

**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> Greater Monument Butte 0-1-9-16		
<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> MONUMENT BUTTE		
<b>4. TYPE OF WELL</b> Oil Well      Coalbed Methane Well: NO				<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> GMBU (GRRV)		
<b>6. NAME OF OPERATOR</b> NEWFIELD PRODUCTION COMPANY				<b>7. OPERATOR PHONE</b> 435 646-4825		
<b>8. ADDRESS OF OPERATOR</b> Rt 3 Box 3630 , Myton, UT, 84052				<b>9. OPERATOR E-MAIL</b> mcrozier@newfield.com		
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> ML-21839		<b>11. MINERAL OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		<b>12. SURFACE OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" 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>
LOCATION AT SURFACE	2096 FNL 425 FEL	SENE	2	9.0 S	16.0 E	S
Top of Uppermost Producing Zone	2464 FNL 133 FEL	SENE	2	9.0 S	16.0 E	S
At Total Depth	2635 FSL 10 FWL	NWSW	1	9.0 S	16.0 E	S
<b>21. COUNTY</b> DUCHESNE		<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 10		<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 20		
		<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 1022		<b>26. PROPOSED DEPTH</b> MD: 6283 TVD: 6283		
<b>27. ELEVATION - GROUND LEVEL</b> 5453		<b>28. BOND NUMBER</b> B001834		<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 43-7478		

**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> Mandie Crozier	<b>TITLE</b> Regulatory Tech	<b>PHONE</b> 435 646-4825
<b>SIGNATURE</b>	<b>DATE</b> 01/07/2010	<b>EMAIL</b> mcrozier@newfield.com
<b>API NUMBER ASSIGNED</b> 43013502120000	<b>APPROVAL</b>   Permit Manager	

**Proposed Hole, Casing, and Cement**

<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Prod	7.875	5.5	0	6283		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade J-55 LT&C	6283	15.5			

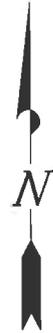
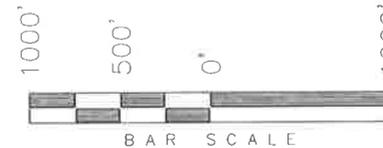
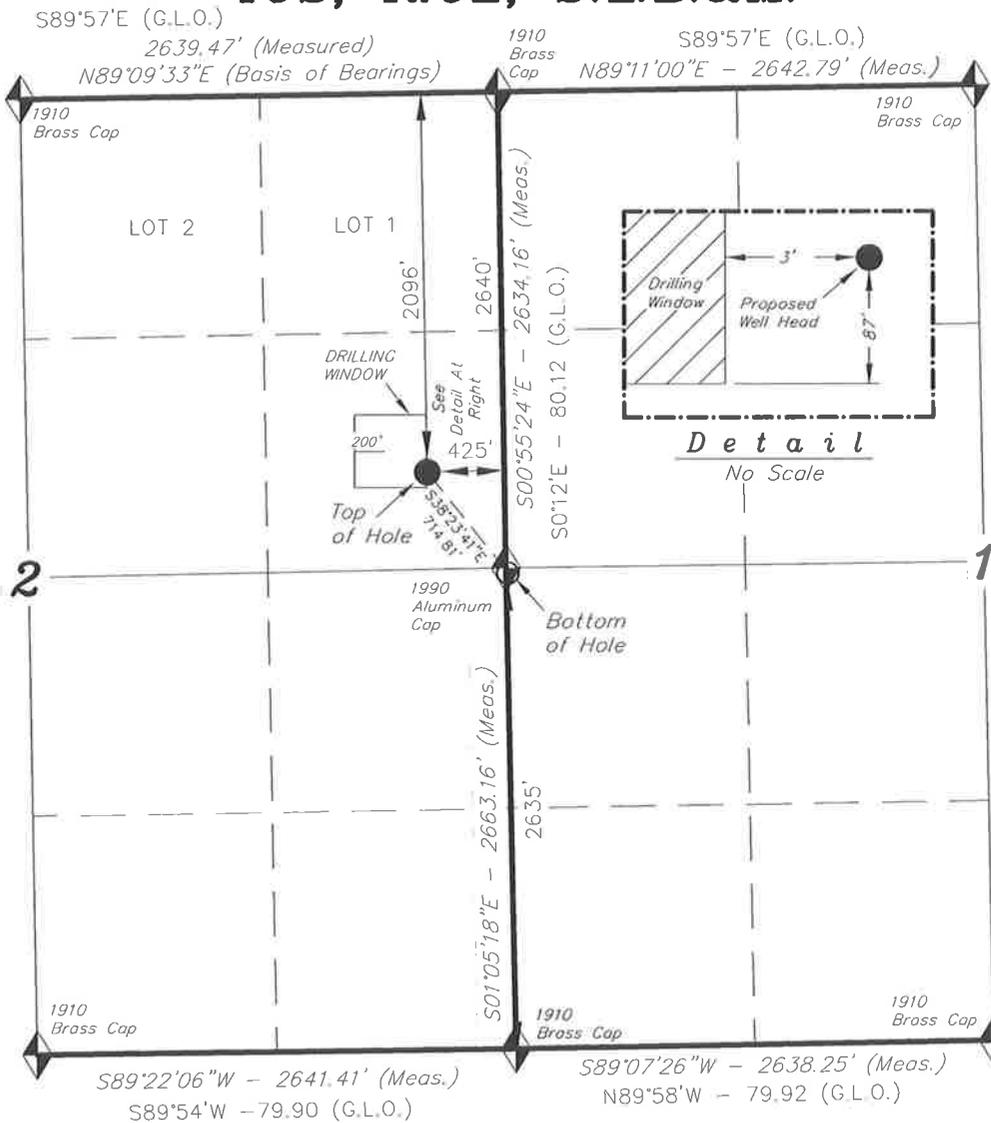
**Proposed Hole, Casing, and Cement**

<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Surf	12.25	8.625	0	950		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade J-55 ST&C	950	24.0			

# T9S, R16E, S.L.B.&M.

## NEWFIELD PRODUCTION COMPANY

WELL LOCATION, 0-1-9-16, LOCATED AS SHOWN IN THE SE 1/4 NE 1/4 OF SECTION 2, T9S, R16E, S.L.B.&M. DUCHESNE COUNTY, UTAH.



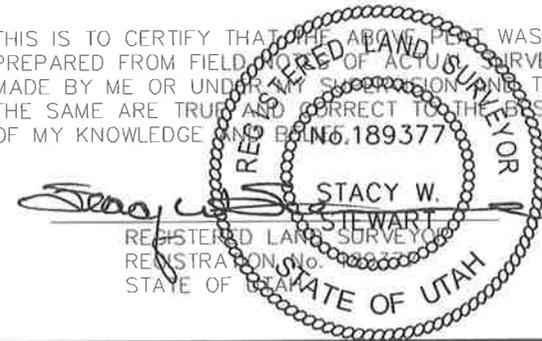
**WELL LOCATION:**  
**0-1-9-16**

ELEV. EXIST. GRADED GROUND = 5453'

**Note:**

- The bottom of hole footages are 2635' FSL & 10' FWL of Sec 1, T9S, R16E.

THIS IS TO CERTIFY THAT THE ABOVE 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.



◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; Elevations are base on LOCATION: an N.G.S. OPUS Correction, LAT. 40°04'09.56" LONG. 110°00'43.28" (Tristate Aluminum Cap) Elev. 5281.57'

**0-1-9-16**  
**(Surface Location) NAD 83**  
LATITUDE = 40° 03' 40.99"  
LONGITUDE = 110° 04' 43.46"

### TRI STATE LAND SURVEYING & CONSULTING

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 09-09-09	SURVEYED BY: T.P.
DATE DRAWN: 10-06-09	DRAWN BY: M.W.
REVISED: 12-22-09 - M.W.	SCALE: 1" = 1000'

NEWFIELD PRODUCTION COMPANY  
GREATER MONUMENT BUTTE O-1-9-16  
AT SURFACE: SE/NE SECTION 2, T9S, R16E  
DUCHESNE COUNTY, UTAH

TEN POINT DRILLING PROGRAM

1. **GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

2. **ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Uinta	0 – 1555'
Green River	1555'
Wasatch	6283'

3. **ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

Green River Formation 1555' – 6283' – Oil

Fresh water may be encountered in the Uinta Formation, but would not be expected below about 950'. All water shows and water bearing geologic units shall be reported to the geologic and engineering staff of the Vernal Office prior to running the next string of casing or before plugging orders are requested. All water shows must be reported within one (1) business day after being encountered.

All usable (<10,000 PPM TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. This information shall be reported to the Vernal Office.

Detected water flows shall be sampled, analyzed, and reported to the geologic & engineering staff of the Vernal Office. The office may request additional water samples for further analysis. Usage of the State of Utah form *Report of Water Encountered* is acceptable, but not required.

The following information is requested for water shows and samples where applicable:

Location & Sampled Interval	Date Sampled
Flow Rate	Temperature
Hardness	pH
Water Classification (State of Utah)	Dissolved Calcium (Ca) (mg/l)
Dissolved Iron (Fe) (ug/l)	Dissolved Sodium (Na) (mg/l)
Dissolved Magnesium (Mg) (mg/l)	Dissolved Carbonate (CO <sub>3</sub> ) (mg/l)
Dissolved Bicarbonate (NaHCO <sub>3</sub> ) (mg/l)	Dissolved Chloride (Cl) (mg/l)
Dissolved Sulfate (SO <sub>4</sub> ) (mg/l)	Dissolved Total Solids (TDS) (mg/l)

4. **PROPOSED CASING PROGRAM**

a. **Casing Design: Greater Monument Butte O-1-9-16**

Size	Interval		Weight	Grade	Coupling	Design Factors		
	Top	Bottom				Burst	Collapse	Tension
Surface casing 8-5/8"	0'	950'	24.0	J-55	STC	2,950	1,370	244,000
						5.54	4.53	10.70
Prod casing 5-1/2"	0'	6,283'	15.5	J-55	LTC	4,810	4,040	217,000
						2.41	2.02	2.23

Assumptions:

- 1) Surface casing max anticipated surface press (MASP) = Frac gradient – gas gradient
- 2) Prod casing MASP (production mode) = Pore pressure – gas gradient
- 3) All collapse calculations assume fully evacuated casing w/ gas gradient
- 4) All tension calculations assume air weight

Frac gradient at surface casing shoe = 13.0 ppg  
 Pore pressure at surface casing shoe = 8.33 ppg  
 Pore pressure at prod casing shoe = 8.33 ppg  
 Gas gradient = 0.115 psi/ft

All casing shall be new or, if used, inspected and tested. Used casing shall meet or exceed API standards for new casing.

All casing strings shall have a minimum of 1 (one) centralizer on each of the bottom three (3) joints.

b. **Cementing Design: Greater Monument Butte O-1-9-16**

Job	Fill	Description	Sacks	OH Excess*	Weight (ppg)	Yield (ft <sup>3</sup> /sk)
			ft <sup>3</sup>			
Surface casing	950'	Class G w/ 2% CaCl	436	30%	15.8	1.17
			510			
Prod casing Lead	4,283'	Prem Lite II w/ 10% gel + 3% KCl	296	30%	11.0	3.26
			965			
Prod casing Tail	2,000'	50/50 Poz w/ 2% gel + 3% KCl	363	30%	14.3	1.24
			451			

- \*Actual volume pumped will be 15% over the caliper log
- Compressive strength of lead cement: 1800 psi @ 24 hours, 2250 psi @ 72 hours
  - Compressive strength of tail cement: 2500 psi @ 24 hours

Hole Sizes: A 12-1/4" hole will be drilled for the 8-5/8" surface casing. A 7-7/8" hole will be drilled for the 5-1/2" production casing.

Waiting On Cement: A minimum of four (4) hours shall elapse prior to attempting any pressure testing of the BOP equipment which would subject the surface casing cement to pressure, and a minimum of six (6) hours shall elapse before drilling out of the wiper plug, cement, or shoe is begun. WOC time shall be recorded in the Driller's Log. Compressive Strength shall be a minimum of 500 psi prior to drilling out.

The 8-5/8" surface casing shall in all cases be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if

the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

The production casing cementing program shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals.

As a minimum, usable water zones shall be isolated and/or protected by having a cement top for the production casing at least 200 feet above the base of the usable water. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a suitable preflush fluid, inner string cement method, etc., shall be utilized to help isolate the cement from contamination by the mud being displaced ahead of the cement slurry.

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or to 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. If pressure declines more than 10% in 30 minutes, corrective action shall be taken.

Setting of each string of casing showing the size, grade, weight of casing set, depth, amounts and type of cement used, whether cement circulated or the top of the cement behind the casing, depth of the cementing tools used, casing test method and results, and the date of the work done. Spud date will be shown on the first reports submitted.

5. **MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

The operator's minimum specifications for pressure control equipment are as follows:

An 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOP's will be check daily.

Refer to **Exhibit C** for a diagram of BOP equipment that will be used on this well.

6. **TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

From surface to ±950 feet will be drilled with an air/mist system. From about 950 feet to TD, a fresh water system will be utilized. Clay inhibition and hole stability will be achieved with a KCl substitute additive. This additive will be identified in the APD and reviewed to determine if the reserve pit shall be lined. This fresh water system will typically contain Total Dissolved Solids (TDS) of less than 3000 PPM. Anticipated mud weight is 8.4 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite.

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this 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 completing of this well.

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

Newfield Production will **visually** monitor pit levels and flow from the well during drilling operations.

7. **AUXILIARY SAFETY EQUIPMENT TO BE USED:**

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

8. **TESTING, LOGGING AND CORING PROGRAMS:**

The logging program will consist of a Dual Induction, Gamma Ray and Caliper log from TD to base of surface casing @ 950' +/-, and a Compensated Neutron-Formation Density Log from TD to 3500' +/- . A cement bond log will be run from PBTD to cement top. No drill stem testing or coring is planned for this well.

9. **ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

No abnormal temperatures or pressures are anticipated. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth. Maximum anticipated bottomhole pressure will approximately equal total depth in feet multiplied by a 0.433 psi/foot gradient.

10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

It is anticipated that the drilling operations will commence the second quarter of 2010, and take approximately seven (7) days from spud to rig release.

## 2-M SYSTEM

Blowout Prevention Equipment Systems

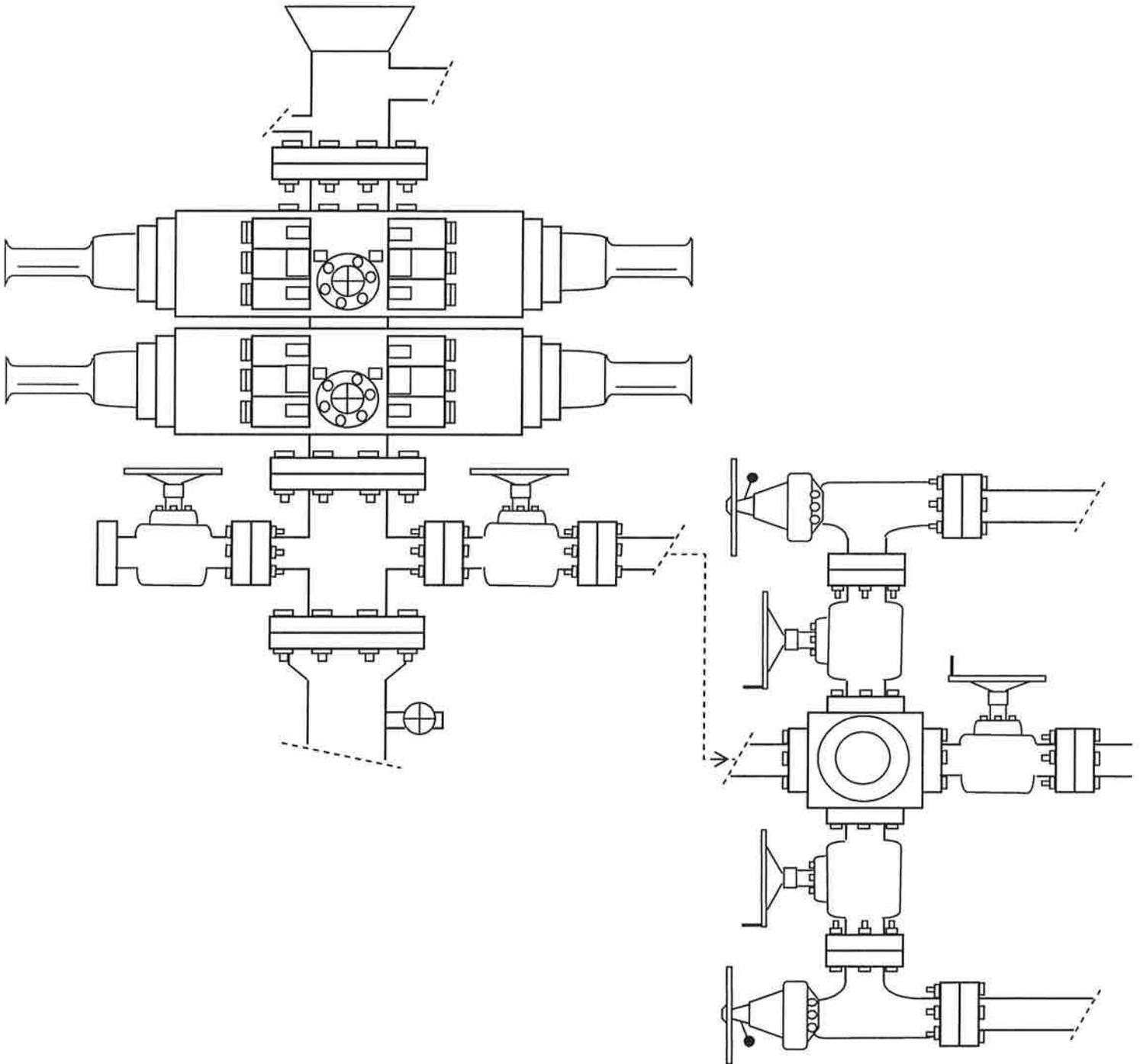


EXHIBIT C



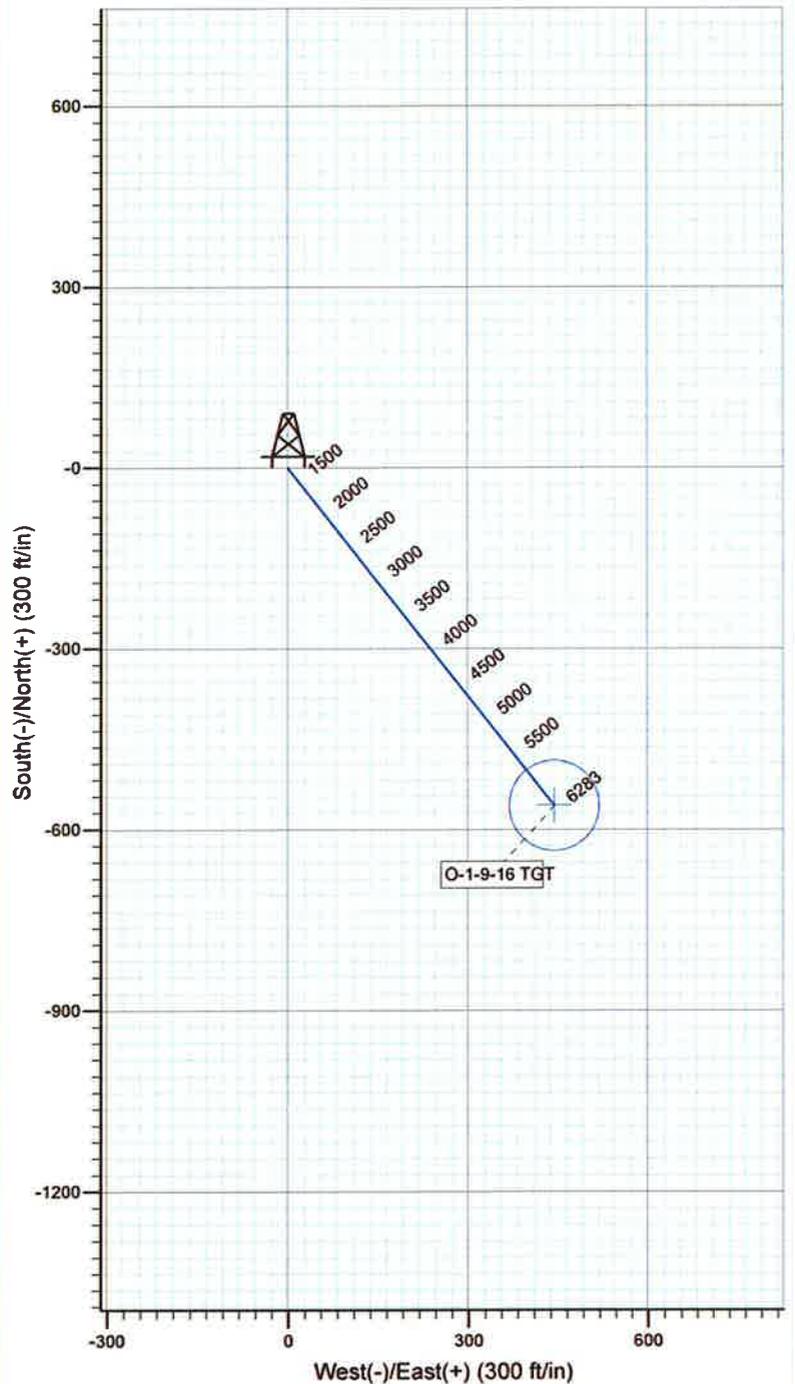
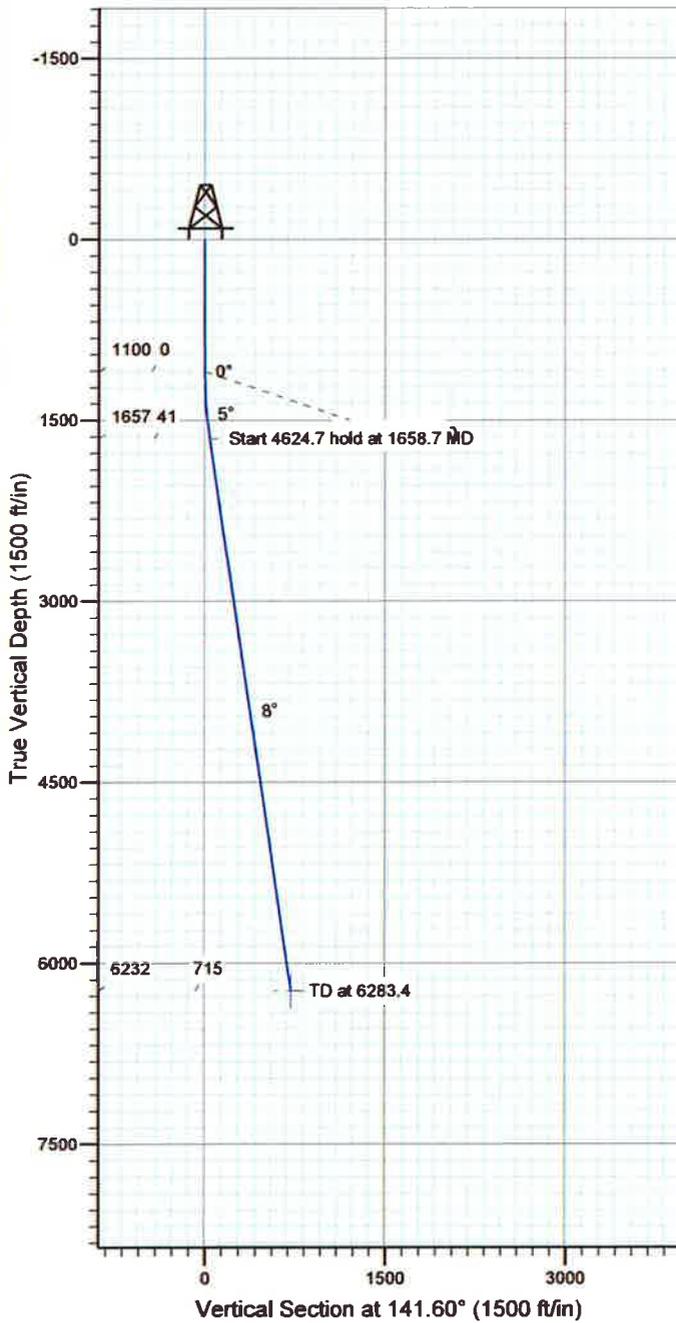
Project: USGS Myton SW (UT)  
 Site: SECTION 2 9S 16E  
 Well: O-1-9-16  
 Wellbore: Wellbore #1  
 Design: Design #1



Azimuths to True North  
 Magnetic North: 11.51°

Magnetic Field  
 Strength: 52467.4snT  
 Dip Angle: 65.85°  
 Date: 11/5/2009  
 Model: IGRF200510

KOP @ 1100'  
 DOGLEG RATE 1.5 DEG/100'  
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
O-1-9-16 TGT	6232.0	-560.2	444.0	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	1658.7	8.38	141.60	1658.7	-32.0	25.3	1.50	141.60	40.8	
4	6232.4	8.38	141.60	6232.0	-560.2	444.0	0.00	0.00	714.8	O-1-9-16 TGT

**NEWFIELD**



# **NEWFIELD EXPLORATION**

**USGS Myton SW (UT)**

**SECTION 2 9S 16E**

**O-1-9-16**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**25 February, 2010**



## HATHAWAYBURNHAM

### Planning Report

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well O-1-9-16
<b>Company:</b>	NEWFIELD EXPLORATION	<b>TVD Reference:</b>	O-1-9-16 @ 5465.0ft (Original Well Elev)
<b>Project:</b>	USGS Myton SW (UT)	<b>MD Reference:</b>	O-1-9-16 @ 5465.0ft (Original Well Elev)
<b>Site:</b>	SECTION 2 9S 16E	<b>North Reference:</b>	True
<b>Well:</b>	O-1-9-16	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		Using geodetic scale factor

<b>Site</b> SECTION 2 9S 16E, SEC 2 9S 16E			
<b>Site Position:</b>		<b>Northing:</b>	7,193,600.00 ft
<b>Latitude:</b>		<b>Longitude:</b>	40° 3' 34.952 N
<b>From:</b>	Map	<b>Easting:</b>	2,036,100.00 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Grid Convergence:</b>	0.91 °

<b>Well</b> O-1-9-16, SHL LAT: 40 03 40.99, LONG: -110 04 43.46			
<b>Well Position</b>	+N/-S	610.9 ft	<b>Northing:</b>
	+E/-W	2,100.9 ft	7,194,244.13 ft
			<b>Latitude:</b>
			40° 3' 40.990 N
			<b>Longitude:</b>
			110° 4' 43.460 W
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>
			5,465.0 ft
			<b>Ground Level:</b>
			5,453.0 ft

<b>Wellbore</b> Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/5/2009	11.51	65.86	52,467

<b>Design</b> Design #1				
<b>Audit Notes:</b>				
<b>Version:</b>		<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>
				0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	141.60

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,658.7	8.38	141.60	1,656.7	-32.0	25.3	1.50	1.50	0.00	141.60	
6,283.4	8.38	141.60	6,232.0	-560.2	444.0	0.00	0.00	0.00	0.00	O-1-9-16 TGT



# HATHAWAYBURNHAM

## Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well O-1-9-16
Company:	NEWFIELD EXPLORATION	TVD Reference:	O-1-9-16 @ 5465.0ft (Original Well Elev)
Project:	USGS Myton SW (UT)	MD Reference:	O-1-9-16 @ 5465.0ft (Original Well Elev)
Site:	SECTION 2 9S 16E	North Reference:	True
Well:	O-1-9-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	1.50	141.60	1,200.0	-1.0	0.8	1.3	1.50	1.50	0.00
1,300.0	3.00	141.60	1,299.9	-4.1	3.3	5.2	1.50	1.50	0.00
1,400.0	4.50	141.60	1,399.7	-9.2	7.3	11.8	1.50	1.50	0.00
1,500.0	6.00	141.60	1,499.3	-16.4	13.0	20.9	1.50	1.50	0.00
1,600.0	7.50	141.60	1,598.6	-25.6	20.3	32.7	1.50	1.50	0.00
1,658.7	8.38	141.60	1,656.7	-32.0	25.3	40.8	1.50	1.50	0.00
1,700.0	8.38	141.60	1,697.6	-36.7	29.1	46.8	0.00	0.00	0.00
1,800.0	8.38	141.60	1,796.5	-48.1	38.1	61.4	0.00	0.00	0.00
1,900.0	8.38	141.60	1,895.4	-59.5	47.2	76.0	0.00	0.00	0.00
2,000.0	8.38	141.60	1,994.4	-70.9	56.2	90.5	0.00	0.00	0.00
2,100.0	8.38	141.60	2,093.3	-82.4	65.3	105.1	0.00	0.00	0.00
2,200.0	8.38	141.60	2,192.2	-93.8	74.3	119.7	0.00	0.00	0.00
2,300.0	8.38	141.60	2,291.2	-105.2	83.4	134.3	0.00	0.00	0.00
2,400.0	8.38	141.60	2,390.1	-116.6	92.4	148.8	0.00	0.00	0.00
2,500.0	8.38	141.60	2,489.0	-128.1	101.5	163.4	0.00	0.00	0.00
2,600.0	8.38	141.60	2,588.0	-139.5	110.5	178.0	0.00	0.00	0.00
2,700.0	8.38	141.60	2,686.9	-150.9	119.6	192.6	0.00	0.00	0.00
2,800.0	8.38	141.60	2,785.8	-162.3	128.7	207.1	0.00	0.00	0.00
2,900.0	8.38	141.60	2,884.8	-173.7	137.7	221.7	0.00	0.00	0.00
3,000.0	8.38	141.60	2,983.7	-185.2	146.8	236.3	0.00	0.00	0.00
3,100.0	8.38	141.60	3,082.6	-196.6	155.8	250.8	0.00	0.00	0.00
3,200.0	8.38	141.60	3,181.6	-208.0	164.9	265.4	0.00	0.00	0.00
3,300.0	8.38	141.60	3,280.5	-219.4	173.9	280.0	0.00	0.00	0.00
3,400.0	8.38	141.60	3,379.4	-230.9	183.0	294.6	0.00	0.00	0.00
3,500.0	8.38	141.60	3,478.3	-242.3	192.0	309.1	0.00	0.00	0.00
3,600.0	8.38	141.60	3,577.3	-253.7	201.1	323.7	0.00	0.00	0.00
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4,300.0	8.38	141.60	4,269.8	-333.7	264.4	425.7	0.00	0.00	0.00
4,400.0	8.38	141.60	4,368.7	-345.1	273.5	440.3	0.00	0.00	0.00
4,500.0	8.38	141.60	4,467.7	-356.5	282.6	454.9	0.00	0.00	0.00
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4,700.0	8.38	141.60	4,665.5	-379.3	300.7	484.0	0.00	0.00	0.00
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5,200.0	8.38	141.60	5,160.2	-436.4	345.9	556.9	0.00	0.00	0.00



## HATHAWAYBURNHAM

### Planning Report

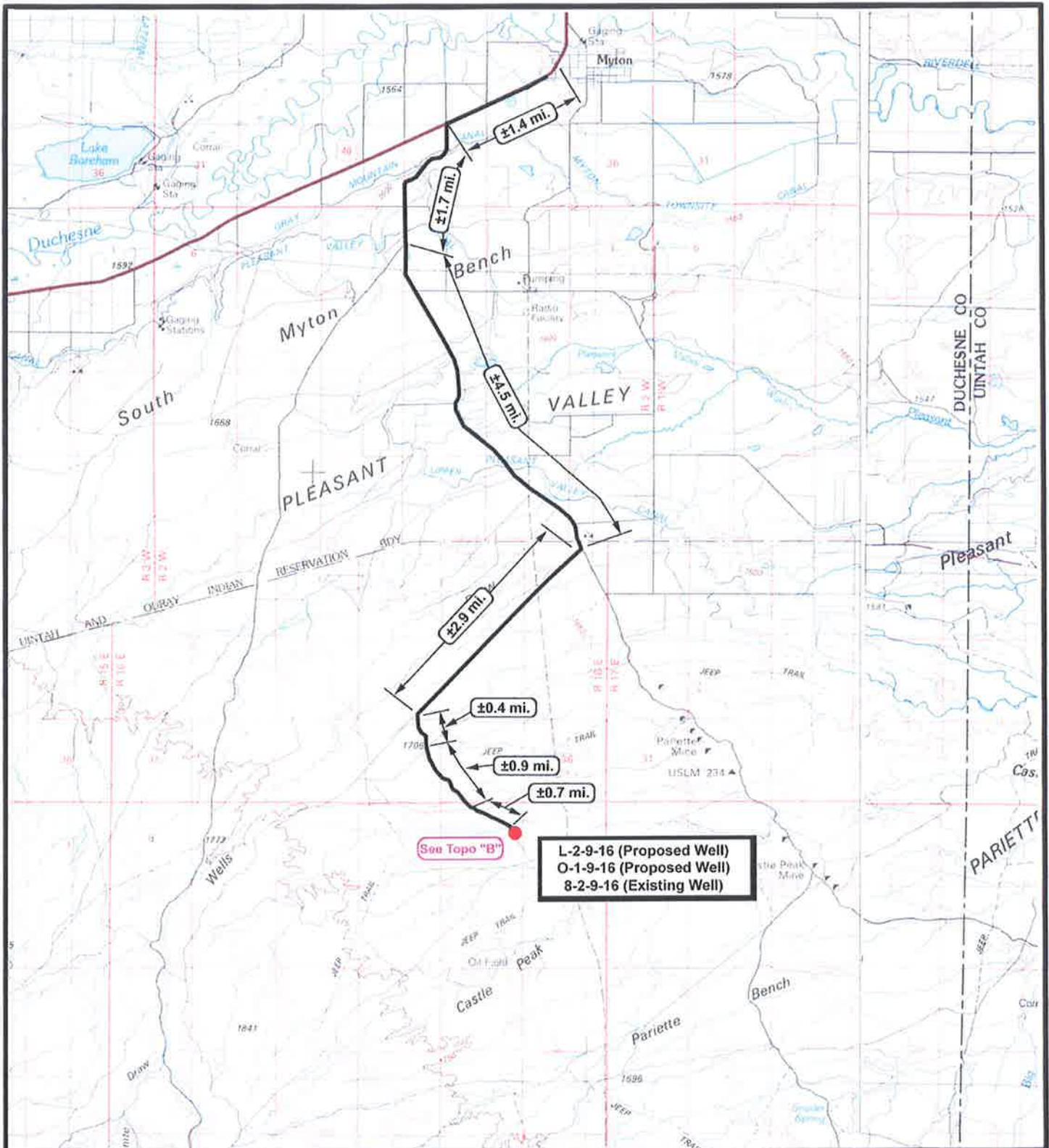
<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well O-1-9-16
<b>Company:</b>	NEWFIELD EXPLORATION	<b>TVD Reference:</b>	O-1-9-16 @ 5465.0ft (Original Well Elev)
<b>Project:</b>	USGS Myton SW (UT)	<b>MD Reference:</b>	O-1-9-16 @ 5465.0ft (Original Well Elev)
<b>Site:</b>	SECTION 2 9S 16E	<b>North Reference:</b>	True
<b>Well:</b>	O-1-9-16	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

#### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.0	8.38	141.60	5,259.1	-447.9	355.0	571.5	0.00	0.00	0.00
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5,600.0	8.38	141.60	5,555.9	-482.1	382.1	615.2	0.00	0.00	0.00
5,700.0	8.38	141.60	5,654.9	-493.6	391.2	629.8	0.00	0.00	0.00
5,800.0	8.38	141.60	5,753.8	-505.0	400.2	644.4	0.00	0.00	0.00
5,900.0	8.38	141.60	5,852.7	-516.4	409.3	658.9	0.00	0.00	0.00
6,000.0	8.38	141.60	5,951.7	-527.8	418.3	673.5	0.00	0.00	0.00
6,100.0	8.38	141.60	6,050.6	-539.2	427.4	688.1	0.00	0.00	0.00
6,200.0	8.38	141.60	6,149.5	-550.7	436.5	702.7	0.00	0.00	0.00
6,283.4	8.38	141.60	6,232.0	-560.2	444.0	714.8	0.00	0.00	0.00

#### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
O-1-9-16 TGT - hit/miss target - Shape	0.00	0.00	6,232.0	-560.2	444.0	7,193,691.12	2,038,643.58	40° 3' 35.454 N	110° 4' 37.750 W
- plan hits target									
- Circle (radius 75.0)									



**NEWFIELD**  
Exploration Company

L-2-9-16 (Proposed Well)  
O-1-9-16 (Proposed Well)  
8-2-9-16 (Existing Well)  
Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.



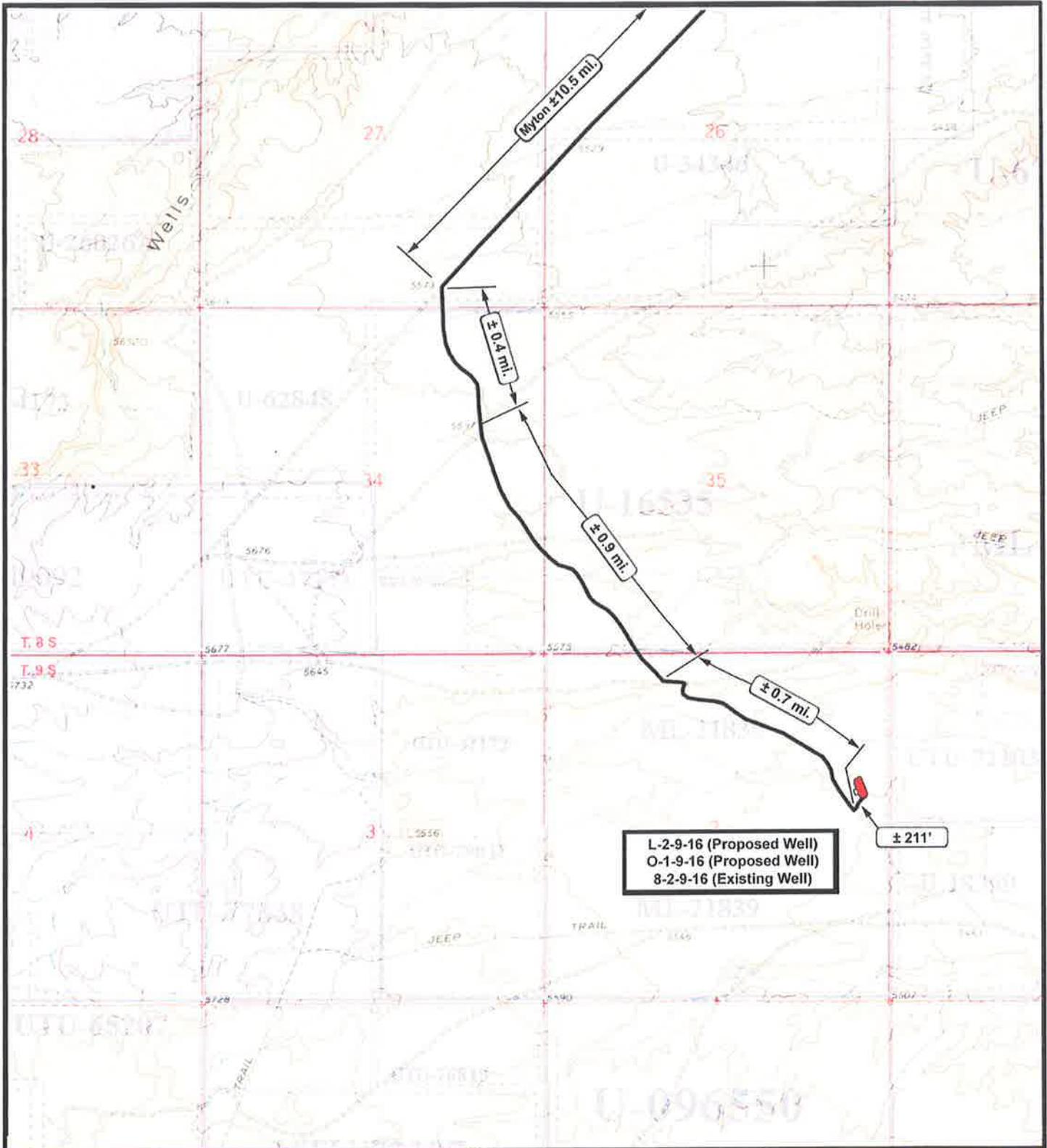
*Tri-State*  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1 = 100,000  
DRAWN BY: mw  
DATE: 12-21-2009

**Legend**

— Existing Road

**TOPOGRAPHIC MAP**  
"A"



**NEWFIELD**  
Exploration Company

L-2-9-16 (Proposed Well)  
O-1-9-16 (Proposed Well)  
8-2-9-16 (Existing Well)  
Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.



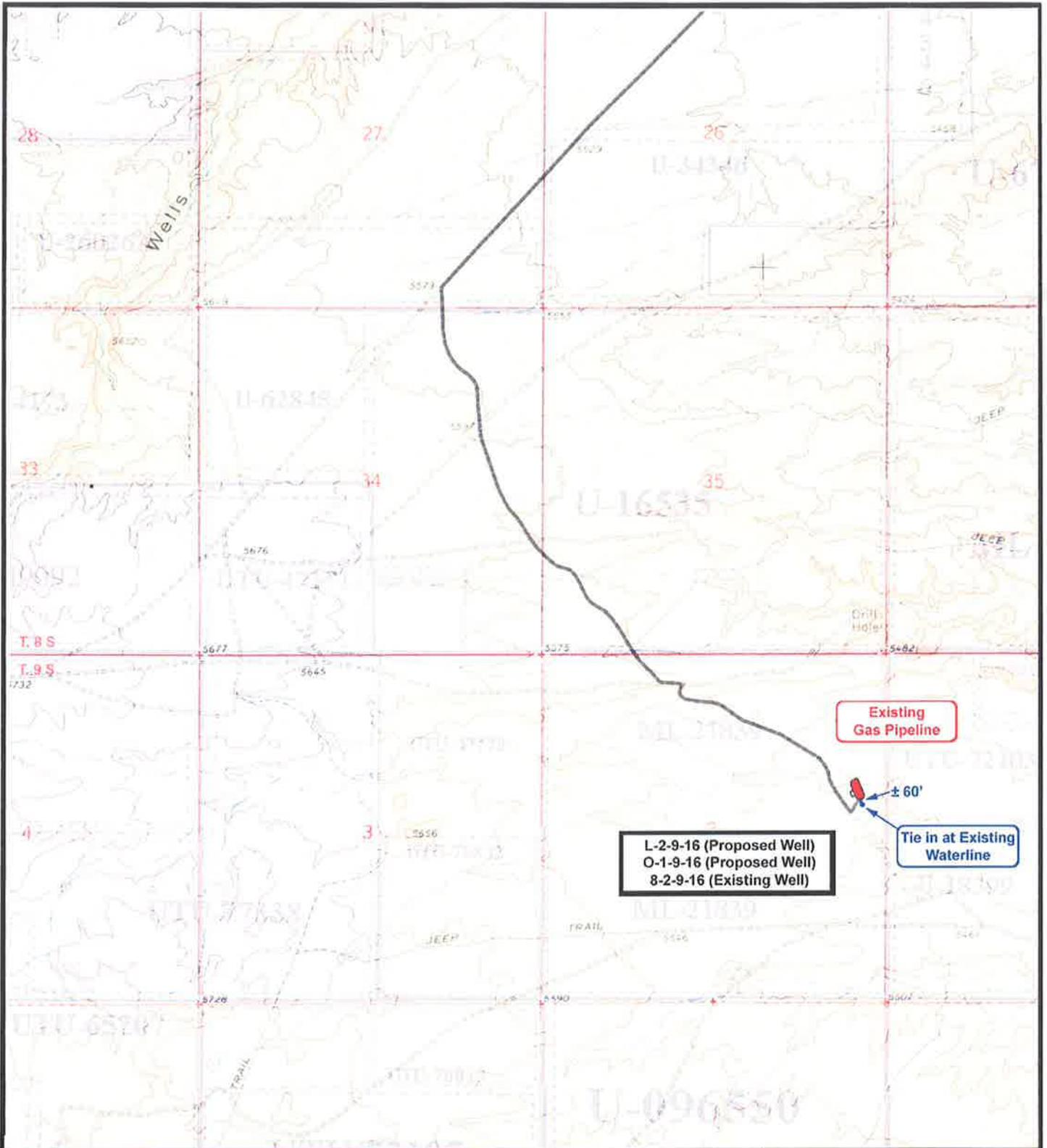
*Tri-State*  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
DRAWN BY: mw  
DATE: 12-21-2009

**Legend**

Existing Road

**TOPOGRAPHIC MAP**  
**"B"**



L-2-9-16 (Proposed Well)  
 O-1-9-16 (Proposed Well)  
 8-2-9-16 (Existing Well)  
 Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.



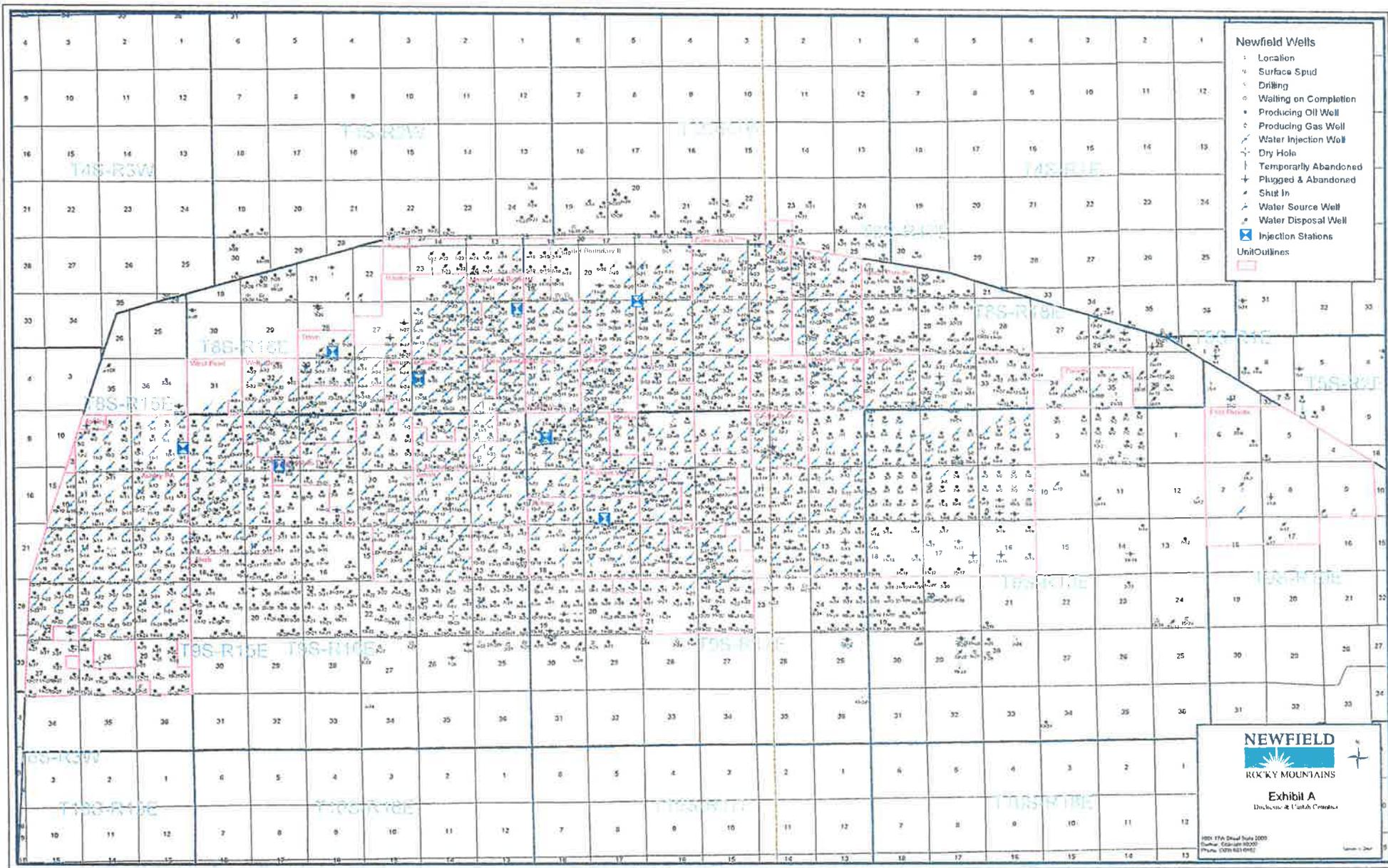
**Tri-State**  
*Land Surveying Inc.*  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

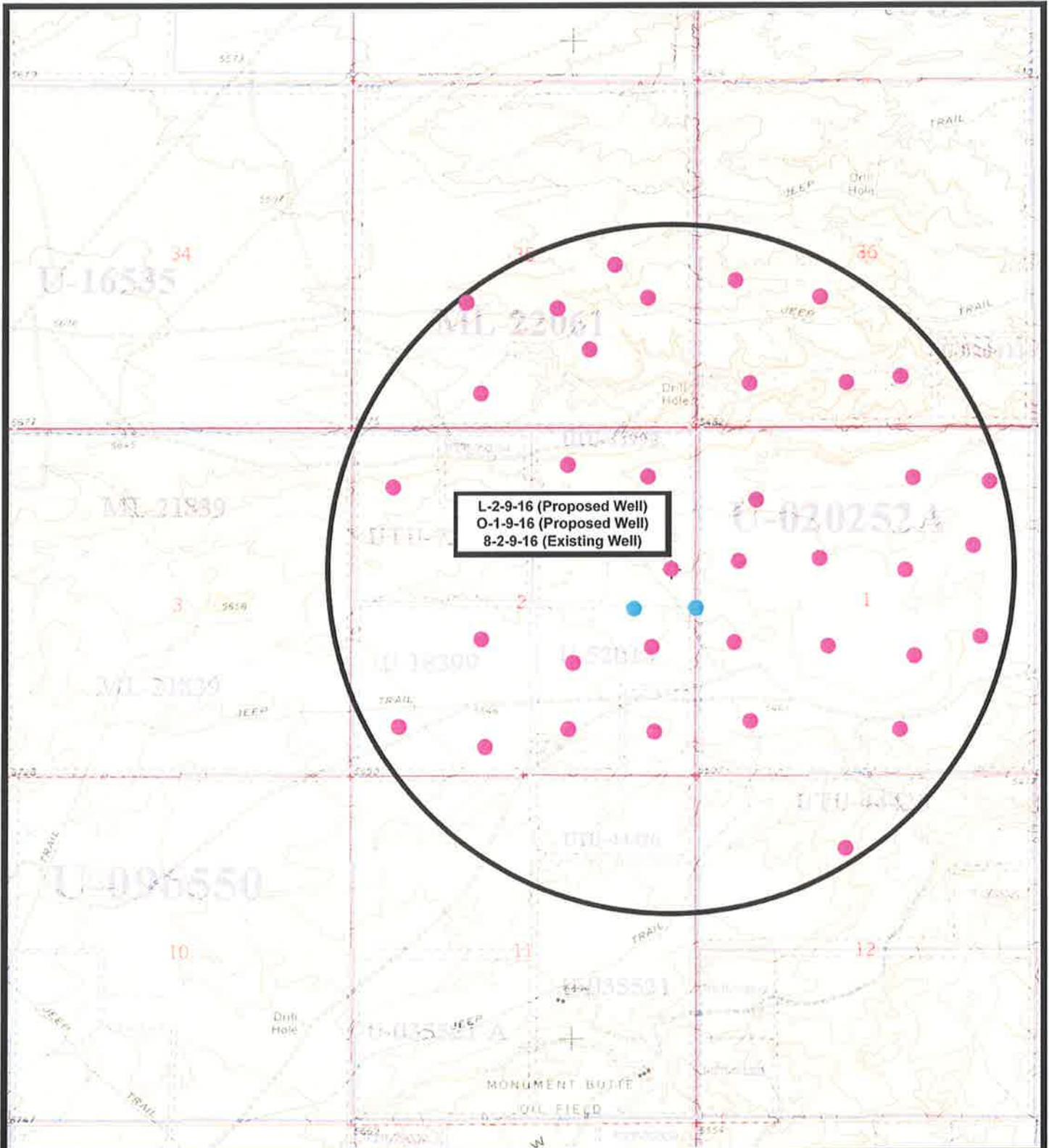
SCALE: 1" = 2,000'  
 DRAWN BY: mw  
 DATE: 12-21-2009

**Legend**

- Roads
- Proposed Water Line

**TOPOGRAPHIC MAP**  
"C"





L-2-9-16 (Proposed Well)  
 O-1-9-16 (Proposed Well)  
 8-2-9-16 (Existing Well)

**NEWFIELD**  
 Exploration Company

L-2-9-16 (Proposed Well)  
 O-1-9-16 (Proposed Well)  
 8-2-9-16 (Existing Well)  
 Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.



*Tri-State*  
 Land Surveying Inc.  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
 DRAWN BY: mw  
 DATE: 12-21-2009

**Legend**

- Location
- One-Mile Radius

**Exhibit "B"**

NEWFIELD PRODUCTION COMPANY  
GREATER MONUMENT BUTTE O-1-9-16  
AT SURFACE: SE/NE SECTION 2, T9S, R16E  
DUCHESNE COUNTY, UTAH

THIRTEEN POINT SURFACE PROGRAM

1. EXISTING ROADS

See attached **Topographic Map "A"**

To reach Newfield Production Company well location site Greater Monument Butte O-1-9-16 located in the SE ¼ NE ¼ Section 2, T9S, R16E, S.L.B. & M., Duchesne County, Utah:

Proceed in a southwesterly direction out of Myton, Utah along Highway 40 approximately 1.4 ± miles to the junction of this highway and Utah State Highway 53; proceed southeasterly approximately 6.2 miles ± to its junction with an existing road to the southwest; proceed southwesterly approximately 2.9 miles ± to its junction with an existing road to the southeast; proceed southeasterly approximately 2.0 miles ± to its junction with the beginning of the access road to the existing 8-2-9-16 well location.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads to the point where Highway 216 exists to the South, thereafter the roads are constructed with existing materials and gravel. The highways are maintained by Utah State road crews. All other roads are maintained by County crews.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads for access during the drilling, completion and production phase will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal.

2. PLANNED ACCESS ROAD

There is no proposed access road for this location. The proposed well will be drilled off of the existing 8-2-9-16 well pad. See attached **Topographic Map "B"**.

There will be no new gates or cattle guards required.

3. LOCATION OF EXISTING WELLS

Refer to **EXHIBIT B**.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

The proposed well will be drilled directionally off of the existing 8-2-9-16 well pad. There will be a pumping unit and a short flow line added to the existing tank battery for the proposed O-1-9-16.

It is anticipated that this well will be a producing oil well.

There are no existing facilities that will be used by this well.

Upon construction of a tank battery, the well pad will be surrounded by a dike of sufficient capacity to contain at minimum 110% of the largest tank volume within the facility battery.

Tank batteries will be built to State specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six months of installation.

5. **LOCATION AND TYPE OF WATER SUPPLY**

Newfield Production will transport water by truck for drilling purposes from the following water sources:

Johnson Water District  
Water Right: 43-7478

Neil Moon Pond  
Water Right: 43-11787

Maurice Harvey Pond  
Water Right: 47-1358

Newfield Collector Well  
Water Right: 41-3530 (A30414DV, contracted with the Duchesne County Conservancy District).

There will be no water well drilled at this site.

6. **SOURCE OF CONSTRUCTION MATERIALS**

The proposed Greater Monument Butte O-1-9-16 will be drilled off of the existing 8-2-9-16 well pad. No additional surface disturbance will be required for this location.

7. **METHODS FOR HANDLING WASTE DISPOSAL**

A small reserve pit (90' x 40' x 8' deep, or less) will be constructed from native soil and clay materials. The reserve pit will receive the processed drill cutting (wet sand, shale & rock) removed from the wellbore. Any drilling fluids, which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed. All drilling fluids will be fresh water based, typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. Therefore, it is proposed that no synthetic liner be required in the reserve pit. However, if upon constructing the pit there is insufficient fine clay and silt present, a liner will be used for the purpose of reducing water loss through percolation.

Newfield requests approval that a flare pit not be constructed or utilized on this location.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

8. **ANCILLARY FACILITIES:**

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. **WELL SITE LAYOUT:**

See attached Location Layout Sheet.

**Fencing Requirements**

All pits will be fenced according to the following minimum standards:

- a) A 39-inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be centered and/or braced in such a manner to keep tight at all times
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

10. **PLANS FOR RESTORATION OF SURFACE:**

a) **Producing Location**

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximated natural contours. Weather permitting, the reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

b) **Dry Hole Abandoned Location**

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the State of Utah will attach the appropriate surface rehabilitation conditions of approval.

11. **SURFACE OWNERSHIP:** State of Utah
12. **OTHER ADDITIONAL INFORMATION:**
  - a) Newfield Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Newfield is to immediately stop work that might further disturb such materials and contact the Authorized Officer.
  - b) Newfield Production will control noxious weeds along rights-of-way for roads, pipelines, well sites or other applicable facilities. On State administered land it is required that a Pesticide Use Proposal shall be submitted and given approval prior to the application of herbicides or other possible hazardous chemicals.
  - c) Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on State Lands after the conclusion of drilling operations or at any other time without State authorization. However, if State authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #09-208, 12/9/09. Paleontological Resource Survey prepared by, Wade E. Miller, 10/31/09. See attached report cover pages, Exhibit "D".

Newfield Production Company requests 60' of disturbed area be granted in Lease ML-21839 to allow for construction of the proposed water lines. It is proposed that the disturbed area will temporarily be 50' wide to allow for construction of a buried 3" steel water injection line and a buried 3" poly water return line and 30' wide upon completion of the proposed water lines. **Refer to Topographic Map "C."** In the event that the proposed well is converted to a water injection well, a separate injection permit will be applied for through the proper agencies.

#### **Additional Surface Stipulations**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. A copy of these conditions will be furnished to the field representative to ensure compliance.

#### **Hazardous Material Declaration**

Newfield Production Company guarantees that during the drilling and completion of the Greater Monument Butte O-1-9-16, Newfield will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Newfield also guarantees that during the drilling and completion of the Greater Monument Butte O-1-9-16 Newfield will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Newfield Production Company or a contractor employed by Newfield Production shall contact the State office at (801) 722-3417, 48 hours prior to construction activities.

The State office shall be notified upon site completion prior to moving on the drilling rig.

13. **LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:**

Representative

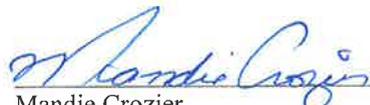
Name: Tim Eaton  
Address: Newfield Production Company  
Route 3, Box 3630  
Myton, UT 84052  
Telephone: (435) 646-3721

Certification

Please be advised that Newfield Production Company is considered to be the operator of well #O-1-9-16, SE/NE Section 2, T9S, R16E, LEASE #ML-21839, Duchesne County, Utah and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Bond #B001834.

I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

1/8/09  
Date

  
Mandie Crozier  
Regulatory Specialist  
Newfield Production Company

# NEWFIELD PRODUCTION COMPANY

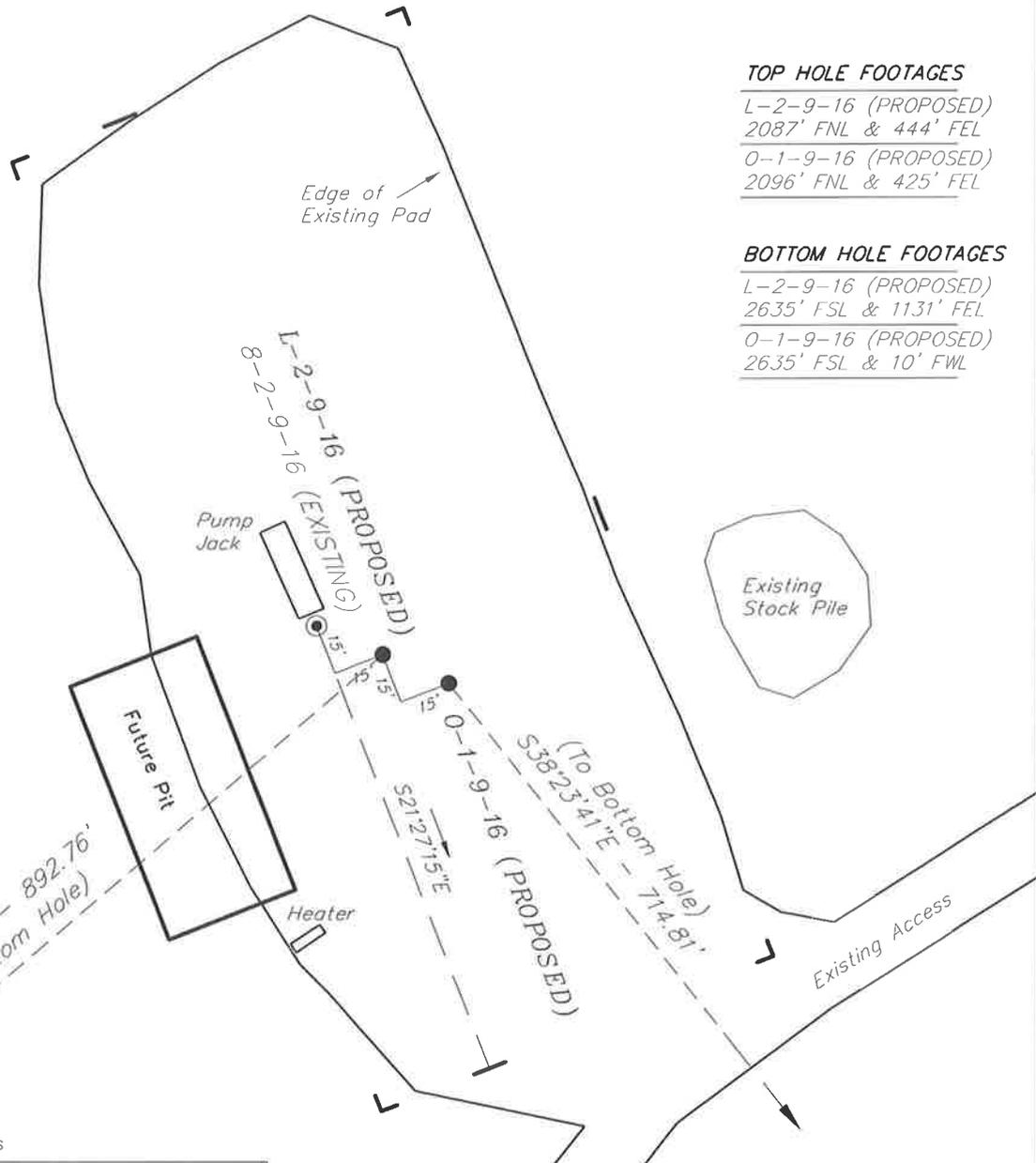
## WELL PAD INTERFERENCE PLAT

L-2-9-16 (Proposed Well)

O-1-9-16 (Proposed Well)

8-2-9-16 (Existing Well)

Pad Location: SENE Section 2, T9S, R16E, S.L.B.&M.



### TOP HOLE FOOTAGES

L-2-9-16 (PROPOSED)  
2087' FNL & 444' FEL  
O-1-9-16 (PROPOSED)  
2096' FNL & 425' FEL

### BOTTOM HOLE FOOTAGES

L-2-9-16 (PROPOSED)  
2635' FSL & 1131' FEL  
O-1-9-16 (PROPOSED)  
2635' FSL & 10' FWL

**Note:**  
Bearings are based  
on GPS Observations

### RELATIVE COORDINATES From top hole to bottom hole

WELL	NORTH	EAST
L-2-9-16	-581'	-678'
O-1-9-16	-560'	444'

### LATITUDE & LONGITUDE Surface position of Wells (NAD 83)

WELL	LATITUDE	LONGITUDE
L-2-9-16	40° 03' 41.08"	110° 04' 43.70"
O-1-9-16	40° 03' 40.99"	110° 04' 43.46"

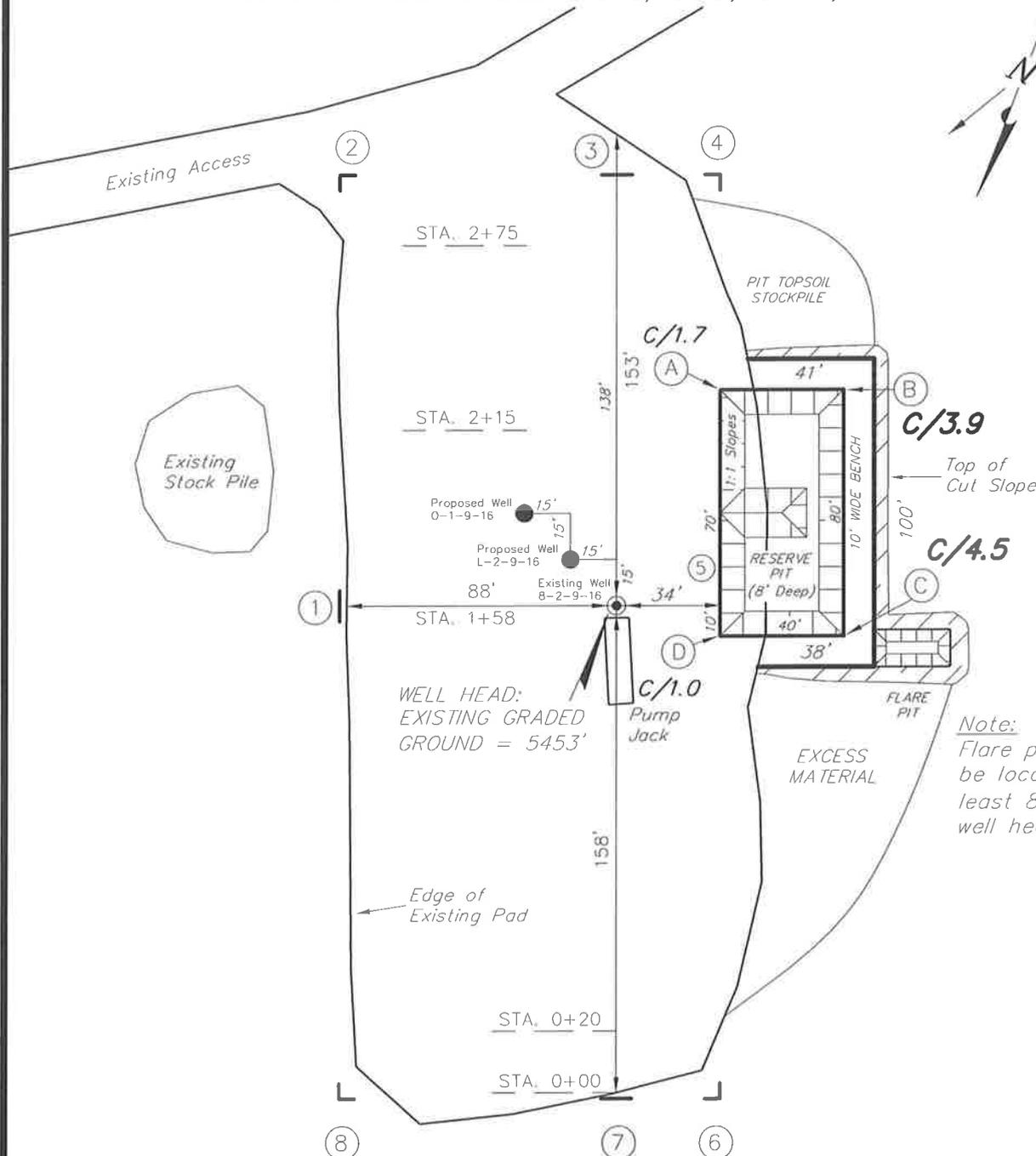
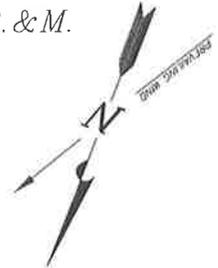
SURVEYED BY: T.P.	DATE SURVEYED: 09-09-09
DRAWN BY: M.W.	DATE DRAWN: 10-06-09
SCALE: 1" = 50'	REVISED: M.W. - 12-22-09

**Tri State** (435) 781-2501  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

# NEWFIELD PRODUCTION COMPANY

**L-2-9-16 (Proposed Well)**  
**0-1-9-16 (Proposed Well)**  
**8-2-9-16 (Existing Well)**

Pad Location: SENE Section 2, T9S, R16E, S.L.B.&M.



*Note:*  
Flare pit is to be located at least 80' from well head.

**REFERENCE POINTS**

140' NORTHEAST - 5446.3'  
190' NORTHEAST - 5444.2'

SURVEYED BY: T.P.	DATE SURVEYED: 09-09-09
DRAWN BY: M.W.	DATE DRAWN: 10-06-09
SCALE: 1" = 50'	REVISED: M.W. - 12-22-09

**Tri State**  
*Land Surveying, Inc.*  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
 (435) 781-2501

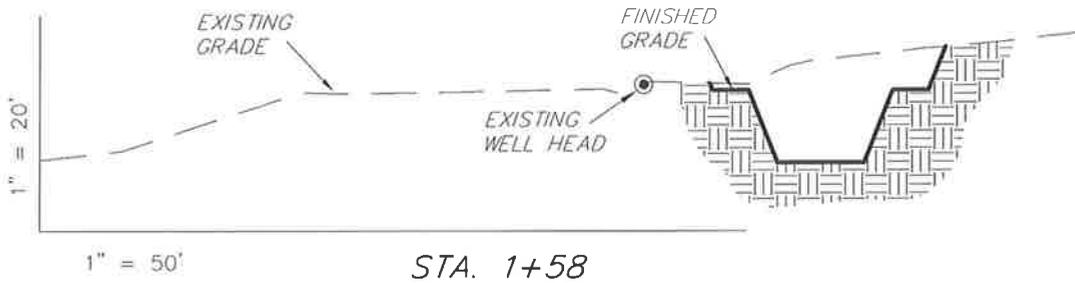
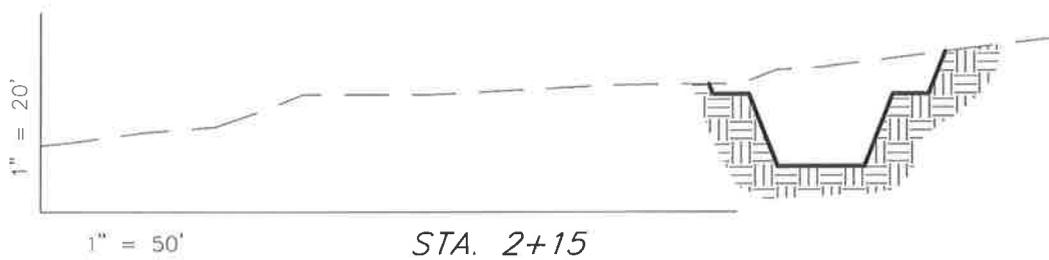
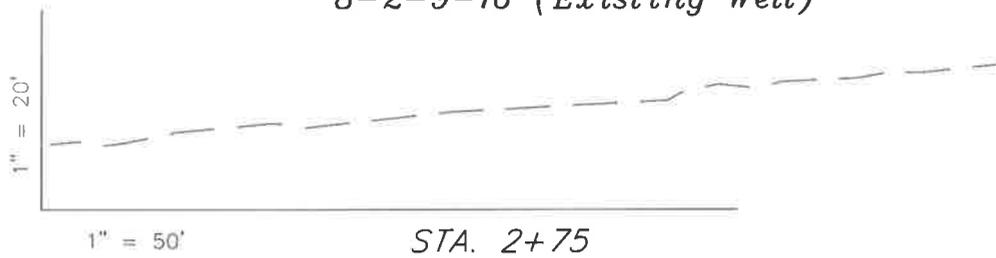
# NEWFIELD PRODUCTION COMPANY

## CROSS SECTIONS

*L-2-9-16 (Proposed Well)*

*0-1-9-16 (Proposed Well)*

*8-2-9-16 (Existing Well)*



NOTE:  
UNLESS OTHERWISE NOTED  
CUT SLOPES ARE AT 1:1  
FILL SLOPES ARE AT 1.5:1

ESTIMATED EARTHWORK QUANTITIES (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards)				
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	650	0	Topsoil is not included in Pad Cut	650
PIT	640	0		640
TOTALS	1,290	0	140	1,290

SURVEYED BY: T.P.	DATE SURVEYED: 09-09-09
DRAWN BY: M.W.	DATE DRAWN: 10-06-09
SCALE: 1" = 50'	REVISED: M.W. - 12-22-09

*Tri State*  
*Land Surveying, Inc.*  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501



# Newfield Production Company Proposed Site Facility Diagram

Greater Monument Butte O-1-9-16

From the 9-2-9-16 Location

SE/NE Sec. 2, T9S, R16E

Duchesne County, Utah

ML-21839

Site Security Plan is held at the Pleasant Valley  
Office, Duchesne County Utah

**Production Phase:**

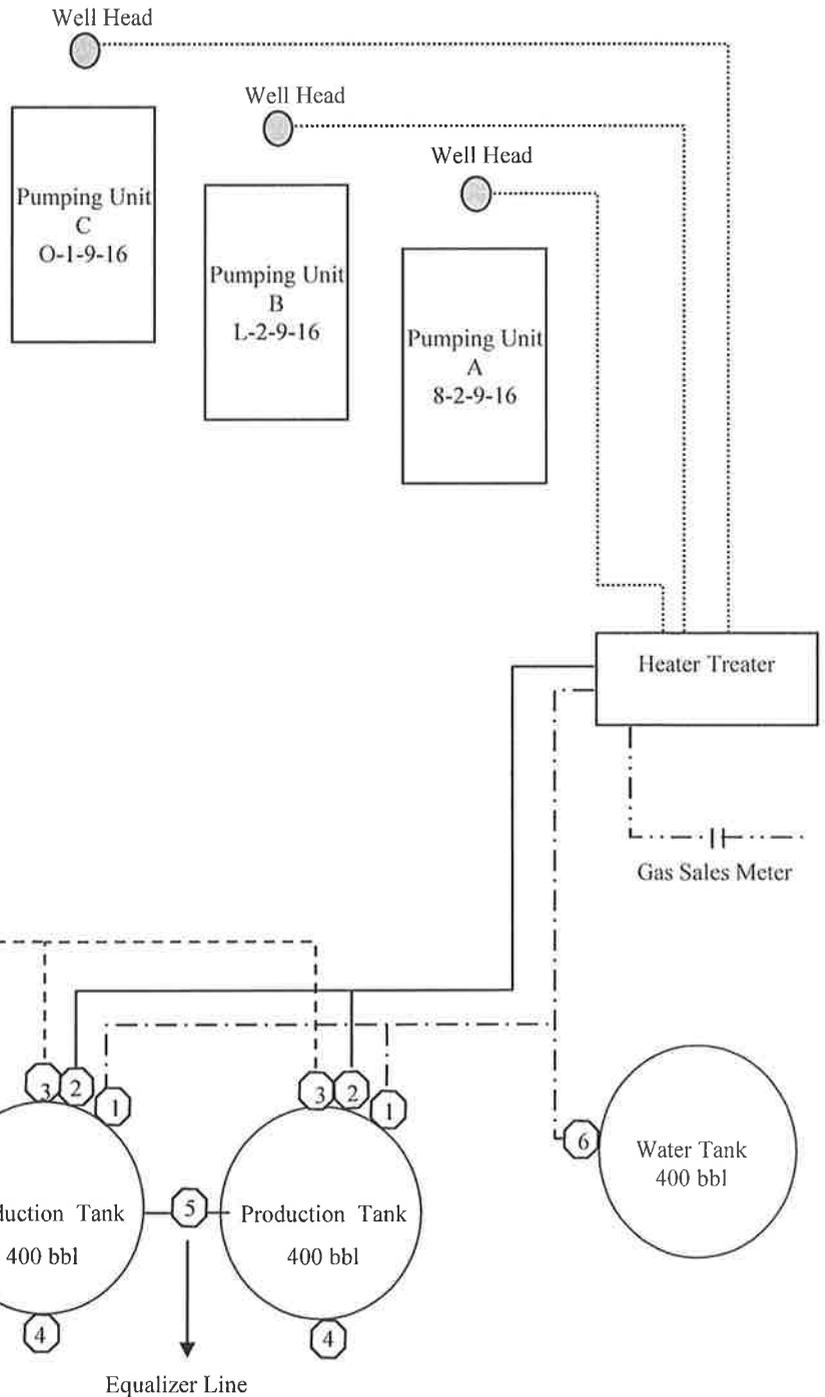
- 1) Valves 1, 3, and 4 sealed closed
- 2) Valves 2, 5 and 6 sealed open

**Sales Phase:**

- 1) Valves 1, 2, 4, 5, and 6 sealed closed
- 2) Valve 3 open

**Draining Phase:**

- 1) Valves 1 and 6 open



← Diked Section

**Legend**

Emulsion Line	.....
Load Rack	-----
Water Line	- . - . - .
Oil Line	—————
Gas Sales	- . - . - .

Exhibit "D"

1 of 2

CULTURAL RESOURCE INVENTORY OF  
NEWFIELD EXPLORATION'S 26 PROPOSED  
WELL LOCATIONS NEAR WELLS DRAW  
(T8S R16 SEC. 23, 24, 25, 26, 27, 34, 35 36 AND  
T9S R16E SEC. 1, 2, 5)  
DUCHESNE COUNTY, UTAH

By:

Patricia Stavish

Prepared For:

Bureau of Land Management  
Vernal Field Office  
and  
State of Utah  
School and Institutional Trust Lands Administration

Prepared Under Contract With:

Newfield Exploration Company  
Rt. 3 Box 3630  
Myton, UT 84052

Prepared By:

Montgomery Archaeological Consultants, Inc.  
P.O. Box 219  
Moab, Utah 84532

MOAC Report No. 09-208

December 9, 2009

United States Department of Interior (FLPMA)  
Permit No. 09-UT-60122

State of Utah Public Lands Policy  
Archaeological Survey Permit No. 117

State of Utah Antiquities Project (Survey)  
Permit No. U-09-MQ-0732bs

**NEWFIELD EXPLORATION COMPANY**

**PALEONTOLOGICAL SURVEY OF PROPOSED  
PRODUCTION DEVELOPMENT AREAS,  
AND PROPOSED PIPELINE ROUTES  
DUCHESNE COUNTY, UTAH**

**Area Survey**

NW 1/4, SE 1/4 Section 7, T 9 S, R 18 E (10-7-9-18)

**Proposed Directional Wells Survey**

(All sections reported are in one of the following Townships and Ranges: T 8 & 9 S, R 16, 17 & 18 E), and are for existing wells. Proposed wells are found under "Report of Areas Surveyed."

11-6-9-17, 31-1-9-16, 4-1-9-16, 5-1-9-16, 8-2-9-16, 1-14-9-16, 10-35-8-16, 15-34-8-16, 2A-35-8-16, 1A-35-8-16, 13-25-8-16, 8-5-9-16, 16-27-8-16, 11-25-8-16, 12-30-8-17, 12-25-8-16, 10-26-8-16, 15-24-8-16, 14-23-8-16

**Water Pipeline Tie-Ins Survey**

SE 1/4, NE 1/4 Section 2, T 9 S, R 16 E (8-2-9-16); SW 1/4, SW 1/4 Section 1, T 9 S, R 16 E (1-14-9-16); SE 1/4, SE 1/4, Section 27, T 8 S, R 16 E (16-27-8-16); SE 1/4, SW 1/4, Section 23, T 8 S, R 16 E (14-23-8-16)

**REPORT OF SURVEY**

Prepared for:

**Newfield Exploration Company**

Prepared by:

Wade E. Miller  
Consulting Paleontologist  
October 31, 2009

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

January 11, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2010 Plan of Development Greater Monument  
Butte Unit, Duchesne and Uintah Counties,  
Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Greater Monument Butte Unit, Duchesne and Uintah Counties, Utah.

API#	WELL NAME	LOCATION
(Proposed PZ GREEN RIVER)		
43-013-50194	Mon Butte NE Fed K-25-8-16	Sec 30 T08S R17E 1959 FSL 0653 FWL BHL Sec 25 T08S R16E 2635 FNL 0010 FEL
43-013-50209	Greater Mon Butte B-1-9-16	Sec 36 T08S R16E 0862 FSL 2119 FEL BHL Sec 01 T09S R16E 0010 FNL 1430 FEL
43-013-50210	Greater Mon Butte C-1-9-16	Sec 36 T08S R16E 0758 FSL 2329 FWL BHL Sec 01 T09S R16E 0010 FNL 2630 FEL
43-013-50211	Greater Mon Butte T-36-8-16	Sec 36 T08S R16E 0634 FSL 0800 FEL BHL Sec 36 T08S R16E 1310 FSL 0010 FEL
43-013-50212	Greater Mon Butte O-1-9-16	Sec 02 T09S R16E 2096 FNL 0425 FEL BHL Sec 01 T09S R16E 2635 FSL 0010 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Greater Monument Butte Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:1-11-10



2267

January 8, 2010

State of Utah, Division of Oil, Gas and Mining  
ATTN: Diana Mason  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Directional Drilling  
**Greater Monument Butte O-1-9-16**  
Greater Monument Butte (Green River) Unit  
ML-21839  
UTU-18399  
Surface Hole: T9S-R16E Section 2: SENE  
2096' FNL 425' FSL  
  
At Target: T9S-R16E Section 1: NWSW  
2635' FSL 10' FWL

Duchesne County, Utah

Dear Ms. Mason;

Pursuant to the filing by Newfield Production Company (NPC) of an Application for Permit to Drill the above referenced well dated 1/8/10, a copy of which is attached, and in accordance with Oil and Gas Conservation Rule R649-3-11, NPC hereby submits this letter as notice of our intention to directionally drill this well.

The surface hole and target locations of this well are both within the boundaries of the Greater Monument Butte Unit (UTU-87538X), of which Newfield certifies that it is the operator. Further, Newfield Certifies that all lands within 460 feet of the entire directional well bore are within the Greater Monument Butte Unit.

NPC is permitting this well as a directional well in order to mitigate surface disturbance by utilizing pre-existing roads and pipelines.

NPC hereby requests our application for permit to drill be granted pursuant to R649-3-11. If you have any questions or require further information, please contact the undersigned at 303-383-4197 or by email at [sgillespie@newfield.com](mailto:sgillespie@newfield.com). Your consideration in this matter is greatly appreciated.

Sincerely,  
Newfield Production Company

A handwritten signature in blue ink that reads "Shane Gillespie".

Shane Gillespie  
Land Associate

RECEIVED

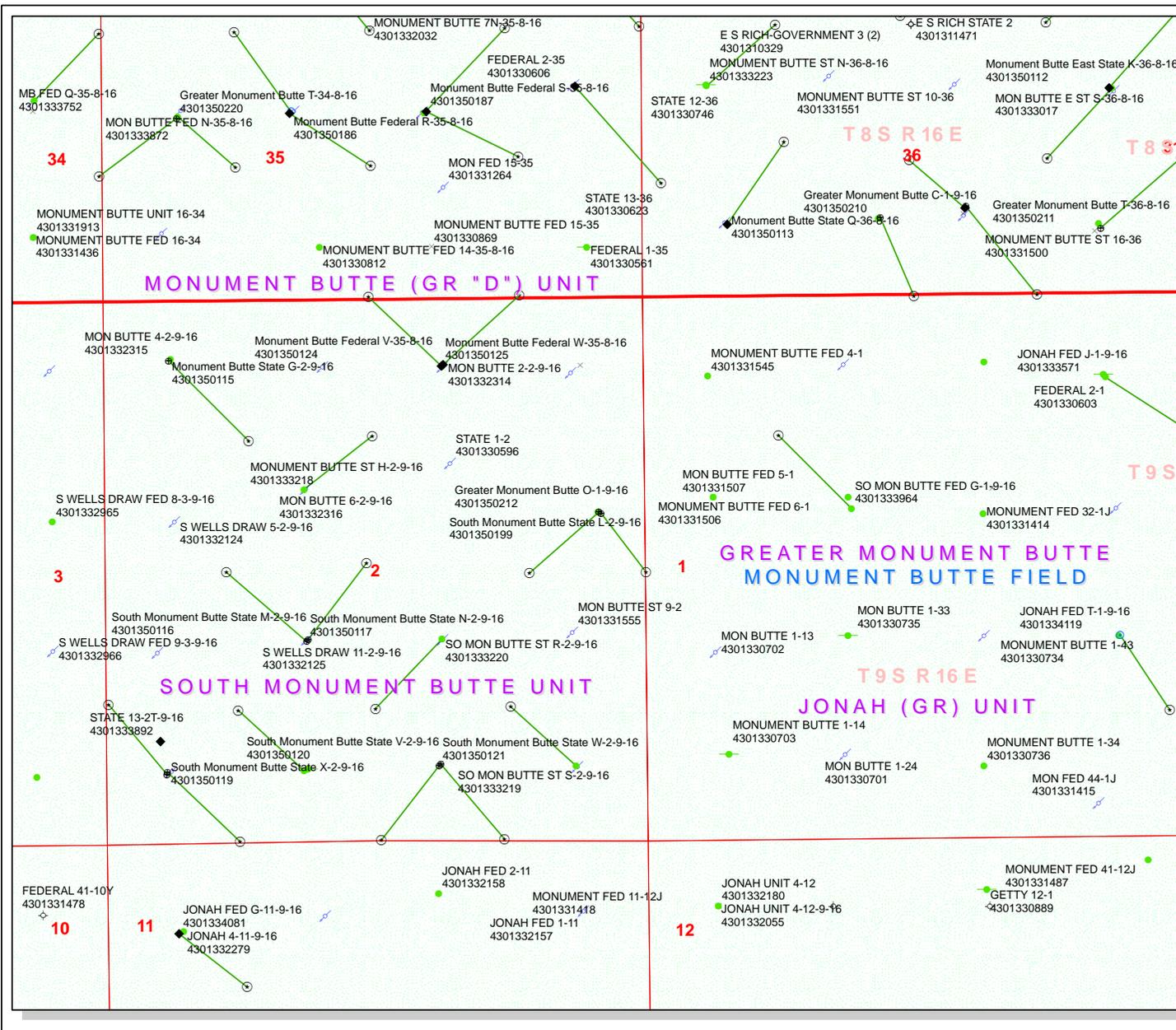
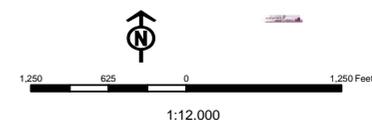
JAN 14 2010

DIV. OF OIL, GAS & MINING

**API Number: 4301350212**  
**Well Name: Greater Monument Butte O-1-9-16**  
**Township 09.0 S Range 16.0 E Section 2**  
**Meridian: SLBM**  
 Operator: NEWFIELD PRODUCTION COMPANY

Map Prepared:  
 Map Produced by Diana Mason

Units	Wells Query
<b>STATUS</b>	<b>Status</b>
ACTIVE	APD - Approved Permit
EXPLORATORY	DRL - Spudded (Drilling Commenced)
GAS STORAGE	GIW - Gas Injection
NF PP OIL	GS - Gas Storage
NF SECONDARY	LA - Location Abandoned
PI OIL	LOC - New Location
PP GAS	OPS - Operation Suspended
PP GEOTHERMAL	PA - Plugged Abandoned
PP OIL	PGW - Producing Gas Well
SECONDARY	POW - Producing Oil Well
TERMINATED	RET - Returned APD
<b>Fields</b>	SGW - Shut-in Gas Well
<b>STATUS</b>	SOW - Shut-in Oil Well
Unknown	TA - Temp. Abandoned
ABANDONED	TW - Test Well
ACTIVE	WDW - Water Disposal
COMBINED	WWI - Water Injection Well
INACTIVE	WSW - Water Supply Well
STORAGE	
TERMINATED	
Sections	
Township	



**From:** Jim Davis  
**To:** Bonner, Ed; Mason, Diana  
**CC:** teaton@newfield.com  
**Date:** 2/10/2010 12:05 PM  
**Subject:** Newfield Approvals (5)

The following APDs have been approved by SITLA including arch and paleo clearance.

4301350209 Greater Monument Butte B-1-9-16  
4301350210 Greater Monument Butte C-1-9-16  
4301350211 Greater Monument Butte T-36-8-16  
4301350244 Greater Monument Butte I-2-9-16  
4301350212 Greater Monument Butte O-1-9-16

-Jim

Jim Davis  
Utah Trust Lands Administration  
jimdavis1@utah.gov  
Phone: (801) 538-5156

Well Name	NEWFIELD PRODUCTION COMPANY Greater Monument Butte O-1-9-16		
String	Surf	Prod	
Casing Size(")	8.625	5.500	
Setting Depth (TVD)	950	6232	
Previous Shoe Setting Depth (TVD)	0	950	
Max Mud Weight (ppg)	8.3	8.3	
BOPE Proposed (psi)	500	2000	
Casing Internal Yield (psi)	2950	4810	
Operators Max Anticipated Pressure (psi)	2698	8.3	

Calculations	Surf String	8.625	"
Max BHP (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	410	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	296	YES air drill
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	201	YES OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	201	NO Reasonable
Required Casing/BOPE Test Pressure=		950	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

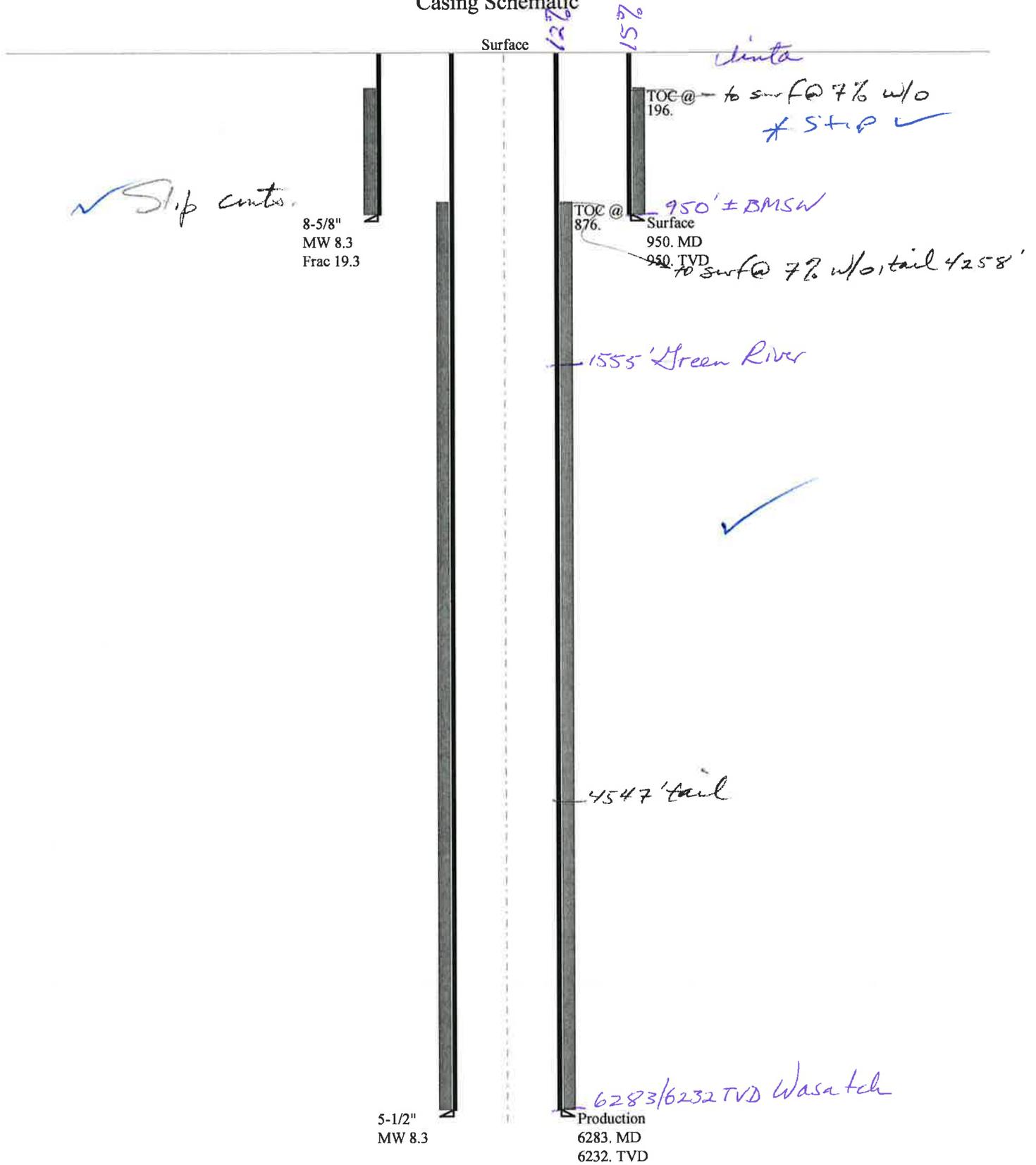
Calculations	Prod String	5.500	"
Max BHP (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	2690	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	1942	YES
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	1319	YES OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	1528	NO Reasonable
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		950	psi *Assumes 1psi/ft frac gradient

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

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

# 43013502120000 Greater Monument Butte O-1-9-16

## Casing Schematic



Well name:	<b>43013502120000 Greater Monument Butte O-1-9-16</b>	
Operator:	<b>NEWFIELD PRODUCTION COMPANY</b>	
String type:	Surface	Project ID: 43-013-50212
Location:	DUCHESNE COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 8.330 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 87 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft  
Cement top: 196 ft

**Burst**

Max anticipated surface pressure: 836 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 950 psi

No backup mud specified.

**Tension:**

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

Tension is based on air weight.  
Neutral point: 831 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 6,232 ft  
Next mud weight: 8.300 ppg  
Next setting BHP: 2,687 psi  
Fracture mud wt: 19,250 ppg  
Fracture depth: 950 ft  
Injection pressure: 950 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	950	8.625	24.00	J-55	ST&C	950	950	7.972	4891
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	411	1370	3.333	950	2950	3.11	22.8	244	10.70 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: March 4, 2010  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 950 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013502120000 Greater Monument Butte O-1-9-16</b>		
Operator:	<b>NEWFIELD PRODUCTION COMPANY</b>		
String type:	Production	Project ID:	43-013-50212
Location:	DUCHESNE COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 8.330 ppg  
 Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 1,326 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP: 2,697 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor: 1.125

**Burst:**

Design factor: 1.00

**Tension:**

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

Tension is based on air weight.  
 Neutral point: 5,489 ft

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 161 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft  
 Cement top: 876 ft

**Directional Info - Build & Hold**

Kick-off point: 1100 ft  
 Departure at shoe: 715 ft  
 Maximum dogleg: 1.5 °/100ft  
 Inclination at shoe: 8.38 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	6283	5.5	15.50	J-55	LT&C	6232	6283	4.825	22185
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2697	4040	1.498	2697	4810	1.78	96.6	217	2.25 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: March 4, 2010  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 6232 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** NEWFIELD PRODUCTION COMPANY  
**Well Name** Greater Monument Butte O-1-9-16  
**API Number** 43013502120000      **APD No** 2267      **Field/Unit** MONUMENT BUTTE  
**Location: 1/4,1/4** SENE      **Sec 2 Tw 9.0S Rng 16.0E** 2096 FNL 425 FEL  
**GPS Coord (UTM)**      **Surface Owner**

**Participants**

Floyd Bartlett (DOGM), Tim Eaton and Brian Foote (Newfield Production Co.), Cory Miller and Tyson Reary (Tri State Land Surveying), Alex Hansen (Division of Wildlife Resources), Jim Davis (SITLA) and James Hereferd (Bureau Of Land Management).

**Regional/Local Setting & Topography**

Two additional oil wells are proposed to be directionally drilled from the existing pad of the South Monument Butte 8-2-9-16, a producing oil well. The surface is owned by SITLA. The new wells are the Greater Monument Butte L-2-9-16 to be drilled to SITLA minerals and the Greater Monument Butte O-1-9-16. The bottom hole of this location will be drilled to Federal minerals administered by the Bureau of Land Management. The first perforation is planned within SITLA minerals. No significant changes to the previously disturbed area of the existing pad are planned. The reserve pit will be re-dug near the original location in the southwest corner of the pad. The wells are on a 20-acre spacing.

A field review of the existing pad showed no concerns as it now exists and should be suitable for drilling and operating the proposed additional wells. Jim Davis of SITLA and James Hereford of the BLM attended. SITLA is to be contacted for surface reclamation standards.

Alex Hansen of the Utah Division of Wildlife resources attended the evaluation. He said the additional wells should have no significant impacts on wildlife and occupying an existing location rather than disturbing new areas lessened impacts.

A reserve pit will be re-dug near the original location. Its dimensions are 80' x 40' x 8' deep. A 16-mil liner with an appropriate sub-liner is required.

**Surface Use Plan**

**Current Surface Use**  
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
	Width    Length		
0			

**Ancillary Facilities**

**Waste Management Plan Adequate?**

**Environmental Parameters**

**Affected Floodplains and/or Wetlands** N

**Flora / Fauna**

Existing pad

**Soil Type and Characteristics**

**Erosion Issues** N

**Sedimentation Issues** N

**Site Stability Issues** N

**Drainage Diversion Required?** N

**Berm Required?** Y

**Erosion Sedimentation Control Required?** N

**Paleo Survey Run?**    **Paleo Potential Observed?** N    **Cultural Survey Run?**    **Cultural Resources?**

**Reserve Pit**

**Site-Specific Factors**

**Site Ranking**

<b>Distance to Groundwater (feet)</b>	75 to 100	10
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>		20
<b>Native Soil Type</b>	Mod permeability	10
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>		0
<b>Affected Populations</b>		
<b>Presence Nearby Utility Conduits</b>	Not Present	0
	<b>Final Score</b>	45

1 Sensitivity Level

**Characteristics / Requirements**

A reserve pit will be re-dug near the original location. Its dimensions are 80' x 40' x 8' deep. A 16-mil liner with an appropriate sub-liner is required.

**Closed Loop Mud Required?** N    **Liner Required?** Y    **Liner Thickness** 16    **Pit Underlayment Required?** Y

**Other Observations / Comments**

Floyd Bartlett  
**Evaluator**

12/14/2009  
**Date / Time**

# Application for Permit to Drill Statement of Basis

3/10/2010

**Utah Division of Oil, Gas and Mining**

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Owner</b>	<b>CBM</b>
2267	43013502120000	LOCKED	OW	S	No
<b>Operator</b>	NEWFIELD PRODUCTION COMPANY		<b>Surface Owner-APD</b>		
<b>Well Name</b>	Greater Monument Butte O-1-9-16		<b>Unit</b>	GMBU (GRRV)	
<b>Field</b>	MONUMENT BUTTE		<b>Type of Work</b>	DRILL	
<b>Location</b>	SENE 2 9S 16E S 2096 FNL 425 FEL GPS Coord (UTM) 578631E 4434766N				

**Geologic Statement of Basis**

Newfield proposes to set 300' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 950'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 2. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a major source of useable ground water. However, ground water in the Uinta Formation should be of sufficient quality and quantity for isolated domestic and agricultural use and should be protected. Surface casing should be extended to cover the base of the moderately saline ground water.

Brad Hill  
**APD Evaluator**

1/19/2010  
**Date / Time**

**Surface Statement of Basis**

Two additional oil wells are proposed to be directionally drilled from the existing pad of the South Monument Butte 8-2-9-16, a producing oil well. The surface is owned by SITLA. The new wells are the Greater Monument Butte L-2-9-16 to be drilled to SITLA minerals and the Greater Monument Butte O-1-9-16. The bottom hole of this location will be drilled to Federal minerals administered by the Bureau of Land Management. The first perforation is planned within SITLA minerals. No significant changes to the previously disturbed area of the existing pad are planned. The reserve pit will be re-dug near the original location in the southwest corner of the pad. The wells are on a 20-acre spacing.

A field review of the existing pad showed no concerns as it now exists and should be suitable for drilling and operating the proposed additional wells. Jim Davis of SITLA and James Hereford of the BLM attended. SITLA is to be contacted for surface reclamation standards.

Alex Hansen of the Utah Division of Wildlife resources attended the evaluation. He said the additional wells should have no significant impacts on wildlife and occupying an existing location rather than disturbing new areas lessened impacts.

Floyd Bartlett  
**Onsite Evaluator**

12/14/2009  
**Date / Time**

**Conditions of Approval / Application for Permit to Drill**

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

# WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 1/7/2010

**API NO. ASSIGNED:** 43013502120000

**WELL NAME:** Greater Monument Butte O-1-9-16

**OPERATOR:** NEWFIELD PRODUCTION COMPANY (N2695)

**PHONE NUMBER:** 435 646-4825

**CONTACT:** Mandie Crozier

**PROPOSED LOCATION:** SENE 2 090S 160E

**Permit Tech Review:**

**SURFACE:** 2096 FNL 0425 FEL

**Engineering Review:**

**BOTTOM:** 2635 FSL 0010 FWL

**Geology Review:**

**COUNTY:** DUCHESNE

**LATITUDE:** 40.06137

**LONGITUDE:** -110.07803

**UTM SURF EASTINGS:** 578631.00

**NORTHINGS:** 4434766.00

**FIELD NAME:** MONUMENT BUTTE

**LEASE TYPE:** 3 - State

**LEASE NUMBER:** ML-21839

**PROPOSED PRODUCING FORMATION(S):** GREEN RIVER

**SURFACE OWNER:** 3 - State

**COALBED METHANE:** NO

## RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE/FEE - B001834
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 43-7478
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

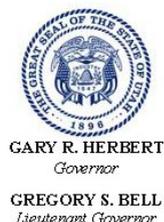
Commingle Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit: GMBU (GRRV)
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 213-11
- Effective Date: 11/30/2009
- Siting: Suspends General Siting
- R649-3-11. Directional Drill

**Comments:** Presite Completed

**Stipulations:** 5 - Statement of Basis - Bhill  
15 - Directional - dmason  
25 - Surface Casing - ddoucet  
27 - Other - Bhill



# 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:** Greater Monument Butte O-1-9-16  
**API Well Number:** 43013502120000  
**Lease Number:** ML-21839  
**Surface Owner:** STATE  
**Approval Date:** 3/16/2010

### Issued to:

NEWFIELD PRODUCTION COMPANY , Rt 3 Box 3630 , Myton, UT 84052

### 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 Cause 213-11. The expected producing formation or pool is the GREEN RIVER 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

### General:

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

### Conditions of Approval:

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

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

Production casing cement shall be brought up to or above the top of the unitized interval for the Greater Monument Butte Unit (Cause No. 213-11).

Surface casing shall be cemented to the surface.

### Additional Approvals:

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

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

**Notification Requirements:**

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

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

**Contact Information:**

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

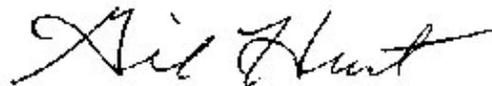
- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-231-8956 - after office hours

**Reporting Requirements:**

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

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

**Approved By:**



Gil Hunt  
Associate Director, Oil & Gas

Spud

BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Ross Rig # 26  
Submitted By Xabier Lasa Phone Number 435-823-6014  
Well Name/Number Greater Monument Butte O-1-9-16  
Qtr/Qtr SE/NE Section 7 Township 9S Range 16E  
Lease Serial Number ML-21839  
API Number 43013502120000

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 7-7-10 10:00  
AM  PM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
- Intermediate Casing
- Production Casing
- Liner
- Other

Date/Time 7-8-10 3:00 AM  PM

BOPE

- Initial BOPE test at surface casing point
- BOPE test at intermediate casing point
- 30 day BOPE test
- Other

Date/Time \_\_\_\_\_ AM  PM

Remarks Spud With Ross Rig #26 @ 10:00 am On 7/7/10 Run 8  
5/8" Casing @ 3:00 pm on 7/8/10.

STATE OF UTAH  
 DIVISION OF OIL, GAS AND MINING  
 ENTITY ACTION FORM -FORM 6

OPERATOR: NEWFIELD PRODUCTION COMPANY  
 ADDRESS: RT. 3 BOX 3630  
MYTON, UT 84052

OPERATOR ACCT. NO. N2695

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	17697	4301350272	UTE TRIBAL 14-20-4-1	SESW	20	4S	1W	DUCHESNE	7/2/2010	7/26/10
WELL 1 COMMENTS: <i>GRRV</i>											
B	99999	17400	4301350177	GREATER Boundary II Fed. G-28-8-17	NWNW	28	8S	17E	DUCHESNE	7/7/2010	7/26/10
WELL 1 COMMENTS: <i>GRRV</i> <span style="margin-left: 200px;"><i>BHL = SENW</i></span>											
B	99999	17400	4301350199	S MONUMENT BUTTE State L-2-9-16	SE <sup>E</sup> NW	2	9S	16E	DUCHESNE	7/6/2010	7/26/10
WELL 1 COMMENTS: <i>GRRV</i> <span style="margin-left: 200px;"><i>BHL = NESE</i></span>											
B	99999	17400	4301350212	Greater Monument Butte JONAH O-1-9-16	SENE	2	9S	16E	DUCHESNE	7/10/2010	7/26/10
WELL 1 COMMENTS: <i>GRRV</i> <span style="margin-left: 200px;"><i>BHL = Sec 1 NWSW</i></span>											
A	99999	17698	4304751085	UTE TRIBAL 9-29-4-1E	NESE	29	4S	1E	UINTAH	7/9/2010	7/26/10
WELL 5 COMMENTS: <i>GRRV</i> <span style="margin-left: 200px;"><i>BHL = NESE</i></span>											
A	99999	17699	4304751058	UTE TRIBAL 10-29-4-1E	NWSE	29	4S	1E	UINTAH	7/9/2010	7/26/10
WELL 5 COMMENTS: <i>GRRV</i>											

ACTION CODES (See instructions on back of form)

- A - new entity for new well (single well only)
- B - well to existing entity (group or unit well)
- C - from one existing entity to another existing entity
- D - well from one existing entity to a new entity
- E - other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

RECEIVED  
 JUL 19 2010

DIV. OF OIL, GAS & MINING

15/  
 Signature Jentri Park  
 Production Clerk 07/19/10  
 Date

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
UTAH STATE ML-21839

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:  
GMBU

1. TYPE OF WELL:  
OIL WELL  GAS WELL  OTHER

8. WELL NAME and NUMBER:  
JONAH O-1-9-16

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
4301350212

3. ADDRESS OF OPERATOR:  
Route 3 Box 3630 CITY Myton STATE UT ZIP 84052 PHONE NUMBER 435.646.3721

10. FIELD AND POOL, OR WILDCAT:  
GREATER MB UNIT

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE:

COUNTY: DUCHESNE

OTR/OTR. SECTION TOWNSHIP RANGE MERIDIAN: <sup>2</sup>  
~~X~~, T9S, R16E

STATE: UT

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT <small>(Submit in Duplicate)</small>  Approximate date work will  <hr/>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> SUBSEQUENT REPORT <small>(Submit Original Form Only)</small>  Date of Work Completion: 07/12/2010	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER - Spud Notice
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

On 7/7/10 MIRU Ross rig # 26. Spud well @ 6:00 PM. Drill 1025' of 12 1/4" hole with air mist. TIH W/ 23 Jt's 8 5/8" J-55 24 # csgn. Set @ 1003.85 KB On 7/12/10 cement with 519 sks of class "G" w/ 2% CaCL2 + 1/4# sk Cello- Flake Mixed @ 15.8 ppg > 1.17 cf/ sk yeild. Returned 20 bbls cement to pit. WOC.

NAME (PLEASE PRINT) Alvin Nielsen

TITLE Drilling Foreman

SIGNATURE *Alvin Nielsen*

DATE 07/12/2010

(This space for State use only)

**RECEIVED**

**JUL 20 2010**

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>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>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-21839
	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  
	<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>1. TYPE OF WELL</b> Oil Well	<b>8. WELL NAME and NUMBER:</b> Greater Monument Butte O-1-9-16
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY	<b>9. API NUMBER:</b> 43013502120000
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052	<b>PHONE NUMBER:</b> 435 646-4825 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2096 FNL 0425 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENE Section: 02 Township: 09.0S Range: 16.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
	<b>COUNTY:</b> DUCHESNE
	<b>STATE:</b> 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: 7/21/2010	<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 type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<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 checked="" type="checkbox"/> OTHER	OTHER:   APD Amendment

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

As per the request of the BLM, the mineral lease number for the above mentioned well needs to be amended to be UTU-18399. Attached find the amended APD package reflecting that change.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 July 27, 2010

<b>NAME (PLEASE PRINT)</b> Mandie Crozier	<b>PHONE NUMBER</b> 435 646-4825	<b>TITLE</b> Regulatory Tech
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/21/2010	

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

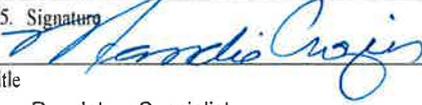
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No. Greater Monument Butte
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. Greater Monument Butte O-1-9-16
2. Name of Operator Newfield Production Company		9. API Well No.
3a. Address Route #3 Box 3630, Myton UT 84052	3b. Phone No. (include area code) (435) 646-3721	10. Field and Pool, or Exploratory Monument Butte
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SE/NE 2096' FNL 425' FEL Sec. 2, T9S R16E (ML-21839) At proposed prod. zone NW/SW 2466' FSL 144' FWL Sec. 1, T9S R16E (UTU-18399)		11. Sec., T. R. M. or Blk. and Survey or Area Sec. 2, T9S R16E
14. Distance in miles and direction from nearest town or post office* Approximately 12.5 miles south of Myton, UT		12. County or Parish Duchesne
15. Distance from proposed* location to nearest property or lease line, ft. Approx. 144' f/lse, NA' f/unit (Also to nearest drig. unit line, if any)		13. State UT
16. No. of acres in lease 160.00		17. Spacing Unit dedicated to this well 20 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1022'		20. BLM/BIA Bond No. on file WYB000493
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5453' GL	22. Approximate date work will start* 2nd Qtr. 2010	23. Estimated duration (7) days from SPUD to rig release

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature 	Name (Printed/Typed) Mandie Crozier	Date 7/13/10
Title Regulatory Specialist		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval 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.  
Conditions of approval, if any, are attached.

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.

(Continued on page 2)

\*(Instructions on page 2)

**NEWFIELD PRODUCTION COMPANY  
GREATER MONUMENT BUTTE O-1-9-16  
AT SURFACE: SE/NE SECTION 2, T9S, R16E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**DRILLING PROGRAM**

**1. GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Uinta	0' – 1555'
Green River	1555'
Wasatch	6283'
<b>Proposed TD</b>	<b>6365'</b>
Base of Moderately Saline Ground Water @ 725'	

**3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

Green River Formation 1555' – 6283' - Oil

**4. PROPOSED CASING PROGRAM**

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

**5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

Please refer to the Monument Butte Field SOP. See Exhibit "C".

**6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

Please refer to the Monument Butte Field SOP.

**7. AUXILIARY SAFETY EQUIPMENT TO BE USED:**

Please refer to the Monument Butte Field SOP.

**8. TESTING, LOGGING AND CORING PROGRAMS:**

Please refer to the Monument Butte Field SOP.

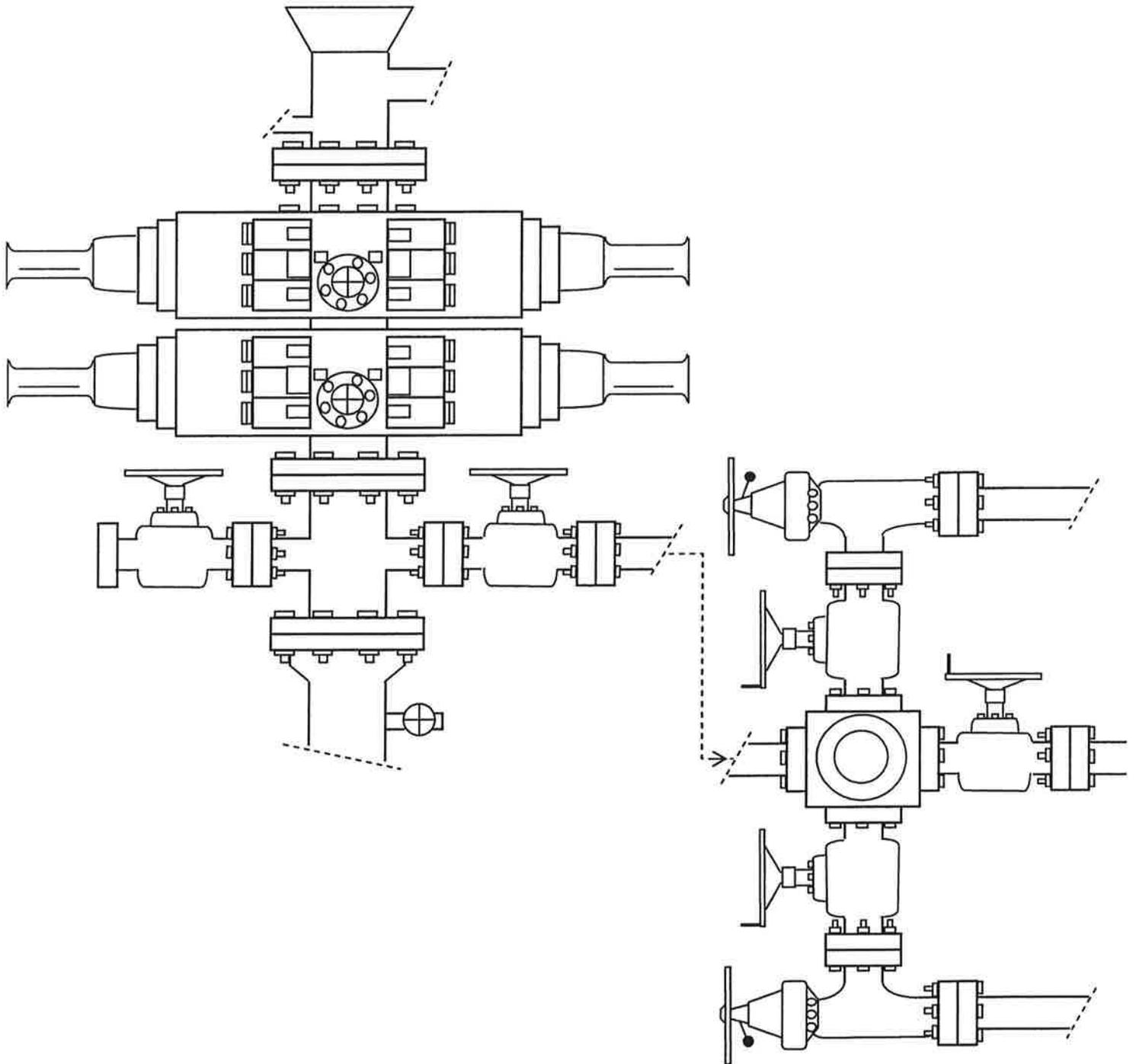
**9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

No abnormal temperatures or pressures are anticipated. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth. Maximum anticipated bottomhole pressure will approximately equal total depth in feet multiplied by a 0.433 psi/foot gradient.

10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

Please refer to the Monument Butte Field SOP.

**2-M SYSTEM**  
Blowout Prevention Equipment Systems



**EXHIBIT C**

**NEWFIELD**



# **NEWFIELD EXPLORATION**

**USGS Myton SW (UT)**

**SECTION 2 9S 16E**

**O-1-9-16**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**12 July, 2010**

HATHAWAY <sup>HB</sup> <sub>TIB</sub> BURNHAM  
DIRECTIONAL & MWD SERVICES

**RECEIVED** July 21, 2010



# HATHAWAY BURNHAM

## Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 2 9S 16E  
**Well:** O-1-9-16  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well O-1-9-16  
**TVD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**MD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b> USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA	
<b>Map System:</b> US State Plane 1983	<b>System Datum:</b> Mean Sea Level
<b>Geo Datum:</b> North American Datum 1983	
<b>Map Zone:</b> Utah Central Zone	

<b>Site</b> SECTION 2 9S 16E, SEC 2 9S 16E		
<b>Site Position:</b>	<b>Northing:</b> 7,193,600.00ft	<b>Latitude:</b> 40° 3' 34.952 N
<b>From:</b> Map	<b>Easting:</b> 2,036,100.00ft	<b>Longitude:</b> 110° 5' 10.480 W
<b>Position Uncertainty:</b> 0.0 ft	<b>Slot Radius:</b> "	<b>Grid Convergence:</b> 0.91 °

<b>Well</b> O-1-9-16, SHL LAT: 40 03 40.99, LONG: -110 04 43.46		
<b>Well Position</b> +N/-S 610.8 ft	<b>Northing:</b> 7,194,244.13 ft	<b>Latitude:</b> 40° 3' 40.990 N
+E/-W 2,100.8 ft	<b>Easting:</b> 2,038,190.78 ft	<b>Longitude:</b> 110° 4' 43.460 W
<b>Position Uncertainty</b> 0.0 ft	<b>Wellhead Elevation:</b> 5,465.0 ft	<b>Ground Level:</b> 5,453.0ft

<b>Wellbore</b> Wellbore #1					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2010/07/12	11.44	65.83	52,369

<b>Design</b> Design #1				
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b> PROTOTYPE	<b>Tie On Depth:</b> 0.0		
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	141.61

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,701.5	10.52	141.61	1,697.6	-50.3	39.9	1.50	1.50	0.00	141.61	
5,263.8	10.52	141.61	5,200.0	-560.3	443.9	0.00	0.00	0.00	0.00	O-1-9-16 TGT
6,365.4	10.52	141.61	6,283.0	-717.9	568.8	0.00	0.00	0.00	0.00	



# HATHAWAY BURNHAM

## Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 2 9S 16E  
**Well:** O-1-9-16  
**Wellbore:** Wellbore #1  
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**MD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	1.50	141.61	1,100.0	-1.0	0.8	1.3	1.50	1.50	0.00
1,200.0	3.00	141.61	1,199.9	-4.1	3.3	5.2	1.50	1.50	0.00
1,300.0	4.50	141.61	1,299.7	-9.2	7.3	11.8	1.50	1.50	0.00
1,400.0	6.00	141.61	1,399.3	-16.4	13.0	20.9	1.50	1.50	0.00
1,500.0	7.50	141.61	1,498.6	-25.6	20.3	32.7	1.50	1.50	0.00
1,600.0	9.00	141.61	1,597.5	-36.9	29.2	47.0	1.50	1.50	0.00
1,701.5	10.52	141.61	1,697.6	-50.3	39.9	64.2	1.50	1.50	0.00
1,800.0	10.52	141.61	1,794.4	-64.4	51.1	82.2	0.00	0.00	0.00
1,900.0	10.52	141.61	1,892.7	-78.8	62.4	100.5	0.00	0.00	0.00
2,000.0	10.52	141.61	1,991.0	-93.1	73.7	118.7	0.00	0.00	0.00
2,100.0	10.52	141.61	2,089.4	-107.4	85.1	137.0	0.00	0.00	0.00
2,200.0	10.52	141.61	2,187.7	-121.7	96.4	155.3	0.00	0.00	0.00
2,300.0	10.52	141.61	2,286.0	-136.0	107.8	173.5	0.00	0.00	0.00
2,400.0	10.52	141.61	2,384.3	-150.3	119.1	191.8	0.00	0.00	0.00
2,500.0	10.52	141.61	2,482.6	-164.6	130.5	210.1	0.00	0.00	0.00
2,600.0	10.52	141.61	2,581.0	-179.0	141.8	228.3	0.00	0.00	0.00
2,700.0	10.52	141.61	2,679.3	-193.3	153.1	246.6	0.00	0.00	0.00
2,800.0	10.52	141.61	2,777.6	-207.6	164.5	264.8	0.00	0.00	0.00
2,900.0	10.52	141.61	2,875.9	-221.9	175.8	283.1	0.00	0.00	0.00
3,000.0	10.52	141.61	2,974.2	-236.2	187.2	301.4	0.00	0.00	0.00
3,100.0	10.52	141.61	3,072.5	-250.5	198.5	319.6	0.00	0.00	0.00
3,200.0	10.52	141.61	3,170.9	-264.8	209.8	337.9	0.00	0.00	0.00
3,300.0	10.52	141.61	3,269.2	-279.2	221.2	356.2	0.00	0.00	0.00
3,400.0	10.52	141.61	3,367.5	-293.5	232.5	374.4	0.00	0.00	0.00
3,500.0	10.52	141.61	3,465.8	-307.8	243.9	392.7	0.00	0.00	0.00
3,600.0	10.52	141.61	3,564.1	-322.1	255.2	410.9	0.00	0.00	0.00
3,700.0	10.52	141.61	3,662.5	-336.4	266.5	429.2	0.00	0.00	0.00
3,800.0	10.52	141.61	3,760.8	-350.7	277.9	447.5	0.00	0.00	0.00
3,900.0	10.52	141.61	3,859.1	-365.0	289.2	465.7	0.00	0.00	0.00
4,000.0	10.52	141.61	3,957.4	-379.4	300.6	484.0	0.00	0.00	0.00
4,100.0	10.52	141.61	4,055.7	-393.7	311.9	502.3	0.00	0.00	0.00
4,200.0	10.52	141.61	4,154.0	-408.0	323.3	520.5	0.00	0.00	0.00
4,300.0	10.52	141.61	4,252.4	-422.3	334.6	538.8	0.00	0.00	0.00
4,400.0	10.52	141.61	4,350.7	-436.6	345.9	557.0	0.00	0.00	0.00
4,500.0	10.52	141.61	4,449.0	-450.9	357.3	575.3	0.00	0.00	0.00
4,600.0	10.52	141.61	4,547.3	-465.2	368.6	593.6	0.00	0.00	0.00
4,700.0	10.52	141.61	4,645.6	-479.6	380.0	611.8	0.00	0.00	0.00
4,800.0	10.52	141.61	4,744.0	-493.9	391.3	630.1	0.00	0.00	0.00
4,900.0	10.52	141.61	4,842.3	-508.2	402.6	648.4	0.00	0.00	0.00
5,000.0	10.52	141.61	4,940.6	-522.5	414.0	666.6	0.00	0.00	0.00
5,100.0	10.52	141.61	5,038.9	-536.8	425.3	684.9	0.00	0.00	0.00
5,200.0	10.52	141.61	5,137.2	-551.1	436.7	703.2	0.00	0.00	0.00
5,263.8	10.52	141.61	5,200.0	-560.3	443.9	714.8	0.00	0.00	0.00



# HATHAWAY BURNHAM

Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 2 9S 16E  
**Well:** O-1-9-16  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well O-1-9-16  
**TVD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**MD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
<b>O-1-9-16 TGT</b>									
5,300.0	10.52	141.61	5,235.5	-565.4	448.0	721.4	0.00	0.00	0.00
5,400.0	10.52	141.61	5,333.9	-579.8	459.3	739.7	0.00	0.00	0.00
5,500.0	10.52	141.61	5,432.2	-594.1	470.7	757.9	0.00	0.00	0.00
5,600.0	10.52	141.61	5,530.5	-608.4	482.0	776.2	0.00	0.00	0.00
5,700.0	10.52	141.61	5,628.8	-622.7	493.4	794.5	0.00	0.00	0.00
5,800.0	10.52	141.61	5,727.1	-637.0	504.7	812.7	0.00	0.00	0.00
5,900.0	10.52	141.61	5,825.5	-651.3	516.1	831.0	0.00	0.00	0.00
6,000.0	10.52	141.61	5,923.8	-665.6	527.4	849.3	0.00	0.00	0.00
6,100.0	10.52	141.61	6,022.1	-680.0	538.7	867.5	0.00	0.00	0.00
6,200.0	10.52	141.61	6,120.4	-694.3	550.1	885.8	0.00	0.00	0.00
6,300.0	10.52	141.61	6,218.7	-708.6	561.4	904.0	0.00	0.00	0.00
6,365.4	10.52	141.61	6,283.0	-717.9	568.8	916.0	0.00	0.00	0.00

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
O-1-9-16 TGT - hit/miss target - Shape	0.00	0.00	5,200.0	-560.3	443.9	7,193,690.98	2,038,643.53	40° 3' 35.453 N	110° 4' 37.750 W
- plan hits target - Circle (radius 75.0)									



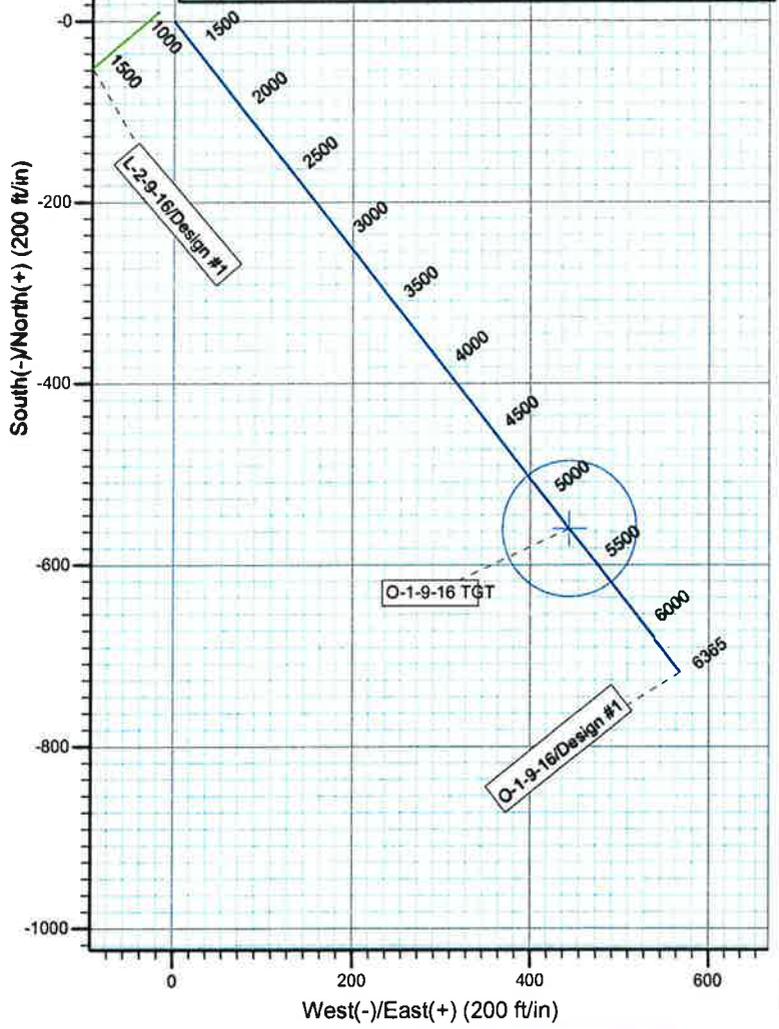
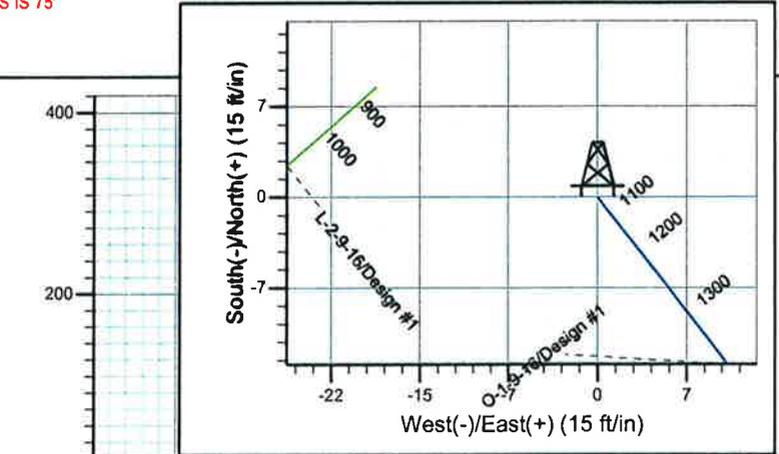
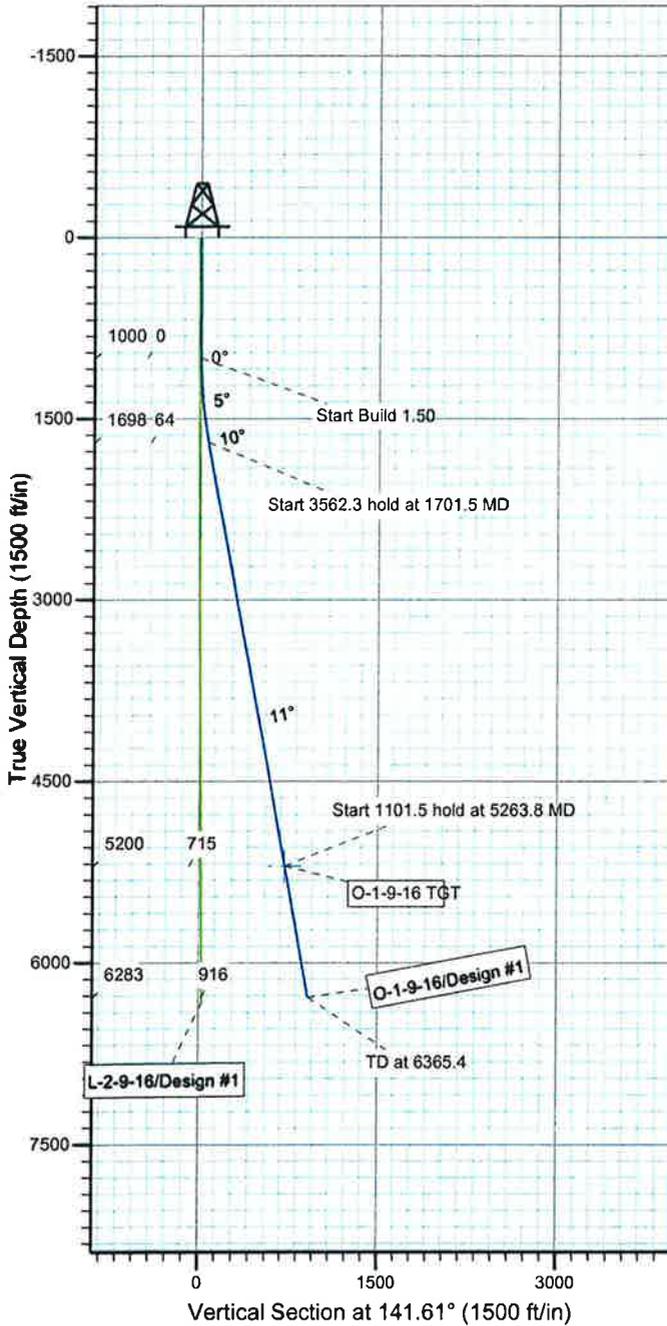
Project: USGS Myton SW (UT)  
 Site: SECTION 2 9S 16E  
 Well: O-1-9-16  
 Wellbore: Wellbore #1  
 Design: Design #1



Azimuths to True North  
 Magnetic North: 11.44°

Magnetic Field  
 Strength: 52369.0snT  
 Dip Angle: 65.83°  
 Date: 2010/07/12  
 Model: IGRF2010

KOP @ 1000'  
 DOGLEG RATE 1.5 DEG/100'  
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
O-1-9-16 TGT	5200.0	-560.3	443.9	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1701.5	10.52	141.61	1697.6	-50.3	39.9	1.50	141.61	64.2	
4	5263.8	10.52	141.61	5200.0	-560.3	443.9	0.00	0.00	714.8	O-1-9-16 TGT
5	6365.4	10.52	141.61	6283.0	-717.9	568.8	0.00	0.00	916.0	



**NEWFIELD PRODUCTION COMPANY  
GREATER MONUMENT BUTTE O-1-9-16  
AT SURFACE: SE/NE SECTION 2, T9S, R16E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**MULTI-POINT SURFACE USE & OPERATIONS PLAN**

**1. EXISTING ROADS**

See attached Topographic Map "A"

To reach Newfield Production Company well location site Greater Monument Butte O-1-9-16 located in the SE 1/4 NE 1/4 Section 2, T9S, R16E, Duchesne County, Utah:

Proceed in a southwesterly direction out of Myton, Utah along Highway 40 approximately 1.4 ± miles to the junction of this highway and Utah State Highway 53; proceed southeasterly approximately 6.2 miles ± to its junction with an existing road to the southwest; proceed southwesterly approximately 2.9 miles ± to its junction with an existing road to the southeast; proceed southeasterly approximately 2.0 miles ± to its junction with the beginning of the access road to the existing 8-2-9-16 well location.

No new surface disturbance will be required. The proposed well will be drilled off of an existing well pad.

The roads for access during the drilling, completion and production phase will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal. Any necessary fill material for repair will be purchase and hauled from private sources.

**2. PLANNED ACCESS ROAD**

There is no proposed access road for this location. The proposed well will be drilled off of the existing 8-2-9-16 well pad. See attached **Topographic Map "B"**.

There will be **no** culverts required along this access road. There will be barrow ditches and turnouts as needed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

**3. LOCATION OF EXISTING WELLS**

Refer to Exhibit "B".

**4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six months of installation.

Please refer to the Monument Butte Field Standard Operating Procedure (SOP).

5. **LOCATION AND TYPE OF WATER SUPPLY**

Newfield Production will transport water by truck from nearest water source as determined by a Newfield representative for the purpose of drilling the above mentioned well. The available water sources are as follows:

Johnson Water District  
Water Right : 43-7478

Neil Moon Pond  
Water Right: 43-11787

Maurice Harvey Pond  
Water Right: 47-1358

Newfield Collector Well  
Water Right: 41-3530 (A30414DV, contracted with the Duchesne County Conservancy District).

Please refer to the Monument Butte Field SOP. See Exhibit "A".

6. **SOURCE OF CONSTRUCTION MATERIALS**

Please refer to the Monument Butte Field SOP.

7. **METHODS FOR HANDLING WASTE DISPOSAL**

Please refer to the Monument Butte Field SOP.

8. **ANCILLARY FACILITIES**

Please refer to the Monument Butte Field SOP.

9. **WELL SITE LAYOUT**

See attached Location Layout Sheet.

10. **PLANS FOR RESTORATION OF SURFACE:**

Please refer to the Monument Butte Field SOP.

11. **SURFACE OWNERSHIP** – State of Utah.

12. **OTHER ADDITIONAL INFORMATION**

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #09-208, 12/9/09. Paleontological Resource Survey prepared by, Wade E. Miller, 10/31/09. See attached report cover pages, Exhibit "D".

Newfield Production Company requests 60' of buried water line to be granted in Lease ML-21839.

It is proposed that the disturbed area will be 60' wide to allow for construction of the proposed buried 3" steel water injection line as well as a buried 3" poly water return line.

The proposed buried water line will tie in to the existing pipeline infrastructure. **Refer to Topographic Map "C."** The proposed water pipelines will be buried in a 4-5' deep trench constructed with a trencher or backhoe for the length of the proposal. The equipment will run on the surface and not be flat bladed to minimize surface impacts to precious topsoil in these High Desert environments. If possible, all proposed surface gas pipelines will be installed on the same side of the road as existing gas lines. The construction phase of the planned access road, proposed gas lines and proposed water lines will last approximately (5) days.

In the event that the proposed well is converted to a water injection well, a Sundry Notice 3160-5 form will be applied for through the Bureau of Land Management field office.

For a ROW plan of development, please refer to the Monument Butte Field SOP and as well as the Castle Peak and Eight Mile Flat Reclamation and Weed Management Plan

#### **Water Disposal**

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E), State of Utah approved surface disposal facilities, or Federally approved surface disposal facilities.

#### **Threatened, Endangered, And Other Sensitive Species**

None for the proposed Greater Monument Butte O-1-9-16.

#### **Reserve Pit Liner**

A 16 mil liner with felt is required. Please refer to the Monument Butte Field SOP.

#### **Location and Reserve Pit Reclamation**

Please refer to the Monument Butte Field SOP and as well as the Castle Peak and Eight Mile Flat Reclamation and Weed Management Plan.

### 13. **LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:**

#### Representative

Name: Tim Eaton  
Address: Newfield Production Company  
Route 3, Box 3630  
Myton, UT 84052  
Telephone: (435) 646-3721

#### Certification

Please be advised that Newfield Production Company is considered to be the operator of well #O-1-9-16, Duchesne County, Utah and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by, Federal Bond #WYB000493.

I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield

Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

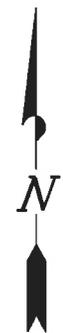
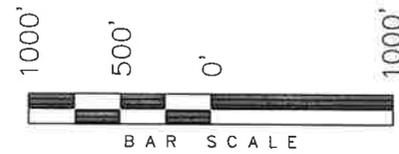
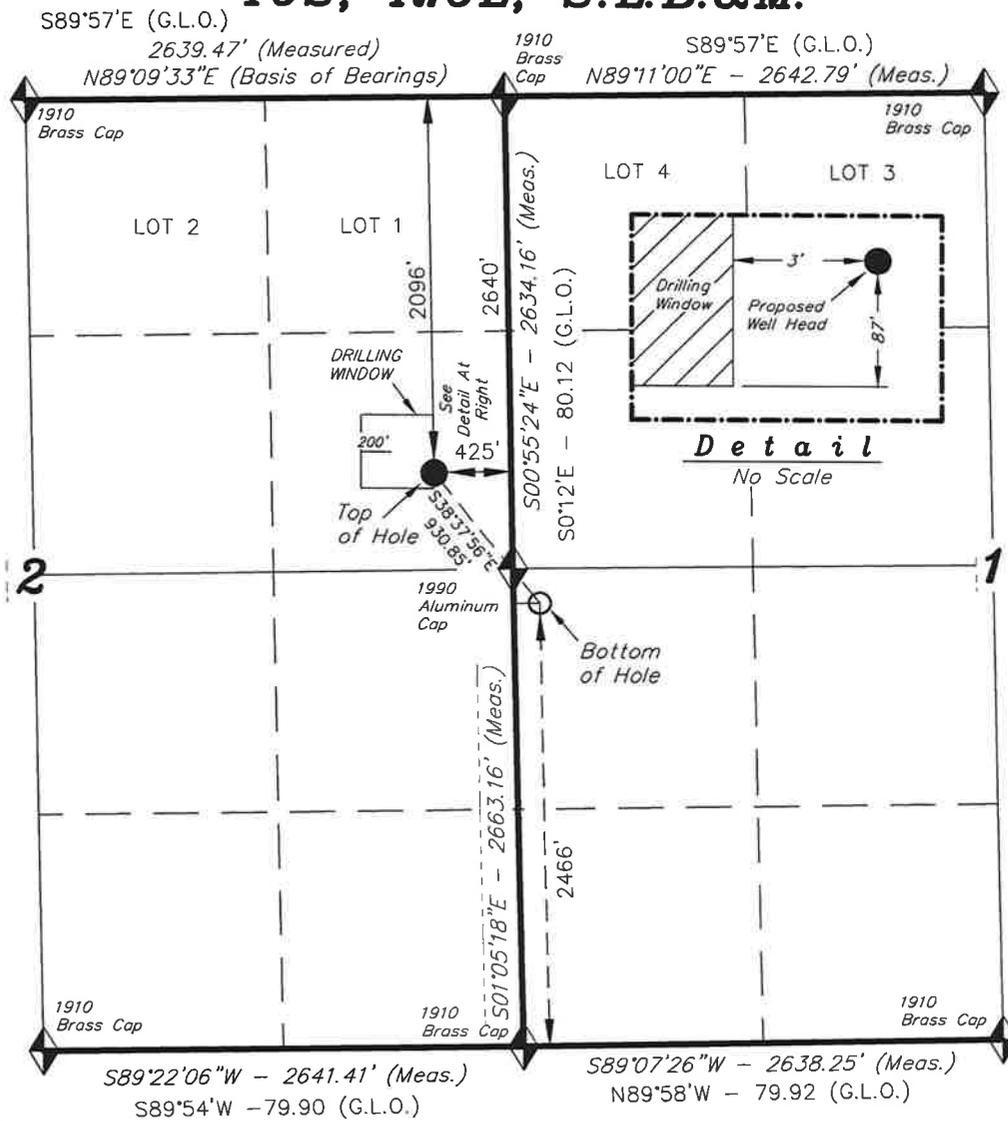
7/13/10  
Date

  
Mandie Crozier  
Regulatory Specialist  
Newfield Production Company

# T9S, R16E, S.L.B.&M.

## NEWFIELD EXPLORATION COMPANY

WELL LOCATION, 0-1-9-16, LOCATED AS SHOWN IN THE SE 1/4 NE 1/4 OF SECTION 2, T9S, R16E, S.L.B.&M. DUCHESNE COUNTY, UTAH.



**WELL LOCATION:**  
**0-1-9-16**

ELEV. EXIST. GRADED GROUND = 5453'

**Note:**  
1. The bottom of hole footages are 2466' FSL & 144' FWL of Sec 1, T9S, R16E.

THIS IS TO CERTIFY THAT THE ABOVE PLAN 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.

REGISTERED LAND SURVEYOR  
STACY W. STEWART  
REGISTRATION No. 189377  
STATE OF UTAH

**TRI STATE LAND SURVEYING & CONSULTING**  
180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 09-09-09	SURVEYED BY: T.P.
DATE DRAWN: 10-06-09	DRAWN BY: M.W.
REVISED: 07-13-10 - M.W.	SCALE: 1" = 1000'

**0-1-9-16**  
**(Surface Location) NAD 83**  
LATITUDE = 40° 03' 40.99"  
LONGITUDE = 110° 04' 43.46"

RECEIVED July 21, 2010

◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; Elevations are base on LOCATION: an N.G.S. OPUS Correction. LAT. 40°04'09.56" LONG. 110°00'43.28" (Tristate Aluminum Cap) Elev. 5281.57'

# NEWFIELD EXPLORATION COMPANY

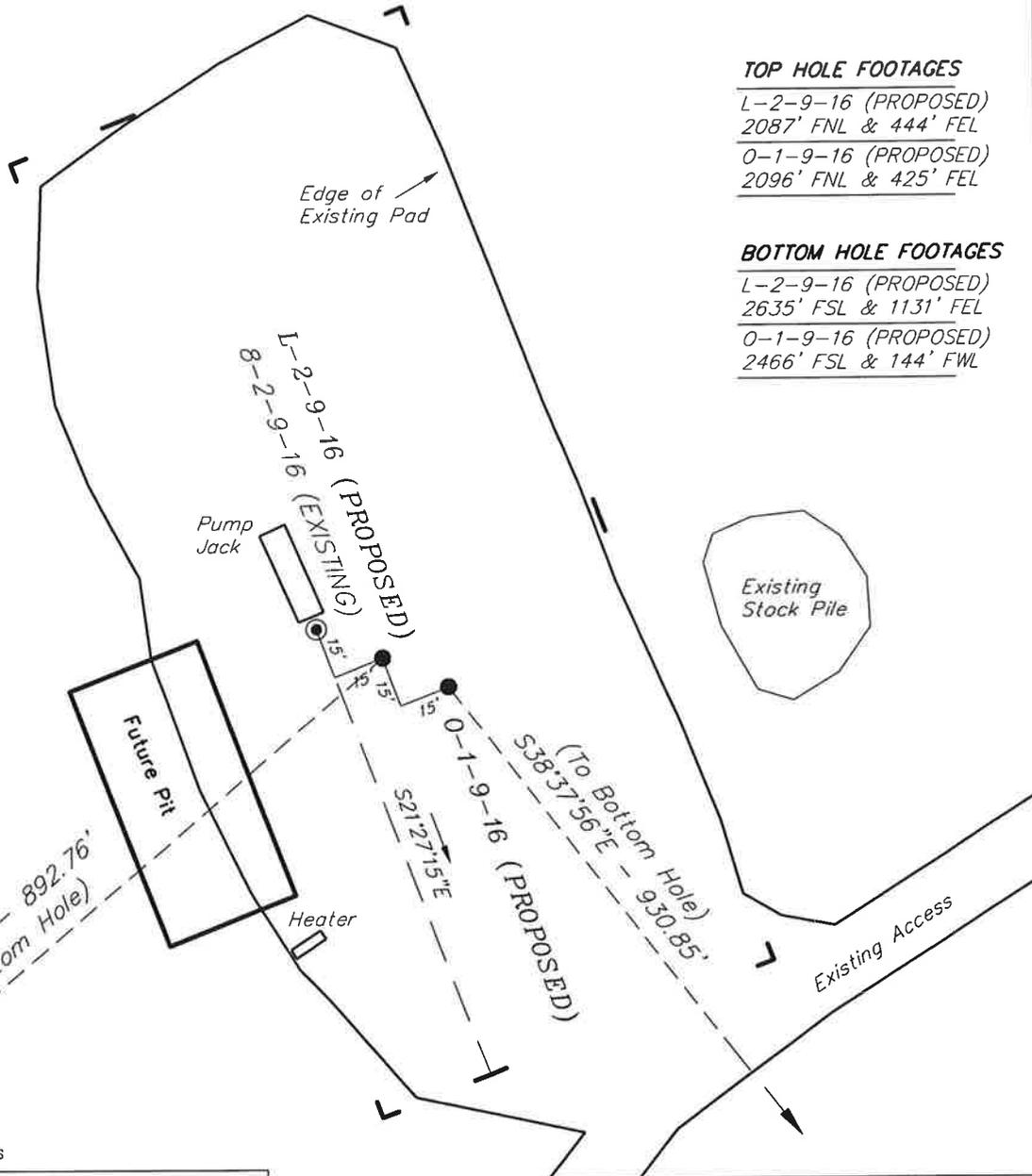
## WELL PAD INTERFERENCE PLAT

L-2-9-16 (Proposed Well)

O-1-9-16 (Proposed Well)

8-2-9-16 (Existing Well)

Pad Location: SENE Section 2, T9S, R16E, S.L.B.&M.



### TOP HOLE FOOTAGES

L-2-9-16 (PROPOSED)  
2087' FNL & 444' FEL

O-1-9-16 (PROPOSED)  
2096' FNL & 425' FEL

### BOTTOM HOLE FOOTAGES

L-2-9-16 (PROPOSED)  
2635' FSL & 1131' FEL

O-1-9-16 (PROPOSED)  
2466' FSL & 144' FWL

**Note:**  
Bearings are based  
on GPS Observations

### RELATIVE COORDINATES From top hole to bottom hole

WELL	NORTH	EAST
L-2-9-16	-581'	-678'
O-1-9-16	-727'	581'

### LATITUDE & LONGITUDE Surface position of Wells (NAD 83)

WELL	LATITUDE	LONGITUDE
L-2-9-16	40° 03' 41.08"	110° 04' 43.70"
O-1-9-16	40° 03' 40.99"	110° 04' 43.46"

SURVEYED BY: T.P.	DATE SURVEYED: 09-09-09
DRAWN BY: M.W.	DATE DRAWN: 10-06-09
SCALE: 1" = 50'	REVISED: M.W. - 07-13-10

**Tri State** (435) 781-2501  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

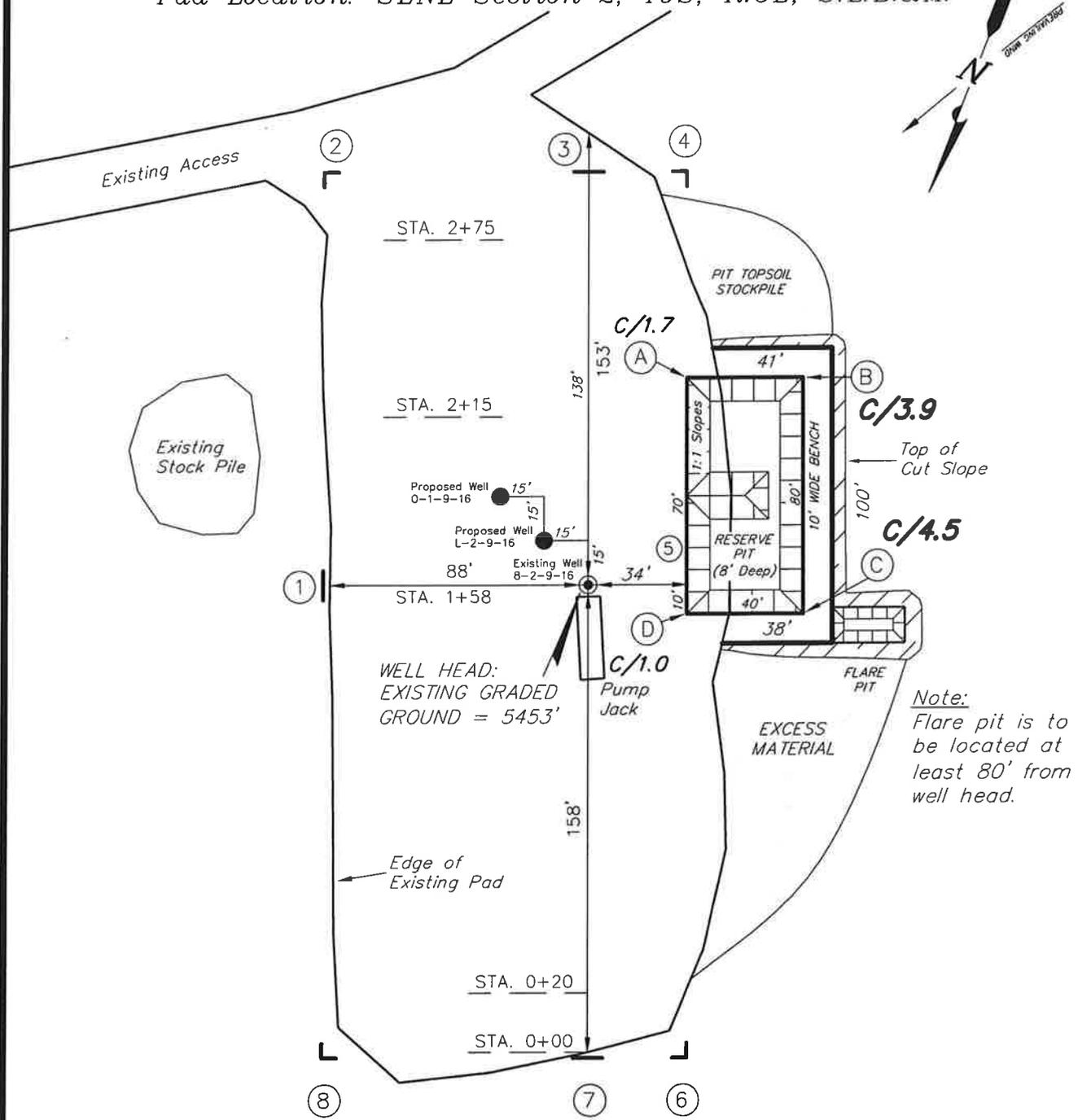
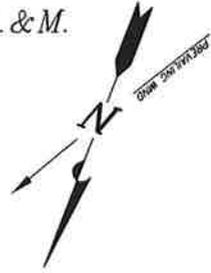
# NEWFIELD EXPLORATION COMPANY

L-2-9-16 (Proposed Well)

0-1-9-16 (Proposed Well)

8-2-9-16 (Existing Well)

Pad Location: SENE Section 2, T9S, R16E, S.L.B.&M.



### REFERENCE POINTS

- 140' NORTHEAST - 5446.3'
- 190' NORTHEAST - 5444.2'

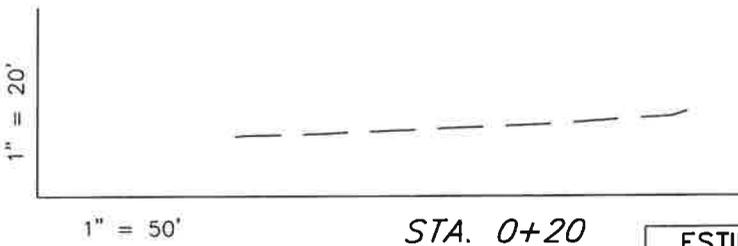
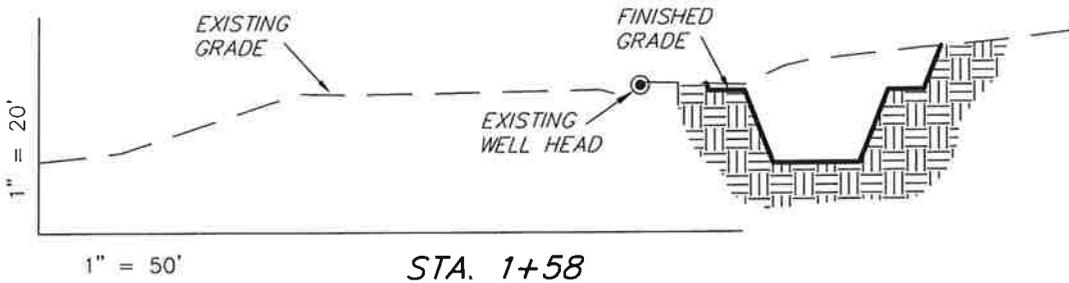
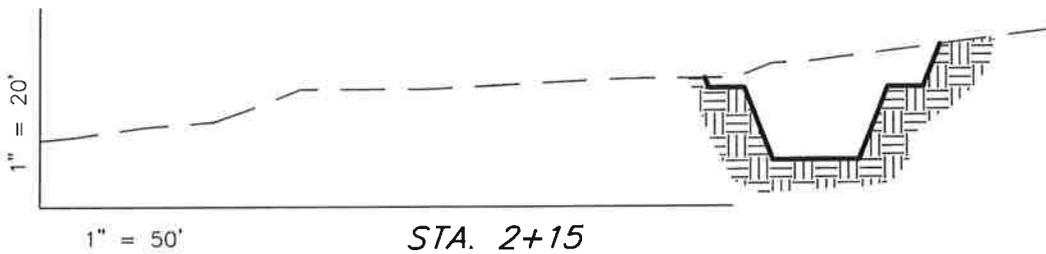
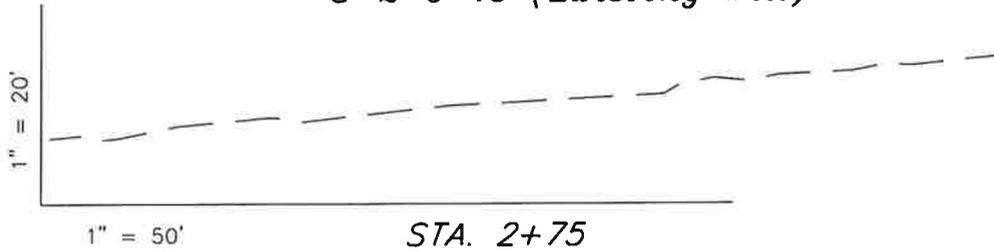
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DRAWN BY: M.W.	DATE DRAWN: 10-06-09
SCALE: 1" = 50'	REVISED: M.W. - 07-13-10

(435) 781-2501

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

# NEWFIELD EXPLORATION COMPANY

*CROSS SECTIONS*  
*L-2-9-16 (Proposed Well)*  
*0-1-9-16 (Proposed Well)*  
*8-2-9-16 (Existing Well)*



NOTE:  
 UNLESS OTHERWISE NOTED  
 CUT SLOPES ARE AT 1:1  
 FILL SLOPES ARE AT 1.5:1

ESTIMATED EARTHWORK QUANTITIES (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards)				
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	650	0	Topsoil is not included in Pad Cut	650
PIT	640	0		640
TOTALS	1,290	0	140	1,290

SURVEYED BY: T.P.	DATE SURVEYED: 09-09-09
DRAWN BY: M.W.	DATE DRAWN: 10-06-09
SCALE: 1" = 50'	REVISED: M.W. - 07-13-10

**Tri State** (435) 781-2501  
*Land Surveying, Inc.*  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078



# Newfield Production Company Proposed Site Facility Diagram

Greater Monument Butte O-1-9-16

From the 8-2-9-16 Location

SE/NE Sec. 2, T9S, R16E

Duchesne County, Utah

UTU-18399

Site Security Plan is held at the Pleasant Valley  
Office, Duchesne County Utah

**Production Phase:**

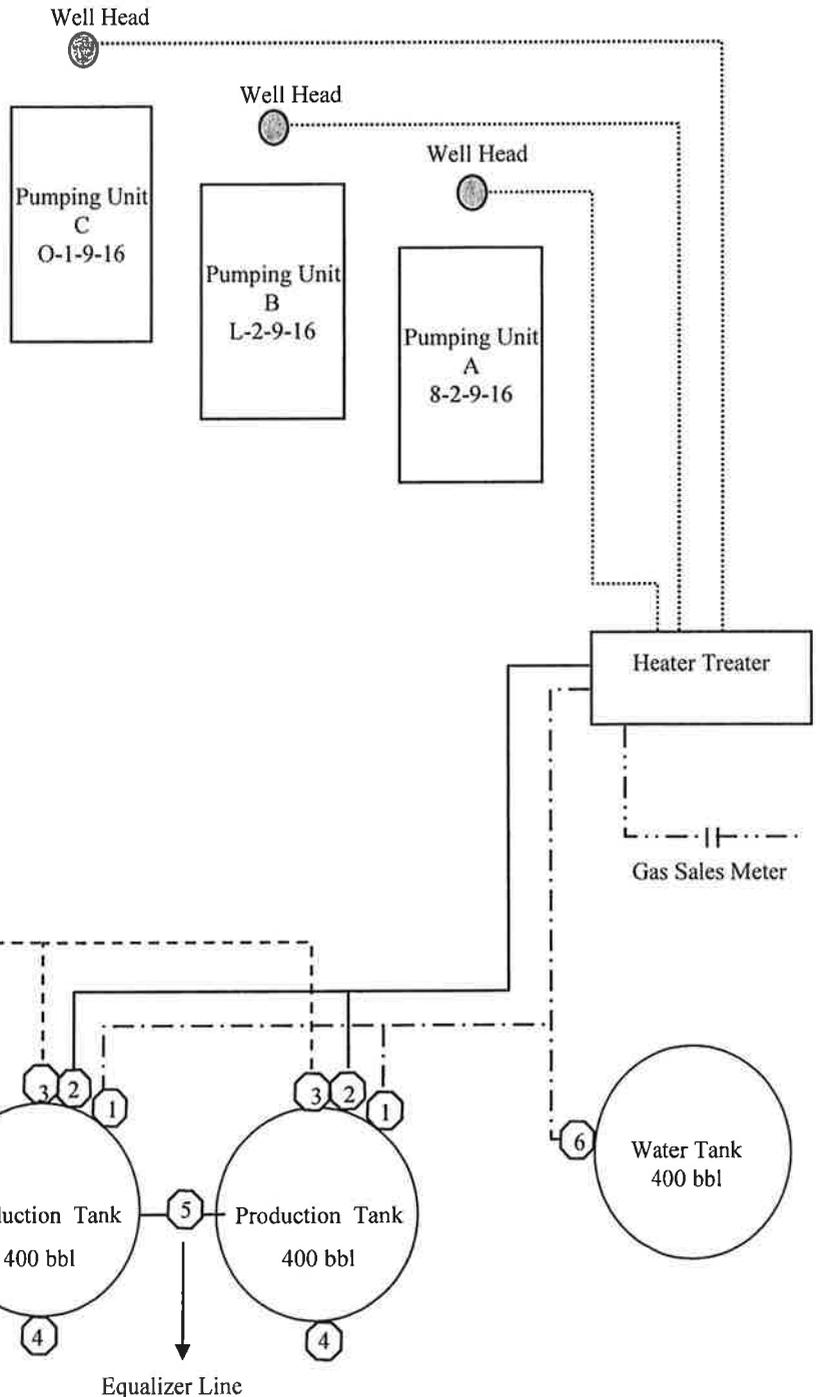
- 1) Valves 1, 3, and 4 sealed closed
- 2) Valves 2, 5 and 6 sealed open

**Sales Phase:**

- 1) Valves 1, 2, 4, 5, and 6 sealed closed
- 2) Valve 3 open

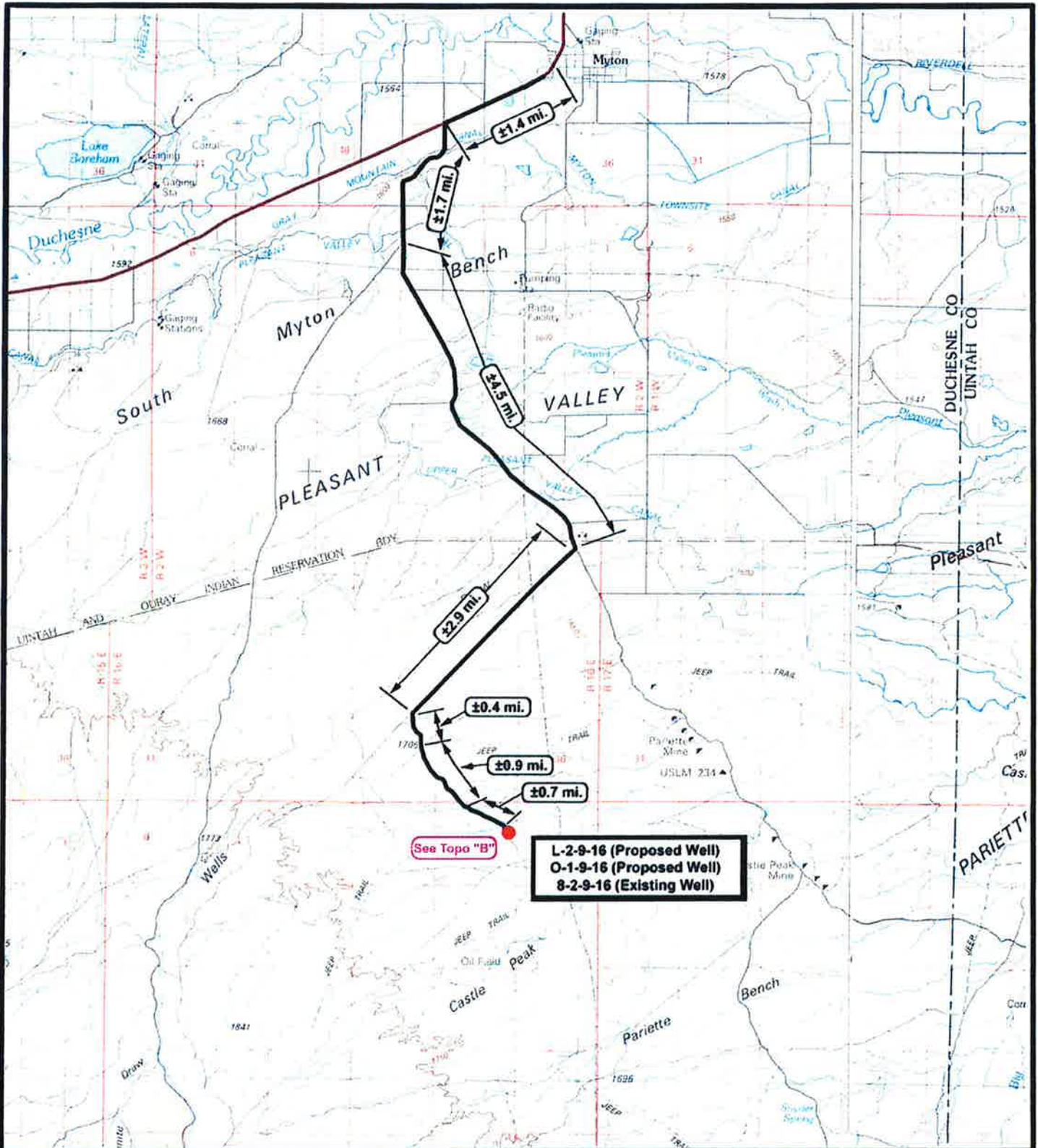
**Draining Phase:**

- 1) Valves 1 and 6 open



**Legend**

Emulsion Line	.....
Load Rack	-----
Water Line	-----
Oil Line	————
Gas Sales	-----



**NEWFIELD**  
Exploration Company

L-2-9-16 (Proposed Well)  
O-1-9-16 (Proposed Well)  
8-2-9-16 (Existing Well)  
Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.



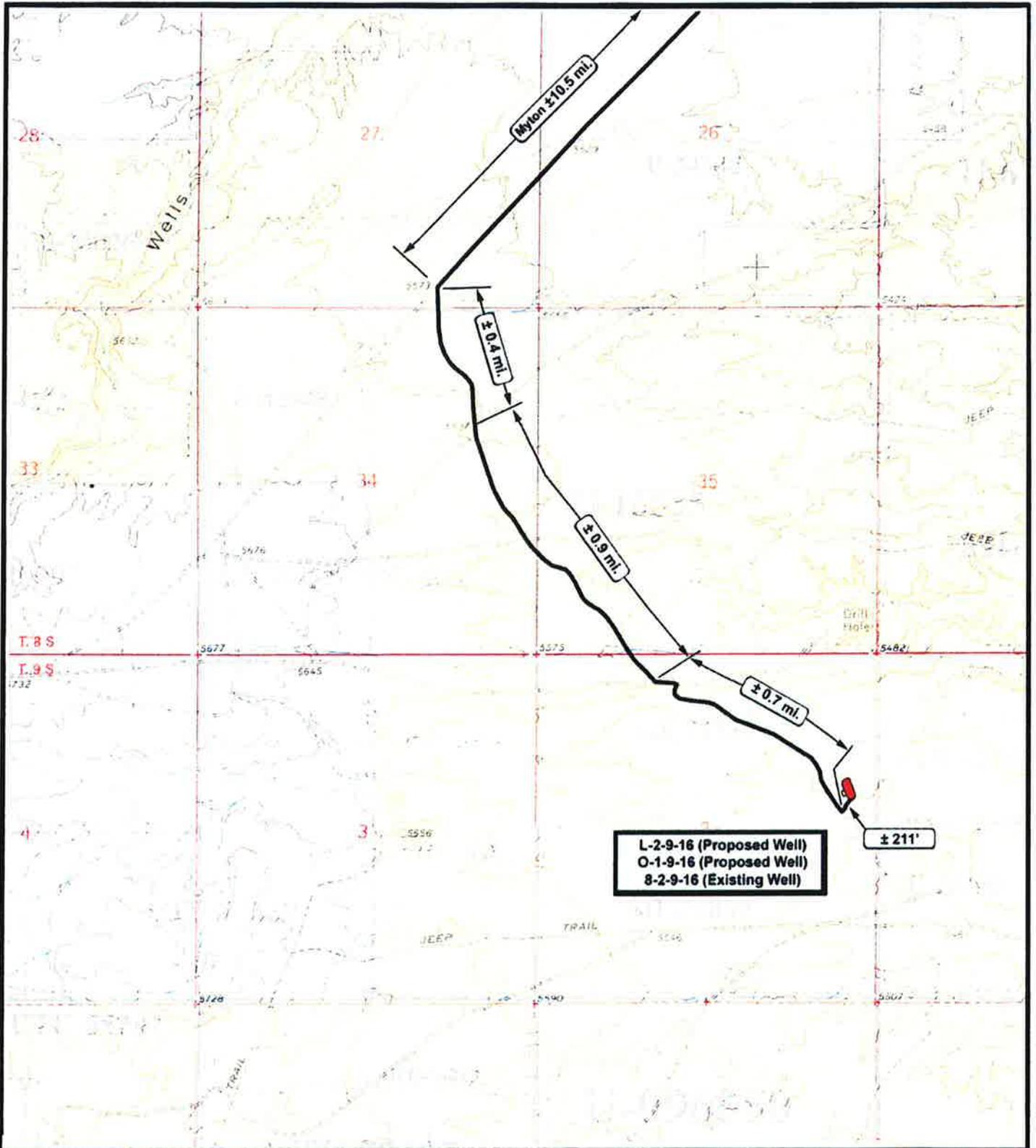
**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1 = 100,000  
DRAWN BY: mw  
DATE: 07-13-2010

**Legend**

Existing Road

**TOPOGRAPHIC MAP**  
**"A"**



L-2-9-16 (Proposed Well)  
 O-1-9-16 (Proposed Well)  
 8-2-9-16 (Existing Well)

**NEWFIELD**  
Exploration Company

L-2-9-16 (Proposed Well)  
 O-1-9-16 (Proposed Well)  
 8-2-9-16 (Existing Well)  
 Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.



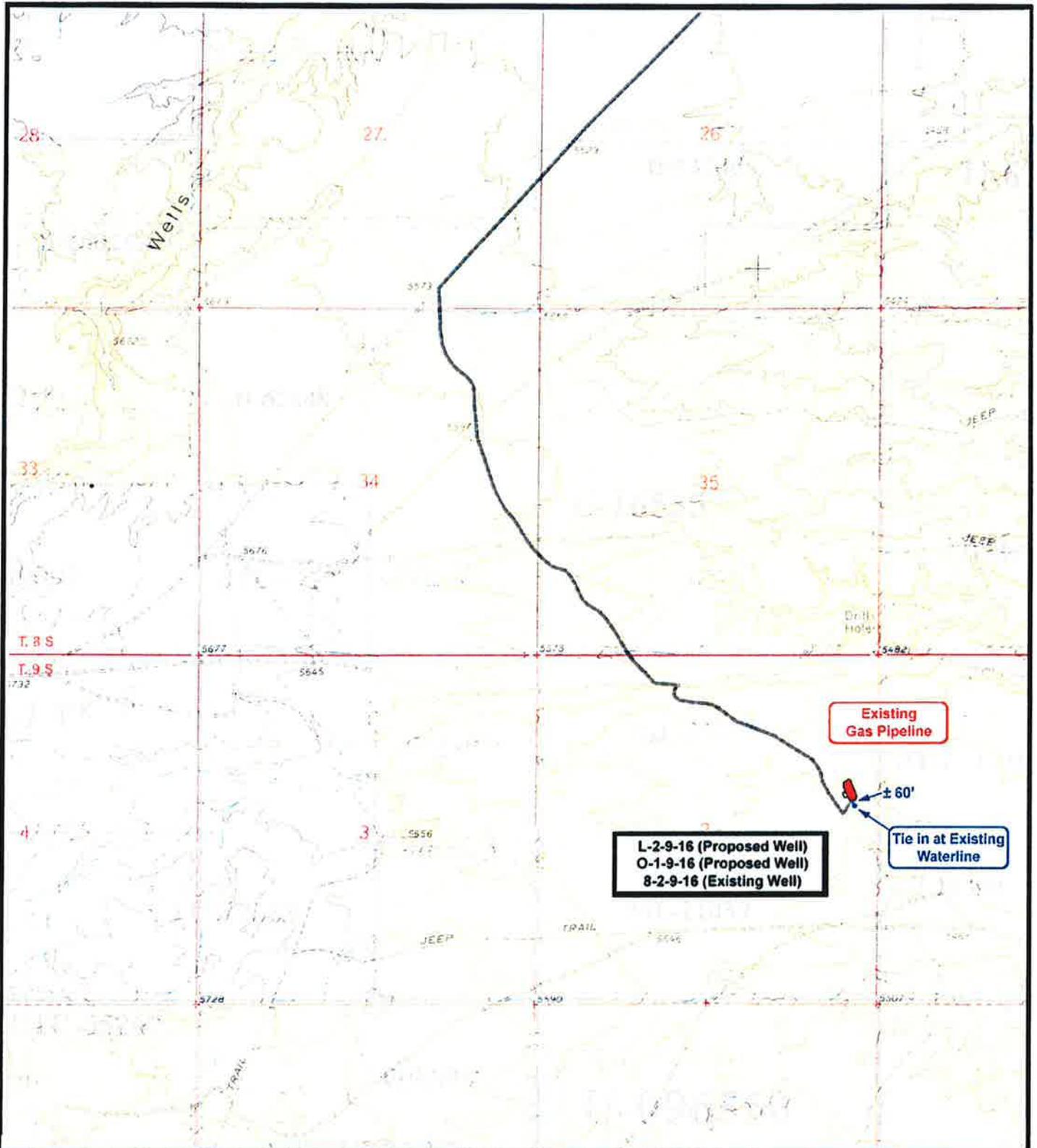
**Tri-State**  
 Land Surveying Inc.  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
 DRAWN BY: mw  
 DATE: 07-13-2010

**Legend**

Existing Road

**TOPOGRAPHIC MAP**  
**"B"**



**L-2-9-16 (Proposed Well)**  
**O-1-9-16 (Proposed Well)**  
**8-2-9-16 (Existing Well)**  
 Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.



**Tri-State**  
*Land Surveying Inc.*  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

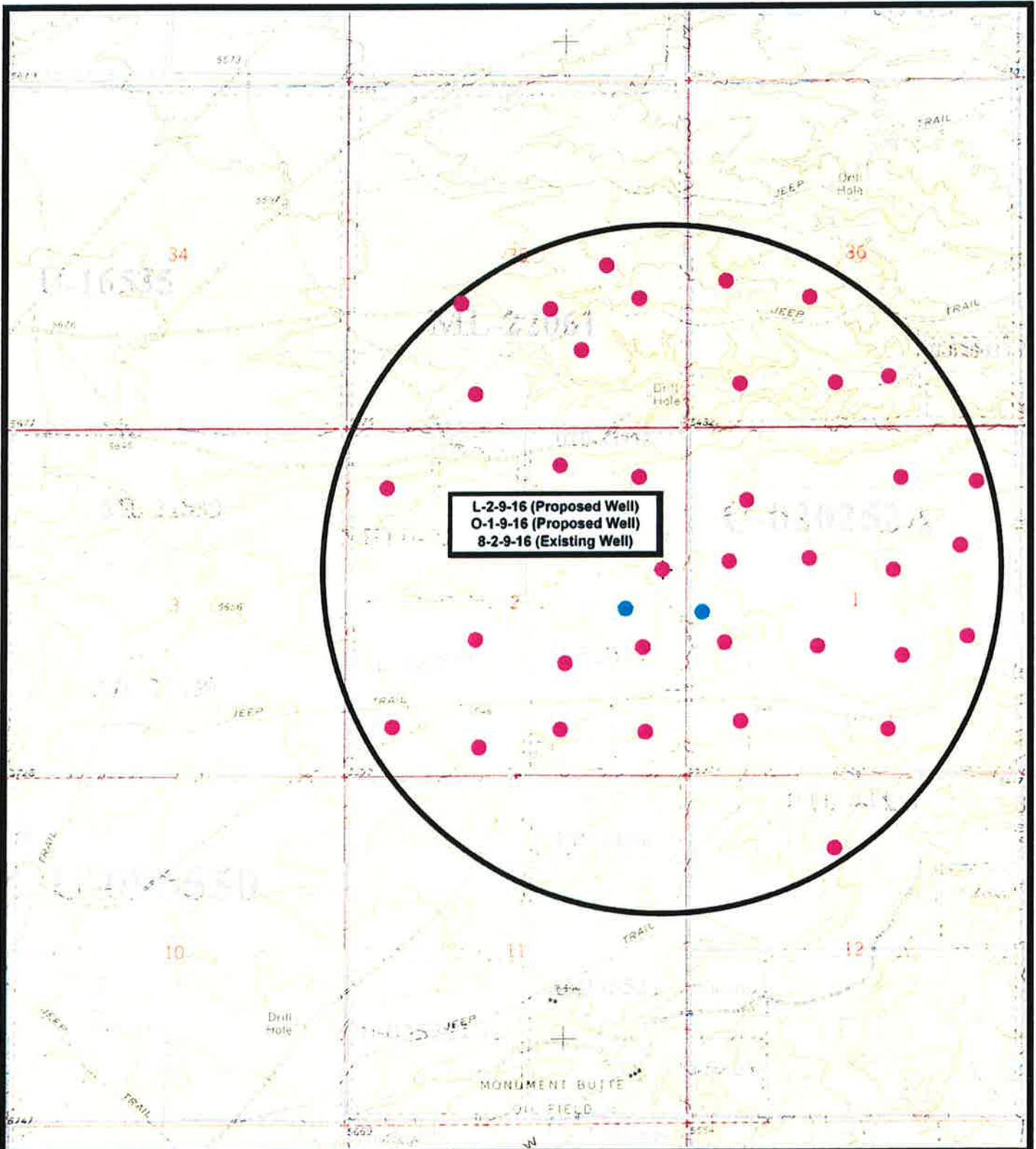
**SCALE: 1" = 2,000'**  
**DRAWN BY: mw**  
**DATE: 07-13-2010**

**Legend**

- Roads
- Proposed Water Line

**TOPOGRAPHIC MAP**  
**"C"**





L-2-9-16 (Proposed Well)  
 O-1-9-16 (Proposed Well)  
 8-2-9-16 (Existing Well)



**L-2-9-16 (Proposed Well)**  
**O-1-9-16 (Proposed Well)**  
**8-2-9-16 (Existing Well)**  
 Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.



**Tri-State**  
*Land Surveying Inc.*  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

**SCALE: 1" = 2,000'**  
**DRAWN BY: mw**  
**DATE: 07-13-2010**

**Legend**

- Location
- One-Mile Radius

**Exhibit "B"**

Exhibit "D"

lofo

CULTURAL RESOURCE INVENTORY OF  
NEWFIELD EXPLORATION'S 26 PROPOSED  
WELL LOCATIONS NEAR WELLS DRAW  
(T8S R16 SEC. 23, 24, 25, 26, 27, 34, 35 36 AND  
T9S R16E SEC. 1, 2, 5)  
DUCHESNE COUNTY, UTAH

By:

Patricia Stavish

Prepared For:

Bureau of Land Management  
Vernal Field Office  
and  
State of Utah  
School and Institutional Trust Lands Administration

Prepared Under Contract With:

Newfield Exploration Company  
Rt. 3 Box 3630  
Myton, UT 84052

Prepared By:

Montgomery Archaeological Consultants, Inc.  
P.O. Box 219  
Moab, Utah 84532

MOAC Report No. 09-208

December 9, 2009

United States Department of Interior (FLPMA)  
Permit No. 09-UT-60122

State of Utah Public Lands Policy  
Archaeological Survey Permit No. 117

State of Utah Antiquities Project (Survey)  
Permit No. U-09-MQ-0732bs

**RECEIVED** July 21, 2010

**NEWFIELD EXPLORATION COMPANY**

**PALEONTOLOGICAL SURVEY OF PROPOSED  
PRODUCTION DEVELOPMENT AREAS,  
AND PROPOSED PIPELINE ROUTES  
DUCHESNE COUNTY, UTAH**

**Area Survey**

NW 1/4, SE 1/4 Section 7, T 9 S, R 18 E (10-7-9-18)

**Proposed Directional Wells Survey**

(All sections reported are in one of the following Townships and Ranges: T 8 & 9 S, R 16, 17 & 18 E), and are for existing wells. Proposed wells are found under "Report of Areas Surveyed."

11-6-9-17, 31-1-9-16, 4-1-9-16, 5-1-9-16, 8-2-9-16, 1-14-9-16, 10-35-8-16, 15-34-8-16, 2A-35-8-16, 1A-35-8-16, 13-25-8-16, 8-5-9-16, 16-27-8-16, 11-25-8-16, 12-30-8-17, 12-25-8-16, 10-26-8-16, 15-24-8-16, 14-23-8-16

**Water Pipeline Tie-Ins Survey**

SE 1/4, NE 1/4 Section 2, T 9 S, R 16 E (8-2-9-16); SW 1/4, SW 1/4 Section 1, T 9 S, R 16 E (1-14-9-16); SE 1/4, SE 1/4, Section 27, T 8 S, R 16 E (16-27-8-16); SE 1/4, SW 1/4, Section 23, T 8 S, R 16 E (14-23-8-16)

**REPORT OF SURVEY**

Prepared for:

**Newfield Exploration Company**

Prepared by:

Wade E. Miller  
Consulting Paleontologist  
October 31, 2009

<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> ML 21839
---	---

<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> GMBU (GRRV)
--	---

<b>1. TYPE OF WELL</b> Oil Well	<b>8. WELL NAME and NUMBER:</b> Greater Monument Butte O-1-9-16
------------------------------------	--

<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY	<b>9. API NUMBER:</b> 43013502120000
--	---

<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052	<b>PHONE NUMBER:</b> 435 646-4825 Ext	<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
--	--	--

<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2096 FNL 0425 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENE Section: 02 Township: 09.0S Range: 16.0E Meridian: S	<b>COUNTY:</b> DUCHESNE  <b>STATE:</b> 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: 7/28/2010  <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="APD Amendment"/>

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

The Bottom Hole Footages for the above mentioned well have changed to 2466' FSL and 144' FWL. Attached is a copy of the new plat page and directional survey plan.

Approved by the  
 Utah Division of  
 Oil, Gas and Mining

Date: August 26, 2010  
 By: *Derek Quist*

<b>NAME (PLEASE PRINT)</b> Mandie Crozier	<b>PHONE NUMBER</b> 435 646-4825	<b>TITLE</b> Regulatory Tech
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/28/2010	



July 21, 2010

State of Utah, Division of Oil, Gas and Mining  
ATTN: Diana Mason  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Directional Drilling  
**Greater Monument Butte O-1-9-16**  
Greater Monument Butte (Green River) Unit  
ML-21839  
UTU-18399  
Surface Hole: T9S-R16E Section 2: SENE  
2096' FNL 425' FSL  
  
At Target: T9S-R16E Section 1: NSW  
2466' FSL 144' FWL

Duchesne County, Utah

Dear Ms. Mason;

Pursuant to the filing by Newfield Production Company (NPC) of an Application for Permit to Drill the above referenced well dated 7/13/10, a copy of which is attached, and in accordance with Oil and Gas Conservation Rule R649-3-11, NPC hereby submits this letter as notice of our intention to directionally drill this well.

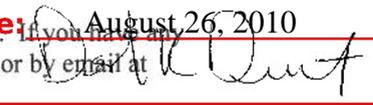
The surface hole and target locations of this well are both within the boundaries of the Greater Monument Butte Unit (UTU-87538X), of which Newfield certifies that it is the operator. Further, Newfield Certifies that all lands within 460 feet of the entire directional well bore are within the Greater Monument Butte Unit.

NPC is permitting this well as a directional well in order to mitigate surface disturbance by utilizing pre-existing roads and pipelines.

NPC hereby requests our application for permit to drill be granted pursuant to R649-3-11. If you have any questions or require further information, please contact the undersigned at 303-383-4197 or by email at [sgillespie@newfield.com](mailto:sgillespie@newfield.com). Your consideration in this matter is greatly appreciated.

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

**Date:** August 26, 2010

**By:** 

Sincerely,  
Newfield Production Company



Shane Gillespie  
Land Associate

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

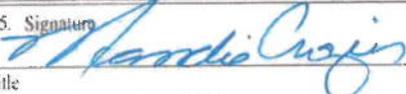
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No. UTU-18399	
6. If Indian, Allottee or Tribe Name NA	
7. If Unit or CA Agreement, Name and No. Greater Monument Butte	
8. Lease Name and Well No. Greater Monument Butte O-1-9-16	
9. API Well No.	
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	10. Field and Pool, or Exploratory Monument Butte
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone	11. Sec., T. R. M. or Blk. and Survey or Area Sec. 2, T9S R16E
2. Name of Operator Newfield Production Company	
3a. Address Route #3 Box 3630, Myton UT 84052	3b. Phone No. (include area code) (435) 646-3721
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface SE/NE 2096' FNL 425' FEL Sec. 2, T9S R16E (ML-21839) At proposed prod. zone NW/SW 2466' FSL 144' FWL Sec. 1, T9S R16E (UTU-18399)	
14. Distance in miles and direction from nearest town or post office* Approximately 12.5 miles south of Myton, UT	12. County or Parish Duchesne
	13. State UT
15. Distance from proposed* location to nearest property or lease line, ft. Approx. 144' f/lse, NA' f/unit (Also to nearest drig. unit line, if any)	16. No. of acres in lease 160.00
	17. Spacing Unit dedicated to this well 20 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1022'	19. Proposed Depth 6,365'
	20. BLM/BIA Bond No. on file WYB000493
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5453' GL	22. Approximate date work will start* 2nd Qtr. 2010
	23. Estimated duration (7) days from SPUD to rig release

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

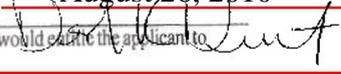
25. Signature 	Name (Printed/Typed) Mandie Crozier	Date 7/13/10
---	--	-----------------

Title Regulatory Specialist		
--------------------------------	--	--

Approved by (Signature)	Name (Printed/Typed)	Date
-------------------------	----------------------	------

Title	Office	Date: August 26, 2010
-------	--------	-----------------------

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

**Date:** August 26, 2010  
**By:** 

Application approval 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.  
Conditions of approval, if any, are attached.

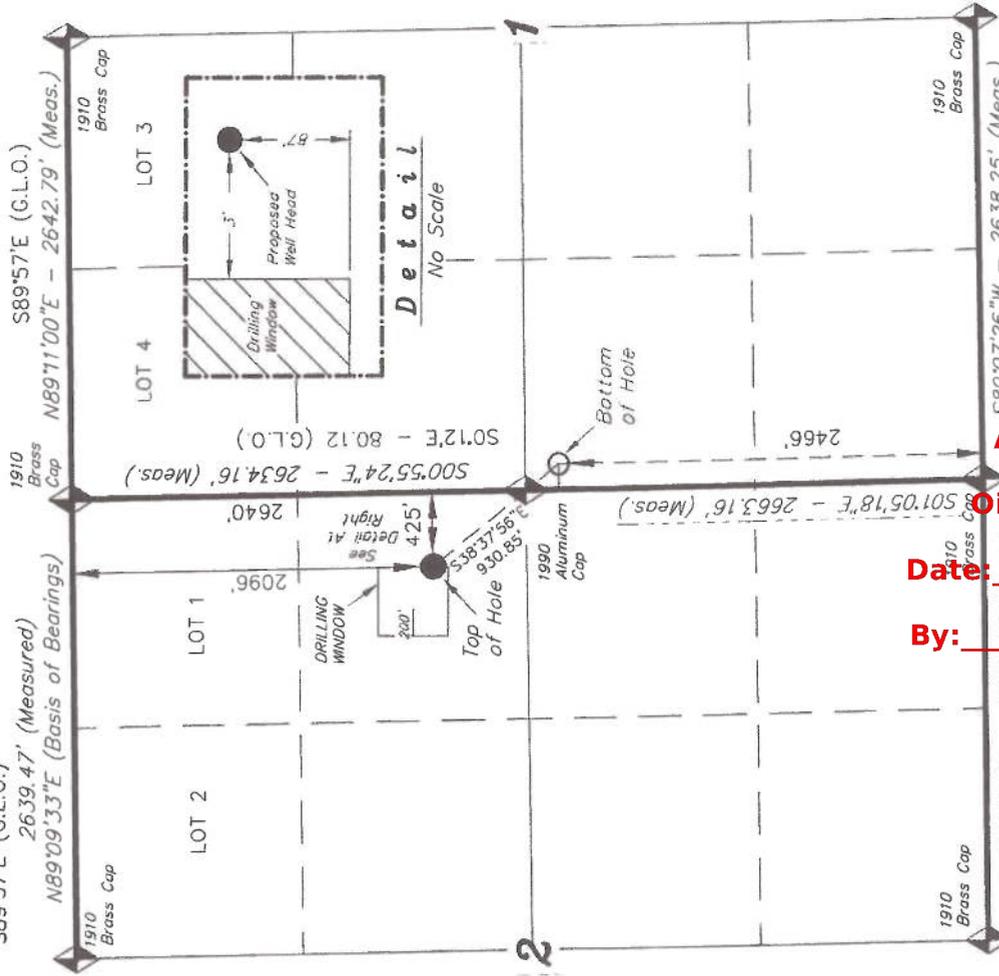
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

# T9S, R16E, S.L.B.&M.

## NEWFIELD EXPLORATION COMPANY



WELL LOCATION, O-1-9-16, LOCATED AS SHOWN IN THE SE 1/4 NE 1/4 OF SECTION 2, T9S, R16E, S.L.B.&M. DUCHESNE COUNTY, UTAH.

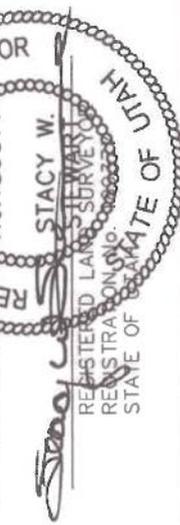
### WELL LOCATION:

**O-1-9-16**  
ELEV. EXIST. GRADED GROUND = 5453'

#### Note:

- The bottom of hole footages are 2466' FSL & 144' FWL of Sec 1, T9S, R16E.

THIS IS TO CERTIFY THAT THE ABOVE SET 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.



### TRI STATE LAND SURVEYING & CONSULTING

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED:	09-09-09	SURVEYED BY:	T.P.
DATE DRAWN:	10-06-09	DRAWN BY:	M.W.
REVISED:	07-13-10 - M.W.	SCALE:	1" = 1000'

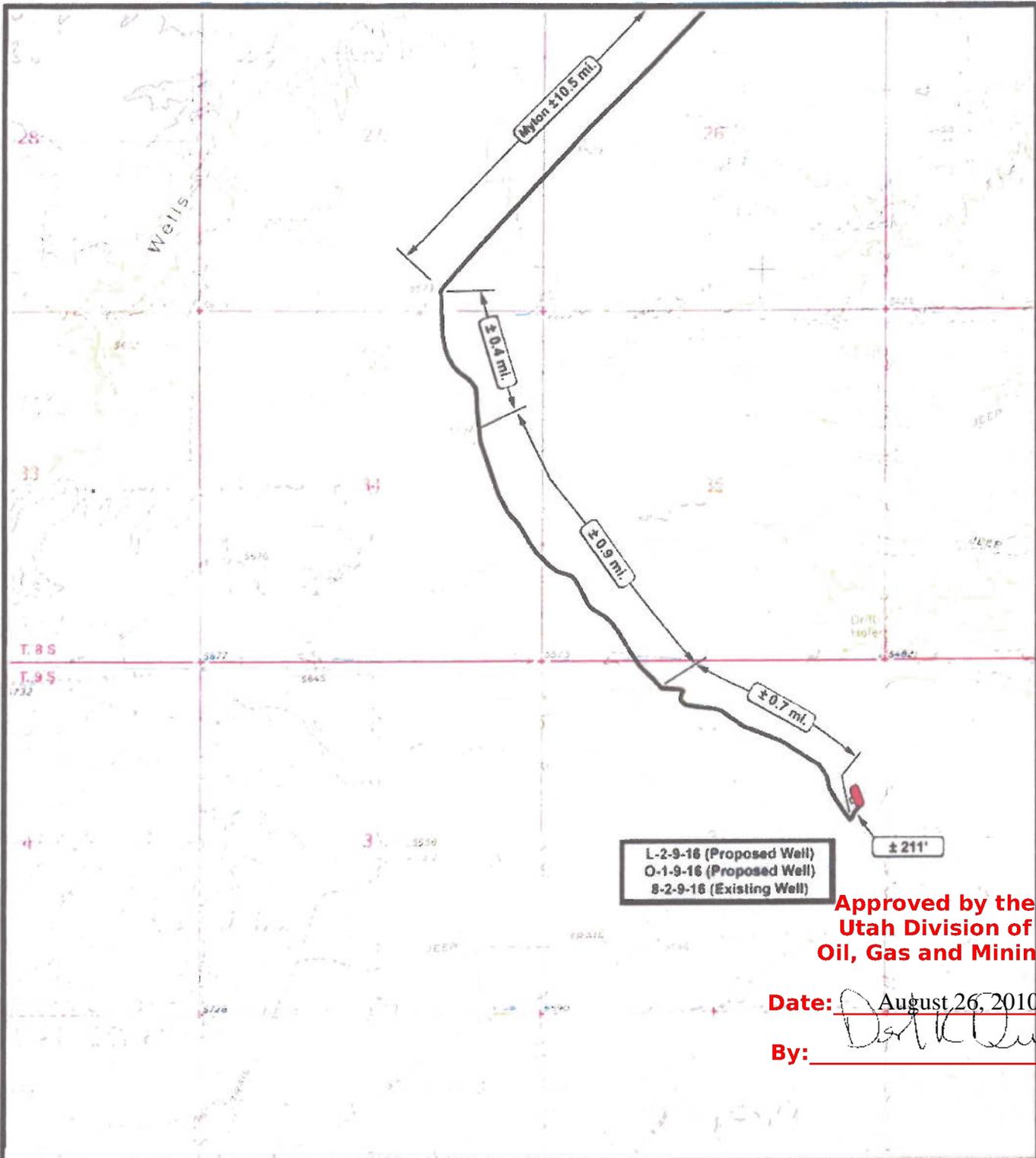
**O-1-9-16**  
(Surface Location) **NAD 83**  
LATITUDE = 40° 03' 40.99"  
LONGITUDE = 110° 04' 43.46"

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

**Date:** August 26, 2010

**By:** *[Signature]*

SECTION CORNERS LOCATED  
BASIS OF ELEV.; Elevations based on  
LOCATION: an N.G.S. OPUS Control Point  
LAT. 40°04'09.56" LONG. 110°04'43.27"  
(Tristate Aluminum Cap) Elev. 52781'



L-2-9-16 (Proposed Well)  
 O-1-9-16 (Proposed Well)  
 8-2-9-16 (Existing Well)

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

**Date:** August 26, 2010  
**By:** *Derek Duff*

**NEWFIELD**  
 Exploration Company

L-2-9-16 (Proposed Well)  
 O-1-9-16 (Proposed Well)  
 8-2-9-16 (Existing Well)

Pad Location SENE SEC. 2, T9S, R16E, S.L.B.&M.

*Tri-State*  
 Land Surveying Inc.  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
 DRAWN BY: mw  
 DATE: 07-13-2010

**Legend**

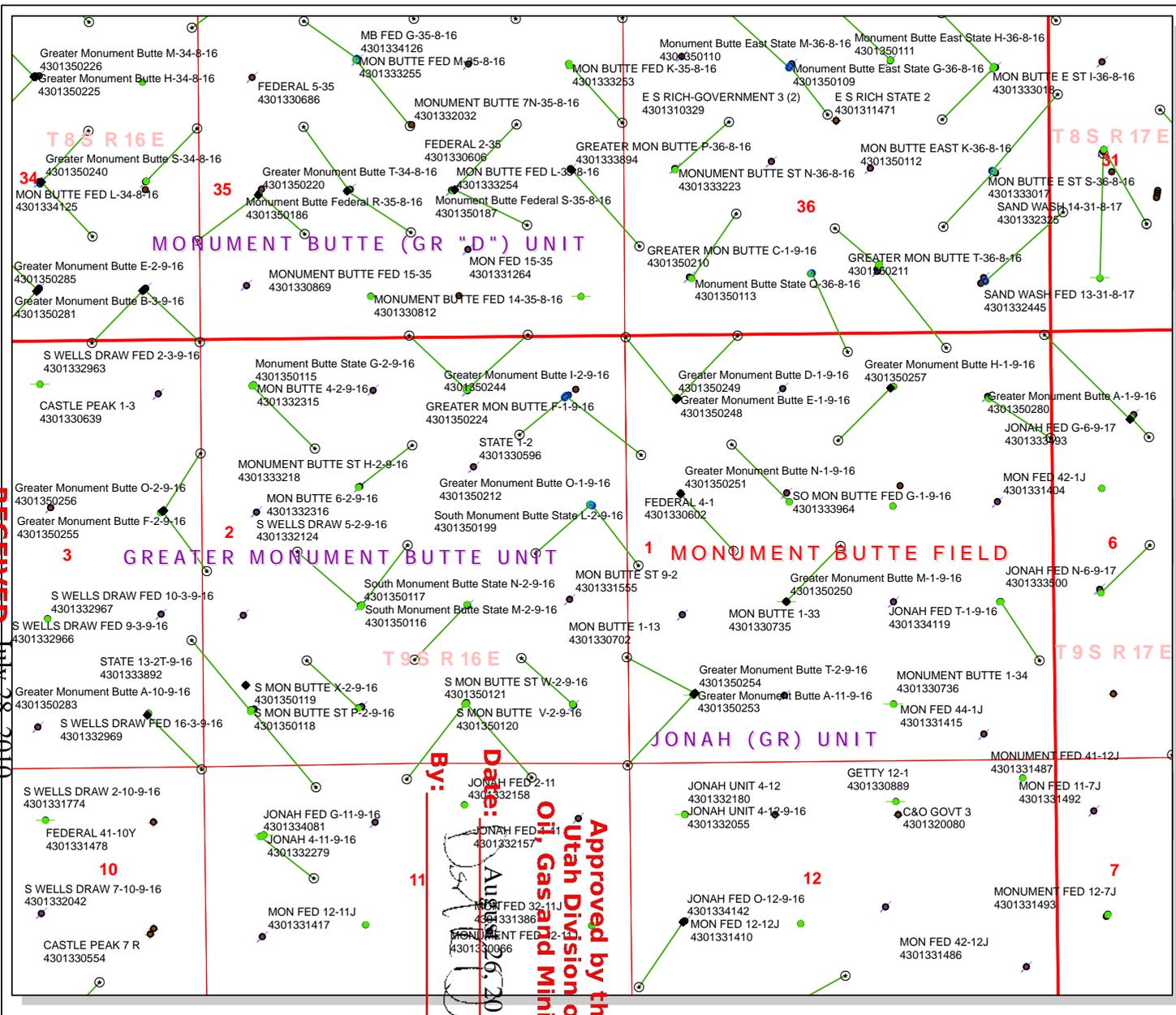
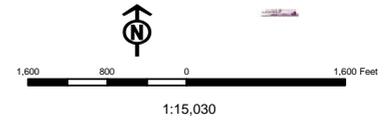
Existing Road

**TOPOGRAPHIC MAP**  
**"B"**

**API Number: 4301350212**  
**Well Name: Greater Monument Butte O-1-9-16**  
**Township 09.0 S Range 16.0 E Section 02**  
**Meridian: SLBM**  
**Operator: NEWFIELD PRODUCTION COMPANY**

Map Prepared:  
 Map Produced by Diana Mason

- |   |   |
|---|---|
| <b>Units</b>  | <b>Wells Query</b>  |
| <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> | <ul style="list-style-type: none"> <li>APD - Approved Permit</li> <li>DRL - 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>SOW - 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> |
| <ul style="list-style-type: none"> <li>Sections</li> <li>Township</li> </ul>  | <ul style="list-style-type: none"> <li>Bottom Hole Location - AGRG</li> </ul>   |



Approved by the  
 Utah Division of  
 Oil, Gas and Mining

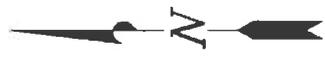
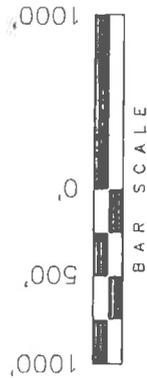
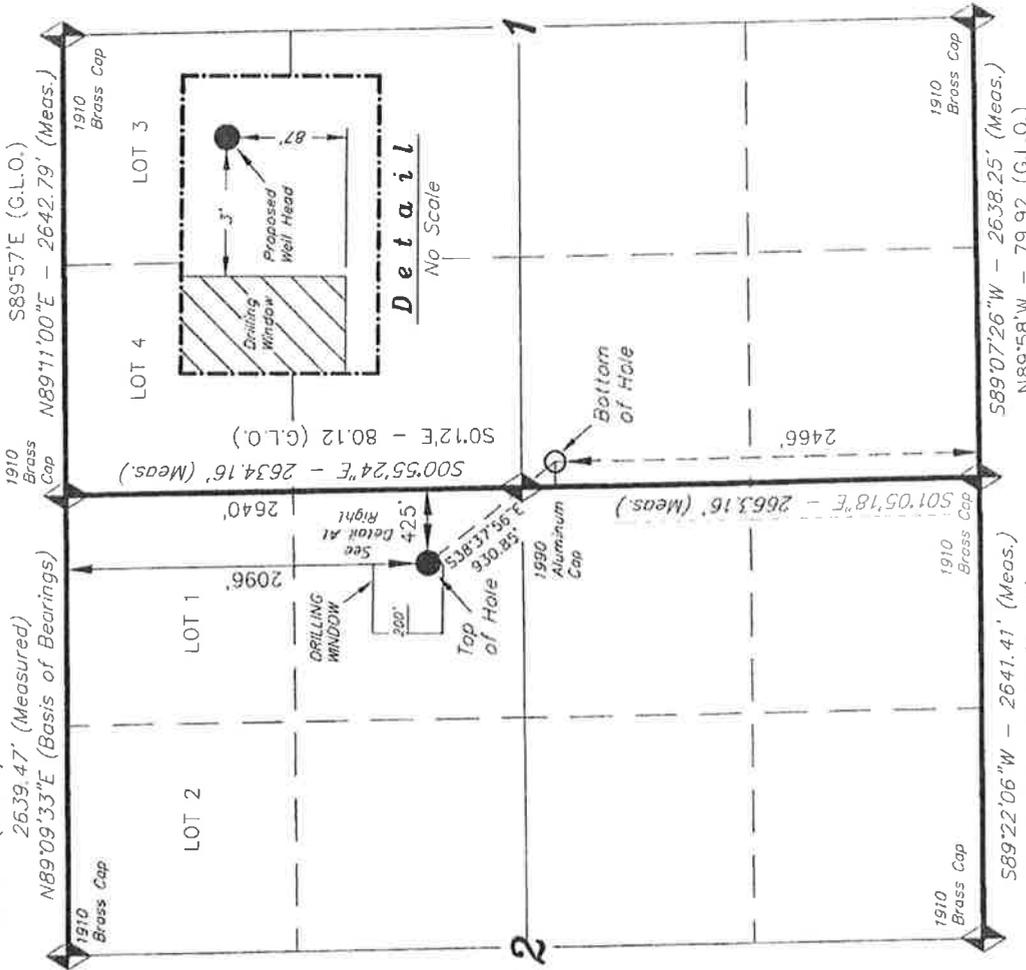
BY: [Signature]  
 Date: August 6, 2010

RECEIVED July 28, 2010

# T9S, R16E, S.L.B.&M.

## NEWFIELD EXPLORATION COMPANY

WELL LOCATION, 0-1-9-16, LOCATED AS SHOWN IN THE SE 1/4 NE 1/4 OF SECTION 2, T9S, R16E, S.L.B.&M. DUCHESNE COUNTY, UTAH.



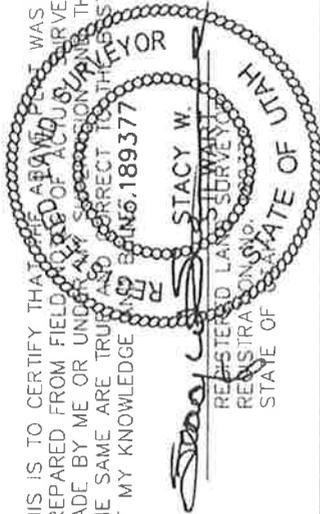
### WELL LOCATION:

**0-1-9-16**  
ELEV. EXIST. GRADED GROUND = 5453'

#### Note:

- The bottom of hole footages are 2466' FSL & 144' FWL of Sec 1, T9S, R16E.

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



**TRI STATE LAND SURVEYING & CONSULTING**  
180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 09-09-09	SURVEYED BY: I.P.
DATE DRAWN: 10-06-09	DRAWN BY: M.W.
REVISED: 07-13-10 - M.W.	SCALE: 1" = 1000'

**0-1-9-16**  
(Surface Location) NAD 83  
LATITUDE = 40° 03' 40.99"  
LONGITUDE = 110° 04' 43.46"

◆ = SECTION CORNERS LOCATED

BASIS OF ELEV: Elevations are base on LOCATION: an N.G.S. OPUS Correction. LAT. 40°04'09.56" LONG. 110°00'43.28" (Tristate Aluminum Cap) Elev. 5281.57'

RECEIVED July 28, 2010

RECEIVED July 28, 2010

**NEWFIELD**



# **NEWFIELD EXPLORATION**

**USGS Myton SW (UT)**

**SECTION 2 9S 16E**

**O-1-9-16**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**12 July, 2010**



**RECEIVED** July 28, 2010



# HATHAWAY BURNHAM

Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 2 9S 16E  
**Well:** O-1-9-16  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well O-1-9-16  
**TVD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**MD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b>	USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		

<b>Site</b>	SECTION 2 9S 16E, SEC 2 9S 16E		
<b>Site Position:</b>	<b>Northing:</b>	7,193,600.00 ft	<b>Latitude:</b> 40° 3' 34.952 N
<b>From:</b> Map	<b>Easting:</b>	2,036,100.00 ft	<b>Longitude:</b> 110° 5' 10.480 W
<b>Position Uncertainty:</b> 0.0 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b> 0.91 °

<b>Well</b>	O-1-9-16, SHL LAT: 40 03 40.99, LONG: -110 04 43.46		
<b>Well Position</b>	<b>+N/-S</b> 610.8 ft	<b>Northing:</b> 7,194,244.13 ft	<b>Latitude:</b> 40° 3' 40.990 N
	<b>+E/-W</b> 2,100.8 ft	<b>Easting:</b> 2,038,190.78 ft	<b>Longitude:</b> 110° 4' 43.460 W
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b> 5,465.0 ft	<b>Ground Level:</b> 5,453.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2010/07/12	11.44	65.83	52,369

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	141.61

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,701.5	10.52	141.61	1,697.6	-50.3	39.9	1.50	1.50	0.00	141.61	
5,263.8	10.52	141.61	5,200.0	-560.3	443.9	0.00	0.00	0.00	0.00	O-1-9-16 TGT
6,365.4	10.52	141.61	6,283.0	-717.9	568.8	0.00	0.00	0.00	0.00	

**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 2 9S 16E  
**Well:** O-1-9-16  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well O-1-9-16  
**TVD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**MD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	1.50	141.61	1,100.0	-1.0	0.8	1.3	1.50	1.50	0.00
1,200.0	3.00	141.61	1,199.9	-4.1	3.3	5.2	1.50	1.50	0.00
1,300.0	4.50	141.61	1,299.7	-9.2	7.3	11.8	1.50	1.50	0.00
1,400.0	6.00	141.61	1,399.3	-16.4	13.0	20.9	1.50	1.50	0.00
1,500.0	7.50	141.61	1,498.6	-25.6	20.3	32.7	1.50	1.50	0.00
1,600.0	9.00	141.61	1,597.5	-36.9	29.2	47.0	1.50	1.50	0.00
1,701.5	10.52	141.61	1,697.6	-50.3	39.9	64.2	1.50	1.50	0.00
1,800.0	10.52	141.61	1,794.4	-64.4	51.1	82.2	0.00	0.00	0.00
1,900.0	10.52	141.61	1,892.7	-78.8	62.4	100.5	0.00	0.00	0.00
2,000.0	10.52	141.61	1,991.0	-93.1	73.7	118.7	0.00	0.00	0.00
2,100.0	10.52	141.61	2,089.4	-107.4	85.1	137.0	0.00	0.00	0.00
2,200.0	10.52	141.61	2,187.7	-121.7	96.4	155.3	0.00	0.00	0.00
2,300.0	10.52	141.61	2,286.0	-136.0	107.8	173.5	0.00	0.00	0.00
2,400.0	10.52	141.61	2,384.3	-150.3	119.1	191.8	0.00	0.00	0.00
2,500.0	10.52	141.61	2,482.6	-164.6	130.5	210.1	0.00	0.00	0.00
2,600.0	10.52	141.61	2,581.0	-179.0	141.8	228.3	0.00	0.00	0.00
2,700.0	10.52	141.61	2,679.3	-193.3	153.1	246.6	0.00	0.00	0.00
2,800.0	10.52	141.61	2,777.6	-207.6	164.5	264.8	0.00	0.00	0.00
2,900.0	10.52	141.61	2,875.9	-221.9	175.8	283.1	0.00	0.00	0.00
3,000.0	10.52	141.61	2,974.2	-236.2	187.2	301.4	0.00	0.00	0.00
3,100.0	10.52	141.61	3,072.5	-250.5	198.5	319.6	0.00	0.00	0.00
3,200.0	10.52	141.61	3,170.9	-264.8	209.8	337.9	0.00	0.00	0.00
3,300.0	10.52	141.61	3,269.2	-279.2	221.2	356.2	0.00	0.00	0.00
3,400.0	10.52	141.61	3,367.5	-293.5	232.5	374.4	0.00	0.00	0.00
3,500.0	10.52	141.61	3,465.8	-307.8	243.9	392.7	0.00	0.00	0.00
3,600.0	10.52	141.61	3,564.1	-322.1	255.2	410.9	0.00	0.00	0.00
3,700.0	10.52	141.61	3,662.5	-336.4	266.5	429.2	0.00	0.00	0.00
3,800.0	10.52	141.61	3,760.8	-350.7	277.9	447.5	0.00	0.00	0.00
3,900.0	10.52	141.61	3,859.1	-365.0	289.2	465.7	0.00	0.00	0.00
4,000.0	10.52	141.61	3,957.4	-379.4	300.6	484.0	0.00	0.00	0.00
4,100.0	10.52	141.61	4,055.7	-393.7	311.9	502.3	0.00	0.00	0.00
4,200.0	10.52	141.61	4,154.0	-408.0	323.3	520.5	0.00	0.00	0.00
4,300.0	10.52	141.61	4,252.4	-422.3	334.6	538.8	0.00	0.00	0.00
4,400.0	10.52	141.61	4,350.7	-436.6	345.9	557.0	0.00	0.00	0.00
4,500.0	10.52	141.61	4,449.0	-450.9	357.3	575.3	0.00	0.00	0.00
4,600.0	10.52	141.61	4,547.3	-465.2	368.6	593.6	0.00	0.00	0.00
4,700.0	10.52	141.61	4,645.6	-479.6	380.0	611.8	0.00	0.00	0.00
4,800.0	10.52	141.61	4,744.0	-493.9	391.3	630.1	0.00	0.00	0.00
4,900.0	10.52	141.61	4,842.3	-508.2	402.6	648.4	0.00	0.00	0.00
5,000.0	10.52	141.61	4,940.6	-522.5	414.0	666.6	0.00	0.00	0.00
5,100.0	10.52	141.61	5,038.9	-536.8	425.3	684.9	0.00	0.00	0.00
5,200.0	10.52	141.61	5,137.2	-551.1	436.7	703.2	0.00	0.00	0.00
5,263.8	10.52	141.61	5,200.0	-560.3	443.9	714.8	0.00	0.00	0.00

**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 2 9S 16E  
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**MD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
<b>O-1-9-16 TGT</b>									
5,300.0	10.52	141.61	5,235.5	-565.4	448.0	721.4	0.00	0.00	0.00
5,400.0	10.52	141.61	5,333.9	-579.8	459.3	739.7	0.00	0.00	0.00
5,500.0	10.52	141.61	5,432.2	-594.1	470.7	757.9	0.00	0.00	0.00
5,600.0	10.52	141.61	5,530.5	-608.4	482.0	776.2	0.00	0.00	0.00
5,700.0	10.52	141.61	5,628.8	-622.7	493.4	794.5	0.00	0.00	0.00
5,800.0	10.52	141.61	5,727.1	-637.0	504.7	812.7	0.00	0.00	0.00
5,900.0	10.52	141.61	5,825.5	-651.3	516.1	831.0	0.00	0.00	0.00
6,000.0	10.52	141.61	5,923.8	-665.6	527.4	849.3	0.00	0.00	0.00
6,100.0	10.52	141.61	6,022.1	-680.0	538.7	867.5	0.00	0.00	0.00
6,200.0	10.52	141.61	6,120.4	-694.3	550.1	885.8	0.00	0.00	0.00
6,300.0	10.52	141.61	6,218.7	-708.6	561.4	904.0	0.00	0.00	0.00
6,365.4	10.52	141.61	6,283.0	-717.9	568.8	916.0	0.00	0.00	0.00

**Targets**

**Target Name**

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
O-1-9-16 TGT	0.00	0.00	5,200.0	-560.3	443.9	7,193,690.98	2,038,643.53	40° 3' 35.453 N	110° 4' 37.750 W
- plan hits target									
- Circle (radius 75.0)									



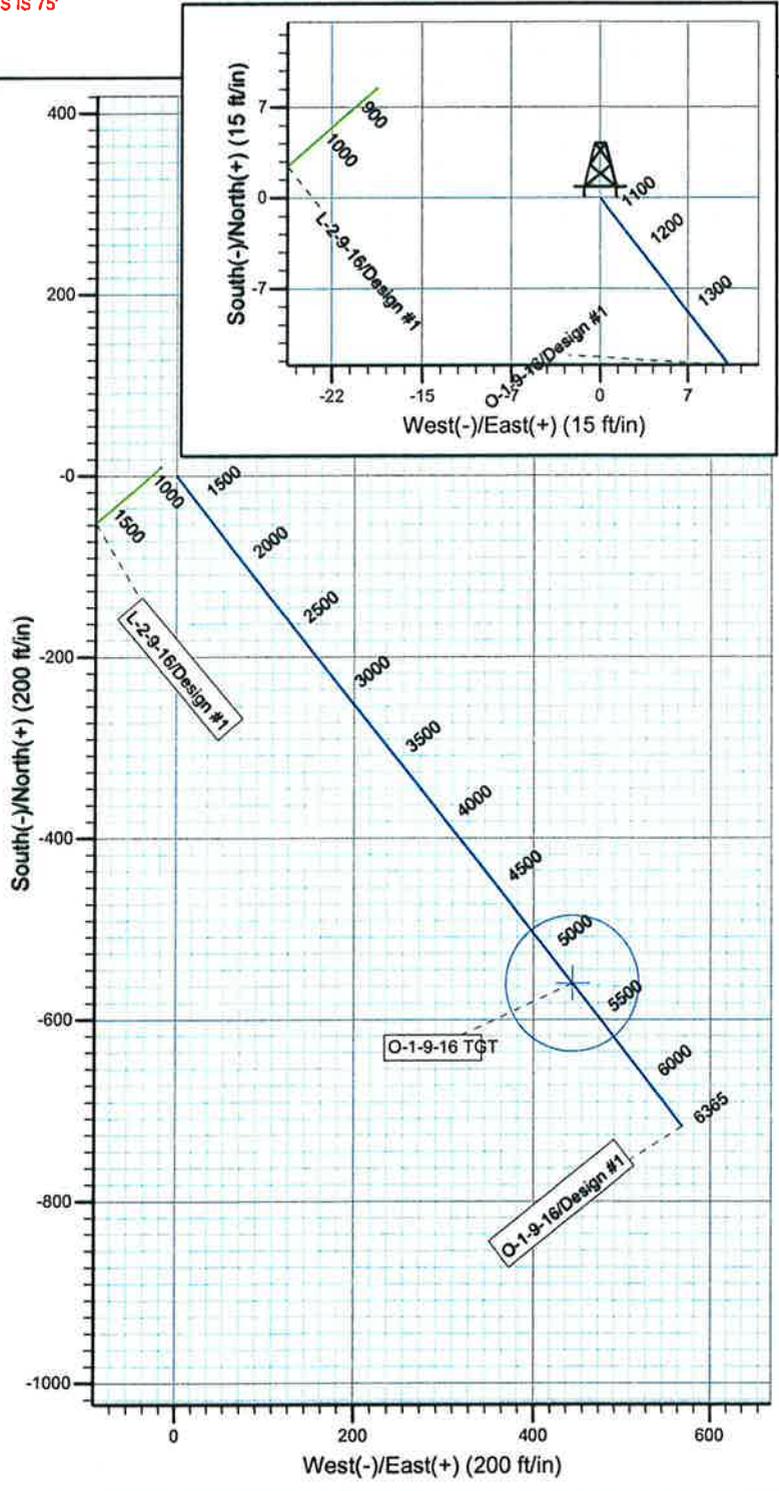
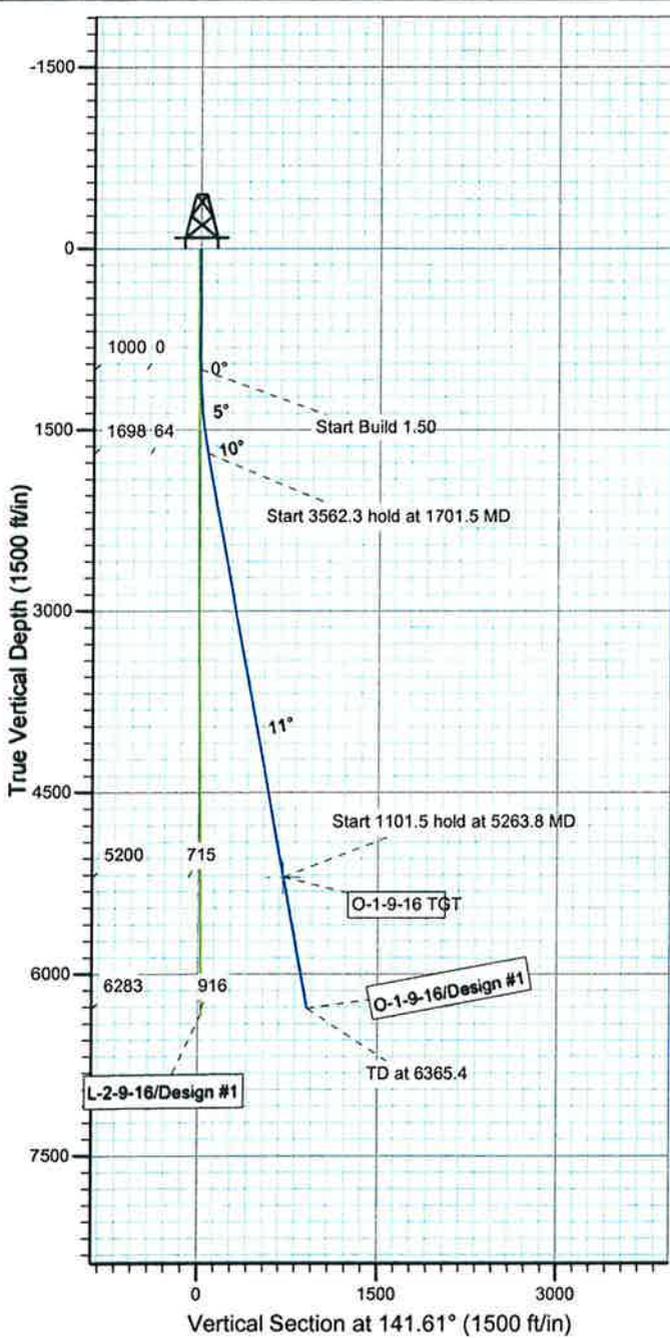
Project: USGS Myton SW (UT)  
 Site: SECTION 2 9S 16E  
 Well: O-1-9-16  
 Wellbore: Wellbore #1  
 Design: Design #1



Azimuths to True North  
 Magnetic North: 11.44°

Magnetic Field  
 Strength: 52369.0snT  
 Dip Angle: 65.83°  
 Date: 2010/07/12  
 Model: IGRF2010

KOP @ 1000'  
 DOGLENG RATE 1.5 DEG/100'  
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
O-1-9-16 TGT	5200.0	-560.3	443.9	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1701.5	10.52	141.61	1697.6	-50.3	39.9	1.50	141.61	64.2	
4	5263.8	10.52	141.61	5200.0	-560.3	443.9	0.00	0.00	714.8	O-1-9-16 TGT
5	6365.4	10.52	141.61	6283.0	-717.9	568.8	0.00	0.00	916.0	



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No. UTU-18399	
6. If Indian, Allottee or Tribe Name NA	
7. If Unit or CA Agreement, Name and No. Greater Monument Butte	
8. Lease Name and Well No. Greater Monument Butte O-1-9-16	
9. API Well No. <b>43-013-50212</b>	
10. Field and Pool, or Exploratory Monument Butte	11. Sec., T. R. M. or Blk. and Survey or Area Sec. 2, T9S R16E
12. County or Parish Duchesne	13. State UT
14. Distance in miles and direction from nearest town or post office* Approximately 12.5 miles south of Myton, UT	15. Distance from proposed* location to nearest property or lease line, ft. Approx. 144' f/lse, NA' f/unit (Also to nearest drig. unit line, if any)
16. No. of acres in lease 160.00	17. Spacing Unit dedicated to this well 20 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1022'	19. Proposed Depth 6,365'
20. BLM/BIA Bond No. on file WYB000493	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5453' GL
22. Approximate date work will start* <i>2nd Qtr. 2010</i>	23. Estimated duration (7) days from SPUD to rig release

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature <i>Mandie Crozier</i>	Name (Printed/Typed) Mandie Crozier	Date 7/13/10
Title Regulatory Specialist		
Approved by (Signature) <i>James H. Sparger</i>	Name <b>James H. Sparger</b>	Date <b>OCT 07 2010</b>
Title <b>Acting Assistant Field Manager Lands &amp; Mineral Resources</b>	Office <b>VERNAL FIELD OFFICE</b>	

Application approval 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.

Conditions of approval, if any, are attached.

**CONDITIONS OF APPROVAL ATTACHED**

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.

(Continued on page 2)

\*(Instructions on page 2)

**NOS APD Posted 7/20/2010**  
**AFMSS# 10CXS0028A**

**NOTICE OF APPROVAL  
RECEIVED  
OCT 19 2010**

**RECEIVED  
JUL 20 2010**

DIV. OF OIL, GAS & MINING

**BLM VERNAL, UTAH**

**UDOGM**

No NOS



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

Company: Newfield Production Company  
Well No: Greater Monument Butte O-1-9-16  
API No: 43-013-50212

Location: SENE, Sec. 2, T9S, R16E  
Lease No: UTU-18399  
Agreement: Greater Monument Butte (GR)

**OFFICE NUMBER: (435) 781-4400**

**OFFICE FAX NUMBER: (435) 781-3420**

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: <a href="mailto:ut_vn_opreport@blm.gov">ut_vn_opreport@blm.gov</a> .
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

***SURFACE USE PROGRAM  
CONDITIONS OF APPROVAL (COAs)***

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.
- A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be installed and maintained in the reserve pit.
- The well site shall be bermed to prevent fluids from leaving the pad.
- The reserve pit shall be fenced upon completion of drilling operations.
- Any deviation from submitted APD's and ROW applications the operator will notify the BLM in writing and will receive written authorization of any such change with appropriate authorization.
- All operator employees and/or authorized personnel (sub-contractors) in the field will have approved applicable APD's and ROW permits/authorizations on their person(s) during all phases of construction.
- All vehicular traffic, personnel movement, construction/restoration operations shall be confined to the area examined and approved, and to the existing roadways and/or evaluated access routes.

**DOWNHOLE PROGRAM  
CONDITIONS OF APPROVAL (COAs)**

**SITE SPECIFIC DOWNHOLE COAs:**

- Production casing cement shall be brought up and into the surface.

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to [UT\\_VN\\_Welllogs@BLM.gov](mailto:UT_VN_Welllogs@BLM.gov). This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

## OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location ( $\frac{1}{4}$ , Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
USA UTU-18399

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:  
GMBU

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER

8. WELL NAME and NUMBER:  
GREATER MB O-1-9-16

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
4301350212

3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052 PHONE NUMBER 435.646.3721

10. FIELD AND POOL, OR WILDCAT:  
GREATER MB UNIT

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: 2096 FNL 0425 FEL

COUNTY: DUCHESNE

OTR/OTR. SECTION, TOWNSHIP, RANGE, MERIDIAN: 2, 1, T9S, R16E

STATE: UT

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 11/20/2010	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Weekly Status Report
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

The above subject well was completed on 11-20-10, attached is a daily completion status report.

NAME (PLEASE PRINT) Lucy Chavez-Naupoto

TITLE Administrative Assistant

SIGNATURE *Lucy Chavez-Naupoto*

DATE 11/22/2010

(This space for State use only)

**RECEIVED**  
NOV 23 2010  
DIV. OF OIL, GAS & MINING

**Daily Activity Report**

Format For Sundry

**JONAH O-1-9-16****9/1/2010 To 1/30/2011****10/29/2010 Day: 1****Completion**

Rigless on 10/29/2010 - Run CBL & perforate stg #1 - Install 5m frac head. NU 6" 5K Cameron BOP. RU H/O truck & pressure test casing, blind rams, frac head, csg & casing valves to 4500 psi. RU Perforators LLC WLT w/ mast & run CBL under pressure. WLTD @ 6222' & cement top @ 50'. Perforate stage #1, CP5 sds @ (6021'-31') w/ 3 1/8" Port plug guns ( 11 gram .36" EH 16.82" pen) w/ 3 spf for total of 30 shots. CP2 sds @ (5805'-07') w/ 3 1/8" Port plug guns ( 11 gram .36" EH 16.82" pen) w/ 3 spf for total of 6 shots. RD H/O truck & The Perforators WLT & mast. Wait on frac crew

**Daily Cost:** \$0**Cumulative Cost:** \$12,948**11/5/2010 Day: 2****Completion**

Rigless on 11/5/2010 - Frac stg #1. Perf & frac stgs #2-5. Flowback well - RU BJ Services frac equipment & The Perforators WLT & crane. Frac stg #1. Perforate & frac stgs #2-5. RD BJ frac equipment & WLT & crane. EWTR 2050 BBLs. RU flowback equipment. Open well to pit for flowback @ 4:00 PM. Flowback well for 2 hrs to recover 240 BBLs. EWTR 1810 BBLs

**Daily Cost:** \$0**Cumulative Cost:** \$97,276**11/12/2010 Day: 3****Completion**

Rigless on 11/12/2010 - MIRUSU for completion - MIRUSU WWS #1. Open well. CSG 400 psi. Bleed off well. ND Cameron BOP. Break out frac head. MU production head. NU Schaffer BOP. RU workflow. Prep & tally tbg. SDFN

**Daily Cost:** \$0**Cumulative Cost:** \$139,240**11/15/2010 Day: 4****Completion**

WWS #1 on 11/15/2010 - Pick up tbg. Drill out plugs - Open well. CSG 500 psi. TIH picking up & drifting tbg. Tag sand @ 4322'. Clean out fill to CBP @ 4440'. Well started to flow. Let flow back sand. Drill out plug. Continue picking up tbg to tag sand @ 4917'. Clean out sand to 5011'. Started to bring lots of sand. Circulate clean. TOOH w/ 4 jts tbg. SDFN Gained 180 bw during clean out. EWTR 1630 BBLs

**Daily Cost:** \$0**Cumulative Cost:** \$144,813**11/16/2010 Day: 5****Completion**

WWS #1 on 11/16/2010 - Continue clean out sand & drill out plugs. - Open well. CSG 1200 psi. TBG 1200 psi. Bleed off well. Circulate well until deadTIH w/ tbg to tag sand @ 4886'. Gained 125' sand over weekend. Clean out sand to CBP @ 5080'. Drill out plug. Continue picking up tbg to tag CBP @ 5250'. Drill out plug. Fill flat tank w/ oil, not returning any wtr. Let flow up flowline while waiting on 400 bbl upright & wtr. Continue picking up tbg to tag

sand @ 5387'. TOO H w/ 3 jts tbg. RU to flow over night to battery. Lost 60 bbls wtr. EWTR 1690 BBLs. SDFN

**Daily Cost:** \$0

**Cumulative Cost:** \$149,938

**11/17/2010 Day: 6**

**Completion**

WWS #1 on 11/17/2010 - Clean out sand & drill out last plug. Flow well - Open well. TBG 500 psi flowing. CSG 900 psi. RU pump & circulate well w/ 240 bw to kill. Gained 160 bbls w/ circulate. Continue picking up tbg. Tag sand @ 5387'. 73' sand. Clean out sand to CBP @ 5460'. Drill out plug. Circulate clean. Continue picking up tbg to tag sand @ 6045'. 221' sand. Clean out sand to PBTD @ 6266'. Circulate well clean. RD power swivel. LD 3 jts tbg. Flow back 120 bbls to flat tank. Rig up to flow to tank battery overnight. SDFN Gained 360 BBLs total. 240 oil & 120 wtr. EWTR 1600 BBLs

**Daily Cost:** \$0

**Cumulative Cost:** \$160,617

**11/20/2010 Day: 8**

**Completion**

WWS #1 on 11/20/2010 - Finish picking up rod detail. PWOP - Open well. TBG 100 psi. CSG 700 psi. Bleed off tbg. LD polished rod. Continue picking up rods. Get in hole detail @ follows. 4 - 1 1/2" wt bars, 235 - 7/8" guided rods, & 1 - 8' & 2' x 7/8" pony subs. MU 1 1/2" x 30' polished rod. RU pumping unit. TBG standing full. Stroke tets pump to 800 psi w/ unit. Good pump action. RDMOSU WWS #1. PWOP @ 10:00 AM W/ 144" SL @ 5 SPM. FINAL REPORT! EWTR 0 BBLs - Open well. TBG 100 psi. CSG 700 psi. Bleed off tbg. LD polished rod. Continue picking up rods. Get in hole detail @ follows. 4 - 1 1/2" wt bars, 235 - 7/8" guided rods, & 1 - 8' & 2' x 7/8" pony subs. MU 1 1/2" x 30' polished rod. RU pumping unit. TBG standing full. Stroke tets pump to 800 psi w/ unit. Good pump action. RDMOSU WWS #1. PWOP @ 10:00 AM W/ 144" SL @ 5 SPM. FINAL REPORT! EWTR 0 BBLs - Open well. TBG 350 psi flowing. CSG 900 psi. Circulate well w/ 200 bbls 10# brine until dead. PU 3 jts tbg to tag PBTD @ 6266'. No new fill. TOO H w/ 194 jts tbg. Get out of hole w/ tbg. LD bit & bit sub. MU btm hole assembly. TIH w/ tbg detail @ follows. NC, 2 jts tbg, PSN, 1 jt tbg, TAC, & 191 jts tbg. Get in hole w/ tbg. RD workfloor. ND BOP. Set TAC. MU B-1 adapter flange. Land tbg on wellhead w/ 18000# tension. X-over to rod equipment. PU & prime new Central Hydraulic 2 1/2" x 1 3/4" x 21' x 24' RHAC pump. TIH picking up rod detail @ follows. 4 - 1 1/2" wt bars & 160 - 7/8" guided rods(8 per). MU new 1 1/2" x 30' polished rod. SDFN - Open well. TBG 350 psi flowing. CSG 900 psi. Circulate well w/ 200 bbls 10# brine until dead. PU 3 jts tbg to tag PBTD @ 6266'. No new fill. TOO H w/ 194 jts tbg. Get out of hole w/ tbg. LD bit & bit sub. MU btm hole assembly. TIH w/ tbg detail @ follows. NC, 2 jts tbg, PSN, 1 jt tbg, TAC, & 191 jts tbg. Get in hole w/ tbg. RD workfloor. ND BOP. Set TAC. MU B-1 adapter flange. Land tbg on wellhead w/ 18000# tension. X-over to rod equipment. PU & prime new Central Hydraulic 2 1/2" x 1 3/4" x 21' x 24' RHAC pump. TIH picking up rod detail @ follows. 4 - 1 1/2" wt bars & 160 - 7/8" guided rods(8 per). MU new 1 1/2" x 30' polished rod. SDFN **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$217,883

**Pertinent Files: Go to File List**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: July 31, 2010

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

5. Lease Serial No.  
**UTU-18399**

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.  
**GMBU**

8. Lease Name and Well No.  
**GREATER MON BT O-1-9-16**

9. AFI Well No.  
**43-013-50212**

10. Field and Pool or Exploratory  
**GREATER MB UNIT**

11. Sec., T., R., M., on Block and Survey or Area  
**SEC. 2, T9S, R16E**

12. County or Parish  
**DUCHESNE**

13. State  
**UT**

14. Date Spudded  
**07/10/2010**

15. Date T.D. Reached  
**10/21/2010**

16. Date Completed **11/18/2010**  
 D & A  Ready to Prod.

17. Elevations (DF, RKB, RT, GL)\*  
**5453' GL 5465' KB**

18. Total Depth: MD **6305'**  
TVD **6157'**

19. Plug Back T.D.: MD **6222'**  
TVD **6075**

20. Depth Bridge Plug Set: MD  
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
**DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND**

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

2. Name of Operator  
**NEWFIELD EXPLORATION COMPANY**

3. Address  
**1401 17TH ST. SUITE 1000 DENVER, CO 80202**

3a. Phone No. (include area code)  
**(435)646-3721**

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*  
**At surface 2096' FNL & 425' FEL (SE/NE) SEC. 2, T9S, R16E (ML-21839)**  
**At top prod. interval reported below 2636' FSL & 23' FWL (NW/SW) SEC. 1, T9S R16E (UTU-18399)**  
**At total depth <sup>53</sup> 2206' FSL & 305' FWL (NW/SW) SEC. 1, T9S R16E (UTU-18399)**

*BHL Reviewed by HSM*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	8-5/8" J-55	24#	0	1004'		519 CLASS G			
7-7/8"	5-1/2" J-55	15.5#	0	6290'		300 PRIMLITE		50'	
						400 50/50 POZ			

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

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	EOT@ 6094'	TA @ 5996'						

24. Tubing Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Green River	4367'	6031'	4367-6031'	.36"	150	
B)						
C)						
D)						

25. Producing Intervals

26. Perforation Record

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

Depth Interval	Amount and Type of Material
4367-6031'	Frac w/ 184,860#'s 20/40 sand in 1,270 bbls of Lightning 17 fluid in 5 stages

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
11/15/10	12/05/10	24	→	12	8.66	8.99	8.99		2-1/2" x 1-3/4" x 21' x 24' RHAC Pump
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
	SI		→					PRODUCING	

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	
	SI		→						

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**DEC 09 2010**  
**DIV. OF OIL, GAS & MINING**

\*(See instructions and spaces for additional data on page 2)

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 (Solid, used for fuel, vented, etc.)

USED FOR FUEL

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

GEOLOGICAL MARKERS

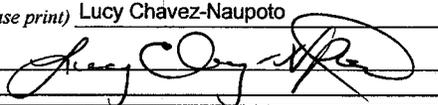
Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
GREEN RIVER	4367'	6031'		GARDEN GULCH MRK	3802'
				GARDEN GULCH 1	4014'
				GARDEN GULCH 2	4140'
				POINT 3	4409'
				X MRKR	4672'
				Y MRKR	4707'
DOUGALS CREEK MRK				BI CARBONATE MRK	4833'
					5088'
B LIMESTON MRK				CASTLE PEAK	5221'
					5703'
BASAL CARBONATE					6151'

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: Drilling Daily Activity

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) Lucy Chavez-Naupoto      Title Administrative Assistant  
 Signature       Date 12/06/2010

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.



# **NEWFIELD EXPLORATION**

**USGS Myton SW (UT)**

**SECTION 2 9S 16E**

**O-1-9-16**

**Wellbore #1**

**Design: Actual**

## **Standard Survey Report**

**20 October, 2010**





# PayZone Directional Services, LLC.

## Survey Report



Company: NEWFIELD EXPLORATION  
 Project: USGS Myton SW (UT)  
 Site: SECTION 2 9S 16E  
 Well: O-1-9-16  
 Wellbore: Wellbore #1  
 Design: Actual

Local Co-ordinate Reference: Well O-1-9-16  
 TVD Reference: O-1-9-16 @ 5465.0ft (RIG 328)  
 MD Reference: O-1-9-16 @ 5465.0ft (RIG 328)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature  
 Database: EDM 2003.21 Single User Db

<b>Project</b>	USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		

<b>Site</b>	SECTION 2 9S 16E, SEC 2 9S 16E				
<b>Site Position:</b>		<b>Northing:</b>	7,193,600.00 ft	<b>Latitude:</b>	40° 3' 34.952 N
<b>From:</b>	Map	<b>Easting:</b>	2,036,100.00 ft	<b>Longitude:</b>	110° 5' 10.480 W
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b>	0.91 °

<b>Well</b>	O-1-9-16, SHL LAT: 40 03 40.99, LONG: -110 04 43.46					
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	7,194,244.12 ft	<b>Latitude:</b>	40° 3' 40.990 N
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	2,038,190.78 ft	<b>Longitude:</b>	110° 4' 43.460 W
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	5,465.0 ft	<b>Ground Level:</b>	5,453.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2010/07/12	11.44	65.83	52,369

<b>Design</b>	Actual				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	141.37	

<b>Survey Program</b>	<b>Date</b>	2010/10/20			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
1,054.0	6,305.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1,054.0	0.22	85.00	1,054.0	0.2	2.0	1.1	0.02	0.02	0.00
1,085.0	0.13	30.80	1,085.0	0.2	2.1	1.1	0.58	-0.29	-174.84
1,117.0	0.20	48.40	1,117.0	0.3	2.2	1.1	0.27	0.22	55.00
1,148.0	0.44	113.70	1,148.0	0.3	2.3	1.2	1.29	0.77	210.65
1,180.0	0.92	124.86	1,180.0	0.1	2.6	1.6	1.55	1.50	34.88
1,212.0	1.30	124.40	1,212.0	-0.3	3.1	2.2	1.19	1.19	-1.44
1,244.0	1.70	121.90	1,244.0	-0.7	3.8	3.0	1.27	1.25	-7.81
1,275.0	2.00	127.10	1,275.0	-1.3	4.7	3.9	1.11	0.97	16.77
1,307.0	2.20	133.60	1,306.9	-2.1	5.6	5.1	0.97	0.63	20.31
1,338.0	2.40	130.70	1,337.9	-2.9	6.5	6.3	0.75	0.65	-9.35
1,370.0	2.70	137.00	1,369.9	-3.9	7.5	7.7	1.28	0.94	19.69
1,402.0	3.00	133.00	1,401.8	-5.0	8.6	9.3	1.12	0.94	-12.50



# PayZone Directional Services, LLC.

## Survey Report



Company: NEWFIELD EXPLORATION  
 Project: USGS Myton SW (UT)  
 Site: SECTION 2 9S 16E  
 Well: O-1-9-16  
 Wellbore: Wellbore #1  
 Design: Actual

Local Co-ordinate Reference: Well O-1-9-16  
 TVD Reference: O-1-9-16 @ 5465.0ft (RIG 328)  
 MD Reference: O-1-9-16 @ 5465.0ft (RIG 328)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature  
 Database: EDM 2003.21 Single User Db

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,434.0	3.50	133.30	1,433.8	-6.3	9.9	11.1	1.56	1.56	0.94
1,465.0	3.70	137.80	1,464.7	-7.6	11.3	13.0	1.12	0.65	14.52
1,497.0	4.00	134.80	1,496.7	-9.2	12.8	15.2	1.13	0.94	-9.38
1,529.0	4.30	139.30	1,528.6	-10.9	14.4	17.5	1.38	0.94	14.06
1,561.0	4.60	138.60	1,560.5	-12.8	16.0	20.0	0.95	0.94	-2.19
1,592.0	4.70	142.30	1,591.4	-14.7	17.6	22.5	1.02	0.32	11.94
1,624.0	5.30	142.50	1,623.3	-16.9	19.3	25.3	1.88	1.88	0.63
1,655.0	6.00	140.40	1,654.1	-19.3	21.2	28.3	2.35	2.26	-6.77
1,687.0	6.60	143.30	1,685.9	-22.1	23.4	31.8	2.12	1.88	9.06
1,719.0	7.00	141.80	1,717.7	-25.1	25.7	35.6	1.37	1.25	-4.69
1,751.0	7.20	142.40	1,749.4	-28.2	28.1	39.6	0.67	0.63	1.88
1,782.0	7.70	140.90	1,780.2	-31.3	30.6	43.6	1.73	1.61	-4.84
1,814.0	8.20	141.80	1,811.9	-34.8	33.4	48.0	1.61	1.56	2.81
1,846.0	8.60	141.50	1,843.5	-38.5	36.3	52.7	1.26	1.25	-0.94
1,877.0	9.10	139.60	1,874.2	-42.1	39.3	57.4	1.87	1.61	-6.13
1,909.0	9.40	139.20	1,905.7	-46.0	42.6	62.6	0.96	0.94	-1.25
1,941.0	9.70	139.90	1,937.3	-50.1	46.1	67.9	1.01	0.94	2.19
1,972.0	10.10	140.60	1,967.8	-54.2	49.5	73.2	1.35	1.29	2.26
2,004.0	10.60	140.00	1,999.3	-58.6	53.2	79.0	1.60	1.56	-1.88
2,036.0	11.20	138.80	2,030.7	-63.2	57.1	85.0	2.00	1.88	-3.75
2,067.0	11.70	138.50	2,061.1	-67.8	61.2	91.2	1.62	1.61	-0.97
2,099.0	12.40	138.40	2,092.4	-72.8	65.6	97.8	2.19	2.19	-0.31
2,131.0	12.90	139.00	2,123.6	-78.1	70.2	104.8	1.62	1.56	1.88
2,163.0	13.40	139.40	2,154.8	-83.6	75.0	112.1	1.59	1.56	1.25
2,194.0	14.00	140.00	2,184.9	-89.2	79.7	119.4	1.99	1.94	1.94
2,226.0	14.50	140.40	2,215.9	-95.2	84.8	127.3	1.59	1.56	1.25
2,257.0	14.60	140.50	2,245.9	-101.2	89.7	135.1	0.33	0.32	0.32
2,289.0	14.60	140.70	2,276.9	-107.5	94.8	143.2	0.16	0.00	0.63
2,321.0	15.00	141.10	2,307.8	-113.8	100.0	151.4	1.29	1.25	1.25
2,352.0	15.60	141.60	2,337.7	-120.2	105.1	159.5	1.98	1.94	1.61
2,384.0	16.00	141.80	2,368.5	-127.1	110.5	168.2	1.26	1.25	0.63
2,416.0	16.00	142.50	2,399.3	-134.0	115.9	177.1	0.60	0.00	2.19
2,447.0	16.10	140.80	2,429.1	-140.7	121.2	185.6	1.55	0.32	-5.48
2,478.0	16.20	140.40	2,458.9	-147.4	126.7	194.3	0.48	0.32	-1.29
2,512.0	16.30	140.30	2,491.5	-154.7	132.8	203.8	0.31	0.29	-0.29
2,543.0	16.00	140.80	2,521.3	-161.4	138.3	212.4	1.07	-0.97	1.61
2,575.0	15.50	140.90	2,552.1	-168.1	143.7	221.1	1.56	-1.56	0.31
2,605.0	15.40	140.30	2,581.0	-174.3	148.8	229.1	0.63	-0.33	-2.00
2,637.0	15.10	139.80	2,611.9	-180.7	154.2	237.5	1.02	-0.94	-1.56
2,669.0	14.50	139.80	2,642.8	-187.0	159.5	245.7	1.88	-1.88	0.00
2,700.0	14.70	139.10	2,672.8	-192.9	164.6	253.5	0.86	0.65	-2.26
2,732.0	14.90	139.70	2,703.7	-199.1	169.9	261.6	0.79	0.63	1.88
2,765.0	14.90	141.20	2,735.6	-205.7	175.3	270.1	1.17	0.00	4.55
2,797.0	14.90	141.90	2,766.6	-212.1	180.4	278.3	0.56	0.00	2.19
2,829.0	15.20	140.90	2,797.5	-218.6	185.6	286.7	1.24	0.94	-3.13
2,860.0	15.80	141.80	2,827.3	-225.1	190.8	294.9	2.09	1.94	2.90
2,891.0	16.40	143.30	2,857.1	-231.9	196.0	303.5	2.35	1.94	4.84
2,922.0	16.60	145.20	2,886.8	-239.1	201.1	312.3	1.86	0.65	6.13
2,956.0	16.60	146.20	2,919.4	-247.1	206.6	322.0	0.84	0.00	2.94
2,987.0	16.48	146.09	2,949.1	-254.4	211.5	330.8	0.40	-0.39	-0.35
3,018.0	16.80	145.30	2,978.8	-261.7	216.5	339.7	1.26	1.03	-2.55
3,049.0	16.60	143.50	3,008.5	-269.0	221.7	348.5	1.79	-0.65	-5.81
3,082.0	16.40	142.50	3,040.2	-276.5	227.4	357.9	1.05	-0.61	-3.03
3,113.0	16.70	141.10	3,069.9	-283.4	232.8	366.7	1.61	0.97	-4.52



# PayZone Directional Services, LLC.

## Survey Report



**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 2 9S 16E  
**Well:** O-1-9-16  
**Wellbore:** Wellbore #1  
**Design:** Actual

**Local Co-ordinate Reference:** Well O-1-9-16  
**TVD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**MD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,146.0	16.70	140.40	3,101.5	-290.8	238.8	376.2	0.61	0.00	-2.12
3,179.0	15.60	138.00	3,133.2	-297.7	244.8	385.4	3.90	-3.33	-7.27
3,210.0	14.30	135.80	3,163.2	-303.5	250.3	393.4	4.58	-4.19	-7.10
3,241.0	14.01	136.01	3,193.2	-309.0	255.6	400.9	0.95	-0.94	0.68
3,272.0	14.50	138.00	3,223.3	-314.6	260.8	408.5	2.24	1.58	6.42
3,304.0	14.90	137.70	3,254.2	-320.6	266.2	416.6	1.27	1.25	-0.94
3,335.0	15.20	137.90	3,284.1	-326.6	271.6	424.7	0.98	0.97	0.65
3,366.0	15.40	138.00	3,314.0	-332.6	277.1	432.8	0.65	0.65	0.32
3,398.0	15.20	137.70	3,344.9	-338.9	282.8	441.3	0.67	-0.63	-0.94
3,430.0	15.30	138.00	3,375.8	-345.1	288.4	449.7	0.40	0.31	0.94
3,462.0	15.10	138.40	3,406.7	-351.4	294.0	458.0	0.71	-0.63	1.25
3,494.0	14.90	139.40	3,437.6	-357.6	299.4	466.3	1.02	-0.63	3.13
3,525.0	15.20	138.90	3,467.5	-363.7	304.7	474.4	1.05	0.97	-1.61
3,556.0	15.20	140.80	3,497.4	-369.9	309.9	482.5	1.61	0.00	6.13
3,589.0	15.70	142.10	3,529.2	-376.8	315.4	491.3	1.84	1.52	3.94
3,620.0	15.80	143.10	3,559.1	-383.5	320.5	499.7	0.93	0.32	3.23
3,652.0	16.00	143.50	3,589.8	-390.5	325.8	508.4	0.71	0.63	1.25
3,683.0	16.10	143.10	3,619.6	-397.4	330.9	517.0	0.48	0.32	-1.29
3,715.0	16.00	142.70	3,650.4	-404.4	336.2	525.9	0.47	-0.31	-1.25
3,746.0	15.70	142.70	3,680.2	-411.2	341.4	534.3	0.97	-0.97	0.00
3,778.0	15.50	143.10	3,711.0	-418.0	346.6	542.9	0.71	-0.63	1.25
3,810.0	15.70	142.90	3,741.9	-424.9	351.7	551.5	0.65	0.63	-0.63
3,841.0	15.60	143.30	3,771.7	-431.6	356.8	559.9	0.47	-0.32	1.29
3,873.0	15.60	142.70	3,802.5	-438.5	361.9	568.5	0.50	0.00	-1.88
3,905.0	15.40	143.00	3,833.4	-445.3	367.1	577.0	0.67	-0.63	0.94
3,936.0	15.40	142.50	3,863.3	-451.8	372.1	585.3	0.43	0.00	-1.61
3,968.0	15.78	140.20	3,894.1	-458.6	377.5	593.9	2.27	1.19	-7.19
4,000.0	16.20	140.20	3,924.8	-465.3	383.1	602.7	1.31	1.31	0.00
4,031.0	15.90	141.10	3,954.6	-472.0	388.5	611.2	1.26	-0.97	2.90
4,063.0	16.20	140.50	3,985.4	-478.8	394.1	620.1	1.07	0.94	-1.88
4,095.0	16.40	140.50	4,016.1	-485.7	399.8	629.1	0.63	0.63	0.00
4,127.0	16.30	141.20	4,046.8	-492.7	405.5	638.1	0.69	-0.31	2.19
4,158.0	16.79	142.18	4,076.5	-499.7	411.0	646.9	1.82	1.58	3.16
4,190.0	16.96	142.20	4,107.1	-507.0	416.7	656.2	0.53	0.53	0.06
4,222.0	16.70	143.20	4,137.8	-514.4	422.3	665.5	1.22	-0.81	3.13
4,253.0	16.20	143.00	4,167.5	-521.4	427.6	674.2	1.62	-1.61	-0.65
4,285.0	15.70	142.50	4,198.3	-528.4	432.9	683.0	1.62	-1.56	-1.56
4,317.0	15.30	142.00	4,229.1	-535.1	438.1	691.6	1.32	-1.25	-1.56
4,348.0	15.20	141.60	4,259.0	-541.6	443.2	699.7	0.47	-0.32	-1.29
4,380.0	15.30	141.30	4,289.9	-548.1	448.4	708.1	0.40	0.31	-0.94
4,412.0	15.20	142.40	4,320.8	-554.8	453.6	716.6	0.96	-0.31	3.44
4,443.0	15.20	142.00	4,350.7	-561.2	458.6	724.7	0.34	0.00	-1.29
4,475.0	15.10	142.70	4,381.6	-567.8	463.7	733.0	0.65	-0.31	2.19
4,507.0	14.80	142.20	4,412.5	-574.3	468.7	741.3	1.02	-0.94	-1.56
4,538.0	14.90	140.40	4,442.4	-580.5	473.7	749.2	1.52	0.32	-5.81
4,570.0	14.70	140.60	4,473.4	-586.9	478.9	757.4	0.65	-0.63	0.63
4,602.0	14.90	139.70	4,504.3	-593.1	484.1	765.6	0.95	0.63	-2.81
4,634.0	15.10	141.00	4,535.2	-599.5	489.4	773.9	1.22	0.63	4.06
4,665.0	15.20	139.80	4,565.2	-605.7	494.6	782.0	1.06	0.32	-3.87
4,697.0	14.70	139.20	4,596.1	-612.0	500.0	790.2	1.64	-1.56	-1.88
4,728.0	14.50	138.40	4,626.1	-617.9	505.1	798.0	0.92	-0.65	-2.58
4,760.0	14.20	137.70	4,657.1	-623.8	510.4	805.9	1.08	-0.94	-2.19
4,792.0	14.20	136.70	4,688.1	-629.6	515.7	813.8	0.77	0.00	-3.13
4,824.0	14.46	135.98	4,719.1	-635.3	521.2	821.7	0.99	0.81	-2.25



# PayZone Directional Services, LLC.

## Survey Report



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 Survey Calculation Method: Minimum Curvature  
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### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,855.0	14.00	136.33	4,749.1	-640.8	526.5	829.3	1.51	-1.48	1.13	
4,887.0	14.19	138.31	4,780.2	-646.5	531.8	837.0	1.62	0.59	6.19	
4,919.0	14.50	138.40	4,811.2	-652.4	537.0	844.9	0.97	0.97	0.28	
4,950.0	14.40	140.80	4,841.2	-658.3	542.0	852.7	1.96	-0.32	7.74	
4,982.0	14.60	140.10	4,872.2	-664.5	547.1	860.7	0.83	0.63	-2.19	
5,014.0	14.80	139.70	4,903.1	-670.7	552.4	868.8	0.70	0.63	-1.25	
5,045.0	14.70	139.80	4,933.1	-676.7	557.5	876.7	0.33	-0.32	0.32	
5,077.0	14.90	139.70	4,964.1	-683.0	562.8	884.9	0.63	0.63	-0.31	
5,109.0	14.50	139.90	4,995.0	-689.2	568.0	893.0	1.26	-1.25	0.63	
5,140.0	14.40	139.60	5,025.0	-695.1	573.0	900.7	0.40	-0.32	-0.97	
5,172.0	14.20	140.50	5,056.0	-701.1	578.1	908.6	0.93	-0.63	2.81	
5,204.0	14.40	140.00	5,087.0	-707.2	583.1	916.5	0.73	0.63	-1.56	
5,236.0	14.37	140.46	5,118.0	-713.3	588.2	924.5	0.37	-0.09	1.44	
5,267.0	14.18	141.18	5,148.1	-719.3	593.0	932.1	0.84	-0.61	2.32	
5,298.0	14.37	143.40	5,178.1	-725.3	597.7	939.7	1.87	0.61	7.16	
5,317.1	14.33	143.58	5,196.7	-729.1	600.5	944.5	0.32	-0.22	0.94	
<b>O-1-9-16 TGT</b>										
5,330.0	14.30	143.70	5,209.1	-731.7	602.4	947.7	0.32	-0.22	0.94	
5,362.0	14.60	144.20	5,240.1	-738.1	607.1	955.6	1.02	0.94	1.56	
5,394.0	15.60	144.60	5,271.0	-744.9	612.0	964.0	3.14	3.13	1.25	
5,425.0	16.20	144.80	5,300.8	-751.8	616.9	972.4	1.94	1.94	0.65	
5,457.0	15.90	145.20	5,331.6	-759.1	622.0	981.3	1.00	-0.94	1.25	
5,488.0	15.60	144.40	5,361.4	-766.0	626.8	989.7	1.19	-0.97	-2.58	
5,520.0	15.30	143.30	5,392.3	-772.8	631.8	998.2	1.31	-0.94	-3.44	
5,552.0	15.30	142.40	5,423.1	-779.6	636.9	1,006.6	0.74	0.00	-2.81	
5,584.0	15.50	143.10	5,454.0	-786.3	642.1	1,015.1	0.85	0.63	2.19	
5,615.0	15.20	143.40	5,483.9	-792.9	647.0	1,023.3	1.00	-0.97	0.97	
5,648.0	14.60	143.10	5,515.8	-799.7	652.1	1,031.8	1.83	-1.82	-0.91	
5,679.0	14.70	143.00	5,545.7	-806.0	656.8	1,039.6	0.33	0.32	-0.32	
5,711.0	14.20	143.10	5,576.7	-812.4	661.6	1,047.6	1.56	-1.56	0.31	
5,742.0	14.20	143.80	5,606.8	-818.5	666.1	1,055.2	0.55	0.00	2.26	
5,774.0	14.30	145.50	5,637.8	-824.9	670.7	1,063.1	1.34	0.31	5.31	
5,806.0	14.60	144.00	5,668.8	-831.4	675.3	1,071.1	1.50	0.94	-4.69	
5,838.0	14.90	144.90	5,699.7	-838.0	680.0	1,079.2	1.18	0.94	2.81	
5,869.0	14.50	144.90	5,729.7	-844.5	684.5	1,087.0	1.29	-1.29	0.00	
5,901.0	14.20	146.00	5,760.7	-851.0	689.0	1,095.0	1.27	-0.94	3.44	
5,933.0	13.70	146.50	5,791.8	-857.4	693.3	1,102.6	1.61	-1.56	1.56	
5,964.0	13.60	147.30	5,821.9	-863.6	697.3	1,109.9	0.69	-0.32	2.58	
5,996.0	13.20	146.80	5,853.0	-869.8	701.3	1,117.3	1.30	-1.25	-1.56	
6,028.0	12.70	147.98	5,884.2	-875.8	705.2	1,124.4	1.77	-1.56	3.69	
6,059.0	12.30	147.90	5,914.5	-881.5	708.8	1,131.1	1.29	-1.29	-0.26	
6,091.0	11.78	149.72	5,945.8	-887.2	712.2	1,137.7	2.01	-1.63	5.69	
6,123.0	11.12	148.81	5,977.1	-892.7	715.5	1,144.0	2.14	-2.06	-2.84	
6,155.0	10.30	149.00	6,008.6	-897.8	718.5	1,149.9	2.56	-2.56	0.59	
6,187.0	9.54	150.35	6,040.1	-902.5	721.3	1,155.4	2.48	-2.38	4.22	
6,218.0	8.90	149.90	6,070.7	-906.8	723.8	1,160.3	2.08	-2.06	-1.45	
6,255.0	8.50	150.89	6,107.3	-911.7	726.6	1,165.8	1.15	-1.08	2.68	
6,305.0	7.96	152.23	6,156.8	-918.0	730.0	1,172.8	1.15	-1.08	2.68	



# PayZone Directional Services, LLC.

## Survey Report



**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 2 9S 16E  
**Well:** O-1-9-16  
**Wellbore:** Wellbore #1  
**Design:** Actual

**Local Co-ordinate Reference:** Well O-1-9-16  
**TVD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**MD Reference:** O-1-9-16 @ 5465.0ft (RIG 328)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

### Wellbore Targets

#### Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
O-1-9-16 TGT	0.00	0.00	5,200.0	-727.2	581.1	7,193,526.28	2,038,783.38	40° 3' 33.803 N	110° 4' 35.986 W
- actual wellpath misses by 19.8ft at 5317.1ft MD (5196.7 TVD, -729.1 N, 600.5 E)									
- Circle (radius 75.0)									

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



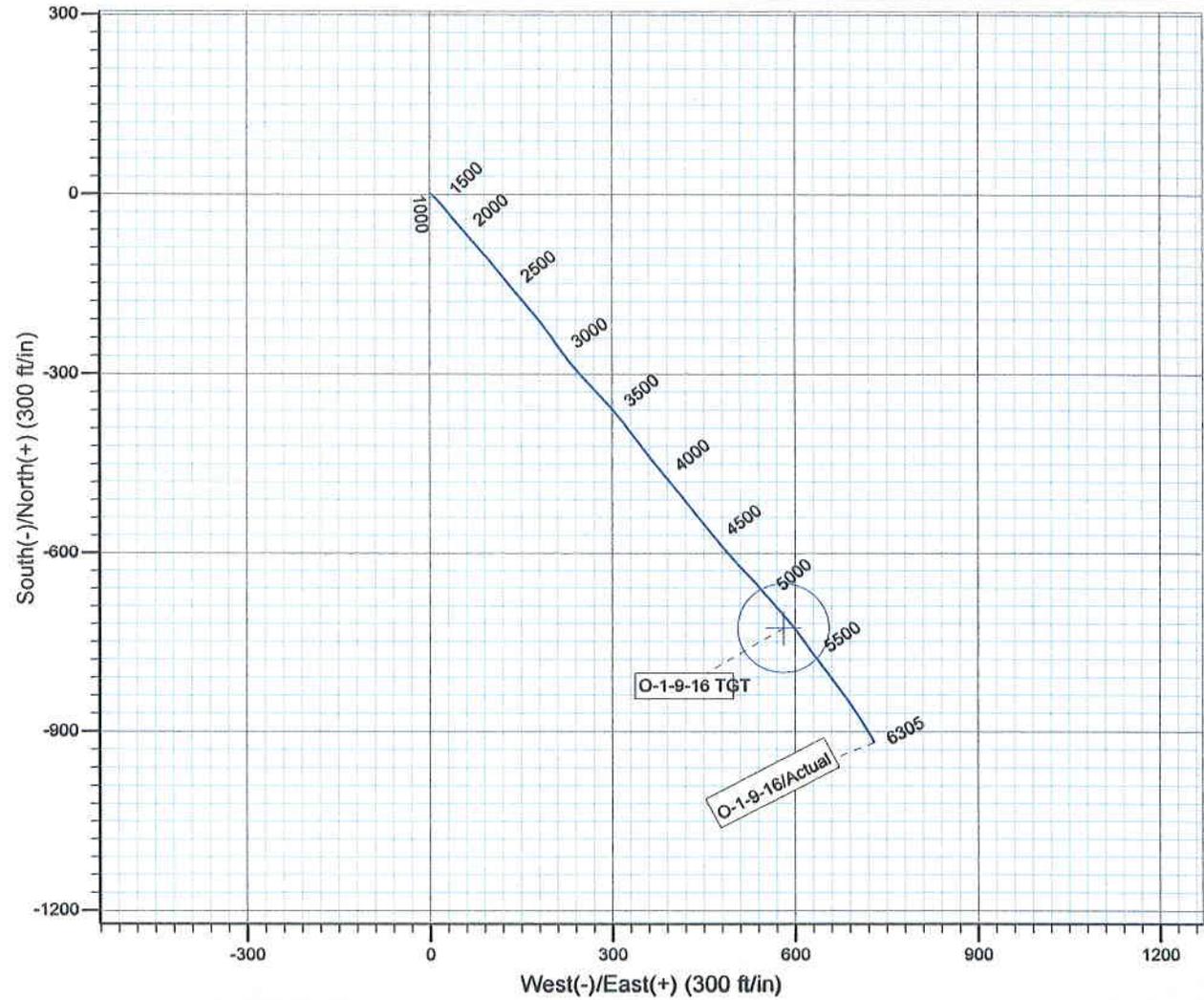
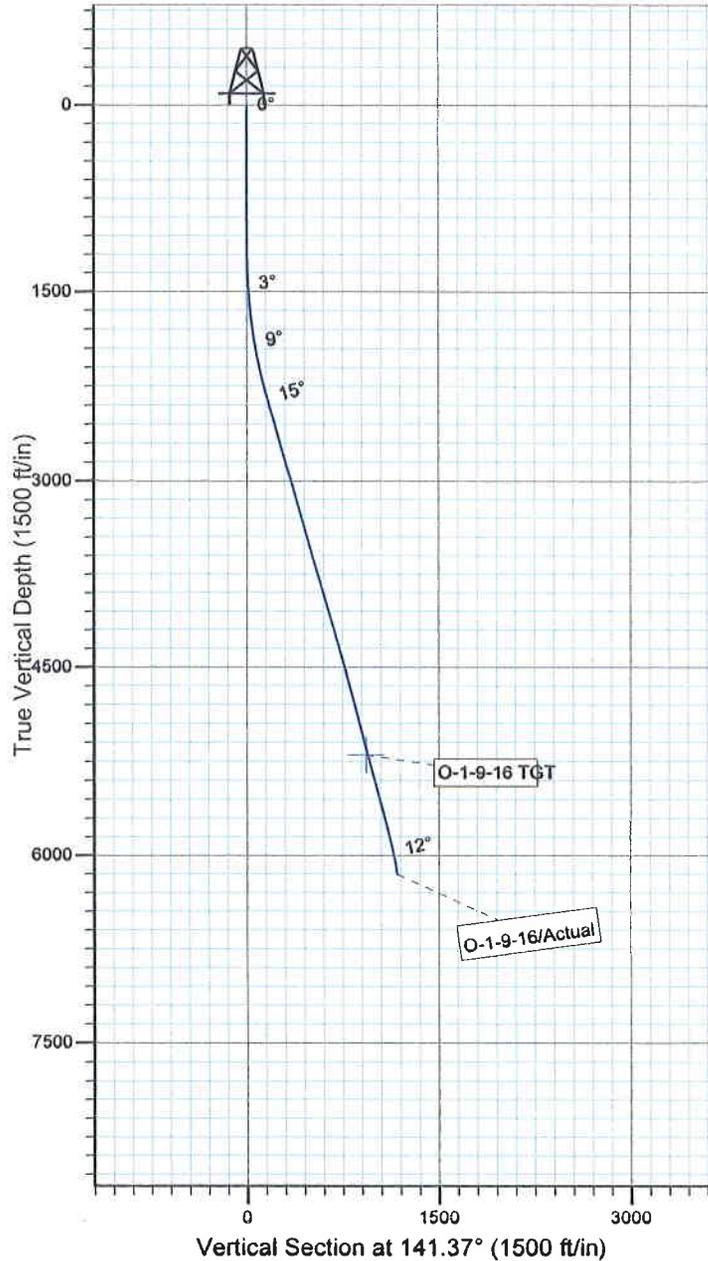
Project: USGS Myton SW (UT)  
 Site: SECTION 2 9S 16E  
 Well: O-1-9-16  
 Wellbore: Wellbore #1  
 SURVEY: Actual

FINAL SURVEY REPORT



Azimuths to True North  
 Magnetic North: 11.44°

Magnetic Field  
 Strength: 52369.0snT  
 Dip Angle: 65.83°  
 Date: 2010/07/12  
 Model: IGRF2010



Design: Actual (O-1-9-16/Wellbore #1)

Created By: *Tom Hudson* Date: 8:43 October 20 2010  
 THIS SURVEY IS CORRECT TO THE BEST OF MY  
 KNOWLEDGE AND IS SUPPORTED BY ACTUAL FIELD DATA.

**Daily Activity Report****Format For Sundry****O-1-9-16****8/1/2010 To 12/30/2010****JONAH O-1-9-16****Rigging down****Date:** 10/18/2010

NDSI #2 at 1025. 0 Days Since Spud - Monel, Gap sub, Hang off sub, Pony Sub, 26 HWDP Tag @ 1004' - Drill 7 7/8" hole F/ 1004' to 2180' W/ 20,000WOB, 151TRPM, 395 GPM, 112fph avg ROP - Finish Rigging Up - Test 8 5/8" Surface casing to 1,500PSI F/ Thirty minutes all tested good - Test Pipe and Blind Rams, Kelly, Choke, and Safety valve to 2,000PSI F/ ten minutes - MIRU on the Jonah O-1-9-16 set all surface equipment - Rig down Prepair F/ Move to the Jonah O-1-9-16 10/17/10 - Drill 7 7/8" hole F/ 1004' to 2180' W/ 20,000WOB, 151TRPM, 395 GPM, 112fph avg ROP - Monel, Gap sub, Hang off sub, Pony Sub, 26 HWDP Tag @ 1004' - Pick up BHA as follows, Smith MI616 7 7/8" PDC Bit, 6 1/2" Hunting 4/5 6.0 Stage 1.5° Mud Motor, - Finish Rigging Up - Test 8 5/8" Surface casing to 1,500PSI F/ Thirty minutes all tested good - Test Pipe and Blind Rams, Kelly, Choke, and Safety valve to 2,000PSI F/ ten minutes - MIRU on the Jonah O-1-9-16 set all surface equipment - Rig down Prepair F/ Move to the Jonah O-1-9-16 10/17/10 - Pick up BHA as follows, Smith MI616 7 7/8" PDC Bit, 6 1/2" Hunting 4/5 6.0 Stage 1.5° Mud Motor,

**Daily Cost:** \$0**Cumulative Cost:** \$94,864**JONAH O-1-9-16****Drill 7 7/8" hole with fresh water****Date:** 10/19/2010

NDSI #2 at 4620. 2 Days Since Spud - Rig Service, function test BOP and Crown-O-Matic. Grease Crown, Blocks, Swivel, and Spinners - Drill 7 7/8" hole F/ 2180' to 3290' W/ 20,000WOB, 151TRPM, 395 GPM, 106fph avg ROP - Drill 7 7/8" hole F/ 3290' to 4620' W/ 20,000WOB, 151TRPM, 395 GPM, 106fph avg ROP

**Daily Cost:** \$0**Cumulative Cost:** \$147,822**JONAH O-1-9-16****Drill 7 7/8" hole with fresh water****Date:** 10/20/2010

NDSI #2 at 6205. 3 Days Since Spud - Well Flowing 4 gal/Min @ 6205' - No H2s Reported Last 24 Hrs - Drill 7 7/8" Hole From 5222' To 6205', WOB 20,000 lbs, TRPM 168,GPM 344,AVG ROP 70.2 fph - Rig Services, Bop Drill Hands In place 1 Min - Drill 7 7/8" Hole from 4620' To 5222',WOB 20,000 lbs,TRPM 168, GPM 344, AVG ROP 63.3 fph

**Daily Cost:** \$0**Cumulative Cost:** \$168,731**JONAH O-1-9-16****Wait on Completion****Date:** 10/21/2010

NDSI #2 at 6305. 4 Days Since Spud - SDL/GR/CAL Suite Logs From 6288' To 3000' - R/U B&C Quick Test. Test 5 1/2" Pipe Rams To 2000 psi For 10 Mins,Tested Ok - R/U Kimzey Casing Crew, Run 150 jts 5.5",J-55,15.5# LT&C Casing. Shoe @ 6289',Float Collar @ 6265'. - 3 jts Will Be Transferred To P-36-8-16 - Circ Casing - R/U BJ Services Test Lines To 4000 psi,Pump 300 Sks of lead cement @ 11 ppg w/ 3.53 yield - ( PL-II +3% KCL + 5# CSE + 0.5# CF +5# KOL +.5SMS + FP + SF) Pumped 400 sks Tail cement @14.4 ppg & - 1.24 yield ( 50:50:2 + 3% KCL + 0.5%EC-1 + .25# CF + .05# SF + .3 SMS +FP-6L) Displaced with 145 - bbls. Returned 30 bbls. Bump Plug To 2250 psi - Nipple Down Bop's,Set Slips W/ 90,000# Tension - Clean Mud Tanks - Clean Mud Tanks - Released Rig @ 8:00 AM 10/21/10 DB - R/U

Phoenix Surveys Log Well W/ DISGL/SP?CAL Suite, From Loggers TD 6288' To Surface Casing And DSN/ - LDDP & BHA ( Break Kelly & Dir Tools ) - Circulate & Wait F/Brine & Pump 260 bbls 10# Brine - LDDP To 4000' - Circulate F/ Laydown & Logs - Drill 7 7/8" Hole From 6205' To 6305'. WOB 20,000 lbs,TRPM 168, GPM 344, AVG ROP 100 fph - Released Rig @ 8:00 AM 10/21/10 DB - Clean Mud Tanks - Clean Mud Tanks - Nipple Down Bop's,Set Slips W/ 90,000# Tension - bbls. Returned 30 bbls. Bump Plug To 2250 psi - 1.24 yield ( 50:50:2 + 3% KCL + 0.5%EC-1 + .25# CF + .05# SF + .3 SMS +FP-6L) Displaced with 145 - ( PL-II +3% KCL + 5# CSE + 0.5# CF +5# KOL +.5SMS + FP + SF) Pumped 400 sks Tail cement @14.4 ppg & - R/U BJ Services Test Lines To 4000 psi,Pump 300 Sks of lead cement @ 11 ppg w/ 3.53 yield - Circ Casing - 3 jts Will Be Transferred To P-36-8-16 - R/U Kimzey Casing Crew, Run 150 jts 5.5",J-55,15.5# LT&C Casing. Shoe @ 6289',Float Collar @ 6265'. - R/U B&C Quick Test. Test 5 1/2" Pipe Rams To 2000 psi For 10 Mins,Tested Ok - SDL/GR/CAL Suite Logs From 6288' To 3000' - R/U Phoenix Surveys Log Well W/ DISGL/SP?CAL Suite, From Loggers TD 6288' To Surface Casing And DSN/ - LDDP & BHA ( Break Kelly & Dir Tools ) - Circulate & Wait F/Brine & Pump 260 bbls 10# Brine - LDDP To 4000' - Drill 7 7/8" Hole From 6205' To 6305'. WOB 20,000 lbs,TRPM 168, GPM 344, AVG ROP 100 fph - Circulate F/ Laydown & Logs **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$357,755

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**Pertinent Files: [Go to File List](#)**