES:
PAD SURFACE AREA : 2.36 ACRES
TOTAL DISTURBED AREA : 3.10 ACRES
PAD RAW VOLUMES: CUT =17,488 C.Y.
FILL = 16,940 C.Y.
ACCESS ROAD: CUT = 1064 C.Y.
FILL = 392 C.Y.
DISTURBED AREA: 0.29 ACRES

IMPORTED MATERIAL
RIG FOUNDATION (10" MINUS G.B.) = 178 C.Y.
PAD GRADING COURSE (3" MINUS G.B.) = 2000 C.Y.
ACCESS ROAD (3" MINUS G.B.) = 500 C.Y.
(APPROX. 1000 L.F. ROAD)

ELEV. UNGRADED GROUND AT
TRANS - WESTERN PETROLEUM AGT 1-34 = 5977.83

ELEV. GRADED FINISHED GROUND AT
TRANS - WESTERN PETROLEUM AGT 1-34 = 5974.00

NOTE:
SEE SHEET CS-01 FOR CROSS SECTIONS.

NO	DATE	REMARKS
	DESIGN REV BY	MAPS CORR BY
		PARCELS AFFECTED
		REQUEST BY

REVISIONS
ORIGINAL SUBMISSION FOR AUTHORIZATION

SCALE 1"= 50'
DWG NAME: DESIGN_AGT-34
SHT SET: #####
DWG CREATED: 14/12/17
PEN TBL: 18in24x36.ctb
UPDATED 12/29/2014
PLOTTED 12/29/2014

Jones & DeMille Engineering, Inc.
CIVIL ENGINEERING - SURVEYING - TESTING
GIS - ENVIRONMENTAL
1.800.748.5275 www.jonesanddemille.com

	REVIEW	DATE	BY
CHECK	-	-	-
CHECK	-	-	-
CHECK	-	-	-

DESIGN	D.R.	14-12	CHECK
DRAWN	L.G.	14-12	CHECK
QUANT	-	-	CHECK

APPROVAL RECOMM: PROJECT DESIGN ENGINEER DATE
APPROVED DATE

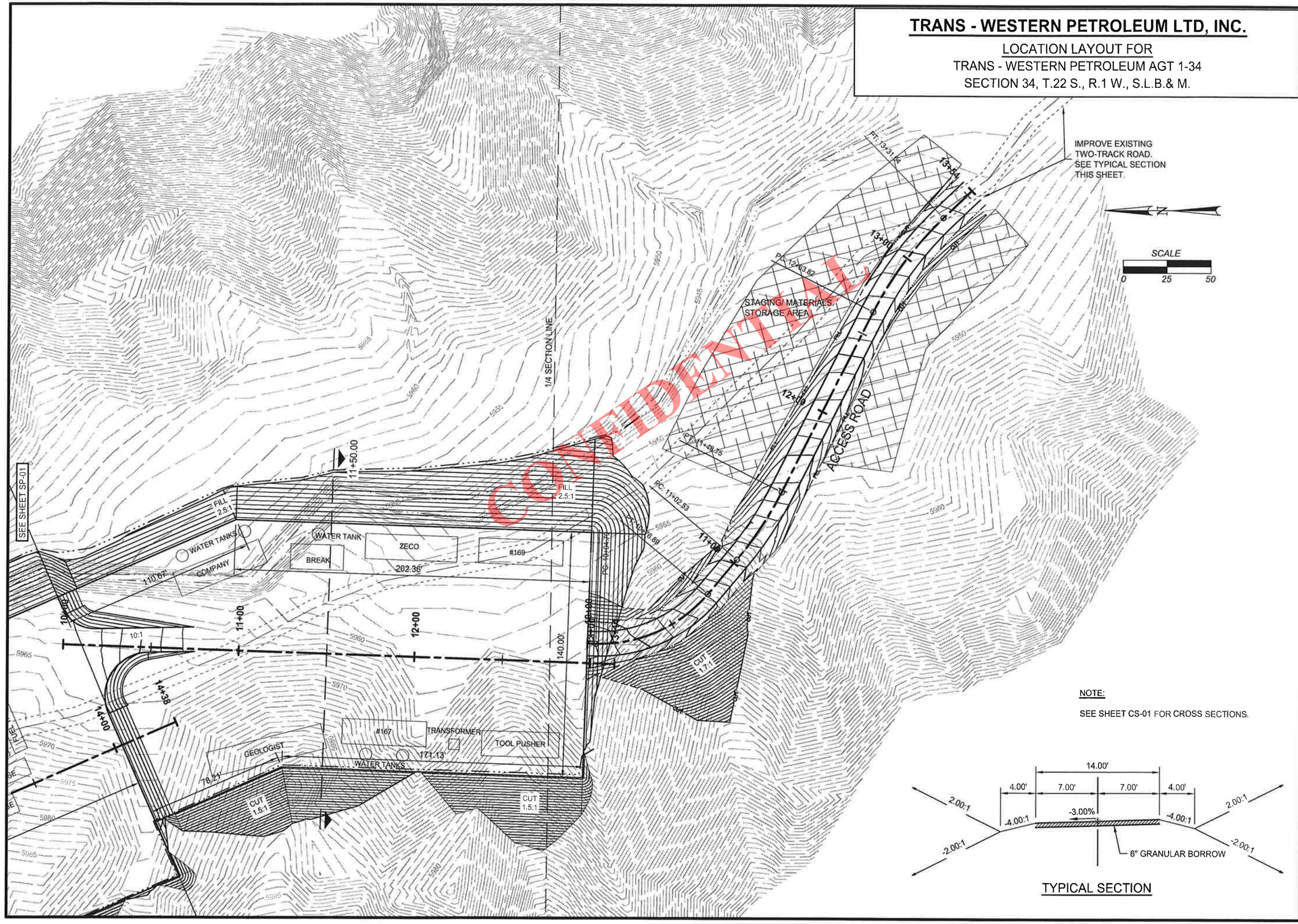
Trans-Western Petroleum LTD, Inc.
Trans-Western Petroleum AGT 1-34
LOCATION LAYOUT
PROJECT NUMBER: 1404-261

SEVIER
COUNTY
SHEET NO. SP-01

API Well Number: 43041500130000

TRANS - WESTERN PETROLEUM LTD, INC.

LOCATION LAYOUT FOR
TRANS - WESTERN PETROLEUM AGT 1-34
SECTION 34, T.22 S., R.1 W., S.L.B.& M.



NOTE:

SEE SHEET CS-01 FOR CROSS SECTIONS.

TYPICAL SECTION

NO.	DATE	REVISIONS	DESIGN / DRAWN / CHECK BY	REMARKS
		ORIGINAL SUBMISSION FOR AUTHORIZATION		

SCALE: 1" = 50'
DWG NAME: DESIGN_AGT1-34
SHT SET: ####
DWG CREATED: 14/12/17
PEN TBL: ########.ctb
UPDATED: 12/29/2014
PLOTTED: 12/29/2014

Jones & DeMille Engineering, Inc.
CIVIL ENGINEERING - SURVEYING - TESTING
GIS - ENVIRONMENTAL
1.800.748.5275 www.jonesanddemille.com

	REVIEW	CHECK	CHECK	CHECK
DESIGN:	D.R. 14-12			
DRAWN	L.G. 14-12			
QUANT	-	-	-	-
DATE	-	-	-	-
BY:	-	-	-	-

APPROVAL RECOMM: _____ DATE _____ PROJECT DESIGN ENGINEER
APPROVED _____ DATE _____

Trans-Western Petroleum LTD, Inc.
Trans-Western Petroleum AGT 1-34
LOCATION LAYOUT
PROJECT NUMBER: 1404-261

SEVIER
COUNTY
SHEET NO. SP-02

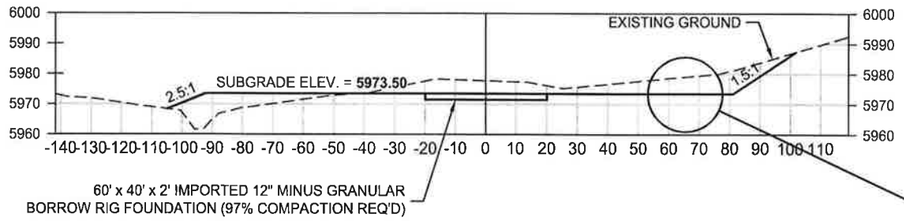
TRANS - WESTERN PETROLEUM LTD, INC.

CROSS SECTIONS FOR

TRANS - WESTERN PETROLEUM AGT 1-34
SECTION 34, T.22 S., R.1 W., S.L.B.& M.

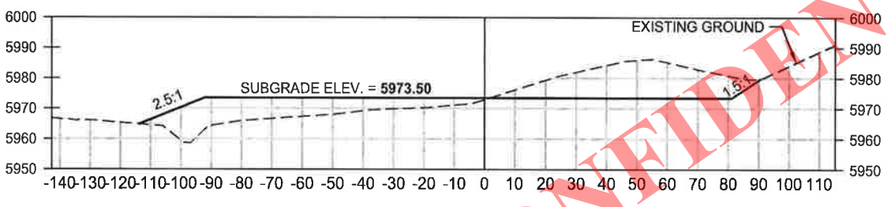
UPPER PAD

12+20.00



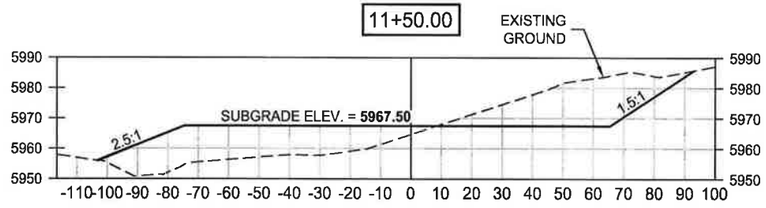
UPPER PAD

13+00.00



LOWER PAD

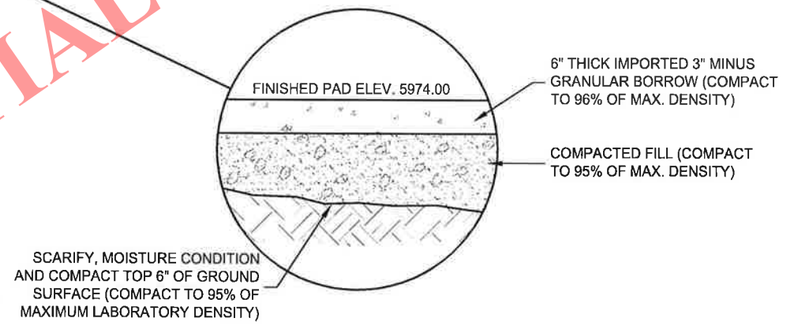
11+50.00



SCALE

0 25 50

HORIZONTAL: 1" = 50'
VERTICAL: 1" = 50'



NO	DATE	REVISIONS	BY	APPROVED
		ORIGINAL SUBMISSION FOR AUTHORIZATION	DESIGN CHK BY	REQUEST BY

REMARKS

UPDATED: 12/29/2014
PLOTTED: 12/29/2014
DWG CREATED: 14/12/17
PEN TBL: 1stroke14-2800.ctb
DWG NAME: DESIGN_AGT1-34
SHT SET: ####

SCALE: 1"= 50'

Jones & DeMille Engineering, Inc.
CIVIL ENGINEERING - SURVEYING - TESTING
GIS - ENVIRONMENTAL
1.800.748.5275 www.jonesanddemille.com

REVIEW

	DESIGN:	DRAWN:	CHECK:	DATE	BY:
D.R.	14-12				
L.G.	14-12				
QUANT:					

APPROVAL RECOMM: DATE
PROJECT DESIGN ENGINEER
APPROVED: DATE

Trans-Western Petroleum LTD, Inc.
Trans-Western Petroleum AGT 1-34
CROSS SECTIONS
PROJECT NUMBER: 1404-261

SEVIER
COUNTY

SHEET NO. CS-01

SURFACE USE PLAN OF OPERATIONS

Well: **Trans-Western Petroleum AGT 1-34**

For inclusion with Application for Permit to Drill

Name of Operator:	Trans-Western Petroleum LTD., Inc.
Operator Number:	N4105
Address:	PO Box 276 Golden, CO 80402
Surface Well Location:	2238' FNL & 382' FWL (SW/4 NW/4) Section 34, T22S, R1W, SLB&M Sevier County, Utah
Bottom Hole Location:	2274' FNL & 202' FWL (SW/4 NW/4) Section 34, T22S, R1W, SLB&M Sevier County, Utah
Access Road Location:	Access road to be an improved two track driveway off the west side of Sage Flat Road.

Fee surface use is required for construction and drilling of the referenced well. American Gypsum Trust (AGT) is the surface owner of the access mining property road, drill pad site and the mineral owner of the well path and bottom hole location.

Existing Roads:

The vicinity map (attached) shows the proposed well location and its proximity to Sigurd, Utah. The proposed location is about 3.5 miles as the crow flies (6.4 miles by driving directions below) east of the Sigurd, Utah.

Driving directions: From center of Sigurd, follow Highway 24 (State Street) south. State Street ends at the city limit of Sigurd and continues on as Utah highway 24. Follow highway 24 south for a 2.45 miles to the Sage Flat Road turnoff (the paved road that leads to the Sevier county landfill) on the left. Turn left and follow Sage Flat Road (a paved road) generally east and then north 2.4 miles. Turn left just prior to the landfill gate to continue on the Sage Flat Road detour around the west side of the landfill property. Follow the Sage Flat Road detour around

RECEIVED: December 30, 2014

the landfill 0.85 miles to the point where the detour turns left to rejoin the old Sage Flat Roadway. At the point where the detour reconnects with the old, original Sage Flat Roadway there is a two track road that exits the roadway to the west. Turn left onto the two track and follow it west by northwest 0.18 miles. At this point a second two track road exits to the right. Turn right and follow the second two track up the canyon for 0.53 miles to the well site. The total distance from Sigurd is 6.41 miles. The first 4.85 miles on Highway 24 and Sage Flat Road are on paved roadway. The 0.85 mile detour around the landfill is a Sevier county maintained, graveled road. The final 0.71 miles of road will need to be improved somewhat to allow drill pad access.

Access Roads to be Constructed and Reconstructed:

Passage over the 2.4 mile paved Sage Flat Road (the paved roadway from Utah highway 24 to the landfill) portion of the access and the unpaved 0.85 mile unpaved Sage Flat Road (the detour around the county landfill) will require a permit from Sevier County, Utah. Because Sage Flat Road is now maintained by Sevier County an encroachment permit will be obtained from the Sevier County Road Department.

The proposed access driveway leaving Sage Flat Road consists of 0.18 miles of former access road to a previously drilled well, the Chevron Salina Unit #1 well. That portion of the road will be graded and graveled as needed to assure all weather access. The turn off of Sage Flat Road is ditched at this time to allow for drainage along the west side of Sage Flat Road. A culvert and fill will need to be placed in the ditch to allow for truck passage. The final 0.53 mile portion of the road that ends at the well pad is currently a two track road. That portion of the road will have to be bladed and graveled as needed to achieve an all weather road. There is a dry wash that runs down the length of the canyon we are using for access to the pad. Since the well is expected to be drilled in the winter and be completed before spring thaw, low water crossings of the drainage will be used to minimize impact. Should the well be a producer, improvements will be made to the road to achieve all season access to the producing pad.

See the Vicinity Maps (attached) for project location and the Survey Plat for pad layout and dimensions. This pad will be constructed in the bottom of the North/South trending valley bordered on either side by ridges. The pad location lies on the old two track road.

Location of Existing Wells within a one-mile radius:

There is one plugged and abandoned well located within a one-mile radius of the proposed well. This well is the Chevron Salina Unit #1 (API # 43-041-30020). The Chevron Salina Unit #1

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is about 0.28 mile N NW from the proposed Trans-Western Petroleum AGT #1 bottom hole location.

Location of Planned Wells:

There are no other wells planned. Should the subject well be a producer Trans-Western would consider attempting to offset wells to adequately develop the reservoir.

Location of Existing and/or Proposed Facilities if Well is Productive:

(a) On well pad - A temporary testing facility may be constructed on this location in the event drilling is successful, consisting of treater/separator, tanks and related components. The facility would be surrounded by a berm of sufficient capacity to contain the storage capacity of the largest tank. All loading lines and valves would be located inside the berm surrounding the tank battery.

(b) Off-well pad - At present no off-well-pad facilities are planned.

Location and Type of Water Supply (Rivers, Creeks, Lakes, Ponds and Wells):

The Operator intends to purchase water from the City of Sigurd. Source of water is the town springs near Kings Meadow Reservoir. Water will be trucked to water storage tanks from a fire hydrant on the south end of town, as directed by the Sigurd water department. Should additional water sources be pursued they will be properly permitted through the State of Utah - Division of Water Rights. UDOGM will be notified of any changes in water supply.

Construction Materials:

Natural earth materials used for fill on the well pad have been taken from cuts made in construction of the pad. Imported granular borrow from an approved source will be applied to the surface of the well pad and driveways where deemed necessary. No construction materials will be removed from state lands. No reserve pit will be excavated on this well site.

Methods for Handling Waste Disposal:

Drilling and completion will utilize a drill solids and cuttings handling system called a “closed loop system.” Steel containers will be used for the temporary storage of waste mud and drill cuttings. All borehole fluids, fresh water and make-up brine will be contained in the drilling rig’s active mud tanks system, a steel tank or pre-mix steel containers. Waste fluids and drill cuttings will be disposed off site at the Sevier County landfill facility or another approved disposal site. After drilling of the well and both before and after the rig moves off any

remaining fluids in the closed loop system will be pumped out of the steel containers and transported off site and disposed of at an approved disposal site.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well.

Wastewater will not be discharged on the ground surface at this site and the drilling of the well will not require a wastewater management plan.

All rubbish and debris will be kept in containers on the well site, and will be hauled to an approved disposal site both during and upon completion of drilling operations. There will be no chemical disposal of any type.

Self-contained, portable toilets will be used for human waste, and the waste will be disposed at an approved human waste disposal facility. Sanitation will comply with local and state regulations.

Ancillary Facilities:

No ancillary facilities are anticipated at this time.

Well Site Layout:

Pad Location and Layout Drawings in the APD packet show the proposed well site layout including location of the closed loop system and access roads onto the pad, turnaround areas, parking areas, living facilities, soil material stockpiles, and the orientation of the rig with respect to the pad and other facilities. As detailed above under Methods for Handling Waste Disposal a "closed loop" system will be used. The "closed loop" system consists of equipment to remove solids from liquid. The removed liquid is returned to the active mud system. Steel containers will be used to contain damp cuttings. The damp cuttings are then transferred to disposal. There are no waste "liquid storage" tanks associated with the closed loop system as there is no waste liquid to store. The closed loop system will not be fenced, bermed or lined during drilling operations. The closed loops system will be moved off concurrent with the removal of the drill rig.

The pad design is would be consistent with engineering drawings and UDOGM specifications. The Sevier county roads will be maintained according to directions of the county.

RECEIVED: December 30, 2014

A pre-construction meeting with responsible Trans-Western company representative and contractors will be conducted at the project site prior to commencement of oil and gas surface disturbing activities associated with building the pad for the AGT 1-34 well. The pad will be construction staked (centerline and exterior boundaries) prior to this meeting. The pad will constructed in accord with the conditions agreed to at that meeting.

All surface disturbing activities will be supervised by a qualified, responsible company representative who is aware of the terms and conditions of approval from UDOGM under the approved APD.

All cut and fill slopes will be constructed such that stability can be maintained for the life of the activity.

Plans for Reclamation of the Surface:

Interim Reclamation: In the event production is achieved the Operator will perform interim reclamation of the site as needed. Interim reclamation normally would consist of reclamation of that portion of the well pad not needed for ongoing operations. The well pad area used will be graveled as needed to render it a usable part of the well pad. The edges of the well pad will be scarified and seeded as per UDOGM conditions of approval.

Final Reclamation: Any accumulation of hydrocarbons in the production tanks will be removed and recovered for sale unless it is determined to be waste oil. All waste oil will be disposed of at approved facilities.

In the event the well is a dry hole or at such time that all production ceases and the well has been plugged and abandoned the Operator will perform final reclamation of the site. Final reclamation will be limited to of reclamation of the well site. Any access road improvements or graveling will be left in place for the benefit of AGT in their mining activities. Final reclamation will consist of removing all above ground equipment (with the exception of the dry hole marker) and purging all buried pipelines, if any, so as to abandon those lines in place.

Road base material used in the pad will be removed from the site and disposed in an approved manner. The road will be reclaimed in accordance with the conditions of approval.

Final reclamation will take place within 180 days after plugging date of the last well on the drill site, depending on weather, season and other extenuating circumstances.

During the life of the project and until the site is released from liability for reclamation, the project will be inspected at least annually for noxious weeds. If invasive noxious weeds are found, the weeds will be treated to eliminate further reproduction, and treatment shall

continue until the weeds have been eradicated. If noxious weeds are found, SITLA will be notified of their occurrence.

Surface Ownership:

The surface of the proposed well site and the access road from Sage Flat Road is owned by American Gypsum Trust (AGT).

Other Information:

Heavy equipment used to construct and rehabilitate the well pad will be cleaned and/or sprayed to remove any noxious or invasive weeds and seeds prior to entering to the project site. Any other equipment and vehicles that have been used in other locations where noxious weeds or seeds could have attached to the equipment will also be sprayed and/or cleaned.

All equipment and vehicles will be confined to the previously defined road which accesses the well pad.

No stream alteration or drainage crossings are involved that require additional State or Federal approval.

All permanent structures, including pumping units, constructed or installed will be painted a flat, non-reflective color. Permanent structures are defined as being on location for six months or longer. Facilities required to comply with Occupational Safety and Health Act (OSHA) shall be excluded.

Fire suppression equipment will be available to suppress any fires caused by construction or related activities. In the event of a fire the Richfield Interagency Fire Center (435) 896-8404 will be notified.

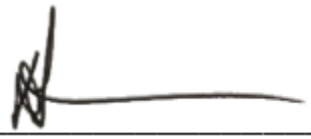
Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route described herein: that I am familiar with the conditions which currently exist; that I, or someone under my direct supervision, has full knowledge of State and Federal laws applicable to this operation, that the statements made in this APD package are, to the best of my knowledge, true and correct and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

RECEIVED: December 30, 2014

API Well Number: 43041500130000

Executed this 26th day of December, 2014.

Signature: 

Print name: Douglas J. Isern

Position Title: President

Address: Trans-Western Petroleum LTD., Inc.
PO Box 276
Golden, CO 80402
Telephone: (303) 921-5532

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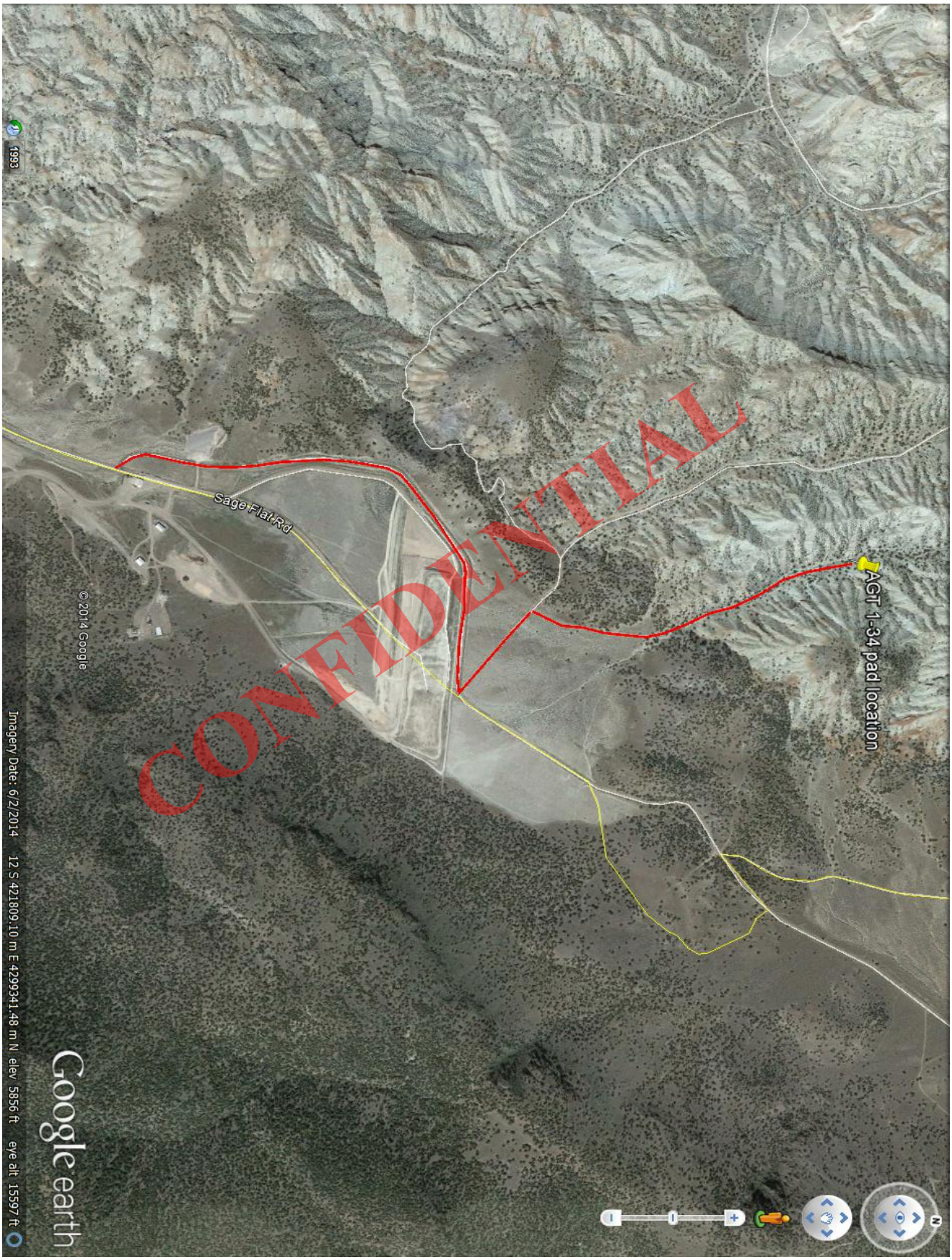
API Well Number: 43041500130000

API Well Number: 43041500130000



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API Well Number: 43041500130000

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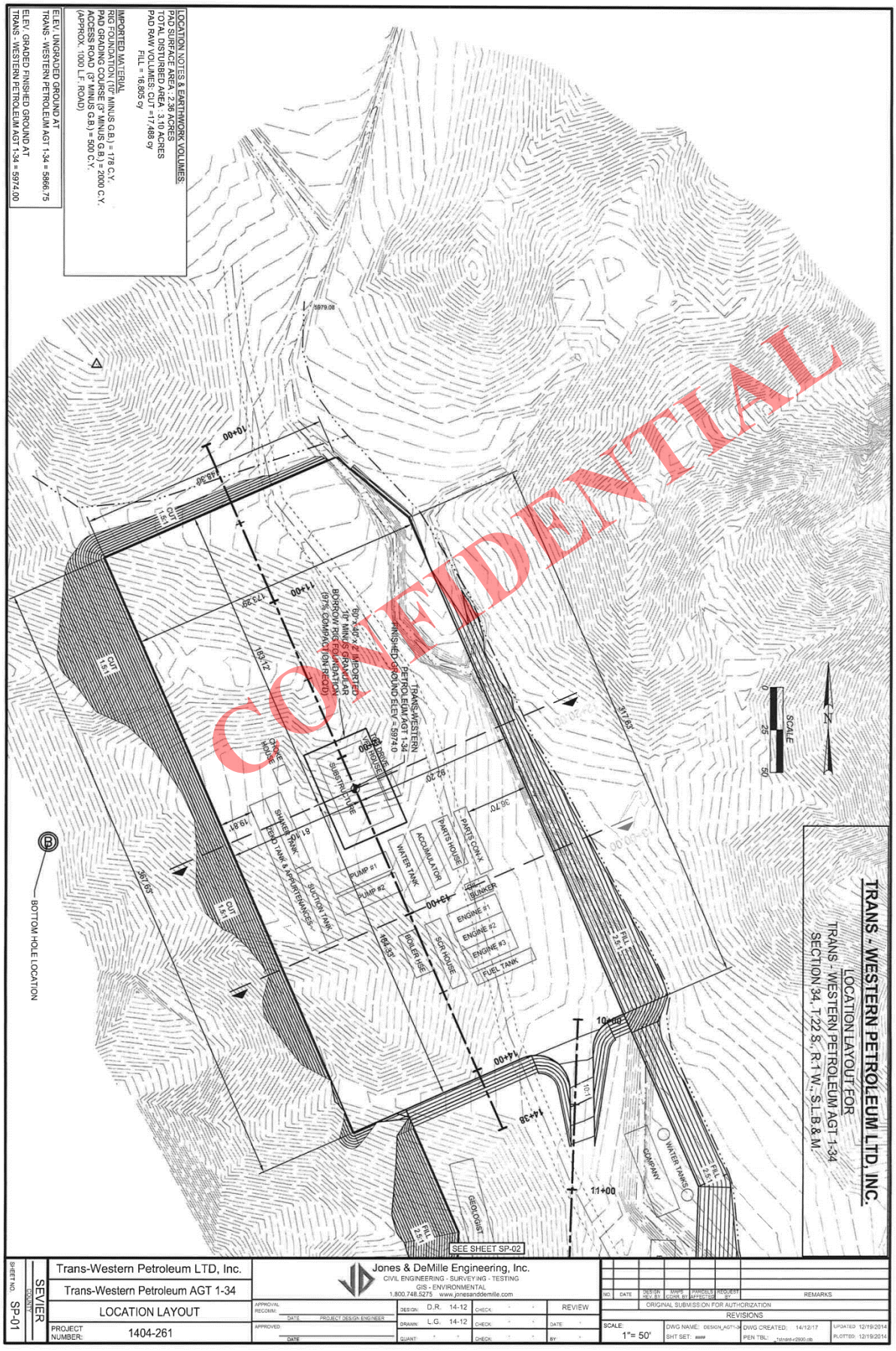
CONFIDENTIAL
TRANS - WESTERN PETROLEUM LTD, INC.
LOCATION LAYOUT FOR
TRANS - WESTERN PETROLEUM AGT 1-34
SECTION 34, T.22 S., R.1 W., S.L.B.&M.
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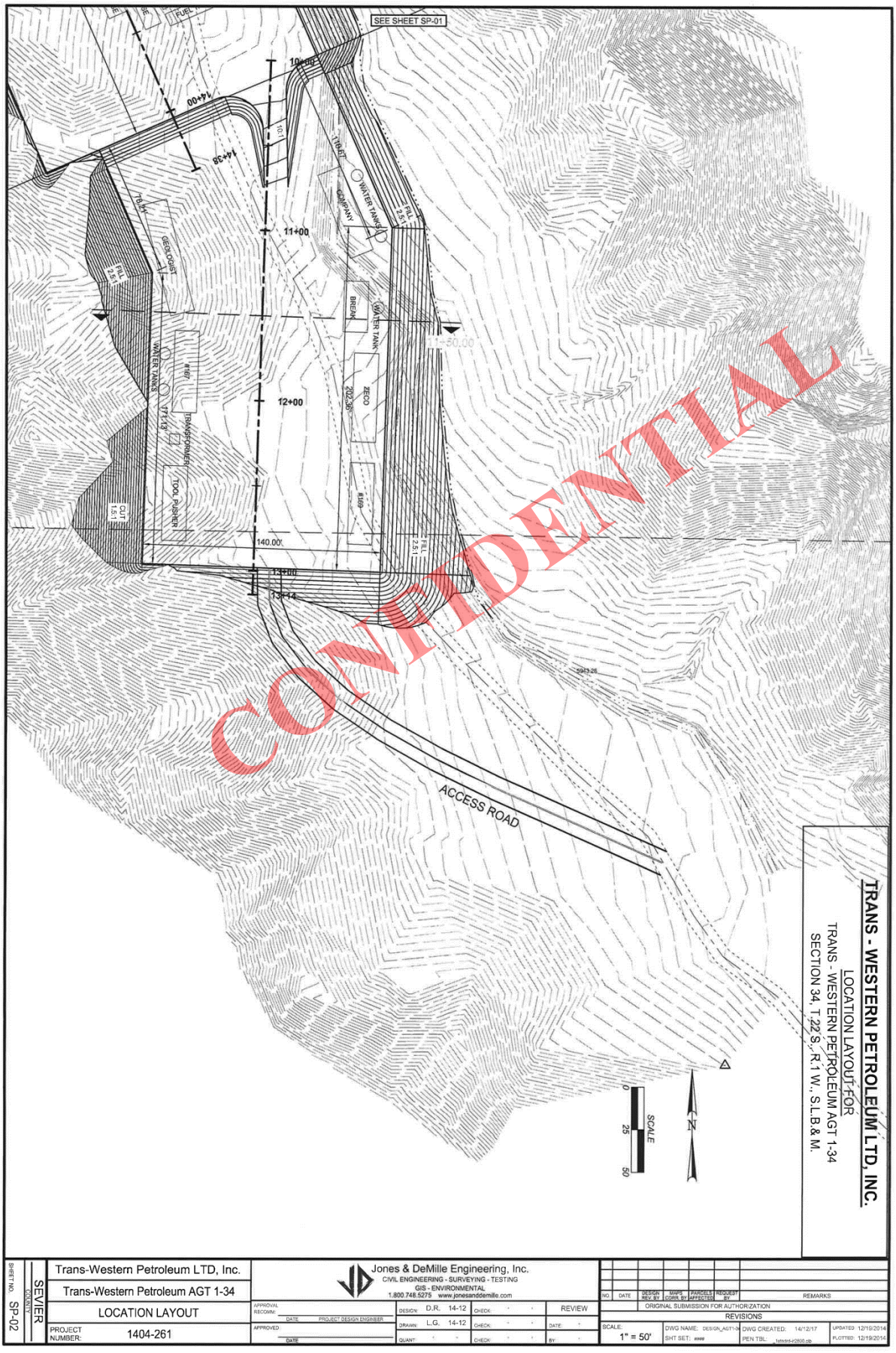
ACCESS ROAD (3" MINUS G.B.) = 500 C.Y.
(APPROX. 1000 L.F. ROAD)
ELEV. UNGRADED GROUND AT
TRANS - WESTERN PETROLEUM AGT 1-34 = 5866.75
ELEV. GRADED FINISHED GROUND AT
TRANS - WESTERN PETROLEUM AGT 1-34 = 5974.00
5979.08
10+00
14+00
13+00
12+00
11+00
CUT
FILL
SCALE
0
25
50
N
BOTTOM HOLE LOCATION
SEE SHEET SP-02
TRANS-WESTERN PETROLEUM AGT 1-34
FINISHED GROUND ELEV. = 5974.0
80' x 40' x 8" IMPORTED 10" MINUS GRAVEL FOR BORROW PIT FOUNDATION (97% COMPACTION REQD)
CHOKE HOUSE
SUBSTRUCTURE
DOG HOUSE
PARTS HOUSE
PARTS CONEX
ACCUMULATOR
WATER TANK
PUMP #1
PUMP #2
SHAKER TANK
MUD TANK & APPURTENANCES
SUCTION TANK
CAT WALK
DOG HOUSE
ENGINE #1
ENGINE #2
ENGINE #3
FUEL TANK
SCR HOUSE
BOILER HSE
GEOLOGIST
COMPANY
WATER TANKS
Trans-Western Petroleum LTD, Inc.
Trans-Western Petroleum AGT 1-34
LOCATION LAYOUT
PROJECT NUMBER: 1404-261
Jones & DeMille Engineering, Inc.
CIVIL ENGINEERING · SURVEYING · TESTING
GIS · ENVIRONMENTAL
1.800.748.5275 www.jonesanddemille.com
DESIGN: D.R. 14-12
DRAWN: L.G. 14-12
REVIEW
ORIGINAL SUBMISSION FOR AUTHORIZATION
REVISIONS
SCALE: 1"= 50'
DWG CREATED: 14/12/17
UPDATED 12/19/2014
PLOTTED: 12/19/2014
SHEET NO. SP-01
SEVIER COUNTY


SEE SHEET SP-01
FUEL
10+00
14+00
14+38
11+00
12+00
13+00
13+14
140.00'
11+50.00
TANK
WATER TANKS
GEOLOGIST
BREAK
WATER TANK
202.38'
ZECO
TRANSFORMER
TOOL PUSHER
CUT 1.5:1
FILL 2.5:1
#167
#169
5943.26
ACCESS ROAD
SCALE
0
25
50
N
TRANS - WESTERN PETROLEUM LTD, INC.
LOCATION LAYOUT FOR
TRANS - WESTERN PETROLEUM AGT 1-34
SECTION 34, T.22 S., R.1 W., S.L.B.& M.
CONFIDENTIAL
Trans-Western Petroleum LTD, Inc.
Trans-Western Petroleum AGT 1-34
LOCATION LAYOUT
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SEVIER COUNTY
SHEET NO. SP-02

H_2S Drilling Operations Plan

Operator:

Trans-Western Petroleum, LTD

Well Name:

Trans-Western Petroleum AGT 1-34

Surface location:
SW ¼ NW ¼ - Section 34
Township 22 South - Range 01 West - SLB&M
Sevier County, Utah

Bottom-hole location:
SW ¼ NW ¼ - Section 34
Township 22 South – Range 01 West – SLB&M

GL Elevation:
5974 feet

P. O. Box 276
Golden, Colorado 80402

RECEIVED: December 30, 2014

Table of Contents

RECEIVED: December 30, 2014

Introduction

This H_2S contingency plan (R649-3-12-2) has been prepared for the Trans-Western Petroleum AGT 1-34 well, which will be located on a fee lease in Section 34, T22S - R01W - SLB&M, Sevier County, Utah. This Plan is intended as a guide for personnel working at the well site should an accidental release of natural gas containing hydrogen sulfide occur during drilling or completion operations. This plan is consistent with Utah regulations R649-3-12. Operational requirements include installation of gas monitors and safety equipment on the drill site, personnel training, and response procedures. Beginning at a drill depth of 7364 ft MD all personnel, including anyone who may travel to location on an unscheduled basis, must review and be familiar with onsite duties as well as the safety equipment involved. For the plan to be effective, the cooperation and participation of all personnel working at the well site is required.

Hydrocarbon gas with low concentrations of H_2S has been detected in the some wells drilled in the area.

1. At the Wolverine Covenant Field, a producing field located ~2.5 miles to the south by southwest of the proposed well, no indications of H_2S were encountered during the drilling of the field. Small concentrations of H_2S have been sampled while producing from the field.
2. At the Wolverine Arapien Valley 24-1, located ~14 miles to the north of the proposed well, during production testing H_2S was detected in gas samples from the upper Navajo at concentrations less than approximately 35 ppm (0.000035 mole volume) and in the lower Navajo at approximately 900 ppm (0.0009 mole volume).

Exposure to H_2S by the general public is very unlikely during drilling or completion operations. The prevailing wind direction is expected to be from the southwest when this well is drilled. The lands adjacent to the well site, in all directions, are owned by American Gypsum Trust (AGT) and are currently designated as a mining site but are not being actively mined. All these lands are unoccupied mining property. Sage Flat Road, a generally east/west trending county road in this area, cuts through Sections 33 and 34 about 3/4 mile south of the well site. Lands to the north and west of the AGT property are unoccupied and are being actively mined by US Gypsum Corporation. The center of Sigurd, Utah, is approximately 3-1/2 miles west of the well site. The Sevier County landfill is located approximately a mile south of the well site.

Assuming a release of 2,000,000 cubic feet/day with a concentration of 0.0009 mole volume, the 100 ppm radius of exposure (as calculated in accordance with BLM Onshore Order No. 6) is 146' and the 500 ppm radius of exposure is 67', both of which would fall within or slightly off the edge of this narrow well pad site. Access to the well pad will be restricted to essential personnel during drilling beneath 7364 feet MD (roughly 500 feet above the first potential sour gas producing zone, the Twin Creek formation).

RECEIVED: December 30, 2014

Driving directions to location

From center of Sigurd, follow Highway 24 (State Street) south. State Street ends at the city limit of Sigurd and continues on as Utah highway 24. Follow highway 24 south for a 2.45 miles to the Sage Flat Road turnoff (the paved road that leads to the Sevier county landfill) on the left. Turn left and follow Sage Flat Road generally east and then north 2.4 miles. Turn left just prior to the landfill gate to continue on the Sage Flat Road detour around the west side of the landfill property. Follow the Sage Flat Road detour around the landfill 0.85 miles to the point where the detour turns left to rejoin the old Sage Flat Roadway. At the point where the detour reconnects with the old, original Sage Flat Roadway there is a two track road that exits the roadway to the west. Turn left onto the two track and follow it west by northwest 0.18 miles. At this point a second two track road exits to the right. Turn right and follow the second two track north up the canyon for 0.53 miles to the well site. The total distance from Sigurd is 6.41 miles. The first 4.85 miles on Highway 24 and Sage Flat Road are on paved roadway. The 0.85 mile detour around the landfill is a Sevier county maintained, graveled road. The final 0.71 miles of road will need to be improved somewhat to allow drill pad access.

I. Duties & Responsibilities

In order to assure proper execution of the contingency plan, it is essential that one person be responsible for and is vested with the requisite authority for implementing the procedures outlined in this plan. The order of responsibility will be as follows:

1. Trans-Western Wellsite Supervisor on location - if unable to perform his/her duties;

2. 1st alternate: Trans-Western representative - if unable to perform his/her duties;

3. 2nd alternate: Rig Supervisor/Toolpusher - if unable to perform his/her duties;

4. 3rd alternate: Safety consultant representative.

A. All Personnel

1. Always be alert for possible H_2S alarms - both audible and visual.

2. Be familiar with location of Safe Briefing Areas (SBA) and protective breathing equipment.

3. Develop “wind awareness”. Be aware of prevailing wind direction as well as nearby uphill areas should there be no wind.

4. Familiarize yourself with nearest escape routes for safe evacuation.

RECEIVED: December 30, 2014

5. Should H_2S alarm sound, DON'T PANIC - remain calm and follow instructions of person in charge. Generally speaking, all personnel are to go to the upwind SBA for further instructions. Watch the wind sock to determine the upwind direction.

6. If the H_2S alarms sound:

   a. Rig crew is to don masks, shut in the well and evacuate to the appropriate SBA for further instructions. Essential personnel shall evacuate to the appropriate SBA and be prepared to don the appropriate respiratory protective equipment and follow safety procedures. They will continue to wear respiratory protective equipment until the area is deemed safe (H_2S concentration less than 10 PPM).

   b. Non-essential personnel shall remain at the appropriate SBA using escape-breathing systems. They are to wait there for further instructions from the Trans-Western Wellsite Supervisor or the designated person in charge.

   c. Initiate rescue protocol if necessary and following training procedures.

B. Wellsite Supervisor

1. The Wellsite Supervisor will confirm that all personnel on location at any time are trained in H_2S safety and aware of above list of duties.

2. The Wellsite Supervisor will ensure that all personnel observe all safety and emergency procedures.

3. The Wellsite Supervisor will make an effort to keep the number of personnel on location to a minimum and to ensure that only essential personnel are on location during critical operations.

4. Should an extreme danger condition exist, the Wellsite Supervisor will:

   a. Assess the situation and advise all personnel by appropriate means of communication.

   b. Be responsible for determining that the extreme danger condition is warranted and have the red flag posted at location entrance.

   c. Go to safe briefing area. Give clear instructions relative to hazard on location and actions for personnel to follow.

   d. Notify company, USG and regulatory groups of current situation as required per company policy and regulatory protocol. Follow appropriate procedures for emergency services notification.

   e. Proceed to well and supervise operations with rig supervisor. Take action to control and reduce the H_2S hazard.

RECEIVED: December 30, 2014

f. Ensure that essential personnel are properly protected with supplied air breathing equipment and that non-essential personnel are in a “poison gas free” area.

g. Authorize evacuation of any persons/residents in area surrounding the well location.

h. Commence any ignition procedures if ignition criteria are met.

C. Rig Supervisor/Toolpusher

1. If the Wellsite Supervisor is unable to perform his/her duties and an alternate Trans-Western representative is also unable or unavailable to perform his/her duties, the rig supervisor will assume command of wellsite operations and all responsibilities listed above for Wellsite Supervisor.

2. The Rig Supervisor will ensure that all rig personnel are properly trained to work in H_2S environment, fully understand the purpose of H_2S alarms, and know actions to take when alarms activate. He/She will ensure that all crew personnel understand the buddy system, safe briefing areas, and individual duties as well as emergency evacuation procedures.

3. Should any extreme danger operational condition arise, the Rig Supervisor shall assist the Wellsite Supervisor by:

   a. Proceed to the rig floor and assist in supervising rig operations.

   b. Ensure that only essential working personnel remain in hazardous areas.

   c. Ensure that all crewmembers that remain in hazardous area, wear respiratory protective equipment until notified that area is “clear” of any toxic gases.

   d. Assign rig crewmember or other service representative to block entrance to location. No unauthorized personnel are to be allowed entry to location.

   e. Help to determine hazardous “danger zones” on location using portable detection equipment, and positioning electric fans to move gas in any high concentration areas.

D. Safety Consultant

1. During normal operations (no H_2S present), the safety consultant will be responsible for the following:

   a. Ensure that all wellsite safety equipment is in place and operational.

   b. Ensure that all wellsite personnel are familiar with location safety layout and operation of all safety equipment.

   c. Assist the Wellsite Supervisor in performing weekly H_2S drills for location personnel.

RECEIVED: December 30, 2014

2. When an operational condition is classified as extreme danger, the safety consultant will be responsible for the following:
   a. Account for all wellsite personnel.
   b. Assess any injuries and directing first aid measures.
   c. Ensure that all safety and monitoring equipment are functioning properly and available.
   d. Monitor the safety of wellsite personnel.
   e. Maintain close communication with the Wellsite Supervisor.
   f. Be prepared to assist Wellsite Supervisor with support for rig crew or other personnel using breathing equipment.
   g. Be prepared to assist the Wellsite Supervisor with emergency procedures including possible well ignition.
   h. Be prepared to assist with evacuation of any area residents or other personnel in the immediate area.

E. Trans-Western Drilling Manager

1. The Trans-Western Drilling Manager will be responsible for notifying and maintaining contact with the company Production Manager and/or other company supervisory personnel as required.

2. Maintain communication with the Wellsite Supervisor and providing any other assistance that might be required.

3. Travelling to wellsite if appropriate

4. Assisting Wellsite Supervisor with all other notifications – including both company and regulatory.

II. Well Location Layout

A. Location

1. An attached well site diagram depicts location and rig orientation, prevailing wind direction, terrain of surrounding area, location of briefing areas, access roads, location of flare lines and pits, location of caution/danger signs, and location of wind indicators.
2. If practical, the drilling rig will be situated to allow for the prevailing winds to blow across the rig toward the circulation tanks or at right angles to the lines from the BOP stack to the circulation tanks or as near this configuration as possible.
3. There is no practical way to build a 2nd road off this location although there is an existing two track road exiting the location to the north. That two track, a 4WD road does connect to the parallel canyon/draw to the west. That parallel draw does tie

RECEIVED: December 30, 2014

into Sage Flat Road. Since an alternate road is not practical, a clearly marked footpath to a safe area will be provided. The auxiliary escape route will be kept available and passable at all times when drilling below 7364' MD so that a shift in wind direction will not prevent escape from the location if an emergency should occur.

4. The entrance(s) to the location will be designed to be barricaded if necessary because of a hydrogen sulfide emergency condition.
5. A minimum of 2 safe briefing areas (SBA) will be designated for assembly of personnel during emergency conditions (R649-3-12-4). These will be located at least 200 feet from the wellbore and in such a location that at least one area will be upwind of the well at all times (R649-3-12-4.1). Upon recognition of an emergency situation, all personnel will be trained to assemble at the designated briefing area for instructions.
6. Smoking areas will be established and smoking will be allowed only at those established smoking areas.
7. Reliable 24-hour telephone communications will be available at the wellsite supervisor's office.
8. The drilling rig will have when drilling below 7364' MD a continuous electronic H_2S detection system that will be located to detect the presence of hydrogen sulfide in areas where it is most likely to appear on site. The sensor head locations will be: 1) rig floor by driller's console, 2) substructure area near the bell nipple, 3) the shale shaker, 4) the mud mixing area (R649-3-12-6). Additional sensors will be positioned at the discretion of the drilling foreman. At least 1 light and 1 siren will be placed on the rig to indicate the presence of hydrogen sulfide. The light and siren will be strategically placed to be visible to all personnel on the drill site.
9. Equipment to indicate wind direction will be installed at prominent locations and will be visible at all times during drilling operations (R649-3-12-7). At least 2 wind direction indicators (i.e. windsocks) will be placed at separate elevations (i.e. near ground level and rig floor height). At least 1 wind direction indicator will be clearly visible from all principal working areas at all times so that wind direction can be easily determined. In addition, a wind direction indicator will be provided at each of the two briefing areas if the other wind direction indicators on location are not visible from the briefing areas.
10. Operational danger or caution sign(s) will be displayed along all controlled accesses to the site (R649-3-12-8). The sign(s) will legible and large enough to be read by all persons entering the wellsite and be placed a minimum of 200 feet but not more than 500 feet from the wellsite and at a location which allows vehicles to turn around at a safe distance prior to reaching the site.
11. Protective safety equipment will be available for all essential personnel (R649-3-12-5 & 5.1). There will be five 30-minute SCBA and five air line breathing units with emergency escape cylinders located at the drilling floor or dog house, one SCBA and air line unit will be located in the derrick (for derrick man), one 30-minute SCBA per person will be located by the quarters of all personnel on location, and 30-minute SCBA and escape units will be distributed as needed near the shaker, mud tanks,

RECEIVED: December 30, 2014

and any other area where escape from an H_2S contaminated area could be difficult. A safety trailer containing the compressed breathing air will be located near the well site and air lines will be run from the safety trailer to where the air line breathing units are located.

III. Safety Procedures

A. Training

When this plan is in effect, all personnel who come onto the location must be properly trained in hydrogen sulfide, nitrogen and oxygen deficient atmospheres safety. The personnel shall carry documentation with them indicating that the training has occurred within the previous 12 months. All training will comply with federal and state regulatory guidelines. Training will include proper fit tests for respirators for all personnel in each work crew on location. There will be a training session that reviews this site specific H_2S plan and the H_2S PPE (if applicable) for all personnel in each work crew on location. While this plan is in effect, all personnel in each work crew must be clean shaven to achieve an air tight seal about the face and respirator. Training will also include weekly H_2S and well control drills. All training sessions and drills are to be recorded in the driller's log, as well as in the safety supervisor's logbook.

Training topics shall include at a minimum:

1. Hazards and characteristics of hydrogen sulfide, nitrogen, and oxygen deficient atmospheres and symptoms of exposure to these gases.
2. Proper use, care and limitations of respiratory protective equipment with hands-on practice.
3. Use of both fixed and portable toxic gas detection equipment.
4. Work practices to reduce chances for toxic gas exposure and procedures for confined space.
5. First aid for toxic gas exposure and resuscitation equipment.
6. The buddy system.
7. Emergency evacuation procedures.
8. A review of the contingency plan for the well.
9. Clean shaven policy

B. Operating Conditions

A three color- flag warning system will be used to notify personnel approaching the drill site as to operating conditions on the wellsite. This system is in compliance with BLM Onshore Order 6, complies with Utah regulation R649-3-12-8.1 & 8.2, and follows industry standards.

Green Flag - Potential Danger

RECEIVED: December 30, 2014

Yellow Flag - Moderate Danger

Red Flag- Extreme Danger - Do not approach if red flag is flying.

A red warning flag will be displayed when H_2S is detected in excess of 10 ppm at any detection point.

The operational danger or caution signs located near the entrance to the location will be painted a high visibility red, black and white, or yellow with black lettering. They will be legible and large enough to be read by all persons entering the wellsite and will read "DANGER – POISON GAS – HYDROGEN SULFIDE" and in small lettering "Do not approach if Red Flag is Flying".

All sign(s) and, when appropriate, flag(s) will be visible to all personnel approaching the location under normal lighting and weather conditions.

Location access will be monitored and controlled during "non-routine" operations such as perforating, pressurized pumping, and well testing of potential H_2S bearing formations. The number of personnel on location will be restricted to "essential" personnel only

C. Warning System Response and Evacuation Plan

When H_2S is detected in excess of 10 ppm at any detection point indicating that an extreme danger condition exists, all non-essential personnel will be moved to a safe area and essential personnel (i.e., those necessary to maintain control of the well) shall don a pressure-demand type protective breathing apparatus. Once accomplished, operations may proceed.

The prevailing wind is expected to be from the southwest when this well is drilled. The lands adjacent to the well site are owned by American Gypsum Trust (leased by Trans-Western Petroleum, LTD). All these lands are unoccupied mining property. Sage Flat Road (labeled Sage Flat Road on Google Maps), a generally east/west trending county road in this area, cuts through Sections 23 and 34 about 3/4 mile south of the well site. The center of Sigurd, Utah, is approximately 3-1/2 miles west of the well site. The Sevier County landfill is located approximately a mile south of the well site.

If an H_2S emergency situation arises, the Wellsite Supervisor will contact local authorities to authorize and work in coordination with them to evacuate and restrict non-essential personnel from areas near the wellsite where H_2S concentration levels could potentially exceed 10 ppm. All associated regulatory agencies will then be notified as soon as possible.

RECEIVED: December 30, 2014

D. Emergency Rescue Procedures

Well site personnel should not attempt emergency rescues unless they have been properly trained. A trained person who discovers another person overcome by hydrogen sulfide **should not attempt to rescue without donning the proper breathing equipment.** When making an emergency rescue always use the following procedures:

1. Don rescue breathing equipment before attempting to rescue someone.
2. Remove the victim from the contaminated area to an area free of gas by traveling upwind or cross wind. Be certain that you are in a safe area before removing your breathing equipment.
3. If the victim is not breathing, initiate mouth-to-mouth resuscitation immediately. Follow CPR guidelines and replace mouth-to-mouth with a bag mask resuscitator if available.
4. Treat the victim for shock, keeping the victim warm and calm. Never leave the victim alone.
5. Any personnel who experience hydrogen sulfide exposure must be taken to a hospital for examination and their supervisor notified of the incident.

IV. H_2S Safety Equipment on Well Location

Item	Amount	Description
1.	One (1)	Safety trailer with a cascade system of 10-300 cu. ft bottles of compressed breathing air complete with high-pressure regulators w/
2.	Sufficient to service the drilling rig	Low-pressure airline equipped with Hanson locking fittings. This airline will be rigged up with manifolds to supply breathing air to the rig floor, substructure, derrick, shale shaker area, and mud mixing areas.
3.	Twelve (12)	Scott 30-minute self-contained breathing apparatuses (SCBA).
4.	Twelve (12)	12 Scott air line work units with escape cylinder (Ska-Paks).
5.	One (1)	4-channel continuous electronic H_2S monitors with audible and visual alarms. The set points for these alarms are 10 ppm for the low alarm and 15 ppm for the high alarm.
6.	One (1)	Portable hand operated pump type detection units with tubes for hydrogen sulfide and sulfur dioxide.
7.	One (1)	Oxygen resuscitator with spare oxygen cylinder (649-3-12-5.4).
8.	One (1)	Trauma first aid kit (649-3-12-5.3).
9.	One (1)	Stretcher (649-3-12-5.5).

RECEIVED: December 30, 2014

10.	Three (3)	Windsocks.
11.	One (1)	Well condition sign with 3 flag system.
12.	Two (2)	Safe Briefing Area (SBA) signs.
13.	One (1)	Fire blanket.
14.	One (1)	Set air splint.
15.	One (1)	Electric explosion proof fan.
16.	One (1)	Chalk board with chalk or notepad with pencil.
17.	Two (2)	300 cu. ft. air bottles for the safe briefing area.
18.	Two (2)	30# fire extinguishers.
19.	Each crew member	Cell phone to communicate from a safe area.

V. Operating Procedures and Equipment

1. If zones containing in excess of 100 ppm of H_2S gas are encountered while drilling with air, gas, mist, other non-mud circulating mediums for aerated mud, the well will be killed with a water-based mud and mud will be used thereafter as the circulating medium for continued drilling.
2. A flare system will be designed and installed to safely gather and burn H_2S-bearing gas and it will be equipped with a suitable and safe means of ignition (R649-3-12-10). If noncombustible gas is to be flared, the system will have a supplemental fuel to maintain ignition.
3. Flare lines will be located as far from the operating site as feasible and in a manner to compensate for wind changes. The flare line(s) mouth(s) will be located not less than 150 feet from the wellbore (R649-3-12-10.1 & 10.2). Flare lines will be straight unless targeted with running tees.
4. If SO_2 is to be released as a result of flaring of H_2S, portable SO_2 detection equipment will be available for checking the SO_2 level in the flare impact area. There are no occupied or unoccupied buildings or gathering places anywhere near the well site.
5. The choke manifold included as a component of the well control system will have at least one remote controlled choke with controls readily accessible to the drilling or other authorized personnel.
6. A mud-gas separator will be rigged up and manifolded to the choke and flare system (R649-3-12-10).
7. The drilling mud will be a water-based system maintained with a pH of 10 or greater. Corrosion inhibitor additives will be in the mud. Sufficient scavenger chemicals will be available on location and will be used to scavenge or neutralize any H_2S in the drilling fluid (R649-3-12-11). Mud weight will be maintained as needed to control pressure in any formations encountered.

RECEIVED: December 30, 2014

8. All equipment that has potential for exposure to H_2S will be suitable for H_2S service. The casing head and spools, blowout preventer assembly, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separator and other related equipment will have metallurgical standards conforming to NACE MR0175/ISO 15156. Elastomers, packing, and similar inner parts exposed to H_2S will be resistant at the maximum anticipated temperature of exposure. Drill strings, surface casing, intermediate casing, and BOP shear rams are exempt from these requirements.
9. All respiratory protective, H_2S detection, and other needed safety equipment will be in place and ready for use, and all rig crews and other service personnel will be trained in its use when this plan is effective.
10. There will be a continuous electronic H_2S detection system that will automatically activate visible and audible alarms if hydrogen sulfide is detected. The visible light will activate if 10 ppm H_2S is present. The audible siren will activate if 15 ppm H_2S or higher concentration is present. There will be at least four H_2S sensors in place on the drilling rig. Additional alarm lights & sirens may be added to ensure that all personnel on the drill site are able to notice the alarms at any time. All H_2S detection equipment will be calibrated as recommended by the manufacturer and calibration records will be maintained on location.
11. Both 30-minute self-contained breathing apparatuses (SCBA) and workline units with escape cylinders will be available on location. There will be sufficient numbers of this supplied air breathing equipment on location to ensure that all personnel on location have equipment available to them. All respiratory protective equipment will use nose cups to prevent fogging in temperatures below 32°F. Spectacle kits will be available for personnel that require corrective lenses when working under mask.
12. Chalk boards or note pads will be provided to be used for communication when wearing protective breathing apparatus (R649-3-12-5.2) or electronic voice-microphones will be available for essential personnel to use when working under mask to facilitate communication.
13. Additional breathing equipment will be provided for non routine operations that require additional service personnel on the well location to ensure that all personnel on the well location have a dedicated supplied air respirator.
14. If natural ventilation is not adequate electric explosion-proof ventilating fans (bug blowers) will be available to provide air movement in enclosed areas where gas might accumulate (R649-3-12-9).
15. Any drill stem test performed on any formation potentially containing H_2S will be done with a minimal number of personnel at the drilling site as necessary to safely operate the test equipment. Any such drill-stem test will be conducted only during daylight hours and will be a closed chamber test with no fluids allowed to flow from surface.
16. Any production testing of an H_2S bearing formation will be done with proper wellhead and other equipment in place to allow a controlled test through

RECEIVED: December 30, 2014

separation equipment and flare as needed. Any such test would be conducted with monitoring and warning devises in place and proper safety equipment available.

VI. Well Ignition Procedures

If it should become apparent that an uncontrolled release of hydrogen sulfide to the atmosphere might endanger the health and safety of the public or well site personnel, the Wellsite Supervisor will make a decision to ignite the well. The following procedure should be followed before attempting to ignite the well.

A. Ignition equipment - The following equipment will be available for on-site for use by the ignition team.

1. Flare gun with flare shells
2. Two 250 ft. life lines with harnesses for emergency response procedures (R649-3-12-5.6).
3. One portable combustible gas meter
4. Self contained breathing apparatus (SCBA) for each member of the ignition team.

B. Ignition Procedures

1. The Wellsite Supervisor will ensure that well site personnel are evacuated to a safe area upwind of the well bore prior to any ignition action.
2. The Wellsite Supervisor and a designated partner “buddy” backed up by well site safety personnel will comprise the ignition team. All team members will be wearing 30 minute SCBAs.
3. The partner of the ignition team will carry a combustible gas/ hydrogen sulfide meter to continuously monitor the area in which they are working and define the perimeter of the gas cloud.
4. The Wellsite Supervisor will carry the flare gun and shells.
5. The ignition team will determine the hazardous area and establish safe working perimeters. Once this is identified the team will proceed upwind of the leak and fire into the area with flare gun. If trouble is encountered in trying to light the leak, retry to ignite by firing the flare shells at 45 and 90 angles to the gas source, but DO NOT approach closer to the leak.
6. After ignition, monitor for sulfur dioxide and work with the support group to restrict access to the contaminated area.

RECEIVED: December 30, 2014

VII. Residents – Public in Radius of Exposure

Exposure to H_2S by the general public is very unlikely during drilling or completion operations. The prevailing wind is expected to be from the west when this well is drilled. This is unoccupied, mountain terrain, an industrial mining site.

Even assuming a release of 2,000,000 cubic feet/day with a concentration of 0.009 mole volume, the 100 ppm radius of exposure (as calculated in accordance with BLM Onshore Order No. 6) is 146' and the 500 ppm radius of exposure is 67', both of which would fall within the actual well pad site or just off the edge of this irregular shaped pad; the well pad will have controlled access during drilling below 5500 feet MD.

VIII. Emergency Phone Directory

A. Trans-Western Petroleum, LTD

Bill Donovan (Drilling Engineer/Wellsite supervisor consultant) Office 303-794-4838
Cell 720-351-7470

Jack Magill (Drilling Engineer/Wellsite supervisor Consultant) Office 308-848-3279
Cell 303-868-6408

Doug Isern (Operations Manager – Trans-Western Petroleum) Office 303-279-4567
Cell 303-921-5532

B. Emergency Services Phone List

1. Sevier Valley Medical Center - Richfield, UT.....435-893-4100
2. Ambulance Services – Sevier County, UT .....911 or 435-896-6471
3. Sheriff Department - Sevier County, UT.....911 or 435-896-6471
4. Highway Patrol - Utah.....800-222-0038
5. Fire Department - Sevier County .....911 or 435-896-6471
6. Leslie Peterson, BLM – Price, UT (cell phone) 435- 650-9136
7. Utah Division Oil, Gas & Mining - Salt Lake City, UT 801- 538-5277
   The Salt Lake City office number does not always answer. Responsible individual(s) at UDOGM and his/her contact numbers will be listed on approved State permit. A copy of which will be at the rig in the possession of the Drilling Supervisor.
8. Medical Helicopter - Air Med- Salt Lake City, UT .....800 - 453-0120
9. Utah OSHA (Mark LeBlanc) 801- 205-2373
   24 hours 801- 530-6901 or 801- 530-6855

C. Hospital

RECEIVED: December 30, 2014

The regional hospital for Sevier county is Sevier Valley Medical Center (~25 miles) located at 1000 North Main, Richfield, UT. A map and directions to the hospital can be found in Section X-Attachments.

RECEIVED: December 30, 2014

IX. Reference Material for Hydrogen Sulfide and Sulfur Dioxide

If gas should be produced, it could be a mixture of Carbon Dioxide, Hydrogen Sulfide, and Methane.

TOXICITY OF VARIOUS GASES

Common Name	Chemical Formula	Specific Gravity of Air=1	1 Threshold Limit	2 Hazardous Limit	3 Lethal Concern
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Hydrogen Sulfide	H_2S	1.18	10 ppm	250 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21	2 ppm	--------	1,000 ppm
Chloride	CL1	2.45	1 ppm	4 ppm/hr	1,000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1,000 ppm
Carbon Dioxide	CO_2	1.52	5,000 ppm	5%	10%
Methane	CH_4	0.55	90,000 ppm	Combustible Above 5% in Air	-------

1. **Threshold = Concentration at which it is believed that all workers may repeatedly be exposed, day after day, without adverse side effects.**

2. **Hazardous = Concentration that may cause death.**

3. **Lethal = Concentration that will cause death with short-term exposure.**

RECEIVED: December 30, 2014

HYDROGEN SULFIDE

GENERAL PROPERTIES

Hydrogen Sulfide itself is a colorless and transparent gas and is flammable. It is heavier than air and, hence, may accumulate in low places.

Although the slightest presence of H_2S in the air is normally detectable by its characteristic "Rotten Egg"odor, it is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly lost allowing lethal concentrations to be accumulated without warning. The following table indicates the poisonous nature of Hydrogen Sulfide, which is more toxic than Carbon Monoxide.

COMMON NAMES: Sour Gas, Rotten Egg Gas, Sulphurated Hydrogen, Hydrogen sulfide, Stink Damp, H_2S, Acid Gas, Sweet Gas*

PHYSICAL-CHEMICAL PROPERTIES

Chemical Formula..... H_2S

1. Specific Gravity (Air = 1.000)..... 1.193 (@ 77°F)

2. Color ..... None

3. Odor..... Compared to Rotten Eggs

4. Odor Threshold ..... 0.13 part of 1 ppm

5. Corrosivity ..... Reacts with metals, plastics, tissues and nerves.

6. Solubility in Water ..... 4.0 to 1 in H2O @ 32°F
2.6 to 1 in H2O @ 68°F

7. Effects on Humans..... Olfactory nerves, respiratory nerves, irritates sensitive membranes in eyes, nose, and throat.

8. Vapor Pressure ..... 19.6 atmospheres at 25°C

9. Explosive Limits ..... 4.3% to 46% by volume in air.

10. Ignition Temperature……..…….18°F (Burns with a pale blue flame)

11. Molecular Weight……..34.08

12. Conversion Factors…….. 1 mg/1 of air = 717 ppm (at 25°C and 760 mm HG). 1 ppm = 0.00139 mg/1 of air.

13. pH……3 in water

*** H2S is a sweet tasting Gas, but often the word "tasting" is left out.**

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INDUSTRIAL OCCURRENCES

Hydrogen Sulfide exposures occur in certain processes in the petroleum industry, chemical plants, chemical laboratories, sulfur and gypsum mines, viscose rayon and rubber industries, tanneries, and in the manufacture of some chemicals, dyes, and pigments. It may be encountered in excavations in the swampy or filled ground. It is produced when sulfur-containing organic matter decomposes, and it can therefore be found in sewage or organic-waste treatment plants. A common sewer gas, it may find its way into utility manhole, particularly dangerous when encountered in tanks, vessels, and other enclosed spaces.

TOXIC PROPERTIES

Hydrogen Sulfide is an extremely toxic and irritating gas. Free Hydrogen Sulfide in the blood reduces its oxygen carrying capacity, thereby depressing the nervous system. Sufficiently high concentrations can cause blockage of the phrenic nerve, resulting in immediate collapse and death due to respiratory failure and asphyxiation.

Because Hydrogen Sulfide is oxidized quite rapidly to sulfates in the body, no permanent after effects occur in cases of recovery from acute exposures unless oxygen deprivation of the nervous system is prolonged. However, in cases of acute exposures, there is always the possibility that pulmonary edema may develop. It is also reported that symptoms such as nervousness, dry nonproductive coughing, nausea, headache, and insomnia, lasting up to about 3 days have occurred after acute exposures to Hydrogen Sulfide.

At low concentrations the predominant effect of Hydrogen Sulfide is on the eyes and respiratory tract. Eye irritation, conjunctivitis, pain, lacrimation, keratitis, and photophobia may persist for several days. Respiratory tract symptoms include coughing, painful breathing, and pain in the nose and throat.

There is no evidence that repeated exposures to Hydrogen Sulfide results in accumulative or systemic poisoning. Effects such as eye irritation, respiratory tract irritation, slow pulse rate, lassitude, digestive disturbances, and cold sweats may occur, but these symptoms disappear in a relatively short time after removal from the exposure. Repeated exposure to Hydrogen Sulfide does not appear to cause any increase or decrease in susceptibility to this gas.

The paralytic effect of Hydrogen Sulfide on the olfactory nerve is probably the most significant property of the gas. This paralysis may create a false sense of security. A worker can be overcome after the typical rotten-egg odor has disappeared. Rather than the characteristic Hydrogen Sulfide odor, some victims of sudden acute overexposure have reported a brief sickeningly sweet odor just prior to unconsciousness.

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Subjective olfactory responses to various concentrations of Hydrogen Sulfide may be summarized as follows:

0.02 ppm	**No odor**
0.13 ppm	**Minimal perceptible odor**
0.77 ppm	**Faint, but readily perceptible odor**
4.60 ppm	**Easily detectable, moderate odor**
27.0 ppm	**Strong, unpleasant odor, but not intolerable**

Physiological responses to various concentrations of Hydrogen Sulfide have been reported as follows:

10 ppm	**Beginning eye irritation**
50-100 ppm	**Slight conjunctivitis and respiratory tract irritation after 1 hour exposure**
100 ppm	**Coughing, eye irritation, loss of sense of smell after 2-15 minutes. Altered respiration, pain in the eyes, and drowsiness after 15-30 minutes, followed by throat irritation after 1 hour. Several hours[1] exposure results in gradual increase in severity of these symptoms and death may occur within the next 48 hours**
200-300 ppm	**Marked conjunctivitis and respiratory tract irritation after 1 hour exposure**
500-700 ppm	**Loss of consciousness and possibly death in 30 minutes**
700 ppm	**Rapid unconsciousness, cessation of respiration, and death**
1000-2000 ppm	**Unconsciousness at once, with early cessation of respiration and death in a few minutes. Death may occur even if individual is removed to fresh air at once.**

ACCEPTABLE CONCENTRATIONS

ACCEPTABLE EIGHT-HOUR TIME-WEIGHTED AVERAGE

To avoid discomfort, the Time-Weighted average concentration of Hydrogen Sulfide shall not exceed 10 ppm.

ACCEPTABLE CEILING CONCENTRATION

The acceptable concentration for protection of health for an eight-hour, f ive-day week shall be 20 ppm. Fluctuations are to occur below this concentration, not above.

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ACCEPTABLE MAXIMUM FOR PEAKS ABOVE ACCEPTABLE BASE LINE FOR CONTINUOUS EXPOSURE

A single-peak concentration not exceeding 50 ppm for a maximum of 10 minutes is allowable provided that the daily time-weighted average is not exceeded.

H_2S EQUIVALENTS

Parts per Million	Percents	Grains per 100 cu. Ft.
1	0.0001	0.055
10	0.001	0.55
18	0.0018	1.0
100	0.01	5.5
1000	0.1	55.5
10000	1.0	555.5

Grains per 100 cu. Ft. = % by volume Mole 636.4
1% by volume = 10,000 ppm

SULFUR DIOXIDE

Sulfur Dioxide (SO_2) is a colorless, transparent gas and is non-flammable.

Sulfur Dioxide is produced during the burning of H_2S. Although SO_2 is heavier than air, it will be picked up by a breeze and carried downwind at elevated temperatures. While Sulfur Dioxide is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect.

CONCENTRATIONS		EFFECTS
%SO_2	ppm	
0.0002	2	Safe for eight (8) hour exposure
0.0005	5	Pungent odor - normally a person can detect SO_2 in this range.
0.0012	12	Throat irritation, coughing, constriction of the chest, tearing and smarting of the eyes.
0.015	150	So irritating that it can only be endured for a few minutes.
0.05	500	Causes a sense of suffocation, even with the first breath.

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PHYSICAL PROPERTIES AND CHARACTERISTICS

Chemical Formula.....SO_2

1. Specific Gravity 2.212

2. Color .....None

3. Flammable.....No

4. Odor.....Characteristic, pungent, gives ample warning of its presence.

5. Corrosivity .....Dry---not corrosive to ordinary metals. Wet---corrosive to most common metals.

6. Allowable Concentrations.....2 ppm (ACGIH and OSHA)

7. Effects on Humans.....Irritates eyes, throat and upper respiratory system

TOXIC PROPERTIES

Sulfur Dioxide is an irritating gas in its vapor form and the odor is so intensely irritating that concentrations of 3 to 5 parts per million in the air are readily detectable by the normal person. In higher concentrations, the severely irritating effect of the gas makes it unlikely that any person would be able to remain in a Sulfur Dioxide contaminated atmosphere unless they were unconscious or trapped.

Sulfur Dioxide gas is intensely irritating to the eyes, throat, and upper respiratory system. Inhalation of this gas in concentrations of 8 to 12 parts per million in air causes throat irritation, coughing, constriction of the chest, tearing and smarting of the eyes. 150 parts per million is so extremely irritating that it can be endured only for a few minutes. 500 parts per million is so acutely irritating to the upper respiratory tract that it causes a sense of suffocation, even with the first breath.

Out of numerous reported exposures to Sulfur Dioxide, there are few references that would indicate pneumonia as an after effect.

X. Attachments-Maps, Diagrams

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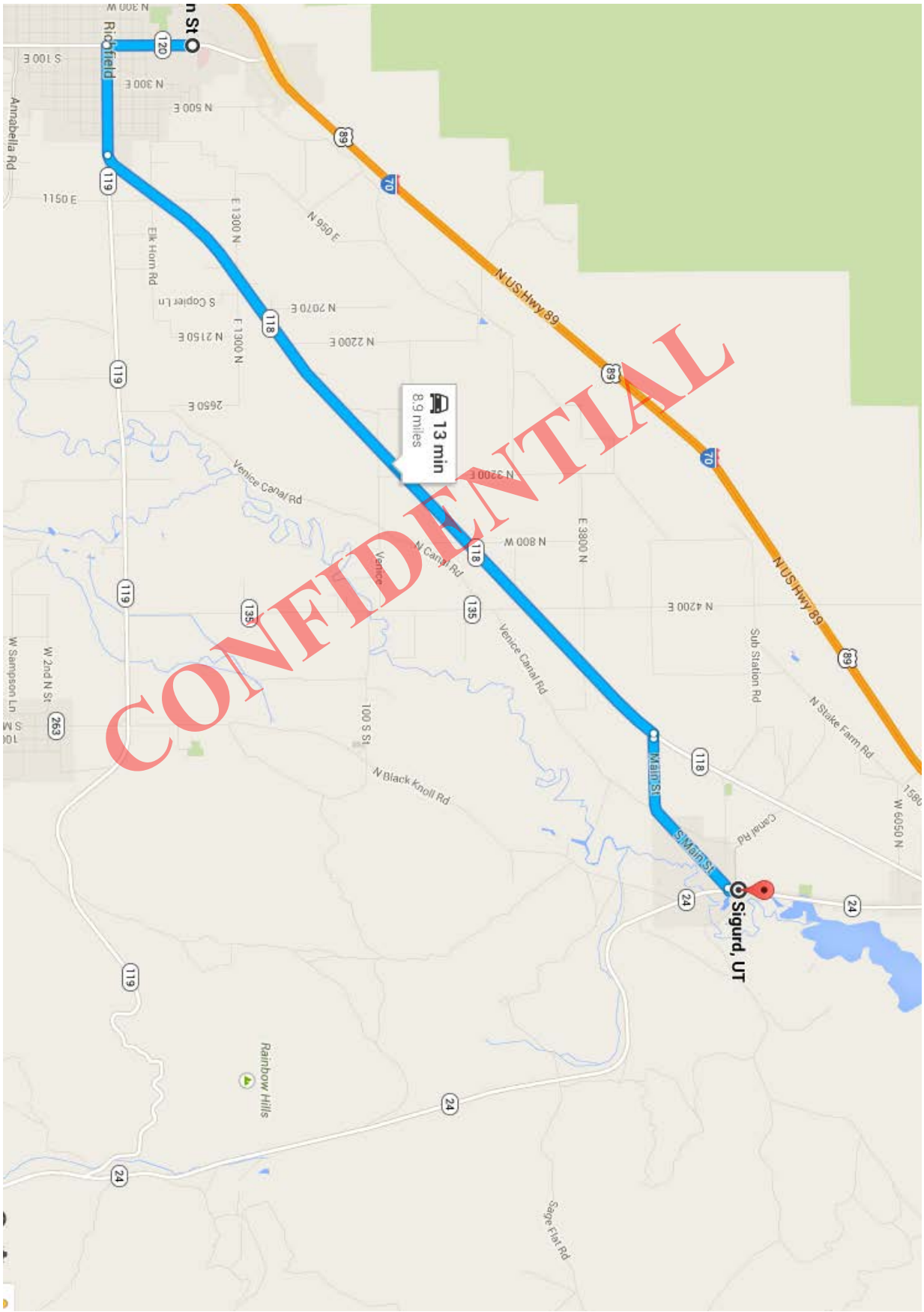

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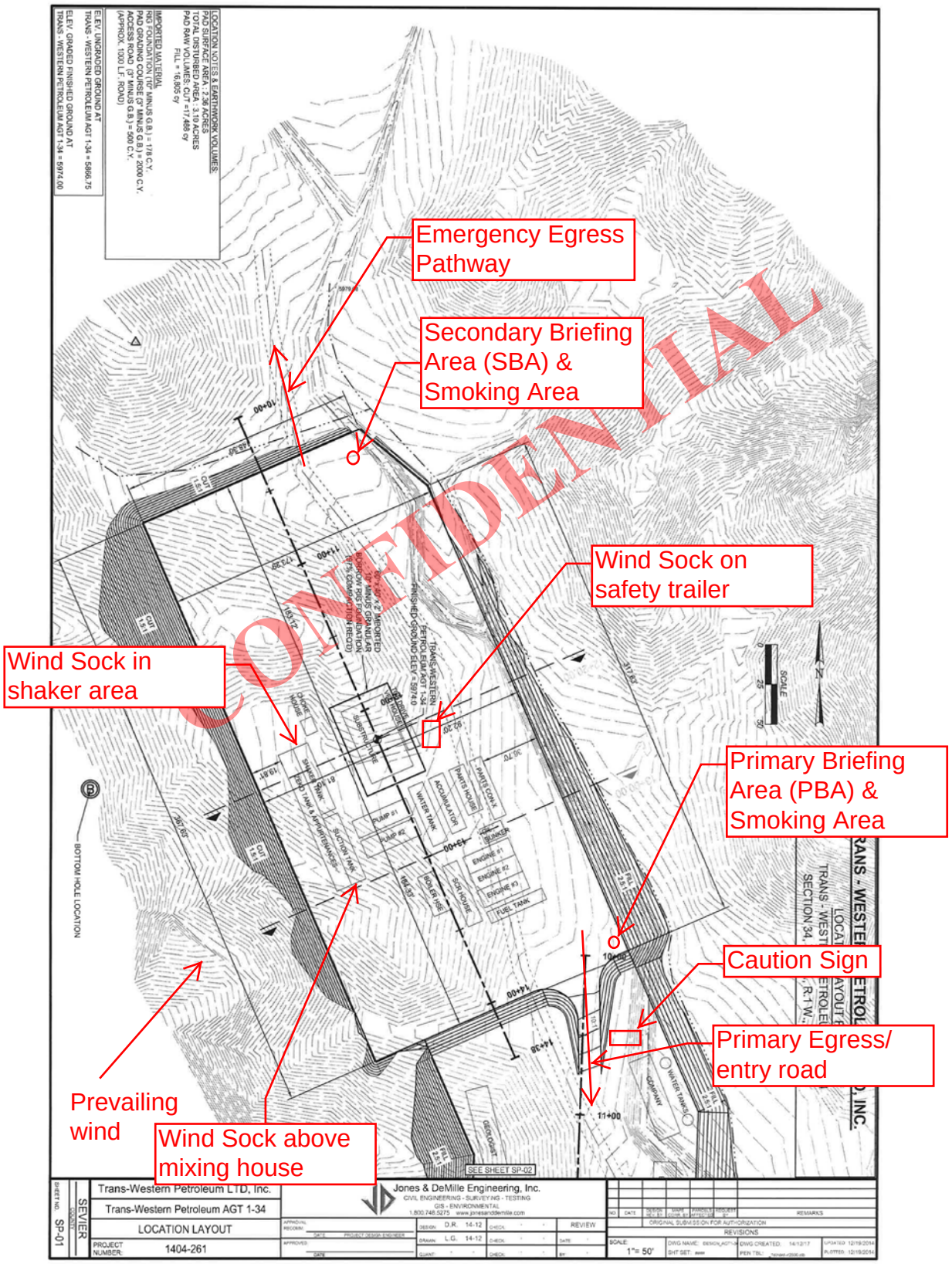

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TRANS - WESTERN PETROLEUM, LTD.

December 22, 2014

Dianna Mason
Permitting – Petroleum Technician
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Re: Application for Permit to Drill
Trans-Western Petroleum, LTD.
Trans-Western Petroleum AGT 1-34
Directional Drilling Letter

Dear Mrs. Mason:

Trans-Western Petroleum, LTD, (Trans-Western) hereby submits this letter with attached plat as part of the Application for Permit to Drill (APD) for the referenced well:

- R649-3-11 Directional Drilling Application Plat showing proposed BHL

The City of Sigurd will be the source for water during drilling and completion operations on this proposed well. The surface at the planned drill site is fee ownership.

This letter and the accompanying plat is intended to serve as an application for directionally drilling the well per R649-3-11. Trans-Western is the owner of all oil and gas within 460 feet from all points along the intended wellbore for the well. Information relating to R649-3-11 is as follows:

1. This letter seeks approval from UDOGM for directionally drilling the well.

1.1 Trans-Western Petroleum, LTD, is the owner of all the oil and gas within a radius of 460 feet from all points along the intended well bore.

1.2 This application for directional drilling is included as part of the initial APD for the proposed well.

2. This application for directional drilling includes the following information:

2.1 The name and address of the operator
Trans-Western Petroleum, LTD
P.O. Box 279
Golden, Colorado 80402

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TRANS - WESTERN PETROLEUM, LTD.

2.2 The lease name, well number, field name, reservoir name and county where the proposed well is located.
Lease name and well number: Trans-Western Petroleum AGT 1-34
Field Name: No name assigned, this is an exploratory well
Reservoir Name: No name assigned, this is a test, primarily, of the Navajo formation
County: Sevier county, Utah

2.3 A plat or sketch: See attached plat.

2.4 The reason for the intentional deviation: The surface topography does not allow the construction of a well pad immediately over the intended BHL. The BHL location was selected by the geophysicist as the point in the Navajo formation most favorable for accumulation of oil.

2.5 Signature:

Consulting engineer for Trans-Western Petroleum, LTD

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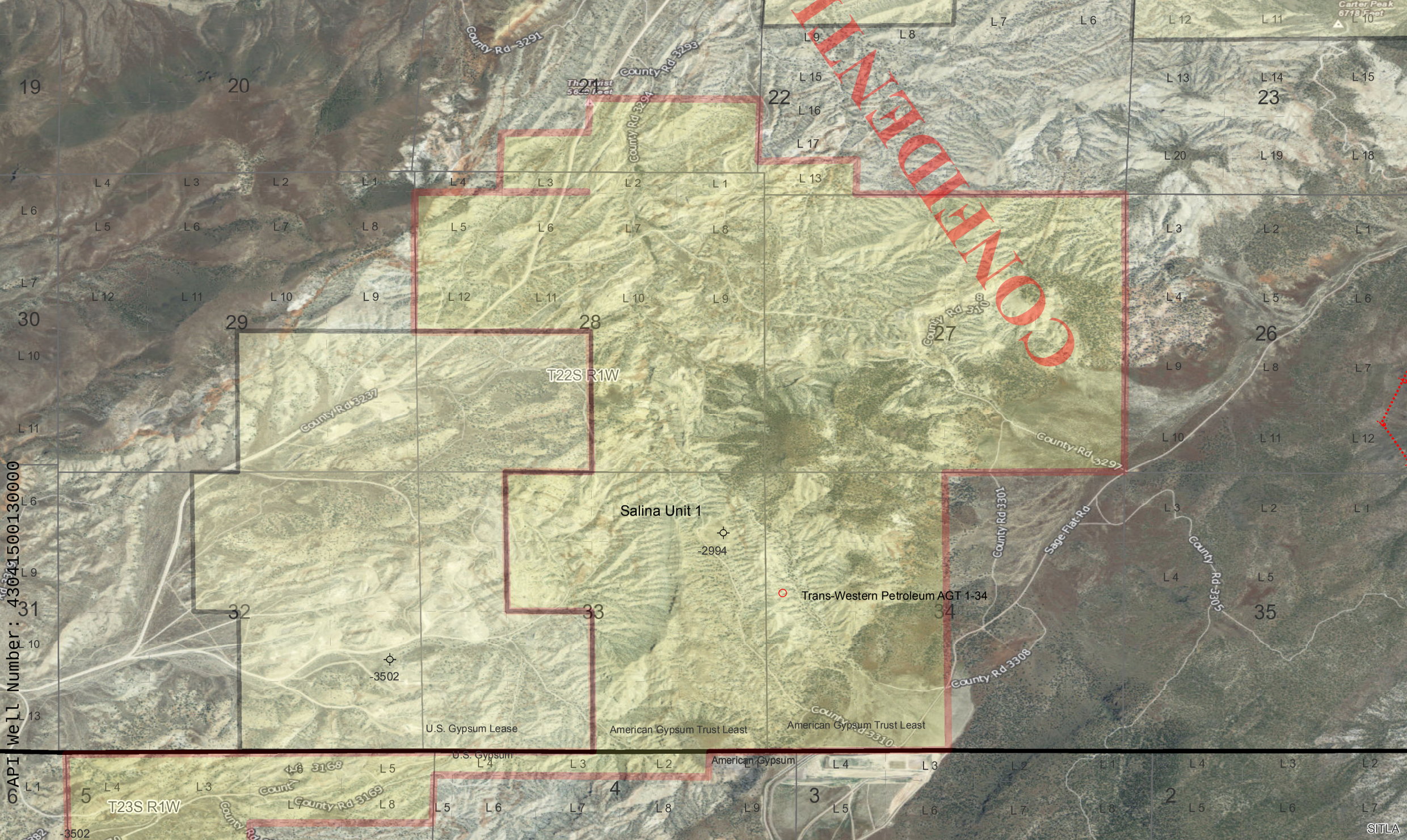

CONFIDENTIAL
API Well Number: 43041500130000
T22S R1W
T23S R1W
Salina Unit 1
Trans-Western Petroleum AGT 1-34
-2994
-3502
-3502
U.S. Gypsum Lease
American Gypsum Trust Least
American Gypsum Trust Least
U.S. Gypsum
American Gypsum
County Rd 3291
County Rd 3293
County Rd 3294
County Rd 3297
County Rd 3301
County Rd 3305
County Rd 3308
County Rd 3310
County Rd 3237
County Rd 3169
Sage Flat Rd
Carter Peak
6719 Feet
SITLA

OIL AND GAS LEASE

THIS LEASE AGREEMENT is made as of the 30 day of June 2011, between Scott C. Jones, Nina Dempsey, Kelly Jones, Vicki Wardrop as Trustees of the American Gypsum Trust, whose post office address is 2889 Cottonwood Drive, Wanship, Utah 84017, as Lessor, and Trans-Western Petroleum, Inc., a Colorado Corporation, whose post-office address is P.O. Box 276, Golden, Colorado, 80402, as Lessee.

1. **Grant of Leased Premises.** In consideration of a cash bonus in hand paid in the amount of **$90,619.20** and the covenants herein contained, Lessor hereby leases and lets to Lessee the following described land, hereinafter called "leased premises" to wit:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

in the County of **Sevier**, State of **Utah**, containing **2,265.48** acres, more or less, for the purpose of exploring for, developing, producing and marketing oil and gas, along with all hydrocarbon and non-hydrocarbon substances produced in association therewith ("Oil and Gas Substances"). The term "gas" as used herein includes helium, carbon dioxide, gaseous sulfur compounds, methane produced from coal formations and other commercial gases, as well as normal hydrocarbon gases. For the purpose of determining the amount of any payments based on acreage hereunder, the number of gross acres specified above shall be deemed correct, whether actually more or less.

Lessor expressly reserves the full enjoyment and use of the leased premises and all rights with respect to the surface and subsurface thereof for any and all purposes except those granted and to the extent granted to Lessee hereby. Without limiting the foregoing, Lessor expressly reserves the right to use the surface and subsurface of the leased land as may be reasonably necessary to explore by any method, to drill and mine for, and to produce, treat, store and/or transport any and all minerals, or portion thereof, from the leased premises not covered by this Lease; to construct canals, roads, ditches, ponds levees, dams, fences, buildings, pipelines, telephone and power lines, and other facilities, structures and improvements in connection with its exploration for and/or production of all minerals not covered by this Lease and to use any canal or road constructed by Lessee hereunder. All of the rights retained by Lessor and the rights granted the Lessee herein shall be exercised in such manner that neither shall unduly interfere with the operations of the other upon the leased premises, including but not limited to, Lessee's exclusive right to continue exploring for, developing, producing and marketing oil and gas, along with all hydrocarbon and non-hydrocarbon substances produced in association therewith near and/or within active mining sites on the premises, if any now existing or later named and/or designated, so long as Lessee's operations are without significant endangerment or interruption of to said mining production.

2. **Ancillary Rights.** The rights granted to Lessee hereunder shall include the right of ingress and egress on the leased premises or lands pooled or unitized therewith, along with such rights as may be reasonably necessary to conduct operations for exploring, developing, producing and marketing Oil and Gas Substances, including but not limited to geophysical operations, the drilling of wells, and the construction and use of roads, canals, pipelines, tanks, water wells, disposal wells, injection wells, pits, electric and telephone lines, power stations, and other facilities deemed necessary by Lessee to explore, discover, produce, store, treat and/or transport Oil and Gas Substances and water produced from the leased premises or other lands that share central facilities and are jointly operated with the leased premises for gathering, treating, compression and water disposal. Lessee may use in such operations, free of cost, any oil, gas, water and/or other substances produced on the leased premises, except water from Lessor's wells, tanks, reservoirs, or ponds and Lessee shall not take water from wells, tanks, ponds, or reservoirs of the landowner. In exploring, developing, producing or marketing from the leased premises or lands pooled or unitized therewith, the ancillary rights granted herein shall apply (a) to the entire leased premises, notwithstanding any partial release or other partial termination of this lease; and (b) to any other lands in which Lessor now or hereafter has authority to grant such rights in the vicinity of the leased premises or lands pooled or unitized therewith.

When requested by Lessor in writing, Lessee shall bury its pipelines below ordinary plow depth. No well shall be located less than 200 feet from any house or barn now on the leased premises or other lands of Lessor used by Lessee hereunder, without Lessor's written consent,

and Lessee shall pay for damage caused by its operations to buildings and other improvements now on the leased premises or such other lands, and to commercial timber and growing crops thereon. Lessee shall have the right at any time to remove its fixtures, equipment and materials, including well casing, from the leased premises or such other lands during the term of this lease or within a reasonable time thereafter.

3. **Term of Lease.** This lease shall be in force for a primary term of **five** (5) years from the date hereof and for as long thereafter as oil or gas or other substances covered hereby are produced in paying quantities from the leased premises or from lands pooled or unitized therewith or this lease is otherwise maintained in effect pursuant to the provisions hereof. If, at the expiration of the primary term of this lease, oil and gas is not being produced, Lessee shall have the option to extend the primary term, as to all or part of the lands covered hereby, for an additional **five** (5) year term commencing on the date that the lease would have expired but for the extension. This option may be exercised during the initial primary term by delivering written notification and bonus payment equal to the original bonus payment, or as otherwise agreed, for the land then covered by the extended lease. In the event Lessee elects to exercise this option and makes the bonus payment provided for above then all terms of this lease shall remain in full force and effect and the primary term of the lease shall be considered to be continuous, commencing on the date of the lease and continuing from that date to the end of the extended term. In the event that the primary term of this lease is extended or is not extended the Lessor shall give written notice to Lessee of the effective date of termination of the lease.

4. **Operations.** If Lessee drills a well which is incapable of producing in paying quantities (hereinafter called "dry hole") on the leased premises or lands pooled or unitized therewith, or if all production (whether or not in paying quantities) permanently ceases from any cause, including a revision of unit boundaries pursuant to the provisions of this lease or the action of any governmental authority, then in the event this lease is not otherwise being maintained in force it shall nevertheless remain in force if Lessee commences further operations for reworking an existing well or for drilling an additional well or for otherwise obtaining or restoring production on the leased premises or lands pooled or unitized therewith within 90 days after completion of operations on such dry hole or within 90 days after such cessation of all production. If after the primary term this lease is not otherwise being maintained in force, but Lessee is then engaged in Operations, as defined below, this lease shall remain in force so long as any one or more of such Operations are prosecuted with no interruption of more than 90 consecutive days and if any such Operations result in the production of Oil and Gas Substances, as long thereafter as there is production in paying quantities from the leased premises or lands pooled or unitized therewith.

After completion of a well capable of producing in paying quantities hereunder, Lessee shall drill such additional wells on the leased premises or lands pooled or unitized therewith as a reasonably prudent operator would drill under the same or similar circumstances to (a) develop the leased premises as to reservoirs then capable of producing in paying quantities on the leased premises or lands pooled or unitized therewith, or (b) protect the leased premises from uncompensated drainage by any well or wells located on other lands not pooled or unitized therewith.

There shall be no covenant to drill exploratory wells or any additional wells except as expressly provided herein. Specifically, Lessee shall cause a test well to be drilled on said leased premises within three (3) years of the date of this lease or the lease shall terminate.

As used herein, the term Operations shall mean any activity conducted on or off the leased premises that is reasonably calculated to obtain or restore production, including without limitation, (i) drilling or any act preparatory to drilling (such as obtaining permits, surveying a drill site, staking a drill site, building roads, clearing a drill site, or hauling equipment or supplies); (ii) reworking, plugging back, deepening, treating, stimulating, refitting, installing any artificial lift or production-enhancement equipment or technique; (iii) constructing facilities related to the production, treatment, transportation and marketing of substances produced from the leased premises or lands pooled or unitized therewith; (iv) contracting for marketing services and sale of Oil and Gas Substances; and (v) construction of water disposal facilities and the physical movement of water produced from the leased premises or lands pooled or unitized therewith

5. **This is a Paid-Up Lease.** In consideration of the non-refundable bonus cash payment, Lessor agrees that Lessee shall not be obligated, except as otherwise provided herein, to commence or continue any operations during the primary term, except, Lessee shall cause a test well to be drilled on said leased premises within three (3) years of the date of this lease or the lease shall terminate. Prior to the expiration of the above described three (3) year term, Lessee may elect to extend the term for an additional one year upon written notice and payment of $20,000.00 to Lessor prior to the end of the above described three year term. Lessee may at any time or times during or after the primary term surrender this lease as to all or any portion of said land and as to any strata or stratum by delivering to Lessor or by filing for record a release or releases, and be relieved of all obligation thereafter accruing as to the acreage surrendered. In the event Lessee surrenders this lease as to all or any portion of said land or any strata or stratum during the primary term or extended term, it forfeits any right to a return to all or part of any bonus cash payments made to Lessor.

6. **Shut-in Royalty.** If after the primary term one or more wells on the leased premises or lands pooled or unitized therewith are capable of producing Oil and Gas Substances in paying quantities, but such well or wells are either shut in or production therefrom is not being sold by Lessee, such well or wells shall nevertheless be deemed to be producing in paying quantities for the purpose of maintaining this lease. If for a period of 90 consecutive days such well or wells are shut in or production therefrom is not sold by Lessee, then Lessee shall pay aggregate shut-in royalty of one dollar per acre per year then covered by this lease. The payment shall be made to Lessor on or before the first anniversary date of the lease following the end of the 90-day period and thereafter on or before each anniversary while the well or wells are shut in or production therefrom is not being sold by Lessee. If such payment or tender is made, it will be considered that gas is being produced within the meaning of this lease.

7. **Royalty Payment**. For all Oil and Gas Substances that are physically produced from the leased premises, or lands pooled, unitized or communitized therewith, Lessor shall receive: (1) **three-sixteenths (3/16)** part of all oil produced and saved from the leased premises, free of cost, in the pipe line or tanks to which Lessee may connect wells on said land; (2) **three-sixteenths 3/16** of the annual gross proceeds received by lessee or, if applicable, its affiliate, agents, and/or assigns, payable quarterly, for the gas from each well where gas only is found, while the same is being used off the premises, and if used in the manufacture of gasoline a royalty of **three sixteenths (3/16)**, payable monthly at the prevailing local market rate for gas; (3) for gas produced from any oil well and used off the premises or in the manufacture of gasoline or any other product a royalty of **three sixteenths (3/16).**

8. **Pooling.** Lessee shall have the right but not the obligation to pool all or any part of the leased premises or interest therein with any other lands or interests, as to any or all depths or zones, and as to any or all Oil and Gas substances covered by this lease, either before or after the commencement of drilling or production, whenever Lessee demonstrates that it is necessary or proper to do so in order to prudently develop or operate the leased premises if similar pooling authority exists with respect to such other lands or interests. The creation of a unit by such pooling shall be based on the following criteria (hereinafter called "pooling criteria"): A unit for an oil well (other than a horizontal completion) shall not exceed 640 acres plus a maximum acreage tolerance of 10%, and for a gas well or a horizontal completion shall not exceed 640 acres plus a maximum acreage tolerance of 10%; provided that a larger unit may be formed for an oil well or gas well or horizontal completion to conform to any well spacing or density pattern that may be prescribed or permitted by any governmental authority having jurisdiction to do so. For the purpose of the foregoing, the terms "oil well" and "gas well" shall have the meanings prescribed by applicable law or the appropriate governmental authority, or, if no definition is so prescribed, "oil well" means a well with an initial gas-oil ratio of less than 100,000 cubic feet per barrel and "gas well" means a well with an initial gas-oil ratio of 100,000 cubic feet or more per barrel, based on a 24-hour production test conducted under normal producing conditions using standard lease separator facilities or equivalent testing equipment; and the term "horizontal completion" means a well in which the horizontal component of the completion interval in the reservoir exceeds the vertical component in such interval. In exercising its pooling rights hereunder, Lessee shall file of record a written declaration describing the unit and stating the effective date of pooling. Production, drilling or reworking operations anywhere on a unit which includes all or any part of the leased premises shall be treated as if it were production, drilling or reworking operations on the leased premises, except that the production on which Lessor's

royalty is calculated shall be that proportion of the total unit production which the net acreage covered by this lease and included in the unit bears to the total acreage in the unit, but only to the extent such proportion of unit production is sold by Lessee. In the event a unit is formed hereunder before the unit well is drilled and completed, so that the applicable pooling criteria are not yet known, the unit shall be based on the pooling criteria Lessee expects in good faith to apply upon completion of the well; provided that within a reasonable time after completion of the well, the unit shall be revised if necessary to conform to the pooling criteria that actually exist. Pooling in one or more instances shall not exhaust Lessee's pooling rights hereunder, and Lessee shall have the recurring right but not the obligation to revise any unit formed hereunder by expansion or contraction or both, either before or after commencement of production, in order to conform to the well spacing or density pattern prescribed or permitted by the governmental authority having jurisdiction, or to conform to any productive acreage determination made by such governmental authority. To revise a unit hereunder, Lessee shall file of record a written declaration describing the revised unit and stating the effective date of revision. To the extent any portion of the leased premises is included in or excluded from the unit by virtue of such revision, the proportion of unit production on which royalties are payable hereunder shall thereafter be adjusted accordingly. In the event that less than all of the premises described above are included in a single pool or drilling unit, this lease shall terminate in all non-producing, non-unitized, and/or non-pooled areas five years after the primary term of this lease. Additionally, Lessor shall be timely notified in writing of any pooling or unitization and/or changes or revisions to pooling and unitization.

9. **Unitization.** Lessee shall have the right but not the obligation to commit all or any part of the leased premises or interest therein to one or more unit plans or agreements for the cooperative development or operation of one or more oil and/or gas reservoirs or portions thereof, if such plan or agreement will prevent waste and protect correlative rights, and if such plan or agreement is approved by the federal, state or local governmental authority having jurisdiction. When such a commitment is made, this lease shall be subject to the terms and conditions of the unit plan or agreement, including any formula prescribed therein for the allocation of production from a unit. Upon permanent cessation thereof, Lessee may terminate the unit by filing of record a written declaration describing the unit and stating the date of termination. Lessor shall be timely notified of any unitization and pooling and/or changes or revisions to pooling and unitization. Pooling or unitization hereunder shall not constitute a cross-conveyance of interests.

10. **Payment Reductions.** If Lessor owns less than the full mineral estate in all or any part of the leased premises, payment of royalties and shut-in royalties hereunder shall be reduced as follows: royalties and shut-in royalties for any well on any part of the leased premises or lands pooled or unitized therewith shall be reduced to the proportion that Lessor's interest in such part of the leased premises bears to the full mineral estate in such part of the leased premises. To the extent any royalty or other payment attributable to the mineral estate covered by this lease is payable to someone other than Lessor, such royalty or other payment shall be deducted from the corresponding amount otherwise payable to Lessor hereunder.

11. **Ownership Changes.** The interest of either Lessor or Lessee hereunder may be assigned, devised or otherwise transferred in whole or in part, by area and/or by depth or zone, and the rights and obligations of the parties hereunder shall extend to their respective heirs, devisees, executors, administrators, successors and assigns. No change in Lessor's ownership shall have the effect of reducing the rights or enlarging the obligations of Lessee hereunder, and no change in ownership shall be binding on Lessee until 60 days after Lessee has been furnished the original or duly authenticated copies of the documents establishing such change of ownership to the satisfaction of Lessee or until Lessor has satisfied the notification requirements contained in Lessee's usual form of division order. In the event of the death of any person entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to the credit of decedent or decedent's estate. If at any time two or more persons are entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to such persons either jointly or separately in proportion to the interest which each owns. If Lessee transfers its interest hereunder in whole or in part Lessee shall be relieved of all obligations thereafter arising with respect to the transferred interest, and failure of the transferee to satisfy such obligations with respect to the transferred interest shall not affect the rights of Lessee with respect to any interest not so transferred. If Lessee transfers a full or undivided interest in all or any portion of the area covered by this lease,

the obligation to pay or tender shut-in royalties hereunder shall be divided between Lessee and the transferee in proportion to the net acreage interest in this lease then held by each.

12. **Release of Lease.** Lessee may, at any time, deliver to Lessor or file of record a written release of this lease as to a full or undivided interest in all or any portion of the area covered by this lease or any depths or zones thereunder, and shall thereupon be relieved of all obligations thereafter arising with respect to the interest so released. If Lessee releases less than all of the interest or area covered hereby, Lessee's obligation to pay or tender shut-in royalties shall be proportionately reduced in accordance with the net acreage interest retained hereunder. Written notice of Lessee's release of this lease as to a full or undivided interest shall be promptly and timely given to Lessor.

13. **Regulation and Delay.** Lessee's obligations under this lease, whether express or implied, shall be subject to all applicable laws, rules, regulations and orders of any governmental authority having jurisdiction, including restrictions on the drilling and production of wells, and regulation of the price or transportation of oil, gas and other substances covered hereby. When drilling, reworking, production or other operations are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or by any other cause not reasonably within Lessee's control, this lease shall not terminate because of such prevention or delay, and, at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable for breach of any provisions or implied covenants of this lease when drilling, production or other operations are prevented or delayed by other cause not reasonably within Lessee's control as described above unless determined to be the result and/or cause of Lessee's failure to comply with the lease provisions or implied covenants of this lease and/or all applicable laws, rules, regulations and orders of any governmental authority having jurisdiction including restrictions on the drilling and production of wells, and regulation of the price or transportation of oil, gas and other substances covered hereby.

14. **Notice and Demand Clause.** If Lessor considers that the express or implied covenants of this lease are not at any time being complied with, Lessor shall notify Lessee in writing of the facts relied upon as constituting a breach of any express or implied covenants or obligations of Lessee hereunder and Lessee, if in default, shall have sixty (60) days after receipt of such notice in which to commence compliance with its obligations hereunder. Failure on the part of the Lessee to commence efforts to rectify any such breach and/or to exercise diligence to remedy any such breach shall cause this lease to terminate; provided that if the Lessee, in good faith, disputes any alleged grounds of breach set forth in such notice, Lessee may within the 60-day period, file suit questioning whether it has in fact breached the express or implied covenants of this lease, thereby staying any forfeiture during the pendency of such action. Lessor shall have the right to inspect all books and records of the Lessee related to and/or concerning this lease and/or Operations hereunder, to verify the compliance with the lease including but not limited to royalty payments.

15. **Breach or Default.** No litigation shall be initiated by Lessor for damages, forfeiture or cancellation with respect to any breach or default by Lessee hereunder for a period of at least 60 days after Lessor has given Lessee written notice fully describing the breach or default, and then only if Lessee fails to commence substantial efforts, in good faith, to remedy the breach or default within such period. In the event the matter is litigated and there is a final judicial determination that a breach or default has occurred, this lease shall be forfeited or cancelled in whole or in part unless otherwise agreed.

16. **Warranty of Title.** Lessor hereby warrants and agrees to defend title conveyed to Lessee hereunder, and agrees that Lessee at Lessee's option may pay and discharge any taxes, mortgages or liens existing, levied or assessed on or against the leased premises in the event of default of payment by Lessor. If Lessee exercises such option, Lessee shall be subrogated to the rights of the party to whom payment is made, and, in addition to its other rights, may reimburse itself out of any royalties or shut-in royalties otherwise payable to Lessor hereunder. In the event Lessee is made aware of any claim inconsistent with Lessor's title, Lessee may suspend the

payment of royalties and shut-in royalties hereunder, without interest, until Lessee has been furnished satisfactory evidence that such claim has been resolved.

17. **Indemnity.** Lessee will indemnify and hold Lessor, its trustees, officers, directors, employees, agents, successors and assigns (hereafter collectively referred to as "Indemnified Parties") harmless from any and all claims, demands, suits, losses, damages, and costs (including, without limitation, any attorney fees) incurred by the Indemnified Parties which may be asserted against the Indemnified Parties by reason of or which may arise out of or which may be related to Lessee's activities on the leased premises (including, without limitation, any claims by any owners or lessees of minerals other than the minerals intended to be covered by this lease that Lessee's operations hereunder are either illegal, unauthorized, or constitute an improper interference with their rights).

IN WITNESS WHEREOF, this lease is executed to be effective as of the date first written above, but upon execution shall be binding on the signatory and the signatory's heirs, devisees, executors, administrators, successors and assigns, whether or not this lease has been executed by all parties hereinabove named as Lessor.

FOR AMERICAN GYPSUM TRUST

Scott C. Jones, Trustee

Nina Dempsey, Trustee

Kelly Jones, Trustee

Vicki Wardrop, Trustee

FOR TRANS-WESTERN PETROLEUM, INC.

Printed Name: _____

Its: _____

ACKNOWLEDGEMENTS

STATE OF Utah)
) SS.
County of Salt Lake)

On this 10 day of June, 20 11, before me, the undersigned Notary Public in and for said county and state, personally appeared Scott C. Jones known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires 10/15/12

Notary Public

NOTARY PUBLIC
JERROLD LANCE CULP
Commission # 576494
My Commission Expires
October 15, 2012
STATE OF UTAH

STATE OF Utah)
) SS.
County of Salt Lake)

On this 15th day of June, 2011, before me, the undersigned Notary Public in and for said county and state, personally appeared Nina Dempsey known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires 9-26-12 Alice F Beaumont
Notary Public

Notary Public
ALICE F. BEAUMONT
Commission #575655
My Commission Expires
September 26, 2012
State of Utah

STATE OF UTAH)
) SS.
County of Salt Lake)

On this 13th day of June, 2011, before me, the undersigned Notary Public in and for said county and state, personally appeared Kelly Jones known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires 07/17/11
Notary Public

NOTARY PUBLIC
ROBYN L KEIL
569787
My Commission Expires
July 17, 2011
STATE OF UTAH

STATE OF UTAH)
) SS.
County of WASHINGTON)

On this 18 day of JUNE, 2011, before me, the undersigned Notary Public in and for said county and state, personally appeared VICKI WARDROP known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires 04/24/2015
Notary Public

NOTARY PUBLIC
MARY HUNT
608943
COMMISSION EXPIRES
APRIL 24, 2015
STATE OF UTAH

STATE OF _____)
) SS.
County of _____)

On this ____ day of _____, 20____, before me, the undersigned Notary Public in and for said county and state, personally appeared _____ known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

My Commission Expires _____
Notary Public

RECORDING INFORMATION

STATE OF _____)
) SS.
County of _____)

This instrument was filed for record on the _ day of _____, 20____, at ____ o'clock __M., and duly recorded in Book, Page __, of the _____ records of this office.

By _____
Clerk (or Deputy)

EXHIBIT "A"

PARCEL 1: Keene #21 Placer Mining Claim, amended Sigurd Quarry #24 Placer Mining Claim and Pancoast #4 Placer Mining Claim, comprising the South Half of the Southwest Quarter of the Southeast Quarter (S ½ SW ¼ SE ¼), and the South Half of the Southeast Quarter of the Southeast Quarter (S ½ SE ¼ SE ¼) of Section 28, and the Northeast Quarter (NE ¼) of Section 33, All in Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent #1128755 issued April 19, 1950, and containing 200 acres of land, more or less.

PARCEL 2: Keene #2 Placer Mining Claim, (also known as Keene #2), comprising Lots 5, 6, 11 and 12 of Section 28, Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent #1128083, issued January 30, 1950, and containing 160 acres of land, more or less.

PARCEL 3: Keene #'s 22 to 25 inclusive Placer Mining Claims, amended to include Keene #'s 53 to 60, inclusive, and Sigurd Quarry #'s 23 and 43, comprising Lots 7, 8, 9, and 10 and the North Half of the South Half of the Southeast Quarter (N ½ S ½ SE ¼), and the North Half of the Southeast Quarter (N ½ SE ¼) of Section 28, Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent #1128764 issued April 20, 1950, and containing 280 acres of land, more or less.

PARCEL 4: Pancoast #'s 1 and 3, and the West Half (W ½) of Pancoast #2 Placer Mining Claims, comprising the Northeast Quarter (NE ¼) the West Half of the Southeast Quarter (W ½ SE ¼), and the Southwest Quarter (SW ¼) of Section 27, Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent #1128084, issued January 30, 1950, and containing 400 acres of land, more or less.

PARCEL 5: Mammoth Gypsum Placer Mining Claims (also known as the East Half (E ½) of Jumbo Gypsum #23 Placer Mining Claim) comprising the East Half of the Northwest Quarter (E ½ NW ¼) of Section 33, Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent #1128085 issued on January 30, 1950, and containing 80 acres or land, more or less.

PARCEL 6: Pancoast #'s 5, 6, and 7 Consolidated Placer Mining Claims, comprising the Southeast Quarter (SE ¼) of Section 33, and the Southwest Quarter (SW ¼), and the Northwest Quarter (NW ¼) of Section 34, Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent #1160422, dated June 7, 1956, and containing 480 acres, more or less.

PARCEL 7: Sigurd Quarry #s 9, 13, 14, 15, 16, 17, 18 and 19, and Keene #64 (Amended) comprising Lot 13 of Section 22, and the Northwest Quarter (NW ¼) of Section 27, Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent #1161546, dated July 12, 1956, and containing 180 acres, more or less.

PARCEL 8: Sigurd Quarry #'s 6, 7, 8, 10, 11, 12, 31 and 32 Consolidated Placer Mining Claims, comprising the South Half of the Southeast Quarter of the Southwest Quarter (S ½ SE ¼ SW ¼); and the South Half of the Southeast Quarter (S ½ SE ¼) of Section 21, and Lots 1, 2 and 3 of Section 28, Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent #1160730, dated June 19, 1956, and containing 137.77 acres, more or less.

PARCEL 9: The East Half (E ½) of Pancoast #2 Placer Mining Claim, comprising the E ½ SE ½ of Section 27, Township 22 South, Range 1 West, Salt Lake Meridian, as described in United States Patent No. 1128084, issued January 30, 1950, and containing 80 acres of land, more or less.

PARCEL 10: Township 23 South, Range 1 West, Salt Lake Meridian

Section 5: Lot 7 (Sigurd Quarry #43 Placer Mining Claim), as described in United States Patent #1160983, dated June 25, 1956, and containing 20.68 acres, more or less.

Section 5: Bickel #1 Placer Mining Claim, comprising of Lots 3 and 4, and S ½ NW ¼, as described in United States Patent #1128082, dated January 13, 1950, and containing 161.55 acres, more or less.

Sections 4 and 5: Sigurd Quarry #'s 34, 35, 36, 37 and 38 Placer Mining Claims, comprising of Lots 2, 3, 4 of Section 4 and Lots 5 and 6 of Section 5, as described in United States Patent #1160421, dated June 7, 1956, and containing 85.48 acres, more or less

Containing in all 2,265.48 acres, more or less.

API Well Number: 43041500130000

Trans-Western Petroleum

PATHFINDER
A Schlumberger Company

Borehole:	Well:	Field:	Structure:
Original Hole / Rev 0	AGT 1-34	UT, Sevier County	Sec 34-T22S-R01W / SST 54

Gravity & Magnetic Parameters					Surface Location	NAD83 Utah State Plane, Central Zone, US Feet				Miscellaneous			
Model:	BGGM 2014	Dip:	64.366°	Date:	18-Dec-2014	Lat:	N 38 50 51.08	Northing:	6749219.4ftUS	Grid Conv:	-0.2591°	Slot:	AGT 1-34	TVD Ref:	RKB 22ft @ 5996ft / GL 5974ft above MSL
MagDec:	11.505°	FS:	50863.775nT	Gravity FS:	998.782mgn (9.80665 Based)	Lon:	W 111 54 16.13	Easting:	1525209.58ftUS	Scale Fact:	1.00004603	Plan:	AGT 1-34 Rev0 KW 18Dec2014		

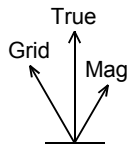
Surface Location

Northing: 6749219.402 Easting: 1525209.579 Latitude: N 38 50 51.08 Longitude: W 111 54 16.13 VSec Azimuth: 261.037

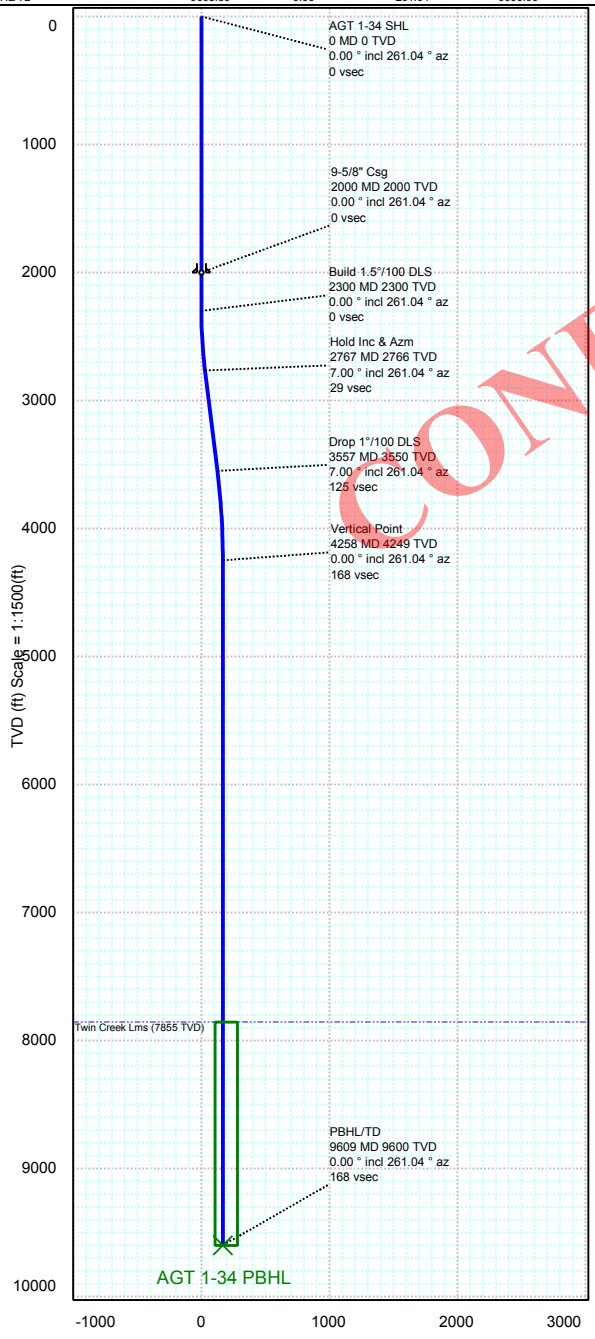
Target Description	Grid Coord						Local Coord	
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
AGT 1-34 Sec.34-T22S-R01W	N 38 50 51.08	W 111 54 16.13	6749219.40	1525209.58	5996.00	0.00	0.00	0.00
AGT 1-34 Drillers Tgt Window	N 38 50 50.83	W 111 54 18.22	6749194.03	1525043.86	7855.00	167.65	-26.12	-165.60
AGT 1-34 PBHL	N 38 50 50.83	W 111 54 18.22	6749194.03	1525043.86	9600.00	167.64	-26.12	-165.60

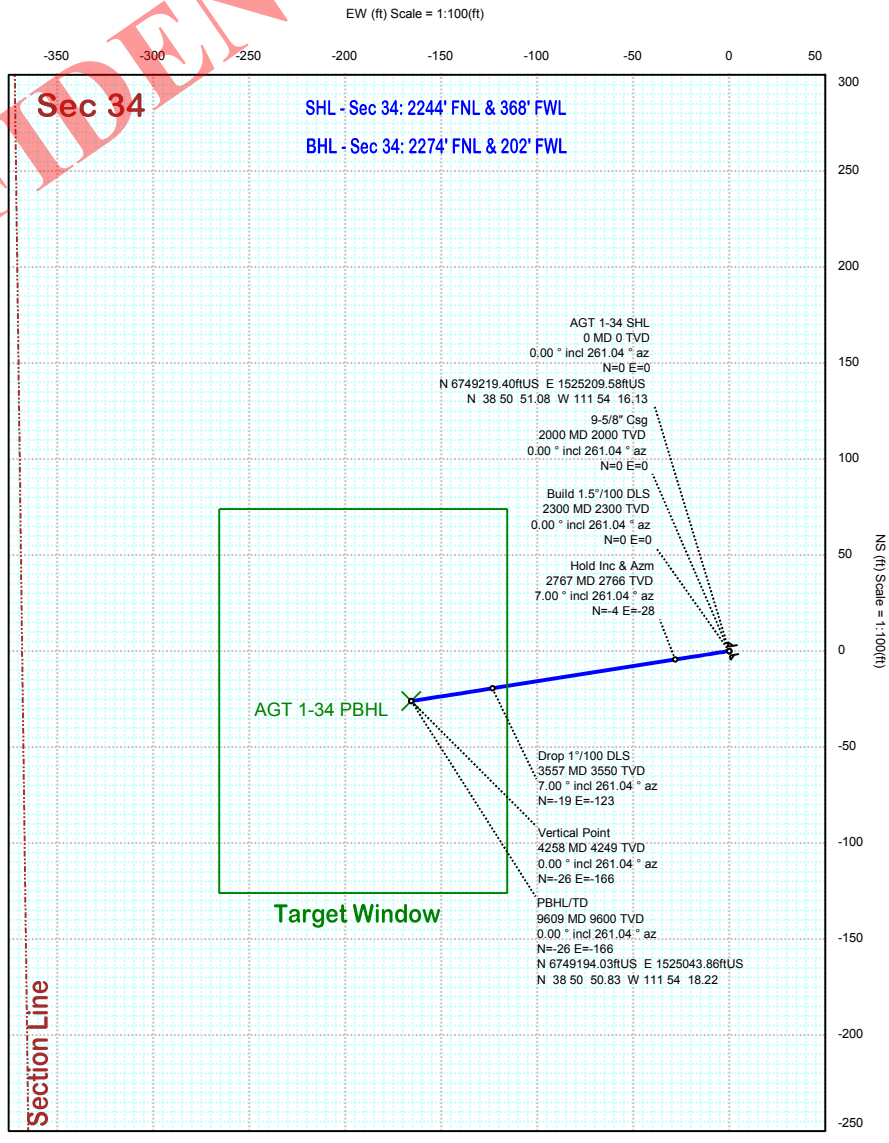
Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
AGT 1-34 SHL	0.00	0.00	261.04	0.00	0.00	0.00	0.00	
9-5/8" Csg	2000.00	0.00	261.04	2000.00	0.00	0.00	0.00	0.00
Build 1.5°/100 DLS	2300.00	0.00	261.04	2300.00	0.00	0.00	0.00	0.00
Hold Inc & Azm	2766.91	7.00	261.04	2765.74	28.50	-4.44	-28.15	1.50
Drop 1°/100 DLS	3557.44	7.00	261.04	3550.38	124.89	-19.46	-123.37	0.00
Vertical Point	4257.80	0.00	261.04	4249.00	167.64	-26.12	-165.60	1.00
Twin Creek Lms	7863.80	0.00	261.04	7855.00	167.64	-26.12	-165.60	0.00
Spike BB	8155.80	0.00	261.04	8147.00	167.64	-26.12	-165.60	0.00
Spike AA	8191.80	0.00	261.04	8183.00	167.64	-26.12	-165.60	0.00
Shale Break - White Throne (UN)	8237.80	0.00	261.04	8229.00	167.64	-26.12	-165.60	0.00
White Throne (Upper Navajo)	8252.80	0.00	261.04	8244.00	167.64	-26.12	-165.60	0.00
Shale Break (TN)	8481.80	0.00	261.04	8473.00	167.64	-26.12	-165.60	0.00
Navajo	8508.80	0.00	261.04	8500.00	167.64	-26.12	-165.60	0.00
Navajo + 300ft	8808.80	0.00	261.04	8800.00	167.64	-26.12	-165.60	0.00
PBHL/TD	9608.80	0.00	261.04	9600.00	167.64	-26.12	-165.60	0.00



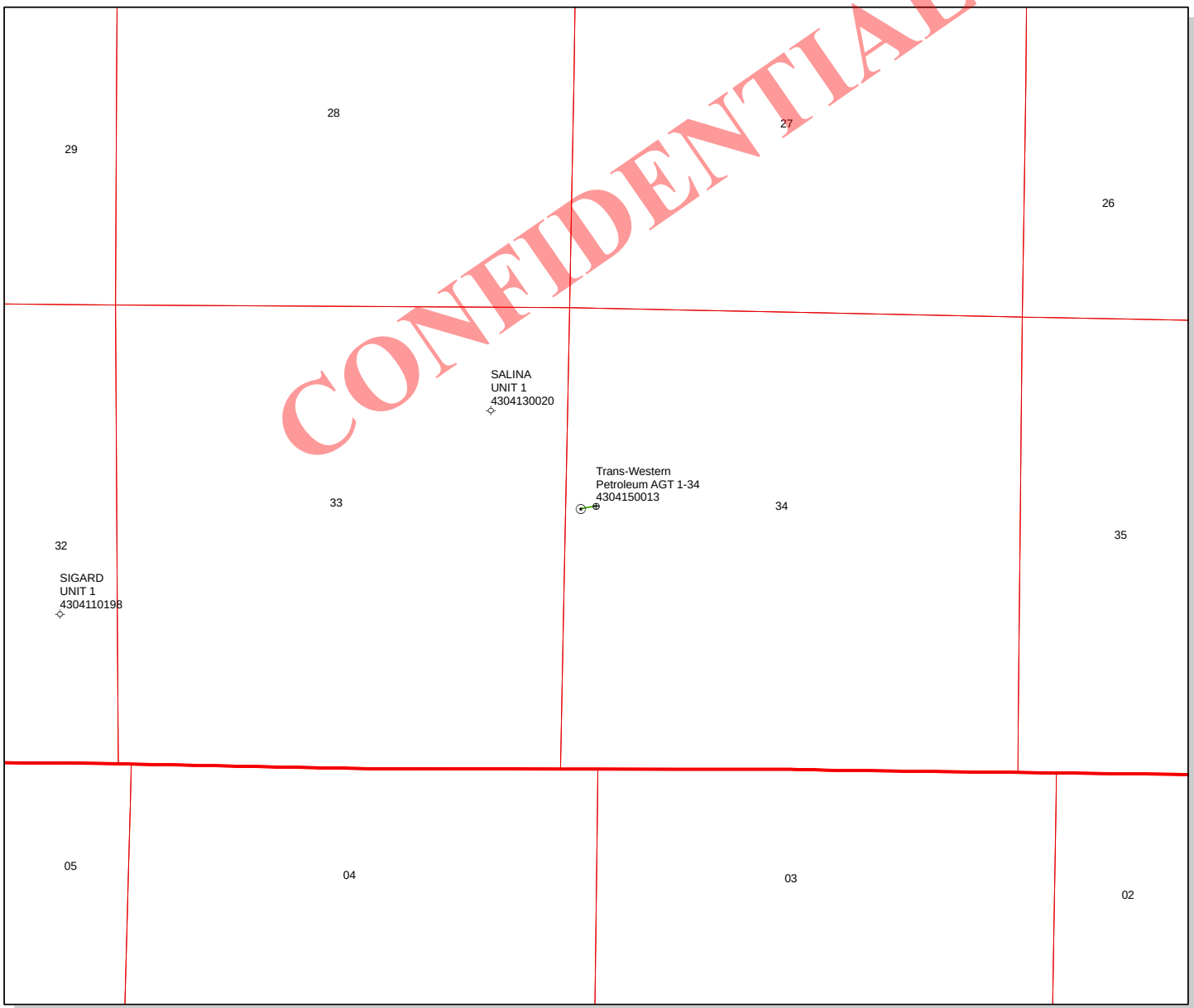
True North
Tot Corr (M->T 11.505°)
Mag Dec (11.505°)
Grid Conv (-0.259°)





Vertical Section (ft) Azim = 261.04° Scale = 1:1500(ft) Origin = 0N/-S, 0E/-W

API Well Number: 43041500130000



API Number: 4304150013

Well Name: Trans-Western Petroleum AGT 1-34

Township: T22.0S Range: R01.0W Section: 34 Meridian: S

Operator: TRANS-WESTERN PETROLEUM, LTD., INC.

Map Prepared: 1/8/2015
Map Produced by Diana Mason

Wells Query

Status

- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

Units

STATUS

- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS

- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED

1,400 700 0 1,400 Feet

1:14,212

RECEIVED: January 08, 2015

API Well Number: 43041500130000

BOPE REVIEW **TRANS-WESTERN PETROLEUM, LTD., INC. estern Petroleum AGT 1-34 43041500130000**

Well Name	TRANS-WESTERN PETROLEUM, LTD., INC. Trans-Western Petroleum			
String	SURF	PROD		
Casing Size(")	9.625	5.500		
Setting Depth (TVD)	2000	9600		
Previous Shoe Setting Depth (TVD)	105	2000		
Max Mud Weight (ppg)	9.0	10.5		
BOPE Proposed (psi)	1000	3000		
Casing Internal Yield (psi)	3520	7740		
Operators Max Anticipated Pressure (psi)	5236	10.5		

Calculations	**SURF String**	**9.625**	"	
Max BHP (psi)	.052*Setting Depth*MW=	936		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	696	YES	rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	496	YES	OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	519	NO	OK
Required Casing/BOPE Test Pressure=		2000	psi	
***Max Pressure Allowed @ Previous Casing Shoe=**		105	psi	*Assumes 1psi/ft frac gradient

Calculations	**PROD String**	**5.500**	"	
Max BHP (psi)	.052*Setting Depth*MW=	5242		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4090	NO	3M BOP, dbl ram, annular preventer, drilling spool,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3130	NO	choke & kill lines
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3570	NO	limited by surface set depth
Required Casing/BOPE Test Pressure=		3000	psi	
***Max Pressure Allowed @ Previous Casing Shoe=**		2000	psi	*Assumes 1psi/ft frac gradient

Calculations	**String**		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
***Max Pressure Allowed @ Previous Casing Shoe=**			psi	*Assumes 1psi/ft frac gradient

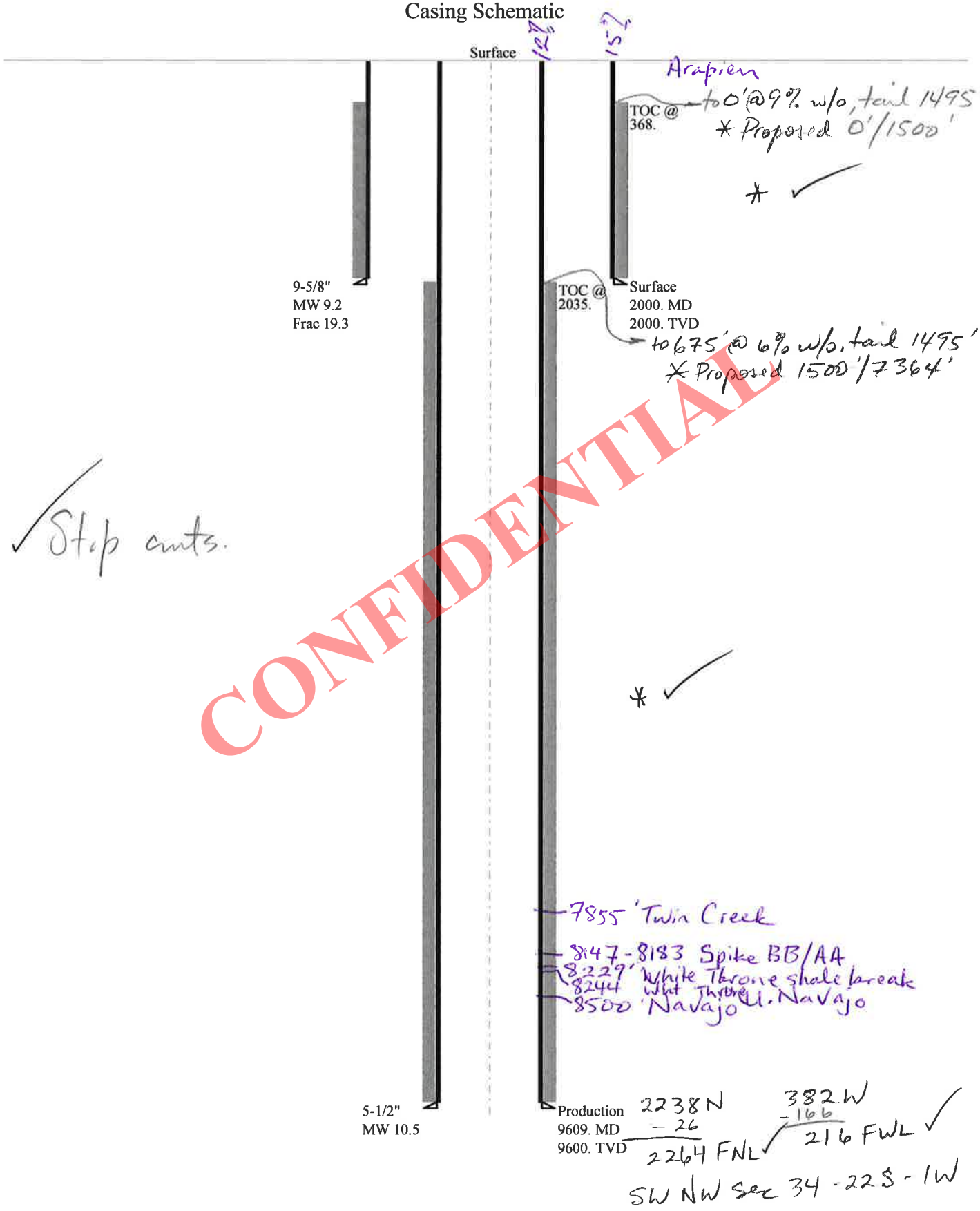
Calculations	**String**		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
***Max Pressure Allowed @ Previous Casing Shoe=**			psi	*Assumes 1psi/ft frac gradient

RECEIVED: January 28, 2015

API Well Number: 43041500130000

43041500130000 Trans-Western Petroleum AGT 1-34

Casing Schematic



API Well Number: 43041500130000

Well name:	**43041500130000 Trans-Western Petroleum AGT 1-34**
Operator:	**TRANS-WESTERN PETROLEUM, LTD., INC**
String type:	Surface
Project ID:	43-041-50013
Location:	SEVIER COUNTY

Design parameters:

Collapse
Mud weight: 9.200 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,760 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,000 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 1,728 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 102 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 368 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 9,600 ft
Next mud weight: 10.500 ppg
Next setting BHP: 5,236 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,000 ft
Injection pressure: 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2000	9.625	36.00	J-55	LT&C	2000	2000	8.796	16355

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	956	2020	2.113	2000	3520	1.76	62.2	453	7.28 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: January 26,2015
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2000 ft, a mud weight of 9.2 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

API Well Number: 43041500130000

Well name:	**43041500130000 Trans-Western Petroleum AGT 1-34**
Operator:	**TRANS-WESTERN PETROLEUM, LTD., INC**
String type:	Production
Project ID:	43-041-50013
Location:	SEVIER COUNTY

Design parameters:

Collapse
Mud weight: 10.500 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 3,124 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,236 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 8,080 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 208 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 2,035 ft

Directional Info - Build & Drop
Kick-off point 2300 ft
Departure at shoe: 168 ft
Maximum dogleg: 1.5 °/100ft
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	9609	5.5	17.00	L-80	LT&C	9600	9609	4.767	60883

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5236	6290	1.201	5236	7740	1.48	163.2	338	2.07 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: January 26,2015
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 9600 ft, a mud weight of 10.5 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator TRANS-WESTERN PETROLEUM, LTD., INC.
Well Name Trans-Western Petroleum AGT 1-34
API Number 43041500130000 **APD No** 10931 **Field/Unit** WILDCAT
Location: 1/4,1/4 SWNW **Sec** 34 **Tw** 22.0S **Rng** 1.0W 2238 FNL 382 FWL
GPS Coord (UTM) 421499 4300288 **Surface Owner** American Gypsum Trust

Participants

Ammon McDonald(DOGM), Doug Isern(Trans-Western), Scott Jones(surface/mineral owner), Darin Robinson(surveyor).

Regional/Local Setting & Topography

The proposed location is in foothills on the eastern edge of the Sevier Valley, near Sage Flat, within the overthrust belt of central Utah. This valley sits between the Pavant Range to the west and the Wasatch Plateau to the east. The location is currently part of the inactive Georgia Pacific gypsum mine; the surrounding area is used for grazing and the Sevier County landfill. Interstate-80 is approximately 5 miles to the west and the Sevier River is approximately 3 miles west. The area of the proposed pad is in steep topography and will need to been graded basically flat to accommodate drilling activities. Proposed location is approximately 3.5 miles east of the town of Sigurd. Altitude of the site is approximately 5,975' above sea-level.

Surface Use Plan

Current Surface Use
Grazing
Mining

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	**Width** 50 **Length** 680	Onsite	ARAS

Ancillary Facilities N

None, with the exception of trailers to be on location during drilling operations. Future plans for operational facilities to be built at a later date, dependent upon he success or failure of the well.

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Flora - sagebrush, juniper, and pinions.

Fauna - coyote, rabbit, lizards, & snakes.

Soil Type and Characteristics

Semi-arid desert with shallow gypsum soil derived from the erosion of the Arapien Shale.

Erosion Issues Y

RECEIVED: February 02, 2015

Flashflood storm events possible, use stormwater diversions to prevent pad erosion.

Sedimentation Issues

Site Stability Issues Y

Cut and fill required for pad construction due to steep topography. Adequate compaction methods should be used during construction.

Drainage Diverson Required? Y

Divert all drainages around pad to prevent storm event flooding and erosion.

Berm Required? Y

Berm location to prevent fluids from entering and/or leaving location.

Erosion Sedimentation Control Required? Y

Stormwater diversions.

Paleo Survey Run? N **Paleo Potental Observed?** Y **Cultural Survey Run?** N **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)	>1320	0	
Native Soil Type	Low permeability	0	
Fluid Type	Fresh Water	5	
Drill Cuttings	Salt or Detrimental	10	
Annual Precipitation (inches)	10 to 20	5	
Affected Populations	>50	>50	
Presence Nearby Utility Conduits	Unknown	10	
	Final Score	45	1 Sensitivity Level

Characteristics / Requirements

N?A, closed-loop drilling program to be used.

Closed Loop Mud Required? Y **Liner Required?** **Liner Thickness** **Pit Underlayment Required?**

Other Observations / Comments

Fresh water source will be purchased from the City of Salina. Access to the site will be from State Route #24 to Sage Flat Road, designed and constructed by Sevier County. Road improvements will be done prior to drilling. Sevier County has yet to issue the required conditional use permits for drilling activities. There are no water wells within 1 mile of the proposed well location. The Sevier River is located approximately 3 miles to the west. There is one P&A well, API #4304130020, within one mile of the proposed well location. The town of Sigurd is five miles west of the site. Photos are located in the well file.

RECEIVED: February 02, 2015

Ammon McDonald	1/26/2015
Evaluator	**Date / Time**

RECEIVED: February 02, 2015

Application for Permit to Drill
Statement of Basis
Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
10931	43041500130000	LOCKED	OW	P	No
Operator	TRANS-WESTERN PETROLEUM, LTD., INC.		**Surface Owner-APD**	American Gypsum Trust	
Well Name	Trans-Western Petroleum AGT 1-34		**Unit**		
Field	WILDCAT		**Type of Work**	DRILL	
Location	SWNW 34 22S 1W S 2238 FNL 382 FWL GPS Coord (UTM) 421512E 4300224N				

Geologic Statement of Basis

This location is in the High Plateaus section of the Colorado Plateau in west-central Utah. This area is characterized as being within the Basin & Range-Colorado Plateau physiographic transition zone. The proposed location is on fee mineral and fee surface a few miles east of the Sevier River. The well will be spud in the evaporite-rich Jurassic age Arapien Shale. The Trans-Western Petroleum proposes to use LSND fresh water mud while drilling the surface casing from 0'-2,000'. Any water contained within the Arapien Shale is likely to be of poor quality, due to the high TDS from the large quantities of gypsum and halite present in the shale. Within a mile of the proposed well location no underground water rights are on file. No documented USDW are present in the area from the Arapien Shale, Twin Creek Limestone, or Navajo Sandstone, and it is unlikely that any high quality groundwater will be encountered in these formations. The proposed mud, drilling, casing, and cementing programs should be sufficient to control and isolate the poor quality groundwater expected to be encountered at this location.

Ammon McDonald — **APD Evaluator**

1/26/2015 — **Date / Time**

Surface Statement of Basis

A pre-site was conducted at 12:20pm January 22, 2015. This area is easily accessed off State Route 24 and Sage Flat Road. The proposed TWP AGT 1-34 well pad runs in a north to south direction and is located in the foothills, near Sage Flat, on the eastern edge of the Sevier Valley. The construction material needed for this location and the access road will be obtained from a local gravel pit and available onsite materials. The pad is located is in steep topography but will be graded flat to accommodate drilling activities. The location will be bermed and water diversions will be constructed. Trans-Western Petroleum will use a closed-loop drilling program. All drill cuttings and drilling fluids will be hauled to an approved disposal site for waste management once the well is completed. The selected location for this well is suitable for drilling.

Ammon McDonald — **Onsite Evaluator**

1/26/2015 — **Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A closed loop mud circulation system is required for this location.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.

RECEIVED: February 02, 2015

API Well Number: 43041500130000

RECEIVED: February 02, 2015

API Well Number: 43041500130000

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/30/2014 **API NO. ASSIGNED:** 43041500130000

WELL NAME: Trans-Western Petroleum AGT 1-34

OPERATOR: TRANS-WESTERN PETROLEUM, LTD., INC. (N4105) **PHONE NUMBER:** 308 848-3279

CONTACT: John C. Magill

PROPOSED LOCATION: SWNW 34 220S 010W **Permit Tech Review:** ☑

SURFACE: 2238 FNL 0382 FWL **Engineering Review:** ☑

BOTTOM: 2274 FNL 0202 FWL **Geology Review:** ☑

COUNTY: SEVIER

LATITUDE: 38.84734 **LONGITUDE:** -111.90447

UTM SURF EASTINGS: 421512.00 **NORTHINGS:** 4300224.00

FIELD NAME: WILDCAT

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE **PROPOSED PRODUCING FORMATION(S):** NAVAJO

SURFACE OWNER: 4 - Fee **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** STATE - 025934540
- ☐ **Potash**
- ☐ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Sigurd culinary
- ☑ **RDCC Review:** 2015-01-28 00:00:00.0
- ☑ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit:

- ☐ **R649-3-2. General**
- ☑ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: R649-3-11

Effective Date:

Siting:

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:

1 - Exception Location - bhill
5 - Statement of Basis - bhill
12 - Cement Volume (3) - hmacdonald
15 - Directional - dmason
21 - RDCC - dmason
25 - Surface Casing - hmacdonald

RECEIVED: February 02, 2015

GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill
****

Well Name: Trans-Western Petroleum AGT 1-34
API Well Number: 43041500130000
Lease Number: FEE
Surface Owner: FEE (PRIVATE)
Approval Date: 2/2/2015

Issued to:
TRANS-WESTERN PETROLEUM, LTD., INC., P.O. Box 276, Golden, CO 80402

Authority:
Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-11. The expected producing formation or pool is the NAVAJO Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Exception Location:
Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volume for the 5 1/2" production string shall be determined from actual hole diameter in order to place lead cement from the pipe setting depth back to 1500' MD and tail cement to 500' above the Twin Creek as indicated in the submitted drilling plan.

Surface casing shall be cemented to the surface.

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
  at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
  - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to

implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: FEE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Trans-Western Petroleum AGT 1-34

2. NAME OF OPERATOR:
TRANS-WESTERN PETROLEUM, LTD., INC.

9. API NUMBER:
43041500130000

3. ADDRESS OF OPERATOR:
P.O. Box 276 , Golden, CO, 80402

PHONE NUMBER:
303 279-4567 Ext

9. FIELD and POOL or WILDCAT:
WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2238 FNL 0382 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 34 Township: 22.0S Range: 01.0W Meridian: S

COUNTY:
SEVIER

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☑ SPUD REPORT Date of Spud: 3/6/2015	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Spud well at 9:30 a.m., 3/6/2015.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
March 09, 2015

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
John C. Magill	308 848-3279	Consulting Engineer
SIGNATURE		**DATE**
N/A		3/7/2015

RECEIVED: Mar. 07, 2015

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
FEE

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Trans-Western Petroleum AGT 1-34

2. NAME OF OPERATOR:
TRANS-WESTERN PETROLEUM, LTD., INC.

9. API NUMBER:
43041500130000

3. ADDRESS OF OPERATOR:
P.O. Box 276 , Golden, CO, 80402

PHONE NUMBER:
303 279-4567 Ext

9. FIELD and POOL or WILDCAT:
WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2238 FNL 0382 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 34 Township: 22.0S Range: 01.0W Meridian: S

COUNTY:
SEVIER

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 4/3/2015	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This is a monthly status report: Spud well 03/06/2015, drill to TD of 9132' DF MD, P@A well on 03/28/2015.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
April 06, 2015

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
John C. Magill	308 848-3279	Consulting Engineer
SIGNATURE		**DATE**
N/A		4/3/2015

RECEIVED: Apr. 03, 2015

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: FEE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL

8. WELL NAME and NUMBER: Trans-Western Petroleum AGT 1-34

2. NAME OF OPERATOR: TRANS-WESTERN PETROLEUM, LTD., INC.

9. API NUMBER: 43041500130000

3. ADDRESS OF OPERATOR: P.O. Box 276 , Golden, CO, 80402

PHONE NUMBER: 303 279-4567 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2238 FNL 0382 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 34 Township: 22.0S Range: 01.0W Meridian: S

COUNTY: SEVIER

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 3/26/2015	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	✓ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well will be plugged and abandoned according to schedule agreed to by Dustin Doucet of UDOGM on 3/25/15 at 10 a.m. Plug one cement from 8000 to 8500 feet MD (500 feet long), plug 2 cement from 1900 to 2100 feet MD (200 feet long), plug three surface cement plug from 100 feet GL to GL.

Approved by the
Utah Division of
Oil, Gas and Mining
April 14, 2015
Date:
By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
John C. Magill	308 848-3279	Consulting Engineer
SIGNATURE		**DATE**
N/A		3/25/2015

RECEIVED: Mar. 26, 2015

Dustin Doucet <dustindoucet@utah.gov>

Transwestern Petroleum AGT 1-34 P&A Plan

1 message

Dustin Doucet <dustindoucet@utah.gov> Wed, Mar 25, 2015 at 10:25 AM
To: John Magill <oakbrook@gpcom.net>
Cc: "Jarvis, Dan" <danjarvis@utah.gov>, Ammon McDonald <ammonmcdonald@utah.gov>

Jack,

As discussed, unless something changes while logging, the approved plan for plugging will be as follows:

Plug #1: 500' isolating Navajo and Twin Creek at bottom from 8600' to 8100'
Plug #2: 200' plug across casing shoe from 2100' to 1900'
Plug # 3: 100' from 100' to surface.
Tag balanced plugs

Details on well:

9 5/8" casing @ 2006' cemented to surface
8 3/4" hole to 9132' TD
Twin Creek @ 8238'
Navajo @ 8602'
Arapien @ surface
No shows in well

Let me know if anything changes. Send in electronic sundry and I will process. Thanks.

--
Dustin K. Doucet
Petroleum Engineer
Division of Oil, Gas and Mining
1594 West North Temple, Ste 1210
Salt Lake City, Utah 84116
801.538.5281 (ofc)
801.359.3940 (fax)

web: www.ogm.utah.gov

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
FEE

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL

8. WELL NAME and NUMBER:
Trans-Western Petroleum AGT 1-34

2. NAME OF OPERATOR:
TRANS-WESTERN PETROLEUM, LTD., INC.

9. API NUMBER:
43041500130000

3. ADDRESS OF OPERATOR:
P.O. Box 276 , Golden, CO, 80402

PHONE NUMBER:
303 279-4567 Ext

9. FIELD and POOL or WILDCAT:
WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2238 FNL 0382 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 34 Township: 22.0S Range: 01.0W Meridian: S

COUNTY:
SEVIER

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 3/28/2015	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	✓ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Plug #1: Pump balanced plug w/ 250 sx neat cement mixed @ 15.8 ppg, end of drill pipe @ 8500' DF, WOC, tag top of plug @ 8027' DF.
Plug #2: Pump balanced plug w/ 130 sx neat cement mixed @ 15.8 ppg, end of drill pipe @ 2100' DF, WOC, tag top of plug @ 1911' DF.
Plug #3: Pump balanced plug w/ 45 sx neat cement mixed @ 15.6 ppg, end of drill pipe @ 135' DF, top of cement @ GL, cut off wellhead, set and cement dry hole marker.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
April 15, 2015

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
John C. Magill	308 848-3279	Consulting Engineer
SIGNATURE		**DATE**
N/A		4/3/2015

Reset Form

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☑ OTHER

7. UNIT or CA AGREEMENT NAME

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

8. WELL NAME and NUMBER: Trans-Western Pet. AGT 1-34

2. NAME OF OPERATOR: Trans-Western Petroleum, LTD., Inc.

9. API NUMBER: 4304150013

3. ADDRESS OF OPERATOR: PO Box 276 CITY Golden STATE CO ZIP 80402

PHONE NUMBER: (303) 279-4567

10 FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 2238 FNL 0382 FWL 34 22S 1W SLB&M
AT TOP PRODUCING INTERVAL REPORTED BELOW: NO PRODUCING INTERVALS
AT TOTAL DEPTH: 2273 FNL 199 FWL 34 22S 1W SLB&M

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 34 22S 1W S

12. COUNTY: Sevier

13. STATE: UTAH

14. DATE SPUDDED: 3/6/2015

15. DATE T.D. REACHED: 3/24/2015

16. DATE COMPLETED: 3/28/2015 ABANDONED ☑ READY TO PRODUCE ☐

17. ELEVATIONS (DF, RKB, RT, GL): 5987 DF, 5974 GL

18. TOTAL DEPTH: MD 9,132 TVD 9,123

19. PLUG BACK T.D.: MD TVD

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
DLL/MSFL/GR/Cal, Spectral Density/Dual Spaced Neutron/GR/Cal
BHC Sonic/GR/Cal

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
24	13-3/8 J55	68	13	118		Neat 310	48	13 CIR	None
12-1/4	9-5/8 J55	36	13	2,006		Light 285	170	13 CIR	None
						Neat 275	56	1500 CAL	None

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
None								

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) None				
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

WAS WELL HYDRAULICALLY FRACTURED? YES ☐ NO ☑ IF YES -- DATE FRACTURED:

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS
☑ GEOLOGIC REPORT
☐ DST REPORT
☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION
☐ CORE ANALYSIS
☐ OTHER:

30. WELL STATUS:

P&A'd

(5/2013)

(CONTINUED ON BACK)

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31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
Arapien	13	8,235	Sand, salt, limestone, anhydrite clastics		
Twin Creek LS	8,235	8,602	Limestone.		
White Throne SS	8,602	8,822	Sometimes called Upper Navajo SS.		
Sinawava	8,822	8,874	Sometimes called High Gamma Ray Zone.		
Navajo SS	8,874		Sometimes called Lower Navajo SS, we did not penetrate the base of the Lower Navajo SS.		

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) John C Magill TITLE Consulting Engineer

SIGNATURE John C Magill DATE 4/9/2015

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2013)

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Trans-Western Petroleum

Sevier County, UT
Sec. 34-T22S-R1W
AGT 1-34

Plan A

Design: Actual Field Surveys

Sperry Drilling Services

Standard Report

24 March, 2015

Well Coordinates: 6,749,225.41 N, 1,525,223.31 E (38° 50' 51.14" N, 111° 54' 15.95" W)
Ground Level: 5,974.00 usft

Local Coordinate Origin:	Centered on Well AGT 1-34
Viewing Datum:	KB 12.8 ft @ 5986.80usft (Capstar 330)
TVDs to System:	N
North Reference:	True
Unit System:	API - US Survey Feet - Custom

Geodetic Scale Factor Applied
Version: 5000.1 Build: 70

HALLIBURTON

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Design Report for AGT 1-34 - Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141.00	0.54	240.22	141.00	-0.33	-0.58	0.63	0.38
172.00	0.59	226.09	172.00	-0.51	-0.82	0.90	0.48
203.00	0.61	233.79	202.99	-0.72	-1.07	1.18	0.27
233.00	0.51	254.12	232.99	-0.85	-1.32	1.45	0.74
264.00	0.41	256.43	263.99	-0.92	-1.56	1.70	0.33
295.00	0.50	272.81	294.99	-0.94	-1.81	1.94	0.51
325.00	0.28	247.78	324.99	-0.96	-2.01	2.14	0.91
355.00	0.39	288.37	354.99	-0.95	-2.17	2.30	0.85
388.00	0.47	295.85	387.99	-0.86	-2.40	2.51	0.30
434.00	0.94	261.94	433.99	-0.83	-2.94	3.04	1.32
480.00	0.87	268.22	479.98	-0.89	-3.67	3.77	0.26
525.00	1.08	270.35	524.97	-0.90	-4.43	4.52	0.47
571.00	0.69	249.94	570.97	-0.99	-5.12	5.22	1.08
616.00	0.62	230.23	615.97	-1.24	-5.57	5.70	0.52
662.00	0.94	240.14	661.96	-1.59	-6.08	6.27	0.75
708.00	1.17	318.07	707.96	-1.43	-6.73	6.87	2.91
753.00	1.32	318.12	752.94	-0.70	-7.38	7.39	0.33
799.00	1.38	286.09	798.93	-0.15	-8.26	8.16	1.62
845.00	1.28	290.35	844.92	0.18	-9.28	9.10	0.31
890.00	1.23	290.82	889.91	0.53	-10.20	9.95	0.11
936.00	0.32	238.33	935.90	0.64	-10.77	10.49	2.32
981.00	0.44	190.00	980.90	0.40	-10.91	10.67	0.73
1,027.00	0.78	208.03	1,026.90	-0.05	-11.09	10.92	0.84
1,073.00	0.86	217.95	1,072.90	-0.60	-11.45	11.37	0.35
1,118.00	0.96	281.87	1,117.89	-0.79	-12.02	11.97	2.15
1,164.00	1.04	300.77	1,163.89	-0.50	-12.76	12.65	0.73
1,210.00	1.28	288.84	1,209.88	-0.12	-13.60	13.41	0.74
1,256.00	0.92	283.81	1,255.87	0.14	-14.45	14.20	0.81
1,301.00	0.89	262.20	1,300.86	0.18	-15.15	14.88	0.76
1,347.00	0.80	254.57	1,346.86	0.04	-15.81	15.55	0.31
1,393.00	0.95	253.88	1,392.85	-0.15	-16.48	16.25	0.33
1,438.00	0.96	270.44	1,437.85	-0.25	-17.22	16.99	0.61
1,484.00	1.09	275.50	1,483.84	-0.20	-18.04	17.79	0.34
1,531.00	1.13	276.26	1,530.83	-0.11	-18.95	18.67	0.09
1,575.00	1.08	287.93	1,574.82	0.06	-19.77	19.45	0.52
1,621.00	0.94	320.75	1,620.81	0.49	-20.42	20.02	1.27
1,667.00	1.07	338.79	1,666.81	1.18	-20.82	20.28	0.74
1,712.00	1.02	329.89	1,711.80	1.92	-21.17	20.50	0.38
1,758.00	1.12	329.53	1,757.79	2.66	-21.60	20.79	0.22
1,803.00	1.15	331.96	1,802.78	3.44	-22.04	21.08	0.13
1,849.00	0.98	335.72	1,848.77	4.21	-22.42	21.32	0.40
1,895.00	0.75	303.25	1,894.77	4.73	-22.83	21.64	1.16
1,957.00	1.22	270.11	1,956.76	4.95	-23.83	22.58	1.16
2,006.00	1.39	281.65	2,005.75	5.07	-24.94	23.65	0.64
9 5/8" Surface Casing							
2,054.00	1.60	290.24	2,053.73	5.42	-26.13	24.76	0.64
2,096.00	1.72	336.90	2,095.72	6.21	-26.93	25.41	3.14
2,138.00	3.50	0.05	2,137.67	8.07	-27.18	25.32	4.84
2,180.00	4.86	359.45	2,179.56	11.13	-27.19	24.80	3.24

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Design Report for AGT 1-34 - Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
2,226.00	4.55	325.99	2,225.41	14.59	-28.23	25.21	5.92
2,271.00	5.08	278.89	2,270.27	16.38	-31.20	27.82	8.61
2,317.00	5.92	246.31	2,316.07	15.74	-35.39	32.05	6.92
2,363.00	6.26	232.94	2,361.81	13.28	-39.56	36.59	3.16
2,408.00	5.44	237.52	2,406.58	10.65	-43.32	40.75	2.10
2,454.00	5.50	239.97	2,452.37	8.38	-47.07	44.84	0.52
2,500.00	6.44	239.07	2,498.12	5.95	-51.19	49.33	2.05
2,545.00	6.61	236.25	2,542.83	3.21	-55.51	54.06	0.81
2,591.00	5.73	233.16	2,588.56	0.36	-59.55	58.54	2.04
2,637.00	4.93	238.81	2,634.36	-2.04	-63.07	62.44	2.08
2,682.00	4.03	241.81	2,679.22	-3.78	-66.12	65.75	2.07
2,728.00	3.40	245.02	2,725.13	-5.12	-68.78	68.61	1.44
2,774.00	4.46	269.95	2,771.02	-5.70	-71.81	71.69	4.32
2,819.00	5.32	265.50	2,815.86	-5.87	-75.64	75.48	2.09
2,865.00	5.46	249.03	2,861.66	-6.82	-79.81	79.76	3.37
2,911.00	6.32	240.30	2,907.41	-8.85	-84.05	84.29	2.69
2,957.00	6.08	240.65	2,953.14	-11.30	-88.37	88.98	0.53
3,003.00	6.37	236.20	2,998.87	-13.92	-92.62	93.62	1.22
3,048.00	6.91	234.48	3,043.57	-16.88	-96.89	98.35	1.28
3,094.00	6.67	233.17	3,089.25	-20.09	-101.29	103.24	0.62
3,139.00	5.87	241.56	3,133.98	-22.75	-105.40	107.76	2.70
3,185.00	4.92	264.36	3,179.78	-24.06	-109.43	111.96	5.05
3,231.00	5.90	273.92	3,225.58	-24.10	-113.75	116.22	2.89
3,276.00	6.03	271.59	3,270.33	-23.87	-118.42	120.78	0.61
3,321.00	5.65	253.35	3,315.10	-24.44	-122.91	125.29	4.19
3,367.00	6.19	246.42	3,360.86	-26.08	-127.35	129.96	1.95
3,413.00	6.18	257.49	3,406.59	-27.61	-132.04	134.84	2.59
3,458.00	5.98	269.63	3,451.34	-28.15	-136.75	139.57	2.89
3,504.00	5.95	262.10	3,497.09	-28.49	-141.51	144.32	1.70
3,550.00	5.64	257.65	3,542.86	-29.31	-146.08	148.96	1.19
3,596.00	4.68	252.45	3,588.67	-30.35	-150.08	153.08	2.32
3,641.00	3.59	247.81	3,633.55	-31.44	-153.13	156.28	2.53
3,687.00	3.53	249.37	3,679.46	-32.48	-155.79	159.08	0.25
3,733.00	5.26	243.75	3,725.33	-33.92	-159.01	162.50	3.87
3,778.00	4.89	239.02	3,770.15	-35.81	-162.50	166.27	1.24
3,824.00	4.56	237.01	3,816.00	-37.82	-165.72	169.79	0.80
3,869.00	2.88	247.19	3,860.90	-39.23	-168.26	172.54	4.00
3,915.00	1.81	275.78	3,906.86	-39.61	-170.05	174.37	3.38
3,960.00	1.03	322.17	3,951.85	-39.22	-171.00	175.24	2.95
4,006.00	0.06	250.88	3,997.85	-38.90	-171.28	175.46	2.20
4,052.00	0.14	268.13	4,043.85	-38.91	-171.36	175.54	0.18
4,097.00	0.14	168.89	4,088.85	-38.96	-171.40	175.59	0.47
4,143.00	0.25	295.66	4,134.85	-38.97	-171.48	175.67	0.77
4,188.00	0.09	321.11	4,179.85	-38.90	-171.59	175.77	0.38
4,234.00	0.35	354.92	4,225.85	-38.74	-171.63	175.77	0.61
4,280.00	0.99	355.73	4,271.84	-38.20	-171.67	175.72	1.39
4,326.00	0.94	343.16	4,317.84	-37.44	-171.81	175.72	0.47
4,371.00	0.37	313.58	4,362.83	-36.99	-172.02	175.85	1.43
4,417.00	0.40	297.36	4,408.83	-36.81	-172.27	176.06	0.24
4,463.00	1.05	242.24	4,454.83	-36.94	-172.79	176.59	1.92
4,508.00	0.75	260.91	4,499.82	-37.17	-173.44	177.28	0.92

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Design Report for AGT 1-34 - Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
4,554.00	0.83	311.53	4,545.82	-37.00	-173.99	177.79	1.48
4,600.00	1.31	333.60	4,591.81	-36.31	-174.47	178.14	1.36
4,645.00	1.96	348.11	4,636.79	-35.09	-174.86	178.31	1.70
4,691.00	2.62	348.99	4,682.76	-33.29	-175.22	178.35	1.44
4,737.00	1.98	341.86	4,728.72	-31.51	-175.67	178.47	1.52
4,782.00	1.62	331.50	4,773.70	-30.21	-176.22	178.78	1.08
4,828.00	0.84	322.31	4,819.68	-29.37	-176.73	179.14	1.74
4,870.00	0.28	317.14	4,861.68	-29.05	-176.99	179.34	1.34
4,912.00	1.37	51.77	4,903.68	-28.67	-176.67	178.95	3.38
4,958.00	1.73	60.32	4,949.66	-27.98	-175.63	177.81	0.93
5,003.00	0.28	112.07	4,994.65	-27.69	-174.94	177.08	3.49
5,045.00	1.43	171.26	5,036.65	-28.24	-174.76	177.00	3.12
5,088.00	0.14	177.62	5,079.64	-28.83	-174.68	177.02	3.00
5,133.00	0.36	305.51	5,124.64	-28.80	-174.79	177.13	1.02
5,178.00	0.70	330.81	5,169.64	-28.48	-175.04	177.32	0.90
5,224.00	1.56	359.66	5,215.63	-27.60	-175.18	177.30	2.19
5,270.00	0.47	35.70	5,261.63	-26.83	-175.08	177.06	2.63
5,315.00	0.39	18.43	5,306.62	-26.53	-174.92	176.85	0.34
5,361.00	1.00	359.11	5,352.62	-25.98	-174.88	176.72	1.40
5,406.00	1.54	350.73	5,397.61	-24.99	-174.98	176.64	1.27
5,454.00	2.36	344.56	5,445.58	-23.40	-175.35	176.72	1.76
5,591.00	0.87	281.00	5,582.53	-20.48	-177.12	177.95	1.55
5,636.00	0.20	261.08	5,627.53	-20.43	-177.53	178.35	1.52
5,819.00	0.33	283.25	5,810.53	-20.36	-178.36	179.15	0.09
6,047.00	1.31	306.56	6,038.50	-18.66	-181.09	181.54	0.45
6,138.00	0.19	354.61	6,129.49	-17.89	-181.94	182.24	1.31
6,184.00	0.19	297.78	6,175.49	-17.78	-182.02	182.29	0.39
6,230.00	0.28	318.19	6,221.49	-17.66	-182.16	182.41	0.26
6,275.00	0.17	266.53	6,266.49	-17.58	-182.30	182.54	0.49
6,321.00	0.25	282.04	6,312.49	-17.56	-182.47	182.70	0.21
6,367.00	0.25	301.96	6,358.49	-17.49	-182.65	182.87	0.19
6,458.00	0.31	301.65	6,449.49	-17.25	-183.03	183.20	0.07
6,503.00	0.17	289.73	6,494.49	-17.17	-183.19	183.34	0.33
6,549.00	0.20	229.22	6,540.49	-17.20	-183.32	183.47	0.41
6,595.00	0.31	210.73	6,586.49	-17.36	-183.44	183.62	0.30
6,640.00	0.35	242.72	6,631.49	-17.52	-183.63	183.83	0.41
6,686.00	0.37	224.26	6,677.49	-17.69	-183.86	184.09	0.25
6,732.00	0.33	242.44	6,723.49	-17.86	-184.08	184.34	0.26
6,777.00	0.36	242.37	6,768.49	-17.99	-184.32	184.60	0.07
6,823.00	0.70	257.14	6,814.48	-18.12	-184.72	185.01	0.79
6,869.00	0.39	289.76	6,860.48	-18.13	-185.14	185.43	0.93
6,914.00	0.39	262.40	6,905.48	-18.09	-185.44	185.72	0.41
6,960.00	0.48	332.47	6,951.48	-17.94	-185.68	185.93	1.10
7,005.00	0.87	342.69	6,996.48	-17.45	-185.87	186.03	0.90
7,051.00	1.28	343.14	7,042.47	-16.63	-186.12	186.13	0.89
7,097.00	1.01	316.35	7,088.46	-15.84	-186.55	186.41	1.29
7,161.00	0.60	275.58	7,152.45	-15.40	-187.27	187.05	1.06
7,206.00	0.42	273.39	7,197.45	-15.37	-187.67	187.44	0.40
7,252.00	0.44	212.40	7,243.45	-15.51	-187.94	187.72	0.95
7,298.00	0.60	260.41	7,289.45	-15.70	-188.27	188.08	0.97

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Design Report for AGT 1-34 - Actual Field Surveys

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)
7,344.00	1.18	276.81	7,335.44	-15.68	-188.98	188.77	1.36
7,399.00	1.68	275.18	7,390.43	-15.54	-190.34	190.09	0.91
7,435.00	1.57	276.29	7,426.41	-15.44	-191.36	191.07	0.32
7,481.00	0.90	272.71	7,472.40	-15.35	-192.34	192.03	1.47
7,618.00	1.36	325.73	7,609.38	-13.96	-194.33	193.74	0.80
7,663.00	1.84	322.74	7,654.36	-12.94	-195.07	194.29	1.08
7,694.00	1.64	317.56	7,685.34	-12.22	-195.67	194.75	0.82
7,740.00	0.64	256.26	7,731.34	-11.79	-196.37	195.36	3.14
7,785.00	0.99	209.49	7,776.33	-12.19	-196.80	195.86	1.61
7,831.00	1.71	190.46	7,822.32	-13.21	-197.12	196.36	1.82
7,877.00	2.11	183.70	7,868.29	-14.73	-197.30	196.80	1.00
7,922.00	2.30	183.13	7,913.26	-16.46	-197.41	197.21	0.43
7,968.00	2.39	184.14	7,959.22	-18.34	-197.52	197.66	0.22
8,014.00	2.34	191.04	8,005.18	-20.22	-197.77	198.23	0.63
8,059.00	2.45	190.47	8,050.14	-22.06	-198.12	198.91	0.25
8,105.00	2.48	191.08	8,096.10	-24.01	-198.49	199.61	0.09
8,151.00	2.42	193.58	8,142.06	-25.93	-198.91	200.37	0.27
8,197.00	2.43	194.87	8,188.02	-27.82	-199.39	201.17	0.12
8,242.00	2.20	202.95	8,232.98	-29.53	-199.97	202.05	0.89
8,288.00	1.85	203.64	8,278.95	-31.03	-200.62	202.94	0.76
8,333.00	1.45	192.90	8,323.93	-32.25	-201.03	203.57	1.12
8,379.00	1.82	180.55	8,369.91	-33.54	-201.17	203.93	1.11
8,425.00	2.42	167.75	8,415.88	-35.22	-200.97	204.03	1.65
8,471.00	1.89	162.07	8,461.85	-36.89	-200.53	203.90	1.24
8,516.00	1.38	138.10	8,506.83	-38.00	-199.94	203.51	1.87
8,562.00	0.98	97.88	8,552.82	-38.47	-199.18	202.85	1.94
8,607.00	1.22	83.06	8,597.81	-38.46	-198.33	202.00	0.82
8,653.00	1.32	74.78	8,643.80	-38.27	-197.33	200.98	0.45
8,699.00	1.21	69.03	8,689.79	-37.95	-196.36	199.98	0.36
8,744.00	1.57	61.80	8,734.78	-37.49	-195.38	198.93	0.89
8,790.00	1.83	70.09	8,780.76	-36.94	-194.13	197.60	0.78
8,812.00	1.84	66.77	8,802.75	-36.69	-193.48	196.91	0.49
8,858.00	1.92	75.10	8,848.72	-36.20	-192.05	195.43	0.62
8,904.00	1.85	78.94	8,894.70	-35.86	-190.58	193.92	0.31
8,995.00	2.15	78.77	8,985.64	-35.24	-187.46	190.74	0.33
9,040.00	1.72	81.91	9,030.62	-34.98	-185.97	189.22	0.98
9,086.00	1.92	84.41	9,076.59	-34.81	-184.52	187.76	0.47
9,132.00	1.92	84.41	9,122.57	-34.66	-182.98	186.23	0.00
Projection to TD							

BHL: 2238 + 35 = 2273 FNL, 382 - 183 = 199 FWL

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
9,132.00	9,122.57	-34.66	-182.98	Projection to TD

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Design Report for AGT 1-34 - Actual Field Surveys

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
Target	AGT 1-34_Rev A0_BHL Tgt	259.82	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
141.00	9,132.00	Sperry MWD Survey	MWD

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
2,006.00	2,005.75	9 5/8" Surface Casing	9-5/8	12-1/4

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
AGT 1-34_Rev A0_BH	0.00	0.00	9,590.80	-32.20	-179.32	6,749,194.03	1,525,043.84	38° 50' 50.826 N	111° 54' 18.220 W
- actual wellpath misses target center by 468.25usft at 9132.00usft MD (9122.57 TVD, -34.66 N, -182.98 E)									
- Rectangle (sides W200.00 H150.00 D0.00)									
AGT 1-34_Rev A0_SH	0.00	0.00	0.00	0.01	0.00	6,749,225.42	1,525,223.31	38° 50' 51.144 N	111° 54' 15.954 W
- actual wellpath misses target center by 0.01usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
AGT 1-34_Rev A0_Ver	0.00	0.00	4,239.80	-32.20	-179.32	6,749,194.03	1,525,043.84	38° 50' 50.826 N	111° 54' 18.220 W
- actual wellpath misses target center by 10.02usft at 4248.04usft MD (4239.88 TVD, -38.63 N, -171.64 E)									
- Point									
AGT 1-34_West SL	0.00	0.00	0.00	0.01	0.00	6,749,225.42	1,525,223.31	38° 50' 51.144 N	111° 54' 15.954 W
- actual wellpath misses target center by 0.01usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1				-410.72	2,246.95	6,751,474.31	1,524,822.73		
Point 2				-376.85	-406.55	6,748,820.56	1,524,844.61		
Point 3				-375.48	-3,100.78	6,746,126.23	1,524,833.79		
Point 4				-376.85	-406.55	6,748,820.56	1,524,844.61		
Point 5				-410.72	2,246.95	6,751,474.31	1,524,822.73		

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North Reference Sheet for Sec. 34-T22S-R1W - AGT 1-34 - Plan A

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to KB 12.8 ft @ 5986.80usft (Capstar 330). Northing and Easting are relative to AGT 1-34

Coordinate System is US State Plane 1983, Utah Central Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is 111° 30' 0.000 W°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:40° 39' 0.000 N°

False Easting: 1,640,416.67usft, False Northing: 6,561,666.67usft, Scale Reduction: 1.00004603

Grid Coordinates of Well: 6,749,225.41 usft N, 1,525,223.31 usft E

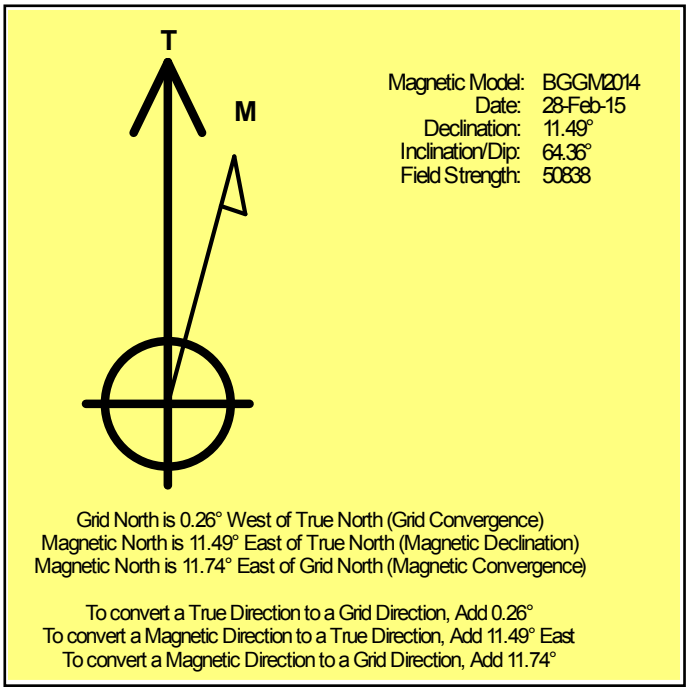
Geographical Coordinates of Well: 38° 50' 51.14" N, 111° 54' 15.95" W

Grid Convergence at Surface is: -0.26°

Based upon Minimum Curvature type calculations, at a Measured Depth of 9,132.00usft

the Bottom Hole Displacement is 186.24usft in the Direction of 259.27° (True).

Magnetic Convergence at surface is: -11.74° (28 February 2015, , BGGM2014)



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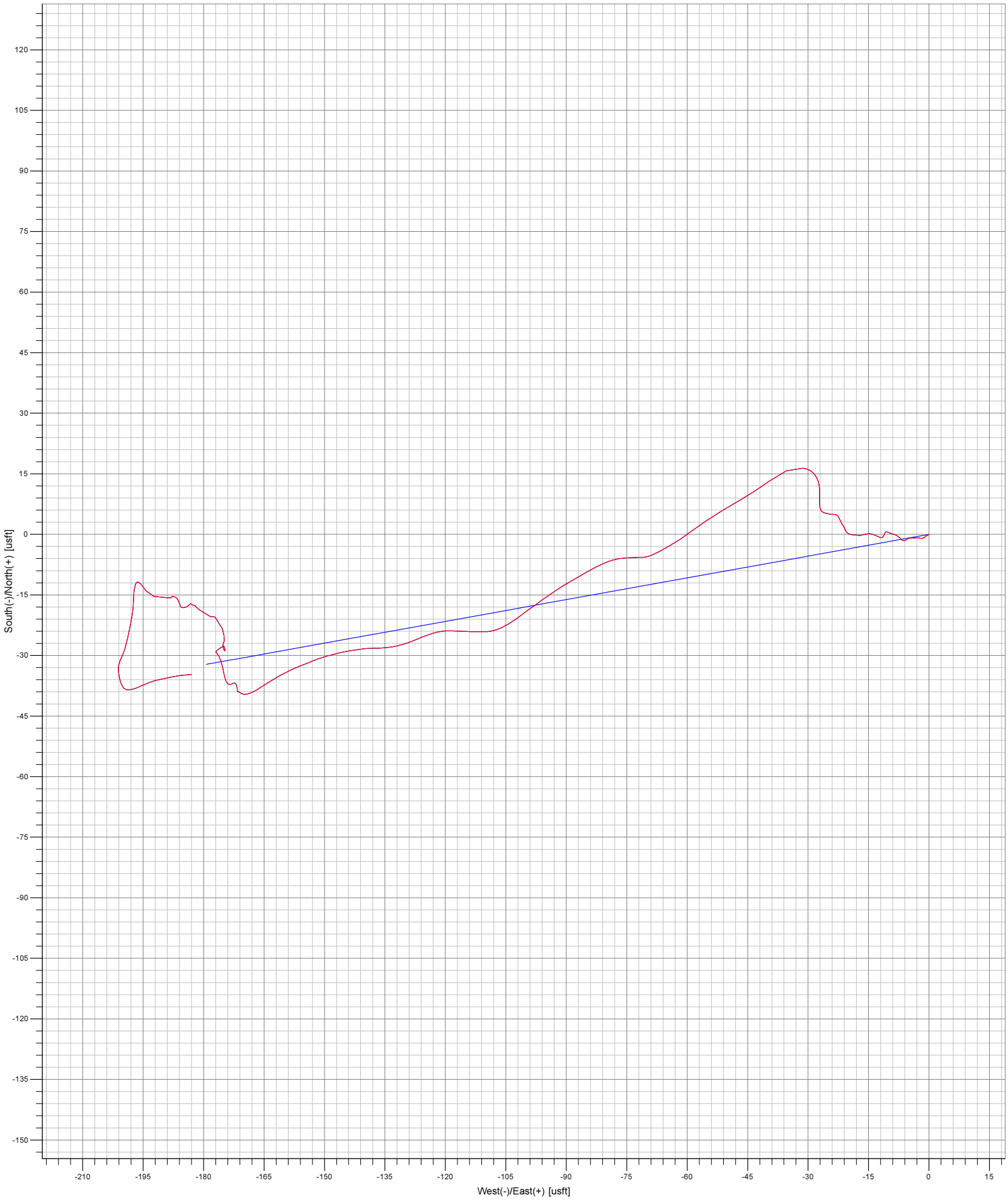
Survey: Sperry MWD Survey (AGT 1-34(Plan A)



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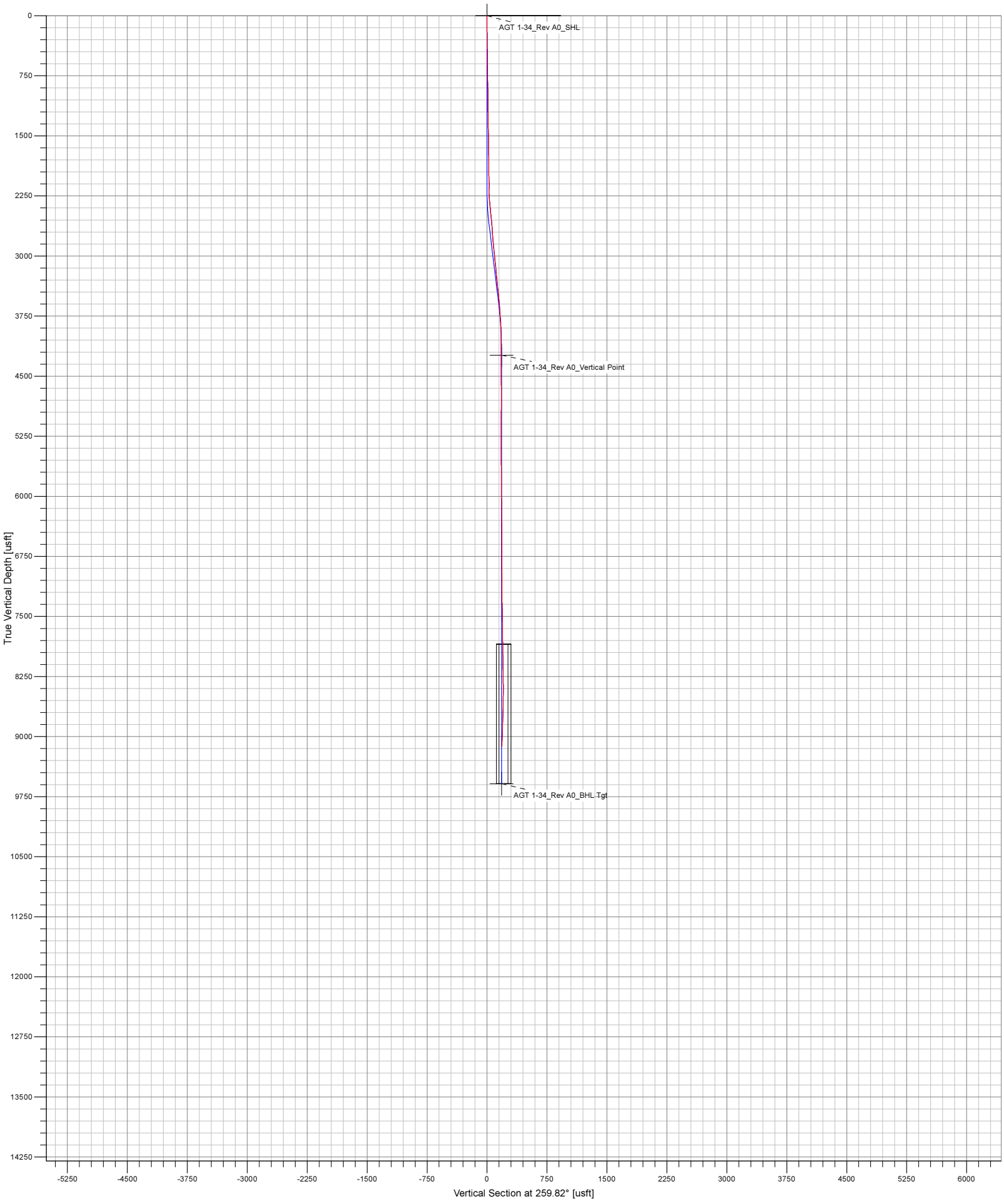
Survey: Sperry MWD Survey (AGT 1-34/Plan A)



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