

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

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>					<b>1. WELL NAME and NUMBER</b> Wolverine Federal 19-3		
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>					<b>3. FIELD OR WILDCAT</b> COVENANT		
<b>4. TYPE OF WELL</b> Oil Well Coalbed Methane Well: NO					<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> WOLVERINE		
<b>6. NAME OF OPERATOR</b> WOLVERINE GAS & OIL COMPANY OF UTAH, LLC					<b>7. OPERATOR PHONE</b> 435 896-1943		
<b>8. ADDRESS OF OPERATOR</b> 1140 N. Centennial Park Dr., Richfield, UT, 84701					<b>9. OPERATOR E-MAIL</b> ciron@wolvgas.com		
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> UTU-73528		<b>11. MINERAL OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			<b>12. SURFACE OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>					<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>		
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>					<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>		
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>		<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			<b>19. SLANT</b> VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>		
<b>20. LOCATION OF WELL</b>	<b>FOOTAGES</b>	<b>QTR-QTR</b>	<b>SECTION</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>MERIDIAN</b>	
<b>LOCATION AT SURFACE</b>	756 FNL 1965 FWL	NENW	19	23.0 S	1.0 W	S	
<b>Top of Uppermost Producing Zone</b>	2241 FSL 1782 FEL	NWSE	19	23.0 S	1.0 W	S	
<b>At Total Depth</b>	2241 FSL 1782 FEL	NWSE	19	23.0 S	1.0 W	S	
<b>21. COUNTY</b> SEVIER		<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 1782		<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 40			
		<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 1500		<b>26. PROPOSED DEPTH</b> MD: 7500 TVD: 6810			
<b>27. ELEVATION - GROUND LEVEL</b> 5823		<b>28. BOND NUMBER</b> BLM WYB000616		<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 63-2529			

**ATTACHMENTS**

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

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP

<b>NAME</b> Charles Irons	<b>TITLE</b> Senior Landman	<b>PHONE</b> 435 896-1943
<b>SIGNATURE</b>	<b>DATE</b> 08/27/2010	<b>EMAIL</b> ciron@wolvgas.com
<b>API NUMBER ASSIGNED</b> 43041500040000	<b>APPROVAL</b>   Permit Manager	

<b>Proposed Hole, Casing, and Cement</b>						
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Surf	12.25	9.625	0	2000		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade J-55 ST&C	2000	36.0			

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<b>Proposed Hole, Casing, and Cement</b>						
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Prod	8.75	7	0	4000		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade L-80 LT&C	4000	26.0			
	Grade HCN-80 LT&C	2700	26.0			
	Grade L-80 LT&C	800	26.0			

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# WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC

## DRILLING PLAN

### Wolverine Federal 19-3

**SHL: NE/4, NW/4 Section 19, Township 23 South, Range 1 West, S.L.B & M.**  
**BHL: NW/4, SE/4 Section 19, Township 23 South, Range 1 West, S.L.B & M.**  
**Sevier County, Utah**

#### Plan Summary:

It is planned to drill this confidential development well as a directional bore hole due to surface topography constraints and in accordance with the enclosed directional drilling plan. The well will be drilled to a measured depth of 7500' MD (~ 6810' TVD) to encounter the Twin Creek and Navajo formations. Well path deviation caused by subsurface geologic irregularities is expected to be the primary drilling concern in this area. No abnormal pressure is anticipated.

The planned location is as follows:

Surface Location: 756' FNL, 1965' FWL Section 19, T23S, R1W, S.L.B. & M.

Bottom Hole Location @ total depth 2241' FSL, 1782 FEL Section 19, T23S, R1W, S.L.B. & M.

Conductor casing will be set at approximately 120 feet GL and cemented to surface. A 12-1/4" hole will be drilled to approximately 2000' where 9-5/8" casing will be set and cemented to surface. An 8-3/4" hole will be drilled to a projected total depth of 7500' MD, at which the well will be logged and 7" casing will be set and cement will be brought to a minimum of 500 feet inside 9-5/8" casing. The well will be drilled vertically to 500' kick-off point, build angle at 1.5 deg/100' to a maximum angle of 34 degrees. At ~5100' MD, the angle will begin to drop to vertical as the well approaches the Twin Creek and Navajo formations.

Drilling activities will commence as soon as rig is available.

Wolverine Gas and Oil Company of Utah, LLC  
 Drilling Program  
 Wolverine Federal 19-3

**Well Name:** **Wolverine Federal 19-3**

**Surface Location:** 756' FNL, 1965' FWL  
 NE/4, NW/4 Section 19, T23S, R1W, S.L.B. & M.  
 Sevier County, Utah

**TD Bottom-Hole Location:** 2241' FSL', 1782' FEL  
 NW/4, SE/4 Sec. 19 T23S, R1W, Sevier County, Utah

**Elevations (est):** 5823' GL, 5845' DF

**I. Geology:**

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

<u>Formation</u>	<u>TVD (KB)</u>	<u>MD (KB)</u>	<u>Contents</u>	<u>Pressure Gradient</u>
Arapien	22'	22'		
Twin Creek	5940'	6623'	Oil & water	0.44 psi/ft
Navajo	6270'	6958'	Oil & water	0.44 psi/ft
Total Depth	6810'	7500'		

**II. Well Control:**

The contracted drilling rig will have a minimum 5M BOP system. BOPE will be in place and tested as a 5M system prior to drilling out the surface casing shoe. See attached schematic of BOPE.

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

Wellhead Equipment (5M Min.):

<u>BOPE Item</u>	<u>Flange Size and Rating</u>
Annular Preventer	11" 2.5M
Double Rams (5" Pipe - top, Blind - bottom)	11" 5M
Drilling Spool w/ 2 side outlets (4" Choke Line, 4" Kill Line)	11 5M x 11" 5M
Single Ram (Pipe)	11" 5M
DSA	
Casing Head (9-5/8" SOW w/ two 2-1/16" SSO's)	11" 5M

Auxiliary Equipment (5M Min.):

<u>BOPE Item</u>
Choke Line with 2 valves (3" minimum)
Kill Line with 2 valves and one check valve (2" Minimum)
2 Chokes with one remotely controlled at a location readily accessible to the driller
Upper and lower kelly cock valves with handles
Safety Valves to fit all drill string connections in use
Inside BOP or float sub
Pressure gauge on choke manifold
Fill-up line above the uppermost preventer
Wear bushing in 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 (3 ram system will have added 50 percent safety factor to compensate for any fluid loss in the control system or preventers) and retain a minimum pressure of 200 psi above pre-charge on the closing manifold without use of the closing unit pumps. The fluid reservoir capacity shall be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir shall be maintained at the manufacturer's recommendations. The accumulator will have two (2) independent power sources available to close the preventers. Nitrogen bottles may be one of those sources, and if so, will have charge maintained per 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 6 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 valve 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 (if so equipped), plus closing the annular preventer on the smallest size drill pipe to be used within 2 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. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative.
- H. **Remote controls** will be readily accessible to the driller and will be capable of both opening and closing all preventers. Master controls shall be at the accumulator and shall 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 5000 psi. The annular preventer will be tested to 2500 psi. Pressure shall be maintained for at least 10 minutes or until requirements of 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 or the ball removed.

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

**III. Casing and Cementing:**

A. Casing Program (all new casing):

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Connection</u>	<u>Coupling Diameter</u>	<u>Setting Depth</u>
30"	20"		Conductor			120' GL
12.25"	9.625"	36	J-55	STC	10.625"	0' – 2000' DF
8.75"	7.0"	26	L-80	LTC	7.656"	4000' - surf' DF
8.75"	7.0"	26	HCL80	LTC	7.656"	4000' – 6700' DF
8.75"	7.0"	26	L-80	LTC	7.656"	6700' -7500' DF

**Casing String Design**

**1. 20 inch conductor set at 120' G.L.**

The 20" casing is used to allow drilling fluid to be diverted into the hole or into the tanks as needed. No design is conducted on the pipe.

**2. 9-5/8 inch casing – set at 2000' DF.**

Burst: Worst case burst load while drilling occurs if the well experiences an influx of gas from 6800 feet TVD. Assume the casing is filled with gas. In that case, assuming a fresh water pore pressure gradient to 6800 ft TVD and a gas gradient equal to 0.1 psi/ft, maximum burst differential pressure would occur at the surface:

$P = 0.433 \times 6800 - (0.1 \times 6800) = 2264$  psi. The selected casing, 9.625", 36 #/ft J-55 STC has a burst strength of 3520 psi. The burst design factor is  $DF_b = 3520/2264 = 1.55$ ;  $1.55 > 1.1$ , therefore OK.

Collapse: Worst case collapse load occurs if the casing is fully evacuated. Collapse pressure attributed to fresh water pore pressure gradient is:  $P = 0.433 \times 2000 = 866$  psi. The selected casing has collapse strength of 2020 psi. The collapse design factor is:  $DF_c = 2020/866 = 2.33 > 1.125$ , therefore OK.

Tension: String weight in air is:  $T = 36 \times 2000 = 72,000$  lbs. Joint strength is 394 kips. The tension design factor in air is:  $DF_t = 394,000/72,000 = 5.47 > 1.8$ , therefore OK.

**3. 7- inch casing set at 7500' MD D.F. (6800'TVD)**

Burst: Worst case burst load occurs if the well experiences an influx of gas from 6800' TVD, during production and evacuates the hole. Assume the casing is filled with gas. In that case, assuming a fresh water pore pressure gradient to 6800' TVD ft and a gas gradient equal to 0.1 psi/ft, maximum burst differential pressure would occur at the surface:  $P = 0.433 \times 6800 - (0.1 \times 6800) = 2264$  psi. The selected casing, 7", 26 #/ft L-80 LTC has burst strength of 7240 psi. The burst design factor is  $DF_b = 7240/2264 = 3.20$ ;  $> 1.1$ , therefore OK.

Collapse, fluid considerations: Worst case collapse load occurs if the casing is evacuated, or "pumped-off" during production. Collapse pressure attributed to fresh water pore pressure gradient is:  $P = 0.433 \times 6800 = 2944$  psi. The selected casing has collapse strength of 5410 psi. The collapse design factor is:  $DF_c = 5410/2944 = 1.83 > 1.125$ , therefore OK.

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Collapse, salt considerations: The Arapien formation contains salt stringers throughout. The salt stringers, due to creep, can apply unusually high collapse loads to the casing. Wolverine standard design for this area is to design for 1 psi/ft of depth external pressure across the salt sections and with a minimum design factor of 1.00. The maximum salt load would be at the base of the Arapien at ~ 5940' TVD.

- a. Maximum potential salt induced pressure applied to the 26# L-80 occurs at 4000 ft:  $P = 4000 \times 1 = 4000$  psi (assumes pumped-off conditions so no fluid back up inside casing). 7", 26 #/ft L-80 has collapse strength of 5410. The collapse design factor across from salts in the L-80 casing is  $DF_c = 5410/4000 = 1.35 > 1.0$ , therefore OK.
- b. Maximum potential salt induced pressure applied to 26# HCL-80 occurs at base of Arapien (top of Twin Creek) at ~ 5940' TVD:  $P = 5940 \times 1 = 5940$  psi (assumes pumped-off conditions so no fluid back up inside casing). 7", 26#/ft HCL-80 has collapse strength of 7800 psi. The collapse design factor across from salts in the HCL-80 casing is:  $DF_c = 7800/5940 = 1.31 > 1.0$ , therefore OK.

Tension: String weight in air is:  $T = 26 \times 6800 = 176,800$  lbs. Joint strength is 519 kips. The tension design factor is:  $DF_t = 519,000/176,800 = 2.94 > 1.8$ , therefore OK.

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

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**B. Cementing Program**

<u>Casing Size</u>	<u>Cement Slurry</u>	<u>Quantity (sks)</u>	<u>Density (ppg)</u>	<u>Yield (ft<sup>3</sup>/sk)</u>
9.625"	Lead: Light (Vericem)	240	11.0	3.48
	Tail: Premium Plus	215	15.8	1.19
7.00"				
	Stage 1: Class G Blend	150	15.8	1.53
	Stage 2: Premium 50/50 Poz	965	14.4	1.26

**9-5/8" Surface Casing:**

9-5/8" casing will be cemented from setting depth (2000' MD DF) to surface in a single stage using the following mix. Hardware will include a guide shoe, float collar, top 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 fluids. Cement volumes are based on 50% excess in the openhole, 1500 feet of 11 ppg lead cement from surface to 1500 feet and 500 feet of 15.8 ppg tail cement from 1500 to 2000 feet.

Cement: Lead: 240 sacks Light System (Vericem), 11 ppg, 3.48 cf/sx Yield

Tail: 215 sacks Premium, 15.8 ppg, 1.19 cf/sx Yield

**7" Production Casing:**

7" casing will be cemented from setting depth (7500 MD) to surface in two stages using the following mix. Hardware will include a guide shoe, two shoe joints, float collar, top plug, and a minimum of one centralizer per joint from TD to the stage tool. Stage tool will be set in the Twin Creek at ~6700' MD. Centralizers will be placed above the stage tool to get adequate centralization. Water or other pre-flush fluid pumped ahead of the slurry will separate cement from the drilling fluids. Cement volumes are based on 25% excess in the openhole, 800' of stage 1 and 6700 feet Stage 2 of 14.4 ppg cement from stage tool to surface.

Cement: Stage 1: 150 sacks Class G neat cement blend, 15.8 ppg, 1.53 cf/sx Yield

Stage 2: 965 sacks Premium 50/50 Poz, 14.4 ppg, 1.26 cf/sx Yield

**Notes:**

- a. Final casing cement volumes will be adjusted when open-hole caliper logs obtained.
- b. Expected static BHT at 7500' MD (6800' TVD) is ~ 190 deg. F.
- c. Final cement slurry mix could be adjusted based vendor recommendation or vendor actually used for job. Cementing company has not been selected yet for this well.

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- d. The BLM will be notified at least twenty-four hours prior to running and cementing the surface and production casing strings.
- e. The size, weight, grade, type of thread, number of joints, and footage of all casing run will be recorded in the driller's log. The amount and type of all cement pumped will be recorded in the driller's log.
- f. Adequate time will be allowed before drilling out for the cement at the casing shoe to achieve a minimum 500-psi compressive strength.
- g. All casing strings will be tested to 1500 psi, but not exceeding 80% of burst, before drilling out and if pressure declines by more than 10 percent in 30 minutes, corrective action will be taken.
- h. Before drilling more than 20 feet of new hole below each casing string, 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 to the next casing depth or at total depth of the well.

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**IV. Mud Program:**

<u>Depth</u>	<u>Mud Weight (ppg)</u>	<u>Mud Type</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0 – 2000'	8.4 – 8.7	Fresh Water	26 – 50	N/C to 12 cc
2000' - 6700	10.2 – 10.5	Salt Mud	36 – 50	< 8 cc

- A. After mudding up, slow pump rates will be taken daily and recorded in the driller’s log.
- B. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume.
- C. Abnormal pressures are not anticipated. In the event such pressures are to be anticipated, electronic/mechanical mud monitoring equipment will be in place and include as a minimum; pit volume totalizer (PVT); stroke counter; and flow sensor.
- D. A mud test will be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, yield point, gel strength, filtrated, and pH.
- E. The 10M BOPE system is not required for conditions on this well and use of the trip tank is not anticipated.
- F. Gas detecting equipment will be installed in the mud return system, and hydrocarbon gas shall be monitored for pore pressure changes. The presence of Hydrogen Sulfide gas is not expected.
- G. The need to vent combustible or noncombustible gas is not expected. If needed, a flare system designed to gather and burn all gas will be available. The flare line discharge will be located more than 100 feet from the well head and it will be positioned downwind of the prevailing wind direction. The flare line will have straight lines unless turns are targeted with running tees and it will be anchored. The flare system will have an effective method for ignition.
- H. Abnormal pressure is not expected. If abnormal pressure is to be anticipated, a mud-gas separator (gas buster) will be installed and operable beginning at a point at least 500 feet above any anticipated hydrocarbon zone of interest.

**V. Evaluation:**

- A. Mud Log: A mud logging unit will be in operation from a depth of approximately 1000 feet to TD. Samples will be caught, cleaned, bagged, and marked as required.
- B. Drill Stem Tests: There is no DST planned.
- C. Coring: There are no whole cores planned. Sidewall cores may be taken in conjunction with logging operations.
- D. Wireline Logs: Wireline logs will be run as hole conditions allow from total depth to surface casing to assist in determining lithology and potential for hydrocarbon recovery. The logging tools will include, at a minimum, resistivity, gamma ray, neutron/density log and caliper.

**VI. Expected Bottom-Hole Pressure and Abnormal Conditions:**

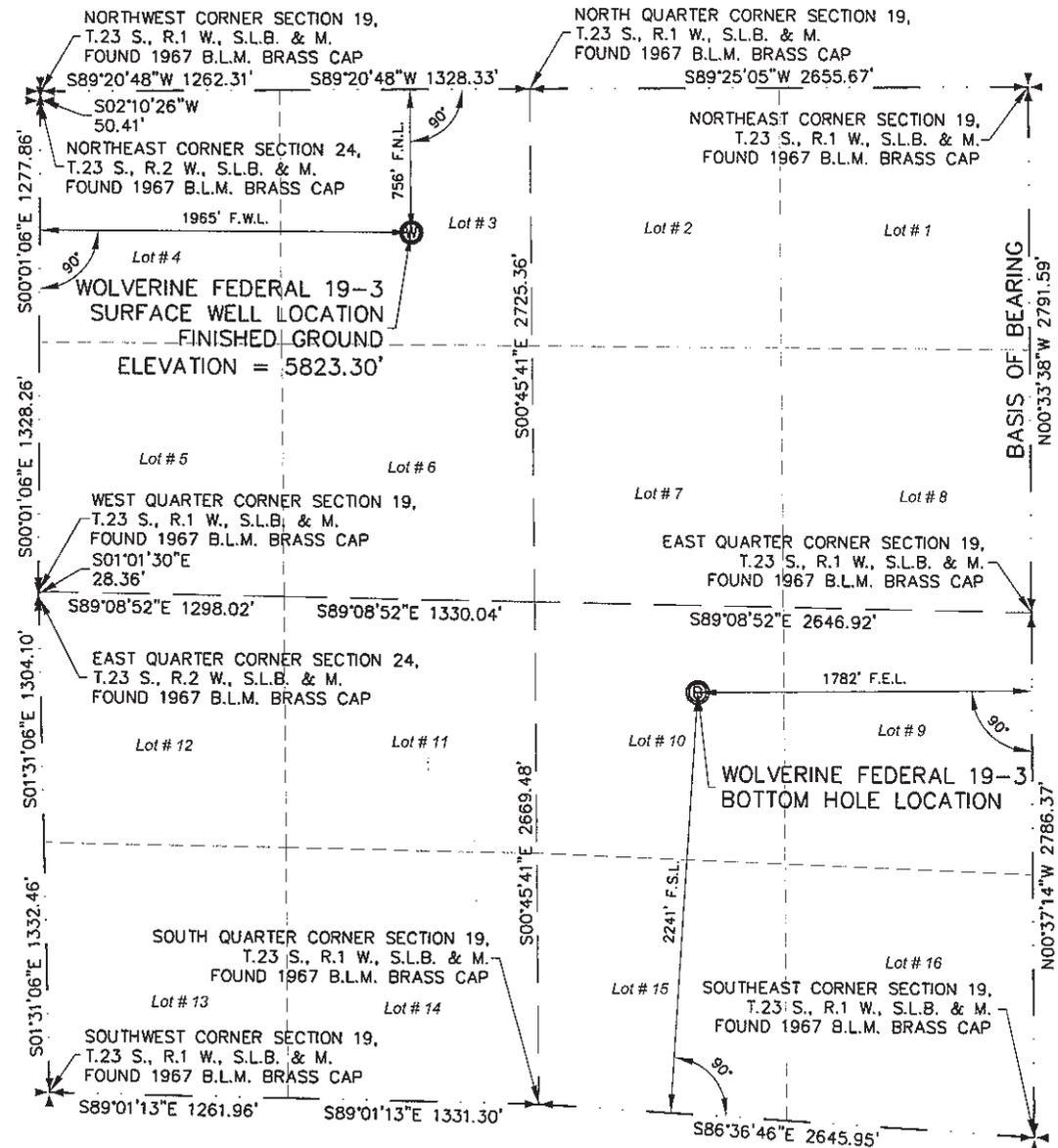
- A. Hydrogen Sulfide: Hydrogen Sulfide (H<sub>2</sub>S) gas is not expected in the geologic formations to be penetrated by this well.
- B. Pressure: No abnormally pressured zones are expected in this well. The pressure gradient for all potentially productive formations is expected to be approximately 0.44psi/ft.
- C. Temperature: Bottom-hole temperature at TD is expected to be approximately 190 deg. F.

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end

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# Section 19, T.23 S., R.1 W., S.L.B. & M.



### BASIS OF BEARINGS

BASIS OF BEARING USED WAS N00°33'38"W BETWEEN THE EAST QUARTER CORNER AND THE NORTHEAST CORNER OF SECTION 19, T.23 S., R.1 W., S.L.B. & M.  
 S.H.L. LAT.: 38°47'34.0028" (38.792778556) NAD 83 - UTM ZONE 12N NAD27 N 14087924.612  
 S.H.L. LONG.: -111°57'10.3342" (-111.952870611) NAD 83 - UTM ZONE 12N NAD27 E 1369131.200  
 B.H.L. LAT.: 38°47'10.0098" (38.786113833) - UTM ZONE 12N NAD27 N 14085482.082  
 B.H.L. LONG.: -111°56'50.8278" (-111.947452167) - UTM ZONE 12N NAD27 E 1370649.880

### PROJECT

**Wolverine Gas & Oil Company of Utah, L.L.C.**

WELL LOCATION, LOCATED AS SHOWN IN THE N.E. 1/4 OF THE N.W. 1/4 OF SECTION 19, T.23 S., R.1 W., S.L.B. & M. SEVIER COUNTY, UTAH

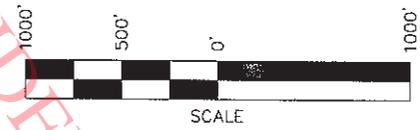
### LEGEND

- = SECTION CORNERS (LOCATED)
- = QUARTER SECTION CORNERS (LOCATED)
- = PROPOSED SURFACE WELL LOCATION
- = PROPOSED BOTTOM HOLE LOCATION

NOTE: THE PURPOSE OF THIS SURVEY WAS TO PLAT THE WOLVERINE FEDERAL 19-3 LOCATION, LOCATED IN THE N.E. 1/4 OF THE N.W. 1/4 OF SECTION 19, T.23 S., R.1 W., S.L.B. & M. SEVIER COUNTY, UTAH.

### BASIS OF ELEVATION

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



### 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 Roy Gadd*  
 PROFESSIONAL LAND SURVEYOR  
 TREVOR R. GADD P.L.S. # 343639  
 06/03/10



**Jones and Demille Engineering, Inc.**

1535 South 100 West Richfield, Utah 84701  
 1675 South Hwy. 10 Price, Utah 84501  
 Voice 435.896.8266 Voice 435.637.8266  
 Fax 435.896.8268 Fax 435.637.8268  
 www.jonesanddemille.com

Well Location Plat for

**Wolverine Gas & Oil Company of Utah, L.L.C.**

DESIGNED -	SURVEYED J.G.C.	CHECKED T.R.G.	DRAWN T.W.G.	PROJECT NO. 0912-147	SHEET NO. 1
DATE 06/03/10		DWG. NAME 0912-147...	SCALE 1"=1000'		





Company: Wolverine Gas & Oil  
 Field: Development  
 Cty/Blk/Par: Sevier County, UT  
 Well Name: WF 19-3  
 Rig: \_\_\_\_\_

Job Number: \_\_\_\_\_  
 Magnetic Decl.: \_\_\_\_\_  
 Grid Corr.: \_\_\_\_\_  
 Total Survey Corr.: \_\_\_\_\_  
 Target Info: \_\_\_\_\_

Calculation Method Minimum Curvature  
 Proposed Azimuth 146.4  
 Depth Reference \_\_\_\_\_  
 Tie Into: Surface

DRAFT COPY-For APD Purposes Only

No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth (ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)			
0		0	0.00	0.00		0.00		0.00	0.00					
1		100.00	0.00	0.00	100	100.00	0.00	0.00 N	0.00 E	0.00	0.00	0.00	0.0	0.0
2		200.00	0.00	0.00	100	200.00	0.00	0.00 N	0.00 E	0.00	0.00	0.00	0.0	0.0
3		300.00	0.00	0.00	100	300.00	0.00	0.00 N	0.00 E	0.00	0.00	0.00	0.0	0.0
4		400.00	0.00	0.00	100	400.00	0.00	0.00 N	0.00 E	0.00	0.00	0.00	0.0	0.0
5		500.00	1.50	146.38	100	499.99	1.31	1.09 S	0.72 E	1.31	146.38	1.50	1.5	146.4
6		600.00	3.00	146.38	100	599.91	5.23	4.36 S	2.90 E	5.23	146.38	1.50	1.5	0.0
7		700.00	4.50	146.38	100	699.69	11.77	9.81 S	6.52 E	11.77	146.38	1.50	1.5	0.0
8		800.00	6.00	146.38	100	799.27	20.92	17.42 S	11.59 E	20.92	146.38	1.50	1.5	0.0
9		900.00	7.50	146.38	100	898.57	32.68	27.21 S	18.09 E	32.68	146.38	1.50	1.5	0.0
10		1,000.00	9.00	146.38	100	997.54	47.03	39.16 S	26.04 E	47.03	146.38	1.50	1.5	0.0
11		1,100.00	10.50	146.38	100	1096.09	63.96	53.26 S	35.41 E	63.96	146.38	1.50	1.5	0.0
12		1,200.00	12.00	146.38	100	1194.16	83.47	69.51 S	46.22 E	83.47	146.38	1.50	1.5	0.0
13		1,300.00	13.50	146.38	100	1291.70	105.54	87.89 S	58.44 E	105.54	146.38	1.50	1.5	0.0
14		1,400.00	15.00	146.38	100	1388.62	130.15	108.38 S	72.06 E	130.15	146.38	1.50	1.5	0.0
15		1,500.00	16.50	146.38	100	1484.86	157.30	130.99 S	87.09 E	157.30	146.38	1.50	1.5	0.0
16		1,600.00	18.00	146.38	100	1580.36	186.95	155.68 S	103.51 E	186.95	146.38	1.50	1.5	0.0
17		1,700.00	19.50	146.38	100	1675.05	219.09	182.45 S	121.31 E	219.09	146.38	1.50	1.5	0.0
18		1,800.00	21.00	146.38	100	1768.86	253.70	211.27 S	140.47 E	253.70	146.38	1.50	1.5	0.0
19		1,900.00	22.50	146.38	100	1861.74	290.76	242.12 S	160.99 E	290.76	146.38	1.50	1.5	0.0
20		2,000.00	24.00	146.38	100	1953.62	330.23	274.99 S	182.84 E	330.23	146.38	1.50	1.5	0.0
21		2,100.00	25.50	146.38	100	2044.43	372.10	309.86 S	206.02 E	372.10	146.38	1.50	1.5	0.0
22		2,200.00	27.00	146.38	100	2134.12	416.32	346.69 S	230.51 E	416.32	146.38	1.50	1.5	0.0
23		2,300.00	28.50	146.38	100	2222.61	462.88	385.46 S	256.29 E	462.88	146.38	1.50	1.5	0.0
24		2,400.00	30.00	146.38	100	2309.86	511.75	426.14 S	283.34 E	511.75	146.38	1.50	1.5	0.0
25		2,500.00	31.50	146.38	100	2395.80	562.87	468.72 S	311.65 E	562.87	146.38	1.50	1.5	0.0



Company: Wolverine Gas & Oil  
 Field: Development  
 Cty/Blk/Par: Sevier County, UT  
 Well Name: WF 19-3  
 Rig: \_\_\_\_\_

Job Number: \_\_\_\_\_  
 Magnetic Decl.: \_\_\_\_\_  
 Grid Corr.: \_\_\_\_\_  
 Total Survey Corr.: \_\_\_\_\_  
 Target Info: \_\_\_\_\_

Calculation Method Minimum Curvature  
 Proposed Azimuth 146.4  
 Depth Reference \_\_\_\_\_  
 Tie Into: Surface

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No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth (ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)			
26		2,600.00	33.00	146.38	100	2480.37	616.23	513.15 S	341.20 E	616.23	146.38	1.50	1.5	0.0
27		2,700.00	34.00	146.38	100	2563.76	671.43	559.12 S	371.76 E	671.43	146.38	1.00	1.0	0.0
28		2,800.00	34.00	146.38	100	2646.66	727.35	605.68 S	402.72 E	727.35	146.38	0.00	0.0	0.0
29		2,900.00	34.00	146.38	100	2729.56	783.26	652.25 S	433.68 E	783.26	146.38	0.00	0.0	0.0
30		3,000.00	34.00	146.38	100	2812.47	839.18	698.81 S	464.64 E	839.18	146.38	0.00	0.0	0.0
31		3,100.00	34.00	146.38	100	2895.37	895.10	745.38 S	495.60 E	895.10	146.38	0.00	0.0	0.0
32		3,200.00	34.00	146.38	100	2978.27	951.02	791.94 S	526.56 E	951.02	146.38	0.00	0.0	0.0
33		3,300.00	34.00	146.38	100	3061.18	1006.94	838.51 S	557.53 E	1006.94	146.38	0.00	0.0	0.0
34		3,400.00	34.00	146.38	100	3144.08	1062.86	885.07 S	588.49 E	1062.86	146.38	0.00	0.0	0.0
35		3,500.00	34.00	146.38	100	3226.99	1118.78	931.64 S	619.45 E	1118.78	146.38	0.00	0.0	0.0
36		3,600.00	34.00	146.38	100	3309.89	1174.70	978.21 S	650.41 E	1174.70	146.38	0.00	0.0	0.0
37		3,700.00	34.00	146.38	100	3392.79	1230.62	1024.77 S	681.37 E	1230.62	146.38	0.00	0.0	0.0
38		3,800.00	34.00	146.38	100	3475.70	1286.54	1071.34 S	712.33 E	1286.54	146.38	0.00	0.0	0.0
39		3,900.00	34.00	146.38	100	3558.60	1342.46	1117.90 S	743.29 E	1342.46	146.38	0.00	0.0	0.0
40		4,000.00	34.00	146.38	100	3641.50	1398.38	1164.47 S	774.26 E	1398.38	146.38	0.00	0.0	0.0
41		4,100.00	34.00	146.38	100	3724.41	1454.30	1211.03 S	805.22 E	1454.30	146.38	0.00	0.0	0.0
42		4,200.00	34.00	146.38	100	3807.31	1510.22	1257.60 S	836.18 E	1510.22	146.38	0.00	0.0	0.0
43		4,300.00	34.00	146.38	100	3890.22	1566.13	1304.16 S	867.14 E	1566.13	146.38	0.00	0.0	0.0
44		4,400.00	34.00	146.38	100	3973.12	1622.05	1350.73 S	898.10 E	1622.05	146.38	0.00	0.0	0.0
45		4,500.00	34.00	146.38	100	4056.02	1677.97	1397.30 S	929.06 E	1677.97	146.38	0.00	0.0	0.0
46		4,600.00	34.00	146.38	100	4138.93	1733.89	1443.86 S	960.03 E	1733.89	146.38	0.00	0.0	0.0
47		4,700.00	34.00	146.38	100	4221.83	1789.81	1490.43 S	990.99 E	1789.81	146.38	0.00	0.0	0.0
48		4,800.00	34.00	146.38	100	4304.73	1845.73	1536.99 S	1021.95 E	1845.73	146.38	0.00	0.0	0.0
49		4,900.00	34.00	146.38	100	4387.64	1901.65	1583.56 S	1052.91 E	1901.65	146.38	0.00	0.0	0.0
50		5,000.00	34.00	146.38	100	4470.54	1957.57	1630.12 S	1083.87 E	1957.57	146.38	0.00	0.0	0.0



Company: Wolverine Gas & Oil  
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Calculation Method Minimum Curvature  
 Proposed Azimuth 146.4  
 Depth Reference \_\_\_\_\_  
 Tie Into: Surface

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No.	Tool Type	Survey Depth (ft)	Incl (°)	Azimuth (°)	Course Lgth (ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)			
51		5,100.00	34.00	146.38	100	4553.45	2013.49	1676.69 S	1114.83 E	2013.49	146.38	0.00	0.0	0.0
52		5,200.00	32.50	146.38	100	4637.07	2068.32	1722.35 S	1145.19 E	2068.32	146.38	1.50	-1.5	0.0
53		5,300.00	31.00	146.38	100	4722.10	2120.94	1766.16 S	1174.32 E	2120.94	146.38	1.50	-1.5	0.0
54		5,400.00	30.00	146.38	100	4808.27	2171.69	1808.43 S	1202.43 E	2171.69	146.38	1.00	-1.0	0.0
55		5,500.00	29.00	146.38	100	4895.30	2220.93	1849.43 S	1229.69 E	2220.93	146.38	1.00	-1.0	0.0
56		5,600.00	27.50	146.38	100	4983.39	2268.26	1888.85 S	1255.90 E	2268.26	146.38	1.50	-1.5	0.0
57		5,700.00	26.50	146.38	100	5072.49	2313.66	1926.65 S	1281.03 E	2313.66	146.38	1.00	-1.0	0.0
58		5,800.00	25.00	146.38	100	5162.55	2357.10	1962.83 S	1305.09 E	2357.10	146.38	1.50	-1.5	0.0
59		5,900.00	23.50	146.38	100	5253.73	2398.17	1997.03 S	1327.83 E	2398.17	146.38	1.50	-1.5	0.0
60		6,000.00	22.00	146.38	100	5345.95	2436.84	2029.23 S	1349.24 E	2436.84	146.38	1.50	-1.5	0.0
61		6,100.00	20.50	146.38	100	5439.14	2473.09	2059.41 S	1369.30 E	2473.09	146.38	1.50	-1.5	0.0
62		6,200.00	19.00	146.38	100	5533.26	2506.88	2087.55 S	1388.01 E	2506.88	146.38	1.50	-1.5	0.0
63		6,300.00	17.50	146.38	100	5628.23	2538.19	2113.62 S	1405.35 E	2538.19	146.38	1.50	-1.5	0.0
64		6,400.00	16.00	146.38	100	5723.98	2567.01	2137.62 S	1421.31 E	2567.01	146.38	1.50	-1.5	0.0
65		6,500.00	14.50	146.38	100	5820.46	2593.31	2159.53 S	1435.87 E	2593.31	146.38	1.50	-1.5	0.0
66		6,600.00	13.00	146.38	100	5917.59	2617.08	2179.32 S	1449.03 E	2617.08	146.38	1.50	-1.5	0.0
67		6,700.00	11.50	146.38	100	6015.31	2638.30	2196.99 S	1460.78 E	2638.30	146.38	1.50	-1.5	0.0
68		6,800.00	9.50	146.38	100	6113.63	2656.52	2212.16 S	1470.87 E	2656.52	146.38	2.00	-2.0	0.0
69		6,900.00	7.50	146.38	100	6212.52	2671.30	2224.47 S	1479.05 E	2671.30	146.38	2.00	-2.0	0.0
70		7,000.00	5.50	146.38	100	6311.88	2682.62	2233.89 S	1485.32 E	2682.62	146.38	2.00	-2.0	0.0
71		7,100.00	3.50	146.38	100	6411.56	2690.47	2240.43 S	1489.66 E	2690.47	146.38	2.00	-2.0	0.0
72		7,200.00	1.50	146.38	100	6511.46	2694.83	2244.06 S	1492.08 E	2694.83	146.38	2.00	-2.0	0.0
73		7,300.00	0.00	146.38	100	6611.45	2696.14	2245.15 S	1492.80 E	2696.14	146.38	1.50	-1.5	0.0
74		7,400.00	0.00	146.38	100	6711.45	2696.14	2245.15 S	1492.80 E	2696.14	146.38	0.00	0.0	0.0
75		7,464.00	0.00	146.38	64	6775.45	2696.14	2245.15 S	1492.80 E	2696.14	146.38	0.00	0.0	0.0

## SURFACE USE PLAN OF OPERATIONS

*For inclusion with Application for Permit to Drill*

**Name of Operator:** Wolverine Gas and Oil Company of Utah, LLC  
**Address:** 1140 N Centennial Park Drive  
Richfield, Utah 84701

### **Wolverine Federal 19-3**

**Surface Well Location:** 756' FNL & 1965' FWL, being in Lot 3 (NE4/NW4)  
Section 19, T23S, R1W, SLB&M  
Sevier County, Utah

**Bottom Hole Location:** 2241' FSL & 1782' FEL, being in Lot 10 (NW4/SE4)  
Section 19, T23S, R1W, SLB&M  
Sevier County, Utah

**Access Road Location:** Access road to be a combination of an upgraded existing two-track road from Berkley Anderson Road near the north line of Section 19, continuing southeasterly a distance of about 710 feet; then a new road to be constructed, continuing southeasterly a distance of about 530 feet to the well pad.. Both upgraded and constructed portions of road are on BLM lease #UTU-73528, and are unitized in Wolverine's Federal Unit. Berkley Anderson Road is a Class B (gravel) county-maintained road.

**State surface use is not required for construction and drilling of the referenced well. BLM is the surface owner at the drill pad site, the bottom hole location and the access road. Federal surface use is being requested with the associated Application for Permit to Drill (APD) through the BLM – Richfield Field Office.**

**The dirt contractor will be provided with an approved copy of the surface use plan of operations and conditions of approval before initiating construction.**

A Federal onsite inspection was conducted on April 27, 2010, with the following individuals present:

Charlie Irons – Wolverine  
Darin Robinson – Jones and DeMille Engineering.  
Glen Nebeker – Western Land Services - NEPA Specialist  
Stan Andersen – BLM Supervisory Natural Resource Specialist and Team Leader  
Larry Greenwood – BLM Wildlife Conservationist  
Chris Colton – BLM Supervisory Natural Resource Specialist

It should be noted that the site identified in the Notice of Staking, being in Lot 7 (SW4NE4) of Section 19, was found unacceptable by BLM personnel at the onsite, due to “major environmental disturbances” to the landscape and sensitive plant species. An alternate location for the well was proposed by BLM, being in Lot 3 (NE4NW4), that was subsequently approved by Wolverine's geology team. In a meeting with the BLM staff on May 20, 2010, the results of a sensitive and endemic plant study on the alternate site were presented by Megan Robinson, of Rocky Mountain Environmental Research. Larry Greenwood obtained the approval of Ron Bolander, BLM T&E Plant Specialist, authorizing Megan to transplant certain plants from the new site to a location elsewhere. That being done, there should be no further impact on sensitive or endemic plants by construction of the well pad and access road.

#### ***Existing Roads:***

The vicinity map in the APD packet shows the proposed well location and its proximity to Highway 24, Highway 119, and Berkley Anderson Road. The proposed well surface location is about 2.9 miles northeast of the Town of

Glenwood, Utah, and is about 3.6 miles south-southeast of Sigurd, Utah.

**Driving directions:** From Interstate 70, take Exit #48 and go south to Sigurd, Utah, on SR 24; from Sigurd, continue southerly on SR 24 approximately 4 miles, to the first well pad (the C Pad) on the right side of the road past the CPF (Central Production Facility). Turn right onto Berkley Anderson Road, going northerly, thence westerly around the toe of the hill, thence southerly about 1.8 miles to the well access road on the left. Follow lease road to well site. Alternatively, heavy traffic should avoid the C Pad turnoff and should stay on SR 24 to the SR 119 intersection. Follow SR 119 westerly to the south end of Berkley Anderson road, then follow it northerly about 2 miles to the well access road on the right. The surface condition of most of Berkley Anderson Road is not presently adequate to bear all-season rig traffic and will need upgrade and improvement from the two-track turnoff southerly to Highway 119. All portions of the road needing realignment are on BLM land. These improvements will be performed under the conditions of an encroachment permit from Sevier County Road Department, and conditions of approval from BLM.

**Access Roads to be Constructed and Reconstructed:**

The proposed access road will require the construction of a driveway ramp and improvements to the existing two-track road from its intersection with Berkley Anderson Road, a distance of about 710 feet; then a new road to be constructed, continuing southeasterly a distance of about 510 feet to the well pad. The improved road will have a travel surface 12' in width, with one truck turnout at the driveway ramp that will have a travel surface 20' in width, being 100' in length. The new road will have a travel surface generally 14' in width.

See Typical Section sheets TS-01 and TS-02 for road design, and Plan and Profile sheets PP-01 and PP-02 for dimensions.

The upgrade to Berkley Anderson road will consist, for the most part, of laying down a 4" thick granular base. There are three sections of the road that will need a slight realignment to increase visibility, allow for traffic to pass, and to increase safety. These sections are shown in overview on Plan Sheet PL-03, and in detail on PP-03, PP-04 and PP-05. Construction detail is shown on Sheet TS-02 (Type 3; typical). A culvert (30" CMP x 104') will need to be installed as shown on sheet PP-03.

Road construction, operation and maintenance will be in compliance with the terms and conditions of the Conditions of Approval, the American Association of State Highway and Transportation (AASHTO) safety standards, and will meet criteria for the Manual of Uniform Traffic Control Devices (MUTCD) manual for signs.

Energy dissipating structures and silt fences will be utilized to minimize erosion that may result from the road construction.

All existing county roads and the new lease road will be maintained and kept in good repair during all phases of operation. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.

**Location of Existing Wells within a one-mile radius :**

All wells located within a one-mile radius of the proposed wells are listed below:

Well	Type	Surface Location *	Bottom Hole Location *
KMR 17-1	Producer-oil	SE4NW4 Section 17	SE4NW4 Section 17
WF 17-2	Producer-oil	SE4SW4 Section 17	SE4SW4 Section 17
WF 17-3	Producer-oil	SE4NW4 Section 17	NW4SW4 Section 17
WF 17-4	Producer-oil	SE4NW4 Section 17	NW4SE4 Section 17
WF 17-5	Producer-oil	SE4NW4 Section 17	SE4NE4 Section 17
WF 17-6	Producer-oil	SE4NW4 Section 17	NW4NE4 Section 17
KMR 17-7	Producer-oil	SE4NW4 Section 17	SW4NW4 Section 17
WF 17-8	Producer-oil	NE4SW4 Section 17	NE4SW4 Section 17
WF 17-9	Producer-oil	NE4SW4 Section 17	SW4SW4 Section 17
WS 17-10	Producer-oil	NE4NW4 Section 20	SW4SE4 Section 17
WF 17-11	Producer-oil	SE4NW4 Section 17	SE4NE4 Section 17
WF 17-12	Producer-oil	SE4NW4 Section 17	SW4NE4 Section 17
WF 17-13	Producer-oil	SE4NW4 Section 17	NW4NE4 Section 17

WF 18-1	Producer-oil	SE4SW4 Section 17	SE4SE4 Section 18
WF 19-1	Producer-oil	SE4SW4 Section 17	NE4NE4 Section 19
WF 19-2	Producer-oil	NE4NW4 Section 20	NE4SE4 Section 19
WF 20-1	Producer-oil	SE4SW4 Section 17	NW4NW4 Section 20
WF 20-2	Producer-oil	NE4NW4 Section 20	SW4NW4 Section 20
WS 20-3	Producer-oil	NE4NW4 Section 20	SE4NW4 Section 20
WF 20-4	Producer-oil	NE4NW4 Section 20	NE4NW4 Section 20
WF 8-1	Dry Hole-plugged	SE4NW4 Section 17	SE4SE4 Section 8
SWD-1	Disposal-active	SW4SW4 Section 8	SW4SW4 Section 8
Water well	Culinary water supply	SW4NE4 Section 20	SW4NE4 Section 20

\*All wells are located in T23S-R1W

**Location of Planned Wells:**

At present there are no planned wells that have approval to be drilled within a one-mile radius of the proposed well.

**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 dike 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* – In the event production is achieved, produced oil and water would be transported by pipeline installed along the access road and down the center of Berkley Anderson Road to a tie-in junction with previously-installed pipeline associated with the C Pad production. The pipeline system would consist of a 9-foot deep trench with an electric line placed in the bottom, covered by 3 feet of fill, then flowlines to carry produced oil and water would be placed and buried 6 feet below the surface. The trench would be compacted and the surface of Berkley Anderson Road returned to an all-season roadway condition. That installation would be covered under a Sundry Notice approved prior to construction.

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

The Operator intends to lease water rights from Kings Meadow Ranches, LLC (Water Right #63-2529), which was the supply for drilling the other Covenant Field wells. Source of water is Kings Meadow Reservoir. Water will be trucked to the reserve pit from the nearest irrigation riser, as directed by Kings Meadow Ranches. Should additional water sources be pursued they will be properly permitted through the State of Utah – Division of Water Rights. The BLM will be notified of any changes in water supply.

**Construction Materials:**

Natural earth materials used for fill on the well pad will be 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 access road where deemed necessary. No construction materials will be removed from federal lands.

**Methods for Handling Waste Disposal:**

The reserve pit will be used for the disposal of waste mud and drill cuttings. All borehole fluids and salts will be contained in the reserve pit. It will be located in cut material and will be lined with 12 mil minimum thickness plastic nylon reinforced liner material. The liner will overlay a felt liner pad only if sharp rock edges result from excavation. The pit liner will overlap the top of the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe, etc. that could puncture the liner will be disposed of in the pit. Pit walls will be sloped no greater than 2:1. A minimum 2-foot freeboard will be maintained in the pit at all times during the drilling and completion operations. After evaporation of fluids, back-fill of sub-soil and compaction to prevent settling will occur within 90 days of cessation of pit use. If necessary, any remaining fluids will be pumped out of the pit and transported off 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 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 upon completion of drilling operations and as needed during such 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 reserve pit and access road 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. Cross section sheets in said packet show cuts and fills required for construction, and their relationship to topography. As detailed above under Methods for Handling Waste Disposal, the reserve pit will be lined and appropriate measures as described above will be taken to prevent leakage. The pit will be fenced on three sides during drilling operations and then the fourth side will be immediately fenced when the rig is moved off location.

The pad and road designs would be consistent with BLM specifications.

A pre-construction meeting with responsible company representative and contractors will be conducted at the project site prior to commencement of surface-disturbing activities. The pad and road will be construction-staked (centerline and exterior boundaries) prior to this 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 the BLM under the APD.

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

The stockpiled topsoil (first 8 inches or maximum available) will be isolated in a berm around the well pad. Topsoil will be stockpiled for reclamation in such a way as to prevent soil loss and contamination.

Water spraying may be implemented if necessary to minimize dust.

***Plans for Reclamation of the Surface:***

**(For further specifications see Addendum to Surface Plan of Operations, attached hereto)**

Edges of the access road and stockpiled topsoil will be seeded the first fall.

Interim Reclamation: In the event production is achieved the Operator will perform interim reclamation of the site. Interim reclamation will consist of reclamation of the reserve pit and reclamation of that portion of the well pad not needed for ongoing operations. After evaporation of fluids, the pit will be back-filled with sub-soil and/or rock and compacted to prevent settling. The pit area will be surfaced with gravel to render it a usable part of the well pad. All portions of the pad no longer necessary for well workover, testing or treating will be contoured to match the surrounding terrain to the best extent practicable. Stockpiled topsoil will be evenly distributed thereon, scarified and seeded as per BLM conditions of approval.

Final Reclamation: 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 consist of reclamation of the reserve pit, the well pad and the new-construction portion of the lease road as it crosses BLM land.

Any accumulation of hydrocarbons in the reserve pit will be removed and recovered for sale unless it is determined

by the authorized officer to be waste oil. All waste oil will be disposed of properly at approved facilities. The portion of the reserve pit liner which is exposed above the cuttings will be cut and removed from the site and disposed in an authorized landfill. After evaporation of fluids, the pit will be back-filled with subsoil and/or rock from the reserve pit stockpile and compacted to prevent settling.

Road base material used in the construction of the access road and pad will be removed from the site and disposed in a proper manner. If the reserve pit has adequate capacity, then some or all of the road base material may be buried in the reserve pit, provided that the granular is not contaminated by oil or other waste materials. The new construction portion of the access road will be contoured using an excavator or similar equipment, rather than simply ripping the surface.

Subsoil from the portions of the well pad that are fill will be pulled up onto the pad in order to reestablish the original slope to the best extent possible. The portions that are cut will be filled to match the original slope of the land to the best extent possible. Topsoil from the stockpile will then be evenly distributed over the entire impacted area, including the new-construction portion of the access road. The entire impacted area will be scarified and seeded in late fall, using the seed mix and methods described in BLM conditions of approval. Final reclamation will take place within 180 days after plugging date of the last well on 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, the BLM will be notified of their occurrence.

***Surface Ownership:***

The surface of the proposed well site and the access road is federally owned and is administered by the Bureau of Land Management, United States Department of Interior.

***Other Information:***

Heavy equipment used to construct and rehabilitate the well pad and access road 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 access roads and well pad.

Western Land Services has conducted a Class III archeological survey and will submit same under separate cover to the appropriate agencies.

Western Land Services will prepare an EA for the proposed operation.

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 as described on page 40 of the Gold Book (Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, 4<sup>th</sup> Edition 2006). 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 wildfires caused by construction or related activities. In the event of a wildfire 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 proposed herein; that I am familiar with the conditions which currently exist; that I, or someone under my direct supervision, have 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.

Executed this 27th day of August, 2010.

Signature: \_\_\_\_\_

Paul Spiering

Position Title:

District Land Manager

Address:

Wolverine Gas and Oil Company of Utah, LLC  
1140 N Centennial Park Drive  
Richfield, Utah 84701

Telephone:

435-896-1943

Field representative: Charlie Irons

Address:

Wolverine Gas and Oil Company of Utah, LLC  
1140 N Centennial Park Drive  
Richfield, Utah 84701

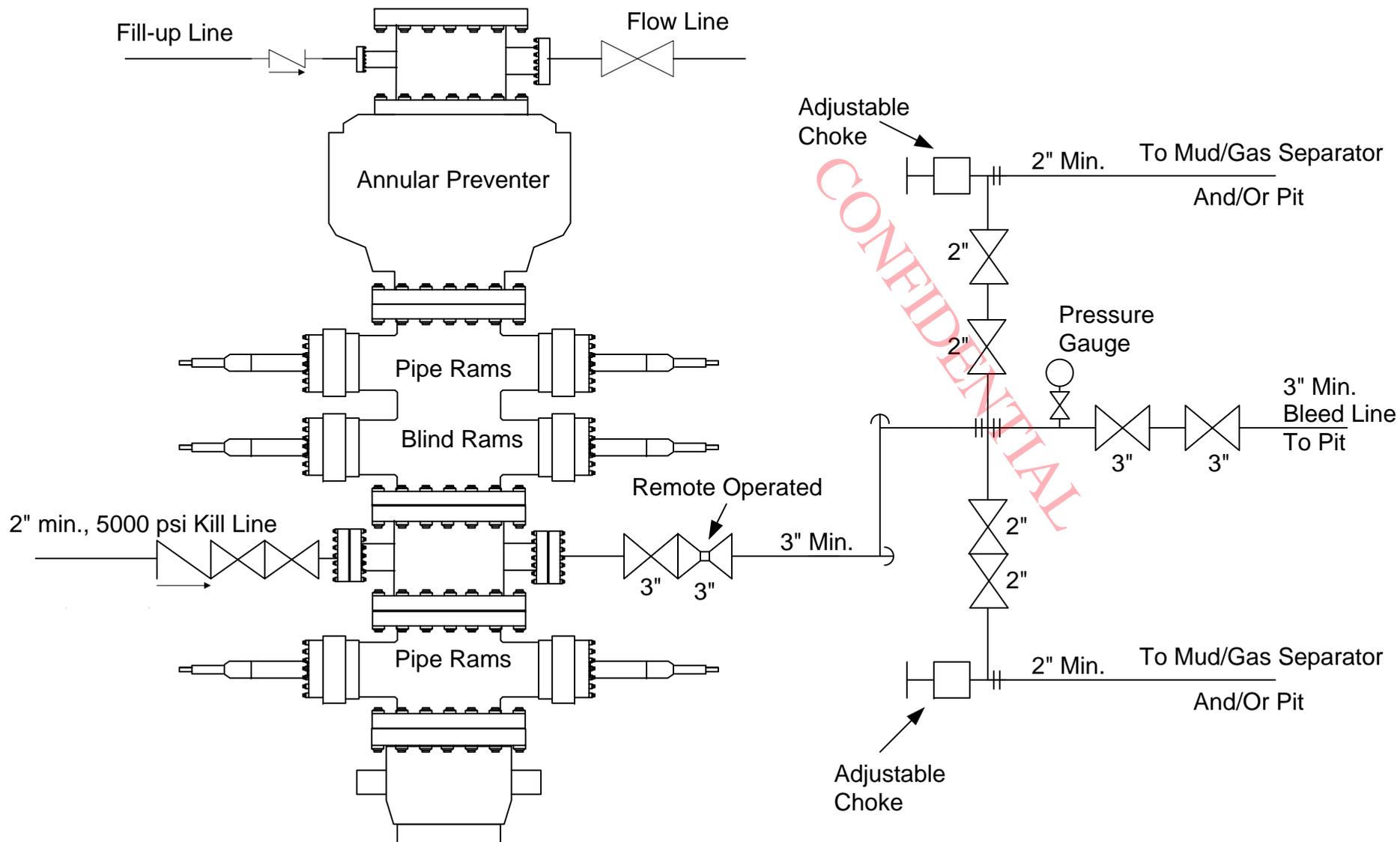
Telephone:

435-896-1943

*Agents not directly employed by the operator must submit a letter from the operator authorizing that agent to act or file this application on their behalf.*

# 5k BOPE Schematic

(Not to Scale)



## WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC

Energy Exploration in Partnership with the Environment



August 27, 2010

Diana 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 (Utah ePermit #2997)  
Wolverine Gas and Oil Company of Utah, LLC  
**Wolverine Federal 19-3**  
**Exception location/ directional drilling letter**

Dear Mrs. Mason:

Wolverine Gas and Oil Company of Utah, LLC (Wolverine) hereby submits this letter with the attached plats, as part of the *Application for Permit to Drill (APD)* for the referenced well:

- R649-3-2 Exception Plat showing proposed BHL;
- R649-3-11 Directional Drilling Application Plat showing proposed BHL;

The Kings Meadow Ranches, LLC, (Water Right #63-2529) will be the source for water during drilling and completion operations on this proposed well. The surface at the planned drill site is owned in fee by the United States, administered by Bureau of Land Management.

The proposed location is within 460' of a drilling unit boundary, so an exception to spacing (R649-3-2) is hereby requested for the well based on restrictive topography relative to and the need to drill at an optimum structural location. Wolverine is the only owner and operator within 460' of the proposed well location.

This letter and the accompanying plats are also intended to serve as an application for directionally drilling the well per R649-3-11. Wolverine 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:

Operator: Wolverine Gas and Oil Company of Utah, LLC

Address: 1140 N Centennial Park Drive  
Richfield, Utah 84701

Well: Wolverine Federal 19-3

Field: Covenant

Reservoir: Navajo

County: Sevier

Reason: Restrictive topography and to minimize surface impact

Please accept this letter as Wolverine's written request for confidential treatment of all information contained in and relating to this application and proposed well.

Thank you for consideration of this application. Please feel free to contact me or Paul Spiering of this office if you have any questions or need additional information.

Sincerely,



Charlie Irons  
Senior Landman

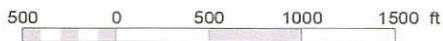


### Wolverine Federal 19-3 Well Location

SHL: 1965' FWL, 756' FNL, NE/4 NW/4, Sec. 19, T23S, R1W, Sevier Co., UT

BHL: 1782' FEL, 2241' FSL, NW/4 SE/4, Sec. 19, T23S, R1W, Sevier Co., UT

- Wolverine Lease
- Proposed SHL
- Proposed BHL



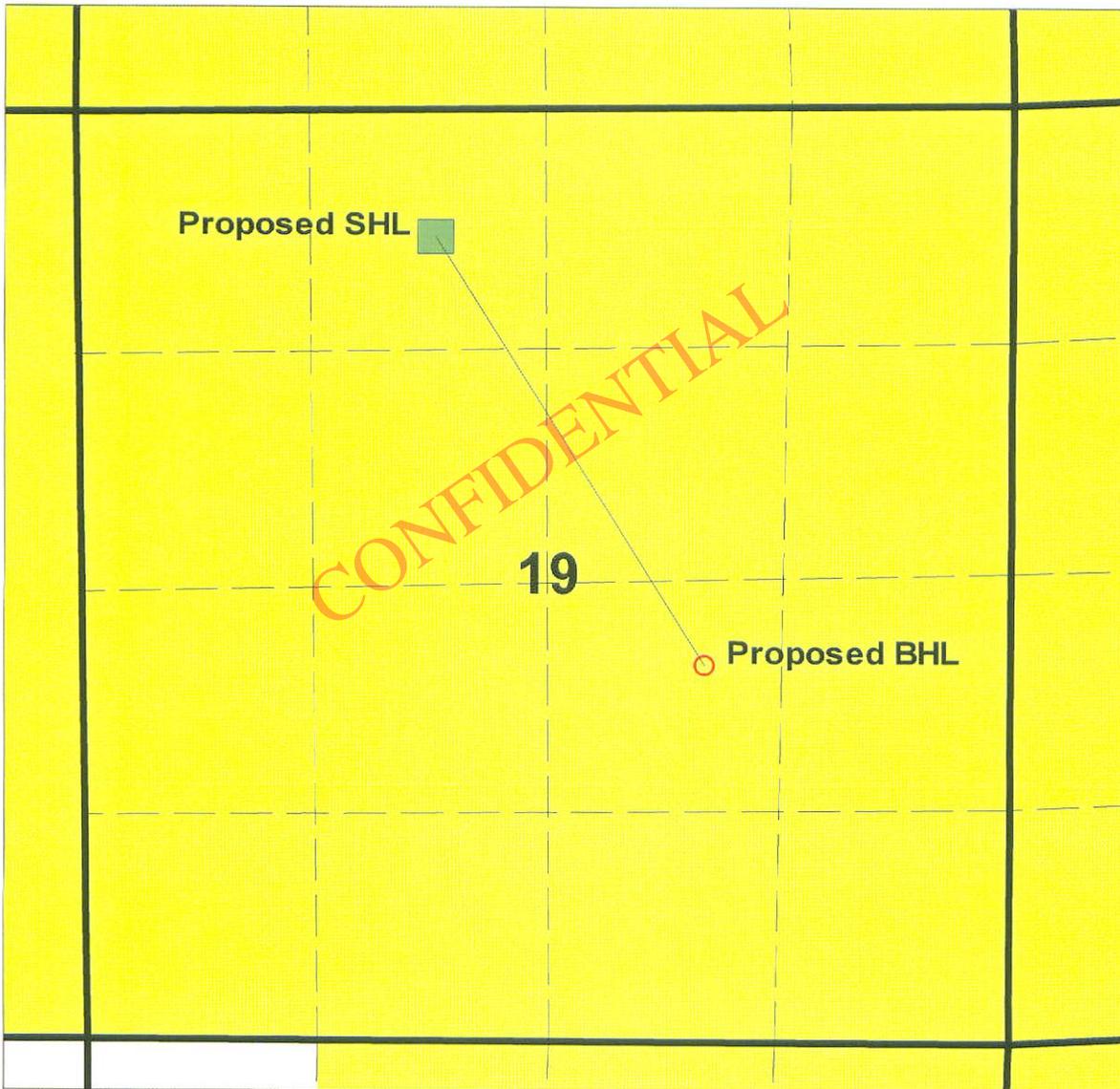
**WOLVERINE GAS & OIL CORPORATION**  
*Energy Exploration in Partnership with the Environment*

ONE RIVERFRONT PLAZA  
55 CAMPAU, N.W.  
GRAND RAPIDS, MI 49503-2616  
(616) 458-1150

### Exception Location and Ownership Plat (R649-3-2)

Date: 8/27/2010

Data Source: marks m aps\cov enant field development.gmp



### Wolverine Federal 19-3 Well Location

SHL: 1965' FWL, 756' FNL, NE/4 NW/4, Sec. 19, T23S, R1W, Sevier Co., UT  
BHL: 1782' FEL, 2241' FSL, NW/4 SE/4, Sec. 19, T23S, R1W, Sevier Co., UT

-  Wolverine Lease
-  Proposed SHL
-  Proposed BHL



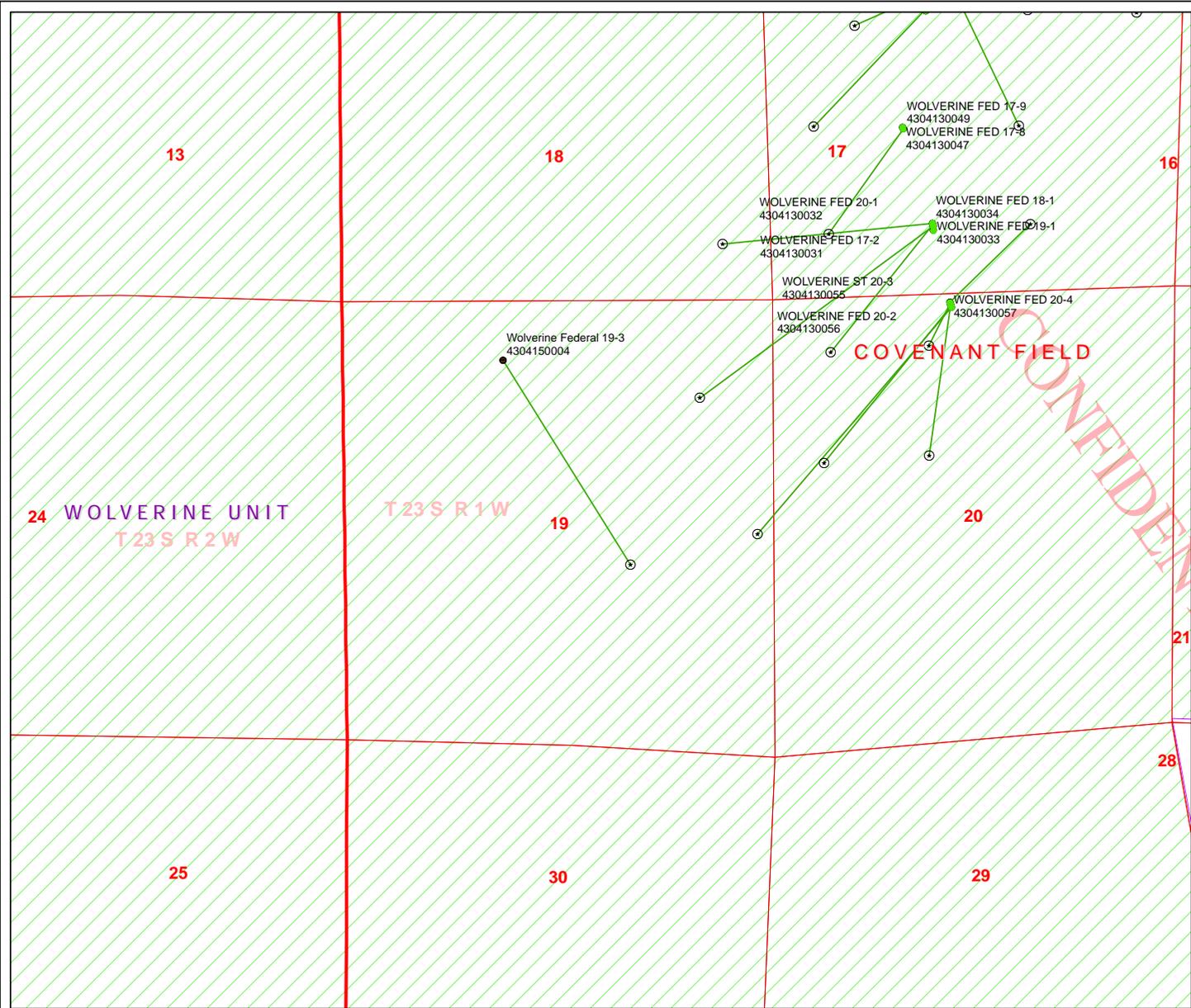
**WOLVERINE GAS & OIL CORPORATION**  
*Energy Exploration in Partnership with the Environment*

ONE RIVERFRONT PLAZA  
55 CAMPAU, N.W.  
GRAND RAPIDS, MI 49503-2616  
(616) 458-1150

### Directional Drilling Application Plat (R649-3-11)

Date: 4/30/2010

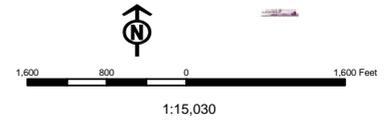
Data Source: marks maps/covenant field development.gmp



**API Number: 4304150004**  
**Well Name: Wolverine Federal 19-3**  
**Township 23.0 S Range 01.0 W Section 19**  
**Meridian: SLBM**  
 Operator: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC

Map Prepared:  
 Map Produced by Diana Mason

- |  |  |
|--|--|
| <p><b>Units</b></p> <ul style="list-style-type: none"> <li>ACTIVE</li> <li>EXPLORATORY</li> <li>GAS STORAGE</li> <li>NF PP OIL</li> <li>NF SECONDARY</li> <li>PI OIL</li> <li>PP GAS</li> <li>PP GEOTHERMAL</li> <li>PP OIL</li> <li>SECONDARY</li> <li>TERMINATED</li> </ul> <p><b>Fields</b></p> <ul style="list-style-type: none"> <li>Sections</li> <li>Township</li> <li>Bottom Hole Location - AGRC</li> </ul> | <p><b>Wells Query</b></p> <p>X - all other values</p> <ul style="list-style-type: none"> <li>APD - Approved Permit</li> <li>DRIL - Spudded (Drilling Commenced)</li> <li>GIW - Gas Injection</li> <li>GS - Gas Storage</li> <li>LA - Location Abandoned</li> <li>LOC - New Location</li> <li>OPS - Operation Suspended</li> <li>PA - Plugged Abandoned</li> <li>PGW - Producing Gas Well</li> <li>POW - Producing Oil Well</li> <li>RET - Returned APD</li> <li>SGW - Shut-in Gas Well</li> <li>SGW - Shut-in Oil Well</li> <li>TA - Temp. Abandoned</li> <li>TW - Test Well</li> <li>WDW - Water Disposal</li> <li>WIW - Water Injection Well</li> <li>WSW - Water Supply Well</li> </ul> |
|--|--|



**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

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**APD RECEIVED:** 8/27/2010

**API NO. ASSIGNED:** 43041500040000

**WELL NAME:** Wolverine Federal 19-3

**OPERATOR:** WOLVERINE GAS & OIL COMPANY OF UTAH, LLC (N1655)

**PHONE NUMBER:** 435 896-1943

**CONTACT:** Charles Irons

**PROPOSED LOCATION:** NENW 19 230S 010W

**Permit Tech Review:**

**SURFACE:** 0756 FNL 1965 FWL

**Engineering Review:**

**BOTTOM:** 2241 FSL 1782 FEL

**Geology Review:**

**COUNTY:** SEVIER

**LATITUDE:** 38.79277

**LONGITUDE:** -111.95221

**UTM SURF EASTINGS:** 417303.00

**NORTHINGS:** 4294004.00

**FIELD NAME:** COVENANT

**LEASE TYPE:** 1 - Federal

**LEASE NUMBER:** UTU-73528

**PROPOSED PRODUCING FORMATION(S):** NAVAJO

**SURFACE OWNER:** 1 - Federal

**COALBED METHANE:** NO

---

**RECEIVED AND/OR REVIEWED:**

- PLAT**
- Bond:** FEDERAL - BLM WYB000616
- Potash**
- Oil Shale 190-5**
- Oil Shale 190-3**
- Oil Shale 190-13**
- Water Permit:** 63-2529
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

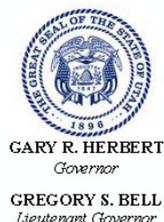
**Commingling Approved**

**LOCATION AND SITING:**

- R649-2-3.**  
**Unit:** WOLVERINE
  - 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  
APD IS IN UPOD:

**Stipulations:** 1 - Exception Location - dmason  
4 - Federal Approval - dmason  
15 - Directional - dmason  
23 - Spacing - dmason



# 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:** Wolverine Federal 19-3  
**API Well Number:** 43041500040000  
**Lease Number:** UTU-73528  
**Surface Owner:** FEDERAL  
**Approval Date:** 9/2/2010

### Issued to:

WOLVERINE GAS & OIL COMPANY OF UTAH, LLC, 1140 N. Centennial Park Dr., Richfield, UT 84701

### 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:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

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.

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter

section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

**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 at 801-538-5284 (please leave a voicemail message if not available)  
OR  
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <https://oilgas.ogm.utah.gov>

**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:**



Acting Associate Director, Oil & Gas

**Carol Daniels - Wolverine Federal 19-3 Update**

*T 235 ROI W 5-19 43-041-5004*

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope " ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis " , "Hall, Denise" ,  
"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" ,  
"Lewis, John" , "Martin Pete" , "McCoy, Charlene" , "McCoy, Tim" , "O'Connell, David" ,  
"Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson,  
Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Smuin,  
Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis, Walton" , "Winkler, Matt" ,  
"Zimmerman, Bill"  
**Date:** 10/17/2010 12:37 PM  
**Subject:** Wolverine Federal 19-3 Update

10/17/2010 11:48 AM

Building Wolverine Federal 19-3 location.

Location 75% complete. Reserve pit not complete.

Location will be ready for setting 120' of conductor Wednesday or Thursday

The rig will move possibly as early as Friday

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

RECEIVED

OCT 17 2010

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

**DIVISION OF OIL, GAS AND MINING**

**SPUDDING INFORMATION**

Name of Company: WOLVERINE GAS & OIL COMPANY OF UTAH

Well Name: WOLVERINE FEDERAL 19-3

Api No: 43-041-50004 Lease Type FEDERAL

Section 19 Township 23S Range 01W County SEVIER

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

**SPUDDED:**

Date 10/21/2010

Time LATE PM

How DRY

**Drilling will Commence:** \_\_\_\_\_

Reported by CHUCK EMERSON

Telephone # (970) 361-3276

Date 10/21/2010 Signed CHD

**Carol Daniels - Wolverine Federal 19-3 Conductor**

T 23S R 01W S-19 9304150004

**From:** "Chuck Emerson"  
**To:** "Daniels, Carol" , "Jones, Mark" , "Hendricks, Marvin" , "Willis, Walton" , "Willis, Walton Home"  
**Date:** 10/21/2010 4:15 PM  
**Subject:** Wolverine Federal 19-3 Conductor  
**CC:** "Irons, Charlie" , "Bardolph, Helene" , "Donovan, Bill" , "Emerson, Chuck " , "Higuera, Ed" , "Magill, Jack" , "Tom, Zupan" , "Treybig, Jerry" , "Wolverine Exploration Rig"

The Conductor Hole was Spud Today October 21, 2010 @ 0900hrs.  
 We will be running & cementing the 16" Conductor Casing with Reddi-Mix this afternoon.

Chuck Emerson  
 Drilling Supervisor  
 Rough Canyon Federal 30-1  
 Wolverine Gas & Oil  
 Rig (970) 361-3276  
 Cell (970) 381-6233  
[cemerson@prodigy.net](mailto:cemerson@prodigy.net)

RECEIVED  
 OCT 21 2010  
 DIV. OF OIL, GAS & MINING

Carol Daniels - Wolverine Federal 19-3 Update T 235 R 01 W 5-19 43-041-50004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope " , "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels, Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet, Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis " , "Hall, Denise" , "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis, Walton" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 10/29/2010 5:16 PM  
**Subject:** Wolverine Federal 19-3 Update

10/29/2010 5:12 PM

Moving Patterson-UTI 304 rig

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

RECEIVED

NOV 01 2010

DIV. OF OIL, GAS & MINING

**CONFIDENTIAL****Carol Daniels - Wolverine Federal 19-3** T239 R01W 5-19 43-041-50004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
 "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugard" , "Daniel Jenkins" , "Daniels,  
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 Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
 "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
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 "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" ,  
 "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert,  
 Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton,  
 Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis, Walton" ,  
 "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 10/30/2010 8:42 PM  
**Subject:** Wolverine Federal 19-3

10/30/2010 8:36 PM

The plan is to raise the derrick on Monday. The most optimistic is scenario is to run surface casing Thursday. Daily updates will follow.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

**RECEIVED****NOV 01 2010****DIV. OF OIL, GAS & MINING**

**CONFIDENTIAL****Carol Daniels - Wolverine Federal 19-3 Update**

T 935 R01W 5-19 43-041-50004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
 "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
 Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
 Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
 "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
 Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" ,  
 "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" ,  
 "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert,  
 Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton,  
 Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis, Walton" ,  
 "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 10/31/2010 4:09 PM  
**Subject:** Wolverine Federal 19-3 Update

10/31/2010 4:05 PM

Moving camp and rigging up.  
 Maybe start drilling surface as early as Tuesday

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

**RECEIVED****NOV 01 2010****DIV. OF OIL, GAS & MINING**

**Carol Daniels - Wolverine Federal 19-3 Update**

*T 235 ROWS-19 43-041-50004*

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" , "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugard" , "Daniel Jenkins" , "Daniels, Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet, Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" , "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis, Walton" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/2/2010 8:05 PM  
**Subject:** Wolverine Federal 19-3 Update

11/2/2010 7:58 PM

Plan to spud on Wednesday.

Casing point is fixed at 2,000'

All phones and the internet are working

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
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**Cell (720) 351-7470**  
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**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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NOV 02 2010

DIV. OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 Notification of Spudding Surface hole**

*TT 235 R01W S-19 43-041-50004*

**From:** "Wolverine Exploration Rig"  
**To:** "Hendricks, Marvin" , "Jones, Mark" , , "Daniels, Carol"  
**Date:** 11/2/2010 8:35 PM  
**Subject:** Wolverine Federal 19-3 Notification of Spudding Surface hole

---

11/2/2010 8:16 PM

Hello,

This is notification of spudding the 12 ¼" surface hole on Wednesday 11/03/10.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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NOV 02 2010

DIV. OF OIL, GAS & MINING



## **WOLVERINE GAS & OIL CO.**

### **WOLVERINE FEDERAL 19-3 Road Directions**

#### **DIRECTIONS FROM I-70 EXIT 48 (Sigurd Exit):**

**Travel on I-70 to Exit #48, the Sigurd, UT Exit.**

**Exit I-70 onto SR to 259.**

**Travel 0.1 miles south on SR 259 to SR 24.**

**Turn right on SR 24 E and follow SR 24 to Sigurd, UT.**

**From the Gas Station/Post Office travel 6.0 miles on SR 24 E to Mile Marker 16.**

**Turn right on SR 119 W and travel 2.9 mile to Mile Marker 6+.**

**Turn right on the lease road and travel north 1.9 miles.**

**Turn right on the lease road and travel 0.2 miles to the rig.**

**Follow the rig signs. Stay on the most travelled roads. Do not take short cuts.**

**Do not drive or park off the lease roads or the well pad.**

**All personnel must wear PPE: hard hat, hard toed boots and safety glasses.**

**Do not litter.**

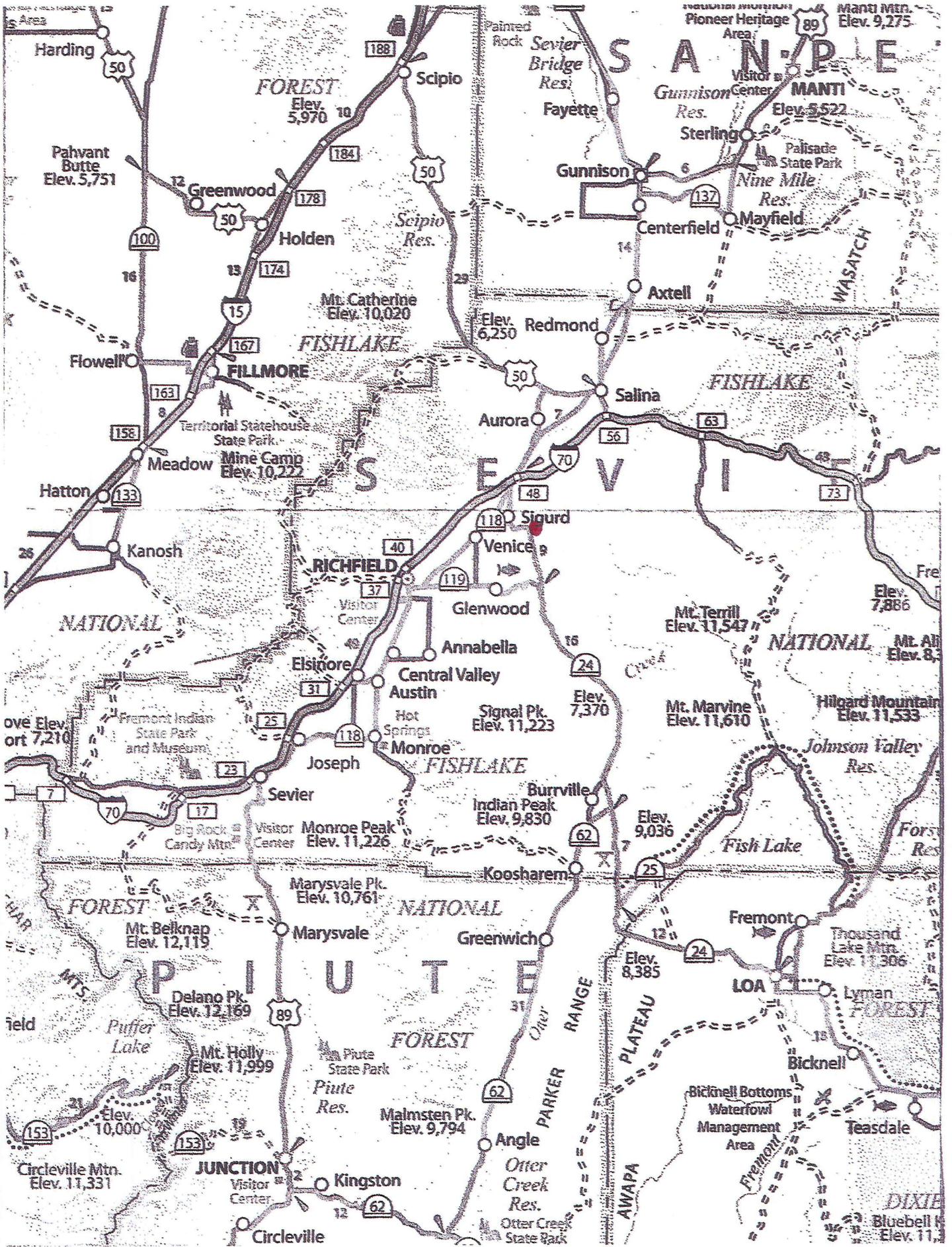
**Questions or problems call:**

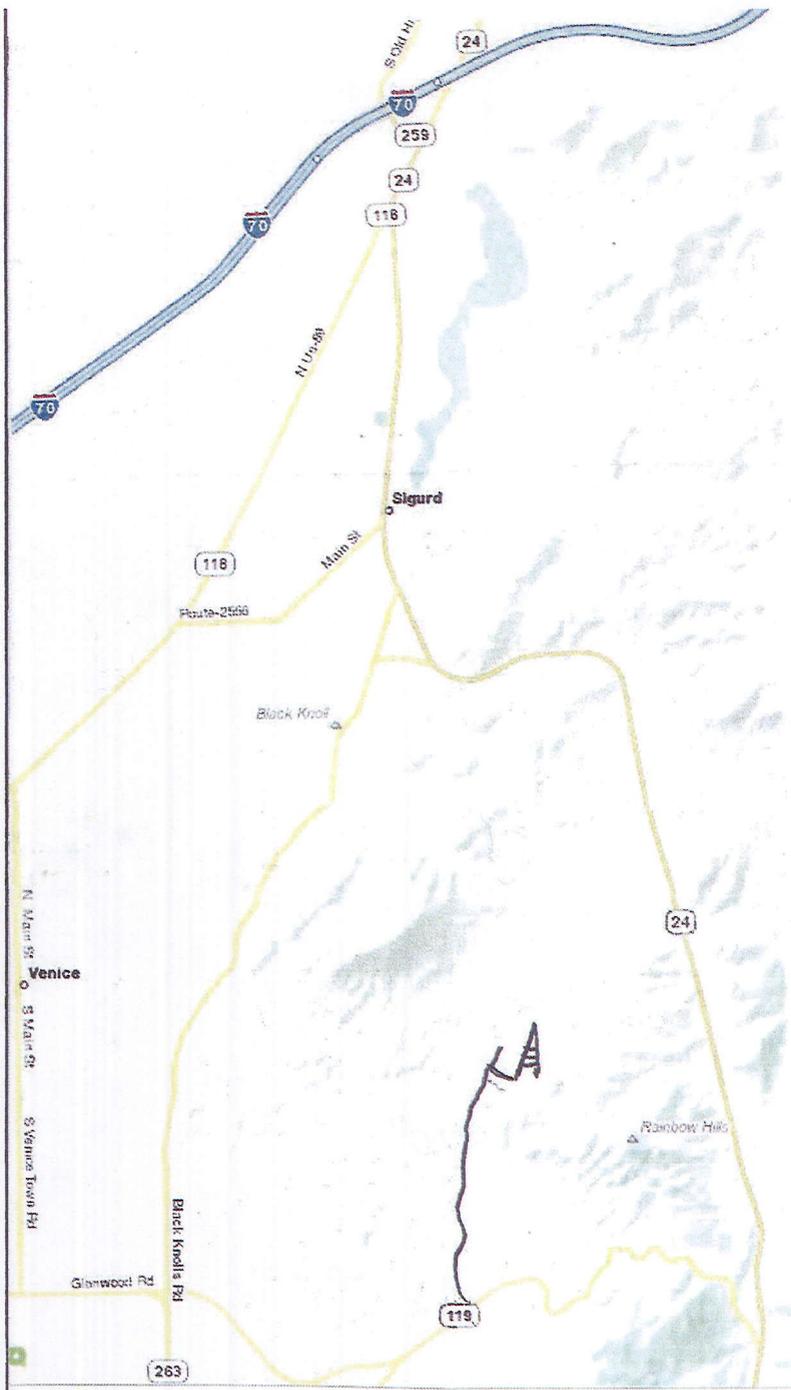
**Chuck Emerson, Tom Zupan or Bill Donovan (970) 812-0022  
Rig Manager (970) 812-0023**

**RECEIVED**

**NOV 02 2010**

**DIV. OF OIL, GAS & MINING**



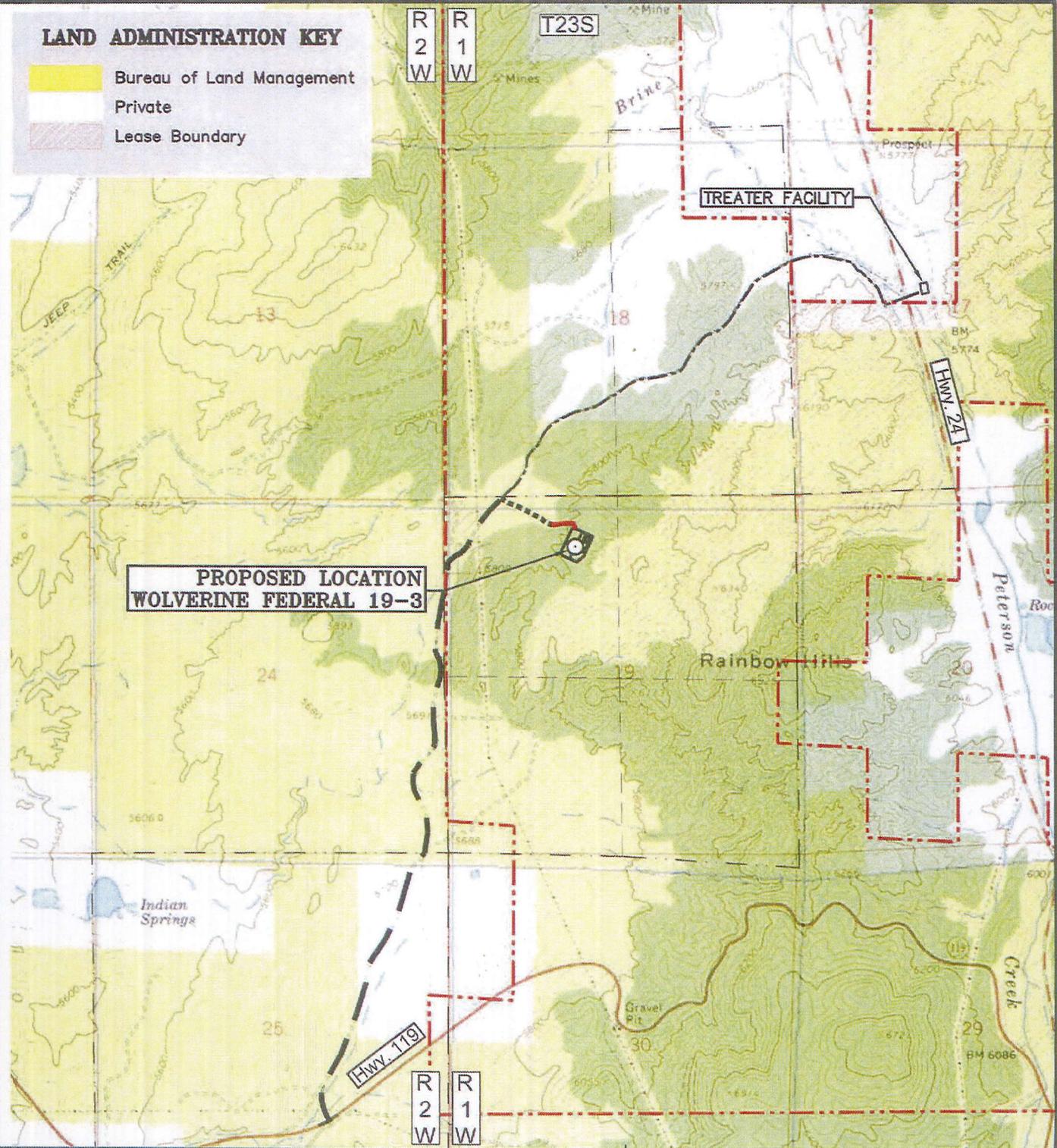


**LAND ADMINISTRATION KEY**

- Bureau of Land Management
- Private
- Lease Boundary

R 2  
W  
R 1  
W

T23S



**PROPOSED LOCATION  
WOLVERINE FEDERAL 19-3**

**TREATER FACILITY**

**Rainbow Hills**

- LEGEND**
- PROPOSED LOCATION
  - PROPOSED OIL FLOWLINE CORRIDOR
  - EXISTING ROAD NEEDING UPGRADE (0.16 MI)
  - NEW ROAD CONSTRUCTION (425 FT)
  - CONST. ACCESS (EXIST. COUNTY ROAD)

Wolverine Federal #19-3  
Section 19, T.23 S., R.1 W., S.L.B. & M.  
1965' FWL 756' FNL



**Jones & DeMille Engineering, Inc.**  
 1535 South 100 West Richfield, Utah 84701  
 Voice 435.896.8266 Fax 435.896.8266  
 248 East Main Price, Utah 84501  
 Voice 435.637.8266 Fax 435.637.8266  
[www.jonesanddemille.com](http://www.jonesanddemille.com)



SCALE: 1"=2000'

Wolverine Gas & Oil Co. of Utah, LLC

Wolverine Federal 19-3

Vicinity Map

DRAWN: L.G. 02-2010	PEN: _1stndrd-hp2500.ctb	PROJECT: 0912-147	SHEET:
CHECK: D.R. 02-2010	FILE: VICINITY	LAST UPDATE: 8/13/2010	1

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

FORM 6

**ENTITY ACTION FORM**

Operator: Wolverine Gas & Oil Company of Utah, LLC Operator Account Number: N 1655  
Address: One Riverfront Plaza, 55 Campau NW  
city Grand Rapids  
state MI zip 49503 Phone Number: (616) 458-1150

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304150004	Wolverine Federal 19-3		NENW	19	23S	1W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	17850	10/21/2010		11/4/10		
Comments: <u>NAVA</u>							

**CONFIDENTIAL**

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

**ACTION CODES:**

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Helene Bardolph

Name (Please Print)

*Helene Bardolph*  
Signature

Engineering Assistant

10/29/2010

Title

Date

**RECEIVED**

**NOV 01 2010**

**DIV. OF OIL, GAS & MINING**

**Carol Daniels - Wolverine Federal 19-3 Update**

T 235 ROW S-19 43-041-50004

**From:** "Wolverine Exploration Rig"

**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" , "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels, Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet, Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" , "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis, Walton" , "Winkler, Matt" , "Zimmerman, Bill"

**Date:** 11/3/2010 6:32 PM

**Subject:** Wolverine Federal 19-3 Update

11/3/2010 6:28 PM

Making up BHA mud motor.

**Bill Donovan**

**Drilling Supervisor**

**Wolverine Gas and Oil Company of Utah, LLC**

**Wolverine Federal 19-3**

**Rig (970) 812-0022**

**Cell (720) 351-7470**

**Fax (435) 304-1222**

**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

RECEIVED

NOV 03 2010

DIV. OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 Update** *T 235 ROLW 5-19 43-041-50004*

---

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" ,  
"Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" ,  
"O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert,  
Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton,  
Shorty" , "Smuin, Troy" , , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis,  
Walton" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/4/2010 8:43 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/4/2010 8:38 AM

Drilling at 409', Avg PR 40 FPH

Casing point at 2,000'. Should be at casing point Saturday

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

**RECEIVED**

**NOV 04 2010**

**DIV. OF OIL, GAS & MINING**

**Carol Daniels - Wolverine Federal 19-3 update** T 235 ROW 5-19 43-041-50004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
Barry" , "Jimmy Germon" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" ,  
"Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" ,  
"McCoy, Tim" , "Nilles, Chris" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup,  
Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun  
Burns" , "Shawn Moulton" , "Shelton, Shorty" , , "Steffen, Dana" , "Tujillo, Chris" , "Tyler  
Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/8/2010 3:05 PM  
**Subject:** Wolverine Federal 19-3 update

11/8/2010 3:01 PM

NU BOP

Bit salesmen pickup you 12 ¼" bits.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3, AFE 231**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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NOV 08 2010

DIV. OF OIL, GAS & MINING

Carol Daniels - Wolverine Federal 19-3 update

T 235 R01W5-19 43 041 50004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
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"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
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"Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" ,  
"O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert,  
Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton,  
Shorty" , "Smuin, Troy" , , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis,  
Walton" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/4/2010 11:18 PM  
**Subject:** Wolverine Federal 19-3 update

11/4/2010 11:15 PM

Starting to TOH to check bit.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
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**Cell (720) 351-7470**  
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**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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NOV 08 2010

DIV. OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 surface hole spud notification**

T 235 R 01W S-19  
43 0415 0004

**From:** "Wolverine Exploration Rig"  
**To:** "Hendricks, Marvin" , "Jones, Mark" , "Daniels, Carol" ,  
**Date:** 11/4/2010 11:22 PM  
**Subject:** Wolverine Federal 19-3 surface hole spud notification

11/4/2010 11:18 PM

The surface hole was spud at 21:30 on 11/3/10.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**wolvexpl@drillmail.net**

---

**From:** Wolverine Exploration Rig [mailto:wolvexpl@drillmail.net]  
**Sent:** Tuesday, November 02, 2010 8:34 PM  
**To:** Hendricks, Marvin; Jones, Mark; 'Stan\_Andersen@blm.gov'; Daniels, Carol  
**Subject:** Wolverine Federal 19-3 Notification of Spudding Surface hole

11/2/2010 8:16 PM

Hello,

This is notification of spudding the 12 ¼" surface hole on Wednesday 11/03/10.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**wolvexpl@drillmail.net**

**RECEIVED**  
**NOV 08 2010**

OFFICE OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 update**

*T 235 ROWS-19 43-041-5 0004*

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
 "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
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 "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
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 "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" ,  
 "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert,  
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 Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis,  
 Walton" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/5/2010 10:02 AM  
**Subject:** Wolverine Federal 19-3 update

11/5/2010 9:51 AM

Drilling at 1,052', Avg PR 40 FPH

casing point 2,000'

Running casing early Saturday morning

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)

**RECEIVED**

**NOV 08 2010**

**DIV. OF OIL, GAS & MINING**

Carol Daniels - Wolverine Federal 19-3 update *T235R01W 5-19 4304150004*

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
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Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
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Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis,  
Walton" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/5/2010 8:52 PM  
**Subject:** Wolverine Federal 19-3 update

11/5/2010 8:48 PM

Drilling at 1,355' Average PR 50 FPH

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

RECEIVED

NOV 08 2010

DIV. OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 Surface casing and cementing notification**

**From:** "Wolverine Exploration Rig"  
**To:** "Hendricks, Marvin" , , "Daniels, Carol" , "Jones, Mark"  
**Date:** 11/6/2010 4:52 AM  
**Subject:** Wolverine Federal 19-3 Surface casing and cementing notification

T 235, R01W 5-19  
4304150004

11/6/2010 4:34 AM

This e-mail is 24-hour notice of our plans to run and cement 9 5/8" surface casing on the Wolverine Federal 19-3.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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NOV 08 2010

DIV. OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 Update***T 235 ROWS-19 43-041-5004*

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" , "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels, Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet, Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" , "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis, Walton" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/6/2010 4:53 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/6/2010 4:01 AM

Drilling at 1,625', AVG PR 35 FPH.

Casing point is 2,000'.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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DIV. OF OIL, GAS &amp; MINING

**Carol Daniels - Wolverine Federal 19-3 at casing point** T 235 2010 W 5-19 43-041-50004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" ,  
"Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" ,  
"O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert,  
Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton,  
Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis,  
Walton" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/6/2010 6:25 PM  
**Subject:** Wolverine Federal 19-3 at casing point

11/6/2010 6:20 PM

Casing point has been reached. Casing crew has been called out.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
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**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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DIV. OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3**

T 235 201W 5-19 43-041-50004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" ,  
"Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" ,  
"Nilles, Chris" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees,  
John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn  
Moulton" , "Shelton, Shorty" , , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Winkler,  
Matt" , "Zimmerman, Bill"  
**Date:** 11/7/2010 7:42 AM  
**Subject:** Wolverine Federal 19-3

---

11/7/2010 7:38 AM

Running casing

Halliburton cementers to be on location at Noon

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
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NOV 08 2010

DIV. OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 Update**

*T 235 Rows-19 43-041-50004*

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
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"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
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"Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" ,  
"McCoy, Tim" , "Nilles, Chris" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup,  
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Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler  
Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/9/2010 8:16 PM  
**Subject:** Wolverine Federal 19-3 Update

---

11/9/2010 8:12 PM

Pressure test casing and TIH to run fit test.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3, AFE 231**  
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**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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NOV 09 2010

DIV. OF OIL, GAS & MINING

Carol Daniels - Wolverine Federal 19-3 Update T23S RO1WS-19 43-041-5004

---

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" , "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels, Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet, Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" , "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim Barry" , "Jimmy Germon" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" , "Nilles, Chris" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/12/2010 7:01 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/12/2010 6:57 AM

Drilling at 3,071', PR 20 FPH,

Casing point is at 7,500'. This is as "S" type directional hole

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3, AFE 231**  
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NOV 15 2010

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

**Carol Daniels - Wolverine Federal 19-3 Update***T 235 R 01 W 5-19 43-041-50004*

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
 "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
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 "McCoy, Tim" , "Nilles, Chris" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup,  
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 Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/14/2010 8:39 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/14/2010 8:31 AM

Drilling at 4,046', average PR 35 FPH

Total Depth 7,500'

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3, AFE 231**  
**Rig (970) 812-0022**  
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**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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DIV. OF OIL, GAS &amp; MINING

**Carol Daniels - Wolverine Federal 19-3 Update** *T 235 R01WS-19 43-041-50004*

---

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
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Burns" , "Shawn Moulton" , "Shelton, Shorty" , , "Steffen, Dana" , "Tujillo, Chris" , "Tyler  
Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/15/2010 8:10 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/15/2010 8:05 AM

Drilling at 4,575', PR 30 FPH, Avg PR 22 FPH

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3, AFE 231**  
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DIV. OF OIL, GAS & MINING

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-73528
---	--

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> WOLVERINE
--	---

<b>1. TYPE OF WELL</b> Oil Well	<b>8. WELL NAME and NUMBER:</b> Wolverine Federal 19-3
------------------------------------	---

<b>2. NAME OF OPERATOR:</b> WOLVERINE GAS & OIL COMPANY OF UTAH, LLC	<b>9. API NUMBER:</b> 43041500040000
---	---

<b>3. ADDRESS OF OPERATOR:</b> One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503	<b>PHONE NUMBER:</b> 616 458-1150 Ext	<b>9. FIELD and POOL or WILDCAT:</b> COVENANT
--	--	--

<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0756 FNL 1965 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENW Section: 19 Township: 23.0S Range: 01.0W Meridian: S	<b>COUNTY:</b> SEVIER  <b>STATE:</b> UTAH
---	---

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 10/31/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Please see attached report for October 2010 drilling details.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**

<b>NAME (PLEASE PRINT)</b> Helene Bardolph	<b>PHONE NUMBER</b> 616 458-1150	<b>TITLE</b> Engineering Administrative Assistant
<b>SIGNATURE</b> N/A	<b>DATE</b> 11/18/2010	

Wolverine Operating Company of Utah, LLC  
Wolverine Federal 19-3  
NE ¼ NW ¼ SECTION 19 – T23S – R1W surface location  
NW ¼ SE ¼ SECTION 19 – T23S – R1W BHL  
Sevier County, Utah.

**10-13-10**

Depth 0', waiting on rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-14-10**

Depth 0', waiting on rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-15-10**

Depth 0', waiting on rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-16-10**

Depth 0', waiting on rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-17-10**

Depth 0', waiting on rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-19-10**

Depth 0', waiting on rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-20-10**

Depth 0', waiting on rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-21-10**

Depth 120', conductor hole spud

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-22-10**

Depth 120', conductor casing set

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-23-10**

Depth 120', standby for drilling rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-24-10**

Depth 120', standby for drilling rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-25-10**

Depth 120', standby for drilling rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-26-10**

Depth 120', standby for drilling rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-27-10**

Depth 120', standby for drilling rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-28-10**

Depth 120', standby for drilling rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-29-10**

Depth 120', standby for drilling rig

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-30-10**

Depth 120', pre-spud meeting

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**10-31-10**

Depth 120', rigging up

Mud Weight	NA	Funnel Viscosity	NA	API Fluid Loss	NA
------------	----	------------------	----	----------------	----

**Carol Daniels - Wolverine Federal 19-3 Update** *T 235 ROW 5-19 4304150004*

---

**From:** "Wolverine Exploration Rig"

**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" , "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels, Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet, Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" , "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim Barry" , "Jimmy Germon" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" , "Nilles, Chris" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Winkler, Matt" , "Zimmerman, Bill"

**Date:** 11/21/2010 7:25 AM

**Subject:** Wolverine Federal 19-3 Update

---

11/21/2010 7:21 AM

Drilling 8 3/4" hole at 6613'. Csg pt = 7573'.

**Tom Zupan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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NOV 22 2010

DIV. OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 Update** T 235 R01W 5-19 4304 50004

---

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
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"Shawn Moulton" , "Shelton, Shorty" , , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" ,  
"Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/22/2010 7:15 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/22/2010 7:12 AM

Drilling at 6773'. Csg pt = 7573'.

**Tom Zupan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Rig (970) 812-0022**  
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DIV. OF OIL, GAS & MINING

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-73528
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> WOLVERINE
<b>1. TYPE OF WELL</b> Oil Well	<b>8. WELL NAME and NUMBER:</b> WOLVERINE FED 19-3
<b>2. NAME OF OPERATOR:</b> WOLVERINE GAS & OIL COMPANY OF UTAH, LLC	<b>9. API NUMBER:</b> 43041500040000
<b>3. ADDRESS OF OPERATOR:</b> One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503	<b>PHONE NUMBER:</b> 616 458-1150 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0756 FNL 1965 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENW Section: 19 Township: 23.0S Range: 01.0W Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> COVENANT  <b>COUNTY:</b> SEVIER  <b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 11/30/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Please see attached report for details.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**

<b>NAME (PLEASE PRINT)</b> Helene Bardolph	<b>PHONE NUMBER</b> 616 458-1150	<b>TITLE</b> Engineering Administrative Assistant
<b>SIGNATURE</b> N/A		<b>DATE</b> 12/3/2010

Wolverine Operating Company of Utah, LLC  
Wolverine Federal 19-3  
NE ¼ NW ¼ SECTION 19 – T23S – R1W surface location  
NW ¼ SE ¼ SECTION 19 – T23S – R1W BHL  
Sevier County, Utah

1 to 3 November 2010

Depth 0, Setting up rig and equipment, MW – NA, Vis – NA, FL – NA, Surveys: none

4 November 2010

Depth 350', Spud hole, drilling, MW – 8.5, Vis – 47, FL – NA, Surveys: none

5 November 2010

Depth 926', drilling, MW – 8.7, Vis 41, FL – 13, Surveys: 10.3 at 813'

6 November 2010

Depth 1,687', drilling, MW – 8.7, Vis 33, FL 45, Surveys: 22.2 at 1,539

7 November 2010

Depth 2,027', drilling, TOOH, MW – 9.1, Vis 36, FL – 30. Surveys: 30.9 at 1973'

8 November 2010

Depth 2,027', run 9 5/8" casing. MW – 9.1, Vis 34, FL 28. Surveys: None

9 November 2010

Depth 2027' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Install bradenhead, NU BOP's, test BOP's. MW – 10, Vis. – 42, FL – 77. Surveys: none.

10 November 2010

Depth 2042' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Test BOP's, LD BHA, PU bit & BHA, GIH, tag cmt @ 1974', drill cmt & shoe, drill to 2042', C&C, run FIT to 11 ppg EMW, POOH. MW – 10.1, Vis. – 53, FL – 11. Surveys: none.

11 November 2010

Depth 2350' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. LD bit & bit sub, PU directional tools, GIH, drill & survey. MW – 10.1, Vis. – 53, FL – 12. Surveys: 32.1° @ 2083', 31.9° @ 2178' & 31.6° @ 2274'.

12 November 2010

Depth 3055' DF, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey. MW – 10.2, Vis. – 58, FL – 20. Surveys: 32.3° @ 2369', 33.8° @ 2464', 34.9° @ 2528', 35.5° @ 2560', 34.4° @ 2623', 33.7° @ 2656', 34° @ 2751', 33.7° @ 2846' & 33.9° @ 2941'.

13 November 2010

Depth 3534' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey, trip for new MWD. MW – 10.4, Vis. – 65, FL – 11. Surveys: 33.9° @ 3037', 34.1° @ 3132', 33.9° @ 3227', 33.9° @ 3323', 33.8° @ 3418' & 33.9° @ 3482'.

14 November 2010

Depth 3992' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. PU MWD, GIH, drill & survey. MW – 10.4, Vis. – 80, FL – 5.5. Surveys: 33.9° @ 3513', 33.7° @ 3577', 33.6° @ 3640', 33.6° @ 3704', 33.7° @ 3768' & 34.1° @ 3831'.

15 November 2010

Depth 4527' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill and survey. MW – 10.5, Vis. – 70, FL – 5. Surveys: 33.9° @ 3958', 34° @ 4020', 34° @ 4083', 33.9° @ 4146', 33.9° @ 4210', 33.7° @ 4273' & 33.8° @ 4336'.

16 November 2010

Depth 5048' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey. MW – 10.5, Vis. – 71, FL – 5. Surveys: 33.7° @ 4652', 33.7° @ 4842' & 34.2° @ 4936'.

17 November 2010

Depth 5555' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey. MW – 10.3, Vis. – 62, FL – 5. Surveys: 34.1° @ 5219' & 32.4° @ 5410'.

18 November 2010

Depth 5905' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey. MW – 10.5, Vis. – 76, FL – 5.7. Surveys: 28.4° @ 5569' & 22.9° @ 5823'.

19 November 2010

Depth 6280' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey. MW – 10.3, Vis. – 65, FL – 5. Surveys: 21.3° @ 5885' & 13.4° @ 6171'.

20 November 2010

Depth 6567' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey, trip for new MWD. MW – 10.2, Vis. – 55, FL – 4.4. Surveys: 12.4° @ 6329'.

21 November 2010

Depth 6605' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. POOH, PU MWD, motor & bit, GIH, ream to bottom, drill & survey. MW – 10.2, Vis. – 63, FL – 4.2. Surveys: 12.7° @ 6520'.

22 November 2010

Depth 6760' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill and survey. MW – 10.2, Vis. – 70, FL – 4.5. Surveys: 11.6° @ 6552', 12.7° @ 6615' & 12.3° @ 6647'.

23 November 2010

Depth 7076' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey. MW – 10.25, Vis. – 61, FL – 4. Surveys: 12.2° @ 6773', 12.1° @ 6804', 12.2° @ 6835', 12.5° @ 6867', 12.6° @ 6898', 11.9° @ 6929' & 11.3° @ 6959'.

24 November 2010

Depth 7148' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey, circulate for trip, POOH. MW – 10.25, Vis. – 64, FL – 4.6. Surveys: 10.6° @ 6990' & 9.9° @ 7022'.

25 November 2010

Depth 7174' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Continue trip, drill & survey. MW – 10.3, Vis. – 75, FL – 4.9. Surveys: 9.1° @ 7053' & 8° @ 7085'.

26 November 2010

Depth 7339' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey. MW – 10.3, Vis. – 63, FL – 5. Surveys: 7.3° @ 7116', 6.4° @ 7147', 5.3° @ 7178' & 4.1° @ 7210'.

27 November 2010

Depth 7440' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Drill & survey, C&C, spot pill over Navajo formation, POOH, LD Baker tools, wait on Halliburton loggers, RU loggers, wireline log. MW – 10.3, Vis. – 55, FL – 6.4. Surveys: 1.5° @ 7273', 0.3° @ 7336' & 0.1° @ 7388'.

28 November 2010

Depth 7440' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Wireline log. MW – 10.4, Vis. – 61, FL – 5.6. Surveys: none.

29 November 2010

Depth 7440' MD, 9<sup>5</sup>/<sub>8</sub> @ 2024' MD. Wireline log, RD Halliburton loggers, GIH, C&C. MW – 10.5, Vis. – 52, FL – 5. Surveys: none

30 November 2010

Depth 7,440', circulating, rig service, running casing, MW – 10.5, Vis – 71, FL – 5. Surveys: None

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WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.  
**UTU-73528**

6. If Indian, Allottee or Tribe Name  
**N.A.**

7. Unit or CA Agreement Name and No.  
**Wolverine Fed Exploration Unit**

8. Lease Name and Well No.  
**Wolverine Federal 19-3**

9. AFI Well No.  
**430415000 4**

10. Field and Pool, or Exploratory  
**Covenant Field**

11. Sec., T., R., M., on Block and Survey or Area  
**1770' FEL, 2311' FSL, NWSE, Sec. 19, T23S, R1W, NENW**

12. County or Parish  
**Sevier**

13. State  
**UT**

14. Date Spudded  
**11/03/2011**

15. Date T.D. Reached  
**11/27/2010**

16. Date Completed  
**7/13/2011**  
 D & A  Ready to Prod.

17. Elevations (DF, RKB, RT, GL)\*  
**5845' KB, 5823' GL**

1a. Type of Well  Oil Well  Gas Well  Dry  Other

b. Type of Completion:  New Well  Work Over  Deepen  Plug Back  Diff. Resvr.,  
Other \_\_\_\_\_

2. Name of Operator **Wolverine Gas & Oil Co. of Utah, LLC**

3. Address **55 Campau NW, Grand Rapids, MI 49503**

3a. Phone No. (include area code)  
**616-458-1150**

10. Field and Pool, or Exploratory  
**Covenant Field**

11. Sec., T., R., M., on Block and Survey or Area  
**1770' FEL, 2311' FSL, NWSE, Sec. 19, T23S, R1W, NENW**

12. County or Parish  
**Sevier**

13. State  
**UT**

14. Date Spudded  
**11/03/2011**

15. Date T.D. Reached  
**11/27/2010**

16. Date Completed  
**7/13/2011**  
 D & A  Ready to Prod.

17. Elevations (DF, RKB, RT, GL)\*  
**5845' KB, 5823' GL**

18. Total Depth: MD **7335' 7440'** TVD **6596' 6618'**

19. Plug Back T.D.: MD **7344' 7431'** TVD **6603' 6689'**

20. Depth Bridge Plug Set: MD  
**TVD**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
**DLL/MSFL/GR, SDL/DSN/GR, XMRI, BCS, CBL**

22. Was well cored?  No  Yes (Submit analysis)  
Was DST run?  No  Yes (Submit report)  
Directional Survey?  No  Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
22"	16"		0	142'		12 yds Redi-c		surface	
12-1/4"	9 5/8/J55	36#	0	2024'		385 Vericem	186 bbls	surface	
8-3/4"	7"/L80	26#	0	4821'		Lead-260 G	138 bbls	surface	
	7/HCL80	26#	4821'	6631'		Tail-130 TX	32 bbls		
	7"/L80	26#	6631'	7440'					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 7/8	6772							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Navajo	6995'	7440'	6994'-7000'	0.40"	36	Producing - Open
B)			7068'-7078'	0.40"	60	Producing - Open
C)			7096'-7104'	0.40"	48	Producing - Open
D)			7106'-7110'	0.40"	24	Producing-Open

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
6994'-7000'	1680 gal. of 7-1/2% FE HCL acid, 30,000 lbs 20/40 CarboLite proppant and 49,000 gal 35# borate x-linked gel
7068'-7110'	3000 gal. of produced water w/ 5 GPT surfactant & 240 balls, 3000 gal. of 7-1/2% FE HCL acid w/ 120 balls

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
07/13/2011	07/16/2011	24	→	114	Tr	183	40		Electric Submersible Pump
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	Production Method
48/64	SI		→	114	Tr	183	20		Producing Oil Well

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	Production Method
	SI		→						

29. (See instructions and spaces for additional data on page 2)

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28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

**Vented**

30. 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.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
Navajo 1	6955'		Oil and Water	Arapien Twin Creek I Navajo I	Surface 6613' 6955'

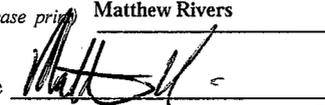
32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)   
  Geologic Report   
  DST Report   
  Directional Survey  
 Sundry Notice for plugging and cement verification   
  Core Analysis   
  Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Matthew Rivers Title Production Engineer

Signature  Date 08/09/2011

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
**UTU-73528**

6. If Indian, Allottee or Tribe Name  
**NA**

7. If Unit or CA/Agreement, Name and/or No.  
**Wolverine Federal Unit**

8. Well Name and No.  
**Wolverine Federal 19-3**

9. API Well No.  
**43041500050004**

10. Field and Pool, or Exploratory Area  
**Covenant Field**

11. County or Parish, State  
**Sevier County, Utah**

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**

3a. Address  
**55 Campau NW, Grand Rapids, Michigan 49503-2616**

3b. Phone No. (include area code)  
**616-458-1150**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**At Surface: 756' FNL, 1965' FWL, NE NW, Sec. 19, T23S, R1W**  
**At TD: 2286' FSL, 1741' FEL, NW SE, Sec 19, T23S, R1W**

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input checked="" type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Oil volumes in saleable quantities were recovered during completion operations of the Navajo Formation in this well on July 13, 2011. A production test on July 1, 2011 indicated rates of 114 BOPD and 183 BWPD.**

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14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) <b>Matthew Rivers</b>	Title <b>Production Engineer</b>
Signature 	Date <b>05/06/2011</b>

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office _____		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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# Actual Wellpath Report

Wolverine Federal 19-3 AWB

Page n of nn



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Utah State Planes, Central Zone (4302), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Gunmale
Scale	1.00006	Report Generated	11/27/2010 at 22:52:42 PM
Convergence at slot	0.29° West	Database/Source file	WellArchitectDB/Wolverine_Federal_19-3_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	1511325.63	6729345.91	38°47'34.003"N	111°57'10.334"W
Facility Reference Pt			1511325.63	6729345.91	38°47'34.003"N	111°57'10.334"W
Field Reference Pt			1537057.64	6764184.26	38°53'19.496"N	111°51'47.146"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL,SEC.19) (RT) to Facility Vertical Datum	5845.00ft
Horizontal Reference Pt	Slot	Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL,SEC.19) (RT) to Mean Sea Level	5845.00ft
Vertical Reference Pt	Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL,SEC.19) (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL,SEC.19) (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	147.53°

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✘ No Operator logo

# Actual Wellpath Report

Wolverine Federal 19-3 AWB

Page n of nn



REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

WELLPATH DATA (171 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	344.800	0.00	0.00	0.00	0.00	0.00	
22.00	0.000	344.800	22.00	0.00	0.00	0.00	0.00	
289.00	0.100	344.800	289.00	-0.22	0.22	-0.06	0.04	
320.00	0.500	137.200	320.00	-0.12	0.15	0.02	1.90	
351.00	0.400	119.700	351.00	0.11	0.00	0.21	0.54	
380.00	1.200	139.700	380.00	0.50	-0.28	0.49	2.88	
411.00	2.200	135.700	410.98	1.41	-0.96	1.12	3.25	
443.00	3.700	138.000	442.94	3.03	-2.16	2.24	4.70	
474.00	4.700	140.100	473.85	5.27	-3.88	3.72	3.26	
505.00	5.700	136.000	504.73	8.04	-5.96	5.61	3.44	
536.00	6.800	137.500	535.54	11.36	-8.42	7.92	3.59	
565.00	7.500	139.500	564.32	14.92	-11.13	10.31	2.56	
596.00	8.400	137.500	595.02	19.15	-14.34	13.15	3.04	
627.00	9.100	137.200	625.66	23.80	-17.80	16.35	2.26	
657.00	9.300	137.300	655.27	28.52	-21.33	19.60	0.67	
688.00	9.900	138.000	685.84	33.61	-25.15	23.08	1.97	
720.00	10.400	138.600	717.34	39.17	-29.36	26.83	1.60	
751.00	10.800	138.000	747.81	44.80	-33.62	30.63	1.34	
781.00	10.400	138.000	777.30	50.25	-37.72	34.32	1.33	
813.00	10.300	139.100	808.77	55.92	-42.03	38.13	0.69	
845.00	10.700	140.400	840.24	61.70	-46.48	41.89	1.45	
876.00	11.200	140.900	870.67	67.55	-51.03	45.63	1.64	
906.00	11.800	140.500	900.07	73.49	-55.66	49.41	2.02	
936.00	12.200	139.200	929.42	79.67	-60.43	53.44	1.61	
968.00	12.800	139.700	960.66	86.52	-65.69	57.94	1.91	
998.00	13.300	139.700	989.88	93.24	-70.85	62.32	1.67	
1030.00	13.700	139.200	1021.00	100.63	-76.53	67.18	1.30	
1061.00	14.100	138.800	1051.09	108.00	-82.15	72.06	1.33	
1093.00	14.800	139.900	1082.08	115.90	-88.21	77.26	2.35	
1126.00	15.100	141.300	1113.96	124.35	-94.79	82.67	1.42	
1158.00	15.700	141.600	1144.81	132.80	-101.43	87.96	1.89	
1190.00	16.100	141.900	1175.59	141.52	-108.32	93.39	1.28	
1222.00	16.600	142.300	1206.29	150.49	-115.43	98.92	1.60	
1254.00	17.000	141.700	1236.93	159.70	-122.72	104.62	1.36	
1286.00	17.800	141.300	1267.46	169.21	-130.20	110.57	2.53	
1318.00	18.200	142.400	1297.90	179.05	-137.98	116.68	1.64	
1349.00	18.900	141.700	1327.29	188.87	-145.76	122.75	2.37	
1381.00	19.300	141.600	1357.52	199.28	-153.97	129.24	1.25	
1413.00	19.800	141.400	1387.68	209.93	-162.35	135.91	1.58	
1444.00	20.400	140.300	1416.79	220.51	-170.61	142.64	2.29	
1476.00	21.000	142.100	1446.73	231.75	-179.42	149.72	2.73	
1507.00	21.500	141.800	1475.62	242.94	-188.27	156.65	1.65	
1539.00	22.200	142.500	1505.32	254.79	-197.68	163.95	2.33	
1570.00	22.800	141.900	1533.96	266.61	-207.05	171.22	2.07	
1602.00	23.600	142.700	1563.37	279.16	-217.02	178.93	2.69	

No Operator logo

# Actual Wellpath Report

Wolverine Federal 19-3 AWB

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

WELLPATH DATA (171 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
1634.00	24.200	143.000	1592.63	292.08	-227.36	186.76	1.91	
1665.00	24.900	144.000	1620.83	304.93	-237.71	194.42	2.63	
1697.00	25.400	143.700	1649.79	318.50	-248.69	202.44	1.61	
1729.00	25.900	144.400	1678.64	332.33	-259.91	210.58	1.83	
1761.00	26.700	144.400	1707.33	346.48	-271.44	218.83	2.50	
1792.00	27.500	144.500	1734.92	360.58	-282.93	227.04	2.58	
1824.00	28.300	144.300	1763.20	375.54	-295.10	235.76	2.52	
1856.00	28.700	145.100	1791.32	390.79	-307.56	244.58	1.73	
1888.00	29.400	144.600	1819.30	406.31	-320.27	253.52	2.32	
1919.00	30.100	145.000	1846.21	421.67	-332.84	262.39	2.35	
1951.00	30.800	144.400	1873.80	437.87	-346.07	271.76	2.38	
1973.00	30.900	145.000	1892.69	449.14	-355.28	278.28	1.47	
2083.00	32.100	143.200	1986.48	506.50	-401.82	311.99	1.39	
2178.00	31.900	143.500	2067.04	556.71	-442.21	342.04	0.27	
2274.00	31.600	147.200	2148.68	607.17	-483.75	370.76	2.05	
2369.00	32.300	150.210	2229.30	657.41	-526.70	396.85	1.83	
2464.00	33.800	151.300	2308.92	709.14	-571.91	422.15	1.70	
2528.00	34.900	151.300	2361.76	745.17	-603.58	439.50	1.72	
2560.00	35.500	151.400	2387.91	763.58	-619.77	448.34	1.88	
2623.00	34.400	150.000	2439.55	799.61	-651.24	465.99	2.16	
2656.00	33.700	149.700	2466.89	818.07	-667.22	475.27	2.18	
2751.00	34.000	146.100	2545.79	870.96	-712.03	503.39	2.13	
2846.00	33.700	146.200	2624.69	923.87	-755.97	532.87	0.32	
2941.00	33.900	146.900	2703.64	976.71	-800.07	561.99	0.46	
3037.00	33.900	148.200	2783.32	1030.25	-845.25	590.72	0.76	
3132.00	34.100	147.200	2862.08	1083.37	-890.15	619.11	0.63	
3227.00	33.900	146.300	2940.84	1136.49	-934.57	648.23	0.57	
3323.00	33.900	149.300	3020.52	1190.01	-979.87	676.76	1.74	
3418.00	33.800	151.400	3099.42	1242.86	-1025.85	702.93	1.24	
3482.00	33.900	149.500	3152.58	1278.46	-1056.86	720.52	1.66	
3513.00	33.900	148.400	3178.31	1295.74	-1071.67	729.43	1.98	
3577.00	33.700	147.900	3231.49	1331.34	-1101.91	748.22	0.54	
3640.00	33.600	148.000	3283.93	1366.25	-1131.50	766.74	0.18	
3704.00	33.600	148.000	3337.24	1401.67	-1161.54	785.51	0.00	
3768.00	33.700	149.200	3390.52	1437.12	-1191.81	803.99	1.05	
3831.00	34.100	149.900	3442.81	1472.24	-1222.10	821.79	0.89	
3895.00	33.800	149.600	3495.90	1507.95	-1252.97	839.80	0.54	
3958.00	33.900	149.500	3548.22	1543.02	-1283.23	857.58	0.18	
4020.00	34.000	147.300	3599.65	1577.64	-1312.71	875.73	1.99	
4083.00	34.000	146.100	3651.88	1612.86	-1342.16	895.07	1.07	
4146.00	33.900	145.200	3704.14	1648.03	-1371.20	914.92	0.81	
4210.00	33.900	142.500	3757.27	1683.64	-1400.02	935.97	2.35	
4273.00	33.700	142.600	3809.62	1718.56	-1427.84	957.28	0.33	
4336.00	33.800	142.700	3862.00	1753.43	-1455.67	978.52	0.18	
4399.00	33.800	143.200	3914.35	1788.37	-1483.64	999.63	0.44	

✘ No Operator logo

# Actual Wellpath Report

Wolverine Federal 19-3 AWB  
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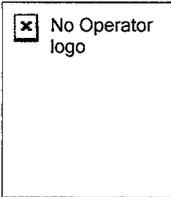


### REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-RIW		

### WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4463.00	33.900	143.000	3967.50	1823.91	-1512.15	1021.04	0.23	
4525.00	34.000	143.300	4018.94	1858.43	-1539.85	1041.80	0.31	
4589.00	33.900	146.400	4072.03	1894.12	-1569.07	1062.37	2.71	
4652.00	33.700	149.200	4124.38	1929.16	-1598.72	1081.05	2.49	
4716.00	33.800	149.900	4177.60	1964.70	-1629.37	1099.07	0.63	
4779.00	34.000	149.500	4229.89	1999.81	-1659.71	1116.79	0.48	
4842.00	33.800	149.000	4282.18	2034.93	-1689.90	1134.76	0.54	
4904.00	33.600	148.400	4333.76	2069.32	-1719.30	1152.63	0.63	
4936.00	34.200	149.000	4360.32	2087.17	-1734.55	1161.90	2.15	
4967.00	34.300	149.000	4385.95	2104.61	-1749.50	1170.89	0.32	
5030.00	34.100	149.000	4438.05	2140.01	-1779.86	1189.13	0.32	
5093.00	34.100	150.400	4490.22	2175.30	-1810.35	1206.94	1.25	
5156.00	34.100	150.100	4542.39	2210.58	-1841.02	1224.47	0.27	
5219.00	34.100	150.200	4594.56	2245.86	-1871.65	1242.05	0.09	
5251.00	34.100	150.500	4621.05	2263.78	-1887.24	1250.93	0.53	
5283.00	33.900	150.800	4647.58	2281.65	-1902.84	1259.70	0.82	
5315.00	33.800	150.300	4674.16	2299.45	-1918.36	1268.46	0.92	
5346.00	33.300	150.000	4699.99	2316.57	-1933.22	1276.99	1.70	
5378.00	32.800	150.400	4726.82	2334.00	-1948.36	1285.66	1.70	
5410.00	32.400	150.400	4753.78	2351.22	-1963.35	1294.18	1.25	
5442.00	31.700	150.400	4780.90	2368.18	-1978.12	1302.56	2.19	
5474.00	31.100	149.300	4808.21	2384.83	-1992.54	1310.94	2.59	
5505.00	30.300	149.200	4834.87	2400.65	-2006.14	1319.03	2.59	
5537.00	29.300	149.300	4862.64	2416.55	-2019.80	1327.16	3.13	
5569.00	28.400	149.700	4890.66	2431.98	-2033.11	1335.00	2.88	
5601.00	27.400	148.900	4918.94	2446.95	-2045.98	1342.64	3.34	
5632.00	26.300	148.300	4946.60	2460.95	-2057.93	1349.93	3.65	
5664.00	26.300	148.600	4975.29	2475.12	-2070.02	1357.35	0.42	
5696.00	26.000	148.400	5004.01	2489.22	-2082.04	1364.72	0.98	
5728.00	24.800	148.400	5032.92	2502.95	-2093.73	1371.91	3.75	
5760.00	24.700	149.300	5061.98	2516.34	-2105.20	1378.84	1.22	
5791.00	24.300	149.500	5090.19	2529.19	-2116.26	1385.39	1.32	
5823.00	22.900	149.400	5119.51	2541.99	-2127.30	1391.90	4.38	
5854.00	22.100	149.300	5148.15	2553.85	-2137.50	1397.95	2.58	
5885.00	21.300	149.100	5176.95	2565.31	-2147.35	1403.82	2.59	
5917.00	19.800	149.800	5206.92	2576.53	-2157.02	1409.53	4.75	
5949.00	19.000	149.500	5237.10	2587.15	-2166.19	1414.90	2.52	
5981.00	18.400	149.700	5267.41	2597.41	-2175.04	1420.09	1.89	
6013.00	17.200	149.600	5297.88	2607.18	-2183.48	1425.03	3.75	
6045.00	16.500	149.100	5328.50	2616.45	-2191.46	1429.76	2.23	
6076.00	15.300	148.700	5358.32	2624.94	-2198.73	1434.14	3.89	
6107.00	14.400	148.300	5388.28	2632.89	-2205.51	1438.30	2.92	
6139.00	13.600	148.300	5419.33	2640.63	-2212.10	1442.36	2.50	
6171.00	13.400	148.200	5450.45	2648.10	-2218.45	1446.29	0.63	
6202.00	13.700	149.000	5480.58	2655.36	-2224.65	1450.08	1.14	



# Actual Wellpath Report

Wolverine Federal 19-3 AWB

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

WELLPATH DATA (171 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6234.00	13.500	148.700	5511.69	2662.88	-2231.09	1453.97	0.66	
6266.00	13.100	149.700	5542.83	2670.24	-2237.41	1457.74	1.44	
6297.00	13.000	150.400	5573.03	2677.23	-2243.47	1461.23	0.60	
6329.00	12.400	151.300	5604.25	2684.26	-2249.62	1464.66	1.97	
6360.00	12.400	149.900	5634.52	2690.90	-2255.42	1467.93	0.97	
6392.00	12.400	145.900	5665.78	2697.77	-2261.23	1471.58	2.68	
6423.00	12.300	144.700	5696.06	2704.40	-2266.69	1475.35	0.89	
6455.00	12.600	141.700	5727.31	2711.27	-2272.21	1479.49	2.23	
6489.00	12.600	139.800	5760.49	2718.64	-2277.95	1484.18	1.22	
6520.00	12.700	138.600	5790.74	2725.35	-2283.09	1488.61	0.91	
6552.00	11.600	142.100	5822.02	2732.03	-2288.27	1492.92	4.14	
6584.00	12.200	141.600	5853.33	2738.60	-2293.45	1496.99	1.90	
6615.00	12.700	140.800	5883.60	2745.24	-2298.66	1501.18	1.71	
6647.00	12.300	140.600	5914.84	2752.12	-2304.02	1505.57	1.26	
6678.00	11.900	141.000	5945.15	2758.57	-2309.06	1509.68	1.32	
6710.00	11.900	140.400	5976.47	2765.12	-2314.16	1513.86	0.39	
6741.00	12.600	138.000	6006.76	2771.63	-2319.14	1518.16	2.79	
6773.00	12.200	136.900	6038.01	2778.39	-2324.20	1522.80	1.45	
6804.00	12.100	133.600	6068.32	2784.77	-2328.83	1527.39	2.26	
6835.00	12.200	134.400	6098.63	2791.11	-2333.37	1532.09	0.63	
6867.00	12.500	132.300	6129.89	2797.74	-2338.06	1537.06	1.69	
6898.00	12.600	132.200	6160.15	2804.24	-2342.59	1542.05	0.33	
6929.00	11.900	131.700	6190.44	2810.58	-2346.99	1546.94	2.28	
6959.00	11.300	131.300	6219.83	2816.37	-2350.99	1551.46	2.02	
6990.00	10.600	132.000	6250.26	2822.04	-2354.90	1555.86	2.30	
7022.00	9.900	132.000	6281.75	2827.52	-2358.71	1560.09	2.19	
7053.00	9.110	131.700	6312.32	2832.45	-2362.12	1563.90	2.55	
7085.00	8.000	133.200	6343.97	2837.05	-2365.33	1567.42	3.54	
7116.00	7.300	133.000	6374.69	2841.04	-2368.15	1570.43	2.26	
7147.00	6.400	134.000	6405.47	2844.63	-2370.70	1573.11	2.93	
7178.00	5.300	133.600	6436.31	2847.70	-2372.89	1575.39	3.55	
7210.00	4.100	134.800	6468.20	2850.25	-2374.71	1577.28	3.76	
7273.00	1.500	133.700	6531.12	2853.25	-2376.87	1579.47	4.13	
7336.00	0.300	255.400	6594.11	2854.00	-2377.48	1579.91	2.66	
7388.00	0.100	320.500	6646.11	2853.91	-2377.48	1579.75	0.53	
7440.00	0.100	320.500	6698.11	2853.82	-2377.41	1579.69	0.00	PROJ TO TD

No Operator logo

# Actual Wellpath Report

Wolverine Federal 19-3 AWB

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

WELLPATH COMPOSITION Ref Wellbore: Wolverine Federal 19-3 AWB Ref Wellpath: Wolverine Federal 19-3 AWB				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
22.00	3482.00	NaviTrak (Standard)	BHI MWD Surveys <0' - 3482'>	Wolverine Federal 19-3 AWB
3482.00	3831.00	NaviTrak (Standard)	BHI MWD Surveys <3482' - 3831'>	Wolverine Federal 19-3 AWB
3831.00	5791.00	NaviTrak (Standard)	BHI MWD Surveys <3831' - 5791'>	Wolverine Federal 19-3 AWB
5791.00	6139.00	NaviTrak (Standard)	BHI MWD Surveys <5791' - 6139'>	Wolverine Federal 19-3 AWB
6139.00	7440.00	NaviTrak (Standard)	BHI MWD Surveys <6139' - xxxx'>	Wolverine Federal 19-3 AWB



Covenant Field  
Federal 19-3  
API# 43-041-50004

NE NW S19 23S 1W  
Sevier County, Utah

**RECEIVED**  
**AUG 22 2011**  
**DIV. OF OIL, GAS & MINING**

- 3/21/2011 Moved in dirt equipment and pushed all of the mud off location then dug out the cellar rings around the wellheads. Started building out the fiberglass flow lines.  
Plan to start hauling in pit run to fill in the low areas of location that were dug out to remove the mud and soft spots - fill in around wellheads and start staking the building and conduit locations.
- 3/22/2011 Continued with location clean up and dirt work. Started staking out the MCC building, header building and conduit locations. Cut off the pipe for the rat and mouse holes at 8' below grade then cemented the remaining depth of the holes. Started compacting and backfilling the immediate areas around the wellheads. Started building out the wellhead.  
Plan to form up the MCC foundation and finish up with the location dirt work then start digging ditches for the flowlines from the well to the header building.
- 3/23/2011 Finished location dirt work for rig and frac tanks. Excavated hole for the MCC basement and installed forms for concrete. Finished screwing together fiberglass flow line from the well to the header. Dug the flow line ditch from the wellheads to the header then excavated the area for the chemical containment. Installed risers on the surface casing valves.  
Plan to install the tubing head, wellhead and flowline, then backfill and compact the flowline ditch.  
Concrete will be poured on the MCC basement and the chemical containment footer.
- 3/24/2011 Finished compacting dirt around the wellhead, Cameron installed the tubing head and pressure tested to 5000 PSI, concrete contractor poured the walls for the MCC basement and also the footer for the chemical containment. Roustabouts installed the flowline, build the wellhead piping and hooked up the wellhead to the flowline.  
Plan to back fill the flowline ditch then start moving in frac tanks and related rig equipment.
- 3/25/2011 Roustabouts finished backfilling the flow line ditch, moved in six frac tanks, base beam for the rig, fuel tank for generator, rig baskets, filter skid and wind socks. Hooked up flowback lines from the wellhead to the frac tanks and secured with concrete blocks.  
Plan to continue working on electrical ditches and conduit installation on Monday. Anchors are scheduled to be installed on Monday as well, plan to MIRUSU and TIH with tubing on Tuesday 3/29/11
- 3/26/2011 No activity
- 3/27/2011 Filled fresh water frac tank.
- 3/28/2011 Delivered generator, BOP, accumulator, annular and hydraulic cat walk to location. Electrician hooked up generator to filtration skid and grounded frac tanks. Roustabouts laid out oil absorbent matting around wellhead and started hauling water to frac tanks. Rig crew moved dog house and tool trailer to location. Set rig anchors. Location is now complete for well completion operations.  
Plan to MIRUSU, pick up and run in hole with tubing, bit/scrapper.
- 3/29/2011 MIRUSU, NU BOP, PU & RIH with 6 1/8" bit and 7" Casing scraper. Tagged PBTD @ 7368' KB.  
Mixed chemicals in CF and filtered the water through 3 micron filters.  
Plan to pump caustic clean out on casing and tubulars then TIH with RBP and set at 7130' WLM
- 3/30/2011 Opened well, RU Halliburton and pumped 1000 gallons of CF, 685 gallons caustic water, 685 gallons chemical wash, 685 gallons gelled spacer, 685 gallons fresh water, 685 gallons 7.5% HLC Acid, 685 gallons fresh water 6090 gallons CF, 756 gallons 9# Salt brine containing 8 gallons of Baker Petrolite CRW-132 corrosion inhibit

followed by 8568 gallons of CF. RD & released Halliburton pump equipment, POOH with 8 jts tubing to 7140' KB with the bit, RU Wireline Co to correlate tubing measurement to the open hole log. RD Wireline Co, RU swab equipment, SWIFN.

Plan to swab fluid level down, perforate 7106'-7110' and 7096'-7104', set packer and plug then start swabbing perf intervals.

3/31/2011

Opened well, RU pump lines and pressure tested casing to 2500 psi, RD pump line and swabbed fluid level down to 2500', POOH with tubing, bit & scraper. RU wireline unit and perforated 7106' - 7110' and 7096' - 7104' WLM with 0.40+ diameter holes using 4" hollow carriers loaded 6 SPF on 60° phasing with 24 gram charges. RD and released wireline unit. PU & TIH with RBP, 6' sub HD packer and 228 Jts of N-80 tubing, set RBP @ 7157', released off plug then set Pkr @ 7080'. RU pump and pressure tested packer to 1300 psi, released pressure, RU swab equipment, SWIFN.

Plan to swab on perf interval 7106'-7110' & 7096'-7104' for rate and clean up.

4/1/2011

Opened well, 0 psi tubing, RIH with sand line and swab cup and was unable to pull out of the hole due to drag in the tubing through the deviated area, picked up on tubing several times in attempt to eliminate tubing buckling - no success. Released packer and let tubing hang free in order to make swab runs. POOH with tubing and packer - ordered tension set packer to be on location tomorrow morning.

Plan to install tension set packer and swab well for rate and cleanup.

4/2/2011

Opened well, PU & RIH with retrieving head, 6' sub, 7" Arrowset 1X packer, SC unloader, 1 stand, cup type SN and tubing to surface, set packer and pressure tested annulus to 1000 psi. RU swab equipment and made 14 swab runs recovering tubing volume with no entry of oil or water.

Plan to RU Halliburton and pump breakdown with ball sealers.

4/3/2011

Opened well, 0 psi tubing, RU Halliburton pump equipment, pressure tested lines to 6400 psi, filled tubing with 36 bbls of CF, established injection rate into formation as follows.

1 BPM = 2840 psi

2 BPM = 2895 psi

3.8 BPM = 3850 psi

5.1 BPM = 3900 psi

SD, opened unloader and pumped 500 gallons of breakdown fluid followed by 1000 gallons of breakdown fluid containing 130 buoyant balls, SD and closed unloader, resumed pumping at a rate of 5 BPM pumping 1000 gallons of breakdown fluid containing 130 bio balls followed by 60 bbls of CF for displacement, shut well in for pressure bleed off.

Max injection rate = 4766 PSI @ 5.1 BPM

ISIP = 3248

5 min shut in = 2243 psi

10 min shut in = 1725 psi

15 min shut in = 1366 psi

Total job volume = 166 bbls

Total bbls pumped into formation = 130 bbls

Note: Completion fluid consisted of produced water, Baker Petrolite OSW 5200 oxygen scavenger, XC 102W biocide, WAW 3003 Non ionic surfactant and Halliburton Gas Perm 1000.

Opened tubing and flowed well back to frac tank, opened unloader and reverse circulated with 40 bbls of CF to remove buoyant balls from tubing, RD and released Halliburton. RU swab equipment and made 14 swab runs recovering 72 bbls of water and 0 bbls of oil. See 4-3 Swab report for details.

Plan to continue swabbing for rate and oil cut, possibly perforating late afternoon.

4/4/2011 Opened well, 0 psi tubing, tubing was standing full of water, resumed swabbing, made 11 swab runs recovering 57 bbls water and 0 bbls oil. See 4-4 Swab report for details, RD swab equipment, released packer, released RBP and reset at 7088', released off plug, RU swab equipment and swabbed fluid level down to 2500', RD swab equipment, POOH with tubing, packer and RH.

Plan to perforate and swab 7068'-7078'

4/5/2011 RU Wireline Unit and perforated 7068'-7078' with .40" diameter holes using 4" hollow carriers loaded 6 SPF on 60° phasing with 24 gram charges, RD and released wireline unit. TIH with RH, 6' sub, Arrowset packer, SC unloader, 4' sub and tubing to the surface. Tested packer to 1500 psi, RU swab equipment and made 15 runs recovering 72 bbls water and 2 bbls of oil (34 bbls from formation) See 4-5 Swab report for details. SWIFN. Plan to continue swabbing for rate and cleanup then pump breakdown on 7068'-7078'

4/6/2011 Opened well, 0 psi tubing, continued swabbing - made 14 runs recovering 53 bbls of water and 16 bbls of oil. RU Halliburton pump equipment, pressure tested lines to 6500 psi, filled tubing with 23 bbls of CF, established injection rate into formation -.8 BPM @ 4669 psi  
SD, opened unloader and pumped 500 gallons of breakdown fluid followed by 1000 gallons of breakdown fluid containing 110 buoyant balls, SD and closed unloader, resumed pumping at a rate of 1 BPM pumping 1000 gallons of breakdown fluid containing 110 bio balls followed by 60 bbls of CF for displacement, shut well in for pressure bleed off.

Max injection rate = 4718 PSI @ 1 BPM

ISIP = 3832 psi

5 min shut in = 2624 psi

10 min shut in = 2286 psi

15 min shut in = 2031 psi

Total job volume = 166 bbls

Total bbls pumped into formation = 108 bbls

Note: Completion fluid consisted of produced water, Baker Petrolite OSW 5200 oxygen scavenger, XC 102W biocide, WAW 3003 Non ionic surfactant and Halliburton Gas Perm 1000.

Shut well in, RD and released Halliburton.

Plan to swab for rate and clean up.

4/7/2011 Opened well, 0 psi, RU swab equipment, made 10 swab runs recovering tubing volume plus 18 bbls from formation. Samples are brown and will not separate, SWIFN. See 4-7 Swab report for details.

Note: Samples have been taken to Halliburton for testing.

Plan to let rig crew off while samples are being analyzed, will resume on Tuesday 4/12/11

4/8/2011 Rig crew on days off

4/9/2011 Rig crew on days off

4/10/2011 Rig crew on days off

4/11/2011 Rig crew on days off

4/12/2011 Opened well, 100 psi tubing, RU swab equipment, made 10 runs recovering 43 bbls of water and 4 bbls of oil. Swab samples consisted of a trace of oil, iron and brown water. Samples were taken to Halliburton for analysis SWIFN, RDMOSU

Plan to return to well on Friday 4/13/11

5/1/2011 MIRUSU, Opened well, 0 psi tubing, released packer and plug. Reset RBP at 7033', released off plug, RU swab equipment and swabbed fluid level down to 2500', POOH with tubing and packer, RIH with 1 stand,

SWIFN.

Plan to perforate 6994'-7000' and RIH with BHA for DFIT

5/2/2011 Opened well, POOH with 1 stand, RU Rocky Mountain Wireline and perforated 6994'-7000' with the following:  
Titan Part # EXP 3325-321T

25 gram charges

.41 entry hole

45.16" penetration

4" EXP gun loaded 6 spf on 60 deg phasing.

RD and released wireline unit, PU & RIH with RH, 2 7/8" sub, 2 7/8" x 2 3/8" XO, 2 3/8" blanking sub, 2 3/8" sub, 2 3/8" perforated sub, 2 3/8" sub, XN Nipple, 2 3/8" sub, 2 3/8" x 2 7/8" XO, 2 7/8" x 3 1/2" XO, 1 jt 3 1/2" P110 tubing, 2 7/8" x 3 1/2" XO, Arrowset 1x packer, SC unloader, 2 7/8" sub and 222 joints to surface. Set packer at 6893.25' and pressure tested to 3000 psi. RU pump lines to tubing to establish an infectivity rate and pressure, used rig pump to pressure up to 3000 psi with little to no entry, RD pump lines and SWIFN.

Plan to pump acid on perf interval 6994'-7000'

5/3/2011 Opened well, RU Halliburton pump equipment and pumped 7.5% HCL acid in the following order.

Opened bypass on packer

Pumped 630 gallons (15 Bbls) of 7.5% HCL acid at a rate of 2 BPM.

Pump 966 gallons (23 Bbls) of CF at a rate of 2 BPM.

Closed bypass on packer.

Pumped 714 gallons (17 Bbls) of CF at a rate of .6 bpm at 4476 psi, shut well in for ISIP.

ISIP 4288

5 Min 2037

10 Min 1352

15 Min 1097

See the chart on the 5-3-11 acid stim tab

Opened well and bled pressure down. Due to partial success with the acid on the first job a second acid job was pumped as follows:

Opened bypass on packer

Pumped 1050 gallons (25 Bbls) of 7.5% HCL acid at a rate of 2 BPM.

Pump 588 gallons (14 Bbls) of CF at a rate of 2 BPM.

Closed bypass on packer.

Pumped 1974 gallons (47 Bbls) of CF at a rate of .8 bpm at 4850 psi, until 750 gallons of acid had been displaced then the formation damage broke and the rate was increased to 4.7 bpm @ 3700 psi for the remainder of the job.

ISIP 2443

5 Min 1520

10 Min 1214

15 Min 1035

20 Min 910

25 Min 819

30 Min 749

40 Min 651

50 Min 578

60 Min 522

Note: a pressure trend was run from the ISIP to 0 psi, see 5-3-11 acid pressure bleed off tab for details

See acid charts on the 5-3-11 acid stim tab

Plan to swab for rate and clean up.

5/4/2011 RU swab equipment, made 9 swab runs recovering 74 bbls of water with limited entry, the last two swab runs were made on 2 hour intervals with an entry of 72 bpd. Released packer and reverse circulated with 45 bbls of KCL water, RD pump lines, released RBP and RIH to 7300' set RBP, released off plug, RU pump lines and reverse circulated with 60 bbls of KCL water, latched onto plug and POOH with plug, packer and tubing. Laid down plug and packer & TIH with tubing. SWIFN

5/5/2011 ND BOP's, NU wellhead. RDMOSU

Plan to move rig to the WF 17-10 and wait on frac crew.

6/17/2011 Move in and set up frac tanks, rig pump, water filtrations skid & completion rig.

Plan to Nipple up BOP's, pull tubing and RIH with plug and packer.

6/18/2011 Opened well, ND wellhead, NU BOP's. POOH with tubing, pick up and run in hole with RBP and Arrowset 1X packer, set plug at 7130', released off plug and set packer at 7084'. RU pump lines and injected 5 bbls of 4% KCL at 0.5 bbls per minute, 1850 psi with no communications to the annulus. (Hole was standing full prior to pumping) RD pump lines and SWIFN.

Plan to pump acid on perf intervals 7096'-7104' and 7106'-7110'

6/19/2011 Opened well, RU Halliburton pump equipment and pumped 7.5% HCL acid in the following order.

Pumped 5 bbls of 4% KCL to establish circulation.

Pumped 500 gallons (11.9 Bbls) of 7.5% HCL acid at a rate of 2 BPM.

Pumped 500 gallons (11.9 Bbls) of 7.5% HCL acid at a rate of 2 BPM containing 60 buoyant balls.

Pumped 500 gallons (11.9 Bbls) of 7.5% HCL acid at a rate of 2 BPM.

Set packer

Pumped 512 gallons (12 Bbls) of 7.5% HCL acid at a rate of 1 BPM at 2700 psi, then communicated to the annulus. SD & pressured up on the annulus and was able to establish an injection rate of 1/4 bpm at 600 psi Resumed pumping 60 bbls of 4% KCL water down tubing at 2 bpm while pumping into the annuals with the rig pump at 1/4 bpm.

ISIP 2445 tubing, 2567 casing

5 Min 1898 tubing, 1989 casing

10 Min 1614 tubing, 1704 casing

15 Min 1402 tubing, 1492 casing

See the chart on the 6-9-11 Acid stim tab

RD pump equipment, rig up swab equipment, made 2 swab runs, released packer, reverse circulated balls out of hole. Pulled up and reset packer at 6952', pressure tested packer to 2000 psi, released pressure to 500 psi, RU swab equipment. Made 23 runs recovering 21 bbls of oil and 142 bbls of water with a fluid level of 5500'. RD swab equipment, RU pump lines, filled tubing with 4% KCL water, released packer and reset at 7046'. SWIFN

Plan to pump acid on 7068'-7078', 7096'-7104' & 7106'-7110' all together then swab back for rate and clean up

6/20/2011 Opened well, RU Halliburton pump equipment and pumped 7.5% HCL acid in the following order.

Pumped 12.89 bbls of 4% KCL to establish circulation.

Pumped 500 gallons (11.9 Bbls) of 7.5% HCL acid at a rate of 2 bpm.

Pumped 500 gallons (11.9 Bbls) of 7.5% HCL acid at a rate of 2 bpm containing 60 buoyant balls.

Pumped 500 gallons (11.9 Bbls) of 7.5% HCL acid at a rate of 2 bpm.

Set packer

Pumped 5 bbls of 7 1/2% HCL acid at a rate of .8 bpm

Shut down to let pressure bleed off

Pumped 2 bbls of 7 1/2% HCL acid at a rate of .8 bpm

Shut down to let pressure bleed off

Pumped 2 bbls of 7 1/2% HCL acid at a rate of .8 bpm

Shut down to let pressure bleed off

Pumped 2 bbls of 7 1/2% HCL acid at a rate of .8 bpm

Shut down to let pressure bleed off

Pumped 2 bbls of 7 1/2% HCL acid at a rate of .8 bpm

Shut down to let pressure bleed off, repaired flow meter.

Pumped 10 bbls of 4% KCL water up to a max pressure of 2500 psi

Shut down to let pressure bleed off

ISIP 2440

5 Min 1488

10 Min 1036

Pumped 6 bbls of 4% KCL water up to a max pressure of 2500 psi

Shut down to let pressure bleed off

ISIP 2441

5 Min 1406

10 Min 979

Pumped 6 bbls of 4% KCL water up to a max pressure of 2500 psi

Shut down to let pressure bleed off

ISIP 2439

5 Min 1400

10 Min 949

Pumped 7 bbls of 4% KCL water up to a max pressure of 2490 psi, communicated with the perf interval above at 6994'-7000'. Continued pumping at 0.8 to 1.1 bpm for the reaming 31 bbls of displacement.

Shut down

ISIP 163

5 Min 0

Used rig pump to inject into perf interval at 6994'-7000' to confirm communication behind pipe.

RD pump equipment, rig up swab equipment, made 2 swab runs, released packer, reverse circulated balls out of hole. Pulled up and reset packer at 6952', pressure tested packer to 2000 psi, released pressure to 100 psi, RU swab equipment. Made 10 runs recovering 4 bbls of oil and 91 bbls of water with a fluid level of 5700'.

Plan to continue swabbing all of the perf intervals for rate and clean up.

Opened well, 20 psi on tubing, RU swab equipment, made 28 runs recovering 78 bbls of oil and 130 bbls of water with a fluid level of 5700' and an oil cut of ~50%. See 6-21 Swab report tab for details

RD swab equipment, filled tubing with 4% KCL water, released packer, lowered tubing to the RBP, reverse circulated with 65 bbls of 4% KCL to remove any acid from below the perf intervals. RD pump lines, released

6/21/2011

RBP and reset at 7040', pulled packer up to 6800' SWIFN

Plan to leave well shut in until frac crew can be mobilized to location. Current estimated date is July 11

7/5/2011

Finished filling fresh water tanks with filtered city water mixed to 2% KCL

7/6/2011

Heated fresh water tanks to obtain a temperature of 85 deg F on Saturday 7/9/11

7/7/2011

Opened well, POOH with tubing and packer. PU & RIH with 7" 26# HD stimulation packer and 180 jts of 3 1/2" P-110 tubing. SWIFN

Plan to finish picking up 3 1/2" frac string, set packer and prep for well frac.

7/8/2011

Opened well, finished picking up and running in hole with a total of 219 jts of 3 1/2" P-110 tubing, set packer at 6854'. RU pump lines and pressure tested packer to 1500 psi, changed over pump lines to the tubing and injected 5 bbls of KCL water at 3 bpm with 1500 psi tubing pressure, removed pump lines and SWIFN.

Plan to RU frac crew and pump well frac on the afternoon of 7/9/11

7/9/2011

FracTech arrived on location at 2:00 PM with 29,500 lbs of 20/40 CarboLite ceramic proppant. One of the three pumps arrived 2.5 hrs late to make up a total of 7500 hhp. Pressure tested surface lines to 9200 psi at approx. 5:30 PM and began pumping treatment at 6:10 PM.

**Stage 1:**

Began linear gel pre-treatment and achieved a rate of 20 bpm (planned rate for job 25 bpm @ 4500 psi) at a pressure of 7500 psi. and pumped a total of 349 bbls of linear gel at a max rate of 25 bpm and max pressure of 8200 psi. Shut well in and monitored falloff.

Surface ISIP/Frac gradient: 4,024 psi 1.18 psi/ft

Near-wellbore pressure drop 3,612 psi

Perforation friction: 820 psi

Perforations open: 11 of 36

**Stage 2:**

Opened well back up and began pumping main treatment pad with linear gel only at 25 bpm and 8200 psi. Beg crosslinker into flow stream and had to lower rate down to 10 bpm due to pressure increasing to 8700 psi. Disc additive was being injected at too high of concentration (blender on location built for 100 bpm jobs). Choked by concentration manually with ball valve on blender and pressure fell off to 6800 psi. Increased rate to 15 BPM and climbed to 8200 psi then fell back off 7300 psi. Determined that rate and gel was cleaning up plugged perms and increased rate to 20 bpm and pressure held at 7800 psi while finishing stage with a total volume of 400 bb

**Stage 3:**

Pumped 30 bbls with 0.5 ppg of 20/40 proppant. As the slug hit the formation pressure began to falloff to 7500 Increased rate to 25 bpm and pressure increased to 8050 psi and felloff to 7800 psi indicating further damage

**Stage 4:**

Pumped 231 bbls of pad at 25 bpm and 7800 psi. Near the end of the stage a pump went down due to engine

**Stage 5:**

Pumped 48 bbls with 1 ppg of 20/40 proppant. Pump still down, rate at 21 bpm

**Stage 6:**

Pumped 229 bbls of pad sweep at 21 bpm and 7600 psi. Pump restarted briefly during middle of stage but again and let cool down before starting it back up again.

**Stage 7, 8, 9, & 10:**

Started 3rd pump back up and rate climbed back to 25 bpm. Engine temp on pump appeared to be falling and Pumped 1 ppg proppant stage with 74 bbls of gel at 7800 psi. Pumped 3 ppg stage with 122 bbls (long) of gel due to sudden pressure increase. Concluded that the response was caused by the frac running into the Twin C

(short) of gel at 7400 psi. Pumped 5 ppg stage with 27 bbls (planned) of gel at 7400 psi.

**Stage 11:**

Pumped flush to displace proppant slurry down to 100 ft. above perfs with 59.9 bbls of linear gel. Left 1,838 lbs

**See yellow Frac Stim tab for more details**

RD FracTech

7/10/2011

Well flowed 188 bbls of water overnight, flow had stopped by morning. Opened bypass on packer and reverse circulated 100 bbls of 4% KCL to clear the sand from the tubing, the well started flowing up the tubing with an oil and water mix. Hooked up the vac truck to the casing and circulated 60 bbls of 4% KCL, pulled out of the hole laying down 3 1/2" frac string. SWIFN

Plan to RIH with 2 7/8" tubing and swab for rate and clean up.

7/11/2011

Opened well, 250 psi, PU & RIH with RH, 2 jts, Arrowset 1x packer and 224 jts, tagged sand top at 6952', RU pump lines and reverse circulated sand out of hole to the RBP at 7040'. RD pump lines, pulled out of hole with two stands, set packer at 6882', RU swab equipment, made 17 runs recovering 33 bbls of oil and 66 bbls of water. Left well open to frac tank for the night, See 7-11 Swab report for details.

Note the fluid level had not stabilized, plan to continue swabbing for rate and clean up.

7/12/2011

No flow to the frac tanks overnight, RU swab equipment, made 22 swab runs recovering 84 bbls of oil and 90 bbls of water with an average fluid level of 5700'. See 7-12 swab report for details. Released packer, lowered tubing and released RBP, POOH with tubing, packer and plug. RIH with 1 stand for kill jt, SWIFN.

Plan to install ESP

7/13/2011

Opened well, pulled kill stand out, RU cable spoolers, PU & RIH with 5 1/2" collapsible centralizer, Centinel motor, seal section, pump, 2 3/8" x 10' L-80 tbg sub, 2" x 1 1/2" Y-tool, 2 7/8" x 2 3/8" cross over, 2 7/8" x 6' L-80 tbg sub, 2 jts of 2 7/8" N-80 tbg, cup type SN and 214 jts N-80 tbg to surface. Spliced on lower pig tail, landed tbg hanger in wellhead, ND BOP's, NU wellhead. Started well and was unable to get fluid to the surface shut well in and rigged up a hose from the 19-4 wellhead and forced fluid down the tubing to seat the blanking plug in the Y-tool. Restarted the well after the tubing pressured and turned over to production. RDMOSU.

Plan to clean up location and finish rig move.

Supervisor:

*Tony E. Cook*

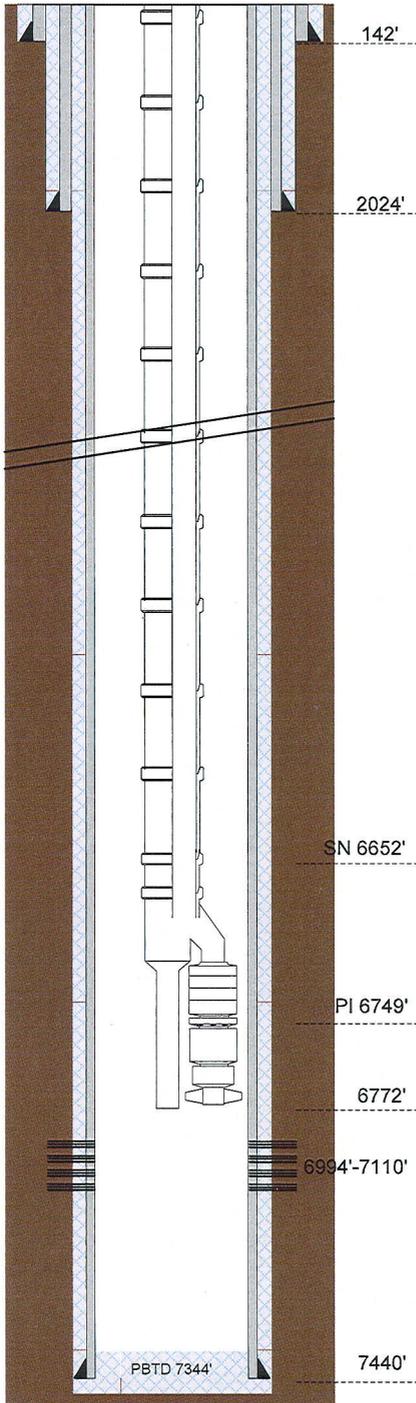
Rig Operator:



**RECEIVED**  
**AUG 22 2011**  
**DIV. OF OIL, GAS & MINING**

**Wolverine Federal 19-3**  
**API # 43-041-50004**  
**Covenant Field**  
**Section 19, T23S, R1W**  
**Sevier County, Utah**

Ground Elevation: 5,823'  
 KB Elevation: 5,845'



TD = 7440' MD (6698' TVD)

**(Not to Scale)**

**Deviated Well**

Surface: 756' FNL 1965' FWL, NE NW, 19-23S-1W  
 Top of Pay (6955' MD): 1770' FEL, 2311' FSL, NW SE, 19-23S-1W  
 Total Depth (7440' MD): 1741' FEL, 2286' FSL, NW SE, 19-23S-1W

**Conductor Casing (10/22/10)**

Size: 16", 0.25" wall  
 Depth Landed: 142' KB  
 Cement Data: Cemented to surface 12 yards Redi-mix

**Surface Casing (11/08/10)**

Size/Wt/Grade: 9-5/8", 36#, J-55, STC/LTC, 8rd  
 Depth Landed: 2024' KB  
 Cement Data: Lead - 260 sks Vericem (11.5 ppg, 3.00 cf/sk), Tail - 125 sks Vericem (12.8 ppg, 2.11 cf/sk), Cemented to surface

**Production Casing (12/02/10)**

Size/Wt/Grade: 7", 26.0#, L-80/HCL-80, LTC, 8rd  
 Properties: 7240 psi burst, 6.151" drift, 6.276" ID, 0.0382 Bbl/ft capacity  
 Depth Landed: 7440' KB  
 Cement Data: Lead - 260 sks Poz/G (12.0 ppg, 2.99 cf/sk), Tail - 130 sks TX Lite Weight (14.4 ppg, 1.38 cf/sk), Cemented to surface

**Navajo Perforations - Proposed**

6994'- 7000' MD (6254'- 6260' TVD), 06', 36 holes (05/02/11)  
 7068'- 7078' MD (6328'- 6338' TVD), 10', 60 holes (04/15/11)  
 7096'- 7104' MD (6356'- 6364' TVD), 08', 48 holes (03/31/11)  
 7106'- 7110' MD (6366'- 6370' TVD), 04', 24 holes (03/31/11)

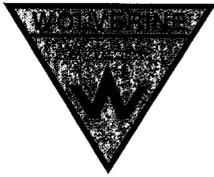
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 Mid-Perf = 7052' MD (6312' TVD), 32' M (32.0' TV), 192 holes

**Tubing (7/13/11)** (see Page 2 for details)

End of BHA 6772' WLM (6037' TVD)  
 Centinel 6767' WLM (6032' TVD)  
 Pump intake 6749' WLM (6014' TVD)  
 Seating Nipple 6652' WLM (5920' TVD)

**PBTD**

(1/8/11) CBL tagged cement top @ 7344' KBWLM



**Wolverine Federal 19-3**  
**API # 43-041-50004**  
**Covenant Field**  
**Section 19, T23S, R1W**  
**Sevier County, Utah**

<b>Tubing Detail (7/14/11)</b>		
	26.00	KB
	-3.00	Landed above GL
114	6642.20	Tubing - 2-7/8", 6.5#, L-80, EUE, 8rd
1	1.10	Cup type SN - 2-7/8", EUE, 8rd, 2.25" ID (6665' MD, 5933' TVD)
1	61.32	Tubing - 2-7/8", 6.5#, L-80, EUE, 8rd
1	6.23	Tubing - 2-7/8", 6.5#, L-80, EUE, 8rd
1	0.74	X-over, 2-7/8" x 2-3/8", EUE, 8rd
1	2.54	2" x 1 1/2" Y-tool
1	10.02	2 3/8", 4.7#, L-80 EUE 8rd
1	15.0	Pump w/ Intake - Centrilift P6, Model, 400 PSSD 146 stg, 4.00' OD (6762' MD, 6027' TVD)
1	6.10	Seal - Model FSB3DB H6 FER SSCV SB/SB PFSA HL 4.00" OD
1	11.94	Motor - Centrilift 450 MSP 72 HP 4.50" OD
1	4.19	Downhole pressure sensor, Centinel III, 3.75" OD (6780' MD, 6045' TVD)
1	1.11	Centralizer, 2-3/8" x 5 1/2", collapsible.
	-13.00	Wireline correction
<hr/>		
	6772.49'	EOT (6772' MD, 6037' TVD)

Note: No check valve in this well.  
 Y-Tool fish 5/8"  
 Tubing capacity = 0.00579 Bbl/ft, Burst = 10570 psi, Joint Yield = 144960 lbs

<b>Directional Data:</b>					
<u>MD</u>	<u>TVD</u>	<u>Incl.</u>	<u>MD</u>	<u>TVD</u>	<u>Incl.</u>
500	500	5.7	4000	3583	34.0
750	747	10.8	4500	3998	34.0
1000	992	13.3	5000	4414	34.2
1250	1233	17.0	5500	4830	30.3
1500	1469	21.5	6000	5285	16.7
2000	1916	31.2	6500	5771	12.6
2500	2340	34.3	7000	6260	10.4
3000	2753	33.9	7440	6698	0.1
3500	3167	33.9			

**Stimulation:**

04/03/11: 7096' - 7110' w/ 1500 gallons produced water w/ 5 GPT GasPerm 1000 and 130 buoyant balls  
 Max Treating Pressure = 4766 psi @ 5.1 BPM, ISIP = 3248 psi, No Break

04/06/11: 7068' - 7078' w/ 1500 gallons produced water w/ 5 GPT GasPerm 1000 and 110 buoyant balls  
 Max Treating Pressure = 4718 psi @ 1 BPM, ISIP = 3832 psi, No Break

05/03/11: 6994' - 7000' w/ 630 gallons 7-1/2% FE HCL no balls @ 0.6 BPM, 4476 psi ISIP = 4288, no break  
 6994' - 7000' w/ 1050 gallons 7-1/2% FE HCL no balls @ 0.8 BPM, 4850 psi, Formation Break  
 FTP = 4.7 BPM @ 3700 psi, ISIP = 2443 psi

06/19/11: 7096' - 7110' w/ 1500 gallons 7-1/2% FE HCL & 60 buoyant balls, communicated w/ backside, no break

06/20/11: 7096' - 7110' & 7068' - 7078' w/ 1500 gallons 7-1/2% FE HCL & 60 buoyant balls, communicate w/ backside, no break

07/09/11: 6996' - 7000' Fracture Treated w/ 30,000 lbs of 20/40 CarboLite proppant & 49,000 gallons 35# Borate Gel

**Wellhead Information:**

- Tubing head flange is 7-1/16", 5M with a 2-7/8" EUE 8rd top connection.

**Notes:**

Surface Location: NAD83 Latitude = 38.792778556, Longitude = -111.952870611  
 (11/28/10): Available Logs: DLL/MSFL, SDL/DSN, LSS, XRMI, CBL

# WOLVERINE GAS & OIL COMPANY



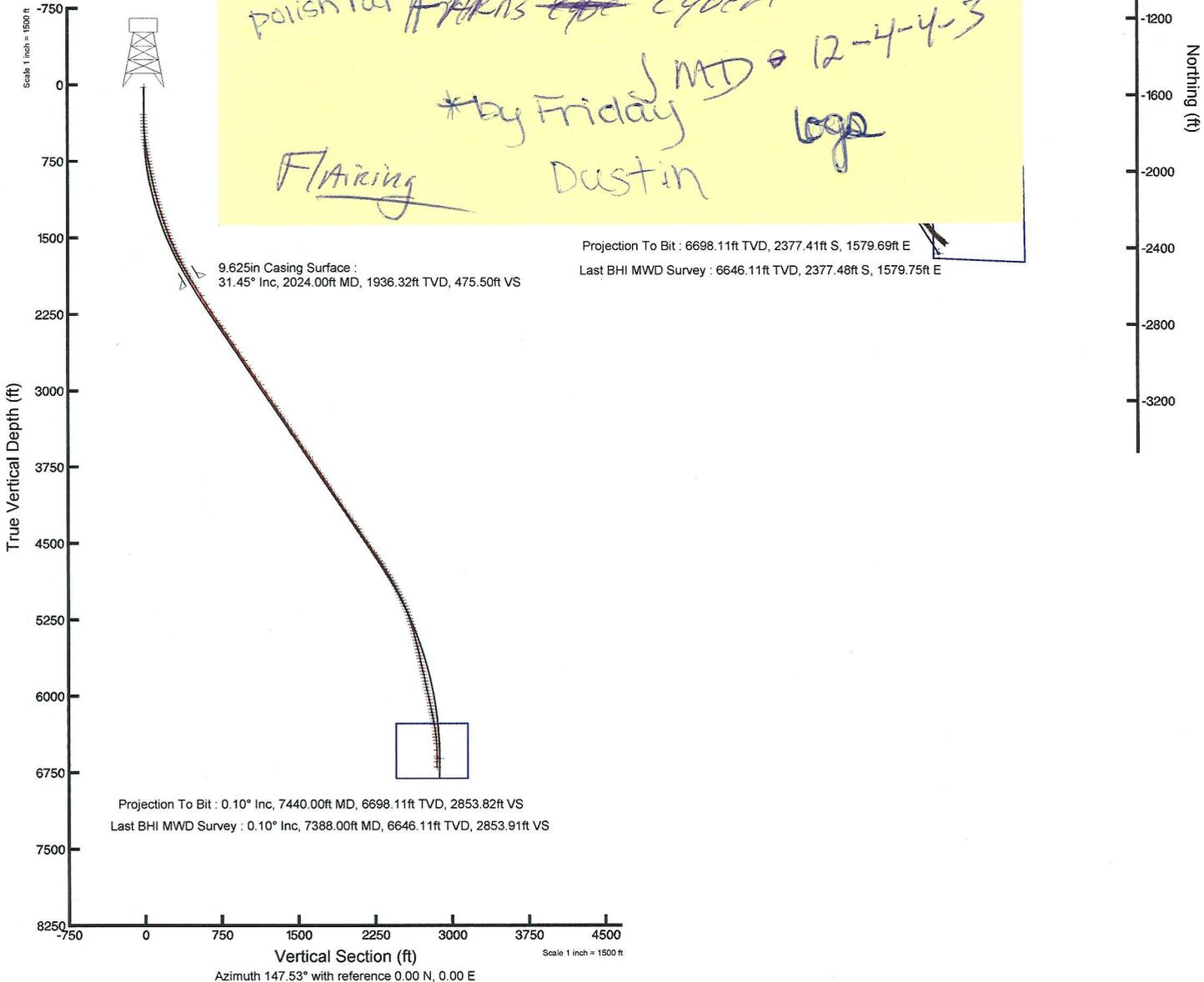
Location: UTAH Slot: Slot #01 Wolverine Federal 19-3 (756FNL & 1965FNL, SEC. 19)  
 Field: SEVIER COUNTY Well: Wolverine Federal 19-3  
 Facility: SEC. 19-T23S-R1W Wellbore: Wolverine Federal 19-3 PWB

Plot reference wellbore is Wolverine Federal 19-3 (Rev. 03.03 pwb)	
True vertical depths are referenced to Rig on Slot #01 WF 19-3 (756FNL & 1965FNL, SEC. 19) (RT)	Grid System: NAD83 / Lambert Utah State Plane, Central Zone (4302, US feet)
Measured depths are referenced to Rig on Slot #01 WF 19-3 (756FNL & 1965FNL, SEC. 19) (RT)	North Reference: True north
Rig on Slot #01 WF 19-3 (756FNL & 1965FNL, SEC. 19) (RT) to Mean Sea Level: 5845 feet	Scale: True distance
Mean Sea Level to Mud line (Facility SEC. 19-T23S-R1W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: isstale on 12/10/2010

Scale 1 inch = 800 Easting (ft)

Check w/ Dustin for logs Lostage, SEC. 19)  
 Perf'd frac  
 435-407-1255-Justin  
 pumps bad  
 polish rod ~~FARNS~~ Egbert  
 688-4971  
 \*by Friday MD = 12-4-4-3  
 logs  
 Flaring  
 Dustin

Projection To Bit : 6698.11ft TVD, 2377.41ft S, 1579.69ft E  
 Last BHI MWD Survey : 6646.11ft TVD, 2377.48ft S, 1579.75ft E

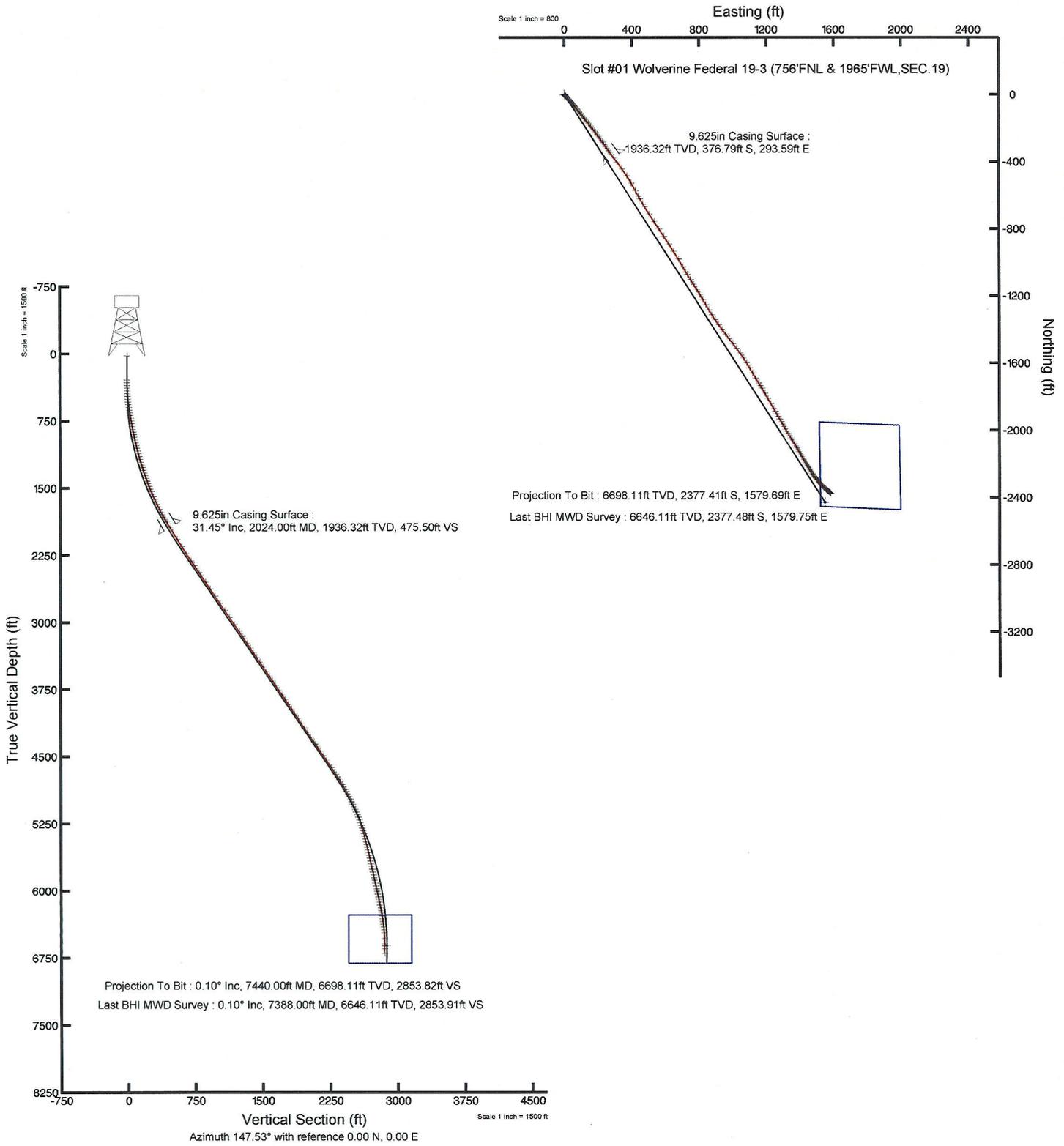


# WOLVERINE GAS & OIL COMPANY

Location: UTAH Slot: Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL, SEC. 19)  
 Field: SEVIER COUNTY Well: Wolverine Federal 19-3  
 Facility: SEC. 19-T238-R1W Wellbore: Wolverine Federal 19-3 PWB



True vertical depths in Wolverine Federal 19-3 (Slot #01 PWB)	
True vertical depths are referenced to Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL, SEC. 19) (RT)	Grid System: NAD83 / Lambert Utah State Plane, Central Zone (4302), US feet
Measured depths are referenced to Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL, SEC. 19) (RT)	North Reference: True north
Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL, SEC. 19) to Mean Sea Level: 3845 feet	Scale: True distance
Mean Sea Level to Mudline (Facility: SEC. 19-T238-R1W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: inside on 12/19/2010





# Actual Wellpath Report

Wolverine Federal 19-3 AWB

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Utah State Planes, Central Zone (4302), US feet	Software System	WellArchitect@ 2.0
North Reference	True	User	Nistale
Scale	1.00006	Report Generated	12/1/2010 at 8:11:01 AM
Convergence at slot	0.29° West	Database/Source file	Denver Server/Wolverine_Federal_19-3_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	1511325.63	6729345.91	38°47'34.003"N	111°57'10.334"W
Facility Reference Pt			1511325.63	6729345.91	38°47'34.003"N	111°57'10.334"W
Field Reference Pt			1537057.64	6764184.26	38°53'19.496"N	111°51'47.146"W

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL,SEC.19) (RT) to Facility Vertical Datum	5845.00ft
Horizontal Reference Pt	Slot	Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL,SEC.19) (RT) to Mean Sea Level	5845.00ft
Vertical Reference Pt	Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL,SEC.19) (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on Slot #01 WF 19-3 (756'FNL & 1965'FWL,SEC.19) (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	147.53°



# Actual Wellpath Report

Wolverine Federal 19-3 AWB

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-RIW		

## WELLPATH DATA (171 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	344.800	0.00	0.00	0.00	0.00	0.00	
22.00	0.000	344.800	22.00	0.00	0.00	0.00	0.00	
289.00	0.100	344.800	289.00	-0.22	0.22	-0.06	0.04	
320.00	0.500	137.200	320.00	-0.12	0.15	0.02	1.90	
351.00	0.400	119.700	351.00	0.11	0.00	0.21	0.54	
380.00	1.200	139.700	380.00	0.50	-0.28	0.49	2.88	
411.00	2.200	135.700	410.98	1.41	-0.96	1.12	3.25	
443.00	3.700	138.000	442.94	3.03	-2.16	2.24	4.70	
474.00	4.700	140.100	473.85	5.27	-3.88	3.72	3.26	
505.00	5.700	136.000	504.73	8.04	-5.96	5.61	3.44	
536.00	6.800	137.500	535.54	11.36	-8.42	7.92	3.59	
565.00	7.500	139.500	564.32	14.92	-11.13	10.31	2.56	
596.00	8.400	137.500	595.02	19.15	-14.34	13.15	3.04	
627.00	9.100	137.200	625.66	23.80	-17.80	16.35	2.26	
657.00	9.300	137.300	655.27	28.52	-21.33	19.60	0.67	
688.00	9.900	138.000	685.84	33.61	-25.15	23.08	1.97	
720.00	10.400	138.600	717.34	39.17	-29.36	26.83	1.60	
751.00	10.800	138.000	747.81	44.80	-33.62	30.63	1.34	
781.00	10.400	138.000	777.30	50.25	-37.72	34.32	1.33	
813.00	10.300	139.100	808.77	55.92	-42.03	38.13	0.69	
845.00	10.700	140.400	840.24	61.70	-46.48	41.89	1.45	
876.00	11.200	140.900	870.67	67.55	-51.03	45.63	1.64	
906.00	11.800	140.500	900.07	73.49	-55.66	49.41	2.02	
936.00	12.200	139.200	929.42	79.67	-60.43	53.44	1.61	
968.00	12.800	139.700	960.66	86.52	-65.69	57.94	1.91	
998.00	13.300	139.700	989.88	93.24	-70.85	62.32	1.67	
1030.00	13.700	139.200	1021.00	100.63	-76.53	67.18	1.30	
1061.00	14.100	138.800	1051.09	108.00	-82.15	72.06	1.33	
1093.00	14.800	139.900	1082.08	115.90	-88.21	77.26	2.35	
1126.00	15.100	141.300	1113.96	124.35	-94.79	82.67	1.42	
1158.00	15.700	141.600	1144.81	132.80	-101.43	87.96	1.89	
1190.00	16.100	141.900	1175.59	141.52	-108.32	93.39	1.28	
1222.00	16.600	142.300	1206.29	150.49	-115.43	98.92	1.60	
1254.00	17.000	141.700	1236.93	159.70	-122.72	104.62	1.36	
1286.00	17.800	141.300	1267.46	169.21	-130.20	110.57	2.53	
1318.00	18.200	142.400	1297.90	179.05	-137.98	116.68	1.64	
1349.00	18.900	141.700	1327.29	188.87	-145.76	122.75	2.37	
1381.00	19.300	141.600	1357.52	199.28	-153.97	129.24	1.25	
1413.00	19.800	141.400	1387.68	209.93	-162.35	135.91	1.58	
1444.00	20.400	140.300	1416.79	220.51	-170.61	142.64	2.29	
1476.00	21.000	142.100	1446.73	231.75	-179.42	149.72	2.73	
1507.00	21.500	141.800	1475.62	242.94	-188.27	156.65	1.65	
1539.00	22.200	142.500	1505.32	254.79	-197.68	163.95	2.33	
1570.00	22.800	141.900	1533.96	266.61	-207.05	171.22	2.07	
1602.00	23.600	142.700	1563.37	279.16	-217.02	178.93	2.69	



# Actual Wellpath Report

Wolverine Federal 19-3 AWB

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
1634.00	24.200	143.000	1592.63	292.08	-227.36	186.76	1.91	
1665.00	24.900	144.000	1620.83	304.93	-237.71	194.42	2.63	
1697.00	25.400	143.700	1649.79	318.50	-248.69	202.44	1.61	
1729.00	25.900	144.400	1678.64	332.33	-259.91	210.58	1.83	
1761.00	26.700	144.400	1707.33	346.48	-271.44	218.83	2.50	
1792.00	27.500	144.500	1734.92	360.58	-282.93	227.04	2.58	
1824.00	28.300	144.300	1763.20	375.54	-295.10	235.76	2.52	
1856.00	28.700	145.100	1791.32	390.79	-307.56	244.58	1.73	
1888.00	29.400	144.600	1819.30	406.31	-320.27	253.52	2.32	
1919.00	30.100	145.000	1846.21	421.67	-332.84	262.39	2.35	
1951.00	30.800	144.400	1873.80	437.87	-346.07	271.76	2.38	
1973.00	30.900	145.000	1892.69	449.14	-355.28	278.28	1.47	
2083.00	32.100	143.200	1986.48	506.50	-401.82	311.99	1.39	
2178.00	31.900	143.500	2067.04	556.71	-442.21	342.04	0.27	
2274.00	31.600	147.200	2148.68	607.17	-483.75	370.76	2.05	
2369.00	32.300	150.210	2229.30	657.41	-526.70	396.85	1.83	
2464.00	33.800	151.300	2308.92	709.14	-571.91	422.15	1.70	
2528.00	34.900	151.300	2361.76	745.17	-603.58	439.50	1.72	
2560.00	35.500	151.400	2387.91	763.58	-619.77	448.34	1.88	
2623.00	34.400	150.000	2439.55	799.61	-651.24	465.99	2.16	
2656.00	33.700	149.700	2466.89	818.07	-667.22	475.27	2.18	
2751.00	34.000	146.100	2545.79	870.96	-712.03	503.39	2.13	
2846.00	33.700	146.200	2624.69	923.87	-755.97	532.87	0.32	
2941.00	33.900	146.900	2703.64	976.71	-800.07	561.99	0.46	
3037.00	33.900	148.200	2783.32	1030.25	-845.25	590.72	0.76	
3132.00	34.100	147.200	2862.08	1083.37	-890.15	619.11	0.63	
3227.00	33.900	146.300	2940.84	1136.49	-934.57	648.23	0.57	
3323.00	33.900	149.300	3020.52	1190.01	-979.87	676.76	1.74	
3418.00	33.800	151.400	3099.42	1242.86	-1025.85	702.93	1.24	
3482.00	33.900	149.500	3152.58	1278.46	-1056.86	720.52	1.66	
3513.00	33.900	148.400	3178.31	1295.74	-1071.67	729.43	1.98	
3577.00	33.700	147.900	3231.49	1331.34	-1101.91	748.22	0.54	
3640.00	33.600	148.000	3283.93	1366.25	-1131.50	766.74	0.18	
3704.00	33.600	148.000	3337.24	1401.67	-1161.54	785.51	0.00	
3768.00	33.700	149.200	3390.52	1437.12	-1191.81	803.99	1.05	
3831.00	34.100	149.900	3442.81	1472.24	-1222.10	821.79	0.89	
3895.00	33.800	149.600	3495.90	1507.95	-1252.97	839.80	0.54	
3958.00	33.900	149.500	3548.22	1543.02	-1283.23	857.58	0.18	
4020.00	34.000	147.300	3599.65	1577.64	-1312.71	875.73	1.99	
4083.00	34.000	146.100	3651.88	1612.86	-1342.16	895.07	1.07	
4146.00	33.900	145.200	3704.14	1648.03	-1371.20	914.92	0.81	
4210.00	33.900	142.500	3757.27	1683.64	-1400.02	935.97	2.35	
4273.00	33.700	142.600	3809.62	1718.56	-1427.84	957.28	0.33	
4336.00	33.800	142.700	3862.00	1753.43	-1455.67	978.52	0.18	
4399.00	33.800	143.200	3914.35	1788.37	-1483.64	999.63	0.44	



# Actual Wellpath Report

Wolverine Federal 19-3 AWB

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4463.00	33.900	143.000	3967.50	1823.91	-1512.15	1021.04	0.23	
4525.00	34.000	143.300	4018.94	1858.43	-1539.85	1041.80	0.31	
4589.00	33.900	146.400	4072.03	1894.12	-1569.07	1062.37	2.71	
4652.00	33.700	149.200	4124.38	1929.16	-1598.72	1081.05	2.49	
4716.00	33.800	149.900	4177.60	1964.70	-1629.37	1099.07	0.63	
4779.00	34.000	149.500	4229.89	1999.81	-1659.71	1116.79	0.48	
4842.00	33.800	149.000	4282.18	2034.93	-1689.90	1134.76	0.54	
4904.00	33.600	148.400	4333.76	2069.32	-1719.30	1152.63	0.63	
4936.00	34.200	149.000	4360.32	2087.17	-1734.55	1161.90	2.15	
4967.00	34.300	149.000	4385.95	2104.61	-1749.50	1170.89	0.32	
5030.00	34.100	149.000	4438.05	2140.01	-1779.86	1189.13	0.32	
5093.00	34.100	150.400	4490.22	2175.30	-1810.35	1206.94	1.25	
5156.00	34.100	150.100	4542.39	2210.58	-1841.02	1224.47	0.27	
5219.00	34.100	150.200	4594.56	2245.86	-1871.65	1242.05	0.09	
5251.00	34.100	150.500	4621.05	2263.78	-1887.24	1250.93	0.53	
5283.00	33.900	150.800	4647.58	2281.65	-1902.84	1259.70	0.82	
5315.00	33.800	150.300	4674.16	2299.45	-1918.36	1268.46	0.92	
5346.00	33.300	150.000	4699.99	2316.57	-1933.22	1276.99	1.70	
5378.00	32.800	150.400	4726.82	2334.00	-1948.36	1285.66	1.70	
5410.00	32.400	150.400	4753.78	2351.22	-1963.35	1294.18	1.25	
5442.00	31.700	150.400	4780.90	2368.18	-1978.12	1302.56	2.19	
5474.00	31.100	149.300	4808.21	2384.83	-1992.54	1310.94	2.59	
5505.00	30.300	149.200	4834.87	2400.65	-2006.14	1319.03	2.59	
5537.00	29.300	149.300	4862.64	2416.55	-2019.80	1327.16	3.13	
5569.00	28.400	149.700	4890.66	2431.98	-2033.11	1335.00	2.88	
5601.00	27.400	148.900	4918.94	2446.95	-2045.98	1342.64	3.34	
5632.00	26.300	148.300	4946.60	2460.95	-2057.93	1349.93	3.65	
5664.00	26.300	148.600	4975.29	2475.12	-2070.02	1357.35	0.42	
5696.00	26.000	148.400	5004.01	2489.22	-2082.04	1364.72	0.98	
5728.00	24.800	148.400	5032.92	2502.95	-2093.73	1371.91	3.75	
5760.00	24.700	149.300	5061.98	2516.34	-2105.20	1378.84	1.22	
5791.00	24.300	149.500	5090.19	2529.19	-2116.26	1385.39	1.32	
5823.00	22.900	149.400	5119.51	2541.99	-2127.30	1391.90	4.38	
5854.00	22.100	149.300	5148.15	2553.85	-2137.50	1397.95	2.58	
5885.00	21.300	149.100	5176.95	2565.31	-2147.35	1403.82	2.59	
5917.00	19.800	149.800	5206.92	2576.53	-2157.02	1409.53	4.75	
5949.00	19.000	149.500	5237.10	2587.15	-2166.19	1414.90	2.52	
5981.00	18.400	149.700	5267.41	2597.41	-2175.04	1420.09	1.89	
6013.00	17.200	149.600	5297.88	2607.18	-2183.48	1425.03	3.75	
6045.00	16.500	149.100	5328.50	2616.45	-2191.46	1429.76	2.23	
6076.00	15.300	148.700	5358.32	2624.94	-2198.73	1434.14	3.89	
6107.00	14.400	148.300	5388.28	2632.89	-2205.51	1438.30	2.92	
6139.00	13.600	148.300	5419.33	2640.63	-2212.10	1442.36	2.50	
6171.00	13.400	148.200	5450.45	2648.10	-2218.45	1446.29	0.63	
6202.00	13.700	149.000	5480.58	2655.36	-2224.65	1450.08	1.14	



# Actual Wellpath Report

Wolverine Federal 19-3 AWB

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL, SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6234.00	13.500	148.700	5511.69	2662.88	-2231.09	1453.97	0.66	
6266.00	13.100	149.700	5542.83	2670.24	-2237.41	1457.74	1.44	
6297.00	13.000	150.400	5573.03	2677.23	-2243.47	1461.23	0.60	
6329.00	12.400	151.300	5604.25	2684.26	-2249.62	1464.66	1.97	
6360.00	12.400	149.900	5634.52	2690.90	-2255.42	1467.93	0.97	
6392.00	12.400	145.900	5665.78	2697.77	-2261.23	1471.58	2.68	
6423.00	12.300	144.700	5696.06	2704.40	-2266.69	1475.35	0.89	
6455.00	12.600	141.700	5727.31	2711.27	-2272.21	1479.49	2.23	
6489.00	12.600	139.800	5760.49	2718.64	-2277.95	1484.18	1.22	
6520.00	12.700	138.600	5790.74	2725.35	-2283.09	1488.61	0.91	
6552.00	11.600	142.100	5822.02	2732.03	-2288.27	1492.92	4.14	
6584.00	12.200	141.600	5853.33	2738.60	-2293.45	1496.99	1.90	
6615.00	12.700	140.800	5883.60	2745.24	-2298.66	1501.18	1.71	
6647.00	12.300	140.600	5914.84	2752.12	-2304.02	1505.57	1.26	
6678.00	11.900	141.000	5945.15	2758.57	-2309.06	1509.68	1.32	
6710.00	11.900	140.400	5976.47	2765.12	-2314.16	1513.86	0.39	
6741.00	12.600	138.000	6006.76	2771.63	-2319.14	1518.16	2.79	
6773.00	12.200	136.900	6038.01	2778.39	-2324.20	1522.80	1.45	
6804.00	12.100	133.600	6068.32	2784.77	-2328.83	1527.39	2.26	
6835.00	12.200	134.400	6098.63	2791.11	-2333.37	1532.09	0.63	
6867.00	12.500	132.300	6129.89	2797.74	-2338.06	1537.06	1.69	
6898.00	12.600	132.200	6160.15	2804.24	-2342.59	1542.05	0.33	
6929.00	11.900	131.700	6190.44	2810.58	-2346.99	1546.94	2.28	
6959.00	11.300	131.300	6219.83	2816.37	-2350.99	1551.46	2.02	
6990.00	10.600	132.000	6250.26	2822.04	-2354.90	1555.86	2.30	
7022.00	9.900	132.000	6281.75	2827.52	-2358.71	1560.09	2.19	
7053.00	9.110	131.700	6312.32	2832.45	-2362.12	1563.90	2.55	
7085.00	8.000	133.200	6343.97	2837.05	-2365.33	1567.42	3.54	
7116.00	7.300	133.000	6374.69	2841.04	-2368.15	1570.43	2.26	
7147.00	6.400	134.000	6405.47	2844.63	-2370.70	1573.11	2.93	
7178.00	5.300	133.600	6436.31	2847.70	-2372.89	1575.39	3.55	
7210.00	4.100	134.800	6468.20	2850.25	-2374.71	1577.28	3.76	
7273.00	1.500	133.700	6531.12	2853.25	-2376.87	1579.47	4.13	
7336.00	0.300	255.400	6594.11	2854.00	-2377.48	1579.91	2.66	
7388.00	0.100	320.500	6646.11	2853.91	-2377.48	1579.75	0.53	Last BHI MWD Survey
7440.00	0.100	320.500	6698.11	2853.82	-2377.41	1579.69	0.00	Projection To Bit



# Actual Wellpath Report

Wolverine Federal 19-3 AWB

Page 6 of 7



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

## HOLE & CASING SECTIONS Ref Wellbore: Wolverine Federal 19-3 AWB Ref Wellpath: Wolverine Federal 19-3 AWB

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	0.00	2024.00	2024.00	0.00	1936.32	0.00	0.00	-376.79	293.59
8.75in Open Hole	2024.00	7440.00	5416.00	1936.32	6698.11	-376.79	293.59	-2377.41	1579.69

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
Wolverine Federal 19-3 BHL On Plat (2140'FNL & 1320'FEL,SEC.19) Rev.3		5590.00	-1352.66	1990.22	1513309.10	6727983.11	38°47'20.632"N	111°56'45.199"W	point
Wolverine Federal 19-3 BHL On Plat (2241'FSL & 1782'FEL,SEC.19) Rev.1		6611.45	-2427.32	1544.59	1512858.00	6726910.65	38°47'10.010"N	111°56'50.828"W	point
Wolverine Federal 19-3 Target Box		6611.45	0.00	0.00	1511325.63	6729345.91	38°47'34.003"N	111°57'10.334"W	polygon

## WELLPATH COMPOSITION Ref Wellbore: Wolverine Federal 19-3 AWB Ref Wellpath: Wolverine Federal 19-3 AWB

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
22.00	3482.00	NaviTrak (Standard)	BHI MWD Surveys <0' - 3482'>	Wolverine Federal 19-3 AWB
3482.00	3831.00	NaviTrak (Standard)	BHI MWD Surveys <3482' - 3831'>	Wolverine Federal 19-3 AWB
3831.00	5791.00	NaviTrak (Standard)	BHI MWD Surveys <3831' - 5791'>	Wolverine Federal 19-3 AWB
5791.00	6139.00	NaviTrak (Standard)	BHI MWD Surveys <5791' - 6139'>	Wolverine Federal 19-3 AWB
6139.00	7273.00	NaviTrak (Standard)	BHI MWD Surveys <6171' - 7273'>	Wolverine Federal 19-3 AWB
7273.00	7388.00	NaviTrak (Standard)	BHI MWD Surveys <7336' - 7440'>	Wolverine Federal 19-3 AWB
7388.00	7440.00	Blind Drilling (std)	Projection to bit	Wolverine Federal 19-3 AWB



# Actual Wellpath Report

Wolverine Federal 19-3 AWB

Page 7 of 7



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Slot #01 Wolverine Federal 19-3 (756'FNL & 1965'FWL,SEC.19)
Area	UTAH	Well	Wolverine Federal 19-3
Field	SEVIER COUNTY	Wellbore	Wolverine Federal 19-3 AWB
Facility	SEC.19-T23S-R1W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7388.00	0.100	320.500	6646.11	Last BHI MWD Survey
7440.00	0.100	320.500	6698.11	Projection To Bit

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

FORM 6

**ENTITY ACTION FORM**

Operator: Wolverine Gas & Oil Company of Utah, LLC Operator Account Number: N 1655  
 Address: One Riverfront Plaza, 55 Campau NW  
city Grand Rapids  
state MI zip 49503 Phone Number: (616) 458-1150

**Well 1**

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304150004	Wolverine Federal 19-3		NENW	19	23S	1W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
C	17850	13995	10/21/2010			7/1/2011	
Comments: NAVA							

CONFIDENTIAL

2/1/2012

**Well 2**

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

**Well 3**

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

**ACTION CODES:**

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Helene Bardolph

Name (Please Print)

*Helene Bardolph*

Signature

Engineering Assistant

2/1/2012

Title

Date

RECEIVED

FEB 01 2012

DIV. OF OIL, GAS & MINING



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155  
<http://www.blm.gov/ut/st/en.html>



RECEIVED

JAN 20 2012

DIV. OF OIL, GAS & MINING

IN REPLY REFER TO  
3180  
UT9221000

January 17, 2012

Richard D. Moritz  
Wolverine Gas and Oil Co. of Utah, LLC  
One Riverfront Plaza  
55 Campau, N.W.  
Grand Rapids, Michigan 49503-2616

Re: 7<sup>th</sup> Revision of the Navajo Formation PA  
Wolverine Unit  
Sevier County, Utah

Dear Mr. Moritz:

The 7<sup>th</sup> Revision of the Navajo Formation Participating Area, Wolverine Unit, UTU80800A, is hereby approved effective as of July 1, 2011, pursuant to Section 11 of the Wolverine Unit Agreement, Sevier County, Utah.

The 7<sup>th</sup> Revision of the Navajo Formation Participating Area results in an addition of 20.44 acres to the participating area for a total of 1,100.48 acres and is based upon the completion of Well No. 19-3, API No. 43-041-50004, located in N2 of Lot 10, Section 19, Township 23 South, Range 1 West, SLM&B, Federal Unit Tract No. 6, Federal Lease UTU73528, as being a well capable of producing unitized substances in paying quantities.

Copies of the approved request are being distributed to the appropriate agencies and one copy is returned herewith. Please advise all interested parties of the establishment of the 7<sup>th</sup> Revision of the Navajo Formation Participating Area, Wolverine Unit, and the effective date.

Sincerely,

*/s/ Roger L. Bankert*  
Roger L. Bankert  
Chief, Branch of Minerals

Enclosure

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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: WOLVERINE
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: WOLVERINE FED 19-3
2. NAME OF OPERATOR: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC	9. API NUMBER: 43041500040000
3. ADDRESS OF OPERATOR: One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503	PHONE NUMBER: 616 458-1150 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0756 FNL 1965 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 19 Township: 23.0S Range: 01.0W Meridian: S	9. FIELD and POOL or WILDCAT: COVENANT  COUNTY: SEVIER  STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 5/6/2013  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input type="checkbox"/> APD EXTENSION  OTHER: <input type="text" value="Workover"/>

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

Wolverine Gas and Oil Co. of Utah, LLC intends to workover the Wolverine Federal 19-3. After using a retainer and cement squeeze to isolate lower water-bearing perforations, an existing Navajo completion will be re-perforated and fracture stimulated. An ESP will then be run to return the well to production. Upon completion of all well work activities, a report will be filed with details of actual work activities performed.

**Accepted by the  
 Utah Division of  
 Oil, Gas and Mining**

Date: February 19, 2013

By: *Derek Quist*

<b>NAME (PLEASE PRINT)</b> Helene Bardolph	<b>PHONE NUMBER</b> 616 458-1150	<b>TITLE</b> Engineering Administrative Assistant
<b>SIGNATURE</b> N/A	<b>DATE</b> 2/19/2013	

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires January 31, 2004

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
**UTU 73528**

6. If Indian, Allottee or Tribe Name  
**N/A**

7. If Unit or CA/Agreement, Name and/or No.  
**Wolverine Federal Unit**

8. Well Name and No.  
**Wolverine Federal 19-3**

9. API Well No.  
**43041500040000**

10. Field and Pool, or Exploratory Area  
**Covenant**

11. County or Parish, State  
**Sevier**

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
**Wolverine Gas & Oil Company of Utah, LLC**

3a. Address  
**55 Campau NW, Grand Rapids, MI 49503**

3b. Phone No. (include area code)  
**616-458-1150**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**At Surface: 756' FNL, 1965' FWL, NENW, Sec 19, T23S, R1W**  
**At TD: 2286' FSL, 1741' FEL, NWSE, Sec 19, T23S, R1W**

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Workover</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Wolverine Gas and Oil Co. of Utah, LLC intends to workover the Wolverine Federal 19-3. After using a retainer and cement squeeze to isolate lower water-bearing perforations, an existing Navajo completion will be re-perforated and fracture stimulated. An ESP will then be run to return the well to production. Upon completion of all well work activities, a report will be filed with details of actual work activities performed.

**RECEIVED**

**RECEIVED**

**MAR 08 2013**

**FEB 25 2013**

**DIV. OF OIL, GAS & MINING Richfield BLM Field Office**

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)  
**Ron Meredith**

Title **Senior Production Engineer**

Signature *Ron Meredith*

Date **02/19/2013**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by *Stan L. Ar...*

Title **SNRES**

Date **3/6/2013**

Office **RFO**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

*Sundry # 135LA00325*

**CONFIDENTIAL**

**Wolverine Gas & Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Covenant Field**

Purpose: Cement Squeeze Bottom Perfs and Re-Frac the Upper Navajo of the WF 19-3

PERTINENT INFORMATION

Location: 756' FNL 1965' FWL, NE NW, 19-23S-1W  
Section 19, Township 23 South, Range 1 West  
Sevier County, Utah

Elevation: 5823' GL, 5845' KB

TD: 7440'

PBSD: 7344'

API No.: 43-041-50004

Casing: 9 $\frac{5}{8}$ " , 36.0# @ 2024' , cemented to surface  
7" , 26.0# , L-80/HCL-80, LT&C, to 7440' and cemented to surface

Wellhead: Tubing Head Flange – 7-1/16" 5k w/ 2 $\frac{7}{8}$ " EUE top connection

Tubing: 2 $\frac{7}{8}$ " , 6.5# , L-80, EUE, 8rd

Prod. Csg Specs: 7" , 26.0# , L-80, LT&C, 8rd, ID: 6.276" , Drift: 6.151"  
Collapse: 5410 psi, Burst: 5792 psi (80% of 7240psi)  
7" , 26.0# , HCL-80, LT&C, 8rd, ID: 6.276" , Drift: 6.151"  
Collapse: 7800 psi, Burst: 5792 psi (80% of 7240psi)

Tubing Specs: 2 $\frac{7}{8}$ " , 6.5# , L-80, EUE, 8rd, ID: 2.441" , Drift: 2.347"  
Collapse: 11,170 psi, Burst: 8456 psi (80% of 10,570 psi),  
Jt Tensile: 116,000 lbs (80% of 145,000 lbs)

Capacities: 7" , 26.0#: 0.0382 bbls/ft, 0.2148 ft<sup>3</sup>/ft  
2 $\frac{7}{8}$ " , 6.5#: 0.00579 bbls/ft, 0.0325 ft<sup>3</sup>/ft  
7" , 26.0# x 2 $\frac{7}{8}$ " Ann.: 0.0302 bbls/ft, 0.1697 ft<sup>3</sup>/ft

BH Temperature: 190°F @ 6600' TVD

**Existing Upper Navajo Perforations:** (Note: All depths reference the 11/27/10 Halliburton SDL-DSN-GR log.)

**6994'- 7000' MD (6254'- 6264' TVD), 6', 36 holes (Planned Re-Frac Interval)**

**7068'- 7078' MD (6328'- 6338' TVD), 10', 60 holes**

**7096'- 7104' MD (6356'- 6364' TVD), 8', 48 holes**

**7106'- 7110' MD (6366'- 6370' TVD), 4', 24 holes**

Mid-Perfs = 7052' MD (6312' TVD), 32' of Perfs (116' Gross Interval) w/ 192 Holes

(\*Post Plugback Mid-Perfs = 6997' MD (6257' TVD), 6' of Perfs (6' Gross Interval) w/ 72 Holes)

**Wolverine Gas & Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Covenant Field**

**PROCEDURE**

1. MIRUSU. Disconnect flow lines, ND wellhead, and NU BOP.
2. TOH with production string.
3. Run 6½" bit and csg scraper to PBTD & circ. hole clean.
4. TIH with 7" test pkr, and tbg. Pressure test casing above 6,900' to 2,000 psi.
5. Re-set pkr at ±7087' and verify communication between perfs (behind pipe) from 7078'-7096'.
6. Set a cement retainer at 7087' and squeeze ±20 sx cement behind retainer and leave ±5 sx cement on top of retainer. Rev. circ. clean at ±7055'. (Note: if unable to establish circ. between perfs in Step 5, a CIBP will be set at ±7060' and covered w/ cement.)
7. Run a 6½" bit to verify hole is clean below remaining perfs (6994'- 7000') and Tag/Record PBTD.
8. Re-perforate existing Upper Navajo perfs from 6994'-7000'.
9. Fracture Stimulate the Upper Navajo perforations from 6994' - 7000'
10. Flowback and swab for cleanup.
11. Re-run production string.
12. ND BOP, install wellhead and start up ESP.
13. RDMOSU and put well on production.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**

**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**

3a. Address  
**55 Campau NW, Grand Rapids, MI 49503-2616**

3b. Phone No. (include area code)  
**616-458-1150**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SHL - 756' FNL 1965' FWL, NE/4 NW/4, Sec. 19, T23S, R1W (SLB&M)**

5. Lease Serial No.  
**UTU-73528**

6. If Indian, Allottee or Tribe Name  
**NA**

7. If Unit or CA/Agreement, Name and/or No.  
**Wolverine Federal Unit**

8. Well Name and No.  
**Wolverine Federal 19-3**

9. API Well No.  
**43041500040000**

10. Field and Pool, or Exploratory Area  
**Covenant**

11. County or Parish, State  
**Sevier County, Utah**

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input checked="" type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input checked="" type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Wolverine Gas and Oil Company of Utah, LLC completed a workover on the Wolverine Federal 19-3 on June 6, 2013. The well's bottom three perf intervals (7068'-7078', 7096'-7104', and 7106'-7110') were plugged back by setting a cement retainer set at 7087' and squeezing 25 sx of cement. Additional cement was subsequently dump-bailed on top of the retainer for a final/confirmed PBTD of 7059' and the well's lone set of remaining perms (6994'-7000') were reperforated with 6 SPF. Those perforations were then fracture stimulated, with an average pump rate of 14.5 BPM. Pumped volumes included 2000 gals of acid, 63,110 gals of slickwater and cross-linked gel, and 35,540 lbs of Frac Sand. The well was then flowed back, cleaned out (50' of sand was circulated out of the casing) to 7059' PBTD, and swabbed to (partially) recover the load volume. Production equipment was re-installed and the well returned to production at 53 BOPD and 264 BWPD.**

(Refer to the attached WBD and Daily Reports for more details. Also, further 19-3 Fracture Stimulation details will be submitted through the FracFocus filing system within 60 days of completion of work, as required.)

**RECEIVED**

**JUN 24 2013**

**DIV. OF OIL, GAS & MINING**

14. I hereby certify that the foregoing is true and correct  
 Name (Printed/Typed)

**Ron Meredith**

Title **Sr. Production Engineer**

Signature



Date

**06/20/2013**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by \_\_\_\_\_

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



Covenant Field

Federal 19-3

API# 43-041-50004

NE/NW S19, T23S, R1W

Sevier County, Utah

- 5/18/2013 Roustabouts set, frac tanks, flowback lines, pump lines, filtration trailer, pipe racks, hydraulic cat walk and BOP's on location.
- 5/20/2013 MIRUSU, ND wellhead, NU BOP's. RU spooling trailer and pulled out of hole with the downhole pump. RD and released spooling equipment. PU and tripped in hole with 6-1/8" bit and casing scraper to 6500'. SWIFN
- 5/21/2013 Opened well, 0 psi tubing, 0 psi casing. Finished tripping in hole with bit and scraper to 7319' WLM, picked up 6', RU pump lines and reverse circulated well with 275 bbls of completion fluid, RD pump lines and pulled out of hole with bit and scraper. PU and tripped in hole with 7" HD packer to 6900', RU pump lines and pressure tested casing to 2000 psi, RD pump lines and finished tripping the packer in to 7087', RU wireline unit and correlated tubing depth to the open hole logs, RD and released wireline unit. Set packer at 7087' WLM, RU pump lines and pumped 20 bbls of CF at 2 bpm with 400 psi into perf intervals 7096-7104' & 7106-7110' and confirmed circulation behind pipe to the upper perf sets. RD pump lines, released packer and pulled out of hole with tubing laying down the packer. RIH with one stand and SWIFN.
- 5/22/2013 Opened well, 0 psi. RU wireline unit and set a CICR at 7087', RD and released wireline unit. Tripped in hole with tubing and cement stinger and stung into the cement retainer at 7087', RU Halliburton pump equipment and established an injection rate into the retainer. Unstung from retainer, pumped 5 bbls of fresh water, 5.12 bbls of cement\*, followed by 31 bbls of fresh water. Stung into retainer and pumped 9.1 bbls of fresh water at 1/2 bpm, unstung from retainer and pulled out of the hole to 7055'. RU pump lines and reverse circulated with 75 bbls of CF. RD pump lines and pulled out of hole w/ 10 stands of tubing and SWIFN. RD and released cementing equipment.
- \*Note: Cement was 25 sx of 15.8 ppg, 1.15 yield, premium cement. Pumped w/ a max. pressure of 895 psi.
- 5/28/2013 Opened well, 0 psi tubing. Pulled out of hole with tubing and cement stinger, picked up and tripped in the hole with 6-1/8" bit and casing scraper to the cement top at 7066', pulled out of hole laying down bit and casing scraper. Changed out BOP ram blocks, elevators and slips for 3 1/2" tubing, SWIFN.
- 5/29/2013 Opened well, 0 psi. RU wireline unit and perforated well w/ 3 3/8" gun, loaded @ 6 spf, from 6994'-7000'. Laid down perforating gun and picked up dump bailer. RIH and dumped 1 1/2 sx of cement on current cement top at 7066'. RD and released wireline unit, PU and tripped in the hole with 7" HD packer and 200 jts of 3 1/2" P110 8rd tubing. SWIFN. New PBSD @ 7059'
- 5/30/2013 Opened well, 0 psi. Finished picking up 3-1/2" P-110 frac string, set the packer at 6904', RU pump lines and pressure tested packer to 2000 psi, RD pump lines and SWIFN. RU Halliburton frac equipment.
- 5/31/2013 Finished rigging up frac lines to the tubing, opened well and pumped frac job per procedure (2000 gals acid, 63110 gals of fluid, and 35,540 # of frac sand) @ average rate of 14.5 BPM.
- 6/1/2013 Well flowed back a total of 306 bbls of water (with no oil) overnight. Released packer and pulled out of hole laying down 3-1/2" tubing. Tripped in hole with 2 7/8" production tubing and tagged sand top at 7009', RU pump lines and reverse circulated sand out of hole to PBSD at 7059', RD pump lines. Pulled out of hole laying down 2 7/8" production tubing, SWIFN.
- 6/2/2013 Opened well, 0 psi. Picked up and run in hole with 4 joints, packer and 212 joints of used inspected yellow band N-80 tubing, set packer, RU pump lines and pressure tested to 1000 psi. RD pump lines, RU swab equipment and swabbed well as follows.

Swab runs - 13

Total fluid recovered - 130 bbls

Perf intervals open -6994-7000'

RD swab equipment and SWIFN

6/3/2013

Opened well, 0 psi. RU swab equipment and swabbed well as follows.

Swab runs - 37

Total fluid recovered - 308 bbls

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Opened well, 0 psi. RU swab equipment and swabbed well as follows.

Swab runs - 16

Total fluid recovered - 121 bbls

Perf intervals open -6994-7000'

RD swab equipment, released packer and pulled out of hole with tubing, SWIFN

6/5/2013

No activity

6/6/2013

Opened well, 0 psi. Rigged up cable spoolers, picked up and run in hole with centralizer, Centinel, motor, seal, pump, 6' x 2- $\frac{7}{8}$ " sub, 1 joint, cup type SN and 209 joints of 2- $\frac{7}{8}$ " N-80 tubing. Spliced on the lower pigtail and landed well. ND BOP's NU wellhead and turned well into production.

Supervisor:

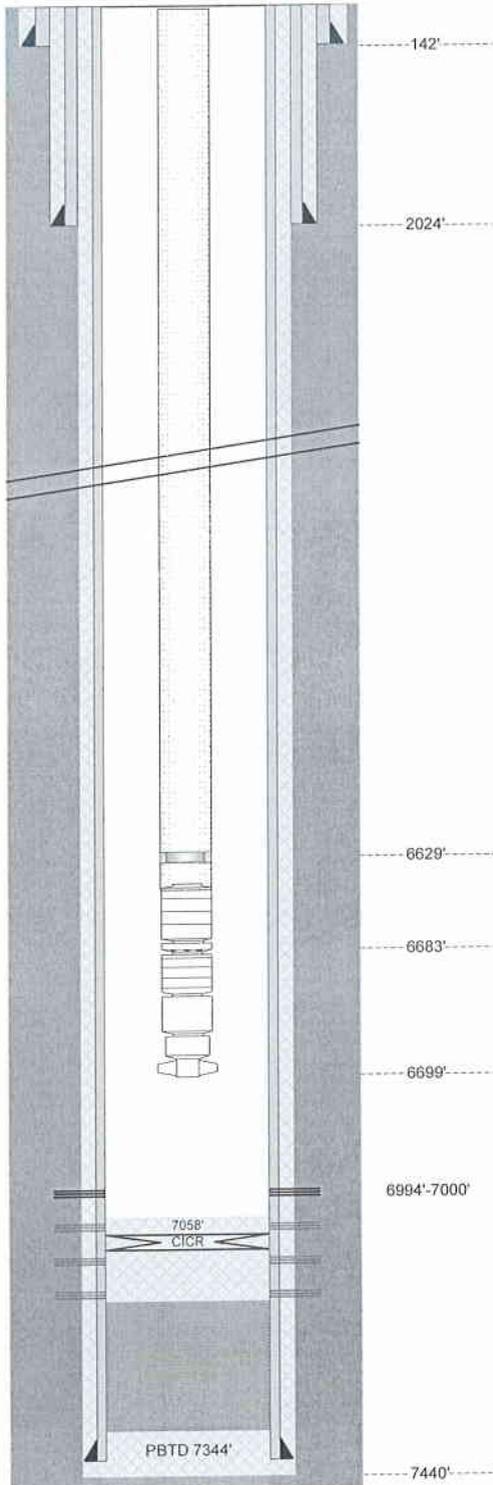
Tony E. Cook

Rig Operator:



**Wolverine Federal 19-3**  
**API # 43-041-50004**  
**Covenant Field**  
**Section 19, T23S, R1W**  
**Sevier County, Utah**

Ground Elevation: 5,823'  
 KB Elevation: 5,845'



**(Not to Scale)**

**Deviated Well**

Surface: 756' FNL 1965' FWL, NE NW, 19-23S-1W  
 Top of Pay (6955' MD): 1770' FEL, 2311' FSL, NW SE, 19-23S-1W  
 Total Depth (7440' MD): 1741' FEL, 2286' FSL, NW SE, 19-23S-1W

**Conductor Casing (10/22/10)**

Size: 16", 0.25" wall  
 Depth Landed: 142' KB  
 Cement Data: Cemented to surface 12 yards Redi-mix

**Surface Casing (11/08/10)**

Size/Wt/Grade: 9-5/8", 36#, J-55, STC/LTC, 8rd  
 Depth Landed: 2024' KB  
 Cement Data: Lead - 260 sks Vericem (11.5 ppg, 3.00 cf/sk), Tail - 125 sks Vericem (12.8 ppg, 2.11 cf/sk), Cemented to surface

**Production Casing (12/02/10)**

Size/Wt/Grade: 7", 26.0#, L-80/HCL-80, LTC, 8rd  
 Properties: 7240 psi burst, 6.151" drift, 6.276" ID, 0.0382 Bbl/ft capacity  
 Depth Landed: 7440' KB  
 Cement Data: Lead - 260 sks Poz/G (12.0 ppg, 2.99 cf/sk), Tail - 130 sks TX Lite Weight (14.4 ppg, 1.38 cf/sk), Cemented to surface

**Navajo Perforations**

6994'- 7000' MD (6254'- 6260' TVD), 06', 36 holes (05/02/11), (05/29/13)  
 7068'- 7078' MD (6328'- 6338' TVD), 10', 60 holes (04/15/11)  
 7096'- 7104' MD (6356'- 6364' TVD), 08', 48 holes (03/31/11)  
 7106'- 7110' MD (6366'- 6370' TVD), 04', 24 holes (03/31/11)

Mid-Perf = 6997' MD (6257' TVD), 06' M (6.0' TV), 36 holes

**Tubing (06/06/13)**

SN 6629' MD, (5897' TVD)  
 ESP Intake 6683' MD, (5950' TVD)  
 Centinel 6697' MD, (5964' TVD)  
 End of BHA 6699' MD, (5966' TVD)

**PBTD**

(5/29/13) Tagged cement top @ 7058' KBWLM  
 (1/08/11) CBL tagged cement top @ 7344' KBWLM



Wolverine Federal 19-3  
 API # 43-041-50004  
 Covenant Field  
 Section 19, T23S, R1W  
 Sevier County, Utah

**Tubing Detail (6/6/13)**

	26.00	KB
	-3.00	Landed above GL
209	6618.59	Tubing - 2-7/8", 6.5#, N-80, EUE, 8rd
1	1.10	Cup type SN - 2-7/8", EUE, 8rd
1	31.73	Tubing - 2-7/8", 6.5#, N-80, EUE, 8rd
1	6.18	Tubing sub - 2-7/8", 6.5#, N-80, EUE, 8rd
1	15.26	Pump w/ Intake
1	6.10	Seal
1	8.15	Motor
1	1.07	Centinel
1	1.11	Centralizer, 2-3/8" x 5 1/2", collapsible.
	-13.00	Wireline correction
<hr/>		
	6699.29'	EOT (5966' TVD)

Note: No check valve in this well.  
 Tubing capacity = 0.00579 Bbl/ft, Burst = 10570 psi, Joint Yield = 144960 lbs

**Directional Data:**

MD	TVD	Incl.	MD	TVD	Incl.
500	500	5.7	4000	3583	34.0
750	747	10.8	4500	3998	34.0
1000	992	13.3	5000	4414	34.2
1250	1233	17.0	5500	4830	30.3
1500	1469	21.5	6000	5285	16.7
2000	1916	31.2	6500	5771	12.6
2500	2340	34.3	7000	6260	10.4
3000	2753	33.9	7440	6698	0.1
3500	3167	33.9			

**Stimulation:**

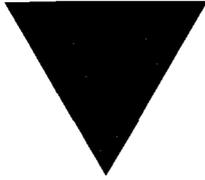
- 04/03/11: 7096' - 7110' w/ 1500 gallons produced water w/ 5 GPT GasPerm 1000 and 130 buoyant balls  
 Max Treating Pressure = 4766 psi @ 5.1 BPM, ISIP = 3248 psi, No Break
- 04/06/11: 7068' - 7078' w/ 1500 gallons produced water w/ 5 GPT GasPerm 1000 and 110 buoyant balls  
 Max Treating Pressure = 4718 psi @ 1 BPM, ISIP = 3832 psi, No Break
- 05/03/11: 6994' - 7000' w/ 630 gallons 7-1/2% FE HCL no balls @ 0.6 BPM, 4476 psi ISIP = 4288, no break  
 6994' - 7000' w/ 1050 gallons 7-1/2% FE HCL no balls @ 0.8 BPM, 4850 psi, Formation Break  
 FTP = 4.7 BPM @ 3700 psi, ISIP = 2443 psi
- 06/19/11: 7096' - 7110' w/ 1500 gallons 7-1/2% FE HCL & 60 buoyant balls, communicated w/ backside, no break
- 06/20/11: 7096' - 7110' & 7068' - 7078' w/ 1500 gallons 7-1/2% FE HCL & 60 buoyant balls, communicate w/  
 backside, no break
- 07/09/11: 6994' - 7000' Fracture treated w/ 30,000 lbs of 20/40 CarboLite proppant & 49,000 gallons 35# Borate Gel
- 05/31/13: 6994' - 7000' Fracture treated w/ 2000 gallons 7.5% FE acid, 9575 gallons fresh water, 15,864 gallons 35#  
 water frac G-R, 37,671 gallons 35# Delta frac R-36, 35,540 lbs of 20/40 CRC (~34,400# put into formation,  
 ~1,140# rev. circ'd from casing).

**Wellhead Information:**

- Tubing head flange is 7-1/16", 5M with a 2-7/8" EUE 8rd top connection.

**Notes:**

Surface Location: NAD83 Latitude = 38.792778556, Longitude = -111.952870611  
 (11/28/10): Available Logs: DLL/MSFL, SDL/DSN, LSS, XRMI, CBL



# WOLVERINE GAS AND OIL COMPANY

OF UTAH, LLC

*Energy Exploration in Partnership with the Environment*

June 20, 2013

Mr. Stan Anderson  
Fluid Minerals Group, BLM  
Richfield Field Office  
150 East 900 North  
Richfield, UT 84701

RECEIVED

JUN 24 2013

Mr. Brad Hill  
Utah Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, UT 84116

DIV. OF OIL, GAS & MINING

**Re: Subsequent Report Sundry Notice for Wolverine Federal 19-3  
(API No. 43-041-50004 Covenant Field, Sevier County, Utah)**

Gentlemen:

Please find enclosed the required Sundry Notice for recently completed well work at the Wolverine Federal 19-3, with additional copies included where appropriate. The subject well is operated by Wolverine Gas & Oil Company of Utah, LLC and was recently worked over, in an attempt to increase oil production. Feel free to contact me if you have questions or concerns about either the well work performed or this post-work filing. I can be reached at my office at 616-929-1932 on weekdays, from 7:30 am to 4:30 PM (EST).

Sincerely,

Ron Meredith,  
Sr. Production Engineer  
Wolverine Gas & Oil Corporation

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**DIV. OF OIL, GAS & MINING**

RECEIVED

JUN 28 2013

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**

3a. Address  
**55 Campau NW, Grand Rapids, MI 49503-2616**

3b. Phone No. (include area code)  
**616-458-1150**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SHL - 756' FNL 1965' FWL, NE/4 NW/4, Sec. 19, T23S, R1W (SLB&M)**

5. Lease Serial No.  
**UTU-73528**

6. If Indian, Allottee or Tribe Name  
**NA**

7. If Unit or CA/Agreement, Name and/or No.  
**Wolverine Federal Unit**

8. Well Name and No.  
**Wolverine Federal 19-3**

9. API Well No.  
**43041500040000**

10. Field and Pool, or Exploratory Area  
**Covenant**

11. County or Parish, State  
**Sevier County, Utah**

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input checked="" type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input checked="" type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomplate in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

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JUN 24 2013

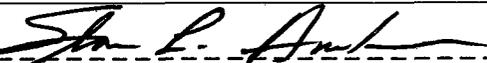
14. I hereby certify that the foregoing is true and correct  
 Name (Printed/Typed) **Ron Meredith**

Signature 

Richfield BLM Field Office  
 Title **Sr. Production Engineer**

Date **06/20/2013**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by  Title **SNRS** Date **25 JUNE 2013**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office **RICHFIELD FO**

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(Instructions on page 2)

Sundry # 135LA00405



Covenant Field  
Federal 19-3  
API# 43-041-50004

NE/NW S19, T23S, R1W  
Sevier County, Utah

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 Cement Data: Lead - 260 sks Poz/G (12.0 ppg, 2.99 cf/sk), Tail - 130 sks TX Lite Weight (14.4 ppg, 1.38 cf/sk), Cemented to surface

**Navajo Perforations**

6994'- 7000' MD (6254'- 6260' TVD), 06', 36 holes (05/02/11), (05/29/13)  
 7068'- 7078' MD (6328'- 6338' TVD), 10', 60 holes (04/15/11)  
 7096'- 7104' MD (6356'- 6364' TVD), 08', 48 holes (03/31/11)  
 7106'- 7110' MD (6366'- 6370' TVD), 04', 24 holes (03/31/11)

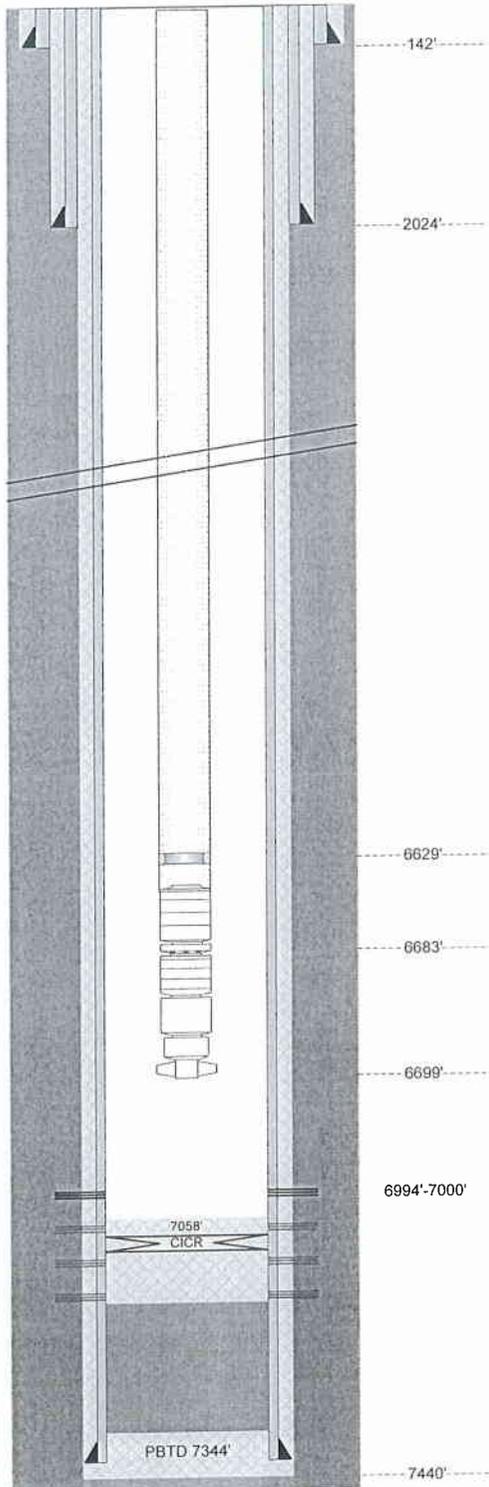
Mid-Perf = 6997' MD (6257' TVD), 06' M (6.0' TV), 36 holes

**Tubing (06/06/13)**

SN 6629' MD, (5897' TVD)  
 ESP Intake 6683' MD, (5950' TVD)  
 Centinel 6697' MD, (5964' TVD)  
 End of BHA 6699' MD, (5966' TVD)

**PBTD**

(5/29/13) Tagged cement top @ 7058' KBWLM  
 (1/08/11) CBL tagged cement top @ 7344' KBWLM





**Wolverine Federal 19-3  
API # 43-041-50004  
Covenant Field  
Section 19, T23S, R1W  
Sevier County, Utah**

**Tubing Detail (6/6/13)**

	26.00	KB
	-3.00	Landed above GL
209	6618.59	Tubing - 2-7/8", 6.5#, N-80, EUE, 8rd
1	1.10	Cup type SN - 2-7/8", EUE, 8rd
1	31.73	Tubing - 2-7/8", 6.5#, N-80, EUE, 8rd
1	6.18	Tubing sub - 2-7/8", 6.5#, N-80, EUE, 8rd
1	15.26	Pump w/ Intake
1	6.10	Seal
1	8.15	Motor
1	1.07	Centinel
1	1.11	Centralizer, 2-3/8" x 5 1/2", collapsible.
	-13.00	Wireline correction
<hr/>		
	6699.29'	EOT (5966' TVD)

Note: No check valve in this well.  
Tubing capacity = 0.00579 Bbl/ft, Burst = 10570 psi, Joint Yield = 144960 lbs

**Directional Data:**

<u>MD</u>	<u>TVD</u>	<u>Incl.</u>	<u>MD</u>	<u>TVD</u>	<u>Incl.</u>
500	500	5.7	4000	3583	34.0
750	747	10.8	4500	3998	34.0
1000	992	13.3	5000	4414	34.2
1250	1233	17.0	5500	4830	30.3
1500	1469	21.5	6000	5285	16.7
2000	1916	31.2	6500	5771	12.6
2500	2340	34.3	7000	6260	10.4
3000	2753	33.9	7440	6698	0.1
3500	3167	33.9			

**Stimulation:**

- 04/03/11: 7096' - 7110' w/ 1500 gallons produced water w/ 5 GPT GasPerm 1000 and 130 buoyant balls  
Max Treating Pressure = 4766 psi @ 5.1 BPM, ISIP = 3248 psi, No Break
- 04/06/11: 7068' - 7078' w/ 1500 gallons produced water w/ 5 GPT GasPerm 1000 and 110 buoyant balls  
Max Treating Pressure = 4718 psi @ 1 BPM, ISIP = 3832 psi, No Break
- 05/03/11: 6994' - 7000' w/ 630 gallons 7-1/2% FE HCL no balls @ 0.6 BPM, 4476 psi ISIP = 4288, no break  
6994' - 7000' w/ 1050 gallons 7-1/2% FE HCL no balls @ 0.8 BPM, 4850 psi, Formation Break  
FTP = 4.7 BPM @ 3700 psi, ISIP = 2443 psi
- 06/19/11: 7096' - 7110' w/ 1500 gallons 7-1/2% FE HCL & 60 buoyant balls, communicated w/ backside, no break
- 06/20/11: 7096' - 7110' & 7068' - 7078' w/ 1500 gallons 7-1/2% FE HCL & 60 buoyant balls, communicate w/ backside, no break
- 07/09/11: 6994' - 7000' Fracture treated w/ 30,000 lbs of 20/40 CarboLite proppant & 49,000 gallons 35# Borate Gel
- 05/31/13: 6994' - 7000' Fracture treated w/ 2000 gallons 7.5% FE acid, 9575 gallons fresh water, 15,864 gallons 35# water frac G-R, 37,671 gallons 35# Delta frac R-36, 35,540 lbs of 20/40 CRC (~34,400# put into formation, ~1,140# rev. circ'd from casing).

**Wellhead Information:**

- Tubing head flange is 7-1/16", 5M with a 2-7/8" EUE 8rd top connection.

**Notes:**

Surface Location: NAD83 Latitude = 38.792778556, Longitude = -111.952870611  
(11/28/10): Available Logs: DLL/MSFL, SDL/DSN, LSS, XRMI, CBL

**Carol Daniels - Wolverine Federal 19-3 Update** T 235 R01W S-19 43041 50004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
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"Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/22/2010 7:15 AM  
**Subject:** Wolverine Federal 19-3 Update

11/22/2010 7:12 AM

Drilling at 6773'. Csg pt = 7573'.

**Tom Zupan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
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**Carol Daniels - Wolverine Federal 19-3 Update**

*T 235 ROWS-19 43-041-50004*

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**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
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"Tujillo, Chris" , "Tyler Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/30/2010 11:43 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/30/2010 11:39 AM

Running casing 70% complete

**Bill Donovan**  
**Drilling Supervisor**  
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T 235 R 01W S-19 43-041-50004

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**Date:** 11/30/2010 7:49 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/30/2010 7:44 AM

Running casing, about 20% done.

Forward plan: Cementing this afternoon?, set slips in evening???

**Bill Donovan**  
**Drilling Supervisor**  
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**Carol Daniels - Wolverine Federal 19-3 Update** *T 235 ROLW 5-19 43 041-50004*

---

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"Tujillo, Chris" , "Tyler Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/29/2010 9:28 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/29/2010 9:22 AM

Tripping to bottom

Short tripped to check hole conditions

Plan to circulate for 2-3 hours and then TOH laying down.

**Bill Donovan**  
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**Carol Daniels - Wolverine Federal 19-3 Update** *T 235 R01W 5-19 43-041-50004*

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"Tujillo, Chris" , "Tyler Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/28/2010 9:01 AM  
**Subject:** Wolverine Federal 19-3 Update

---

11/28/2010 8:49 AM

Logging.

Casing will be run

Plan:

Finish logging and rig down by 14:00

TIH, circulate and condition, TOH, Lay down SHWDP

**Bill Donovan**  
**Drilling Supervisor**  
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Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/27/2010 7:43 PM  
**Subject:** Wolverine Federal 19-3 Update

---

11/27/2010 7:39 PM

Logging,

Two more logging runs are required before a decision is made.

**Bill Donovan**  
**Drilling Supervisor**  
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 Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/27/2010 8:51 AM  
**Subject:** Wolverine Federal 19-3 Update

11/27/2010 8:45 AM

Tagged bottom with Run #2 and logging up.

Two more logging tools are to be run.

No decision will be made until all logs are run

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
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Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 11/26/2010 6:37 PM  
**Subject:** Wolverine Federal 19-3 Update

11/26/2010 6:33 PM

Circulating and conditioning hole.

TD 7,440' reached 17:30. Halliburton loggers call out for 3:30 AM 11/27

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
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*T 235 RO1WS-19 43-041-50004*

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**Date:** 11/26/2010 7:45 AM  
**Subject:** Wolverine Federal 19-3 Update

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11/26/2010 7:40 AM

Current activity: Drilling at 7350' at 8 fph.

Forward Plan:

- Drill to logging point of 7440'. ~15 hours
- Circ and condition hole ~2 hours
- Pull out of hole for logs ~6 hours
- Log ~18 hours
- Either run casing or plug back for sidetrack.

**Tom Zupan**  
**Drilling Supervisor**  
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T 235 R01W 5-19 43 04/50004

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**Date:** 11/25/2010 4:36 PM  
**Subject:** Wolverine Federal 19-3 Update

11/25/2010 4:31 PM

Current activity: Drilling at 7261'. 7-12 fph. Csg pt = 7573'.

Forward Plan:

- Drill to 7573'
- Circ and condition hole
- Pull out of hole for logs
- Log
- Either run casing or plug back for sidetrack.

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**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**wolvexpl@drillmail.net**

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DEC 01 2010

DIV OF OIL, GAS & MINING

**Carol Daniels - Wolverine Federal 19-3 Update**

T 735 R 01W 5-19 4304150004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" , "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels, Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet, Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim Barry" , "Jimmy Germon" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" , "Nilles, Chris" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Winkler, Matt" , "Zimmerman, Bill" , "LaDee Roundy"  
**Date:** 11/25/2010 7:50 AM  
**Subject:** Wolverine Federal 19-3 Update

11/25/2010 7:45 AM

Current activity: Drilling at 7186' (4-9 fph). Csg pt = 7573'.

Forward Plan:

- Drill to 7573'
- Circ and condition hole
- Pull out of hole for logs
- Log
- Either run casing or plug back for sidetrack.

**Tom Zupan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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DEC 01 2010

DIV. OF OIL, GAS & MINING

Carol Daniels - Wolverine Federal 19-3 Update T239 R01W 5-19 4304150004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
 "Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
 Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
 Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hammell, Hank" ,  
 "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim Barry" , "Jimmy  
 Germon" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore,  
 Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy,  
 Tim" , "Nilles, Chris" , "O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" ,  
 "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" ,  
 "Shawn Moulton" , "Shelton, Shorty" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" ,  
 "Winkler, Matt" , "Zimmerman, Bill" , "LaDee Roundy"  
**Date:** 11/24/2010 4:37 PM  
**Subject:** Wolverine Federal 19-3 Update

11/24/2010 4:29 PM

Current depth = 7148', tripping in with new bit and Trutrack motor. Csg pt = 7573' +/-.

Forward plan:

- Finish trip in hole
- Drill to 7573'
- Circ and condition hole
- Pull out of hole for logs
- Log
- Either run casing or plug back for sidetrack.

~~~~~  
11/22/2010 7:12 AM

Drilling at 6773'. Csg pt = 7573'.

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DIV. OF OIL, GAS & MINING

**Tom Zupan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)

**Carol Daniels - Wolverine Federal 19-3 Update** *T 335 ROW 5-19 43-041-5004*

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**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
Barry" , "Jimmy Germon" , "Jones, Mark" , "Kent Donner" , "Kulow, Kyle" , "Kyle Cox" ,  
"LaDee Roundy" , "Larimore, Mark" , "Lewis, John" , "Martin Pete" , "Matt Harmon" ,  
"McCoy, Charlene" , "McCoy, Tim" , "Nilles, Chris" , "O'Connell, David" , "Perry, Bud  
(Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert, Scott" , "Robinson, Darin" , "Ryan  
Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton, Shorty" , , "Steffen, Dana" ,  
"Tujillo, Chris" , "Tyler Ross" , "Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 12/1/2010 9:50 PM  
**Subject:** Wolverine Federal 19-3 Update

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12/1/2010 9:41 PM

The slips have been set and the rig will be released from this well on 12/2/10.

Please submit all outstanding Invoices for this well

Call and discuss the disposition for your rental equipment, bits, etc.

End daily rentals charges from this well on the rig release date.

Daily charges after the rig release date will be assigned a yet to be determined well.

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3, AFE 231**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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DEC 02 2010

DIV. OF OIL, GAS & MINING

**CONFIDENTIAL**

43041-50004

# BOTTOM HOLE ASSEMBLY

BHA #: 1

INTEQ

Company: WOLVERINE  
Field: SEVIER Co. UTAH  
County/Block/Par.: SEVIER

Well Name & No.: Wolverine FEDERAL 19-3  
Rig Contractor & No.: PATTERSON 304  
*239 1W 19*

| Date      | Depth | In | Out |
|-----------|-------|----|-----|
| 11/3/2010 | 142   |    |     |
| 11/6/2010 | 2027  |    |     |

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      | Comp. Lngth |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|-------------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |             |
| 1   | 12 1/4   | ST  | GF15BVCP | PS1569     | .5852       |              | 1885         | 34.4       | 2027      | 1              | 1  | NO | A   | E   | I    | WO | TD   | 1.00        |

### BHA DESCRIPTION

| Item No. | Component Description      | Vendor | Serial No. | Gauge OD | OD      | ID      | Fishing Neck | Top Connection | Bottom Connection | Comp. Length | Total Length |
|----------|----------------------------|--------|------------|----------|---------|---------|--------------|----------------|-------------------|--------------|--------------|
| 2        | TRU TRAK (motor), 0        | BHI    | 10349084   | 12 1/8"  | 9 1/2"  | 3"      | 1.76         | T2 B           | 6 5/8 R B         | 35.86        | 36.86        |
| 3        | SENSOR SUB                 | BHI    | SD46488    | 12"      | 9 1/2"  | 3"      |              | 7 5/8 R B      | T2 P              | 34.00        | 70.86        |
| 4        | FILTER SUB                 | BHI    | 10146049   |          | 9 7/16" | 3"      |              | 7 5/8 R B      | 7 5/8 R P         | 5.17         | 76.03        |
| 5        | FLOAT SUB                  | BHI    | SD104434   |          | 9 1/2"  | 3"      |              | 7 5/8 R B      | 7 5/8 R P         | 3.46         | 79.49        |
| 6        | XO 7 5/8 R x 6 5/8 R       | BHI    | SD40290    |          | 9 1/2"  | 3"      | 1.65         | 6 5/8 R B      | 7 5/8 R P         | 2.95         | 82.44        |
| 7        | SHOCK SUB                  | HUNT   | ??         |          | 8"      | 3"      | 1.05         | 6 5/8 R B      | 6 5/8 R P         | 9.35         | 91.79        |
| 8        | 6 5/8 RP x 6 5/8 FH B      | RIG    | CR6601     |          | 8 3/16" | 3"      |              | 6 5/8 FH B     | 6 5/8 R P         | 2.65         | 94.44        |
| 9        | (24) HWDP                  | RIG    | NSN        |          | 6 5/8"  | 4 9/16" | 1.90         | 6 5/8 FH B     | 6 5/8 FH P        | 739.04       | 833.48       |
| 10       | JARS                       | ST     | 63043D     |          | 8"      | 3"      | 2.50         | 6 5/8 FH B     | 6 5/8 FH P        | 32.57        | 866.05       |
| 11       | (5) HWDP                   | RIG    | NSN        |          | 6 5/8"  | 4 9/16" | 1.90         | 6 5/8 FH B     | 6 5/8 FH P        | 154.17       | 1020.22      |
| 12       | XO 6 5/8 FH P x 4 1/2 IF B | RIG    | CR6402     |          | 8 1/4"  | 2 3/4"  | 1.46         | 4 1/2 IF B     | 6 5/8 FH P        | 3.56         | 1023.78      |

### STABILIZER DATA

| Item | Stabilizer Description | Spiral | Bld Lgth | Bld Wth | Gge Lgth | Gge In  | Gge Out |
|------|------------------------|--------|----------|---------|----------|---------|---------|
| 2    | UBHS                   | NO     | 6.10'    | 4 1/2"  | 0.60'    | 12 1/8" | 12 1/8" |
| 3    | Density                | NO     | 0.95'    | 2 1/2"  | 0.65'    | 12"     | 12"     |

### DRILL PIPE DATA

| Drillpipe | Grade | OD    | ID   | Wt./ft | Conn.    | Lgth   |
|-----------|-------|-------|------|--------|----------|--------|
| Upper     | G-105 | 5     | 4.28 | 19.5   | 4 1/2 IF | *****  |
| Lower     | HWDP  | 6 5/8 | 4.56 | 85.5   | 6 5/8 FH | 739.24 |

### BHA WEIGHT DATA

| BHA Weight | In Air | In Mud |
|------------|--------|--------|
| Total      | 0      | 0      |
| Lower      | 0      | 0      |

### RUN SUMMARY

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP  |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|------|
| Sliding  | 1885     | 34.40    | *****    | 54.8 | 31         |         |        | 872       | 86       | 1781 |
| Rotating |          | 0.00     | *****    |      |            |         |        |           |          |      |
| Total    | 1885     | 34.40    | 24.52    | 54.8 | 31         |         | 0      | 872       | 86       | 1781 |

Survey Sensor to Bit 52.24    Gamma Sensor to Bit: \_\_\_\_\_    Motor Bit to Bend: \_\_\_\_\_    Motor Bit to Stabilizer: \_\_\_\_\_  
 Center of Clamp-on to Center of UBHS: \_\_\_\_\_    Mud Type: SPUD MUD    Mud Weight 8.5    Hrs in Hole: 77  
 Objective For Running BHA: \_\_\_\_\_    Avg Temp: 125.3571    Max Temp: 138

### KICK OFF AND DRILL CURVE TO 9 5/8" CASING POINT

BHA Results:

KICKED OFF AT 350' WITH 100% FORCE. REDUCED TO 50% TO LOWER DOGLOGS. DRILLED TO TD WITH REDUCED FORCE. THERE WAS A 500 - 700 PSI DROP THROUGH THE RUN. ON SURFACE FOUND THAT THE BIT CENTER JET WAS

Reason for POOH:

REACHED 12 1/4" SURFACE HOLE TD.

BHI Directional Drillers: GORDON SUTING KURT vonTUNGELN

BHI Job #: 3451879



# BOTTOM HOLE ASSEMBLY

BHA #: 2

INTEQ

Company: WOLVERINE Well Name & No.: FEDERAL 19-3 Date: 11/9/2010 Depth: 1965 In

Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304 11/10/2010 2042 Out

County/Block/Par.: SEVIER

### BIT DATA

| No. | Bit Size | Mfr   | Type   | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    | Comp. Lngth |      |
|-----|----------|-------|--------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|-------------|------|
|     |          |       |        |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC |             | RPLD |
| 2   | 8 3/4    | VAREL | CH1GMS | 250213     | .7455       |              | 77           | 2.83       | 2042      | 1              | 1  | NO | A   | E   | I    | NO | TD          | 0.83 |

### BHA DESCRIPTION

| Item No. | Component Description      | Vendor | Serial No. | Gauge OD | OD      | ID    | Fishing Neck | Top Connection | Bottom Connection | Comp. Length | Total Length |
|----------|----------------------------|--------|------------|----------|---------|-------|--------------|----------------|-------------------|--------------|--------------|
| 2        | 6 3/4" BIT SUB / FLOAT VAL | SPIDLE | 30109      |          | 6 11/16 | 3 1/2 |              | 4 1/2 IF B     | 4 1/2 RG B        | 3.10         | 3.93         |
| 3        | (24) 5" HWDP               | RIG    | NSN        |          | 5       | 3     | 2.4          | 4 1/2 IF B     | 4 1/2 IF P        | 729.58       | 733.51       |
| 4        | 6 1/2" JARS                | SMTH   | 4783G      |          | 6 1/2   | 2 3/4 | 2.53         | 4 1/2 IF B     | 4 1/2 IF P        | 32.41        | 765.92       |
| 5        | (5) 5" HWDP                | RIG    | NSN        |          | 5       | 3     | 2.4          | 4 1/2 IF B     | 4 1/2 IF P        | 151.89       | 917.81       |

### STABILIZER DATA

| Item | Stabilizer Description | Spiral | Bld Lgth | Bld Wth | Gge Lgth | Gge In | Gge Out |
|------|------------------------|--------|----------|---------|----------|--------|---------|
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |

### DRILL PIPE DATA

| Drillpipe | Grade | OD | ID   | Wt./ft | Conn.    | Lgth   |
|-----------|-------|----|------|--------|----------|--------|
| Upper     | G-105 | 5  | 4.28 | 19.5   | 4 1/2 IF | *****  |
| Lower     | HWDP  | 5  | 3    | 50.1   | 4 1/2 IF | 881.47 |

### BHA WEIGHT DATA

| BHA Weight | In Air | In Mud |
|------------|--------|--------|
| Total      | 44161  | 0      |
| Lower      | 36551  | 0      |

### RUN SUMMARY

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|-----|
| Sliding  |          | 0.00     | *****    |      |            |         |        |           |          |     |
| Rotating | 77       | 2.83     | *****    | 27.2 | 11         | 40      | 6      | 400       | 150      | 840 |
| Total    | 77       | 2.83     | 1.00     | 27.2 | 11         | 40      | 6      | 400       | 150      | 840 |

Survey Sensor to Bit: 0 Gamma Sensor to Bit: \_\_\_\_\_ Motor Bit to Bend: \_\_\_\_\_ Motor Bit to Stabilizer: \_\_\_\_\_

Center of Clamp-on to Center of UBHS: \_\_\_\_\_ Mud Type: SALT MUD Mud Weight: 10.1 Hrs in Hole: 12.5

Objective For Running BHA: \_\_\_\_\_ Avg Temp: \_\_\_\_\_ Max Temp: \_\_\_\_\_

DRILL CEMENT, FLOAT, SHOE AND 20' FORMATION

BHA Results:

Reason for POOH:

BHI Directional Drillers: GORDON SUTING KURT vonTUNGELN

BHI Job #: 3451879



# BOTTOM HOLE ASSEMBLY

BHA #: 3

INTEQ

Company: WOLVERINE Well Name & No.: FEDERAL 19-3 Date: 11/10/2010 Depth: 2042 In

Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304 11/13/2010 3534 Out

County/Block/Par.: SEVIER

### BIT DATA

| No. | Bit Size | Mfr  | Type      | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      | Comp. Lngth |
|-----|----------|------|-----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|-------------|
|     |          |      |           |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |             |
| 3   | 8 3/4    | SMTH | MSI516MPX | JX8095     | 0.6481      | 2"           | 1492         | 46.08      | 3534      | 0              | 0  | NO | A   | X   | I    | NO | DTF  | 0.85        |

### BHA DESCRIPTION

| Item No. | Component Description      | Vendor | Serial No. | Gauge OD | OD     | ID      | Fishing Neck | Top Connection | Bottom Connection | Comp. Length | Total Length |
|----------|----------------------------|--------|------------|----------|--------|---------|--------------|----------------|-------------------|--------------|--------------|
| 2        | 6 3/4" TRUTRAK (motor), 0  | BHI    | 10414939   | 8 5/8    | 7      | 2 3/4   | 3.96         | T2 B           | 4 1/2 R B         | 30.98        | 31.83        |
| 3        | 6 3/4" SENSOR SUB          | BHI    | SD40810    |          | 6 9/16 | 2 1/2   |              | 4 1/2 XH B     | T2 P              | 35.64        | 67.47        |
| 4        | 6 3/4" FLOAT SUB           | BHI    | SD102952   |          | 6 7/16 | 2 1/2   |              | 4 1/2 XH B     | 4 1/2 XH P        | 3.38         | 70.85        |
| 5        | XO 4 1/2 XH P x 4 1/2 IF B | SPIDLE | 39078      |          | 6 3/8  | 2 13/16 |              | 4 1/2 IF B     | 4 1/2 XH P        | 2.54         | 73.39        |
| 6        | 6 3/4" FILTER SUB          | BHI    | 1420-149   |          | 6 3/4  | 2 16/16 |              | 4 1/2 IF B     | 4 1/2 IF P        | 5.67         | 79.06        |
| 7        | (24) 5" HWDP               | RIG    | NSN        |          | 5      | 3       | 2.4          | 4 1/2 IF B     | 4 1/2 IF P        | 729.58       | 808.64       |
| 8        | 6 1/2" JARS                | SMTH   | 4783G      |          | 6 1/2  | 2 3/4   | 2.53         | 4 1/2 IF B     | 4 1/2 IF P        | 32.41        | 841.05       |
| 9        | (5) 5" HWDP                | RIG    | NSN        |          | 5      | 3       | 2.4          | 4 1/2 IF B     | 4 1/2 IF P        | 151.89       | 992.94       |

### STABILIZER DATA

| Item | Stabilizer Description | Spiral | Bld Lgth | Bld Wth | Gge Lgth | Gge In | Gge Out |
|------|------------------------|--------|----------|---------|----------|--------|---------|
| 2    | Clamp-On               | NO     | 18.5     | 2       | 6        | 8 5/8  | 8 5/8   |
| 2    | UBHS                   | NO     | 29       | 3 1/2   | 5 1/2    | 8 5/8  | 8 5/8   |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |

### DRILL PIPE DATA

| Drillpipe | Grade | OD | ID   | Wt./ft | Conn.    | Lgth  |
|-----------|-------|----|------|--------|----------|-------|
| Upper     | G-105 | 5  | 4.28 | 19.5   | 4 1/2 IF | ***** |
| Lower     | HWDP  | 5  | 3    | 50.1   | 4 1/2 IF |       |

### BHA WEIGHT DATA

| BHA Weight | In Air | In Mud |
|------------|--------|--------|
| Total      | 52139  | 0      |
| Lower      | 44530  | 0      |

### RUN SUMMARY

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP  |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|------|
| Sliding  | 1492     | 46.08    | *****    | 32.4 | 16         |         |        | 462       | 178      | 1511 |
| Rotating |          | 0.00     | *****    |      |            |         |        |           |          |      |
| Total    | 1492     | 46.08    | 12.83    | 32.4 | 16         |         | 0      | 462       | 178      | 1511 |

Survey Sensor to Bit 48.2 Gamma Sensor to Bit: N/A Motor Bit to Bend: N/A Motor Bit to Stabilizer: 2.82

Center of Clamp-on to Center of UBHS: 24.2 Mud Type: SALT MUD Mud Weight 10.1 Hrs in Hole: 69.83334

Objective For Running BHA: Avg Temp: 120.96 Max Temp: 132

### DRILL TANGENT AND DROP BACK TO VERTICAL

BHA Results:

**3 DEG DL ACHIEVED**

Reason for POOH:

MWD QUIT X-MITTING

BHI Directional Drillers: GORDON SUTING KURT vonTUNGELN

BHI Job #: 3451879



# BOTTOM HOLE ASSEMBLY

BHA #: 4

|                    |                        |                       |                      |      |                   |       |             |     |
|--------------------|------------------------|-----------------------|----------------------|------|-------------------|-------|-------------|-----|
| Company:           | <u>WOLVERINE</u>       | Well Name & No.:      | <u>FEDERAL 19-3</u>  | Date | <u>11/13/2010</u> | Depth | <u>3534</u> | In  |
| Field:             | <u>SEVIER Co. UTAH</u> | Rig Contractor & No.: | <u>PATTERSON 304</u> |      | <u>11/20/2010</u> |       | <u>6568</u> | Out |
| County/Block/Par.: | <u>SEVIER</u>          |                       |                      |      |                   |       |             |     |

### BIT DATA

| No. | Bit Size | Mfr  | Type      | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      | Comp. Lngth |
|-----|----------|------|-----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|-------------|
|     |          |      |           |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |             |
| 3R  | 8 3/4    | SMTH | MSI516MPX | JX8095     | 0.6481      | 2"           | 3034         | 125.33     | 6568      | 0              | 0  | NO | A   | X   | I    | NO | DMF  | 0.85        |

### BHA DESCRIPTION

| Item No. | Component Description      | Vendor | Serial No. | Gauge OD | OD     | ID      | Fishing Neck | Top Connection | Bottom Connection | Comp. Length | Total Length |
|----------|----------------------------|--------|------------|----------|--------|---------|--------------|----------------|-------------------|--------------|--------------|
| 2        | 6.75" TRU TRAK (motor), 0  | BHI    | 10143004   | 8 5/8    | 7      | 2 3/4   |              | T2 B           | 4 1/2 R B         | 31.03        | 31.88        |
| 3        | 6.75" SENSOR SUB           | BHI    | 684        |          | 6 6/16 | 2 1/2   |              | 4 1/2 XH B     | T2 P              | 35.60        | 67.48        |
| 4        | 6 3/4" FLOAT SUB           | BHI    | SD102952   |          | 6 7/16 | 2 1/2   |              | 4 1/2 XH B     | 4 1/2 XH P        | 3.38         | 70.86        |
| 5        | XO 4 1/2 XH P x 4 1/2 IF B | SPIDLE | 39078      |          | 6 3/8  | 2 13/16 |              | 4 1/2 IF B     | 4 1/2 XH P        | 2.54         | 73.40        |
| 6        | 6 3/4" FILTER SUB          | BHI    | 1420-149   |          | 6 3/4  | 2 16/16 |              | 4 1/2 IF B     | 4 1/2 IF P        | 5.67         | 79.07        |
| 7        | (24) 5" HWDP               | RIG    | NSN        |          | 5      | 3       | 2.4          | 4 1/2 IF B     | 4 1/2 IF P        | 729.58       | 808.65       |
| 8        | 6 1/2" JARS                | SMTH   | 4783G      |          | 6 1/2  | 2 3/4   | 2.53         | 4 1/2 IF B     | 4 1/2 IF P        | 32.41        | 841.06       |
| 9        | (5) 5" HWDP                | RIG    | NSN        |          | 5      | 3       | 2.4          | 4 1/2 IF B     | 4 1/2 IF P        | 151.89       | 992.95       |

### STABILIZER DATA

| Item | Stabilizer Description | Spiral | Bld Lgth | Bld Wth | Gge Lgth | Gge In | Gge Out |
|------|------------------------|--------|----------|---------|----------|--------|---------|
| 2    | Clamp-On               | NO     | 18.5     | 2       | 6        | 8 5/8  | 8 5/8   |
| 2    | UBHS                   | NO     | 29       | 3 1/2   | 5 1/2    | 8 5/8  | 8 5/8   |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |

### DRILL PIPE DATA

| Drillpipe | Grade | OD | ID   | Wt./ft | Conn.    | Lgth  |
|-----------|-------|----|------|--------|----------|-------|
| Upper     | G-105 | 5  | 4.28 | 19.5   | 4 1/2 IF | ***** |
| Lower     | HWDP  | 5  | 3    | 50.1   | 4 1/2 IF |       |

### BHA WEIGHT DATA

| BHA Weight | In Air | In Mud |
|------------|--------|--------|
| Total      | 52139  | 0      |
| Lower      | 44530  | 0      |

### RUN SUMMARY

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP  |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|------|
| Sliding  | 3034     | 125.33   | *****    | 24.2 | 18         |         |        | 447       | 180      | 2413 |
| Rotating |          | 0.00     | *****    |      |            |         |        |           |          |      |
| Total    | 3034     | 125.33   | 29.50    | 24.2 | 18         |         | 0      | 447       | 180      | 2413 |

Survey Sensor to Bit 48.2    Gamma Sensor to Bit: N/A    Motor Bit to Bend: N/A    Motor Bit to Stabilizer: 2.82  
 Center of Clamp-on to Center of UBHS: 24.2    Mud Type: SALT MUD    Mud Weight 10.3    Hrs in Hole: 169.6667  
 Objective For Running BHA:    Avg Temp: 145.1795    Max Temp: 150

### DRILL TANGENT AND DROP BACK TO VERTICAL

BHA Results:

BHA YIELDED 3.5 DEGREES / 100 FEET

Reason for POOH:

TRU TRAK FAILURE.

BHI Directional Drillers: GORDON SUTING KURT vonTUNGELN

BHI Job #: 3451879



# BOTTOM HOLE ASSEMBLY

BHA #: 5

INTEQ

Company: WOLVERINE Well Name & No.: FEDERAL 19-3 Date: 11/20/2010 Depth: 6568 In

Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304 11/22/2010 7030 Out

County/Block/Par.: SEVIER

### BIT DATA

| No. | Bit Size | Mfr | Type    | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    | Comp. Lngth |
|-----|----------|-----|---------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|-------------|
|     |          |     |         |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC |             |
| 5   | 8 3/4"   | HCC | QD506FX | 7127806    | 0.6627      | 3"           | 462          | 38.33      | 7030      |                |    |    |     |     |      |    | 1.20        |

### BHA DESCRIPTION

| Item No. | Component Description      | Vendor | Serial No. | Gauge OD | OD     | ID      | Fishing Neck | Top Connection | Bottom Connection | Comp. Length | Total Length |
|----------|----------------------------|--------|------------|----------|--------|---------|--------------|----------------|-------------------|--------------|--------------|
| 2        | TruTrak (motor), 0         | BHI    | 10083084   | 8 5/8    | 7      | 2 3/4   | 1.07         | T2 B           | 4 1/2 R B         | 42.85        | 44.05        |
| 3        | 6 3/4" SENSOR SUB          | BHI    | SD40810    |          | 6 9/16 | 2 1/2   |              | 4 1/2 XH B     | T2 P              | 35.64        | 79.69        |
| 4        | 6 3/4" FLOAT SUB           | BHI    | SD102952   |          | 6 7/16 | 2 1/2   |              | 4 1/2 XH B     | 4 1/2 XH P        | 3.38         | 83.07        |
| 5        | XO 4 1/2 XH P x 4 1/2 IF B | SPIDLE | 39078      |          | 6 3/8  | 2 13/16 |              | 4 1/2 IF B     | 4 1/2 XH P        | 2.54         | 85.61        |
| 6        | 6 3/4" FILTER SUB          | BHI    | 1420-149   |          | 6 3/4  | 2 16/16 |              | 4 1/2 IF B     | 4 1/2 IF P        | 5.67         | 91.28        |
| 7        | (24) 5" HWDP               | RIG    | NSN        |          | 5      | 3       | 2.4          | 4 1/2 IF B     | 4 1/2 IF P        | 729.58       | 820.86       |
| 8        | 6 1/2" JARS                | SMTH   | 4783G      |          | 6 1/2  | 2 3/4   | 2.53         | 4 1/2 IF B     | 4 1/2 IF P        | 32.41        | 853.27       |
| 9        | (5) 5" HWDP                | RIG    | NSN        |          | 5      | 3       | 2.4          | 4 1/2 IF B     | 4 1/2 IF P        | 151.89       | 1005.16      |

### STABILIZER DATA

| Item | Stabilizer Description | Spiral | Bld Lgth | Bld Wth | Gge Lgth | Gge In | Gge Out |
|------|------------------------|--------|----------|---------|----------|--------|---------|
| 2    | Clamp-On               | NO     | 17       | 2       | 7        | 8 5/8  |         |
| 2    | UBHS                   | NO     | 29       | 3       | 5        | 8 5/8  |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |
|      |                        |        |          |         |          |        |         |

### DRILL PIPE DATA

| Drillpipe | Grade | OD | ID   | Wt./ft | Conn.    | Lgth  |
|-----------|-------|----|------|--------|----------|-------|
| Upper     | G-105 | 5  | 4.28 | 19.5   | 4 1/2 IF | ***** |
| Lower     | HWDP  | 5  | 3    | 50.1   | 4 1/2 IF |       |

### BHA WEIGHT DATA

| BHA Weight | In Air | In Mud |
|------------|--------|--------|
| Total      | 52139  | 0      |
| Lower      | 44530  | 0      |

### RUN SUMMARY

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP  |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|------|
| Sliding  | 462      | 38.33    | *****    | 12.1 | 20         |         |        | 474       | 272      | 2569 |
| Rotating |          | 0.00     | *****    |      |            |         |        |           |          |      |
| Total    | 462      | 38.33    | 11.83    | 12.1 | 20         |         | 0      | 474       | 272      | 2569 |

Survey Sensor to Bit 60 Gamma Sensor to Bit: N/A Motor Bit to Bend: N/A Motor Bit to Stabilizer: 2.82

Center of Clamp-on to Center of UBHS: 24.2 Mud Type: SALT MUD Mud Weight 10.15 Hrs in Hole: 61

Objective For Running BHA: Avg Temp: 152 Max Temp: 154

### DRILL TANGENT AND DROP BACK TO VERTICAL

BHA Results:

Reason for POOH:

BHI Directional Drillers: Kurt von Tungeln Malcolm GunnellBHI Job #: 3451879







# DAILY DRILLING REPORT

No: 3 Date: 11/3/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 225 Feet last 24 Hrs: 83 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.6 Viscosity: 39 PV: 7 YP: 14 WL: \_\_\_\_\_  
 Gels: \_\_\_\_\_ % Oil: 0 % Solid: \_\_\_\_\_ % Sand: \_\_\_\_\_ PH: 10 CL: \_\_\_\_\_

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 53           | 1.3333     |           | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 77.5             | 1.3              | 1.3               | 0.8              | 0.8               | 142      |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From  | HRS    | Code | Description                        |
|-------|--------|------|------------------------------------|
| 0:00  | 6      | ONC  | Other Non-circulating              |
|       |        |      | STANDBY - TOOLS ARRIVE @ 06:00 HRS |
| 6:00  | 8      | ONC  | Other Non-circulating              |
|       |        |      | CHECK, STRAP AND MEASURE TOOLS     |
| 14:00 | 3.5    | ONC  | Other Non-circulating              |
|       |        |      | RIG UP SMART BOX AND PU BHA        |
| 17:30 | 1      | RIGR | Rig Repair                         |
|       |        |      | WORK ON RIG                        |
| 18:30 | 1.25   | TI   | Tripping In (From Surface)         |
|       |        |      |                                    |
| 19:45 | 0.25   | CIRC | Circulate                          |
|       |        |      | FILL PIPE                          |
| 20:00 | 0.8333 | RIGR | Rig Repair                         |
|       |        |      | REPAIR FLOW LINE                   |
| 20:50 | 0.1667 | CIRC | Circulate                          |
|       |        |      | WASH TO BTM, TAG AT 142'           |
| 21:00 | 0.25   | CIRC | Circulate                          |
|       |        |      | SURFACE TEST TRUTRAK TOOL          |
| 21:15 | 0.75   | RIGR | Rig Repair                         |
|       |        |      | WORK ON PUMPS                      |
| 22:00 | 1      | SLID | Slide Drill fr: 142 to 189         |
|       |        |      | VERICAL MODE                       |
| 23:00 | 0.1667 | RMG  | Reaming                            |
|       |        |      | REAM SINGLE                        |

24 Hr Summary: PICK UP TOOLS, SPUD AND DRILL TO KIC

Proj svy at 0:00: \_\_\_\_\_

Proj svy at 24:00 \_\_\_\_\_

Bottom Hole Temp. (F), Circulating: 98

Formation Name/Depth: \_\_\_\_\_

Remarks:

MADE UP BHA. SPUD THE WELL AND DRILL AHEAD IN VERTICAL MODE TO THE KICK OFF POINT.BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN

BHI MWD REP.: \_\_\_\_\_

COMPANY REP.: BILL DONOVANDAILY COST: \$15,620.00CUMMULATIVE COST: \$19,895.00BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 3 Date: 11/3/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 225 Feet last 24 Hrs: 83 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.6 Viscosity: 39 PV: 7 YP: 14 WL: \_\_\_\_\_  
 Gels: \_\_\_\_\_ % Oil: 0 % Solid: \_\_\_\_\_ % Sand: \_\_\_\_\_ PH: 10 CL: \_\_\_\_\_

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 53           | 1.3333     |           | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 77.5             | 1.3              | 1.3               | 0.8              | 0.8               | 142      |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|       |        |      |                                                   |
|-------|--------|------|---------------------------------------------------|
| 23:10 | 0.5    | ONC  | Other Non-circulating                             |
|       |        |      | CONNECTION, TROUBLE DISCONNECTING FROM TOP DRIVE. |
| 23:40 | 0.3333 | SLID | Slide Drill fr: 189 to 225                        |
|       |        |      | VERTICAL MODE                                     |



# DAILY DRILLING REPORT

No: 4 Date: 11/4/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 867 Feet last 24 Hrs: 642 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.5 Viscosity: 47 PV: 6 YP: 19 WL: \_\_\_\_\_  
 Gels: 9/18 % Oil: 0 % Solid: 1.2 % Sand: \_\_\_\_\_ PH: 9.5 CL: 800

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 554          | 10.583     | 867       | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 96.6             | 9.2              | 10.6              | 9.9              | 10.8              | 142      | 867       |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From | HRS    | Code | Description                  |
|------|--------|------|------------------------------|
| 0:00 | 0.3333 | SLID | Slide Drill fr: 225 to 253   |
|      |        |      | VERTICAL MODE                |
| 0:20 | 0.1667 | RMG  | Reaming                      |
|      |        |      | REAM STAND                   |
| 0:30 | 0.3333 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 0:50 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY, BAD MAGNETICS        |
| 0:55 | 0.5833 | SLID | Slide Drill fr: 253 to 314   |
|      |        |      | VERTICAL MODE                |
| 1:30 | 0.3333 | RMG  | Reaming                      |
|      |        |      | REAM STAND                   |
| 1:50 | 0.25   | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 2:05 | 0.6667 | RIGR | Rig Repair                   |
|      |        |      | REPLACE TOP DRIVE BRACE BOLT |
| 2:45 | 0.75   | RIGR | Rig Repair                   |
|      |        |      | WORK ON SAFETY CABLE         |
| 3:30 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SVY                          |
| 3:35 | 0.4167 | SLID | Slide Drill fr: 314 to 350   |
|      |        |      | SLIDE VERTICAL MODE          |
| 4:00 | 3      | CIRC | Circulate                    |
|      |        |      | DOWN LINK                    |
| 7:00 | 0.3333 | SLID | Slide Drill fr: 350 to 374   |
|      |        |      | KICK OFF MODE                |

24 Hr Summary: CONTINUE IN VERTICAL MODE, KICK OFF

Proj svy at 0:00: \_\_\_\_\_

Proj svy at 24:00 867 861.9 10.4 139.1Bottom Hole Temp. (F), Circulating: 138

Formation Name/Depth: \_\_\_\_\_

Remarks:

DRILLED TO KICK OFF POINT AT 400' IN VERTICAL MODE.DOWNLINKED TO KICK OFF MODE WITH A MAGNETICTOOLFACE OF 137.5 DEGREES AND FULL FORCE.REDUCED THE FORCE TO HALF TO SLOW DOWN THEBUILD RATE.THERE WAS PRESSURE FLUCTUATIONS FROM 2400 TO1650 PSI OVER THE DAY. DECISION TO TRIP OUT TOCHECK BHA AND SURFACE EQUIPMENT WAS MADE.MOTOR FACTOR 0.16 REVS/GALLONBHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN

BHI MWD REP.: \_\_\_\_\_

COMPANY REP.: BILL DONOVANDAILY COST: \$14,544.00CUMMULATIVE COST: \$34,439.00BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 4 Date: 11/4/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 867 Feet last 24 Hrs: 642 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.5 Viscosity: 47 PV: 6 YP: 19 WL: \_\_\_\_\_  
 Gels: 9/18 % Oil: 0 % Solid: 1.2 % Sand: \_\_\_\_\_ PH: 9.5 CL: 800

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 554          | 10.583     | 867       | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 96.6             | 9.2              | 10.6              | 9.9              | 10.8              | 142      | 867       |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|----------------------------|
| 7:20  | 0.25   | RMG  | Reaming                    |
|       |        |      | REAM STAND                 |
| 7:35  | 0.4167 | SVC  | Survey Circulating         |
|       |        |      | CONN / SVY                 |
| 8:00  | 0.3333 | SLID | Slide Drill fr: 374 to 405 |
|       |        |      | KICK OFF MODE              |
| 8:20  | 0.25   | SVC  | Survey Circulating         |
|       |        |      | SVY                        |
| 8:35  | 0.3333 | SLID | Slide Drill fr: 405 to 434 |
|       |        |      | KICK OFF MODE              |
| 8:55  | 0.1667 | RMG  | Reaming                    |
|       |        |      | REAM STAND                 |
| 9:05  | 0.4167 | SVNC | Survey Non-Circulating     |
|       |        |      | CONN / SVY                 |
| 9:30  | 0.3333 | SLID | Slide Drill fr: 434 to 465 |
|       |        |      | KICK OFF MODE              |
| 9:50  | 0.1667 | SVC  | Survey Circulating         |
|       |        |      | SVY                        |
| 10:00 | 0.3333 | SLID | Slide Drill fr: 465 to 497 |
|       |        |      | KICK OFF MODE              |
| 10:20 | 0.1667 | RMG  | Reaming                    |
|       |        |      | REAM STAND                 |
| 10:30 | 0.4167 | SVC  | Survey Circulating         |
|       |        |      | CONN / SVY                 |
| 10:55 | 0.5833 | SLID | Slide Drill fr: 497 to 528 |
|       |        |      | KICK OFF MODE              |
| 11:30 | 0.25   | SVNC | Survey Non-Circulating     |
|       |        |      | SVY                        |



# DAILY DRILLING REPORT

No: 4 Date: 11/4/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 867 Feet last 24 Hrs: 642 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.5 Viscosity: 47 PV: 6 YP: 19 WL: \_\_\_\_\_  
 Gels: 9/18 % Oil: 0 % Solid: 1.2 % Sand: \_\_\_\_\_ PH: 9.5 CL: 800

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 554          | 10.583     | 867       | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 96.6             | 9.2              | 10.6              | 9.9              | 10.8              | 142      | 867       |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|       |        |      |                            |
|-------|--------|------|----------------------------|
| 11:45 | 0.25   | SLID | Slide Drill fr: 528 to 547 |
|       |        |      | KICK OFF MODE              |
| 12:00 | 0.3333 | OC   | Other Circulating          |
|       |        |      | DOWN LINK                  |
| 12:20 | 0.1667 | SLID | Slide Drill fr: 547 to 559 |
|       |        |      | KICK OFF MODE              |
| 12:30 | 0.25   | RMG  | Reaming                    |
|       |        |      | REAM STAND                 |
| 12:45 | 0.25   | SVC  | Survey Circulating         |
|       |        |      | CONN / SVY                 |
| 13:00 | 0.5    | SLID | Slide Drill fr: 559 to 589 |
|       |        |      | KICK OFF MODE              |
| 13:30 | 0.25   | SVC  | Survey Circulating         |
|       |        |      | SVY                        |
| 13:45 | 0.4167 | SLID | Slide Drill fr: 589 to 619 |
|       |        |      | KICK OFF MODE              |
| 14:10 | 0.1667 | RMG  | Reaming                    |
|       |        |      | REAM STAND                 |
| 14:20 | 0.3333 | SVNC | Survey Non-Circulating     |
|       |        |      | CONN / SVY                 |
| 14:40 | 0.5    | SLID | Slide Drill fr: 619 to 650 |
|       |        |      | KICK OFF MODE              |
| 15:10 | 0.0833 | SVC  | Survey Circulating         |
|       |        |      | SVY                        |
| 15:15 | 0.5833 | SLID | Slide Drill fr: 650 to 681 |
|       |        |      | KICK OFF MODE              |
| 15:50 | 0.0833 | RMG  | Reaming                    |
|       |        |      | REAM JOINT                 |



# DAILY DRILLING REPORT

No: 4 Date: 11/4/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 867 Feet last 24 Hrs: 642 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.5 Viscosity: 47 PV: 6 YP: 19 WL: \_\_\_\_\_  
 Gels: 9/18 % Oil: 0 % Solid: 1.2 % Sand: \_\_\_\_\_ PH: 9.5 CL: 800

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 554          | 10.583     | 867       | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 96.6             | 9.2              | 10.6              | 9.9              | 10.8              | 142      | 867       |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|-------|--------|------|----------------------------------------|
| 15:55 | 0.4167 | SVNC | Survey Non-Circulating                 |
|       |        |      | CONN / SVY                             |
| 16:20 | 0.4167 | SLID | Slide Drill fr: 681 to 711             |
|       |        |      | KICK OFF MODE                          |
| 16:45 | 0.1667 | RMG  | Reaming                                |
|       |        |      | REAM JOINT                             |
| 16:55 | 0.0833 | SVC  | Survey Circulating                     |
|       |        |      | CONN / SVY                             |
| 17:00 | 0.5833 | SLID | Slide Drill fr: 711 to 742             |
|       |        |      | KICK OFF MODE                          |
| 17:35 | 0.0833 | RMG  | Reaming                                |
|       |        |      | REAM JOINT                             |
| 17:40 | 0.4167 | SVC  | Survey Circulating                     |
|       |        |      | SVY                                    |
| 18:05 | 0.1667 | SLID | Slide Drill fr: 742 to 752             |
|       |        |      | KICK OFF MODE                          |
| 18:15 | 0.3333 | OC   | Other Circulating                      |
|       |        |      | DOWNLINK HOLD MODE TI=10.37, WFO, BF50 |
| 18:35 | 0.3333 | SLID | Slide Drill fr: 752 to 774             |
|       |        |      | HOLD MODE                              |
| 18:55 | 0.0833 | RMG  | Reaming                                |
|       |        |      | REAM SINGLE                            |
| 19:00 | 0.1667 | SVC  | Survey Circulating                     |
|       |        |      | SURVEY                                 |
| 19:10 | 0.5    | SLID | Slide Drill fr: 774 to 805             |
|       |        |      | HOLD MODE                              |



# DAILY DRILLING REPORT

No: 4 Date: 11/4/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 867 Feet last 24 Hrs: 642 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.5 Viscosity: 47 PV: 6 YP: 19 WL: \_\_\_\_\_  
 Gels: 9/18 % Oil: 0 % Solid: 1.2 % Sand: \_\_\_\_\_ PH: 9.5 CL: 800

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 554          | 10.583     | 867       | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 96.6             | 9.2              | 10.6              | 9.9              | 10.8              | 142      | 867       |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|       |        |      |                                        |
|-------|--------|------|----------------------------------------|
| 19:40 | 0.1667 | RMG  | Reaming                                |
|       |        |      | REAM STAND                             |
| 19:50 | 0.3333 | ONC  | Other Non-circulating                  |
|       |        |      | CONNECTION                             |
| 20:10 | 0.0833 | SVC  | Survey Circulating                     |
|       |        |      | SURVEY                                 |
| 20:15 | 0.5833 | SLID | Slide Drill fr: 805 to 835             |
|       |        |      | HOLD MODE                              |
| 20:50 | 0.1667 | RMG  | Reaming                                |
|       |        |      | REAM SINGLE. PU 105K, SO 100K, HW 100K |
| 21:00 | 0.0833 | SVC  | Survey Circulating                     |
|       |        |      | SURVEY                                 |
| 21:05 | 0.3333 | SLID | Slide Drill fr: 835 to 850             |
|       |        |      | HOLD MODE                              |
| 21:25 | 0.1667 | RMG  | Reaming                                |
|       |        |      | REAM                                   |
| 21:35 | 0.3333 | OC   | Other Circulating                      |
|       |        |      | ORIENT TO KICK OFF AT HS               |
| 21:55 | 0.3333 | SLID | Slide Drill fr: 850 to 867             |
|       |        |      | KICK OFF MODE HS 50% FORCE             |
| 22:15 | 0.1667 | RMG  | Reaming                                |
|       |        |      | REAM STAND                             |
| 22:25 | 0.4167 | ONC  | Other Non-circulating                  |
|       |        |      | CONNECTION                             |
| 22:50 | 0.0833 | SVC  | Survey Circulating                     |
|       |        |      | SURVEY                                 |

# DAILY DRILLING REPORT

No: 4 Date: 11/4/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 867 Feet last 24 Hrs: 642 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.5 Viscosity: 47 PV: 6 YP: 19 WL: \_\_\_\_\_  
 Gels: 9/18 % Oil: 0 % Solid: 1.2 % Sand: \_\_\_\_\_ PH: 9.5 CL: 800

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 554          | 10.583     | 867       | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 96.6             | 9.2              | 10.6              | 9.9              | 10.8              | 142      | 867       |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|       |        |    |                                     |
|-------|--------|----|-------------------------------------|
| 22:55 | 0.4167 | OC | Other Circulating                   |
|       |        |    | WAIT ON DECISION TO POOH. RIBS OFF. |
| 23:20 | 0.6667 | TO | Tripping Out (To Surface)           |
|       |        |    | TRIP OUT TO CHECK PRESUURE ISSUES.  |



# DAILY DRILLING REPORT

No: 5 Date: 11/5/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 1483 Feet last 24 Hrs: 616 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.6 Viscosity: 39 PV: 7 YP: 14 WL: \_\_\_\_\_  
 Gels: \_\_\_\_\_ % Oil: 0 % Solid: \_\_\_\_\_ % Sand: \_\_\_\_\_ PH: 10 CL: \_\_\_\_\_

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 979          | 21.25      |           | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 89.0             | 10.7             | 21.2              | 7.1              | 17.8              | 142      |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From | HRS    | Code | Description                          |
|------|--------|------|--------------------------------------|
| 0:00 | 1.5    | ST   | Short Tripping                       |
|      |        |      | TRIP OUT TO CHECK BHA. NO WASH OUTS. |
| 1:30 | 1.75   | ST   | Short Tripping                       |
|      |        |      | TRIP BACK IN                         |
| 3:15 | 0.8333 | SLID | Slide Drill fr: 867 to 899           |
|      |        |      | KICK OFF MODE                        |
| 4:05 | 0.25   | RMG  | Reaming                              |
|      |        |      | REAM                                 |
| 4:20 | 0.3333 | ONC  | Other Non-circulating                |
|      |        |      | CONNECTION                           |
| 4:40 | 0.25   | SVC  | Survey Circulating                   |
|      |        |      | SURVEY                               |
| 4:55 | 0.5833 | SLID | Slide Drill fr: 899 to 930           |
|      |        |      |                                      |
| 5:30 | 0.5    | SVC  | Survey Circulating                   |
|      |        |      | SVY                                  |
| 6:00 | 0.4167 | SLID | Slide Drill fr: 930 to 960           |
|      |        |      |                                      |
| 6:25 | 0.1667 | RMG  | Reaming                              |
|      |        |      | REAM JOINT                           |
| 6:35 | 0.25   | SVNC | Survey Non-Circulating               |
|      |        |      | CONN / SVY                           |
| 6:50 | 0.4167 | OC   | Other Circulating                    |
|      |        |      | TEST PUMPS                           |

24 Hr Summary: TRIP TO CHECK BHA. RIH. DRILL FROM 86Proj svy at 0:00: 867 861.9 10.4 139.1Proj svy at 24:00 1483 1453 20.5 141Bottom Hole Temp. (F), Circulating: 130

Formation Name/Depth: \_\_\_\_\_

Remarks:

TRIPPED OUT TO CHECK FOR WASH OUTS. NONE FOUND.  
RUN BACK IN. CONTINUE TO DRILL IN KICK OFF MODE AT  
HIGHSIDE.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN

BHI MWD REP.: \_\_\_\_\_

COMPANY REP.: BILL DONOVANDAILY COST: \$14,544.00CUMMULATIVE COST: \$48,983.00BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 5 Date: 11/5/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 1483 Feet last 24 Hrs: 616 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.6 Viscosity: 39 PV: 7 YP: 14 WL: \_\_\_\_\_  
 Gels: \_\_\_\_\_ % Oil: 0 % Solid: \_\_\_\_\_ % Sand: \_\_\_\_\_ PH: 10 CL: \_\_\_\_\_

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 979          | 21.25      |           | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 89.0             | 10.7             | 21.2              | 7.1              | 17.8              | 142      |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|-------|--------|------|-------------------------------------------|
| 7:15  | 0.75   | SLID | Slide Drill fr: 960 to 990                |
| 8:00  | 0.25   | SVC  | Survey Circulating<br>SVY                 |
| 8:15  | 0.5833 | SLID | Slide Drill fr: 990 to 1022               |
| 8:50  | 0.1667 | RMG  | Reaming                                   |
| 9:00  | 0.3333 | SVNC | Survey Non-Circulating<br>CONN / SVY      |
| 9:20  | 0.4167 | SLID | Slide Drill fr: 1022 to 1055              |
| 9:45  | 0.1667 | RMG  | Reaming<br>REAM JOINT                     |
| 9:55  | 0.1667 | SVNC | Survey Non-Circulating<br>CONN / SVY      |
| 10:05 | 0.3333 | SLID | Slide Drill fr: 1055 to 1084              |
| 10:25 | 0.1667 | SVC  | Survey Circulating<br>CONN / SVY          |
| 10:35 | 0.4167 | SLID | Slide Drill fr: 1084 to 1109              |
| 11:00 | 1.75   | CIRC | Circulate<br>CIRC AND CONDITION MUD       |
| 12:45 | 0.1667 | SLID | Slide Drill fr: 1109 to 1119              |
| 12:55 | 1.0833 | CIRC | Circulate<br>CIRC, SVY, CIRC AND COND MUD |



# DAILY DRILLING REPORT

No: 5 Date: 11/5/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 1483 Feet last 24 Hrs: 616 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.6 Viscosity: 39 PV: 7 YP: 14 WL: \_\_\_\_\_  
 Gels: \_\_\_\_\_ % Oil: 0 % Solid: \_\_\_\_\_ % Sand: \_\_\_\_\_ PH: 10 CL: \_\_\_\_\_

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 979          | 21.25      |           | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 89.0             | 10.7             | 21.2              | 7.1              | 17.8              | 142      |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|-------|--------|------|-----------------------------------------------|
| 14:00 | 0.5    | SLID | Slide Drill fr: 1119 to 1148                  |
| 14:30 | 0.1667 | RMG  | Reaming<br>REAM JOINT                         |
| 14:40 | 0.25   | SVNC | Survey Non-Circulating<br>CONN / SVY          |
| 14:55 | 0.5833 | SLID | Slide Drill fr: 1148 to 1182                  |
| 15:30 | 0.1667 | SVC  | Survey Circulating<br>SVY                     |
| 15:40 | 0.5833 | SLID | Slide Drill fr: 1182 to 1214                  |
| 16:15 | 0.25   | SVC  | Survey Circulating<br>SVY                     |
| 16:30 | 0.4167 | SLID | Slide Drill fr: 1214 to 1244                  |
| 16:55 | 0.1667 | RMG  | Reaming<br>REAM JOINT                         |
| 17:05 | 0.3333 | SVNC | Survey Non-Circulating<br>CONN / SVY          |
| 17:25 | 0.5833 | SLID | Slide Drill fr: 1244 to 1276<br>SLIDE KO MODE |
| 18:00 | 0.0833 | SVC  | Survey Circulating<br>SURVEY                  |
| 18:05 | 0.5833 | SLID | Slide Drill fr: 1276 to 1310<br>SLIDE KO MODE |
| 18:40 | 0.0833 | RMG  | Reaming<br>REAM. PU125K, SO113K, HW118K       |

# DAILY DRILLING REPORT

No: 5 Date: 11/5/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 1483 Feet last 24 Hrs: 616 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.6 Viscosity: 39 PV: 7 YP: 14 WL: \_\_\_\_\_  
 Gels: \_\_\_\_\_ % Oil: 0 % Solid: \_\_\_\_\_ % Sand: \_\_\_\_\_ PH: 10 CL: \_\_\_\_\_

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 979          | 21.25      |           | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 89.0             | 10.7             | 21.2              | 7.1              | 17.8              | 142      |           |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|-----------------------------------------------------|
| 18:45 | 0.0833 | SVC  | Survey Circulating                                  |
|       |        |      | SURVEY                                              |
| 18:50 | 0.6667 | ONC  | Other Non-circulating                               |
|       |        |      | TROUBLESHOOT SURFACE EQUIPMENT FOR PRESSURE LOSSES. |
| 19:30 | 0.6667 | SLID | Slide Drill fr: 1310 to 1340                        |
|       |        |      | SLIDE KO MODE                                       |
| 20:10 | 0.1667 | RMG  | Reaming                                             |
|       |        |      | REAM                                                |
| 20:20 | 0.0833 | ONC  | Other Non-circulating                               |
|       |        |      | CONNECTION                                          |
| 20:25 | 0.0833 | SVC  | Survey Circulating                                  |
|       |        |      | SURVEY                                              |
| 20:30 | 0.5833 | SLID | Slide Drill fr: 1340 to 1372                        |
|       |        |      | KICK OFF MODE                                       |
| 21:05 | 0.0833 | RMG  | Reaming                                             |
|       |        |      | REAM                                                |
| 21:10 | 0.0833 | SVC  | Survey Circulating                                  |
|       |        |      | SURVEY                                              |
| 21:15 | 0.5    | SLID | Slide Drill fr: 1372 to 1403                        |
|       |        |      | KICK OFF MODE                                       |
| 21:45 | 0.0833 | RMG  | Reaming                                             |
|       |        |      | REAMING                                             |
| 21:50 | 0.0833 | SVC  | Survey Circulating                                  |
|       |        |      | SURVEY                                              |
| 21:55 | 0.5    | SLID | Slide Drill fr: 1403 to 1435                        |
|       |        |      | KICK OFF MODE                                       |

# DAILY DRILLING REPORT

No: 5 Date: 11/5/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 1483 Feet last 24 Hrs: 616 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 8.6 Viscosity: 39 PV: 7 YP: 14 WL: \_\_\_\_\_  
 Gels: \_\_\_\_\_ % Oil: 0 % Solid: \_\_\_\_\_ % Sand: \_\_\_\_\_ PH: 10 CL: \_\_\_\_\_

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 979          | 21.25      |           | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 89.0             | 10.7             | 21.2              | 7.1              | 17.8              | 142      |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|-------|--------|------|------------------------------|
| 22:25 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 22:30 | 0.5833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION. RECOVER PIPE     |
|       |        |      | SCREEN FROM DRILL PIPE       |
| 23:05 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 23:10 | 0.5833 | SLID | Slide Drill fr: 1435 to 1467 |
|       |        |      | KICK OFF MODE                |
| 23:45 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 23:50 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 23:55 | 0.0833 | SLID | Slide Drill fr: 1467 to 1483 |
|       |        |      | KICK OFF MODE                |



# DAILY DRILLING REPORT

No: 6 Date: 11/6/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 2027 Feet last 24 Hrs: 544 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 9 Viscosity: 36 PV: 5 YP: 21 WL: \_\_\_\_\_  
 Gels: 12/15 % Oil: 0 % Solid: 4.7 % Sand: .01 PH: 9 CL: 14500

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 1350         | 34.4       | 2027      | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 86.5             | 13.2             | 34.4              | 6.7              | 24.5              | 142      | 2027      |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From | HRS    | Code | Description                     |
|------|--------|------|---------------------------------|
| 0:00 | 0.3333 | SLID | Slide Drill fr: 1483 to 1498    |
|      |        |      | KICK OFF MODE                   |
| 0:20 | 0.0833 | RMG  | Reaming                         |
|      |        |      | REAM                            |
| 0:25 | 0.0833 | ONC  | Other Non-circulating           |
|      |        |      | CONNECTION                      |
| 0:30 | 0.25   | SVC  | Survey Circulating              |
|      |        |      | SURVEY                          |
| 0:45 | 0.6667 | SLID | Slide Drill fr: 1498 to 1530    |
|      |        |      | KICK OFF MODE                   |
| 1:25 | 0.0833 | RMG  | Reaming                         |
|      |        |      | REAM                            |
| 1:30 | 0.0833 | SVC  | Survey Circulating              |
|      |        |      | SURVEY                          |
| 1:35 | 0.5833 | SLID | Slide Drill fr: 1530 to 1561    |
|      |        |      | KICK OFF MODE                   |
| 2:10 | 0.0833 | RMG  | Reaming                         |
|      |        |      | REAM                            |
| 2:15 | 0.0833 | SVC  | Survey Circulating              |
|      |        |      | SURVEY                          |
| 2:20 | 0.5833 | SLID | Slide Drill fr: 1561 to 1593    |
|      |        |      | KICK OFF MODE                   |
| 2:55 | 0.0833 | RMG  | Reaming                         |
|      |        |      | REAM. PU 130K, SO 120K, HW 115K |
| 3:00 | 0.1667 | ONC  | Other Non-circulating           |
|      |        |      | CONNECTION                      |

24 Hr Summary: DRILL F/ 1483' TO SECTION TD AT 2027'  
 Proj svy at 0:00: 1483 1453 20.5 141  
 Proj svy at 24:00: 2027 1939 31 145  
 Bottom Hole Temp. (F), Circulating: 132  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
DRILL 12 1/4" SURFACE HOLE TO 2027' IN KICK OFF MODE.  
CIRCULATE AND CONDITION HOLE. TRIP OUT TO LAY  
DOWN THE DRILLING BHA.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: BILL DONOVAN  
 DAILY COST: \$14,544.00  
 CUMMULATIVE COST: \$63,527.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 6 Date: 11/6/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 2027 Feet last 24 Hrs: 544 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 9 Viscosity: 36 PV: 5 YP: 21 WL: \_\_\_\_\_  
 Gels: 12/15 % Oil: 0 % Solid: 4.7 % Sand: .01 PH: 9 CL: 14500

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 1350         | 34.4       | 2027      | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 86.5             | 13.2             | 34.4              | 6.7              | 24.5              | 142      | 2027      |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

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|------|--------|------|------------------------------|
| 3:10 | 0.1667 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 3:20 | 0.6667 | SLID | Slide Drill fr: 1593 to 1624 |
|      |        |      | KICK OFF MODE                |
| 4:00 | 0.1667 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 4:10 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 4:15 | 0.6667 | SLID | Slide Drill fr: 1624 to 1656 |
|      |        |      | KICK OFF MODE                |
| 4:55 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 5:00 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 5:05 | 0.8333 | SLID | Slide Drill fr: 1656 to 1688 |
|      |        |      |                              |
| 5:55 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM JOINT                   |
| 6:00 | 0.1667 | ONC  | Other Non-circulating        |
|      |        |      | CONN                         |
| 6:10 | 0.1667 | SVC  | Survey Circulating           |
|      |        |      |                              |
| 6:20 | 1.0833 | SLID | Slide Drill fr: 1688 to 1720 |
|      |        |      |                              |
| 7:25 | 0.1667 | SVC  | Survey Circulating           |
|      |        |      | SVY                          |
| 7:35 | 0.9167 | SLID | Slide Drill fr: 1720 to 1753 |
|      |        |      |                              |



# DAILY DRILLING REPORT

No: 6 Date: 11/6/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 2027 Feet last 24 Hrs: 544 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 9 Viscosity: 36 PV: 5 YP: 21 WL: \_\_\_\_\_  
 Gels: 12/15 % Oil: 0 % Solid: 4.7 % Sand: .01 PH: 9 CL: 14500

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 1350         | 34.4       | 2027      | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 86.5             | 13.2             | 34.4              | 6.7              | 24.5              | 142      | 2027      |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|------------------------------|
| 8:30  | 0.3333 | SVC  | Survey Circulating           |
|       |        |      | CIRC AND SVY                 |
| 8:50  | 0.75   | SLID | Slide Drill fr: 1753 to 1783 |
|       |        |      |                              |
| 9:35  | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM JOINT                   |
| 9:45  | 0.25   | SVNC | Survey Non-Circulating       |
|       |        |      | CONN / SVY                   |
| 10:00 | 0.9167 | SLID | Slide Drill fr: 1783 to 1817 |
|       |        |      |                              |
| 10:55 | 0.25   | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 11:10 | 0.75   | SLID | Slide Drill fr: 1817 to 1846 |
|       |        |      |                              |
| 11:55 | 0.25   | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 12:10 | 0.75   | SLID | Slide Drill fr: 1846 to 1878 |
|       |        |      |                              |
| 12:55 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 13:05 | 0.3333 | SVC  | Survey Circulating           |
|       |        |      | CONN / SVY                   |
| 13:25 | 0.75   | SLID | Slide Drill fr: 1878 to 1912 |
|       |        |      |                              |
| 14:10 | 0.1667 | OC   | Other Circulating            |
|       |        |      | CONN / SVY                   |
| 14:20 | 0.8333 | SLID | Slide Drill fr: 1912 to 1944 |
|       |        |      |                              |



# DAILY DRILLING REPORT

No: 6 Date: 11/6/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 1  
 Depth: 2027 Feet last 24 Hrs: 544 Last CSG Depth: 142 Size: 16

### MUD DATA

Mud Type SPUD M Weight: 9 Viscosity: 36 PV: 5 YP: 21 WL: \_\_\_\_\_  
 Gels: 12/15 % Oil: 0 % Solid: 4.7 % Sand: .01 PH: 9 CL: 14500

### BIT DATA

| No. | Bit Size | Mfr | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 1   | 12 1/4   | ST  | GF15BVCF | PS1569     | .5852       |              | 1350         | 34.4       | 2027      | 1              | 1  | NO | A   | E   | I    | WO | TD   |

### RUN DATA

| BHA No. | Size  | Type     | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|-------|----------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |       |          | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 1       | 9 1/2 | TRU TRAK | AKO        | 0     | 10349084      | 86.5             | 13.2             | 34.4              | 6.7              | 24.5              | 142      | 2027      |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
|        | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|------------------------------|
| 15:10 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 15:15 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | CONN SVY                     |
| 15:20 | 0.75   | SLID | Slide Drill fr: 1944 to 1973 |
|       |        |      |                              |
| 16:05 | 0.3333 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 16:25 | 0.2333 | SVC  | Survey Circulating           |
|       |        |      | CONN / SVY                   |
| 16:39 | 0.6167 | SLID | Slide Drill fr: 1973 to 2007 |
|       |        |      |                              |
| 17:16 | 0.0667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 17:20 | 0.2167 | SVC  | Survey Circulating           |
|       |        |      | CONN SVY                     |
| 17:33 | 0.7    | SLID | Slide Drill fr: 2007 to 2027 |
|       |        |      | KICK OFF MODE                |
| 18:15 | 0.0833 | RMG  | Reaming                      |
|       |        |      | WORK BHA                     |
| 18:20 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 18:25 | 2.0833 | CIRC | Circulate                    |
|       |        |      | CIRCULATE & CONDITION HOLE   |
| 20:30 | 3      | TO   | Tripping Out (To Surface)    |
|       |        |      | TRIP OUT TO LAY DOWN BHA     |
| 23:30 | 0.5    | ONC  | Other Non-circulating        |
|       |        |      | LAY DOWN BHA                 |







# DAILY DRILLING REPORT

No: 9 Date: 11/9/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 2  
 Depth: 2027 Feet last 24 Hrs: \_\_\_\_\_ Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SPUD M Weight: 8.7 Viscosity: 33 PV: 5 YP: 11 WL: \_\_\_\_\_  
 Gels: 5/10 % Oil: 0 % Solid: 2.7 % Sand: .01 PH: 8.5 CL: 1300

### BIT DATA

| No. | Bit Size | Mfr  | Type   | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|--------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |        |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 2   | 8 3/4    | VARE | CH1GMS | 250213     | .7455       |              |              |            |           | 1              | 1  | NO | A   | E   | I    | NO | TD   |

### RUN DATA

| BHA No. | Size | Type | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |      | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 2       |      |      |            |       |               |                  |                  |                   | 0.3              | 0.3               |          |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From  | HRS  | Code | Description                    |
|-------|------|------|--------------------------------|
| 0:00  | 17.5 | ONC  | Other Non-circulating          |
|       |      |      | FINISH BOP TEST AND NIPPLE UP. |
| 17:30 | 1.75 | ONC  | Other Non-circulating          |
|       |      |      | MAKE UP DRILL OUT BHA          |
| 19:15 | 4.5  | TI   | Tripping In (From Surface)     |
|       |      |      | RUN IN THE HOLE                |
| 23:45 | 0.25 | OC   | Other Circulating              |
|       |      |      | FILL PIPE                      |

24 Hr Summary: BOP TEST, M/U DRILL OUT BHA. RIH.  
 Proj svy at 0:00: \_\_\_\_\_  
 Proj svy at 24:00: \_\_\_\_\_  
 Bottom Hole Temp. (F), Circulating: \_\_\_\_\_  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
FINISH TESTING BOP'S, RUN IN THE HOLE TO DRILL OUT CEMENT AND FLOAT EQUIPMENT AND DRILL OUT 15' FOR FIT.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: BILL DONOVAN  
 DAILY COST: \$8,390.00  
 CUMMULATIVE COST: \$93,896.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 10 Date: 11/10/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 2,3  
 Depth: 2230 Feet last 24 Hrs: 265 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.1 Viscosity: 53 PV: 35 YP: 40 WL: 11  
 Gels: 12/16 % Oil: 0 % Solid: 2.2 % Sand: .01 PH: 8.5 CL: 166000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 2   | 8 3/4    | ARE  | CH1GMS   | 250213     | .7455       |              | 77           | 2.8333     | 2042      | 1              | 1  | NO | A   | E   | I    | NO | TD   |
| 3   | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 7            | 6.5833     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 2       |      |                |            |       |               | 150.0            | 2.8              | 2.8               | 0.8              | 1.0               | 1965     | 2042      |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 187.5            | 6.6              | 6.6               | 5.1              | 5.1               | 2042     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From | HRS    | Code | Description                   |
|------|--------|------|-------------------------------|
| 0:00 | 0.0833 | OC   | Other Circulating             |
|      |        |      | REAM AND TAG CEMENT AT 1965'  |
| 0:05 | 0.0833 | ROT  | Rotary Drill fr: 1965 to 1991 |
|      |        |      | DRILL OUT CEMENT              |
| 0:10 | 0.5833 | ROT  | Rotary Drill fr: 1991 to 1993 |
|      |        |      | DRILL OUT FLOAT EQUIPMENT     |
| 0:45 | 0.4167 | ROT  | Rotary Drill fr: 1993 to 2023 |
|      |        |      | DRILL CEMENT                  |
| 1:10 | 0.0833 | ROT  | Rotary Drill fr: 2023 to 2025 |
|      |        |      | DRILL SHOE                    |
| 1:15 | 0.1667 | ROT  | Rotary Drill fr: 2025 to 2027 |
|      |        |      | DRILL OUT RAT HOLE            |
| 1:25 | 1.5    | ROT  | Rotary Drill fr: 2027 to 2042 |
|      |        |      | ROTATE TO FIT POINT           |
| 2:55 | 0.6667 | OC   | Other Circulating             |
|      |        |      | CONDITIOIN HOLE BEFORE FIT    |
| 3:35 | 0.5833 | ONC  | Other Non-circulating         |
|      |        |      | FIT                           |
| 4:10 | 1.8333 | TO   | Tripping Out (To Surface)     |
|      |        |      |                               |
| 6:00 | 1.5    | ONC  | Other Non-circulating         |
|      |        |      | WORK BHA's                    |
| 7:30 | 1.5    | TI   | Tripping In (From Surface)    |
|      |        |      | MU BHA # 3, RIH WITH HWDP     |
| 9:00 | 0.25   | SVC  | Survey Circulating            |
|      |        |      | FILL PIPE TEST MWD, - GOOD!   |

24 Hr Summary: DRILL OUT, FIT, P/U TRUTRAK. DRILL TAN

Proj svy at 0:00: \_\_\_\_\_

Proj svy at 24:00 2230 2111 31.9 143.5Bottom Hole Temp. (F), Circulating: 132

Formation Name/Depth: \_\_\_\_\_

Remarks:

DRILL OUT FLOAT AND SHOE TRAK. LAY DOWN DRILL  
 OUT BHA AND PICK UP TRUTRAK BHA.  
 DRILL TANGENT SECTION.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN

BHI MWD REP.: \_\_\_\_\_

COMPANY REP.: BILL DONOVANDAILY COST: \$12,605.00CUMMULATIVE COST: \$106,501.00BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 10 Date: 11/10/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 2,3  
 Depth: 2230 Feet last 24 Hrs: 265 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.1 Viscosity: 53 PV: 35 YP: 40 WL: 11  
 Gels: 12/16 % Oil: 0 % Solid: 2.2 % Sand: .01 PH: 8.5 CL: 166000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 2   | 8 3/4    | VARE | CH1GMS   | 250213     | .7455       |              | 77           | 2.8333     | 2042      | 1              | 1  | NO | A   | E   | I    | NO | TD   |
| 3   | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 7            | 6.5833     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 2       |      |                |            |       |               | 150.0            | 2.8              | 2.8               | 0.8              | 1.0               | 1965     | 2042      |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 187.5            | 6.6              | 6.6               | 5.1              | 5.1               | 2042     |           |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|------------------------------|
| 9:15  | 0.75   | TI   | Tripping In (From Surface)   |
|       |        |      |                              |
| 10:00 | 0.5833 | OC   | Other Circulating            |
|       |        |      | DOWN LINKING                 |
| 10:35 | 0.4167 | SLID | Slide Drill fr: 2042 to 2047 |
|       |        |      | HOLD MODE                    |
| 11:00 | 0.9167 | OC   | Other Circulating            |
|       |        |      | DOWN LINKING                 |
| 11:55 | 2.4167 | RIGR | Rig Repair                   |
|       |        |      | WORK ON TOP DRIVE            |
| 14:20 | 1.9167 | OC   | Other Circulating            |
|       |        |      | DOWNLINK TO HOD MODE         |
| 16:15 | 2.75   | SLID | Slide Drill fr: 2047 to 2133 |
|       |        |      | HOLD, 31.8DEG, 100%FORCE,    |
| 19:00 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM. PU105K, SO92K, HW100K  |
| 19:10 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 19:15 | 0.25   | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 19:30 | 3.25   | SLID | Slide Drill fr: 2133 to 2228 |
|       |        |      | HOLD MODE                    |
| 22:45 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 22:55 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTGION                  |
| 23:00 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |

# DAILY DRILLING REPORT

No: 10 Date: 11/10/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 2,3  
 Depth: 2230 Feet last 24 Hrs: 265 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.1 Viscosity: 53 PV: 35 YP: 40 WL: 11  
 Gels: 12/16 % Oil: 0 % Solid: 2.2 % Sand: .01 PH: 8.5 CL: 16600

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 2   | 8 3/4    | VARE | CH1GMS   | 250213     | .7455       |              | 77           | 2.8333     | 2042      | 1              | 1  | NO | A   | E   | I    | NO | TD   |
| 3   | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 7            | 6.5833     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 2       |      |                |            |       |               | 150.0            | 2.8              | 2.8               | 0.8              | 1.0               | 1965     | 2042      |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 187.5            | 6.6              | 6.6               | 5.1              | 5.1               | 2042     |           |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|------------------------------|
| 23:05 | 0.75   | OC   | Other Circulating            |
|       |        |      | ORIENT TRUTRAK               |
| 23:50 | 0.1667 | SLID | Slide Drill fr: 2228 to 2230 |
|       |        |      | KICK OFF MODE                |

# DAILY DRILLING REPORT

No: 11 Date: 11/11/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 3  
 Depth: 2878 Feet last 24 Hrs: 648 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.1 Viscosity: 53 PV: 39 YP: 27 WL: 12  
 Gels: 25/15 % Oil: 0 % Solid: 0.6 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3   | 8 3/4    | SMTH | ISI516MP | JX8095     | 0.6481      | 2"           | 501          | 25.917     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 163.3            | 19.3             | 25.9              | 3.6              | 8.7               | 2042     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From  | HRS    | Code | Description                  |
|-------|--------|------|------------------------------|
| 0:00  | 4.0833 | SLID | Slide Drill fr: 2230 to 2324 |
|       |        |      | KICK OFF MODE                |
| 4:05  | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 4:15  | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 4:20  | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 4:25  | 0.5833 | OC   | Other Circulating            |
|       |        |      | ORIENT TO HIGHSIDE           |
| 5:00  | 3.6667 | SLID | Slide Drill fr: 2324 to 2419 |
|       |        |      |                              |
| 8:40  | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | CONN / SVY                   |
| 8:50  | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWNLINK TRUTRAK             |
| 8:55  | 0.1667 | OC   | Other Circulating            |
|       |        |      | DOWN LINK 10L                |
| 9:05  | 2.8333 | SLID | Slide Drill fr: 2419 to 2514 |
|       |        |      |                              |
| 11:55 | 0.25   | SVNC | Survey Non-Circulating       |
|       |        |      | CONN / SVY                   |
| 12:10 | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWN LINK 10L                |
| 12:15 | 1.3333 | SLID | Slide Drill fr: 2514 to 2580 |

24 Hr Summary: DRILL FROM 2230' TO 2878'  
 Proj svy at 0:00: 2230 2111 31.9 143.5  
 Proj svy at 24:00: 2878 2651 34.0 146.1  
 Bottom Hole Temp. (F), Circulating: 124  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
DRILL THE LATERAL SECTION DOWNLINKING TO THE TRUTRAK AS NEEDED.  
PUMP VISC SWEEP WITH MEDIUM WALNUT EVERY HOUR.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: BILL DONOVAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$119,106.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 11 Date: 11/11/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 3  
 Depth: 2878 Feet last 24 Hrs: 648 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.1 Viscosity: 53 PV: 39 YP: 27 WL: 12  
 Gels: 25/15 % Oil: 0 % Solid: 0.6 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3   | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 501          | 25.917     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 163.3            | 19.3             | 25.9              | 3.6              | 8.7               | 2042     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|-------|--------|------|------------------------------|
| 13:35 | 0.25   | SVC  | Survey Circulating           |
|       |        |      | CHECK SHOT                   |
| 13:50 | 0.5    | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |
| 14:20 | 0.6667 | SLID | Slide Drill fr: 2580 to 2610 |
|       |        |      | 40 % WLK FORCE LEFT          |
| 15:00 | 0.5833 | RIGS | Rig Service                  |
|       |        |      | RIG SERVICE                  |
| 15:35 | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | CONN / SVY                   |
| 15:45 | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |
| 15:50 | 1.0833 | SLID | Slide Drill fr: 2610 to 2662 |
|       |        |      |                              |
| 16:55 | 0.3333 | OC   | Other Circulating            |
|       |        |      | DOWN LINK - HOLD 34 deg,     |
| 17:15 | 0.3333 | SLID | Slide Drill fr: 2662 to 2675 |
|       |        |      |                              |
| 17:35 | 0.1667 | OC   | Other Circulating            |
|       |        |      | DOWN LINK WALK FORCE LEFT    |
| 17:45 | 0.5    | SLID | Slide Drill fr: 2675 to 2705 |
|       |        |      | HOLD MODE                    |
| 18:15 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 18:25 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 18:30 | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |



# DAILY DRILLING REPORT

No: 11 Date: 11/11/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 3  
 Depth: 2878 Feet last 24 Hrs: 648 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.1 Viscosity: 53 PV: 39 YP: 27 WL: 12  
 Gels: 25/15 % Oil: 0 % Solid: 0.6 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3   | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 501          | 25.917     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 163.3            | 19.3             | 25.9              | 3.6              | 8.7               | 2042     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|       |        |      |                              |
|-------|--------|------|------------------------------|
| 18:40 | 1.5833 | SLID | Slide Drill fr: 2705 to 2771 |
|       |        |      | HOLD MODE                    |
| 20:15 | 0.1667 | OC   | Other Circulating            |
|       |        |      | DOWNLINK WF OFF              |
| 20:25 | 1.25   | SLID | Slide Drill fr: 2771 to 2801 |
|       |        |      | HOLD MODE                    |
| 21:40 | 0.1667 | RMG  | Reaming                      |
|       |        |      | SEAM STAND                   |
| 21:50 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 21:55 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 22:00 | 2      | SLID | Slide Drill fr: 2801 to 2878 |
|       |        |      | HOLD MODE                    |



# DAILY DRILLING REPORT

No: 12 Date: 11/12/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 3  
 Depth: 3532 Feet last 24 Hrs: 654 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.2 Viscosity: 58 PV: 20 YP: 22 WL: 20  
 Gels: 16/30 % Oil: 0 % Solid: 1.4 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3   | 8 3/4    | SMTH | ISI516MP | JX8095     | 0.6481      | 2"           | 806          | 46.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 177.1            | 20.1             | 46.0              | 2.3              | 10.9              | 2042     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From  | HRS    | Code | Description                  |
|-------|--------|------|------------------------------|
| 0:00  | 0.5    | SLID | Slide Drill fr: 2878 to 2896 |
|       |        |      | HOLD MODE                    |
| 0:30  | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 0:35  | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 0:40  | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 0:45  | 2.3333 | SLID | Slide Drill fr: 2896 to 2991 |
|       |        |      | HOLD MODE                    |
| 3:05  | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 3:15  | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 3:20  | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 3:25  | 3.8333 | SLID | Slide Drill fr: 2991 to 3087 |
|       |        |      |                              |
| 7:15  | 0.4167 | SVNC | Survey Non-Circulating       |
|       |        |      | CONN / SVY                   |
| 7:40  | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWN LINK - 40% LEFT         |
| 7:45  | 3      | SLID | Slide Drill fr: 3087 to 3182 |
|       |        |      |                              |
| 10:45 | 0.5    | SVC  | Survey Circulating           |
|       |        |      | CONN / SVY                   |

24 Hr Summary: DRILL FROM 2878 TO 3532'  
 Proj svy at 0:00: 2878 2651 34.0 146.1  
 Proj svy at 24:00: 3532 3194 33.9 149.5  
 Bottom Hole Temp. (F), Circulating: 130  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
CONTINUE DRILL THE TANGENT SECTION.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: BILL DONOVAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$131,711.00  
 BHI JOB #: 3451879

# DAILY DRILLING REPORT

No: 12 Date: 11/12/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 3  
 Depth: 3532 Feet last 24 Hrs: 654 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.2 Viscosity: 58 PV: 20 YP: 22 WL: 20  
 Gels: 16/30 % Oil: 0 % Solid: 1.4 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3   | 8 3/4    | SMTH | ISI516MP | JX8095     | 0.6481      | 2"           | 806          | 46.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 177.1            | 20.1             | 46.0              | 2.3              | 10.9              | 2042     |           |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|------------------------------|
| 11:15 | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |
| 11:20 | 2.6667 | SLID | Slide Drill fr: 3182 to 3277 |
|       |        |      |                              |
| 14:00 | 0.5    | RIGS | Rig Service                  |
|       |        |      | TOP DRIVE SERVICE            |
| 14:30 | 0.25   | SVNC | Survey Non-Circulating       |
|       |        |      | CONN / SVY                   |
| 14:45 | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |
| 14:50 | 2.6667 | SLID | Slide Drill fr: 3277 to 3373 |
|       |        |      | HOLD MODE                    |
| 17:30 | 0.3333 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 17:50 | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWNLINK 0% WALK FORCE       |
| 17:55 | 1.0833 | SLID | Slide Drill fr: 3373 to 3412 |
|       |        |      | HOLD MODE                    |
| 19:00 | 0.1667 | OC   | Other Circulating            |
|       |        |      | DOWNLINK -40% WALK FORCE     |
| 19:10 | 1.3333 | SLID | Slide Drill fr: 3412 to 3468 |
|       |        |      | HOLD MODE                    |
| 20:30 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 20:40 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 20:45 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |

# DAILY DRILLING REPORT

No: 12 Date: 11/12/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 3  
 Depth: 3532 Feet last 24 Hrs: 654 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.2 Viscosity: 58 PV: 20 YP: 22 WL: 20  
 Gels: 16/30 % Oil: 0 % Solid: 1.4 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3   | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 806          | 46.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DTF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 177.1            | 20.1             | 46.0              | 2.3              | 10.9              | 2042     |           |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|------------------------------|
| 20:50 | 2.6667 | SLID | Slide Drill fr: 3468 to 3532 |
|       |        |      | HOLD MODE                    |
| 23:30 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM DOUBLE                  |
| 23:40 | 0.25   | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 23:55 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |



# DAILY DRILLING REPORT

No: 13 Date: 11/13/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 3,4  
 Depth: 3849 Feet last 24 Hrs: 317 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.4 Viscosity: 65 PV: 24 YP: 21 WL: 11  
 Gels: 20/38 % Oil: 0 % Solid: 3.1 % Sand: .05 PH: 10.5 CL: 188000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3   | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 808          | 46.083     | 3534      | 0              | 0  | NO | A   | X   | I    | NO | DTF  |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 188          | 11         |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 178.0            | 0.1              | 46.1              | 1.9              | 12.8              | 2042     | 3534      |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 232.0            | 11.0             | 11.0              | 1.8              | 1.8               | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From  | HRS    | Code | Description                   |
|-------|--------|------|-------------------------------|
| 0:00  | 0.0833 | SVC  | Survey Circulating            |
|       |        |      | SURVEY                        |
| 0:05  | 0.4167 | OC   | Other Circulating             |
|       |        |      | TROUBLESHOOT PULSER.          |
| 0:30  | 0.0833 | SLID | Slide Drill fr: 3532 to 3534  |
|       |        |      | TRY TO START PULSER           |
| 0:35  | 0.1667 | OC   | Other Circulating             |
|       |        |      | CYCLE PUMPS TO TROUBKESHOOT   |
| 0:45  | 1.25   | OC   | Other Circulating             |
|       |        |      | CIRCULATE BOTTOMS UP, DRY JOB |
| 2:00  | 3.3333 | TO   | Tripping Out (To Surface)     |
| 5:20  | 2.25   | ONC  | Other Non-circulating         |
|       |        |      | WORK BHA's                    |
| 7:35  | 3      | TI   | Tripping In (From Surface)    |
|       |        |      | RIH WITH BHA #4               |
| 10:35 | 0.4167 | CIRC | Circulate                     |
|       |        |      | CIRCULATE AND DOWN LINK       |
| 11:00 | 2.25   | SLID | Slide Drill fr: 3534 to 3595  |
| 13:15 | 0.4167 | SVNC | Survey Non-Circulating        |
|       |        |      | CONN / SVY                    |
| 13:40 | 2      | SLID | Slide Drill fr: 3595 to 3659  |
| 15:40 | 0.3333 | SVC  | Survey Circulating            |
|       |        |      | CONN / SVY                    |

24 Hr Summary: CHANGE TRUETRAK. DRILL 3534'-3849'  
 Proj svy at 0:00: 3532 3194 33.9 149.5  
 Proj svy at 24:00 3849 3457.9 33.7 149.2  
 Bottom Hole Temp. (F), Circulating: 130  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
AFTER A CONNECTION/SURVEY, A SWEEP WS PUMPED.  
SHORTLY AFTER THIS THE TOOL STOPPED PULSING.  
COULD NOT GET IT WORKING AGAIN.  
TOH, CHANGE OUT TRUTRAK. CONTINUE DRILLING  
TANGENT.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: BILL DONOVAN  
 DAILY COST: \$26,305.00  
 CUMMULATIVE COST: \$158,016.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 13 Date: 11/13/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 3,4  
 Depth: 3849 Feet last 24 Hrs: 317 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.4 Viscosity: 65 PV: 24 YP: 21 WL: 11  
 Gels: 20/38 % Oil: 0 % Solid: 3.1 % Sand: .05 PH: 10.5 CL: 188000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3   | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 808          | 46.083     | 3534      | 0              | 0  | NO | A   | X   | I    | NO | DTF  |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 188          | 11         |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 3       | 7    | 6 3/4" TRUTRAK | AKO        | 0     | 10414939      | 178.0            | 0.1              | 46.1              | 1.9              | 12.8              | 2042     | 3534      |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 232.0            | 11.0             | 11.0              | 1.8              | 1.8               | 3534     |           |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

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|-------|--------|------|------------------------------|
| 16:00 | 2      | SLID | Slide Drill fr: 3659 to 3722 |
|       |        |      | HOLD MODE                    |
| 18:00 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | CONNECTION/SURVEY            |
| 18:05 | 2.6667 | SLID | Slide Drill fr: 3722 to 3786 |
|       |        |      | HOLD MODE                    |
| 20:45 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 20:55 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 21:00 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 21:05 | 0.4167 | OC   | Other Circulating            |
|       |        |      | DOWNLINK 50%, KICK OFF, 7L   |
| 21:30 | 2.0833 | SLID | Slide Drill fr: 3786 to 3849 |
|       |        |      | KICK OFF MODE                |
| 23:35 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 23:40 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 23:45 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 23:50 | 0.1667 | OC   | Other Circulating            |
|       |        |      | DOWNLINK HOLD MODE 33.9DEG   |



# DAILY DRILLING REPORT

No: 14 Date: 11/14/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 4385 Feet last 24 Hrs: 536 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.4 Viscosity: 80 PV: 30 YP: 30 WL: 5.5  
 Gels: 22/43 % Oil: 0 % Solid: 3.2 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 470          | 30.583     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 182.3            | 19.6             | 30.6              | 3.7              | 5.5               | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From | HRS    | Code | Description                  |
|------|--------|------|------------------------------|
| 0:00 | 0.6667 | OC   | Other Circulating            |
|      |        |      | DOWNLINK TO HOLD MODE        |
| 0:40 | 0.1667 | OC   | Other Circulating            |
|      |        |      | DOWNLINK LEFT WF. MO SUCCESS |
| 0:50 | 1.3333 | SLID | Slide Drill fr: 3849 to 3892 |
|      |        |      | HOLD MODE                    |
| 2:10 | 0.1667 | OC   | Other Circulating            |
|      |        |      | DOWNLINK LEFT WALK FORCE     |
| 2:20 | 0.6667 | SLID | Slide Drill fr: 3892 to 3913 |
|      |        |      | HOLD MODE                    |
| 3:00 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 3:05 | 0.1667 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 3:15 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 3:20 | 1.8333 | SLID | Slide Drill fr: 3913 to 3976 |
|      |        |      | HOLD MODE                    |
| 5:10 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 5:15 | 0.0833 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 5:20 | 0.1667 | SVC  | Survey Circulating           |
|      |        |      | SVY                          |
| 5:30 | 2.0833 | SLID | Slide Drill fr: 3976 to 4039 |

24 Hr Summary: DRILL FROM 3849' - 4385'Proj svy at 0:00: 3849 3457.9 33.7 149.2Proj svy at 24:00 4385 3903 33.7 142.6Bottom Hole Temp. (F), Circulating: 140

Formation Name/Depth: \_\_\_\_\_

Remarks: \_\_\_\_\_

CONTINUE DRILLING THE TANGENT SECTION.BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN

BHI MWD REP.: \_\_\_\_\_

COMPANY REP.: BILL DONOVANDAILY COST: \$12,605.00CUMMULATIVE COST: \$170,621.00BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 14 Date: 11/14/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 4385 Feet last 24 Hrs: 536 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.4 Viscosity: 80 PV: 30 YP: 30 WL: 5.5  
 Gels: 22/43 % Oil: 0 % Solid: 3.2 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 470          | 30.583     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 182.3            | 19.6             | 30.6              | 3.7              | 5.5               | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|-------|--------|------|------------------------------|
| 7:35  | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM JOINTS                  |
| 7:45  | 0.25   | SVC  | Survey Circulating           |
|       |        |      | CONN / SVY                   |
| 8:00  | 2.0833 | SLID | Slide Drill fr: 4039 to 4102 |
|       |        |      |                              |
| 10:05 | 0.25   | RMG  | Reaming                      |
|       |        |      | REAM 2 JOINTS                |
| 10:20 | 0.25   | SVNC | Survey Non-Circulating       |
|       |        |      | CONN / SVY                   |
| 10:35 | 2.4167 | SLID | Slide Drill fr: 4102 to 4164 |
|       |        |      |                              |
| 13:00 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM 2 JOINTS                |
| 13:10 | 0.3333 | SVC  | Survey Circulating           |
|       |        |      | CONN / SVY                   |
| 13:30 | 2.8333 | SLID | Slide Drill fr: 4164 to 4227 |
|       |        |      |                              |
| 16:20 | 0.3333 | OC   | Other Circulating            |
|       |        |      | REAM, CIRC AND RIG SERVICE   |
| 16:40 | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | CONN / SVY                   |
| 16:50 | 0.1667 | OC   | Other Circulating            |
|       |        |      | DOWNLINK NO WALK             |
| 17:00 | 2.4167 | SLID | Slide Drill fr: 4227 to 4291 |
|       |        |      | HOLD NO WALK                 |
| 19:25 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM                         |



# DAILY DRILLING REPORT

No: 14 Date: 11/14/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 4385 Feet last 24 Hrs: 536 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.4 Viscosity: 80 PV: 30 YP: 30 WL: 5.5  
 Gels: 22/43 % Oil: 0 % Solid: 3.2 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | ISI516MP | JX8095     | 0.6481      | 2"           | 470          | 30.583     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 182.3            | 19.6             | 30.6              | 3.7              | 5.5               | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|       |        |      |                              |
|-------|--------|------|------------------------------|
| 19:35 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 19:40 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 19:45 | 2.6667 | SLID | Slide Drill fr: 4291 to 4354 |
|       |        |      | HOLD NO WALK                 |
| 22:25 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 22:30 | 0.1667 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 22:40 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 22:45 | 1.25   | SLID | Slide Drill fr: 4354 to 4385 |
|       |        |      | HOLD NO WLAK                 |



# DAILY DRILLING REPORT

No: 15 Date: 11/15/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 4923 Feet last 24 Hrs: 538 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 70 PV: 24 YP: 22 WL: 5  
 Gels: 22/42 % Oil: 0 % Solid: 4 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 723          | 52.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 167.7            | 21.4             | 52.0              | 1.8              | 7.3               | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From | HRS    | Code | Description                  |
|------|--------|------|------------------------------|
| 0:00 | 1.4167 | SLID | Slide Drill fr: 4385 to 4417 |
|      |        |      | HOLD 33.9 NO WALK            |
| 1:25 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 1:30 | 0.1667 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 1:40 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 1:45 | 2.3333 | SLID | Slide Drill fr: 4417 to 4481 |
|      |        |      | HOLD NO WALK                 |
| 4:05 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 4:10 | 0.0833 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 4:15 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 4:20 | 2.25   | SLID | Slide Drill fr: 4481 to 4543 |
|      |        |      |                              |
| 6:35 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM 2 JOINTS                |
| 6:40 | 0.1667 | ONC  | Other Non-circulating        |
|      |        |      | CONN                         |
| 6:50 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SVY                          |
| 6:55 | 0.0833 | OC   | Other Circulating            |
|      |        |      | DOWN LINK                    |

24 Hr Summary: DRILL FROM 4385' - 4923'  
 Proj svy at 0:00: 4385 3903 33.7 142.6  
 Proj svy at 24:00: 4923 4349 34 149.5  
 Bottom Hole Temp. (F), Circulating: 144  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
CONTINUE DRILLING THE TANGENT SECTION.  
 BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: BILL DONOVAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$183,226.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 15 Date: 11/15/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 4923 Feet last 24 Hrs: 538 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 70 PV: 24 YP: 22 WL: 5  
 Gels: 22/42 % Oil: 0 % Solid: 4 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type      | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|-----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |           |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MPX | JX8095     | 0.6481      | 2"           | 723          | 52.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 167.7            | 21.4             | 52.0              | 1.8              | 7.3               | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|-------|--------|------|----------------------------------------------|
| 7:00  | 2.5833 | SLID | Slide Drill fr: 4543 to 4607                 |
| 9:35  | 0.0833 | RMG  | Reaming<br>REAM 2 JOINTS                     |
| 9:40  | 0.1667 | ONC  | Other Non-circulating<br>CONN                |
| 9:50  | 0.0833 | SVC  | Survey Circulating<br>SVY                    |
| 9:55  | 3.6667 | SLID | Slide Drill fr: 4607 to 4671                 |
| 13:35 | 0.0833 | RMG  | Reaming<br>REAM 2 JOINTS                     |
| 13:40 | 0.0833 | SVNC | Survey Non-Circulating<br>CONN / SVY         |
| 13:45 | 0.0833 | OC   | Other Circulating<br>DOWN LINK               |
| 13:50 | 2.9167 | SLID | Slide Drill fr: 4671 to 4734                 |
| 16:45 | 0.25   | RMG  | Reaming<br>REAM 2 JOINTS                     |
| 17:00 | 0.0833 | SVC  | Survey Circulating<br>CONNECTION/SURVEY      |
| 17:05 | 2.1667 | SLID | Slide Drill fr: 4734 to 4797<br>HOLD NO WALK |
| 19:15 | 0.0833 | RMG  | Reaming<br>REAM                              |
| 19:20 | 0.0833 | ONC  | Other Non-circulating<br>CONNECTION          |



# DAILY DRILLING REPORT

No: 15 Date: 11/15/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 4923 Feet last 24 Hrs: 538 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 70 PV: 24 YP: 22 WL: 5  
 Gels: 22/42 % Oil: 0 % Solid: 4 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 723          | 52.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 167.7            | 21.4             | 52.0              | 1.8              | 7.3               | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|-------|--------|------|------------------------------|
| 19:25 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 19:30 | 1.9167 | SLID | Slide Drill fr: 4797 to 4860 |
|       |        |      | HOLD MODE                    |
| 21:25 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 21:30 | 0.0833 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 21:35 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 21:40 | 2.1667 | SLID | Slide Drill fr: 4860 to 4923 |
|       |        |      | HOLD MODE                    |
| 23:50 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 23:55 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |



# DAILY DRILLING REPORT

No: 16 Date: 11/16/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 5428 Feet last 24 Hrs: 505 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 71 PV: 23 YP: 29 WL: 5  
 Gels: 21/40 % Oil: 0 % Solid: 3.6 % Sand: 0.25 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1069         | 71.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.1            | 19.0             | 71.0              | 3.7              | 10.9              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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### TIME BREAKDOWN

| From | HRS    | Code | Description                  |
|------|--------|------|------------------------------|
| 0:00 | 0.9167 | OC   | Other Circulating            |
|      |        |      | CIRCULATE 1.5 BOTTOMS UP     |
| 0:55 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 1:00 | 0.1667 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 1:10 | 2      | SLID | Slide Drill fr: 4923 to 4986 |
|      |        |      | HOLD MODE                    |
| 3:10 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 3:15 | 0.0833 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 3:20 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 3:25 | 1.3333 | SLID | Slide Drill fr: 4986 to 5019 |
|      |        |      | HOLD                         |
| 4:45 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 4:50 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | CHECK SHOT                   |
| 4:55 | 1.25   | SLID | Slide Drill fr: 5019 to 5048 |
|      |        |      |                              |
| 6:10 | 0.25   | RMG  | Reaming                      |
|      |        |      | REAM STAND                   |
| 6:25 | 0.1667 | SVNC | Survey Non-Circulating       |
|      |        |      | CONN / SVY                   |

24 Hr Summary: DRILL FROM 4923' TO 5428'.Proj svy at 0:00: 4923 4349 34 149.5Proj svy at 24:00: 5428 4768 33.3 150Bottom Hole Temp. (F), Circulating: 148

Formation Name/Depth: \_\_\_\_\_

Remarks: \_\_\_\_\_

DRILL THE REST OF THE TANGENT SECTION, START DROPPING TO VERTICAL.BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN

BHI MWD REP.: \_\_\_\_\_

COMPANY REP.: TOM ZUPANDAILY COST: \$12,605.00CUMMULATIVE COST: \$195,831.00BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 16 Date: 11/16/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 5428 Feet last 24 Hrs: 505 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 71 PV: 23 YP: 29 WL: 5  
 Gels: 21/40 % Oil: 0 % Solid: 3.6 % Sand: 0.25 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1069         | 71.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.1            | 19.0             | 71.0              | 3.7              | 10.9              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|       |        |      |                                      |
|-------|--------|------|--------------------------------------|
| 6:35  | 2.4167 | SLID | Slide Drill fr: 5048 to 5111         |
| 9:00  | 0.0833 | RMG  | Reaming<br>REAM STAND                |
| 9:05  | 0.25   | SVNC | Survey Non-Circulating<br>CONN / SVY |
| 9:20  | 1.25   | SLID | Slide Drill fr: 5111 to 5143         |
| 10:35 | 0.1667 | SVC  | Survey Circulating<br>CHECK SHOT     |
| 10:45 | 1.25   | SLID | Slide Drill fr: 5143 to 5175         |
| 12:00 | 0.0833 | RMG  | Reaming<br>REAM STAND                |
| 12:05 | 0.25   | SVNC | Survey Non-Circulating<br>CONN / SVY |
| 12:20 | 2.5833 | SLID | Slide Drill fr: 5175 to 5238         |
| 14:55 | 0.1667 | RMG  | Reaming<br>REAM STAND                |
| 15:05 | 0.1667 | SVC  | Survey Circulating<br>CONN / SVY     |
| 15:15 | 1.3333 | SLID | Slide Drill fr: 5238 to 5271         |
| 16:35 | 0.1667 | OC   | Other Circulating<br>DOWN LINK       |
| 16:45 | 0.8333 | SLID | Slide Drill fr: 5271 to 5300         |



# DAILY DRILLING REPORT

No: 16 Date: 11/16/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 5428 Feet last 24 Hrs: 505 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 71 PV: 23 YP: 29 WL: 5  
 Gels: 21/40 % Oil: 0 % Solid: 3.6 % Sand: 0.25 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1069         | 71.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.1            | 19.0             | 71.0              | 3.7              | 10.9              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|       |        |      |                                  |
|-------|--------|------|----------------------------------|
| 17:35 | 0.1667 | RMG  | Reaming                          |
|       |        |      | REAM STAND                       |
| 17:45 | 0.0833 | ONC  | Other Non-circulating            |
|       |        |      | CONN                             |
| 17:50 | 0.0833 | SVC  | Survey Circulating               |
|       |        |      |                                  |
| 17:55 | 0.1667 | OC   | Other Circulating                |
|       |        |      | DOWN LINK                        |
| 18:05 | 1      | SLID | Slide Drill fr: 5300 to 5334     |
|       |        |      | RIBS OFF                         |
| 19:05 | 0.0833 | SVC  | Survey Circulating               |
|       |        |      | SURVEY                           |
| 19:10 | 0.3333 | OC   | Other Circulating                |
|       |        |      | DOWNLINK VERTICAL MODE 50% FORCE |
| 19:30 | 1.1667 | SLID | Slide Drill fr: 5334 to 5365     |
|       |        |      | VERTICAL MODE 50% FORCE          |
| 20:40 | 0.0833 | RMG  | Reaming                          |
|       |        |      | REAM                             |
| 20:45 | 0.1667 | ONC  | Other Non-circulating            |
|       |        |      | CONNECTION                       |
| 20:55 | 0.0833 | SVC  | Survey Circulating               |
|       |        |      | SURVEY                           |
| 21:00 | 1.5    | SLID | Slide Drill fr: 5365 to 5396     |
|       |        |      | VERTICAL MODE 50% FORCE          |
| 22:30 | 0.0833 | SVC  | Survey Circulating               |
|       |        |      | SURVEY                           |

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# DAILY DRILLING REPORT

No: 16 Date: 11/16/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 5428 Feet last 24 Hrs: 505 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 71 PV: 23 YP: 29 WL: 5  
 Gels: 21/40 % Oil: 0 % Solid: 3.6 % Sand: 0.25 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type    | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|---------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |         |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | SI516MP | JX8095     | 0.6481      | 2"           | 1069         | 71.000     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.1            | 19.0             | 71.0              | 3.7              | 10.9              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

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|       |        |      |                              |
|-------|--------|------|------------------------------|
| 22:35 | 1.0833 | SLID | Slide Drill fr: 5396 to 5428 |
|       |        |      | VERTICAL MODE 50% FORCE      |
| 23:40 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 23:50 | 0.1667 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |



# DAILY DRILLING REPORT

No: 17 Date: 11/17/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 5823 Feet last 24 Hrs: 395 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 62 PV: 24 YP: 28 WL: 5  
 Gels: 20/36 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1400         | 89.417     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 184.4            | 18.4             | 89.4              | 4.7              | 15.6              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

### TIME BREAKDOWN

| From | HRS    | Code | Description                  |
|------|--------|------|------------------------------|
| 0:00 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 0:05 | 1.1667 | SLID | Slide Drill fr: 5428 to 5462 |
|      |        |      | VERTICAL MODE 50% FORCE      |
| 1:15 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 1:20 | 1.1667 | SLID | Slide Drill fr: 5462 to 5493 |
|      |        |      | VERTICAL MODE 50% FORCE      |
| 2:30 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 2:35 | 0.0833 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 2:40 | 0.25   | SVC  | Survey Circulating           |
|      |        |      | SURVEY, LOST POWER, REBOOT   |
| 2:55 | 1.6667 | SLID | Slide Drill fr: 5493 to 5526 |
|      |        |      | VERTICAL MODE 50% FORCE      |
| 4:35 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 4:40 | 1.4167 | SLID | Slide Drill fr: 5526 to 5555 |
|      |        |      | VERTICAL MODE 50%            |
| 6:05 | 0.0833 | RMG  | Reaming                      |
|      |        |      | REAM STAND                   |
| 6:10 | 0.1667 | ONC  | Other Non-circulating        |
|      |        |      | CONN                         |
| 6:20 | 0.0833 | SVC  | Survey Circulating           |
|      |        |      | SVY                          |

24 Hr Summary: DRILL FROM 5428' - 5823'  
 Proj svy at 0:00: 5428 4768 33.3 150  
 Proj svy at 24:00 5823 5119 24.8 148.9  
 Bottom Hole Temp. (F), Circulating: 150  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
CONTINUE DROP TO VERTICAL. 18:00 hrs Co Man requests to land to the north and east of the plan landing point. Current MD 5745' inc. 26.3 deg az 148.6  
More frequent motor stalls over the day.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: TOM ZUPAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$208,436.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 17 Date: 11/17/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 5823 Feet last 24 Hrs: 395 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 62 PV: 24 YP: 28 WL: 5  
 Gels: 20/36 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1400         | 89.417     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 184.4            | 18.4             | 89.4              | 4.7              | 15.6              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                                 |
|-------|--------|------|---------------------------------|
| 6:25  | 1      | SLID | Slide Drill fr: 5555 to 5587    |
|       |        |      | VERTICAL MODE 50%               |
| 7:25  | 0.0833 | SVC  | Survey Circulating              |
|       |        |      | SVY                             |
| 7:30  | 2.4167 | SLID | Slide Drill fr: 5587 to 5619    |
|       |        |      |                                 |
| 9:55  | 0.1667 | RMG  | Reaming                         |
|       |        |      | REAM STAND                      |
| 10:05 | 0.1667 | ONC  | Other Non-circulating           |
|       |        |      | CONN                            |
| 10:15 | 0.0833 | SVC  | Survey Circulating              |
|       |        |      | SVY                             |
| 10:20 | 1.75   | SLID | Slide Drill fr: 5619 to 5651    |
|       |        |      | VERTICAL MODE                   |
| 12:05 | 0.0833 | RMG  | Reaming                         |
|       |        |      | REAM JOINT                      |
| 12:10 | 0.0833 | SVC  | Survey Circulating              |
|       |        |      | SVY                             |
| 12:15 | 0.0833 | OC   | Other Circulating               |
|       |        |      | DOWN LINK - HOLD MODE 26.63 deg |
| 12:20 | 1.3333 | SLID | Slide Drill fr: 5651 to 5682    |
|       |        |      |                                 |
| 13:40 | 0.1667 | RMG  | Reaming                         |
|       |        |      | REAM STAND                      |
| 13:50 | 0.25   | OC   | Other Circulating               |
|       |        |      | RIG SERVICE                     |
| 14:05 | 0.1667 | ONC  | Other Non-circulating           |
|       |        |      | CONN                            |



# DAILY DRILLING REPORT

No: 17 Date: 11/17/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 5823 Feet last 24 Hrs: 395 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 62 PV: 24 YP: 28 WL: 5  
 Gels: 20/36 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | ISI516MP | JX8095     | 0.6481      | 2"           | 1400         | 89.417     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 184.4            | 18.4             | 89.4              | 4.7              | 15.6              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                              |
|-------|--------|------|------------------------------|
| 14:15 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 14:20 | 0.25   | OC   | Other Circulating            |
|       |        |      | DOWN LINK - VDM              |
| 14:35 | 1.5833 | SLID | Slide Drill fr: 5682 to 5716 |
|       |        |      |                              |
| 16:10 | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 16:20 | 1.4167 | SLID | Slide Drill fr: 5716 to 5745 |
|       |        |      |                              |
| 17:45 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 17:55 | 0.1667 | ONC  | Other Non-circulating        |
|       |        |      | CONN                         |
| 18:05 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 18:10 | 0.3333 | OC   | Other Circulating            |
|       |        |      | DOWN LINK (2)                |
| 18:30 | 1.0833 | SLID | Slide Drill fr: 5745 to 5772 |
|       |        |      | HOLD                         |
| 19:35 | 0.4167 | OC   | Other Circulating            |
|       |        |      | DOWNLINK NO WALK FORCE       |
| 20:00 | 0.4167 | SLID | Slide Drill fr: 5772 to 5780 |
|       |        |      | HOLD MODE                    |
| 20:25 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM                         |



# DAILY DRILLING REPORT

No: 17 Date: 11/17/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 5823 Feet last 24 Hrs: 395 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 62 PV: 24 YP: 28 WL: 5  
 Gels: 20/36 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 10 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1400         | 89.417     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 8.75" TRU TRAK | AKO        | 0     | 10143004      | 184.4            | 18.4             | 89.4              | 4.7              | 15.6              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                                               |
|-------|--------|------|-----------------------------------------------|
| 20:30 | 0.75   | OC   | Other Circulating                             |
|       |        |      | NOISY SIGNAL. DL 1 SEC. SVY. DL VERTICAL MODE |
| 21:15 | 1.1667 | SLID | Slide Drill fr: 5780 to 5809                  |
|       |        |      | VERTICAL MODE                                 |
| 22:25 | 0.25   | RMG  | Reaming                                       |
|       |        |      | REAM. PU 198K, SO 125K, HW 145K               |
| 22:40 | 0.1667 | ONC  | Other Non-circulating                         |
|       |        |      | CONNECTION                                    |
| 22:50 | 0.3333 | SVC  | Survey Circulating                            |
|       |        |      | SURVEY                                        |
| 23:10 | 0.8333 | SLID | Slide Drill fr: 5809 to 5823                  |
|       |        |      | VERTICAL MODE                                 |



# DAILY DRILLING REPORT

No: 18 Date: 11/18/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 6176 Feet last 24 Hrs: 353 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 76 PV: 29 YP: 32 WL: 5.7  
 Gels: 15/32 % Oil: 0 % Solid: 4 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type      | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|-----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |           |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MPX | JX8095     | 0.6481      | 2"           | 1627         | 106.58     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.8            | 17.2             | 106.6             | 5.8              | 21.4              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION.

### TIME BREAKDOWN

| From | HRS    | Code | Description                  |
|------|--------|------|------------------------------|
| 0:00 | 1.3333 | SLID | Slide Drill fr: 5823 to 5843 |
|      |        |      | VERTICAL MODE                |
| 1:20 | 0.1667 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 1:30 | 0.25   | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 1:45 | 1.25   | SLID | Slide Drill fr: 5843 to 5873 |
|      |        |      | VERTICAL MODE                |
| 3:00 | 0.25   | RMG  | Reaming                      |
|      |        |      | REAM. PU190K, SO120K, HW140K |
| 3:15 | 0.25   | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 3:30 | 0.1667 | SVC  | Survey Circulating           |
|      |        |      | SURVEY                       |
| 3:40 | 1.9167 | SLID | Slide Drill fr: 5873 to 5906 |
|      |        |      | VERTICAL MODE 50% FORCE      |
| 5:35 | 0.1667 | RMG  | Reaming                      |
|      |        |      | REAM STAND                   |
| 5:45 | 0.25   | SVC  | Survey Circulating           |
|      |        |      | SVY                          |
| 6:00 | 1.1667 | SLID | Slide Drill fr: 5906 to 5935 |
|      |        |      |                              |
| 7:10 | 0.1667 | RMG  | Reaming                      |
|      |        |      | REAM STAND                   |
| 7:20 | 0.25   | ONC  | Other Non-circulating        |
|      |        |      | CONN                         |

24 Hr Summary: DRILL FROM 5823' - 6187'  
 Proj svy at 0:00: 5823 5119 24.8 148.9  
 Proj svy at 24:00: 6107 5388.3 14.4 148.3  
 Bottom Hole Temp. (F), Circulating: 150  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
DRILL DROP TO VERTICAL SECTION.  
MALCOLM CONNELL ARRIVED IN THE AM.

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: TOM ZUPAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$221,041.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 18 Date: 11/18/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 6176 Feet last 24 Hrs: 353 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 76 PV: 29 YP: 32 WL: 5.7  
 Gels: 15/32 % Oil: 0 % Solid: 4 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1627         | 106.58     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.8            | 17.2             | 106.6             | 5.8              | 21.4              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                              |
|-------|--------|------|------------------------------|
| 7:35  | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 7:45  | 0.9167 | SLID | Slide Drill fr: 5935 to 5950 |
|       |        |      |                              |
| 8:40  | 0.1667 | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |
| 8:50  | 1      | SLID | Slide Drill fr: 5950 to 5967 |
|       |        |      |                              |
| 9:50  | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM JOINT                   |
| 9:55  | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 10:00 | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |
| 10:05 | 1.25   | SLID | Slide Drill fr: 5967 to 5999 |
|       |        |      |                              |
| 11:20 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 11:30 | 0.25   | OC   | Other Circulating            |
|       |        |      | RIG SERVICE                  |
| 11:45 | 0.1667 | ONC  | Other Non-circulating        |
|       |        |      | CONN                         |
| 11:55 | 0.3333 | SVC  | Survey Circulating           |
|       |        |      | SVY - PUMP PROBLEMS          |
| 12:15 | 1.6667 | SLID | Slide Drill fr: 5999 to 6033 |
|       |        |      |                              |
| 13:55 | 0.1667 | RMG  | Reaming                      |
|       |        |      | WORK JOINT                   |



# DAILY DRILLING REPORT

No: 18 Date: 11/18/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 6176 Feet last 24 Hrs: 353 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 76 PV: 29 YP: 32 WL: 5.7  
 Gels: 15/32 % Oil: 0 % Solid: 4 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1627         | 106.58     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.8            | 17.2             | 106.6             | 5.8              | 21.4              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                              |
|-------|--------|------|------------------------------|
| 14:05 | 0.75   | SVC  | Survey Circulating           |
|       |        |      | SVY - PUMP NOISE!!           |
| 14:50 | 1.1667 | SLID | Slide Drill fr: 6033 to 6063 |
| 16:00 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 16:10 | 0.1667 | ONC  | Other Non-circulating        |
|       |        |      | CONN                         |
| 16:20 | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 16:30 | 1.5    | SLID | Slide Drill fr: 6063 to 6095 |
| 18:00 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 18:10 | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 18:20 | 1.75   | SLID | Slide Drill fr: 6095 to 6124 |
|       |        |      | VERTICAL MODE                |
| 20:05 | 0.25   | RMG  | Reaming                      |
|       |        |      | REAM                         |
| 20:20 | 0.1667 | ONC  | Other Non-circulating        |
|       |        |      | CONNECTION                   |
| 20:30 | 0.25   | SVC  | Survey Circulating           |
|       |        |      | SURVEY                       |
| 20:45 | 1.4167 | SLID | Slide Drill fr: 6124 to 6157 |
|       |        |      | VERTICAL MODE 50% FORCE      |
| 22:10 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM                         |



# DAILY DRILLING REPORT

No: 18 Date: 11/18/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 6176 Feet last 24 Hrs: 353 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.5 Viscosity: 76 PV: 29 YP: 32 WL: 5.7  
 Gels: 15/32 % Oil: 0 % Solid: 4 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type    | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|---------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |         |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | SI516MP | JX8095     | 0.6481      | 2"           | 1627         | 106.58     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.8            | 17.2             | 106.6             | 5.8              | 21.4              | 3534     |           |

### PUMP DATA

### TARGET DESCRIPTION / DETAILS

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                              |
|-------|--------|------|------------------------------|
| 22:15 | 0.9167 | OC   | Other Circulating            |
|       |        |      | SURVEY. DOWNLINK HOLD        |
|       |        |      | MODE/LEFT WALK               |
| 23:10 | 0.8333 | SLID | Slide Drill fr: 6157 to 6176 |
|       |        |      | Hold. Left WF                |



# DAILY DRILLING REPORT

No: 19 Date: 11/19/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 6538 Feet last 24 Hrs: 362 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 65 PV: 23 YP: 27 WL: 5  
 Gels: 17/32 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1978         | 123.83     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.9            | 17.2             | 123.8             | 5.8              | 27.3              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

### TIME BREAKDOWN

| From | HRS    | Code | Description                  |
|------|--------|------|------------------------------|
| 0:00 | 0.5    | SLID | Slide Drill fr: 6176 to 6187 |
|      |        |      | Hold. Left WF                |
| 0:30 | 0.1667 | RMG  | Reaming                      |
|      |        |      | REAM                         |
| 0:40 | 0.1667 | ONC  | Other Non-circulating        |
|      |        |      | CONNECTION                   |
| 0:50 | 0.1667 | SVC  | Survey Circulating           |
|      |        |      | SURVEY. DOWNLINK WF OFF.     |
| 1:00 | 1.5    | SLID | Slide Drill fr: 6187 to 6221 |
|      |        |      | Hold                         |
| 2:30 | 0.1667 | RMG  | Reaming                      |
|      |        |      |                              |
| 2:40 | 0.1667 | SVC  | Survey Circulating           |
|      |        |      | D/L to Vert. Mode            |
| 2:50 | 1.4167 | SLID | Slide Drill fr: 6221 to 6253 |
|      |        |      | VM 50%                       |
| 4:15 | 0.1667 | RMG  | Reaming                      |
|      |        |      |                              |
| 4:25 | 0.1667 | ONC  | Other Non-circulating        |
|      |        |      | Conn.                        |
| 4:35 | 0.4167 | SVC  | Survey Circulating           |
|      |        |      | Svy & D/L to Hold Mode       |
| 5:00 | 1.25   | SLID | Slide Drill fr: 6253 to 6286 |
|      |        |      |                              |
| 6:15 | 0.1667 | RMG  | Reaming                      |
|      |        |      | REAM STAND                   |

24 Hr Summary: DRILL FROM 6187' - 6538'  
 Proj svy at 0:00: 6107 5388.3 14.4 148.3  
 Proj svy at 24:00: 6455 5757.3 12.6 141.7  
 Bottom Hole Temp. (F), Circulating: 150  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
09:00 hrs. 6321', CO MAN REQUESTS TANGENT TO SLOW DROP.  
 BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: TOM ZUPAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$233,646.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 19 Date: 11/19/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 6538 Feet last 24 Hrs: 362 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 65 PV: 23 YP: 27 WL: 5  
 Gels: 17/32 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1978         | 123.83     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.9            | 17.2             | 123.8             | 5.8              | 27.3              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                              |
|-------|--------|------|------------------------------|
| 6:25  | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 6:30  | 0.0833 | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |
| 6:35  | 1.6667 | SLID | Slide Drill fr: 6286 to 6316 |
|       |        |      |                              |
| 8:15  | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 8:20  | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 8:25  | 0.1667 | ONC  | Other Non-circulating        |
|       |        |      | CONN                         |
| 8:35  | 1.75   | SLID | Slide Drill fr: 6316 to 6349 |
|       |        |      |                              |
| 10:20 | 0.0833 | RMG  | Reaming                      |
|       |        |      | REAM JOINT                   |
| 10:25 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 10:30 | 0.25   | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |
| 10:45 | 1.3333 | SLID | Slide Drill fr: 6349 to 6379 |
|       |        |      |                              |
| 12:05 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 12:15 | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 12:25 | 0.1667 | OC   | Other Circulating            |
|       |        |      | DOWN LINK                    |



# DAILY DRILLING REPORT

No: 19 Date: 11/19/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 6538 Feet last 24 Hrs: 362 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 65 PV: 23 YP: 27 WL: 5  
 Gels: 17/32 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1978         | 123.83     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.9            | 17.2             | 123.8             | 5.8              | 27.3              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                                        |
|-------|--------|------|----------------------------------------|
| 12:35 | 1.1667 | SLID | Slide Drill fr: 6379 to 6412           |
| 13:45 | 0.1667 | RMG  | Reaming<br>REAM JOINT                  |
| 13:55 | 0.0833 | SVC  | Survey Circulating<br>SVY              |
| 14:00 | 0.75   | SLID | Slide Drill fr: 6412 to 6430           |
| 14:45 | 1.25   | OC   | Other Circulating<br>DOWN LINK         |
| 16:00 | 0.3333 | SLID | Slide Drill fr: 6430 to 6442           |
| 16:20 | 0.1667 | RMG  | Reaming<br>REAM STAND                  |
| 16:30 | 0.25   | RIGS | Rig Service                            |
| 16:45 | 0.1667 | ONC  | Other Non-circulating<br>Conn          |
| 16:55 | 0.5    | SVC  | Survey Circulating<br>Svy @ 6360       |
| 17:25 | 2.3333 | SLID | Slide Drill fr: 6442 to 6475<br>Lft WF |
| 19:45 | 0.0833 | RMG  | Reaming                                |
| 19:50 | 0.1667 | SVC  | Survey Circulating<br>Svy @ 6392       |
| 20:00 | 1.75   | SLID | Slide Drill fr: 6475 to 6504<br>Lft WF |



# DAILY DRILLING REPORT

No: 19 Date: 11/19/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4  
 Depth: 6538 Feet last 24 Hrs: 362 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 65 PV: 23 YP: 27 WL: 5  
 Gels: 17/32 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1978         | 123.83     |           | 0              | 0  | NO | A   | X   | I    | NO | DMF  |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.9            | 17.2             | 123.8             | 5.8              | 27.3              | 3534     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION.

|       |      |      |                              |
|-------|------|------|------------------------------|
| 21:45 | 0.25 | RMG  | Reaming                      |
|       |      |      | Conn                         |
| 22:00 | 0.5  | CIRC | Circulate                    |
|       |      |      | DL to Vert Drill @ 50 %      |
| 22:30 | 1.5  | SLID | Slide Drill fr: 6504 to 6538 |
|       |      |      | VERTICAL MODE, 50% FORCE     |



# DAILY DRILLING REPORT

No: 20 Date: 11/20/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4,5  
 Depth: 6568 Feet last 24 Hrs: 30 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 65 PV: 23 YP: 27 WL: 5  
 Gels: 17/32 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1944         | 125.33     | 6568      | 0              | 0  | NO | A   | X   | I    | NO | DMF  |
| 5   | 8 3/4"   | HCC  | QD506FX  | 7127806    | 0.6627      | 3"           |              |            |           |                |    |    |     |     |      |    |      |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.6            | 1.5              | 125.3             | 2.3              | 29.5              | 3534     | 6568      |
| 5       | 7    | TruTrak        | AKO        | 0     | 10083084      |                  |                  |                   | 4.8              | 4.8               |          |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

### TIME BREAKDOWN

| From  | HRS    | Code | Description                       |
|-------|--------|------|-----------------------------------|
| 0:00  | 0.4167 | SVC  | Survey Circulating                |
|       |        |      | Svy @ 6455                        |
| 0:25  | 1.5    | SLID | Slide Drill fr: 6538 to 6568      |
|       |        |      | VERICAL MODE 505                  |
| 1:55  | 0.1667 | RMG  | Reaming                           |
|       |        |      | REAM                              |
| 2:05  | 0.25   | ONC  | Other Non-circulating             |
|       |        |      | CONNECTION                        |
| 2:20  | 0.25   | SVC  | Survey Circulating                |
|       |        |      | SURVEY                            |
| 2:35  | 0.1667 | OC   | Other Circulating                 |
|       |        |      | ATTEMPT TO SURVEY. CANNOT DECODE. |
| 2:45  | 0.3333 | SVC  | Survey Circulating                |
|       |        |      | ATTEMPT TO SURVEY - NO JOY!       |
| 3:05  | 0.9167 | CIRC | Circulate                         |
| 4:00  | 5.25   | TO   | Tripping Out (To Surface)         |
|       |        |      | POOH                              |
| 9:15  | 1.75   | ONC  | Other Non-circulating             |
|       |        |      | WORK BHA's                        |
| 11:00 | 1.25   | TI   | Tripping In (From Surface)        |
| 12:15 | 0.25   | SVC  | Survey Circulating                |
|       |        |      | TEST TRU TRAK, AOK                |

24 Hr Summary: RIH / BHA#5, Wash down thru Tight Hole  
 Proj svy at 0:00: 6455 5757.3 12.6 141.7  
 Proj svy at 24:00: 6455 5727.3 12.6 141.7  
 Bottom Hole Temp. (F), Circulating: 150  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:  
MOTOR ON BHA# 4 PULLED DRY

BHI DIRECTIONAL REP: GORDON SUTING, KURT vonTUNGELN  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: TOM ZUPAN  
 DAILY COST: \$26,305.00  
 CUMMULATIVE COST: \$259,951.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 20 Date: 11/20/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 4,5  
 Depth: 6568 Feet last 24 Hrs: 30 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.3 Viscosity: 65 PV: 23 YP: 27 WL: 5  
 Gels: 17/32 % Oil: 0 % Solid: 2.3 % Sand: .05 PH: 9.5 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr  | Type     | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|------|----------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |      |          |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 3R  | 8 3/4    | SMTH | MSI516MP | JX8095     | 0.6481      | 2"           | 1944         | 125.33     | 6568      | 0              | 0  | NO | A   | X   | I    | NO | DMF  |
| 5   | 8 3/4"   | HCC  | QD506FX  | 7127806    | 0.6627      | 3"           |              |            |           |                |    |    |     |     |      |    |      |

### RUN DATA

| BHA No. | Size | Type           | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|----------------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |                | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 4       | 7    | 6.75" TRU TRAK | AKO        | 0     | 10143004      | 179.6            | 1.5              | 125.3             | 2.3              | 29.5              | 3534     | 6568      |
| 5       | 7    | TruTrak        | AKO        | 0     | 10083084      |                  |                  |                   | 4.8              | 4.8               |          |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |     |                                           |
|-------|--------|-----|-------------------------------------------|
| 12:30 | 1      | ONC | Other Non-circulating                     |
|       |        |     | REMOVE CORROSION RING                     |
| 13:30 | 0.5667 | TI  | Tripping In (From Surface)                |
|       |        |     | RIT TO 2062'                              |
| 14:04 | 0.6833 | ST  | Short Tripping                            |
|       |        |     | SHORT TRIP 12 STAND TO REMOVE PIPE SCREEN |
| 14:45 | 0.6667 | OC  | Other Circulating                         |
|       |        |     | FILL PIPE, TEST MWD & DOWN LINK           |
| 15:25 | 1.5    | TI  | Tripping In (From Surface)                |
|       |        |     |                                           |
| 16:55 | 0.6667 | OC  | Other Circulating                         |
|       |        |     | Wash down tight spot F/ 4229.             |
| 17:35 | 0.25   | TI  | Tripping In (From Surface)                |
|       |        |     |                                           |
| 17:50 | 0.1667 | OC  | Other Circulating                         |
|       |        |     | Wash tight spot 4300                      |
| 18:00 | 2.75   | TI  | Tripping In (From Surface)                |
|       |        |     | RIH to 6398. Tight.                       |
| 20:45 | 0.25   | C   | Casing                                    |
|       |        |     | Work tight hole. F/6430 'Wash down        |
| 21:00 | 1      | OC  | Other Circulating                         |
|       |        |     | Tight hole at 6450 work pipe              |
| 22:00 | 2      | OC  | Other Circulating                         |
|       |        |     | Wash down to 6530. Tight hole             |



# DAILY DRILLING REPORT

No: 21 Date: 11/21/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 5  
 Depth: 6728 Feet last 24 Hrs: 160 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.2 Viscosity: 63 PV: 19 YP: 26 WL: 4.2  
 Gels: 14 / 25 % Oil: 0 % Solid: 1.4 % Sand: .05 PH: 9 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr | Type    | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|---------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |         |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 5   | 8 3/4"   | HCC | QD506FX | 7127806    | 0.6627      | 3"           | 160          | 18.583     |           |                |    |    |     |     |      |    |      |

### RUN DATA

| BHA No. | Size | Type    | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|---------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |         | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 5       | 7    | TruTrak | AKO        | 0     | 10083084      | 214.3            | 18.6             | 18.6              | 3.6              | 8.3               | 6568     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

### TIME BREAKDOWN

| From  | HRS    | Code | Description                  |
|-------|--------|------|------------------------------|
| 0:00  | 1      | OC   | Other Circulating            |
|       |        |      | Wash Down to 6547'           |
| 1:00  | 0.6667 | OC   | Other Circulating            |
|       |        |      | Trbl shoot pump noise on MWD |
| 1:40  | 0.5833 | OC   | Other Circulating            |
|       |        |      | Downlink to Hold Mode        |
| 2:15  | 1.8333 | SLID | Slide Drill fr: 6568 to 6582 |
| 4:05  | 0.1667 | SVC  | Survey Circulating           |
|       |        |      | Svy @ 6520'                  |
| 4:15  | 2.25   | SLID | Slide Drill fr: 6582 to 6612 |
| 6:30  | 0.25   | RMG  | Reaming                      |
|       |        |      | REAM STAND                   |
| 6:45  | 0.1667 | ONC  | Other Non-circulating        |
|       |        |      | CONN                         |
| 6:55  | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 7:00  | 3.75   | SLID | Slide Drill fr: 6612 to 6646 |
| 10:45 | 0.1667 | RMG  | Reaming                      |
|       |        |      | REAM JOINT                   |
| 10:55 | 0.0833 | SVC  | Survey Circulating           |
|       |        |      | SVY                          |
| 11:00 | 1.8333 | SLID | Slide Drill fr: 6646 to 6675 |

24 Hr Summary: Drill from 6567' - 6728'  
 Proj svy at 0:00: 6455 5727.3 12.6 141.7  
 Proj svy at 24:00 6615 5883.6 12.7 140.8  
 Bottom Hole Temp. (F), Circulating: 150  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks: \_\_\_\_\_  
 BHI DIRECTIONAL REP: Kurt von Tungeln, Malcolm Gunnell  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: TOM ZUPAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$272,556.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 21 Date: 11/21/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 5  
 Depth: 6728 Feet last 24 Hrs: 160 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.2 Viscosity: 63 PV: 19 YP: 26 WL: 4.2  
 Gels: 14 / 25 % Oil: 0 % Solid: 1.4 % Sand: .05 PH: 9 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr | Type    | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|---------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |         |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 5   | 8 3/4"   | HCC | QD506FX | 7127806    | 0.6627      | 3"           | 160          | 18.583     |           |                |    |    |     |     |      |    |      |

### RUN DATA

| BHA No. | Size | Type    | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|---------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |         | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 5       | 7    | TruTrak | AKO        | 0     | 10083084      | 214.3            | 18.6             | 18.6              | 3.6              | 8.3               | 6568     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                                 |
|-------|--------|------|---------------------------------|
| 12:50 | 0.1667 | RMG  | Reaming                         |
|       |        |      | REAM STAND                      |
| 13:00 | 0.4167 | ONC  | Other Non-circulating           |
|       |        |      | RIG SERVICE / CONNECTION        |
| 13:25 | 0.0833 | SVC  | Survey Circulating              |
|       |        |      | SVY                             |
| 13:30 | 2.3333 | SLID | Slide Drill fr: 6675 to 6709    |
|       |        |      |                                 |
| 15:50 | 0.0833 | RMG  | Reaming                         |
|       |        |      | REAM JOINT                      |
| 15:55 | 0.0833 | SVC  | Survey Circulating              |
|       |        |      | SVY                             |
| 16:00 | 2.25   | SLID | Slide Drill fr: 6709 to 6720    |
|       |        |      |                                 |
| 18:15 | 1.25   | RIGR | Rig Repair                      |
|       |        |      | Lost rig power. Trbl shoot same |
| 19:30 | 0.1667 | SVC  | Survey Circulating              |
|       |        |      | Chk Svy & Tool Mode             |
| 19:40 | 4.3333 | SLID | Slide Drill fr: 6720 to 6728    |
|       |        |      |                                 |



# DAILY DRILLING REPORT

No: 22 Date: 11/22/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 5  
 Depth: 7030 Feet last 24 Hrs: 302 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.15 Viscosity: 70 PV: 25 YP: 32 WL: 4.5  
 Gels: 19/35 % Oil: 0 % Solid: 1 % Sand: .05 PH: 9.2 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr | Type    | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|---------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |         |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 5   | 8 3/4"   | HCC | QD506FX | 7127806    | 0.6627      | 3"           | 462          | 38.333     |           |                |    |    |     |     |      |    |      |

### RUN DATA

| BHA No. | Size | Type    | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|---------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |         | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 5       | 7    | TruTrak | AKO        | 0     | 10083084      | 272.2            | 19.8             | 38.3              | 3.5              | 11.8              | 6568     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

### TIME BREAKDOWN

| From  | HRS    | Code | Description                      |
|-------|--------|------|----------------------------------|
| 0:00  | 2.3333 | SLID | Slide Drill fr: 6728 to 6738     |
| 2:20  | 0.4167 | RMG  | Reaming                          |
| 2:45  | 0.0833 | SVC  | Survey Circulating<br>Svy @ 6647 |
| 2:50  | 3.6667 | SLID | Slide Drill fr: 6738 to 6772     |
| 6:30  | 0.0833 | RMG  | Reaming<br>REAM JOINT            |
| 6:35  | 0.1667 | SVC  | Survey Circulating<br>SVY        |
| 6:45  | 1.9167 | SLID | Slide Drill fr: 6772 to 6801     |
| 8:40  | 0.1667 | RMG  | Reaming<br>REAM STAND            |
| 8:50  | 0.1667 | ONC  | Other Non-circulating<br>CONN    |
| 9:00  | 0.0833 | SVC  | Survey Circulating<br>SVY        |
| 9:05  | 1.6667 | SLID | Slide Drill fr: 6801 to 6834     |
| 10:45 | 0.1667 | RMG  | Reaming<br>REAM JOINT            |
| 10:55 | 0.0833 | SVC  | Survey Circulating<br>SVY        |

24 Hr Summary: Drill from 6728' - 7030'  
 Proj svy at 0:00: 6615 5883.6 12.7 140.8  
 Proj svy at 24:00: 6929 6190 11.9 131.7  
 Bottom Hole Temp. (F), Circulating: 154  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks: \_\_\_\_\_  
 BHI DIRECTIONAL REP: Kurt von Tungeln, Malcolm Gunnell  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: TOM ZUPAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$285,161.00  
 BHI JOB #: 3451879



# DAILY DRILLING REPORT

No: 22 Date: 11/22/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 5  
 Depth: 7030 Feet last 24 Hrs: 302 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.15 Viscosity: 70 PV: 25 YP: 32 WL: 4.5  
 Gels: 19/35 % Oil: 0 % Solid: 1 % Sand: .05 PH: 9.2 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr | Type    | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|---------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |         |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 5   | 8 3/4"   | HCC | QD506FX | 7127806    | 0.6627      | 3"           | 462          | 38.333     |           |                |    |    |     |     |      |    |      |

### RUN DATA

| BHA No. | Size | Type    | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|---------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |         | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 5       | 7    | TruTrak | AKO        | 0     | 10083084      | 272.2            | 19.8             | 38.3              | 3.5              | 11.8              | 6568     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                                                        |
|-------|--------|------|--------------------------------------------------------|
| 11:00 | 1.5    | SLID | Slide Drill fr: 6834 to 6864                           |
| 12:30 | 0.1667 | RMG  | Reaming<br>REAM STAND                                  |
| 12:40 | 0.4167 | ONC  | Other Non-circulating<br>RIG SERVICE / CONNETION       |
| 13:05 | 0.0833 | SVC  | Survey Circulating<br>SVY                              |
| 13:10 | 1.1667 | SLID | Slide Drill fr: 6864 to 6897                           |
| 14:20 | 0.1667 | RMG  | Reaming<br>REAM JOINT                                  |
| 14:30 | 0.0833 | SVC  | Survey Circulating<br>SVY                              |
| 14:35 | 0.0833 | OC   | Other Circulating<br>DOWN LINK, VDM                    |
| 14:40 | 1.4167 | SLID | Slide Drill fr: 6897 to 6927<br>Vert Mode              |
| 16:05 | 0.1667 | RMG  | Reaming<br>REAM STAND                                  |
| 16:15 | 0.1667 | ONC  | Other Non-circulating<br>CONN                          |
| 16:25 | 0.0833 | SVC  | Survey Circulating<br>SVY                              |
| 16:30 | 2.1667 | SLID | Slide Drill fr: 6927 to 6960<br>Vertical drilling Mode |
| 18:40 | 0.1667 | RMG  | Reaming                                                |



# DAILY DRILLING REPORT

No: 22 Date: 11/22/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: 5  
 Depth: 7030 Feet last 24 Hrs: 302 Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.15 Viscosity: 70 PV: 25 YP: 32 WL: 4.5  
 Gels: 19/35 % Oil: 0 % Solid: 1 % Sand: .05 PH: 9.2 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr | Type    | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|---------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |         |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |
| 5   | 8 3/4"   | HCC | QD506FX | 7127806    | 0.6627      | 3"           | 462          | 38.333     |           |                |    |    |     |     |      |    |      |

### RUN DATA

| BHA No. | Size | Type    | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|---------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |         | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |
| 5       | 7    | TruTrak | AKO        | 0     | 10083084      | 272.2            | 19.8             | 38.3              | 3.5              | 11.8              | 6568     |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

|                                                             |
|-------------------------------------------------------------|
| LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION. |
|                                                             |
|                                                             |
|                                                             |

|       |        |      |                              |
|-------|--------|------|------------------------------|
| 18:50 | 0.25   | SVC  | Survey Circulating           |
|       |        |      | Svy @ 6867'                  |
| 19:05 | 1.5833 | SLID | Slide Drill fr: 6960 to 6989 |
|       |        |      | Vert Mode                    |
| 20:40 | 0.3333 | RMG  | Reaming                      |
|       |        |      |                              |
| 21:00 | 0.25   | SVC  | Survey Circulating           |
|       |        |      | Svy @ 6898'                  |
| 21:15 | 1.75   | SLID | Slide Drill fr: 6989 to 7022 |
|       |        |      |                              |
| 23:00 | 0.1667 | RMG  | Reaming                      |
|       |        |      |                              |
| 23:10 | 0.25   | SVC  | Survey Circulating           |
|       |        |      | Svy @ 6929'                  |
| 23:25 | 0.5833 | SLID | Slide Drill fr: 7022 to 7030 |
|       |        |      | Vert. Mode                   |



# DAILY DRILLING REPORT

No: 23 Date: 11/23/2010

INTEQ Company: WOLVERINE Well Name & No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor & No.: PATTERSON 304  
 County/Block/Parish: SEVIER BHA No(s) Today: \_\_\_\_\_  
 Depth: 7030 Feet last 24 Hrs: \_\_\_\_\_ Last CSG Depth: 2024 Size: 9.625

### MUD DATA

Mud Type SALT M Weight: 10.15 Viscosity: 70 PV: 25 YP: 32 WL: 4.5  
 Gels: 19/35 % Oil: 0 % Solid: 1 % Sand: .05 PH: 9.2 CL: 187000

### BIT DATA

| No. | Bit Size | Mfr | Type | Serial No. | Noz. or TFA | Gauge Length | Cum. Footage | Cum. Hours | Depth Out | DULL CONDITION |    |    |     |     |      |    |      |
|-----|----------|-----|------|------------|-------------|--------------|--------------|------------|-----------|----------------|----|----|-----|-----|------|----|------|
|     |          |     |      |            |             |              |              |            |           | IR             | OR | DC | LOC | B/S | G/16 | OC | RPLD |

### RUN DATA

| BHA No. | Size | Type | Deflection |       | Serial Number | Avg Diff. Press. | Drill Hrs. Today | Drill Hrs. Accum. | Circ. Hrs. Today | Circ. Hrs. Accum. | Depth In | Depth Out |
|---------|------|------|------------|-------|---------------|------------------|------------------|-------------------|------------------|-------------------|----------|-----------|
|         |      |      | Tool       | Angle |               |                  |                  |                   |                  |                   |          |           |

### PUMP DATA

| Pump # | Liner X Stroke | Gal. / Stroke | Max Allowable SPP |
|--------|----------------|---------------|-------------------|
| 1      | 6 x 12         | 4.18          | 3800              |
| 2      | 6 x 12         | 4.18          | 3800              |

### TARGET DESCRIPTION / DETAILS

LAND TO THE NORTH EAST OF THE PLANNED BOTTOM HOLE LOCATION.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### TIME BREAKDOWN

| From | HRS | Code | Description |
|------|-----|------|-------------|
|------|-----|------|-------------|

24 Hr Summary: Drill from 7030' -  
 Proj svy at 0:00: 6929 6190 11.9 131.7  
 Proj svy at 24:00 NONE ENTERED  
 Bottom Hole Temp. (F), Circulating: \_\_\_\_\_  
 Formation Name/Depth: \_\_\_\_\_  
 Remarks:

BHI DIRECTIONAL REP: Kurt von Tungeln, Malcolm Gunnell  
 BHI MWD REP.: \_\_\_\_\_  
 COMPANY REP.: TOM ZUPAN  
 DAILY COST: \$12,605.00  
 CUMMULATIVE COST: \$297,766.00  
 BHI JOB #: 3451879



# DRILLING PARAMETERS RECORD

INTEQ

Company: WOLVERINE

Well Name No.: FEDERAL 19-3

Field: SEVIER Co. UTAH

Rig Contractor No.: PATTERSON 304

County/Block/Parish: SEVIER

| Date      | Depth From | Depth To | Ftg. Drilled | Mode S/R | Drig. Hrs. | ROP   | WOB (Klbs) | Rot RPM | Rot Tq | TFO  | Flow Rate | Diff Pres | Temp. | SPP  | BHA No. |
|-----------|------------|----------|--------------|----------|------------|-------|------------|---------|--------|------|-----------|-----------|-------|------|---------|
| 11/3/2010 | 142        | 189      | 47           | O        | 1          | 47    | 6          |         |        |      | 812       | 55        |       | 2300 | 1       |
| 11/3/2010 | 189        | 225      | 36           | O        | 0.333      | 108.0 | 10         |         |        |      | 820       | 100       | 98    | 2300 | 1       |
| 11/4/2010 | 225        | 253      | 28           | O        | 0.333      | 84    | 10         |         |        |      | 820       | 100       | 98    | 2300 | 1       |
| 11/4/2010 | 253        | 314      | 61           | O        | 0.583      | 104.6 | 10         |         |        |      | 850       | 100       | 98    | 2500 | 1       |
| 11/4/2010 | 314        | 350      | 36           | O        | 0.417      | 86.40 | 10         |         |        |      | 850       | 100       | 98    | 2500 | 1       |
| 11/4/2010 | 350        | 374      | 24           | O        | 0.333      | 72    | 10         |         |        | 138M | 850       | 100       | 98    | 2500 | 1       |
| 11/4/2010 | 374        | 405      | 31           | O        | 0.333      | 93    | 11         |         |        | 138M | 850       | 100       | 98    | 2500 | 1       |
| 11/4/2010 | 405        | 434      | 29           | O        | 0.333      | 87    | 12         |         |        | 138M | 865       | 100       | 98    | 2500 | 1       |
| 11/4/2010 | 434        | 465      | 31           | O        | 0.333      | 93    | 12         |         |        | 138M | 865       | 100       | 98    | 2500 | 1       |
| 11/4/2010 | 465        | 497      | 32           | O        | 0.333      | 96    | 13         |         |        | 138M | 865       | 100       | 128   | 2520 | 1       |
| 11/4/2010 | 497        | 528      | 31           | O        | 0.583      | 53.14 | 13         |         |        | 138M | 865       | 100       | 128   | 2520 | 1       |
| 11/4/2010 | 528        | 547      | 19           | O        | 0.25       | 76    | 13         |         |        | HS   | 865       | 100       | 128   | 2520 | 1       |
| 11/4/2010 | 547        | 559      | 12           | O        | 0.167      | 72    | 15         |         |        | HS   | 865       | 100       | 132   | 2420 | 1       |
| 11/4/2010 | 559        | 589      | 30           | O        | 0.5        | 60    | 16         |         |        | HS   | 865       | 100       | 132   | 2420 | 1       |
| 11/4/2010 | 589        | 619      | 30           | O        | 0.417      | 72    | 17         |         |        | HS   | 865       | 100       | 132   | 2350 | 1       |
| 11/4/2010 | 619        | 650      | 31           | O        | 0.5        | 62    | 18         |         |        | HS   | 865       | 100       | 132   | 2350 | 1       |
| 11/4/2010 | 650        | 681      | 31           | O        | 0.583      | 53.14 | 20         |         |        | HS   | 865       | 100       | 132   | 2170 | 1       |
| 11/4/2010 | 681        | 711      | 30           | O        | 0.417      | 72    | 20         |         |        | HS   | 865       | 100       | 132   | 2170 | 1       |
| 11/4/2010 | 711        | 742      | 31           | O        | 0.583      | 53.14 | 20         |         |        | HS   | 865       | 100       | 132   | 2170 | 1       |
| 11/4/2010 | 742        | 752      | 10           | O        | 0.167      | 60    | 20         |         |        | HS   | 865       | 100       | 132   | 2170 | 1       |
| 11/4/2010 | 752        | 774      | 22           | O        | 0.333      | 66    | 20         |         |        | HS   | 865       | 100       | 132   | 2170 | 1       |
| 11/4/2010 | 774        | 805      | 31           | O        | 0.5        | 62    | 20         |         |        | HS   | 860       | 100       | 132   | 1710 | 1       |
| 11/4/2010 | 805        | 835      | 30           | O        | 0.583      | 51.43 | 20         |         |        | HS   | 860       | 100       | 132   | 1710 | 1       |
| 11/4/2010 | 835        | 850      | 15           | O        | 0.333      | 45    | 23         |         |        | HS   | 878       | 80        | 138   | 1700 | 1       |
| 11/4/2010 | 850        | 867      | 17           | O        | 0.333      | 51    | 23         |         |        | HS   | 878       | 80        |       | 1700 | 1       |
| 11/5/2010 | 867        | 899      | 32           | O        | 0.833      | 38.40 | 23         |         |        | HS   | 878       | 80        |       | 1650 | 1       |
| 11/5/2010 | 899        | 930      | 31           | O        | 0.583      | 53.14 | 26         |         |        | HS   | 878       | 80        |       | 1650 | 1       |
| 11/5/2010 | 930        | 960      | 30           | O        | 0.417      | 72    | 28         |         |        | HS   | 877       | 80        |       | 1500 | 1       |
| 11/5/2010 | 960        | 990      | 30           | O        | 0.75       | 40    | 30         |         |        | HS   | 890       | 80        |       | 1600 | 1       |
| 11/5/2010 | 990        | 1022     | 32           | O        | 0.583      | 54.86 | 36         |         |        | HS   | 890       | 80        |       | 1600 | 1       |
| 11/5/2010 | 1022       | 1055     | 33           | O        | 0.417      | 79.20 | 36         |         |        | HS   | 890       | 80        |       | 1600 | 1       |
| 11/5/2010 | 1055       | 1084     | 29           | O        | 0.333      | 87    | 36         |         |        | HS   | 890       | 80        | 130   | 1600 | 1       |
| 11/5/2010 | 1084       | 1109     | 25           | O        | 0.417      | 60    | 40         |         |        | HS   | 890       | 80        | 130   | 1600 | 1       |
| 11/5/2010 | 1109       | 1119     | 10           | O        | 0.167      | 60    | 35         |         |        | HS   | 890       | 80        | 130   | 1600 | 1       |
| 11/5/2010 | 1119       | 1148     | 29           | O        | 0.5        | 58    | 35         |         |        | HS   | 890       | 80        | 130   | 1450 | 1       |
| 11/5/2010 | 1148       | 1182     | 34           | O        | 0.583      | 58.29 | 40         |         |        | HS   | 890       | 80        | 130   | 1450 | 1       |
| 11/5/2010 | 1182       | 1214     | 32           | O        | 0.583      | 54.86 | 40         |         |        | HS   | 890       | 80        | 130   | 1450 | 1       |
| 11/5/2010 | 1214       | 1244     | 30           | O        | 0.417      | 72    | 40         |         |        | HS   | 890       | 80        | 130   | 1450 | 1       |
| 11/5/2010 | 1244       | 1276     | 32           | O        | 0.583      | 54.86 | 40         |         |        | HS   | 890       | 80        | 130   | 1450 | 1       |
| 11/5/2010 | 1276       | 1310     | 34           | O        | 0.583      | 58.29 | 40         |         |        | HS   | 890       | 80        | 130   | 1450 | 1       |
| 11/5/2010 | 1310       | 1340     | 30           | O        | 0.667      | 45    | 40         |         |        | HS   | 878       | 80        | 130   | 1500 | 1       |
| 11/5/2010 | 1340       | 1372     | 32           | O        | 0.583      | 54.86 | 40         |         |        | HS   | 878       | 80        | 130   | 1500 | 1       |
| 11/5/2010 | 1372       | 1403     | 31           | O        | 0.5        | 62    | 40         |         |        | HS   | 878       | 80        | 130   | 1500 | 1       |
| 11/5/2010 | 1403       | 1435     | 32           | O        | 0.5        | 64    | 40         |         |        | HS   | 878       | 80        | 130   | 1500 | 1       |



# DRILLING PARAMETERS RECORD

INTEQ

Company: WOLVERINE Well Name No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor No.: PATTERSON 304  
 County/Block/Parish: SEVIER

| Date      | Depth From | Depth To | Ftg. Drilled | Mode S/R | Drig. Hrs. | ROP   | WOB (Klbs) | Rot RPM | Rot Tq | TFO | Flow Rate | Diff Pres | Temp. | SPP  | BHA No. |
|-----------|------------|----------|--------------|----------|------------|-------|------------|---------|--------|-----|-----------|-----------|-------|------|---------|
| 11/5/2010 | 1435       | 1467     | 32           | O        | 0.583      | 54.86 | 40         |         |        | HS  | 878       | 80        | 130   | 1500 | 1       |
| 11/5/2010 | 1467       | 1483     | 16           | O        | 0.083      | 192.0 | 40         |         |        | HS  | 878       | 80        | 130   | 1500 | 1       |
| 11/6/2010 | 1483       | 1498     | 15           | O        | 0.333      | 45    | 40         |         |        | HS  | 878       | 80        | 130   | 1500 | 1       |
| 11/6/2010 | 1498       | 1530     | 32           | O        | 0.667      | 48    | 40         |         |        | HS  | 878       | 80        | 130   | 1500 | 1       |
| 11/6/2010 | 1530       | 1561     | 31           | O        | 0.583      | 53.14 | 40         |         |        | HS  | 878       | 80        | 130   | 1500 | 1       |
| 11/6/2010 | 1561       | 1593     | 32           | O        | 0.583      | 54.86 | 40         |         |        | HS  | 878       | 80        | 130   | 1500 | 1       |
| 11/6/2010 | 1593       | 1624     | 31           | O        | 0.667      | 46.5  | 40         |         |        | HS  | 878       | 80        | 126   | 1500 | 1       |
| 11/6/2010 | 1624       | 1656     | 32           | O        | 0.667      | 48    | 40         |         |        | HS  | 878       | 80        | 126   | 1500 | 1       |
| 11/6/2010 | 1656       | 1688     | 32           | O        | 0.833      | 38.40 | 40         |         |        | HS  | 878       | 80        | 126   | 1500 | 1       |
| 11/6/2010 | 1688       | 1720     | 32           | O        | 1.083      | 29.54 | 42         |         |        | HS  | 878       | 80        | 126   | 1500 | 1       |
| 11/6/2010 | 1720       | 1753     | 33           | O        | 0.917      | 36    | 45         |         |        | HS  | 878       | 80        | 128   | 1500 | 1       |
| 11/6/2010 | 1753       | 1783     | 30           | O        | 0.75       | 40    | 45         |         |        | HS  | 878       | 80        | 128   | 1300 | 1       |
| 11/6/2010 | 1783       | 1817     | 34           | O        | 0.917      | 37.09 | 45         |         |        | HS  | 878       | 80        | 128   | 1300 | 1       |
| 11/6/2010 | 1817       | 1846     | 29           | O        | 0.75       | 38.67 | 50         |         |        | HS  | 878       | 80        | 128   | 1300 | 1       |
| 11/6/2010 | 1846       | 1878     | 32           | O        | 0.75       | 42.67 | 50         |         |        | HS  | 878       | 80        | 128   | 1300 | 1       |
| 11/6/2010 | 1878       | 1912     | 34           | O        | 0.75       | 45.33 | 50         |         |        | HS  | 878       | 80        | 128   | 1300 | 1       |
| 11/6/2010 | 1912       | 1944     | 32           | O        | 0.833      | 38.40 | 50         |         |        | HS  | 878       | 80        | 128   | 1300 | 1       |
| 11/6/2010 | 1944       | 1973     | 29           | O        | 0.75       | 38.67 | 50         |         |        | HS  | 878       | 80        | 128   | 1300 | 1       |
| 11/6/2010 | 1973       | 2007     | 34           | O        | 0.617      | 55.14 | 50         |         |        | HS  | 878       | 80        | 132   | 1300 | 1       |
| 11/6/2010 | 2007       | 2027     | 20           | O        | 0.7        | 28.57 | 50         |         |        | HS  | 878       | 80        | 132   | 1300 | 1       |

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP    |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|--------|
| Sliding  | 1885     | 34.4     | *****    | 54.8 | 30.5       |         |        | 872.2     | 86.5     | 1780.8 |
| Rotating |          | 0.0      | *****    |      |            |         |        |           |          |        |
| Total    | 1885     | 34.4     | 24.5     | 54.8 | 30.5       |         | 0.0    | 872.2     | 86.5     | 1780.8 |

|            |      |      |    |   |       |       |    |    |    |  |     |     |  |     |   |
|------------|------|------|----|---|-------|-------|----|----|----|--|-----|-----|--|-----|---|
| 11/10/2010 | 1965 | 1991 | 26 | R | 0.083 | 312   | 5  | 40 | 4  |  | 400 | 150 |  | 840 | 2 |
| 11/10/2010 | 1991 | 1993 | 2  | R | 0.583 | 3.429 | 23 | 40 | 13 |  | 400 | 150 |  | 840 | 2 |
| 11/10/2010 | 1993 | 2023 | 30 | R | 0.417 | 72    | 13 | 40 | 5  |  | 400 | 150 |  | 840 | 2 |
| 11/10/2010 | 2023 | 2025 | 2  | R | 0.083 | 24    | 13 | 40 | 5  |  | 400 | 150 |  | 840 | 2 |
| 11/10/2010 | 2025 | 2027 | 2  | R | 0.167 | 12    | 7  | 40 | 5  |  | 400 | 150 |  | 840 | 2 |
| 11/10/2010 | 2027 | 2042 | 15 | R | 1.5   | 10    | 7  | 40 | 6  |  | 400 | 150 |  | 840 | 2 |

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP   |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|-------|
| Sliding  |          | 0.0      | *****    |      |            |         |        |           |          |       |
| Rotating | 77       | 2.8      | *****    | 27.2 | 11.3       | 40.0    | 6.3    | 400.0     | 150.0    | 840.0 |
| Total    | 77       | 2.8      | 1.0      | 27.2 | 11.3       | 40.0    | 6.3    | 400.0     | 150.0    | 840.0 |

|            |      |      |    |   |       |       |    |  |  |      |     |     |     |      |   |
|------------|------|------|----|---|-------|-------|----|--|--|------|-----|-----|-----|------|---|
| 11/10/2010 | 2042 | 2047 | 5  | O | 0.417 | 12    | 5  |  |  | HS   | 420 | 150 | 132 | 1300 | 3 |
| 11/10/2010 | 2047 | 2133 | 86 | O | 2.75  | 31.27 | 17 |  |  | HOLD | 420 | 200 | 132 | 1530 | 3 |
| 11/10/2010 | 2133 | 2228 | 95 | O | 3.25  | 29.23 | 17 |  |  | HOLD | 420 | 200 | 132 | 1550 | 3 |
| 11/10/2010 | 2228 | 2230 | 2  | O | 0.167 | 12    | 17 |  |  | HOLD | 420 | 200 | 96  | 1550 | 3 |
| 11/11/2010 | 2230 | 2324 | 94 | O | 4.083 | 23.02 | 17 |  |  | 69   | 420 | 200 | 102 | 1550 | 3 |
| 11/11/2010 | 2324 | 2419 | 95 | O | 3.667 | 25.91 | 17 |  |  | HS   | 420 | 200 | 102 | 1550 | 3 |
| 11/11/2010 | 2419 | 2514 | 95 | O | 2.833 | 33.53 | 14 |  |  | 10L  | 475 | 100 | 114 | 1800 | 3 |
| 11/11/2010 | 2514 | 2580 | 66 | O | 1.333 | 49.5  | 15 |  |  | 20L  | 475 | 100 | 114 | 1800 | 3 |



# DRILLING PARAMETERS RECORD

INTEQ

Company: WOLVERINE Well Name No.: FEDERAL 19-3  
 Field: SEVIER Co. UTAH Rig Contractor No.: PATTERSON 304  
 County/Block/Parish: SEVIER

| Date       | Depth From | Depth To | Ftg. Drilled | Mode S/R | Drlg. Hrs. | ROP   | WOB (Klbs) | Rot RPM | Rot Tq | TFO  | Flow Rate | Diff Pres | Temp. | SPP  | BHA No. |
|------------|------------|----------|--------------|----------|------------|-------|------------|---------|--------|------|-----------|-----------|-------|------|---------|
| 11/11/2010 | 2580       | 2610     | 30           | O        | 0.667      | 45    | 15         |         |        | HOLD | 475       | 100       | 114   | 1800 | 3       |
| 11/11/2010 | 2610       | 2662     | 52           | O        | 1.083      | 48    | 15         |         |        | LS   | 475       | 150       | 116   | 1850 | 3       |
| 11/11/2010 | 2662       | 2675     | 13           | O        | 0.333      | 39    | 15         |         |        | HOLD | 475       | 200       | 116   | 1950 | 3       |
| 11/11/2010 | 2675       | 2705     | 30           | O        | 0.5        | 60    | 11         |         |        | HOLD | 475       | 200       | 116   | 1950 | 3       |
| 11/11/2010 | 2705       | 2771     | 66           | O        | 1.583      | 41.68 | 15         |         |        | HOLD | 475       | 100       | 116   | 1850 | 3       |
| 11/11/2010 | 2771       | 2801     | 30           | O        | 1.25       | 24    | 17         |         |        | HOLD | 475       | 150       | 116   | 1900 | 3       |
| 11/11/2010 | 2801       | 2878     | 77           | O        | 2          | 38.5  | 15         |         |        | HOLD | 475       | 200       | 124   | 1000 | 3       |
| 11/12/2010 | 2878       | 2896     | 18           | O        | 0.5        | 36    | 15         |         |        | HOLD | 475       | 200       | 124   | 1000 | 3       |
| 11/12/2010 | 2896       | 2991     | 95           | O        | 2.333      | 40.71 | 15         |         |        | HOLD | 475       | 200       | 124   | 1000 | 3       |
| 11/12/2010 | 2991       | 3087     | 96           | O        | 3.833      | 25.04 | 20         |         |        | HOLD | 475       | 200       | 124   | 2050 | 3       |
| 11/12/2010 | 3087       | 3182     | 95           | O        | 3          | 31.67 | 18         |         |        | HOLD | 475       | 200       | 130   | 2050 | 3       |
| 11/12/2010 | 3182       | 3277     | 95           | O        | 2.667      | 35.63 | 18         |         |        | HOLD | 475       | 200       | 130   | 2050 | 3       |
| 11/12/2010 | 3277       | 3373     | 96           | O        | 2.667      | 36    | 18         |         |        | HOLD | 475       | 200       | 130   | 2050 | 3       |
| 11/12/2010 | 3373       | 3412     | 39           | O        | 1.083      | 36    | 18         |         |        | HOLD | 475       | 200       | 130   | 2050 | 3       |
| 11/12/2010 | 3412       | 3468     | 56           | O        | 1.333      | 42    | 15         |         |        | HOLD | 475       | 200       | 130   | 200  | 3       |
| 11/12/2010 | 3468       | 3532     | 64           | O        | 2.667      | 24    | 15         |         |        | HOLD | 475       | 200       | 130   | 200  | 3       |
| 11/13/2010 | 3532       | 3534     | 2            | O        | 0.083      | 24    | 15         |         |        | HOLD | 475       | 200       | 130   | 200  | 3       |

| Mode     | Footage: | Drlg Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP    |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|--------|
| Sliding  | 1492     | 46.1     | *****    | 32.4 | 15.6       |         |        | 461.8     | 178.0    | 1511.2 |
| Rotating |          | 0.0      | *****    |      |            |         |        |           |          |        |
| Total    | 1492     | 46.1     | 12.8     | 32.4 | 15.6       |         | 0.0    | 461.8     | 178.0    | 1511.2 |

|            |      |      |    |   |       |       |    |  |  |      |     |     |     |      |   |
|------------|------|------|----|---|-------|-------|----|--|--|------|-----|-----|-----|------|---|
| 11/13/2010 | 3534 | 3595 | 61 | O | 2.25  | 27.11 | 15 |  |  | HOLD | 475 | 300 | 130 | 2500 | 4 |
| 11/13/2010 | 3595 | 3659 | 64 | O | 2     | 32    | 15 |  |  | HOLD | 475 | 300 | 130 | 2500 | 4 |
| 11/13/2010 | 3659 | 3722 | 63 | O | 2     | 31.5  | 17 |  |  | HOLD | 475 | 160 | 130 | 2380 | 4 |
| 11/13/2010 | 3722 | 3786 | 64 | O | 2.667 | 24    | 18 |  |  | HOLD | 475 | 200 | 130 | 2250 | 4 |
| 11/13/2010 | 3786 | 3849 | 63 | O | 2.083 | 30.24 | 18 |  |  | 7L   | 475 | 200 | 130 | 2240 | 4 |
| 11/14/2010 | 3849 | 3892 | 43 | O | 1.333 | 32.25 | 20 |  |  | HOLD | 475 | 150 | 136 | 2200 | 4 |
| 11/14/2010 | 3892 | 3913 | 21 | O | 0.667 | 31.5  | 20 |  |  | HOLD | 475 | 150 | 136 | 2200 | 4 |
| 11/14/2010 | 3913 | 3976 | 63 | O | 1.833 | 34.36 | 21 |  |  | HOLD | 475 | 175 | 136 | 2300 | 4 |
| 11/14/2010 | 3976 | 4039 | 63 | O | 2.083 | 30.24 | 15 |  |  | HOLD | 475 | 175 | 136 | 2200 | 4 |
| 11/14/2010 | 4039 | 4102 | 63 | O | 2.083 | 30.24 | 15 |  |  | HOLD | 475 | 175 | 136 | 2200 | 4 |
| 11/14/2010 | 4102 | 4164 | 62 | O | 2.417 | 25.66 | 20 |  |  | HOLD | 475 | 150 | 136 | 2400 | 4 |
| 11/14/2010 | 4164 | 4227 | 63 | O | 2.833 | 22.24 | 16 |  |  | HOLD | 475 | 100 | 138 | 2200 | 4 |
| 11/14/2010 | 4227 | 4291 | 64 | O | 2.417 | 26.48 | 19 |  |  | HOLD | 475 | 100 | 140 | 2100 | 4 |
| 11/14/2010 | 4291 | 4354 | 63 | O | 2.667 | 23.63 | 20 |  |  | HOLD | 475 | 200 | 140 | 2200 | 4 |
| 11/14/2010 | 4354 | 4385 | 31 | O | 1.25  | 24.8  | 19 |  |  | HOLD | 475 | 200 | 140 | 2200 | 4 |
| 11/15/2010 | 4385 | 4417 | 32 | O | 1.417 | 22.59 | 20 |  |  | HOLD | 475 | 200 | 140 | 2300 | 4 |
| 11/15/2010 | 4417 | 4481 | 64 | O | 2.333 | 27.43 | 22 |  |  | HOLD | 475 | 220 | 140 | 2300 | 4 |
| 11/15/2010 | 4481 | 4543 | 62 | O | 2.25  | 27.56 | 22 |  |  | HOLD | 475 | 220 | 140 | 2300 | 4 |
| 11/15/2010 | 4543 | 4607 | 64 | O | 2.583 | 24.77 | 18 |  |  | HOLD | 475 | 150 | 142 | 2300 | 4 |
| 11/15/2010 | 4607 | 4671 | 64 | O | 3.667 | 17.45 | 21 |  |  | HOLD | 475 | 100 | 144 | 2250 | 4 |
| 11/15/2010 | 4671 | 4734 | 63 | O | 2.917 | 21.6  | 21 |  |  | HOLD | 475 | 100 | 144 | 2250 | 4 |
| 11/15/2010 | 4734 | 4797 | 63 | O | 2.167 | 29.08 | 21 |  |  | HOLD | 475 | 100 | 144 | 2250 | 4 |



# DRILLING PARAMETERS RECORD

INTEQ

Company: WOLVERINE

Well Name No.: FEDERAL 19-3

Field: SEVIER Co. UTAH

Rig Contractor No.: PATTERSON 304

County/Block/Parish: SEVIER

| Date       | Depth From | Depth To | Ftg. Drilled | Mode S/R | Drlg. Hrs. | ROP   | WOB (Klbs) | Rot RPM | Rot Tq | TFO      | Flow Rate | Diff Pres | Temp. | SPP  | BHA No. |
|------------|------------|----------|--------------|----------|------------|-------|------------|---------|--------|----------|-----------|-----------|-------|------|---------|
| 11/15/2010 | 4797       | 4860     | 63           | O        | 1.917      | 32.87 | 21         |         |        | HOLD     | 475       | 100       | 144   | 2250 | 4       |
| 11/15/2010 | 4860       | 4923     | 63           | O        | 2.167      | 29.08 | 21         |         |        | HOLD     | 475       | 100       | 144   | 2250 | 4       |
| 11/16/2010 | 4923       | 4986     | 63           | O        | 2          | 31.5  | 21         |         |        | HOLD     | 475       | 100       | 144   | 2250 | 4       |
| 11/16/2010 | 4986       | 5019     | 33           | O        | 1.333      | 24.75 | 21         |         |        | HOLD     | 475       | 100       | 144   | 2250 | 4       |
| 11/16/2010 | 5019       | 5048     | 29           | O        | 1.25       | 23.20 | 21         |         |        | HOLD     | 475       | 100       | 144   | 2250 | 4       |
| 11/16/2010 | 5048       | 5111     | 63           | O        | 2.417      | 26.07 | 23         |         |        | HOLD     | 475       | 200       | 144   | 2450 | 4       |
| 11/16/2010 | 5111       | 5143     | 32           | O        | 1.25       | 25.60 | 21         |         |        | HOLD     | 475       | 250       | 144   | 2550 | 4       |
| 11/16/2010 | 5143       | 5175     | 32           | O        | 1.25       | 25.60 | 21         |         |        | HOLD     | 475       | 250       | 144   | 2550 | 4       |
| 11/16/2010 | 5175       | 5238     | 63           | O        | 2.583      | 24.39 | 21         |         |        | HOLD     | 475       | 250       | 144   | 2550 | 4       |
| 11/16/2010 | 5238       | 5271     | 33           | O        | 1.333      | 24.75 | 24         |         |        | HOLD     | 475       | 200       | 148   | 2550 | 4       |
| 11/16/2010 | 5271       | 5300     | 29           | O        | 0.833      | 34.8  | 24         |         |        | RIBS OFF | 475       | 200       | 148   | 2550 | 4       |
| 11/16/2010 | 5300       | 5334     | 34           | O        | 1          | 34    | 24         |         |        | RIBS OFF | 475       | 200       | 148   | 2550 | 4       |
| 11/16/2010 | 5334       | 5365     | 31           | O        | 1.167      | 26.57 | 15         |         |        | 180      | 475       | 220       | 148   | 2500 | 4       |
| 11/16/2010 | 5365       | 5396     | 31           | O        | 1.5        | 20.67 | 25         |         |        | 180      | 475       | 300       | 148   | 2500 | 4       |
| 11/16/2010 | 5396       | 5428     | 32           | O        | 1.083      | 29.54 | 25         |         |        | 180      | 475       | 230       | 148   | 2420 | 4       |
| 11/17/2010 | 5428       | 5462     | 34           | O        | 1.167      | 29.14 | 25         |         |        | 180      | 475       | 230       | 148   | 2420 | 4       |
| 11/17/2010 | 5462       | 5493     | 31           | O        | 1.167      | 26.57 | 22         |         |        | 180      | 475       | 200       | 148   | 2500 | 4       |
| 11/17/2010 | 5493       | 5526     | 33           | O        | 1.667      | 19.80 | 23         |         |        | 180      | 475       | 200       | 148   | 2500 | 4       |
| 11/17/2010 | 5526       | 5555     | 29           | O        | 1.417      | 20.47 | 23         |         |        | 180      | 475       | 200       | 148   | 2500 | 4       |
| 11/17/2010 | 5555       | 5587     | 32           | O        | 1          | 32    | 23         |         |        | 180      | 475       | 200       | 148   | 2500 | 4       |
| 11/17/2010 | 5587       | 5619     | 32           | O        | 2.417      | 13.24 | 16         |         |        | 180      | 475       | 250       | 148   | 2600 | 4       |
| 11/17/2010 | 5619       | 5651     | 32           | O        | 1.75       | 18.29 | 5          |         |        | 180      | 475       | 200       | 150   | 2500 | 4       |
| 11/17/2010 | 5651       | 5682     | 31           | O        | 1.333      | 23.25 | 12         |         |        | HOLD     | 475       | 200       | 150   | 2500 | 4       |
| 11/17/2010 | 5682       | 5716     | 34           | O        | 1.583      | 21.47 | 10         |         |        | 180      | 475       | 200       | 150   | 2700 | 4       |
| 11/17/2010 | 5716       | 5745     | 29           | O        | 1.417      | 20.47 | 10         |         |        | 180      | 475       | 200       | 150   | 2600 | 4       |
| 11/17/2010 | 5745       | 5772     | 27           | O        | 1.083      | 24.92 | 10         |         |        | HOLD     | 475       | 200       | 150   | 2600 | 4       |
| 11/17/2010 | 5772       | 5780     | 8            | O        | 0.417      | 19.20 | 10         |         |        | HOLD     | 475       | 200       | 150   | 2600 | 4       |
| 11/17/2010 | 5780       | 5809     | 29           | O        | 1.167      | 24.86 | 15         |         |        | 180      | 475       | 100       | 150   | 2500 | 4       |
| 11/17/2010 | 5809       | 5823     | 14           | O        | 0.833      | 16.80 | 16         |         |        | 180      | 475       | 200       | 148   | 2300 | 4       |
| 11/18/2010 | 5823       | 5843     | 20           | O        | 1.333      | 15    | 21         |         |        | 180      | 475       | 200       | 148   | 2400 | 4       |
| 11/18/2010 | 5843       | 5873     | 30           | O        | 1.25       | 24    | 16         |         |        | 180      | 475       | 200       | 148   | 2400 | 4       |
| 11/18/2010 | 5873       | 5906     | 33           | O        | 1.917      | 17.22 | 15         |         |        | 180      | 475       | 200       | 148   | 2500 | 4       |
| 11/18/2010 | 5906       | 5935     | 29           | O        | 1.167      | 24.86 | 15         |         |        | 180      | 475       | 200       | 142   | 2500 | 4       |
| 11/18/2010 | 5935       | 5950     | 15           | O        | 0.917      | 16.36 | 15         |         |        | 180      | 475       | 200       | 150   | 2500 | 4       |
| 11/18/2010 | 5950       | 5967     | 17           | O        | 1          | 17    | 20         |         |        | HOLD     | 475       | 200       | 150   | 2600 | 4       |
| 11/18/2010 | 5967       | 5999     | 32           | O        | 1.25       | 25.60 | 20         |         |        | 180      | 475       | 200       | 150   | 2600 | 4       |
| 11/18/2010 | 5999       | 6033     | 34           | O        | 1.667      | 20.4  | 24         |         |        | 180      | 475       | 200       | 150   | 2600 | 4       |
| 11/18/2010 | 6033       | 6063     | 30           | O        | 1.167      | 25.71 | 20         |         |        | 180      | 475       | 100       | 150   | 2450 | 4       |
| 11/18/2010 | 6063       | 6095     | 32           | O        | 1.5        | 21.33 | 20         |         |        | 180      | 475       | 100       | 150   | 2450 | 4       |
| 11/18/2010 | 6095       | 6124     | 29           | O        | 1.75       | 16.57 | 20         |         |        | 180      | 475       | 100       | 150   | 2450 | 4       |
| 11/18/2010 | 6124       | 6157     | 33           | O        | 1.417      | 23.29 | 20         |         |        | 180      | 475       | 100       | 150   | 2450 | 4       |
| 11/18/2010 | 6157       | 6176     | 19           | O        | 0.833      | 22.80 | 20         |         |        | 180      | 475       | 100       | 150   | 2450 | 4       |
| 11/19/2010 | 6176       | 6187     | 11           | O        | 0.5        | 22    | 20         |         |        | 180      | 475       | 100       | 150   | 2450 | 4       |
| 11/19/2010 | 6187       | 6221     | 34           | O        | 1.5        | 22.67 | 20         |         |        | 180      | 475       | 100       | 150   | 2450 | 4       |



# DRILLING PARAMETERS RECORD

INTEQ

Company: WOLVERINE

Well Name No.: FEDERAL 19-3

Field: SEVIER Co. UTAH

Rig Contractor No.: PATTERSON 304

County/Block/Parish: SEVIER

| Date       | Depth From | Depth To | Ftg. Drilled | Mode S/R | Drig. Hrs. | ROP   | WOB (Klbs) | Rot RPM | Rot Tq | TFO  | Flow Rate | Diff Pres | Temp. | SPP  | BHA No. |
|------------|------------|----------|--------------|----------|------------|-------|------------|---------|--------|------|-----------|-----------|-------|------|---------|
| 11/19/2010 | 6221       | 6253     | 32           | O        | 1.417      | 22.59 | 20         |         |        | 180  | 475       | 100       | 150   | 2450 | 4       |
| 11/19/2010 | 6253       | 6286     | 33           | O        | 1.25       | 26.4  | 8          |         |        | HOLD | 475       | 200       | 150   | 2410 | 4       |
| 11/19/2010 | 6286       | 6316     | 30           | O        | 1.667      | 18    | 8          |         |        | 180  | 475       | 200       | 150   | 2410 | 4       |
| 11/19/2010 | 6316       | 6349     | 33           | O        | 1.75       | 18.86 | 11         |         |        | 180  | 168       | 150       | 150   | 2450 | 4       |
| 11/19/2010 | 6349       | 6379     | 30           | O        | 1.333      | 22.5  | 13         |         |        | HOLD | 168       | 100       | 150   | 2350 | 4       |
| 11/19/2010 | 6379       | 6412     | 33           | O        | 1.167      | 28.29 | 14         |         |        | HOLD | 168       | 250       | 150   | 2500 | 4       |
| 11/19/2010 | 6412       | 6430     | 18           | O        | 0.75       | 24    | 14         |         |        | HOLD | 168       | 250       | 150   | 2500 | 4       |
| 11/19/2010 | 6430       | 6442     | 12           | O        | 0.333      | 36    | 14         |         |        | HOLD | 168       | 250       | 150   | 2500 | 4       |
| 11/19/2010 | 6442       | 6475     | 33           | O        | 2.333      | 14.14 | 14         |         |        | HOLD | 168       | 250       | 150   | 2500 | 4       |
| 11/19/2010 | 6475       | 6504     | 29           | O        | 1.75       | 16.57 | 14         |         |        | HOLD | 168       | 250       | 150   | 2500 | 4       |
| 11/19/2010 | 6504       | 6538     | 34           | O        | 1.5        | 22.67 | 12         |         |        | HOLD | 475       | 150       | 150   | 2300 | 4       |
| 11/20/2010 | 6538       | 6568     | 30           | O        | 1.5        | 20    | 12         |         |        | HOLD | 475       | 150       | 150   | 2300 | 4       |

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP    |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|--------|
| Sliding  | 3034     | 125.3    | *****    | 24.2 | 18.0       |         |        | 447.4     | 179.6    | 2412.6 |
| Rotating |          | 0.0      | *****    |      |            |         |        |           |          |        |
| Total    | 3034     | 125.3    | 29.5     | 24.2 | 18.0       |         | 0.0    | 447.4     | 179.6    | 2412.6 |

|            |      |      |    |   |       |       |    |  |  |            |     |     |     |      |   |
|------------|------|------|----|---|-------|-------|----|--|--|------------|-----|-----|-----|------|---|
| 11/21/2010 | 6568 | 6582 | 14 | O | 1.833 | 7.636 | 12 |  |  | HOLD       | 475 | 150 | 150 | 2300 | 5 |
| 11/21/2010 | 6582 | 6612 | 30 | O | 2.25  | 13.33 | 12 |  |  | HOLD       | 475 | 150 | 150 | 2300 | 5 |
| 11/21/2010 | 6612 | 6646 | 34 | O | 3.75  | 9.067 | 15 |  |  | HOLD       | 475 | 200 | 150 | 2450 | 5 |
| 11/21/2010 | 6646 | 6675 | 29 | O | 1.833 | 15.82 | 24 |  |  | HOLD       | 475 | 250 | 150 | 2550 | 5 |
| 11/21/2010 | 6675 | 6709 | 34 | O | 2.333 | 14.57 | 24 |  |  | HOLD       | 475 | 250 | 150 | 2550 | 5 |
| 11/21/2010 | 6709 | 6720 | 11 | O | 2.25  | 4.889 | 24 |  |  | HOLD       | 475 | 250 | 150 | 2550 | 5 |
| 11/21/2010 | 6720 | 6728 | 8  | O | 4.333 | 1.846 | 24 |  |  | HOLD       | 475 | 250 | 150 | 2550 | 5 |
| 11/22/2010 | 6728 | 6738 | 10 | O | 2.333 | 4.286 | 24 |  |  | HOLD       | 465 | 225 | 150 | 2375 | 5 |
| 11/22/2010 | 6738 | 6772 | 34 | O | 3.667 | 9.273 | 20 |  |  | HOLD       | 475 | 375 | 150 | 2620 | 5 |
| 11/22/2010 | 6772 | 6801 | 29 | O | 1.917 | 15.13 | 20 |  |  | HOLD       | 475 | 250 | 154 | 2700 | 5 |
| 11/22/2010 | 6801 | 6834 | 33 | O | 1.667 | 19.80 | 20 |  |  | HOLD       | 475 | 250 | 154 | 2700 | 5 |
| 11/22/2010 | 6834 | 6864 | 30 | O | 1.5   | 20    | 20 |  |  | HOLD       | 475 | 250 | 154 | 2700 | 5 |
| 11/22/2010 | 6864 | 6897 | 33 | O | 1.167 | 28.29 | 20 |  |  | HOLD       | 475 | 300 | 154 | 2700 | 5 |
| 11/22/2010 | 6897 | 6927 | 30 | O | 1.417 | 21.18 | 20 |  |  | Vert Drill | 475 | 400 | 154 | 2700 | 5 |
| 11/22/2010 | 6927 | 6960 | 33 | O | 2.167 | 15.23 | 20 |  |  | VERT Dri   | 475 | 400 | 154 | 2600 | 5 |
| 11/22/2010 | 6960 | 6989 | 29 | O | 1.583 | 18.32 | 20 |  |  | VERT Dri   | 475 | 300 | 154 | 2600 | 5 |
| 11/22/2010 | 6989 | 7022 | 33 | O | 1.75  | 18.86 | 20 |  |  | VERT Dri   | 475 | 300 | 154 | 2600 | 5 |
| 11/22/2010 | 7022 | 7030 | 8  | O | 0.583 | 13.71 | 18 |  |  | VERT Dri   | 475 | 350 | 154 | 2700 | 5 |

| Mode     | Footage: | Drig Hrs | Circ Hrs | ROP  | WOB (Klbs) | Rot RPM | Rot Tq | Flow Rate | Avg Diff | SPP    |
|----------|----------|----------|----------|------|------------|---------|--------|-----------|----------|--------|
| Sliding  | 462      | 38.3     | *****    | 12.1 | 19.8       |         |        | 474.4     | 272.2    | 2569.2 |
| Rotating |          | 0.0      | *****    |      |            |         |        |           |          |        |
| Total    | 462      | 38.3     | 11.8     | 12.1 | 19.8       |         | 0.0    | 474.4     | 272.2    | 2569.2 |

BHI Job #: 3451879

Carol Daniels - Wolverine Federal 19-3 Update

T 235 ROW 5-19 43-041-5004

**From:** "Wolverine Exploration Rig"  
**To:** "Ainge, Jeff" , "Allen, Geoff" , "Arthurs, Shane" , "Blair, Richard" , "Brock Pope" ,  
"Chamberlain, Don" , "Childers, Eli" , "Chris Schaugaard" , "Daniel Jenkins" , "Daniels,  
Carol" , "De la Torre, Juan C" , "Dennis" , "Denton, Derek" , "Dieste, Bobby" , "Doucet,  
Dustin" , "Dustin Dunning" , "Foreman, Ron" , "George Zamantakis" , "Hall, Denise" ,  
"Hammell, Hank" , "Harry Melnikoff" , "Hendricks, Marvin" , "Hutcinson, Clayton" , "Jim  
Barry" , "Jones, Mark" , "Kulow, Kyle" , "Kyle Cox" , "LaDee Roundy" , "Larimore, Mark" ,  
"Lewis, John" , "Martin Pete" , "Matt Harmon" , "McCoy, Charlene" , "McCoy, Tim" ,  
"O'Connell, David" , "Perry, Bud (Smith Bits)" , "Pickup, Marc" , "Rees, John M" , "Revert,  
Scott" , "Robinson, Darin" , "Ryan Thomas" , "Shaun Burns" , "Shawn Moulton" , "Shelton,  
Shorty" , "Smuin, Troy" , "Steffen, Dana" , "Tujillo, Chris" , "Tyler Ross" , "Willis, Walton" ,  
"Winkler, Matt" , "Zimmerman, Bill"  
**Date:** 10/29/2010 5:16 PM  
**Subject:** Wolverine Federal 19-3 Update

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10/29/2010 5:12 PM

Moving Patterson-UTI 304 rig

**Bill Donovan**  
**Drilling Supervisor**  
**Wolverine Gas and Oil Company of Utah, LLC**  
**Wolverine Federal 19-3**  
**Rig (970) 812-0022**  
**Cell (720) 351-7470**  
**Fax (435) 304-1222**  
**[wolvexpl@drillmail.net](mailto:wolvexpl@drillmail.net)**

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NOV 01 2010

DIV. OF OIL, GAS & MINING

|                                                                                                                                                                                                                                                                                                    |                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>STATE OF UTAH</b><br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS, AND MINING                                                                                                                                                                                                        | FORM 9<br><br>5. LEASE DESIGNATION AND SERIAL NUMBER:<br>UTU-73528                       |
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br><br>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:<br><br>7. UNIT or CA AGREEMENT NAME:<br>WOLVERINE  |
| 1. TYPE OF WELL<br>Oil Well                                                                                                                                                                                                                                                                        | 8. WELL NAME and NUMBER:<br>WOLVERINE FED 19-3                                           |
| 2. NAME OF OPERATOR:<br>WOLVERINE GAS & OIL COMPANY OF UTAH, LLC                                                                                                                                                                                                                                   | 9. API NUMBER:<br>43041500040000                                                         |
| 3. ADDRESS OF OPERATOR:<br>One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503                                                                                                                                                                                                              | PHONE NUMBER:<br>616 458-1150 Ext                                                        |
| 4. LOCATION OF WELL<br>FOOTAGES AT SURFACE:<br>0756 FNL 1965 FWL<br>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:<br>Qtr/Qtr: NENW Section: 19 Township: 23.0S Range: 01.0W Meridian: S                                                                                                             | 9. FIELD and POOL or WILDCAT:<br>COVENANT<br><br>COUNTY:<br>SEVIER<br><br>STATE:<br>UTAH |

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

| TYPE OF SUBMISSION                                                                                                                                                                                                                                                                                                                             | TYPE OF ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b><br>Approximate date work will start:<br>10/14/2015<br><br><input type="checkbox"/> <b>SUBSEQUENT REPORT</b><br>Date of Work Completion:<br><br><input type="checkbox"/> <b>SPUD REPORT</b><br>Date of Spud:<br><br><input type="checkbox"/> <b>DRILLING REPORT</b><br>Report Date: | <input type="checkbox"/> ACIDIZE<br><br><input type="checkbox"/> CHANGE TO PREVIOUS PLANS<br><br><input type="checkbox"/> CHANGE WELL STATUS<br><br><input type="checkbox"/> DEEPEN<br><br><input type="checkbox"/> OPERATOR CHANGE<br><br><input type="checkbox"/> PRODUCTION START OR RESUME<br><br><input type="checkbox"/> REPERFORATE CURRENT FORMATION<br><br><input type="checkbox"/> TUBING REPAIR<br><br><input type="checkbox"/> WATER SHUTOFF<br><br><input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> ALTER CASING<br><br><input type="checkbox"/> CHANGE TUBING<br><br><input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS<br><br><input type="checkbox"/> FRACTURE TREAT<br><br><input type="checkbox"/> PLUG AND ABANDON<br><br><input type="checkbox"/> RECLAMATION OF WELL SITE<br><br><input type="checkbox"/> SIDETRACK TO REPAIR WELL<br><br><input type="checkbox"/> VENT OR FLARE<br><br><input type="checkbox"/> SI TA STATUS EXTENSION<br><br><input type="checkbox"/> OTHER | <input type="checkbox"/> CASING REPAIR<br><br><input type="checkbox"/> CHANGE WELL NAME<br><br><input type="checkbox"/> CONVERT WELL TYPE<br><br><input type="checkbox"/> NEW CONSTRUCTION<br><br><input type="checkbox"/> PLUG BACK<br><br><input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION<br><br><input checked="" type="checkbox"/> TEMPORARY ABANDON<br><br><input type="checkbox"/> WATER DISPOSAL<br><br><input type="checkbox"/> APD EXTENSION<br><br>OTHER: <input style="width: 100px;" type="text"/> |

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

Wolverine Federal #19-3 is a low-volume oil producer and has been shut-in, in the current oil price environment. The well can be reactivated as soon as oil prices recover. The well poses no safety or environmental concerns in its current shut-in sate. Furthermore, the well is monitored continuously, along with another active well on the same well pad, so no downhole changes are planned.

**Accepted by the  
Utah Division of  
Oil, Gas and Mining**

Date: October 15, 2015

By: *Dark Ount*

|                                     |                              |                                  |
|-------------------------------------|------------------------------|----------------------------------|
| NAME (PLEASE PRINT)<br>Ron Meredith | PHONE NUMBER<br>616 929-1932 | TITLE<br>Sr. Production Engineer |
| SIGNATURE<br>N/A                    | DATE<br>10/14/2015           |                                  |

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

|                                                                                                                                                      |                                                          |                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------|
| 1. Type of Well<br><input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other                     |                                                          | 5. Lease Serial No.<br><b>UTU-73528</b>                                      |
| 2. Name of Operator<br><b>Wolverine Gas and Oil Company of Utah, LLC</b>                                                                             |                                                          | 6. If Indian, Allottee or Tribe Name<br><b>NA</b>                            |
| 3a. Address<br><b>55 Campau NW, Grand Rapids, Michigan 49503-2616</b>                                                                                | 3b. Phone No. (include area code)<br><b>616-458-1150</b> | 7. If Unit or CA/Agreement, Name and/or No.<br><b>Wolverine Federal Unit</b> |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)<br><b>SHL - 756' FNL 1965' FWL, NE/4 NW/4, Sec. 19, T23S, R1W (SLB&amp;M)</b> |                                                          | 8. Well Name and No.<br><b>Wolverine Federal 19-3</b>                        |
|                                                                                                                                                      |                                                          | 9. API Well No.<br><b>43-041-50004</b>                                       |
|                                                                                                                                                      |                                                          | 10. Field and Pool, or Exploratory Area<br><b>Covenant Field Navajo</b>      |
|                                                                                                                                                      |                                                          | 11. County or Parish, State<br><b>Sevier County, Utah</b>                    |

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                           |                                                         |                                         |
|------------------------------------------------------|-----------------------------------------------|-------------------------------------------|---------------------------------------------------------|-----------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume)      | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation                    | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                     | <input type="checkbox"/> Other _____    |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input checked="" type="checkbox"/> Temporarily Abandon |                                         |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal                 |                                         |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Wolverine Federal #19-3 is a low-volume oil producer and has been shut-in, in the current oil price enviroment. The well can be reactivated as soon as oil prices recover.**

**The well has poses no safety or environmental concerns in its current shut-in state. Furthermore, the well is monitored continuously along with another active well on the same well pad, so no downhole changes are planned.**

(See the attached current WBD for additional details.)

**RECEIVED**

OCT 01 2015

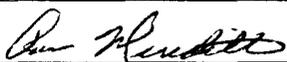
RECEIVED

OCT 13 2015

DIV. OF OIL, GAS & MINING

Richfield BLM Field Office

14. I hereby certify that the foregoing is true and correct

|                                                                                                  |                                      |
|--------------------------------------------------------------------------------------------------|--------------------------------------|
| Name (Printed/Typed)<br><b>Ron Meredith</b>                                                      | Title <b>Sr. Production Engineer</b> |
| Signature<br> | Date <b>09/25/2015</b>               |

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

|                                                                                                                                                                                                                                                           |             |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------|
| Approved by _____                                                                                                                                                                                                                                         | Title _____ | Date <b>10/6/2015</b>               |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. | Office      | <b>Accepted For Record Purposes</b> |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

1652A00035

Conditions of Approval Attached

# Conditions of Approval

## Wolverine Gas and Oil Company of Utah, LLC Sundry Dated 9/25/2015

**Well:** Wolverine Federal 19-3  
**Location:** Section 19, T23S, R1W  
**Lease:** UTU-73528  
**County:** Sevier

The following conditions of approval shall apply to this sundry:

---

Wolverine Fed #19-3 shut in accepted:

1. Not later than the 5th business day after putting this well back on production, operator shall notify this office by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed.

If you have any questions regarding the conditions supporting this approval, please call Stan Andersen in the Richfield Field Office at 435-896-1532 or Leslie Peterson in the Price Field Office at 435-636-3661.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
UTU73528

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
UTU80800A

8. Well Name and No.  
WOLVERINE FEDERAL 19-3

9. API Well No.  
43-041-50004

10. Field and Pool or Exploratory Area  
COVENANT FIELD / NAVAJO

11. County or Parish, State  
SEVIER COUNTY COUNTY, UT

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
WOLVERINE GAS & OIL CORP.  
Contact: RON MEREDITH  
E-Mail: rmeredith@wolvgas.com

3a. Address  
ONE RIVERFRONT PLAZA 55 CAMPAU NW  
GRAND RAPIDS, MI 49503

3b. Phone No. (include area code)  
Ph: 616-929-1932  
Fx: 616-458-0869

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 19 T23S R1W Mer SLB NENW 756FNL 1965FWL

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                               |                                                         |                                         |
|------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|---------------------------------------------------------|-----------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen               | <input type="checkbox"/> Production (Start/Resume)      | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Hydraulic Fracturing | <input type="checkbox"/> Reclamation                    | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction     | <input type="checkbox"/> Recomplete                     | <input type="checkbox"/> Other          |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon     | <input checked="" type="checkbox"/> Temporarily Abandon |                                         |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back            | <input type="checkbox"/> Water Disposal                 |                                         |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Wolverine Gas and Oil Co. of Utah, LLC (a subsidiary of Wolverine Gas and Oil Corp.) seeks renewal for the Temporarily Abandoned status of the Wolverine Federal 19-3. Although capable of producing, this well was shut-in in September of 2015 because it was uneconomic. Wolverine still intends to return the well to production once oil prices recover, but it would be uneconomic to do so at the present time. This well poses no current safety or environmental concerns and is monitored continuously, along with another, active Covenant Field well which is located on the same well pad. No downhole changes are planned.

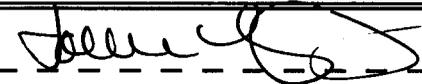
**RECEIVED**  
**DEC 16 2016**  
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct.  
**Electronic Submission #352513 verified by the BLM Well Information System For WOLVERINE GAS & OIL CORP., sent to the Salt Lake**

Name (Printed/Typed) RON MEREDITH Title SR. PRODUCTION ENGINEER

Signature (Electronic Submission) Date 09/26/2016

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By  Title Field manager Date 12/12/16

Office Richfield Field Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\***

**Conditions of Approval Attached**

# Well and Notice Remarks

---

| Doc. Number | Doc. Type | Case IID  | Type   | Name             |
|-------------|-----------|-----------|--------|------------------|
| 17RH0001SE  | TA        | UTU80800A | 318230 | WOLVERINE NVJO A |

| API            | Well Name         | Number | Operator                     |
|----------------|-------------------|--------|------------------------------|
| 430415000400S1 | WOLVERINE FEDERAL | 19-3   | WOLVERINE GAS & OIL CO OF UT |

| Doc. Number | Date       | Author       | Subject | Category |
|-------------|------------|--------------|---------|----------|
| 17RH0001SE  | 12/06/2016 | ROBIN HANSEN | TA      | APPROVAL |
| 17RH0001SE  | 12/05/2016 | ROBIN HANSEN | TA      | APPROVAL |

Category GENERAL

Date 12/06/2016

The TA request is granted as proposed with the following conditions:

---

- 1.The TA status shall expire on December 6, 2017.
- 2.Seal and tag in the closed position the production valves at the well head. Monitor the pressure of the production tubing and the annulus, record any changes. Maintain the seal records and make them available upon inspection.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (801)-539-4072.

---

12-Dec-2016 09:24

|                                                                                                                                                                                                                                                                                                    |                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>STATE OF UTAH</b><br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS, AND MINING                                                                                                                                                                                                        | <b>FORM 9</b><br><br><b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b><br>UTU-73528                              |
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br><br>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. | <b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b><br><br><b>7. UNIT or CA AGREEMENT NAME:</b><br>WOLVERINE         |
| <b>1. TYPE OF WELL</b><br>Oil Well                                                                                                                                                                                                                                                                 | <b>8. WELL NAME and NUMBER:</b><br>WOLVERINE FED 19-3                                                         |
| <b>2. NAME OF OPERATOR:</b><br>WOLVERINE GAS & OIL COMPANY OF UTAH, LLC                                                                                                                                                                                                                            | <b>9. API NUMBER:</b><br>43041500040000                                                                       |
| <b>3. ADDRESS OF OPERATOR:</b><br>One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503                                                                                                                                                                                                       | <b>PHONE NUMBER:</b><br>616 458-1150 Ext                                                                      |
| <b>4. LOCATION OF WELL</b><br><b>FOOTAGES AT SURFACE:</b><br>0756 FNL 1965 FWL<br><b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b><br>Qtr/Qtr: NENW Section: 19 Township: 23.0S Range: 01.0W Meridian: S                                                                                        | <b>9. FIELD and POOL or WILDCAT:</b><br>COVENANT<br><br><b>COUNTY:</b><br>SEVIER<br><br><b>STATE:</b><br>UTAH |

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

| TYPE OF SUBMISSION                                                                                                                                                                                                                                                                                                                                   | TYPE OF ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b><br>Approximate date work will start:<br><b>10/1/2016</b><br><br><input type="checkbox"/> <b>SUBSEQUENT REPORT</b><br>Date of Work Completion:<br><br><input type="checkbox"/> <b>SPUD REPORT</b><br>Date of Spud:<br><br><input type="checkbox"/> <b>DRILLING REPORT</b><br>Report Date: | <input type="checkbox"/> ACIDIZE<br><input type="checkbox"/> CHANGE TO PREVIOUS PLANS<br><input type="checkbox"/> CHANGE WELL STATUS<br><input type="checkbox"/> DEEPEN<br><input type="checkbox"/> OPERATOR CHANGE<br><input type="checkbox"/> PRODUCTION START OR RESUME<br><input type="checkbox"/> REPERFORATE CURRENT FORMATION<br><input type="checkbox"/> TUBING REPAIR<br><input type="checkbox"/> WATER SHUTOFF<br><input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> ALTER CASING<br><input type="checkbox"/> CHANGE TUBING<br><input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS<br><input type="checkbox"/> FRACTURE TREAT<br><input type="checkbox"/> PLUG AND ABANDON<br><input type="checkbox"/> RECLAMATION OF WELL SITE<br><input type="checkbox"/> SIDETRACK TO REPAIR WELL<br><input type="checkbox"/> VENT OR FLARE<br><input checked="" type="checkbox"/> SI TA STATUS EXTENSION<br><input type="checkbox"/> OTHER | <input type="checkbox"/> CASING REPAIR<br><input type="checkbox"/> CHANGE WELL NAME<br><input type="checkbox"/> CONVERT WELL TYPE<br><input type="checkbox"/> NEW CONSTRUCTION<br><input type="checkbox"/> PLUG BACK<br><input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION<br><input type="checkbox"/> TEMPORARY ABANDON<br><input type="checkbox"/> WATER DISPOSAL<br><input type="checkbox"/> APD EXTENSION<br>OTHER: <input style="width: 100px;" type="text"/> |

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

Wolverine Gas and Oil Co. of Utah, LLC (a subsidiary of Wolverine Gas and Oil Corp.) seeks to renew the Temporarily Abandoned status of Wolverine Federal 19-3, in the Covenant Field. Although capable of producing, the well has been shut-in since September, 2015 when a combination of low oil prices and marginal production made the well uneconomic to operate. Wolverine expects to return 19-3 to production once oil prices rebound and the well can again be operated profitably. In its shut-in state, WF 19-3 poses minimal environmental/safety concerns. The well was drilled in 2010 and last reworked in 2013, so its mechanical integrity should be sound. And although the well is shut-in, it is continually monitored along with another, active well on the same pad.

**REQUEST DENIED**  
**Utah Division of**  
**Oil, Gas and Mining**  
 Date: January 09, 2017  
 By: *Derek Quist*

*Please Review Attached Conditions of Approval*

|                                            |                                     |                                         |
|--------------------------------------------|-------------------------------------|-----------------------------------------|
| <b>NAME (PLEASE PRINT)</b><br>Ron Meredith | <b>PHONE NUMBER</b><br>616 929-1932 | <b>TITLE</b><br>Sr. Production Engineer |
| <b>SIGNATURE</b><br>N/A                    | <b>DATE</b><br>9/27/2016            |                                         |



**The Utah Division of Oil, Gas, and Mining**

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices**

**Sundry Conditions of Approval Well Number 43041500040000**

**Did not meet the requirements of R649-3-36. No showing of integrity or that the well did not pose a risk to health, safety or environment.**

|                                                                                                                                                                                                                                                                                                    |                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>STATE OF UTAH</b><br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS, AND MINING                                                                                                                                                                                                        | <b>FORM 9</b><br><br><b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b><br>UTU-73528                              |
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br><br>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. | <b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b><br><br><b>7. UNIT or CA AGREEMENT NAME:</b><br>WOLVERINE         |
| <b>1. TYPE OF WELL</b><br>Oil Well                                                                                                                                                                                                                                                                 | <b>8. WELL NAME and NUMBER:</b><br>WOLVERINE FED 19-3                                                         |
| <b>2. NAME OF OPERATOR:</b><br>WOLVERINE GAS & OIL COMPANY OF UTAH, LLC                                                                                                                                                                                                                            | <b>9. API NUMBER:</b><br>43041500040000                                                                       |
| <b>3. ADDRESS OF OPERATOR:</b><br>One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503                                                                                                                                                                                                       | <b>PHONE NUMBER:</b><br>616 458-1150 Ext                                                                      |
| <b>4. LOCATION OF WELL</b><br><b>FOOTAGES AT SURFACE:</b><br>0756 FNL 1965 FWL<br><b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b><br>Qtr/Qtr: NENW Section: 19 Township: 23.0S Range: 01.0W Meridian: S                                                                                        | <b>9. FIELD and POOL or WILDCAT:</b><br>COVENANT<br><br><b>COUNTY:</b><br>SEVIER<br><br><b>STATE:</b><br>UTAH |

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

| TYPE OF SUBMISSION                                                                                                                                                                                                                                                                                                                                  | TYPE OF ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b><br>Approximate date work will start:<br><b>4/3/2017</b><br><br><input type="checkbox"/> <b>SUBSEQUENT REPORT</b><br>Date of Work Completion:<br><br><input type="checkbox"/> <b>SPUD REPORT</b><br>Date of Spud:<br><br><input type="checkbox"/> <b>DRILLING REPORT</b><br>Report Date: | <input type="checkbox"/> ACIDIZE<br><input type="checkbox"/> CHANGE TO PREVIOUS PLANS<br><input type="checkbox"/> CHANGE WELL STATUS<br><input type="checkbox"/> DEEPEN<br><input type="checkbox"/> OPERATOR CHANGE<br><input type="checkbox"/> PRODUCTION START OR RESUME<br><input type="checkbox"/> REPERFORATE CURRENT FORMATION<br><input type="checkbox"/> TUBING REPAIR<br><input type="checkbox"/> WATER SHUTOFF<br><input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> ALTER CASING<br><input type="checkbox"/> CHANGE TUBING<br><input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS<br><input type="checkbox"/> FRACTURE TREAT<br><input type="checkbox"/> PLUG AND ABANDON<br><input type="checkbox"/> RECLAMATION OF WELL SITE<br><input type="checkbox"/> SIDETRACK TO REPAIR WELL<br><input type="checkbox"/> VENT OR FLARE<br><input checked="" type="checkbox"/> SI TA STATUS EXTENSION<br><input type="checkbox"/> OTHER | <input type="checkbox"/> CASING REPAIR<br><input type="checkbox"/> CHANGE WELL NAME<br><input type="checkbox"/> CONVERT WELL TYPE<br><input type="checkbox"/> NEW CONSTRUCTION<br><input checked="" type="checkbox"/> PLUG BACK<br><input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION<br><input type="checkbox"/> TEMPORARY ABANDON<br><input type="checkbox"/> WATER DISPOSAL<br><input type="checkbox"/> APD EXTENSION<br>OTHER: <input style="width: 100px;" type="text"/> |

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

Wolverine Gas and Oil Co. seeks BLM approval to "Pull tbg/pump from WF19-3, set a CIBP @ ±6950', dump bail ±5' of cement, MIT, and renew 19-3's TA status". This plugback will make MIT's feasible so that prod. csg integrity can be verified. 19-3 is a low rate oil producer and uneconomic at current prices. However, 19-3 may still add to the field's oil recovery if prices improve or if an ongoing CO2 Injection Study proves favorable. 19-3 was drilled in 2010. With two fully cemented csg strings (surf. @ 2112' and prod. @ 7440') and outcropping of the Arapien Formation at Covenant, groundwater contamination risks are minimal. And with another active well on 19-3's pad, work crews visit the site daily. Furthermore, the wells and location are monitored remotely from the nearby Covenant production facility.

**Accepted by the  
 Utah Division of  
 Oil, Gas and Mining**

Date: February 08, 2017  
 By: *Dark Oust*

|                                            |                                     |                                         |
|--------------------------------------------|-------------------------------------|-----------------------------------------|
| <b>NAME (PLEASE PRINT)</b><br>Ron Meredith | <b>PHONE NUMBER</b><br>616 929-1932 | <b>TITLE</b><br>Sr. Production Engineer |
| <b>SIGNATURE</b><br>N/A                    | <b>DATE</b><br>1/30/2017            |                                         |