

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING						FORM 3 AMENDED REPORT				
<b>APPLICATION FOR PERMIT TO DRILL</b>						1. WELL NAME and NUMBER Lake Boreham 4-36-3-3WH				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT WILDCAT				
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME				
6. NAME OF OPERATOR NEWFIELD PRODUCTION COMPANY						7. OPERATOR PHONE 435 646-4825				
8. ADDRESS OF OPERATOR Rt 3 Box 3630 , Myton, UT, 84052						9. OPERATOR E-MAIL mcrozier@newfield.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) Patented			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee') Michael M. & Suzanne H. Evans						14. SURFACE OWNER PHONE (if box 12 = 'fee') 801-301-5824				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 232 East 1875 North, Centerville, UT 84014						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input checked="" type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		204 FNL 333 FWL		NWNW	36	3.0 S	3.0 W	U		
Top of Uppermost Producing Zone		660 FNL 660 FWL		NWNW	36	3.0 S	3.0 W	U		
At Total Depth		660 FSL 660 FWL		SWSW	36	3.0 S	3.0 W	U		
21. COUNTY DUCESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 204			23. NUMBER OF ACRES IN DRILLING UNIT 40				
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 0			26. PROPOSED DEPTH MD: 12001 TVD: 7468				
27. ELEVATION - GROUND LEVEL 5296			28. BOND NUMBER B001834			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 437478				
<b>Hole, Casing, and Cement Information</b>										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
COND	17.5	14	0 - 60	37.0	H-40 ST&C	0.0	Class G	35	1.17	15.8
SURF	12.25	9.625	0 - 2500	36.0	J-55 ST&C	0.0	Premium Lite High Strength	204	3.53	11.0
							Class G	154	1.17	15.8
I1	8.75	7	0 - 8052	26.0	P-110 Other	10.5	Premium Lite High Strength	231	3.53	11.0
							50/50 Poz	324	1.24	14.3
PROD	6.125	4.5	7064 - 12001	13.5	P-110 Other	10.5	No Used	0	0.0	0.0
<b>ATTACHMENTS</b>										
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 checked="" 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				
NAME Don Hamilton				TITLE Permitting Agent			PHONE 435 719-2018			
SIGNATURE				DATE 01/26/2012			EMAIL starpoint@etv.net			
API NUMBER ASSIGNED 43013511940000				APPROVAL  Permit Manager						

**Newfield Production Company**  
**Lake Boreham 4-36-3-3WH**  
**Surface Hole Location: 204' FNL, 333' FWL, Section 36, T3S, R3W**  
**Bottom Hole Location: 660' FSL, 660' FWL, Section 36, T3S, R3W**  
**Duchesne County, UT**

**Drilling Program**

**1. Formation Tops**

Uinta	surface
Green River	2,915'
Garden Gulch member	5,725'
Wasatch	8,220'
Pilot Hole TD	8,520'
Lateral TD	7,468' TVD / 12,001' MD

**2. Depth to Oil, Gas, Water, or Minerals**

Base of moderately saline	477'	(water)
Green River	5,725' - 7,468'	(oil)

Note: The pilot hole will be drilled into the Wasatch formation for evaluation and targeting purposes only. The lateral will be drilled in the Green River formation.

**3. Pressure Control**

Section                      BOP Description

Surface                      12-1/4" diverter

Interm/Prod              The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 5M system.

A 5M BOP system will consist of 2 ram preventers (double or two singles) and an annular preventer (see attached diagram). A choke manifold rated to at least 5,000 psi will be used.

**4. Casing**

Description	Interval		Weight (ppf)	Grade	Coupl	Pore Press @ Shoe	MW @ Shoe	Frac Grad @ Shoe	Safety Factors		
	Top	Bottom (TVD/MD)							Burst	Collapse	Tension
Conductor 14	0'	60'	37	H-40	Weld	--	--	--	--	--	--
Surface 9 5/8	0'	2,500'	36	J-55	STC	8.33	8.33	12	3,520 2.51	2,020 2.54	394,000 4.38
Intermediate 7	0'	7,648' 8,052'	26	P-110	BTC	10	10.5	15	9,960 3.10	6,210 1.82	853,000 4.07
Production 4 1/2	7,064'	7,468' 12,001'	13.5	P-110	BTC	10	10.5	--	12,410 3.96	10,670 3.20	422,000 6.33

**Assumptions:**

Surface casing MASP = (frac gradient + 1.0 ppg) - (gas gradient)

Intermediate casing MASP = (reservoir pressure) - (gas gradient)

Production casing MASP = (reservoir pressure) - (gas gradient)

All collapse calculations assume fully evacuated casing with a gas gradient

All tension calculations assume air weight of casing

Gas gradient = 0.1 psi/ft

All casing shall be new.

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

**5. Cement**

Job	Hole Size	Fill	Slurry Description	ft <sup>3</sup>	OH excess	Weight (ppg)	Yield (ft <sup>3</sup> /sk)
				sacks			
Conductor	17 1/2	60'	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	41	15%	15.8	1.17
				35			
Surface Lead	12 1/4	2,000'	Premium Lite II w/ 3% KCl + 10% bentonite	720	15%	11.0	3.53
				204			
Surface Tail	12 1/4	500'	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	180	15%	15.8	1.17
				154			
Pilot Hole Plug Back	8 3/4	1,016'	50/50 Poz/Class G w/ 3% KCl + 2% bentonite	488	15%	14.3	1.24
				394			
Intermediate Lead	8 3/4	4,725'	Premium Lite II w/ 3% KCl + 10% bentonite	817	15%	11.0	3.53
				231			
Intermediate Tail	8 3/4	2,327'	50/50 Poz/Class G w/ 3% KCl + 2% bentonite	402	15%	14.3	1.24
				324			
Production	6 1/8	--	Liner will not be cemented. It will be isolated with a liner top packer.	--	--	--	--
				--			

The surface casing will be cemented to surface. In the event that cement does not reach surface during the primary cement job, a remedial job will be performed.

Actual cement volumes for the pilot hole plug back and the intermediate casing string will be calculated from an open hole caliper log, plus 15% excess.

The production liner will be left uncemented. Individual frac stages will be isolated with open hole packers. A liner top hanger and packer will be installed 50' above KOP.

**6. Type and Characteristics of Proposed Circulating Medium**

<u>Interval</u>	<u>Description</u>
-----------------	--------------------

Surface - 2,500'

An air and/or fresh water system will be utilized. If an air rig is used, the blooie line discharge may be less than 100' from the wellbore in order to minimize location size. The blooie line is not equipped with an automatic igniter. The air compressor may be located less than 100' from the well bore due to the low possibility of combustion with the air/dust mixture. Water will be on location to be used as kill fluid, if necessary.

2,500' - TD      A water based mud system will be utilized. Hole stability may be improved with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and if conditions warrant, with barite.

Anticipated maximum mud weight is      10.5 ppg.

## **7. Logging, Coring, and Testing**

Logging:      A dual induction, gamma ray, and caliper log will be run from TD to the base of the surface casing. A compensated neutron/formation density log will be run from TD to the top of the Garden Gulch formation. A cement bond log will be run from PBTD to the cement top behind the production casing.

Cores:      As deemed necessary.

DST:      There are no DST's planned for this well.

## **8. Anticipated Abnormal Pressure or Temperature**

Maximum anticipated bottomhole pressure will be approximately equal to total depth (feet) multiplied by a      0.52 psi/ft gradient.

$$7,468' \times 0.52 \text{ psi/ft} = 3883 \text{ psi}$$

No abnormal temperature is expected. No H<sub>2</sub>S is expected.

## **9. Other Aspects**

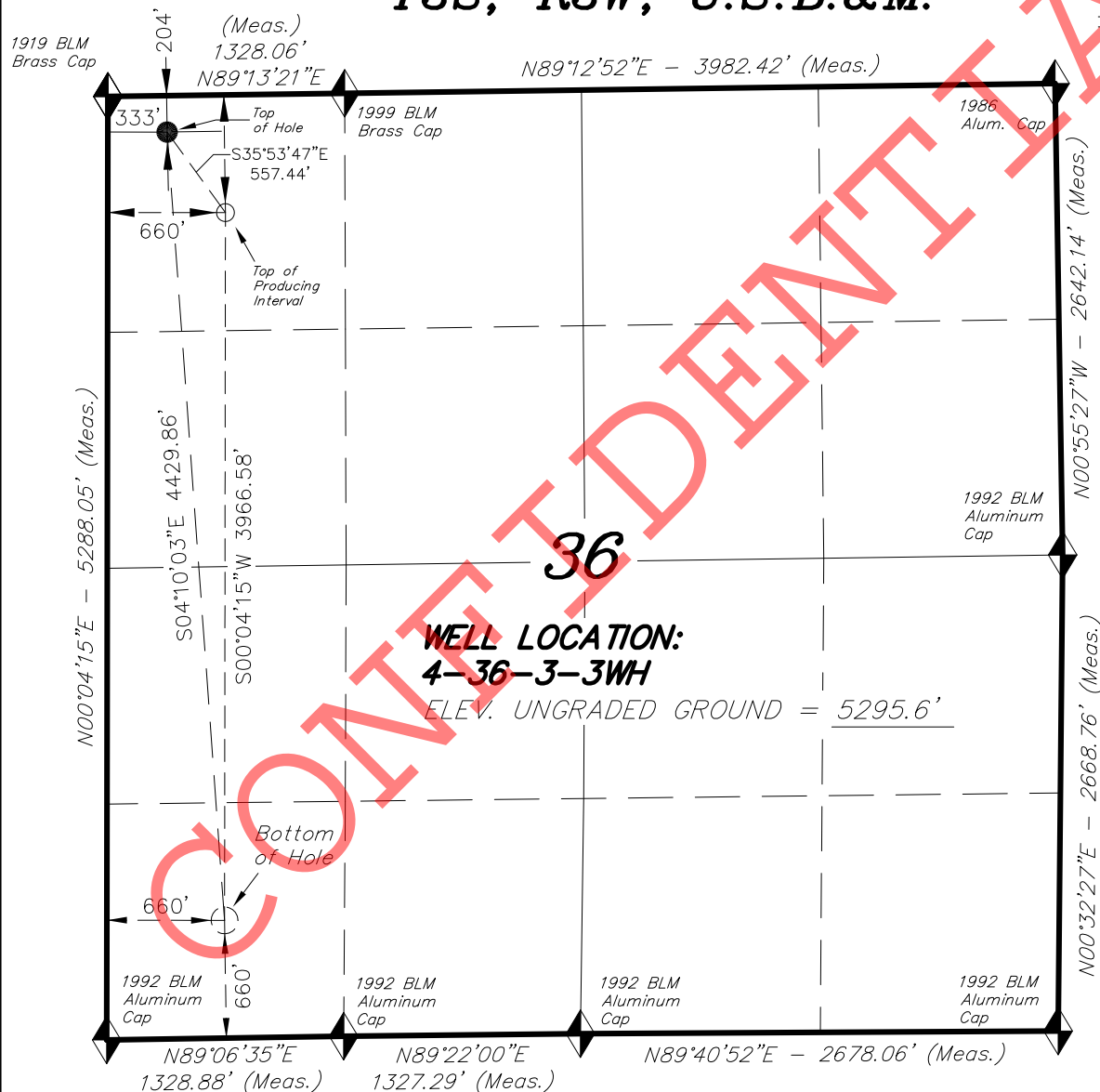
An 8-3/4" pilot hole will be drilled in order to determine the depth to the lateral target zone. The pilot hole will be logged, and then plugged back in preparation for horizontal operations. Directional tools will then be used to build to 92.60 degrees inclination. The 7" intermediate casing string will be set once the well is landed horizontally in the target zone.

The lateral will be drilled to the bottomhole location shown on the plat. A liner with a system of open hole packers will be used to provide multi-stage frac isolation in the lateral. The top of the liner will be place 50' above KOP and will be isolated with a liner top packer.

Newfield requests the following variances from Onshore Order #2:

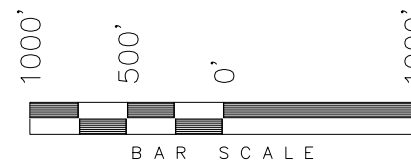
- Variance from Onshoer Order #2, III.E.1
- Refer to Newfield Production Company Standard Operating Practices "Ute Tribal Green River Development Program" paragraph 9.2



**T3S, R3W, U.S.B.&M.****NEWFIELD EXPLORATION COMPANY**

WELL LOCATION, 4-36-3-3WH, LOCATED AS SHOWN IN THE NW 1/4 NW 1/4 OF SECTION 36, T3S, R3W, U.S.B.&M. DUCHESNE COUNTY, UTAH.

TARGET BOTTOM HOLE, 4-36-3-3WH, LOCATED AS SHOWN IN THE SW 1/4 SW 1/4 OF SECTION 36, T3S, R3W, U.S.B.&M. DUCHESNE COUNTY, UTAH.

**NOTES:**

1. Well footages are measured at right angles to the Section Lines.
2. Bearings are based on Global Positioning Satellite observations.
3. Top of Producing Interval Footages are 660' FNL & 660' FWL.



= SECTION CORNERS LOCATED

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.

REGISTERED LAND SURVEYOR  
No. 189377  
12-23-11  
STACY W. STEWART  
REGISTERED LAND SURVEYOR  
REGISTRATION No. 189377  
STATE OF UTAH

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

**4-36-3-3WH**  
**(Surface Location) NAD 83**  
LATITUDE = 40° 11' 06.80"  
LONGITUDE = 110° 10' 45.94"

**TRI STATE LAND SURVEYING & CONSULTING**

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

DATE SURVEYED: 12-16-11	SURVEYED BY: S.H.	VERSION:
DATE DRAWN: 12-14-11	DRAWN BY: F.T.M.	V1
REVISED:	SCALE: 1" = 1000'	

RECEIVED: January 26, 2012





**4-36-3-3WH**  
**SEC. 36, T3S, R3W, U.S.B.&M.**  
**Duchesne County, UT.**

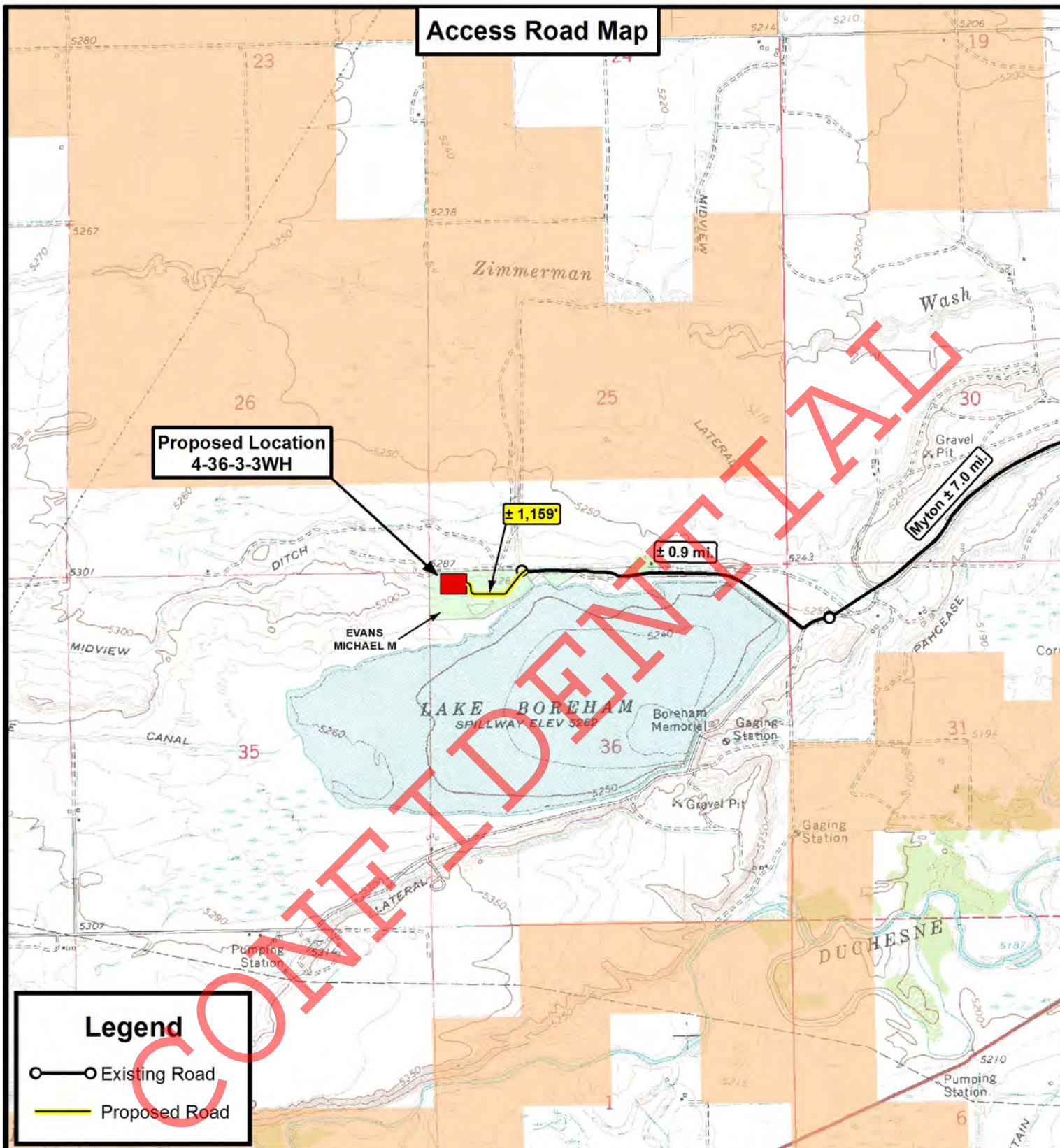
DRAWN BY:	A.P.C.	REVISED:	VERSION:
DATE:	12-23-2011		V1
SCALE:	1:100,000		

# TOPOGRAPHIC MAP

SHEET  
**A**



## Access Road Map



## Legend

- Existing Road
- Proposed Road

THE PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY TRI-STATE LAND SURVEYING, INC. - TRI-STATE DOES NOT WARRANTY PROPERTY PARCEL DATA OR ANY ASSOCIATED INFORMATION. A PROPERTY SURVEY IS REQUIRED TO DETERMINE THE ACTUAL LOCATION OF PROPERTY LINES AND SHOW ACCURATE DISTANCES ACROSS PARCELS.



**Tri State**  
**Land Surveying, Inc.**

180 NORTH VERNAL AVE. VERNAL, UTAH 84078

P: (435) 781-2501  
F: (435) 781-2518



## NEWFIELD EXPLORATION COMPANY

4-36-3-3WH  
SEC. 36, T3S, R3W, U.S.B.&M.  
Duchesne County, UT.

DRAWN BY:	A.P.C.	REVISED:	VERSION:
DATE:	12-23-2011		V1
SCALE:	1" = 2,000'		


**TOPOGRAPHIC MAP**

SHEET

**B**





- 
 Existing Road  
 Proposed Road  
 Proposed Gas Pipeline

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NEWFIELD EXPLORATION COMPANY

**4-36-3-3WH**  
**SEC. 36, T3S, R3W, U.S.B.&M.**  
**Duchesne County, UT.**

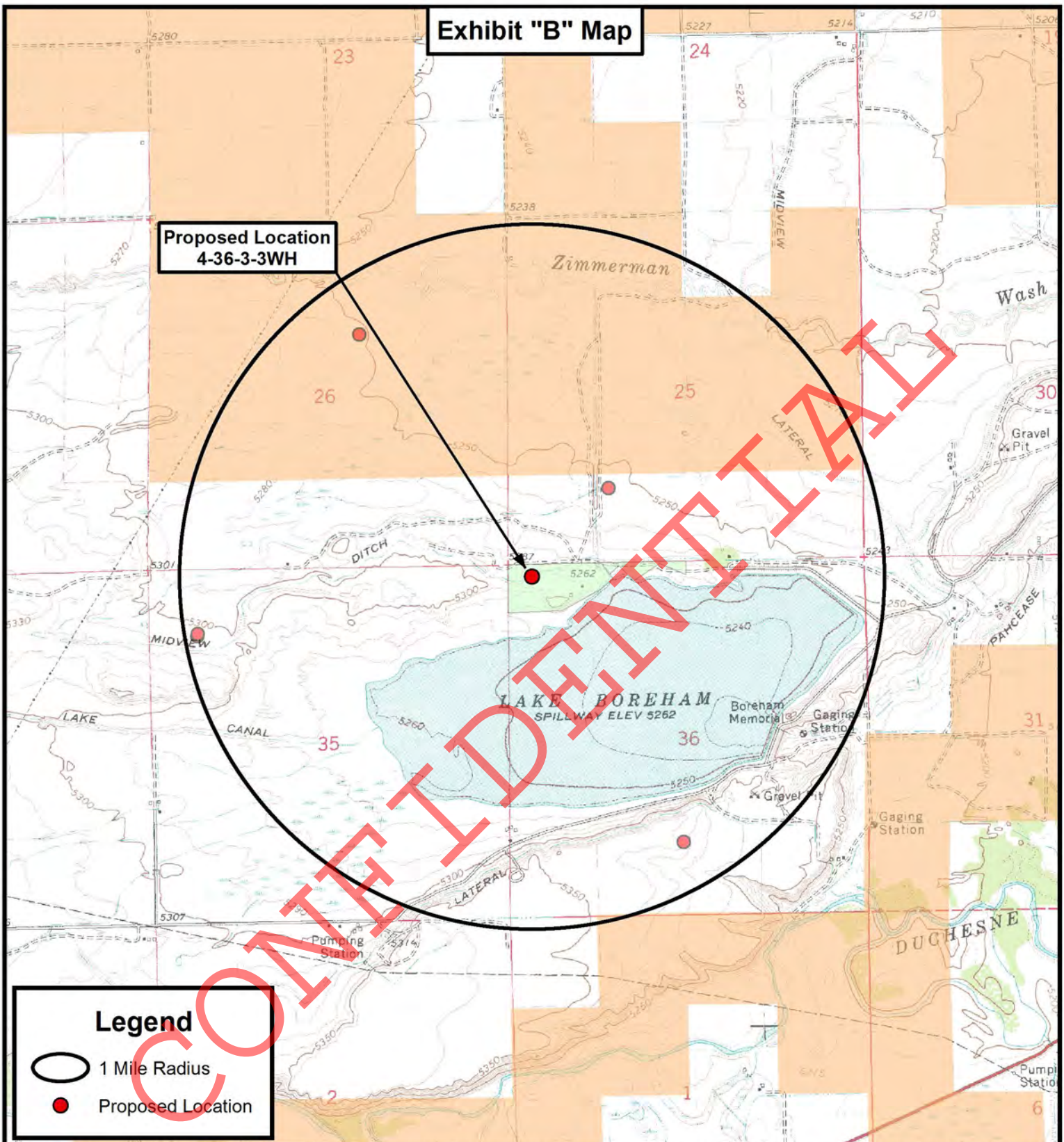
DRAWN BY:	A.P.C.	REVISED:	VERSION:
DATE:	12-23-2011		V1
SCALE:	1" = 2,000'		

# TOPOGRAPHIC MAP

SHEET

C



**Exhibit "B" Map****Proposed Location  
4-36-3-3WH****Legend**

- 1 Mile Radius
- Proposed Location

THE PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY TRI-STATE LAND SURVEYING, INC. - TRI-STATE DOES NOT WARRANTY PROPERTY PARCEL DATA OR ANY ASSOCIATED INFORMATION. A PROPERTY SURVEY IS REQUIRED TO DETERMINE THE ACTUAL LOCATION OF PROPERTY LINES AND SHOW ACCURATE DISTANCES ACROSS PARCELS.

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**NEWFIELD EXPLORATION COMPANY**

**4-36-3-3WH**  
**SEC. 36, T3S, R3W, U.S.B.&M.**  
**Duchesne County, UT.**

DRAWN BY:	A.P.C.	REVISED:	VERSION:
DATE:	12-23-2011		<b>V1</b>
SCALE:	1" = 2,000'		

**TOPOGRAPHIC MAP**

SHEET

**D**



# **NEWFIELD EXPLORATION CO.**

**DUCHESNE COUNTY, UT**

**LAKE BOREHAM 4-36-3-3WH**

**Plan: Design #1**

## **Standard Survey Report**

**24 JANUARY, 2012**

CONFIDENTIAL



**Weatherford®**

**NEWFIELD**

Project: DUCHESNE COUNTY, UT  
 Site: LAKE BOREHAM 4-36-3-3WH  
 Well: LAKE BOREHAM 4-36-3-3WH  
 Wellbore: LAKE BOREHAM 4-36-3-3WH CURVE/LAT  
 Design: Design #1  
 Latitude: 40° 11' 6.800 N  
 Longitude: 110° 10' 45.940 W  
 GL: 5295.60  
 KB: WELL @ 5313.60ft (PIONEER 62)

**Weatherford®****WELLBORE TARGET DETAILS (LAT/LONG)**

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL LAKE BOREHAM 4-36-3-3WH	7468.00	-4418.17	321.54	40° 10' 23.136 N	110° 10' 41.798 W	Point
LANDING POINT LAKE BOREHAM 4-36-3-3WH	7647.81	-500.94	376.38	40° 11' 1.849 N	110° 10' 41.090 W	Point

**WELL DETAILS: LAKE BOREHAM 4-36-3-3WH**

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	7238916.05	2009346.72	40° 11' 6.800 N	110° 10' 45.940 W	

**SECTION DETAILS**

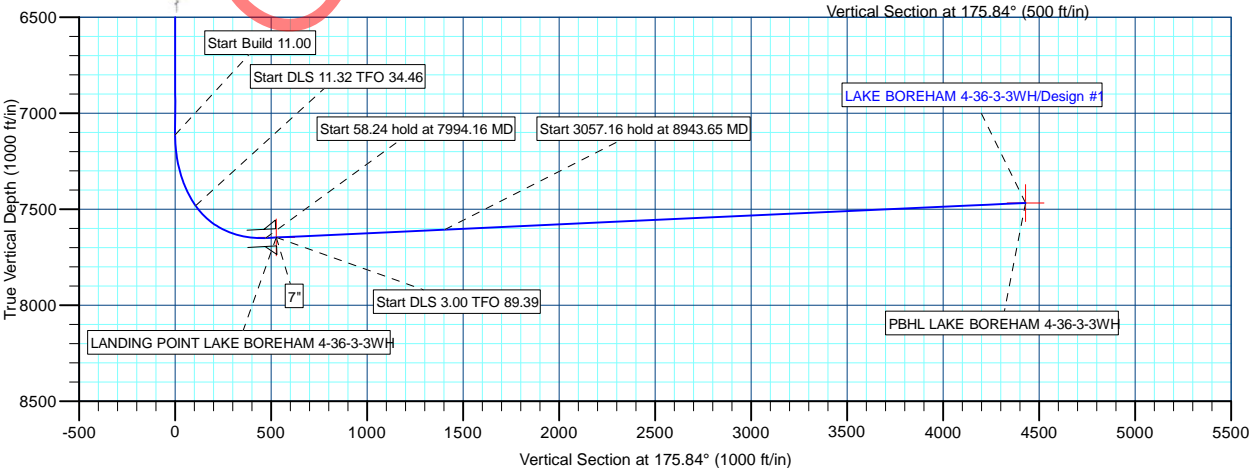
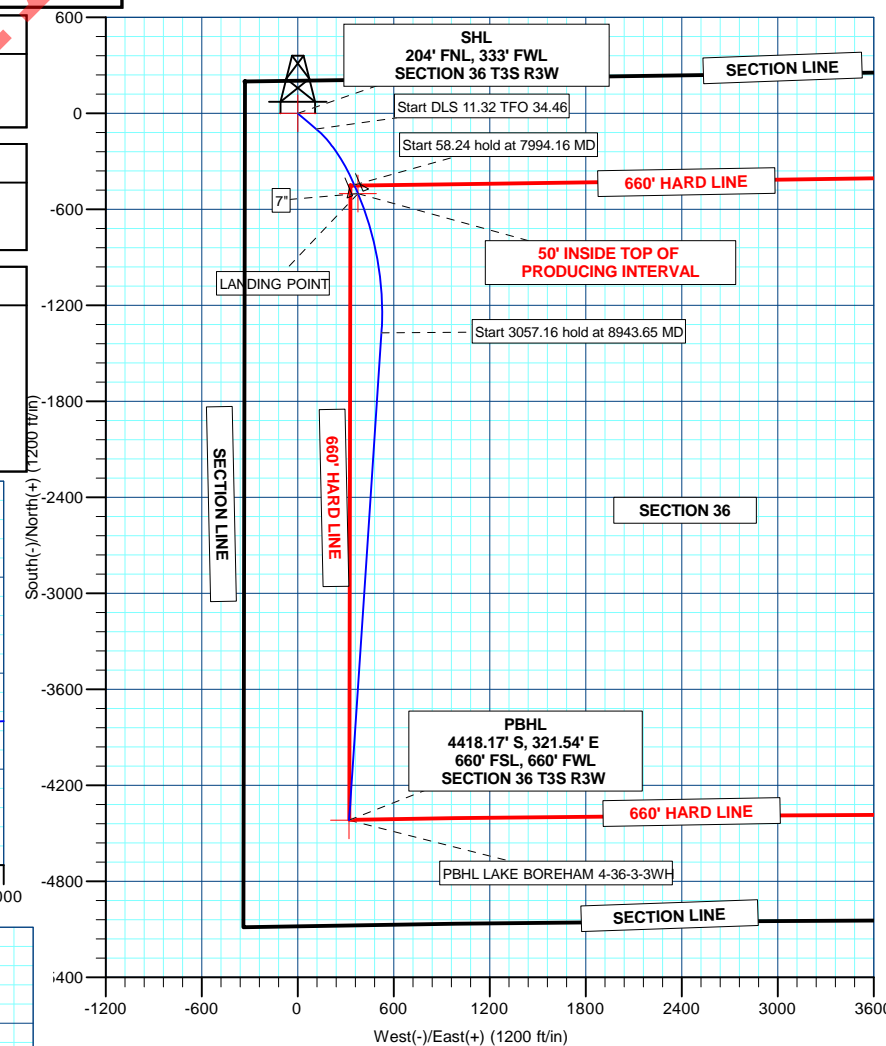
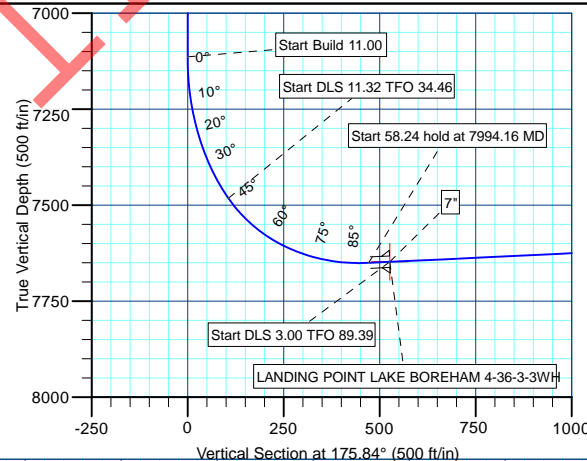
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7113.94	0.00	0.00	7113.94	0.00	0.00	0.00	0.00	0.00	Start Build 11.00
7523.03	45.00	130.00	7482.25	-98.06	116.87	11.00	130.00	106.29	Start DLS 11.32 TFO 34.46
7994.16	92.60	157.02	7650.45	-447.38	353.67	11.32	34.46	471.87	Start 58.24 hold at 7994.16 MD
8052.39	92.60	157.02	7647.81	-500.94	376.38	0.00	0.00	526.94	Start DLS 3.00 TFO 89.39
8943.65	92.60	183.79	7606.63	-1370.83	523.40	3.00	89.39	1405.21	Start 3057.16 hold at 8943.65 MD
12000.81	92.60	183.79	7468.00	-4418.17	321.54	0.00	0.00	4429.85	TD at 12000.81

Azimuths to True North  
 Magnetic North: 11.34°

Magnetic Field  
 Strength: 52222.6snT  
 Dip Angle: 65.86°  
 Date: 1/24/2012  
 Model: BGGM2011

**CASING DETAILS**

TVD	MD	Name	Size
7647.81	8052.39	7"	7"



Plan: Design #1 (LAKE BOREHAM 4-36-3-3WH/LAKE BOREHAM 4-36-3-3WH CURVE/LAT)

Created By: TRACY WILLIAMS Date: 8:37, January 24 2012

**NEWFIELD**



## **NEWFIELD EXPLORATION CO.**

**DUCHESNE COUNTY, UT**

**LAKE BOREHAM 4-36-3-3WH**

**LAKE BOREHAM 4-36-3-3WH**

**LAKE BOREHAM 4-36-3-3WH CURVE/LAT**

**Plan: Design #1**

## **Standard Planning Report**

**24 January, 2012**



**Weatherford®**





<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Site LAKE BOREHAM 4-36-3-3WH
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Site:</b>	LAKE BOREHAM 4-36-3-3WH	<b>North Reference:</b>	True
<b>Well:</b>	LAKE BOREHAM 4-36-3-3WH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	LAKE BOREHAM 4-36-3-3WH CURVE/LAT		
<b>Design:</b>	Design #1		

<b>Project</b>	DUCHESNE COUNTY, UT		
<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>	LAKE BOREHAM 4-36-3-3WH			
<b>Site Position:</b>		<b>Northing:</b>	7,238,916.05 ft	<b>Latitude:</b> 40° 11' 6.800 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,009,346.72 ft	<b>Longitude:</b> 110° 10' 45.940 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b> 0.85 °

<b>Well</b>	LAKE BOREHAM 4-36-3-3WH			
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	7,238,916.05 ft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,009,346.72 ft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft
			<b>Ground Level:</b>	5,295.60 ft

<b>Wellbore</b>	LAKE BOREHAM 4-36-3-3WH CURVE/LAT				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2011	1/24/2012	11.34	65.86	52,223

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	175.84

<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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,113.94	0.00	0.00	7,113.94	0.00	0.00	0.00	0.00	0.00	0.00	
7,523.03	45.00	130.00	7,482.25	-98.06	116.87	11.00	11.00	0.00	130.00	
7,994.16	92.60	157.02	7,650.45	-447.38	353.67	11.32	10.10	5.74	34.46	
8,052.39	92.60	157.02	7,647.81	-500.94	376.38	0.00	0.00	0.00	0.00	LANDING POINT L
8,943.65	92.60	183.79	7,606.63	-1,370.83	523.40	3.00	0.00	3.00	89.39	
12,000.81	92.60	183.79	7,468.00	-4,418.17	321.54	0.00	0.00	0.00	0.00	PBHL LAKE BORE



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Site LAKE BOREHAM 4-36-3-3WH
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Site:</b>	LAKE BOREHAM 4-36-3-3WH	<b>North Reference:</b>	True
<b>Well:</b>	LAKE BOREHAM 4-36-3-3WH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	LAKE BOREHAM 4-36-3-3WH CURVE/LAT		
<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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Site LAKE BOREHAM 4-36-3-3WH
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Site:</b>	LAKE BOREHAM 4-36-3-3WH	<b>North Reference:</b>	True
<b>Well:</b>	LAKE BOREHAM 4-36-3-3WH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	LAKE BOREHAM 4-36-3-3WH CURVE/LAT		
<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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 11.00</b>									
7,113.94	0.00	0.00	7,113.94	0.00	0.00	0.00	0.00	0.00	0.00
7,150.00	3.97	130.00	7,149.97	-0.80	0.96	0.87	11.00	11.00	0.00
7,200.00	9.47	130.00	7,199.61	-4.56	5.43	4.94	11.00	11.00	0.00
7,250.00	14.97	130.00	7,248.46	-11.36	13.54	12.31	11.00	11.00	0.00
7,300.00	20.47	130.00	7,296.07	-21.13	25.19	22.91	11.00	11.00	0.00
7,350.00	25.97	130.00	7,342.00	-33.80	40.28	36.63	11.00	11.00	0.00
7,400.00	31.47	130.00	7,385.84	-49.24	58.68	53.36	11.00	11.00	0.00
7,450.00	36.97	130.00	7,427.17	-67.30	80.21	72.95	11.00	11.00	0.00
7,500.00	42.47	130.00	7,465.61	-87.83	104.67	95.20	11.00	11.00	0.00
<b>Start DLS 11.32 TFO 34.46</b>									
7,523.03	45.00	130.00	7,482.25	-98.06	116.87	106.29	11.00	11.00	0.00
7,550.00	47.54	132.34	7,500.89	-110.90	131.53	120.15	11.32	9.42	8.68
7,600.00	52.37	136.21	7,533.06	-137.63	158.88	148.80	11.32	9.65	7.75
7,650.00	57.30	139.61	7,561.86	-167.97	186.24	181.05	11.32	9.87	6.79
7,700.00	62.32	142.65	7,587.00	-201.62	213.32	216.57	11.32	10.03	6.07
7,750.00	67.39	145.41	7,608.24	-238.25	239.88	255.03	11.32	10.15	5.53
7,800.00	72.51	147.98	7,625.38	-277.50	265.64	296.05	11.32	10.24	5.14
7,850.00	77.66	150.41	7,638.24	-318.99	290.37	339.22	11.32	10.30	4.85
7,900.00	82.84	152.74	7,646.71	-362.31	313.81	384.13	11.32	10.34	4.67
7,950.00	88.02	155.02	7,650.69	-407.04	335.73	430.34	11.32	10.37	4.56
<b>Start 58.24 hold at 7994.16 MD</b>									
7,994.16	92.60	157.02	7,650.45	-447.38	353.67	471.87	11.32	10.37	4.53
8,000.00	92.60	157.02	7,650.19	-452.75	355.95	477.39	0.00	0.00	0.00
<b>Start DLS 3.00 TFO 89.39 - 7" - LANDING POINT LAKE BOREHAM 4-36-3-3WH</b>									
8,052.39	92.60	157.02	7,647.81	-500.94	376.38	526.94	0.00	0.00	0.00
8,100.00	92.62	158.45	7,645.64	-544.95	394.40	572.14	3.00	0.03	3.00
8,200.00	92.64	161.46	7,641.06	-638.78	428.63	668.21	3.00	0.03	3.00
8,300.00	92.66	164.46	7,636.43	-734.28	457.90	765.58	3.00	0.02	3.00
8,400.00	92.67	167.46	7,631.78	-831.18	482.13	863.98	3.00	0.01	3.00
8,500.00	92.67	170.47	7,627.12	-929.21	501.25	963.14	3.00	0.00	3.00
8,600.00	92.67	173.47	7,622.46	-1,028.11	515.21	1,062.79	3.00	0.00	3.00
8,700.00	92.66	176.47	7,617.81	-1,127.61	523.96	1,162.66	3.00	-0.01	3.00
8,800.00	92.64	179.48	7,613.19	-1,227.43	527.49	1,262.48	3.00	-0.02	3.00
8,900.00	92.61	182.48	7,608.61	-1,327.29	525.79	1,361.96	3.00	-0.03	3.00



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Site LAKE BOREHAM 4-36-3-3WH
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Site:</b>	LAKE BOREHAM 4-36-3-3WH	<b>North Reference:</b>	True
<b>Well:</b>	LAKE BOREHAM 4-36-3-3WH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	LAKE BOREHAM 4-36-3-3WH CURVE/LAT		
<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)
<b>Start 3057.16 hold at 8943.65 MD</b>									
8,943.65	92.60	183.79	7,606.63	-1,370.83	523.40	1,405.21	3.00	-0.03	3.00
9,000.00	92.60	183.79	7,604.07	-1,427.00	519.68	1,460.96	0.00	0.00	0.00
9,100.00	92.60	183.79	7,599.54	-1,526.68	513.08	1,559.90	0.00	0.00	0.00
9,200.00	92.60	183.79	7,595.00	-1,626.36	506.48	1,658.83	0.00	0.00	0.00
9,300.00	92.60	183.79	7,590.47	-1,726.04	499.87	1,757.77	0.00	0.00	0.00
9,400.00	92.60	183.79	7,585.93	-1,825.72	493.27	1,856.70	0.00	0.00	0.00
9,500.00	92.60	183.79	7,581.40	-1,925.40	486.67	1,955.64	0.00	0.00	0.00
9,600.00	92.60	183.79	7,576.86	-2,025.07	480.06	2,054.58	0.00	0.00	0.00
9,700.00	92.60	183.79	7,572.33	-2,124.75	473.46	2,153.51	0.00	0.00	0.00
9,800.00	92.60	183.79	7,567.80	-2,224.43	466.86	2,252.45	0.00	0.00	0.00
9,900.00	92.60	183.79	7,563.26	-2,324.11	460.25	2,351.39	0.00	0.00	0.00
10,000.00	92.60	183.79	7,558.73	-2,423.79	453.65	2,450.32	0.00	0.00	0.00
10,100.00	92.60	183.79	7,554.19	-2,523.47	447.05	2,549.26	0.00	0.00	0.00
10,200.00	92.60	183.79	7,549.66	-2,623.15	440.45	2,648.20	0.00	0.00	0.00
10,300.00	92.60	183.79	7,545.12	-2,722.82	433.84	2,747.13	0.00	0.00	0.00
10,400.00	92.60	183.79	7,540.59	-2,822.50	427.24	2,846.07	0.00	0.00	0.00
10,500.00	92.60	183.79	7,536.05	-2,922.18	420.64	2,945.01	0.00	0.00	0.00
10,600.00	92.60	183.79	7,531.52	-3,021.86	414.03	3,043.94	0.00	0.00	0.00
10,700.00	92.60	183.79	7,526.99	-3,121.54	407.43	3,142.88	0.00	0.00	0.00
10,800.00	92.60	183.79	7,522.45	-3,221.22	400.83	3,241.82	0.00	0.00	0.00
10,900.00	92.60	183.79	7,517.92	-3,320.90	394.22	3,340.75	0.00	0.00	0.00
11,000.00	92.60	183.79	7,513.38	-3,420.58	387.62	3,439.69	0.00	0.00	0.00
11,100.00	92.60	183.79	7,508.85	-3,520.25	381.02	3,538.62	0.00	0.00	0.00
11,200.00	92.60	183.79	7,504.31	-3,619.93	374.42	3,637.56	0.00	0.00	0.00
11,300.00	92.60	183.79	7,499.78	-3,719.61	367.81	3,736.50	0.00	0.00	0.00
11,400.00	92.60	183.79	7,495.24	-3,819.29	361.21	3,835.43	0.00	0.00	0.00
11,500.00	92.60	183.79	7,490.71	-3,918.97	354.61	3,934.37	0.00	0.00	0.00
11,600.00	92.60	183.79	7,486.17	-4,018.65	348.00	4,033.31	0.00	0.00	0.00
11,700.00	92.60	183.79	7,481.64	-4,118.33	341.40	4,132.24	0.00	0.00	0.00
11,800.00	92.60	183.79	7,477.11	-4,218.00	334.80	4,231.18	0.00	0.00	0.00
11,900.00	92.60	183.79	7,472.57	-4,317.68	328.19	4,330.12	0.00	0.00	0.00
<b>TD at 12000.81 - PBHL LAKE BOREHAM 4-36-3-3WH</b>									
12,000.81	92.60	183.79	7,468.00	-4,418.17	321.54	4,429.85	0.00	0.00	0.00

## Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL LAKE BOREHAM	0.00	0.00	7,468.00	-4,418.17	321.54	7,234,503.12	2,009,733.45	40° 10' 23.136 N	110° 10' 41.798 W
- plan hits target center									
- Point									
LANDING POINT LAKE	0.00	0.00	7,647.81	-500.94	376.38	7,238,420.73	2,009,730.46	40° 11' 1.849 N	110° 10' 41.090 W
- plan hits target center									
- Point									



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Site LAKE BOREHAM 4-36-3-3WH
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Site:</b>	LAKE BOREHAM 4-36-3-3WH	<b>North Reference:</b>	True
<b>Well:</b>	LAKE BOREHAM 4-36-3-3WH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	LAKE BOREHAM 4-36-3-3WH CURVE/LAT		
<b>Design:</b>	Design #1		

## Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
8,052.39	7,647.81	7"	7	8-3/4

## Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,113.94	7,113.94	0.00	0.00	Start Build 11.00
7,523.03	7,482.25	-98.06	116.87	Start DLS 11.32 TFO 34.46
7,994.16	7,650.45	-447.38	353.67	Start 58.24 hold at 7994.16 MD
8,052.39	7,647.81	-500.94	376.38	Start DLS 3.00 TFO 89.39
8,943.65	7,606.63	-1,370.83	523.40	Start 3057.16 hold at 8943.65 MD
12,000.81	7,468.00	-4,418.17	321.54	TD at 12000.81

**AFFIDAVIT OF EASEMENT, RIGHT-OF-WAY AND  
SURFACE USE AGREEMENT**

Christian C. Sizemore personally appeared before me, being duly sworn, deposes and with respect to State of Utah R649-3-34.7 says:

1. My name is Christian C. Sizemore. I am a Landman for Newfield Production Company, whose address is 1001 17<sup>th</sup> Street, Suite 2000, Denver, CO 80202 ("Newfield").
2. Newfield is the Operator of the following proposed wells:
  - Evans 14-25-3-3W
  - Lake Boreham 4-36-3-3WHAll located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ , S $\frac{1}{2}$ SE $\frac{1}{4}$  of Section 25 and BEG NW COR SEC 36, T3S, R3W, USM, TH N 89°46' E 1354 FT, M/L, TO W SIDE OF SPILLWAY, TH S 73°45' E 34 FT, S 36°30' E 287 FT, S 49°36' W 242 FT, S 62°50' W 650 FT, S 89°16' W 785 FT, N 00°31' W 690 FT TO BEG; AND BEG N 89°46' E 1477 FT FROM NW COR OF SEC 36, N 89°40' E 1283 FT, M/L, TO N $\frac{1}{4}$  COR OF SEC 36, TH S 00°59' W 206 FT, N 66°46' W 427 FT, S 57°17' W 465 FT, N 43°05' W 316 FT, S 49°36' W 182 FT, N 36°30' W 237 FT TO N LINE OF SAID SEC 36 TO PT OF BEG of Section 36, Township 3 South, Range 3 West, Duchesne, County, Utah (the "Drillsite Locations"). The surface owner of the Drillsite Locations is Michael M. Evans and Suzanne H. Evans, whose address is 232 East 1875 North, Centerville, UT 84014 ("Surface Owner").
3. Newfield and the Surface Owner have agreed upon an Easement, Right-of-Way and Surface Use Agreement dated August 23, 2011 covering the Drillsite Locations and access to the Drillsite Locations.

FURTHER AFFIANT SAYETH NOT.

  
Christian C. Sizemore, Landman

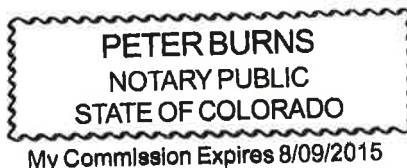
ACKNOWLEDGEMENT

STATE OF COLORADO           §  
  §  
COUNTY OF DENVER         §

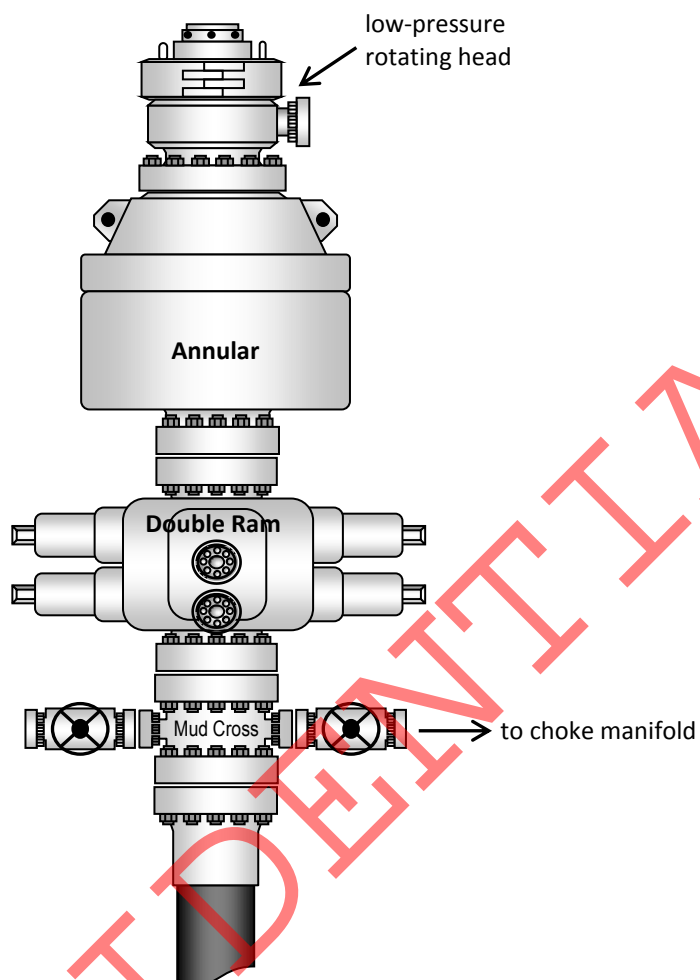
Before me, a Notary Public, in and for the State, on this 3<sup>rd</sup> day of January, 2012, personally appeared Christian C. Sizemore, to me known to be the identical person who executed the foregoing instrument, and acknowledged to me that she executed the same as her own free and voluntary act and deed for the uses and purposes therein set forth.

  
NOTARY PUBLIC

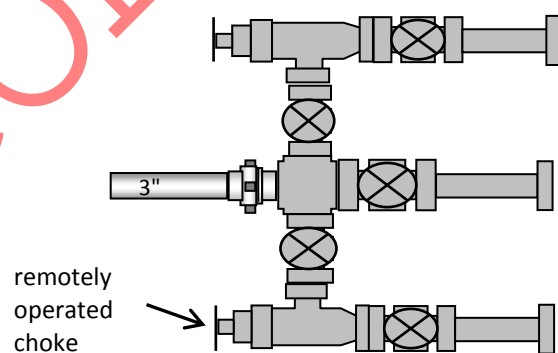
My Commission Expires:



**Typical 5M BOP stack configuration**



**Typical 5M choke manifold configuration**





# NEWFIELD EXPLORATION COMPANY

Section Line

## WELL PAD INTERFERENCE PLAT

### 4-36-3-3WH

Pad Location: NWNW Section 36, T3S, R3W, U.S.B.&amp;M.

#### TOP HOLE FOOTAGES

4-36-3-3WH (PROPOSED)  
204' FNL & 333' FWL

#### TOP PRODUCING INTERVAL FOOTAGES

4-36-3-3WH (PROPOSED)  
660' FNL & 660' FWL

#### BOTTOM HOLE FOOTAGES

4-36-3-3WH (PROPOSED)  
660' FSL & 660' FWL

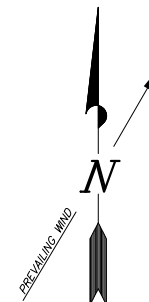
4-36-3-3WH (PROPOSED)

S90°00'00"E

Edge of  
Proposed Pad

Existing Fenceline

Future Pit

(To Bottom Hole)  
S04°10'03"E 4429.86'(To Top of Producing Interval)  
S35°53'47"E 557.44'Existing  
Irrigation Risers  
(Typ)

#### Note:

Bearings are based  
on GPS Observations.

LATITUDE & LONGITUDE  
Surface position of Wells (NAD 83)

WELL	LATITUDE	LONGITUDE
4-36-3-3WH	40° 11' 06.80"	110° 10' 45.94"

RELATIVE COORDINATES  
From Top Hole to Bottom Hole

WELL	NORTH	EAST
4-36-3-3WH	-4,418'	322'

SURVEYED BY: S.H.	DATE SURVEYED: 12-16-11	VERSION:
DRAWN BY: F.T.M.	DATE DRAWN: 12-14-11	V1
SCALE: 1" = 60'	REVISED:	

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

RECEIVED: January 26, 2012

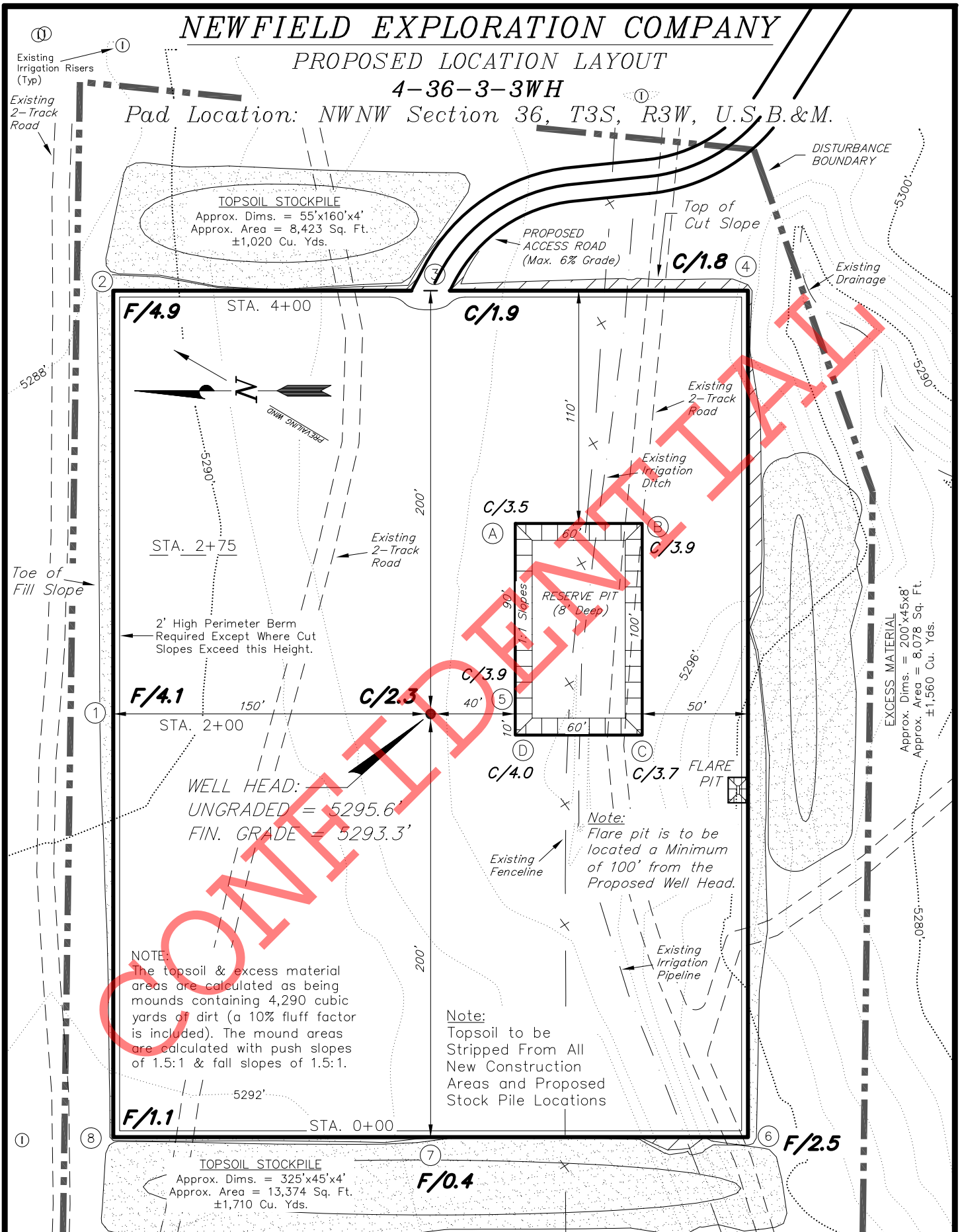


# NEWFIELD EXPLORATION COMPANY

## PROPOSED LOCATION LAYOUT

4-36-3-3WH

Pad Location: NWNW Section 36, T3S, R3W, U.S.B.&M.



SURVEYED BY: S.H.	DATE SURVEYED: 12-16-11	VERSION:
DRAWN BY: F.T.M.	DATE DRAWN: 12-14-11	V1
SCALE: 1" = 60'	REVISED:	

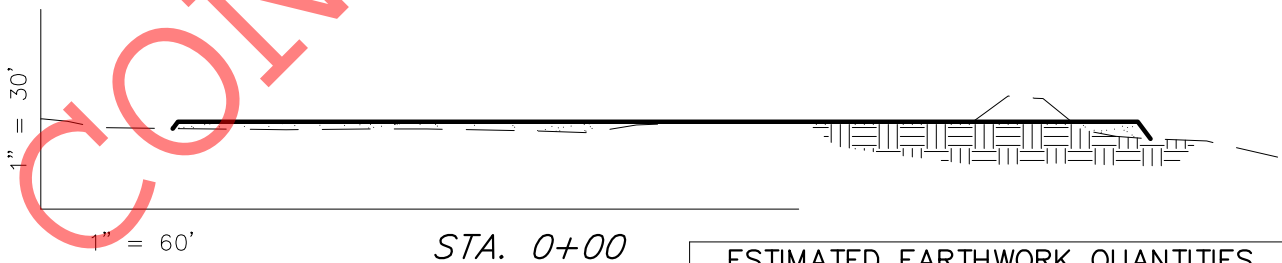
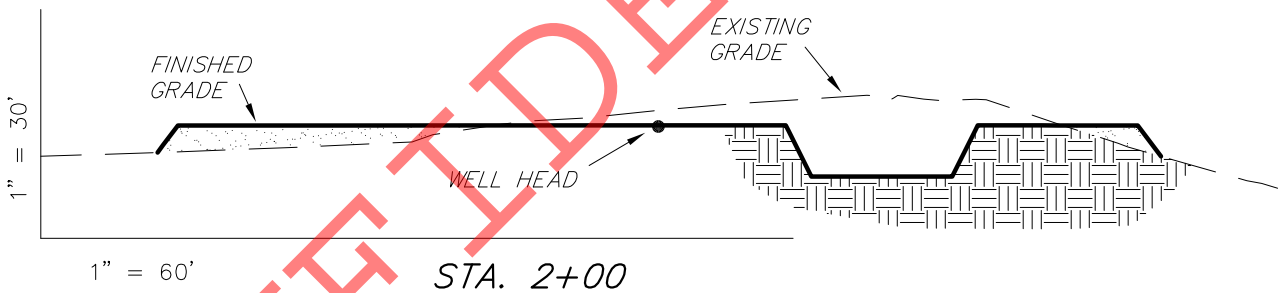
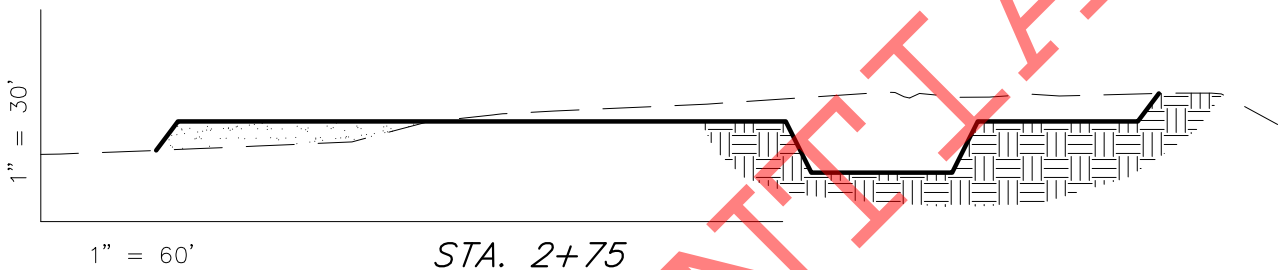
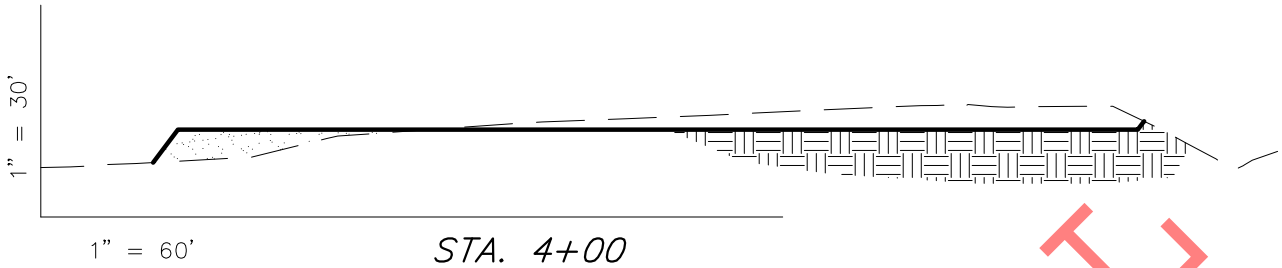
Tri State

Land Surveying, Inc.

180 NORTH VERNAL AVE. VERNAL, UTAH 84078

(435) 781-2501

RECEIVED: January 26, 2012

**NEWFIELD EXPLORATION COMPANY****CROSS SECTIONS****4-36-3-3WH***Pad Location: NWNW Section 36, T3S, R3W, U.S.B.&M.*

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

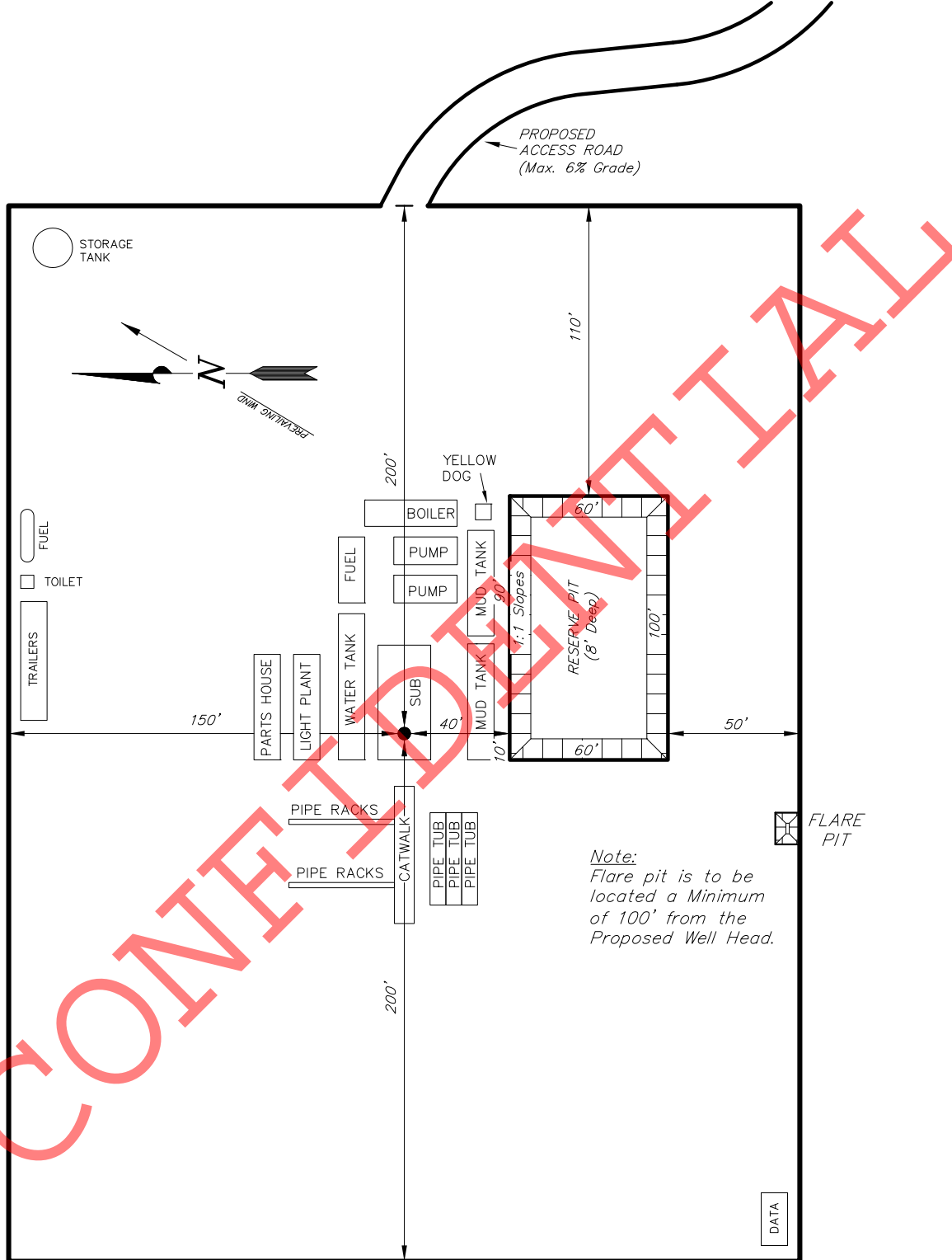
**ESTIMATED EARTHWORK QUANTITIES**  
(No Shrink or swell adjustments have been used)  
(Expressed in Cubic Yards)

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	5,480	5,480	Topsoil is not included in Pad Cut Volume	0
PIT	1,420	0		1,420
TOTALS	6,900	5,480	2,480	1,420

SURVEYED BY: S.H.	DATE SURVEYED: 12-16-11	VERSION:
DRAWN BY: F.T.M.	DATE DRAWN: 12-14-11	V1
SCALE: 1" = 60'	REVISED:	

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

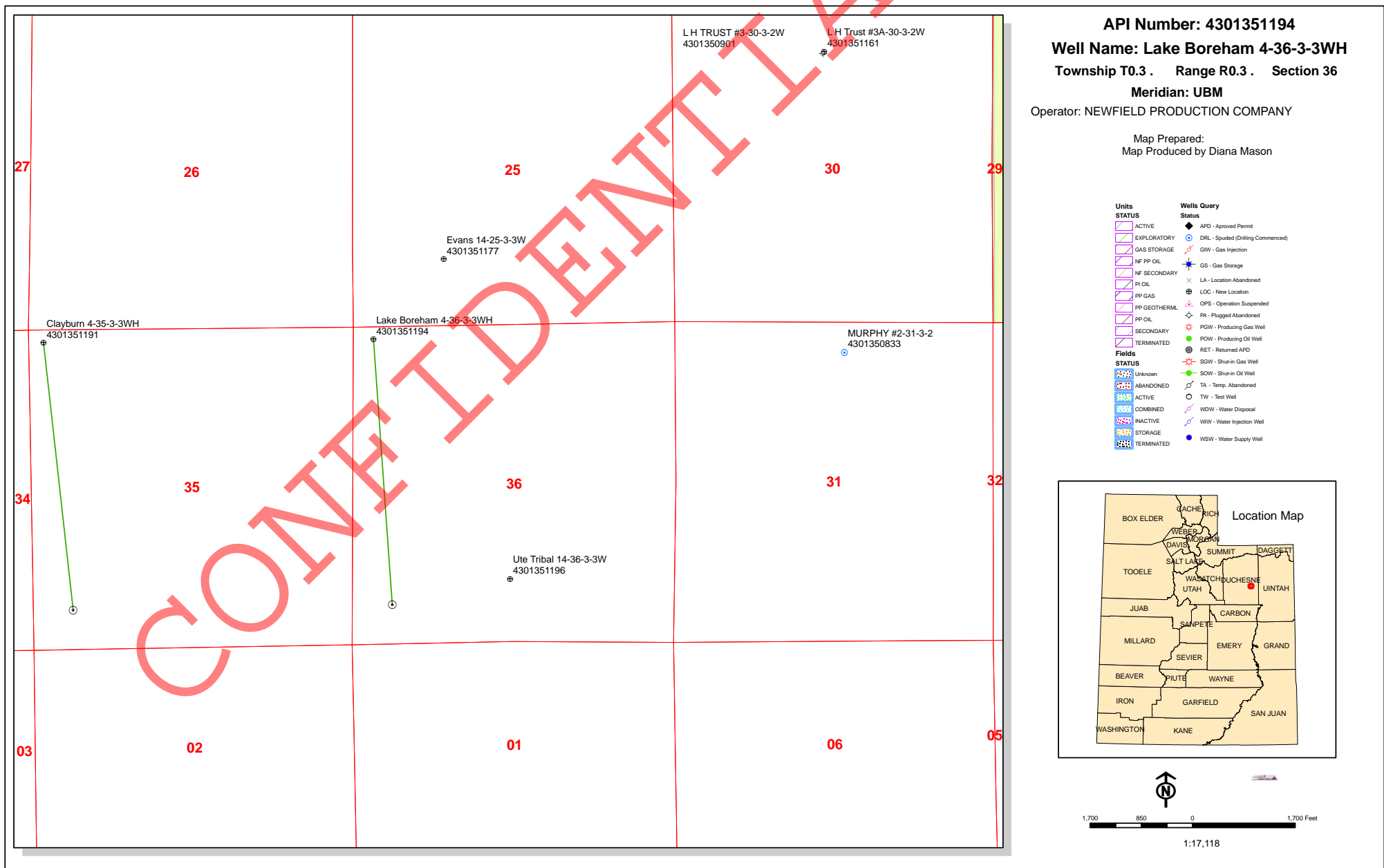
RECEIVED: January 26, 2012

**NEWFIELD EXPLORATION COMPANY****TYPICAL RIG LAYOUT****4-36-3-3WH***Pad Location: NWNW Section 36, T3S, R3W, U.S.B.&M.*

SURVEYED BY: S.H.	DATE SURVEYED: 12-16-11	VERSION:
DRAWN BY: F.T.M.	DATE DRAWN: 12-14-11	V1
SCALE: 1" = 60'	REVISED:	

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

**RECEIVED:** January 26, 2012



Well Name	NEWFIELD PRODUCTION COMPANY Lake Boreham 4-36-3-3WH 430			
String	COND	SURF	I1	PROD
Casing Size(in)	14.000	9.625	7.000	4.500
Setting Depth (TVD)	60	2500	7648	7468
Previous Shoe Setting Depth (TVD)	0	60	2500	7648
Max Mud Weight (ppg)	8.3	8.3	10.5	10.5
BOPE Proposed (psi)	0	500	5000	5000
Casing Internal Yield (psi)	1000	3520	9950	12410
Operators Max Anticipated Pressure (psi)	3883			10.0

Calculations	COND String	14.000	"
Max BHP (psi)	.052*Setting Depth*MW=	26	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	19	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	13	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	13	NO
Required Casing/BOPE Test Pressure=		60	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

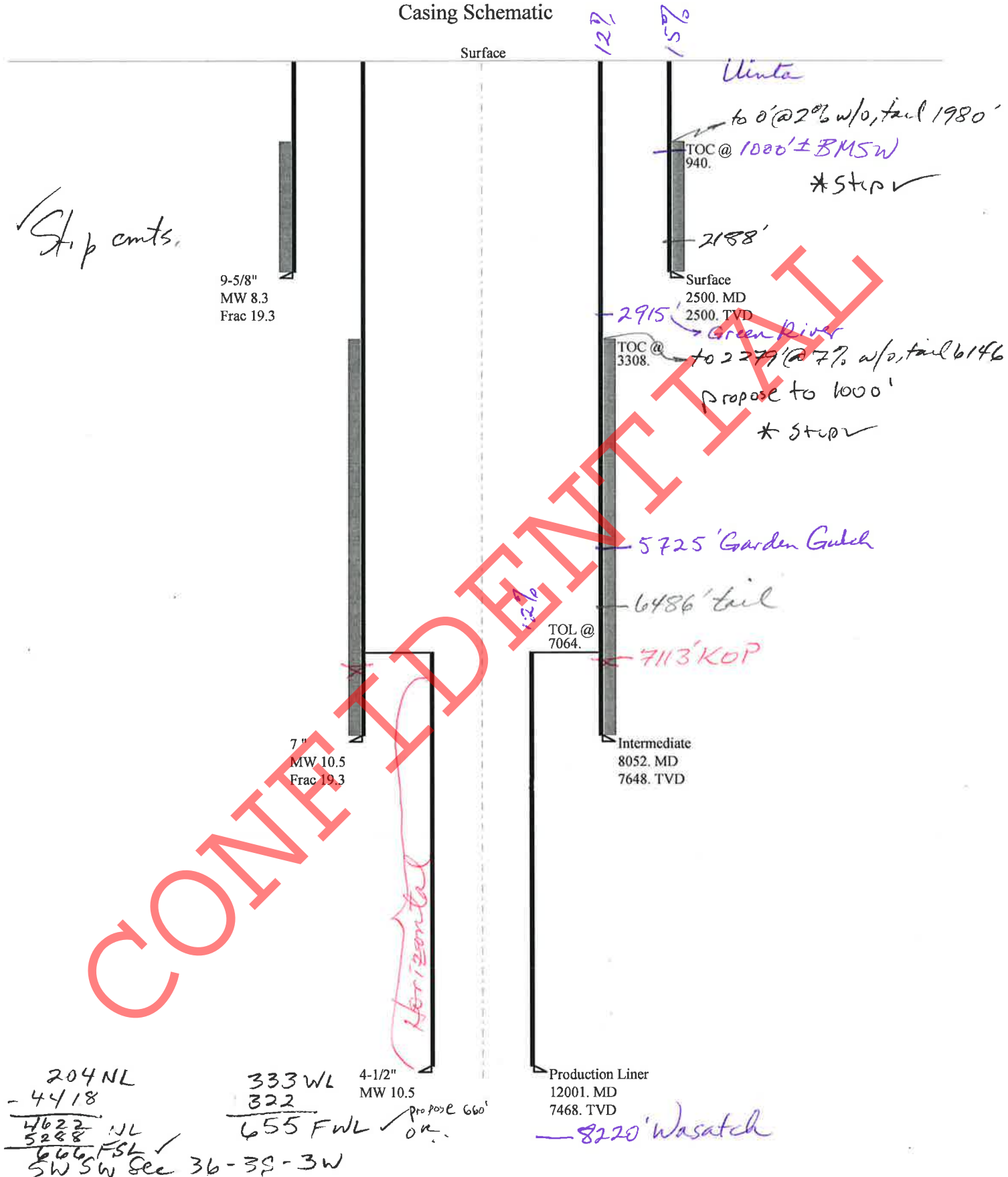
Calculations	SURF String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	1079	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	779	NO air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	529	NO Reasonable depth
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	542	NO
Required Casing/BOPE Test Pressure=		2464	psi
*Max Pressure Allowed @ Previous Casing Shoe=		60	psi *Assumes 1psi/ft frac gradient

Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	4176	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3258	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2493	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3043	NO OK
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2500	psi *Assumes 1psi/ft frac gradient

Calculations	PROD String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	4078	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3182	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2435	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4118	YES
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		7648	psi *Assumes 1psi/ft frac gradient

# 43013511940000 4-36-3-3WH

## Casing Schematic



Well name:	<b>43013511940000 4-36-3-3WH</b>	
Operator:	<b>NEWFIELD PRODUCTION COMPANY</b>	
String type:	Surface	Project ID: 4301351194
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: 109 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

Cement top: 940 ft

**Burst**

Max anticipated surface pressure: 2,200 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,500 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: 2,192 ft

**Non-directional string.****Re subsequent strings:**

Next setting depth: 7,648 ft  
Next mud weight: 10.500 ppg  
Next setting BHP: 4,172 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,500 ft  
Injection pressure: 2,500 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	2500	9.625	36.00	J-55	ST&C	2500	2500	8.796	21730
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	1082	2020	1.867	2500	3520	1.41	90	394	4.38 J

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

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

Date: February 16, 2012  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2500 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>43013511940000 4-36-3-3WH</b>	
Operator:	<b>NEWFIELD PRODUCTION COMPANY</b>	
String type:	Intermediate	Project ID: 4301351194
Location:	DUCHESNE COUNTY	

**Design parameters:****Collapse**

Mud weight: 10.500 ppg  
Internal fluid density: 1.000 ppg

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 181 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

Cement top: 3,308 ft

**Burst**

Max anticipated surface pressure: 2,489 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 4,172 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: 6,437 ft

**Directional Info - Build & Hold**

Kick-off point 7114 ft  
Departure at shoe: 626 ft  
Maximum dogleg: 11.32 °/100ft  
Inclination at shoe: 92.6 °

**Re subsequent strings:**

Next setting depth: 7,468 ft  
Next mud weight: 10.500 ppg  
Next setting BHP: 4,073 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 7,648 ft  
Injection pressure: 7,648 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	8052	7	26.00	P-110	Buttress	7648	8052	6.151	89546

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	3774	6230	1.651	4172	9950	2.38	198.8	830.4	4.18 B

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

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

Date: February 16, 2012  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 7648 ft, a mud weight of 10.5 ppg. An internal gradient of .052 psi/ft was used for collapse from TD. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

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



Well name:

**43013511940000 4-36-3-WH**Operator: **NEWFIELD PRODUCTION COMPANY**

String type: Production Liner

Project ID:

4301351194

Location: DUCHESNE COUNTY

**Design parameters:****Collapse**Mud weight: 10.500 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: 179 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft**Burst**Max anticipated surface pressure: 2,430 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 4,073 psi

No backup mud specified.

**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: 7,431 ft

Liner top: 7,064 ft

**Directional Info - Build & Hold**Kick-off point 7114 ft  
Departure at shoe: 4430 ft  
Maximum dogleg: 11.32 °/100ft  
Inclination at shoe: 92.6 °

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	4901	4.5	13.50	P-110	Buttress	7468	12001	3.795	29403
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	4073	10680	2.622	4114	12410	3.02	5	421.9	84.94 B

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & MiningPhone: 801 538-5357  
FAX: 801-359-3940Date: February 16, 2012  
Salt Lake City, Utah**Remarks:**

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 7468 ft, a mud weight of 10.5 ppg. The Collapse strength is based on the Westcott, Dunlop &amp; Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

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

# **ON-SITE PREDRILL EVALUATION**

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

**Operator** NEWFIELD PRODUCTION COMPANY  
**Well Name** Lake Boreham 4-36-3-3WH  
**API Number** 43013511940000 **APD No** 5250 **Field/Unit** WILDCAT  
**Location: 1/4,1/4** NWNW **Sec** 36 **Tw** 3.0S **Rng** 3.0W 204 FNL 333 FWL  
**GPS Coord (UTM)** 569856 4448639 **Surface Owner** Michael M. & Suzanne H. Evans

### **Participants**

T. Eaton, F. Bird, Z. Mc Intyre– Newfield; C. Jensen,– DOGM; L. Evans- Landowners representative

### **Regional/Local Setting & Topography**

The propped location is on a rolling knoll above the north shores of Lake Boreham below. Parts of the south boundary of the pad are in cut but, the western portions of the south side are in fill. The cultivated land has been left fallow for many years and is overgrown with weeds. The Duchesne River, Zimmerman Canal, laterals and ditches are found within a short distance of the pad.

### **Surface Use Plan**

**Current Surface Use**  
Agricultural

<b>New Road Miles</b>	<b>Well Pad</b>	<b>Src Const Material</b>	<b>Surface Formation</b>
0.216	<b>Width</b> 300 <b>Length</b> 400	Onsite	DUCHR

**Ancillary Facilities** N

**Waste Management Plan Adequate?** Y

### **Environmental Parameters**

**Affected Floodplains and/or Wetlands** N

#### **Flora / Fauna**

fallow farm ground over grown by halogeton, russian thistle and mustard spp.

#### **Wildlife:**

prairie dog colony mounds observed on location

#### **Soil Type and Characteristics**

sandy loam with scattered angular clasts

#### **Erosion Issues** Y

location is just north of and above the immediate banks of Lake boreham

#### **Sedimentation Issues** Y

proximity to lake Boreham

#### **Site Stability Issues** N

**Drainage Diversion Required? Y**

where needed to protect slopes and prevent rilling/gullying

**Berm Required? Y**

Berm around entire pad

**Erosion Sedimentation Control Required? Y**

berm required to protect lake below. Because of proximity to lake and angular clastic stones in the soil. Pit is to be lined and protected from puncture with felt

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

**Reserve Pit****Site-Specific Factors****Site Ranking**

**Distance to Groundwater (feet)**

20

**Distance to Surface Water (feet)**

20

**Dist. Nearest Municipal Well (ft)** > 5280

0

**Distance to Other Wells (feet)** 300 to 1320

10

**Native Soil Type**

Mod permeability

10

**Fluid Type**

Fresh Water

5

**Drill Cuttings**

Normal Rock

0

**Annual Precipitation (inches)** 10 to 20

5

**Affected Populations**

**Presence Nearby Utility Conduits** Unknown

10

**Final Score**

80

1 Sensitivity Level

**Characteristics / Requirements**

pit to be constructed 60 x 100' dug to a depth of 8 feet minimum. This is a horizontal well and very near the shores of lake Boreham. The pit is to be lined and a felt underlinement used to prevent puncture from angular clasts present in soils

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

**Other Observations / Comments**

Operator and surface owner have agreed to take precaution not to disturb crossings and buried irrigation lines prevalent on site and near access road. Verbal agreements were made to try to maintain a 25' separation from these features.

Chris Jensen  
Evaluator

2/2/2012  
Date / Time

# Application for Permit to Drill

## Statement of Basis

2/29/2012

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>
5250	43013511940000	LOCKED	OW	P	No
<b>Operator</b>	NEWFIELD PRODUCTION COMPANY		<b>Surface Owner-APD</b>	Michael M. & Suzanne H. Evans	
<b>Well Name</b>	Lake Boreham 4-36-3-3WH		<b>Unit</b>		
<b>Field</b>	WILDCAT		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWNW 36 3S 3W U 204 FNL (UTM) 569845E 4448634N		333 FWL GPS Coord		

### Geologic Statement of Basis

Newfield proposes to set 60' of conductor and 2,500' of surface casing at this location. The base of the moderately saline water at this location is estimated to be at a depth of 1,000'. Air and or fresh water will be used to drill the entire surface hole. A search of Division of Water Rights records shows 14 water wells within a 10,000 foot radius of the center of Section 36. Depth is listed as ranging from 10 to 400 feet. Depths are not listed for 3 wells. Water use is listed as irrigation, stock watering and domestic use. The nearest well is approximately 3/4 mile from the proposed location. This well is listed as 300 feet in depth. The surface formation at this site is the Uinta Formation. Wells in this area likely produce water from either the Uinta Formation or from near-surface alluvium. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The surface casing cement should be brought back to ground surface.

Brad Hill  
APD Evaluator

2/8/2012  
Date / Time

### Surface Statement of Basis

Operator has surface agreement in place with the landowner. Location is proposed in the best possible position within the spacing window. This location has been chosen as far away from the lake as lease and spacing will allow.

The soil type and topography at present DO combine to pose a significant threat to erosion or sediment/ pollution transport in these regional climate conditions particularly, with the shores of the lake in mind. Construction standards of the Operator appear to be adequate for the proposed purpose. Discussions were also had about the care and construction needs for the berming on the south side of the pad to prevent gullying and rilling of the slopes adjacent the shores of the lake. Operator also agreed to place tank farm and treaters 15' away from pad boundry so to facilitate proper placement and future maintenance of the berm.

I recognize no special flora or animal species or cultural resources on site that the proposed action may harm. The landowner was invited and his representative was in attendance for the pre-site inspection with comments noted above. Fencing around the reserve pit will be necessary once the well is drilled to prevent wildlife and livestock from entering. Operator noted that a closed loop drilling system may be warranted though I am not stipulating as a condition of approval.

Chris Jensen  
Onsite Evaluator

2/2/2012  
Date / Time

---

## Application for Permit to Drill Statement of Basis

2/29/2012

Utah Division of Oil, Gas and Mining

Page 2

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

Category	Condition
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. Particular care to be taken on the south side to prevent rilling and gulying to the slopes disturbed to the shores of the lake. Berm should not be broken or compromised in any way as this is the tank farm and treater side.
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.

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RECEIVED: February 29, 2012

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 1/26/2012

API NO. ASSIGNED: 43013511940000

WELL NAME: Lake Boreham 4-36-3-3WH

OPERATOR: NEWFIELD PRODUCTION COMPANY (N2695)

PHONE NUMBER: 435 719-2018

CONTACT: Don Hamilton

PROPOSED LOCATION: NWNW 36 030S 030W

Permit Tech Review: ☒

SURFACE: 0204 FNL 0333 FWL

Engineering Review: ☒

BOTTOM: 0660 FSL 0660 FWL

Geology Review: ☒

COUNTY: DUCHESNE

LATITUDE: 40.18519

LONGITUDE: -110.17955

UTM SURF EASTINGS: 569845.00

NORTHINGS: 4448634.00

FIELD NAME: WILDCAT

LEASE TYPE: 4 - Fee

LEASE NUMBER: Patented

PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: STATE - B001834☐ Potash☐ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: 437478☒ RDCC Review: 2012-02-22 00:00:00.0☒ Fee Surface Agreement☐ Intent to Commingle

Commingle Approved

## LOCATION AND SITING:

☐ R649-2-3.

Unit:

☐ R649-3-2. General☐ R649-3-3. Exception☒ Drilling Unit

Board Cause No: R649-3-2.6

Effective Date:

Siting:

☐ R649-3-11. Directional DrillComments: Presite Completed  
TEMP 640 ACRE SPACING:Stipulations: 5 - Statement of Basis - bhill  
12 - Cement Volume (3) - hmacdonald  
21 - RDCC - dmason  
23 - Spacing - dmason  
25 - Surface Casing - ddoucet  
26 - Temporary Spacing - bhill  
27 - Other - bhill

RECEIVED: February 29, 2012



GARY R. HERBERT  
*Governor*

GREGORY S. BELL  
*Lieutenant Governor*

## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

### Permit To Drill

\*\*\*\*\*

**Well Name:** Lake Boreham 4-36-3-3WH  
**API Well Number:** 43013511940000  
**Lease Number:** Patented  
**Surface Owner:** FEE (PRIVATE)  
**Approval Date:** 2/29/2012

**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 R649-3-2.6. 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:**

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

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

A temporary 640 acre spacing unit is hereby established in Section 36, Township 3 S, Range 3 W, USM for the drilling of this well (R649-3-2.6). No other horizontal wells may be drilled in this section unless approved by the Board of Oil, Gas and Mining.

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

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 1000' MD as indicated in the submitted drilling plan.

Surface casing shall be cemented to the surface.

In accordance with Utah Admin. R.649-3-21, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

**Additional Approvals:**

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

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

**Notification Requirements:**

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

- Within 24 hours following the spudding of the well contact Carol Daniels

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

**Contact Information:**

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

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



**Reporting Requirements:**

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

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

**Approved By:**

A handwritten signature in black ink, appearing to read "John Rogers", written over a horizontal line.

For John Rogers  
Associate Director, Oil & Gas

CONFIDENTIAL

BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Ross 28 Submitted By  
Branden Arnold Phone Number 435-401-0223  
Well Name/Number Lake Boreham 4-36-3-3WH  
Qtr/Qtr NW/NW Section 36 Township 3S Range 3W  
Lease Serial Number \_\_\_\_\_  
API Number 43-013-51194

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

Date/Time 3/8/12 9:00 AM ☒ PM ☐

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

- ☒ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

Date/Time 3/8/12 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 \_\_\_\_\_

---

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**

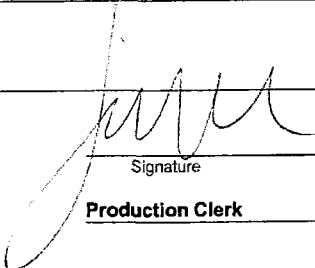
OPERATOR ACCT. NO. **N2695**

ACTION CODE	CURRENT ENTITY NO	NEW ENTITY NO	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
<b>B</b>	<b>99999</b>	<b>17400</b>	<b>4304751634</b>	<b>GMBU P-25-8-17</b>	<b>SWSW</b>	<b>25</b>	<b>8S</b>	<b>17E</b>	<b>DUCHESNE</b>	<b>3/6/2012</b>	
WELL 1 COMMENTS:											
<b>B</b>	<b>99999</b>	<b>17400</b>	<b>4301350744</b>	<b>GMBU D-2-9-16</b>	<b>SESW</b>	<b>2</b>	<b>9S</b>	<b>16E</b>	<b>DUCHESNE</b>	<b>3/8/2012</b>	
<b>B</b>	<b>99999</b>	<b>17400</b>	<b>4304751882</b>	<b>GMBU G-32-8-18</b>	<b>SWNW</b>	<b>32</b>	<b>8S</b>	<b>18E</b>	<b>UINTAH</b>	<b>3/7/2012</b>	
<b>B</b>	<b>99999</b>	<b>17400</b>	<b>4304751883</b>	<b>GMBU N-32-8-18</b>	<b>SWNW</b>	<b>32</b>	<b>8S</b>	<b>18E</b>	<b>UINTAH</b>	<b>3/7/2012</b>	
<b>A</b>	<b>99999</b>		<b>4301351130</b>	<b>STATE 4-19-3-2WH</b>	<b>NWNW</b>	<b>19</b>	<b>3S</b>	<b>2W</b>	<b>DUCHESNE</b>	<b>3/5/2012</b>	
<b>A</b>	<b>99999</b>		<b>4301351194</b>	<b>LAKE BOREHAM 4-36-3-3WH</b>	<b>NWNW</b>	<b>36</b>	<b>3S</b>	<b>3W</b>	<b>DUCHESNE</b>	<b>3/8/2012</b>	

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

  
 Signature  
**Jentri Park**  
 Production Clerk  
**03/16/12**

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		
B	99999	17400	4304751634	GMBU P-25-8-17	SWSW	25	8S	17E	Uintah	3/6/2012	3/21/12
WELL 1 COMMENTS: GRRV BHL: DWSW											
B	99999	17400	4301350744	GMBU D-2-9-16	SESW	35	8S	16E	DUCHESNE	3/8/2012	3/21/12
GRRV BHL: 32 T9S NWNW											
B	99999	17400	4304751882	GMBU G-32-8-18	SWNW	32	8S	18E	UINTAH	3/7/2012	3/21/12
GRRV BHL: NENW											
B	99999	17400	4304751883	GMBU N-32-8-18	SWNW	32	8S	18E	UINTAH	3/7/2012	3/21/12
GRRV BHL: NESW											
A	99999	184165	4301351130	STATE 4-19-3-2WH	NWNW	19	3S	2W	DUCHESNE	3/5/2012	3/21/12
GRRV BHL: SWSW											
A	99999	184166	4301351194	LAKE BOREHAM 4-36-3-3WH	NWNW	36	3S	3W	DUCHESNE	3/8/2012	3/21/12
GRRV BHL: SWSW											

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

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MAR 21 2012

Div. of Oil, Gas & Mining

Signature

Production Clerk

Jentri Park

03/16/12

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

**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.

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER				5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY				6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052			PHONE NUMBER 435.646.3721	7. UNIT or CA AGREEMENT NAME: UINTA CB -BASAL CARB
4. LOCATION OF WELL: FOOTAGES AT SURFACE:				8. WELL NAME and NUMBER: LAKE BOREHAM 4-36-3-3WH
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NWNW, 36, T3S, R3W				9. API NUMBER: 4301351194
				10. FIELD AND POOL, OR WILDCAT: UINTA CENTRAL BASIN
				COUNTY: DUCHESNE
				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  <hr/>	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<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/STOP) <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"/> TEMPORARITLY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLAIR <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input checked="" type="checkbox"/> OTHER: - Spud Notice
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion:  03/12/2012			

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

On 3/8/12 MIRU Ross #26. Spud well @10:00 AM. Drill 62' of 17 1/2" hole with air mist. TIH W/ 2 Jt's 14" H-40 36# csgn. Set @ 80. On 3/12/12 cement with 100 sks of class "G" w/ 2% CaCL2 + 0.25#/sk Cello- Flake Mixed @ 15.8ppg w/ 1.17ft3/sk yield. Returned 12 barrels cement to pit. WOC.

NAME (PLEASE PRINT) <u>Branden Arnold</u>	TITLE _____
SIGNATURE <u></u>	DATE <u>03/26/2012</u>

(This space for State use only)

**RECEIVED**  
**APR 03 2012**  
DIV. OF OIL, GAS & MINING

## Casing / Liner Detail

**Well** Lake Boreham 4-36-3-3WH  
**Prospect** Central Basin  
**Foreman**  
**Run Date:**  
**String Type** Conductor, 14", 36#, H-40, W (Welded)

### - Detail From Top To Bottom -

Depth	Length	JTS	Description	OD	ID
18.00	62.00	2	14" Conductor	14.000	
80.00			KB		

### Cement Detail

Cement Company:					BJ
Slurry	# of Sacks	Weight (ppg)	Yield	Volume (ft³)	Description - Slurry Class and Additives
Slurry 1	100	15.8	1.17	117	Class G+2%kcl+.25#CF

Tab-In-Job?	No
IHT:	0
Initial Circulation Pressure:	
Initial Circulation Rate:	
Final Circulation Pressure:	
Final Circulation Rate:	
Displacement Fluid:	Water
Displacement Rate:	
Displacement Volume:	4.6
Mud Returns:	
Centralizer Type And Placement:	

Cement To Surface?	Yes
Est. Top of Cement:	0
Plugs Bumped?	No
Pressure Plugs Bumped:	
Floats Holding?	No
Casing Stuck On / Off Bottom?	No
Casing Reciprocated?	No
Casing Rotated?	No
CIP:	13:50
Casing Wt Prior To Cement:	
Casing Weight Set On Slips:	

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

CONFIDENTIAL

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.

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052		7. UNIT or CA AGREEMENT NAME: UINTA CB-BASAL CARB
PHONE NUMBER 435.646.3721		8. WELL NAME and NUMBER: LAKE BOREHAM 4-36-3-3WH
4. LOCATION OF WELL: FOOTAGES AT SURFACE: 0204 FNL 0333 FWL		9. API NUMBER: 4301351194
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NWNW, 36, T3S, R3W		10. FIELD AND POOL, OR WILDCAT: UINTA CENTRAL BASIN
		COUNTY: DUCHESNE
		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 type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY 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 checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion: 03/12/2012	<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 3/8/12 MIRU Ross #26. Spud well @10:00 AM. Drill 62' of 17 1/2" hole with air mist. TIH W/ 2 Jt's 14" H-40 36# csgn. Set @ 80. On 3/12/12 cement with 100 sks of class "G" w/ 2% CaCL2 + 0.25#/sk Cello- Flake Mixed @ 15.8ppg w/ 1.17ft3/sk yield. Returned 12 barrels cement to pit. WOC.

NAME (PLEASE PRINT) Branden Arnold TITLE \_\_\_\_\_  
SIGNATURE *Branden Arnold* DATE 03/26/2012

(This space for State use only)

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MAY 24 2012  
DIV. OF OIL, GAS & MINING

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Page 1 of 1

**Carol Daniels - Newfield - Lake Boreham** <sup>4</sup>~~3~~-36-3-3WH - API #43013511940000

3S      3W      36

**From:** "Pioneer 62" <den\_pio62@nfxrig.com>  
**To:** <dennisingram@utah.gov>, <danjarvis@utah.gov>, <chrisjensen@utah.gov>, <...  
**Date:** 6/4/2012 7:12 AM  
**Subject:** Newfield - Lake Boreham <sup>4</sup>~~3~~-36-3-3WH - API #43013511940000  
**CC:** <jaslakson@newfield.com>

---

Please be advised that we have TD'd the intermediate section of the subject well @ 8,750' MD 8,175'TVD. TD date was Sunday June 3<sup>rd</sup>. We are currently laying down drill pipe. Plans are to log and begin running 7" casing tonight (June 4<sup>th</sup>). Finish running casing and cementing tomorrow June 5<sup>th</sup>. If you have any questions please don't hesitate to call @ 970-812-0581.

Regards,  
D. Reeder  
Newfield Drilling Foreman

RECEIVED

JUN 05 2012

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> Patented
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> Lake Boreham 4-36-3-3WH
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0204 FNL 0333 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 36 Township: 03.0S Range: 03.0W Meridian: U		<b>9. API NUMBER:</b> 43013511940000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> WILDCAT
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: <b>6/20/2012</b>  <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:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE   <input checked="" 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         </div> <div style="width: 33%;"> <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 type="checkbox"/> OTHER         </div> <div style="width: 33%;"> <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 style="width: 100px;" type="text"/> </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  <div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <p>Newfield Production Company respectfully requests permission to extend the TD of the referenced well from from the approved 12,001' MD to the requested 12,645' MD and also proposes to cement the previously approved un-cemented liner. Drilling of the well has commenced and expedited approval is requested.</p> </div> <div style="width: 30%; text-align: right;"> <p><b>Approved by the Utah Division of Oil, Gas and Mining</b></p> <p><b>Date:</b> July 12, 2012</p> <p><b>By:</b> <u><i>Don Hamilton</i></u></p> </div> </div>		
<b>NAME (PLEASE PRINT)</b> Don Hamilton		<b>PHONE NUMBER</b> 435 719-2018
<b>SIGNATURE</b> N/A		<b>TITLE</b> Permitting Agent
<b>DATE</b> 6/19/2012		



June 21, 2012

Manuel Myore  
Ute Indian Tribe  
Energy Minerals Dept.  
P.O. Box 70  
Fort Duchesne, UT 84026

Re: Exception Location  
Lake Boreham 4-36-3-3WH  
Duchesne County, Utah

Dear Mr. Myore:

In accordance with the Exploration & Development Agreement dated September 27, 2010 among the Ute Indian Tribe, Newfield Production Company and the Ute Distribution Corporation, please be advised that Newfield is requesting approval from the Utah Division of Oil, Gas & Mining for the following well:

**Lake Boreham 4-36-3-3WH**  
T3S R3W, Section 36  
Ending bottom hole location 510' FSL 660' FWL  
Duchesne County, Utah

The location of this well is closer than 660' to the spacing unit boundary as required by State of Utah Rule R649-3-2. It has been extended 150' beyond the permitted limit to provide space for the float shoe, float collar and liner collar for cementing the lateral liner. Therefore, it is necessary to obtain your written concurrence with this exception location as an affected party.

Enclosed you will find plats showing the location of the above referenced well. If you are in agreement to this location, please verify your consent by signing and dating where indicated on page two of this letter and return to my attention **as soon as possible**. You may mail your consent to the letterhead address, fax to 303-685-8098 or email to [awild@newfield.com](mailto:awild@newfield.com).

If you have any questions or need further information, please do not hesitate to contact me at 303-383-4137 or by email at [awild@newfield.com](mailto:awild@newfield.com). I appreciate your prompt attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alan D. Wild".

Alan D. Wild  
Land Associate


Return to: Newfield Production Company  
ATTN: Alan Wild  
1001 17<sup>th</sup> Street, Suite 2000  
Denver, CO 80202

303-685-8098 fax

awild@newfield.com email

Re: Exception Location  
**Lake Boreham 4-36-3-3WH**  
T3S R3W, Section 36  
Ending bottom hole location 510' FSL 660' FWL  
Duchesne County, Utah

Please be advised The Ute Indian Tribe does not have an objection to the proposed location of the  
aforementioned well.

By:   
S. J. MD Director  
Print Name and Title

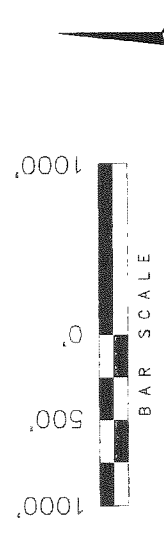
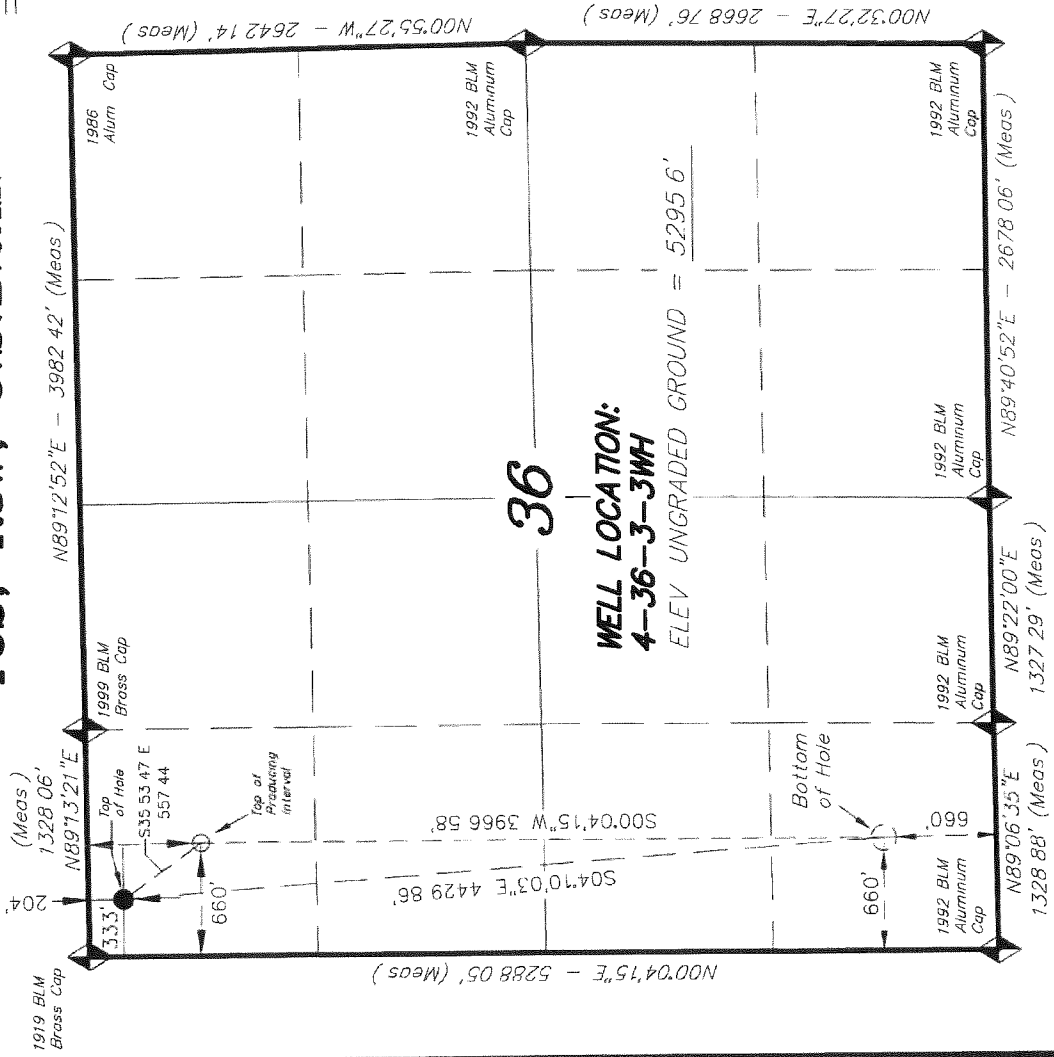
Date: 6/21/012

# T3S, R3W, U.S.B.&M.

## NEWFIELD EXPLORATION COMPANY

WELL LOCATION, 4-36-3-3WH, LOCATED AS SHOWN IN THE NW 1/4 NW 1/4 OF SECTION 36, T3S, R3W, U.S.B.&M. DUCHESNE COUNTY, UTAH

TARGET BOTTOM HOLE, 4-36-3-3WH, LOCATED AS SHOWN IN THE SW 1/4 SW 1/4 OF SECTION 36, T3S, R3W, U.S.B.&M. DUCHESNE COUNTY, UTAH



- NOTES:**
- 1 Well footages are measured at right angles to the Section Lines
  - 2 Bearings are based on Global Positioning Satellite observations
  - 3 Top of Producing Interval Footages are 660' FNL & 660' FWL

◆ = SECTION CORNERS LOCATED

THIS IS TO CERTIFY THAT THE ABOVE SURVEY WAS PREPARED FROM FIELD NOTES AND 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  
REGISTRATION NO. 16,189,377  
12-23-11  
STACY W.

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

DATE SURVEYED	SURVEYED BY	VERSION
12-16-11	SH	
DATE DRAWN	DRAWN BY	
12-14-11	F.M	V1
REVISED	SCALE	
	1" = 1000'	

**4-36-3-3WH**  
(Surface Location) **NAD 83**  
LATITUDE = 40° 11' 06.80"  
LONGITUDE = 110° 10' 45.94"

BASIS OF ELEV, Elevations are based on an NGS OPUS Correction LOCATION LAT 40°04'09 56" LONG 110°00'43 28" (Tristate Aluminum Cap) Elev 5281 57'



# Weatherford

Project: DUCHESNE COUNTY, UT  
 Site: LAKE BOREHAM 4-36-3-3WH  
 Well: LAKE BOREHAM 4-36-3-3WH  
 Wellbore: LAKE BOREHAM 4-36-3-3WH CURVE/LAT  
 Design: Desing #6  
 Latitude: 40° 11' 6.800 N  
 Longitude: 110° 10' 45.940 W  
 GL: 5295.60  
 KB: WELL @ 5313.60ft (PIONEER 62)

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/S	+E/W	Latitude	Longitude	Shape
PBHL LAKE BOREHAM 4-36-3-3WH	7994.00	-4418.17	321.54	40° 10' 23.136 N	110° 10' 41.798 W	Point
PBHL LAKE BOREHAM 4-36-3-3WH (proj)	7998.24	-4568.18	564.82	40° 10' 21.653 N	110° 10' 38.663 W	Point

## WELL DETAILS: LAKE BOREHAM 4-36-3-3WH

+N/S	+E/W	Northing	Eastng	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	7238916.05	2009346.72	5295.60	40° 11' 6.800 N	110° 10' 45.940 W	

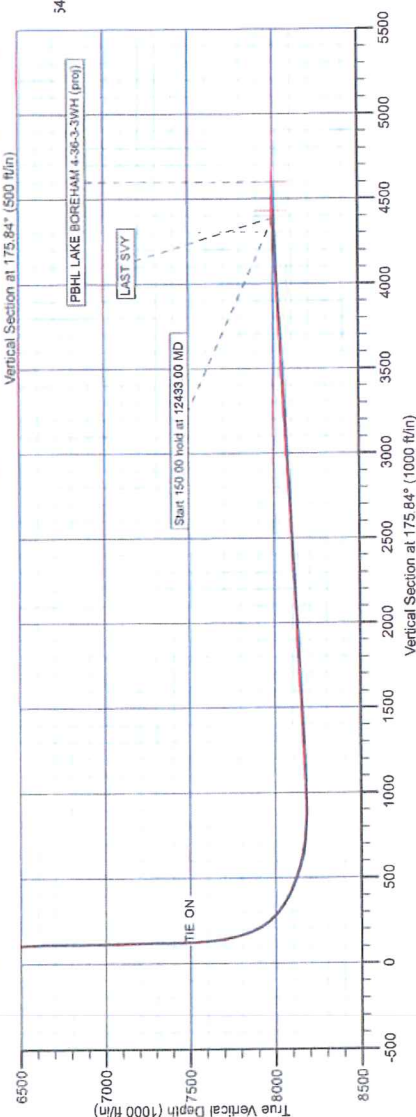
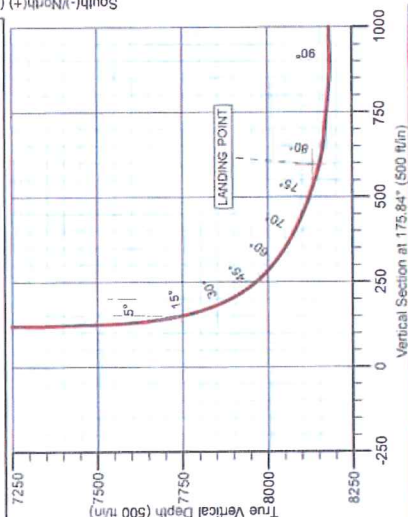
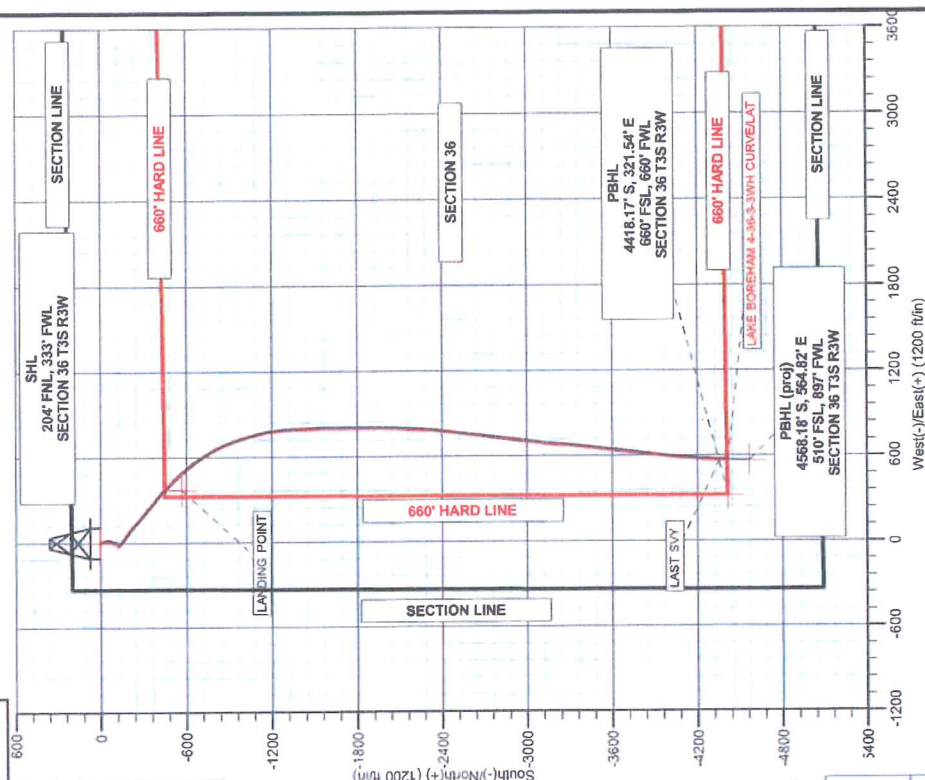
## SECTION DETAILS

MD	Inc	Azi	TVD	+N/S	+E/W	DLeg	TFace	VSec	Annotation
12433.00	91.95	181.99	8005.31	-4356.43	572.18	0.00	0.00	4366.47	Start 150.00 hold at 12433.00 MD
12645.00	91.91	181.99	7998.24	-4568.18	564.82	0.00	0.00	4657.13	

Azimuths to True North  
 Magnetic North: 11.30°  
 Magnetic Field  
 Strength: 52179.86nT  
 Dip Angle: 63.84°  
 Inclination: 11.30°  
 Model: BCGM2011

## CASING DETAILS

TVD	MD	Name	Size
-----	----	------	------



Plan: Desing #6 (LAKE BOREHAM 4-36-3-3WH/LAKE BOREHAM 4-36-3-3WH CURVE/LAT)

Created By: TRACY WILLIAMS Date: 10/17, June 19 2012

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
<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.		5. LEASE DESIGNATION AND SERIAL NUMBER: Patented
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: LAKE BOREHAM 4-36-3-3WH	
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. API NUMBER: 43013511940000	
3. ADDRESS OF OPERATOR: 1001 17th Street, Suite 2000, Denver, CO, 80202	PHONE NUMBER: 303 382-4443 Ext	9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0204 FNL 0333 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 36 Township: 03.0S Range: 03.0W Meridian: U		COUNTY: DUCHESENE
		STATE: UTAH

11.

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <b>10/1/2012</b>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT 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"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT 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 checked="" type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input type="text" value="VENT/FLARE"/>

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

During an anticipated 10 day period in the month of October 2012, Kinder Morgan will be unable to receive gas produced from 43 of Newfield Production Company's oil wells. In compliance with UDOGM requirements, Newfield is providing notification of short term venting/flaring for wells that may exceed 1,800 MCF/calendar month. Please see attached. ---R649-3-20-4.2-----

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

Date: September 25, 2012By: 

NAME (PLEASE PRINT) Jill L Loyle	PHONE NUMBER 303 383-4135	TITLE Regulatory Technician
SIGNATURE N/A		DATE 9/24/2012





September 21, 2012

Dustin Doucet  
Petroleum Engineer  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84116

RE: Gas Venting or Flaring Notification per R649-3-20

Dear Mr. Doucet,

Newfield Production Company (Newfield) is submitting this notification to the Utah Division of Oil, Gas and Mining (UDOGM) regarding the necessary venting or flaring of oil wells in Newfield's Central Basin field.

Kinder Morgan Pipeline has notified Newfield of their intent to test portions of a pipeline system that services 43 of Newfield's oil wells. During an anticipated 10 day period in the month of October 2012, Kinder Morgan will be unable to receive gas produced from certain Newfield wells. Newfield has evaluated options for marketing this gas, however due to the short duration of this event it is not feasible to install the new pipelines necessary to sell the gas. Thus Newfield will be compelled to conduct unavoidable oil well gas venting or flaring during this pipeline service period.

In compliance with UDOGM requirements Newfield is hereby providing notification of short term venting/flaring for wells that may exceed 1,800 MCF/calendar month. Newfield has identified 7 wells that will potentially exceed the 1,800 MCF/calendar month threshold assuming a 10 day event. While 7 wells are expected to exceed the 1,800 MCF limitations, there are an additional 36 affected wells that have lower production rates not anticipated to exceed the 1,800 MCF notification threshold.

Newfield intends to flare (rather than vent) the produced gas where feasible in order to minimize impacts to the environment and provide for safe operational conditions. Newfield plans to reroute the gas through lateral pipelines to 4 separate central flaring sites. These flare locations are listed below.

At this time Newfield is proposing the following flare locations based on lateral pipeline connections and surrounding landscape safety:

1. Evans 14-25-3-3
2. State 11-5-3-1
3. Ute 7-19-3-3
4. Mullins 11-14-3-2

The final location and application of flares may change as KM provides additional information concerning the event.

Enclosed please find sundry notices for the seven wells anticipated to exceed the 1,800 MCF threshold and supporting documentation including a list of wells impacted by the Kinder Morgan pipeline shutdown and total anticipated produced gas that will be flared or vented. If you have any questions or require additional information, please contact me at (303) 893-0102 or at [reales@newfield.com](mailto:reales@newfield.com).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Robert Eales', with a long horizontal flourish extending to the right.

Robert Eales  
HSE Analyst

cc: Tim Mullen, Eric Bengtson, Rick Opat, Don Bromley and Douglas Henderer



Newfield Affected Wells by Kinder Morgan Pipeline Shutdown				
Well	API Number	Average Daily Gas Production (mcf/day)	Anticipated 10 Day Total (MCF)	Flare Group/Site
DART 1-12-3-2	43-013-50418	13.28	132.80	State 11-5-3-1W
EMERALD PHNX 15-31-2-1W	43-013-51290	141.51	1415.10	State 11-5-3-1W
LAMB 1-19-3-1W	43-013-50425	150.88	1508.80	State 11-5-3-1W
LAMB 14-13-3-2	43-013-50849	13.98	139.80	State 11-5-3-1W
LAMB 9-24-3-2	43-013-50923	30.46	304.60	State 11-5-3-1W
STATE 11-5-3-1W	43-013-51043	55.62	556.20	State 11-5-3-1W
TOMLIN 7-1-3-2W	43-013-51081	47.62	476.20	State 11-5-3-1W
WHITE 7-6-3-1W	43-013-50813	28.64	286.40	State 11-5-3-1W
YERGENSEN 1-18-3-1W	43-013-50428	79.81	798.10	State 11-5-3-1W
YERGENSEN 7-7-3-1W	43-013-50985	30.40	304.00	State 11-5-3-1W
ABBOTT 3-29-3-2W	43-013-50873	24.35	243.50	Evans 14-25-3-3
BAR F 1-20-3-2	43-013-50009	52.98	529.80	Evans 14-25-3-3
CONNOLLY 10-24-3-3W	43-013-51145	134.92	1349.20	Evans 14-25-3-3
EVANS 14-25-3-3W	43-013-51177	34.31	343.10	Evans 14-25-3-3
GILES 1-19-3-2	43-013-50426	93.45	934.50	Evans 14-25-3-3
LAKE BOREHAM 4-36-3-3WH	43-013-51194	718.03	7180.30	Evans 14-25-3-3
LARSEN 2-29-3-2WH	43-013-51224	541.03	5410.30	Evans 14-25-3-3
LH TRUST 3A-30-3-2W	43-013-50901	93.38	933.80	Evans 14-25-3-3
MURPHY 2-31-3-2W	43-013-50833	26.68	266.80	Evans 14-25-3-3
SULSER 10-30-3-2W	43-013-51387	135.96	1359.60	Evans 14-25-3-3
State 4-19-3-2	43-013-51130	160.00	1600.00	Evans 14-25-3-3
ODEKIRK 11-12-3-3W	43-013-51054	271.69	2716.90	Mullins 11-14-3-2
THORNE 4-21-3-2WH	43-013-51067	454.96	4549.60	Mullins 11-14-3-2
LUSTY 14-2-3-3W	43-013-51370	171.30	1713.00	Mullins 11-14-3-2
PADILLA 1-18-3-2W	43-013-50786	87.82	878.20	Mullins 11-14-3-2
DILLMAN 10-17-3-2W	43-013-50995	134.48	1344.80	Mullins 11-14-3-2
MILES 15-8-3-2W	43-013-50814	268.20	2682.00	Mullins 11-14-3-2
MULLINS 11-14-3-2W	43-013-51044	117.70	1177.00	Mullins 11-14-3-2
GDR Brothers 7-2-3-2W	43-013-50954	100.00	1000.00	Mullins 11-14-3-2
NICKERSON 6-28-3-2W	43-013-51006	69.10	691.00	Mullins 11-14-3-2
DILLMAN 5-2-3-1W	43-047-52244	57.80	578.00	Mullins 11-14-3-2
ALZADA 11-21-3-2W	43-013-51068	94.03	940.30	Mullins 11-14-3-2
CONRAD 6-17-3-1	43-013-50857	45.20	452.00	Mullins 11-14-3-2
LAMB 12-20-3-1W	43-013-50858	41.20	412.00	Mullins 11-14-3-2
SMALLEY 7-8-3-1W	43-013-50822	45.11	451.10	Mullins 11-14-3-2
YERGENSEN 1-9-3-1	43-013-50427	33.50	335.00	Mullins 11-14-3-2
KILLIAN 14-3-3-1W	43-013-50945	52.70	527.00	Mullins 11-14-3-2
STATE 6-4-3-1W	43-013-50691	36.93	369.30	Mullins 11-14-3-2
KETTLE 1-10-3-1	43-013-50396	109.78	1097.80	Mullins 11-14-3-2
EVANS 1-4-3-3	43-013-50561	28.71	287.10	Ute 7-19-3-3
GILBERT 9-9-3-3W	43-013-50955	246.98	2469.80	Ute 7-19-3-3
GRACE 3-16-3-3WH	43-013-51185	149.26	1492.60	Ute 7-19-3-3
McKenna 1-17-3-3WH	43-013-51122	600.00	6000.00	Ute 7-19-3-3
		Total	58,237	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
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<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630, Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> LAKE BOREHAM 4-36-3-3WH
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0204 FNL 0333 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 36 Township: 03.0S Range: 03.0W Meridian: U		<b>9. API NUMBER:</b> 43013511940000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> WILDCAT
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 10/16/2012  <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:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <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         </div> <div style="width: 33%;"> <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         </div> <div style="width: 33%;"> <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         </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
October 16th at 7 pm we received a call that oil was leaking on the Lake Boreham 4-36-3-3WH. When the lease operator reached location he found a ruptured gasket on a heater treater. He immediately shut in location depressurized the treater and stopped the release. It was extremely windy and he could tell the fluid had misted off of location. He walked the shore line of Lake Boreham approx. 1/8 of a mile from location with a flashlight and could not see any evidence that oil had reached the lake. At that point he secured location and spill to make sure no fluid release could travel any further from site. Upon inspection the next morning we discovered that some oil had been blown into the waters of the lake. All necessary calls were then made to regulatory agencies and cleanup efforts began. Resource surveys were conducted due to the impact to Tribal lands and water. See attached reports.		<b>Accepted by the          Utah Division of          Oil, Gas and Mining          FOR RECORD ONLY          October 26, 2012</b>
<b>NAME (PLEASE PRINT)</b> Tim Eaton	<b>PHONE NUMBER</b> 465 646-4858	<b>TITLE</b> Regulatory Tech
<b>SIGNATURE</b> N/A		<b>DATE</b> 10/25/2012

October 17, 2012

Tim Eaton  
Newfield Exploration  
Route 3 Box 3630  
Myton, Utah 54052

Dear Mr. Eaton,

On October 17, 2012, Montgomery Archaeological Consultants, Inc (MOAC) was notified by Mr. Tim Eaton of Newfield Exploration in Myton, Utah of an oil spill associated with the 4-36-3-3 well location. This well location, on private lands, is situated along the north side of Lake Boreham (42Dc3084) in Township 3 South, Range 3 West, Section 36 (Figure 1). The spill spread southeast from the well infringing on Ute Tribal lands (Uintah and Ouray Agency). A previous archaeological inventory, which encompasses the affected area, was conducted in 2011 by MOAC for the North Myton and South Myton Benches Block Survey (Ackman 2012). Lake Boreham (42Dc3084), constructed by the Civilian Conservation Corp (CCC) in the 1930s, has been evaluated as eligible to the National Register of Historic Places (NRHP) under Criteria A and C. The Midview Ditch (42Dc3029) was not affected by the spill.

Amy Ackman (MOAC Field Supervisor) inspected the affected area to assess potential impacts to site 42Dc3084 on October 17, 2012. It was observed that the oil spill had settled approximately 1000 ft (east-west) along the north-central shoreline of Lake Boreham. No previously documented structural features such as the dam (Feature B), gravel/cobble dike (Feature E) or spillway (Feature F) were affected by the spill. The area in which the spill is located is basically an earthen shoreline. The oil spill is surficial (e.g. oil spray), hence it is not considered an "adverse effect" because the archaeological site is not significantly altered or destroyed (Federal Register 36 800.5). It is recommended that the shoreline be restored to its original condition after the oil is cleaned-up.

If you have any questions or comments, please call or email me. We appreciate this opportunity to provide archaeological consulting services.

Sincerely,

Keith R. Montgomery  
Principal Investigator  
kmontgomery@montarch.com

Reference: Cultural Resource Inventory of Newfield Exploration's North Myton Bench and South Myton Bench Block Surveys (T3S, R1W; T3S, R2W; T3S, R3W; T3S, R4W; T4S, R2W), Duchesne and Uintah Counties, Utah. Montgomery Archaeological Consultants. Project No. U-11-MQ-1027i,p.

RECEIVED: Oct. 25, 2012

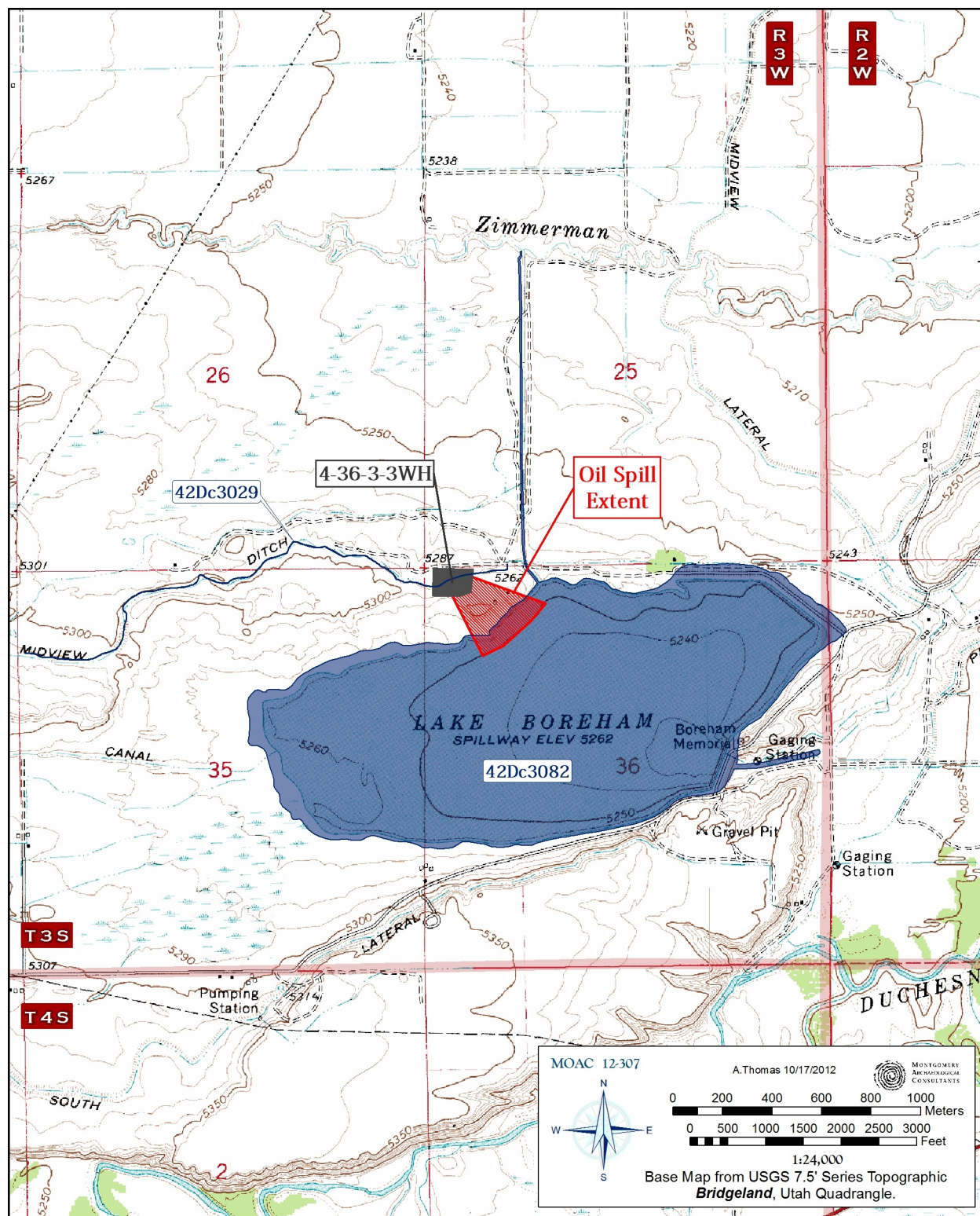


Figure 1. Location of Newfield Exploration's 4-36-3-3WH Oil Spill and Site 42Dc3082.





ENVIRONMENTAL CONSULTANTS  
Sound Science. Creative Solutions.

Vernal Office  
2028 West 500 North  
Vernal, Utah 84078  
Tel 435.789.9388 Fax 435.789.9385  
www.swca.com

October 22, 2012

Newfield Production Company  
10530 South County Road 33  
Myton, Utah 84052

**RE: Lake Boreham 4-36-3-3WH Release of Material - Paleontological Inspection**

Dear Mr. Eaton,

On October 17, 2012, SWCA Environmental Consultants was called out to the Lake Boreham area, approximately 3.5 miles northeast of Bridgeland and 6 miles west of Myton, after a release of material occurred on well pad Lake Boreham 4-36-3-3WH. Paleontological specialist Justin Strauss was asked by the Ute Tribe to inspect the north-eastern shore of Lake Boreham for potential paleontological resources that might be impacted by clean-up activities related to the release of the materials (Figure 1). A pedestrian inspection of the northeastern shore was conducted and several minor rock outcrops were identified (Figure 2). These consisted of variegated beds of yellowish gray and pale yellowish brown, poorly cemented, highly weathered siltstone with a total exposed thickness of about 2 meters, overlain by a fissile, pale olive mudstone with a thickness of 30 to 50 centimeters, which was overlain by a coarse-grained, platy, moderately well cemented, reddish orange sandstone that was approximately 30 centimeters thick and exhibited extensive bioturbation. No scientifically significant surface fossils were observed during the inspection and, due to the relatively minor surface disturbance required for clean-up, the likelihood of impacts to subsurface paleontological resources is low. Immediate paleontological clearance was given for all clean-up activities in the area.



**Figure 1.** View along the northeastern shore of Lake Boreham.



**Figure 2.** Observed bedrock exposure showing variegated siltstones, overlain by mudstone, overlain by sandstone.

Please contact me with questions regarding this letter report or the inspection. I can be reached via e-mail at [jstrauss@swca.com](mailto:jstrauss@swca.com) or by telephone at (435) 789-9388.

Sincerely,

A handwritten signature in cursive script that reads "Justin D. Strauss".

Justin Strauss  
Paleontological Specialist

---

# Biological Assessment: Vegetation Survey Results

**For areas surrounding well:**

4-36-3-3WH

Prepared by:



**OUTLAW Engineering, Inc.**  
PO BOX 1800  
Roosevelt, Utah 84066

Prepared for:



**Newfield Exploration Company**  
10530 South Country Road 33  
Myton, Utah 84052

Duchesne County, Utah

October 23, 2012

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## 1.0 INTRODUCTION AND BACKGROUND

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Newfield Exploration Company (Newfield) retained OUTLAW Engineering, Inc. (OUTLAW) to conduct a Biological Assessment (BA) an area surrounding an existing well pad (Project Area) currently used for development of oil resources in Duchesne County, Utah.

Work specifically involved the following tasks:

- Identification of potential habitat for any federally listed Threatened, Endangered, Proposed, and Candidate (TEPC) species, as per the U.S. Fish and Wildlife Service (USFWS) requirements (USFWS 2012).
- Determination if Species of Concern (SOC) have been identified within the Project Area and its immediate surroundings. This task was accomplished by referencing the Utah Natural Heritage Program (UNHP) (UNHP 2012).
- Conducting field assessments of TEPC plant species within the Project Area and associated 300-foot buffer.

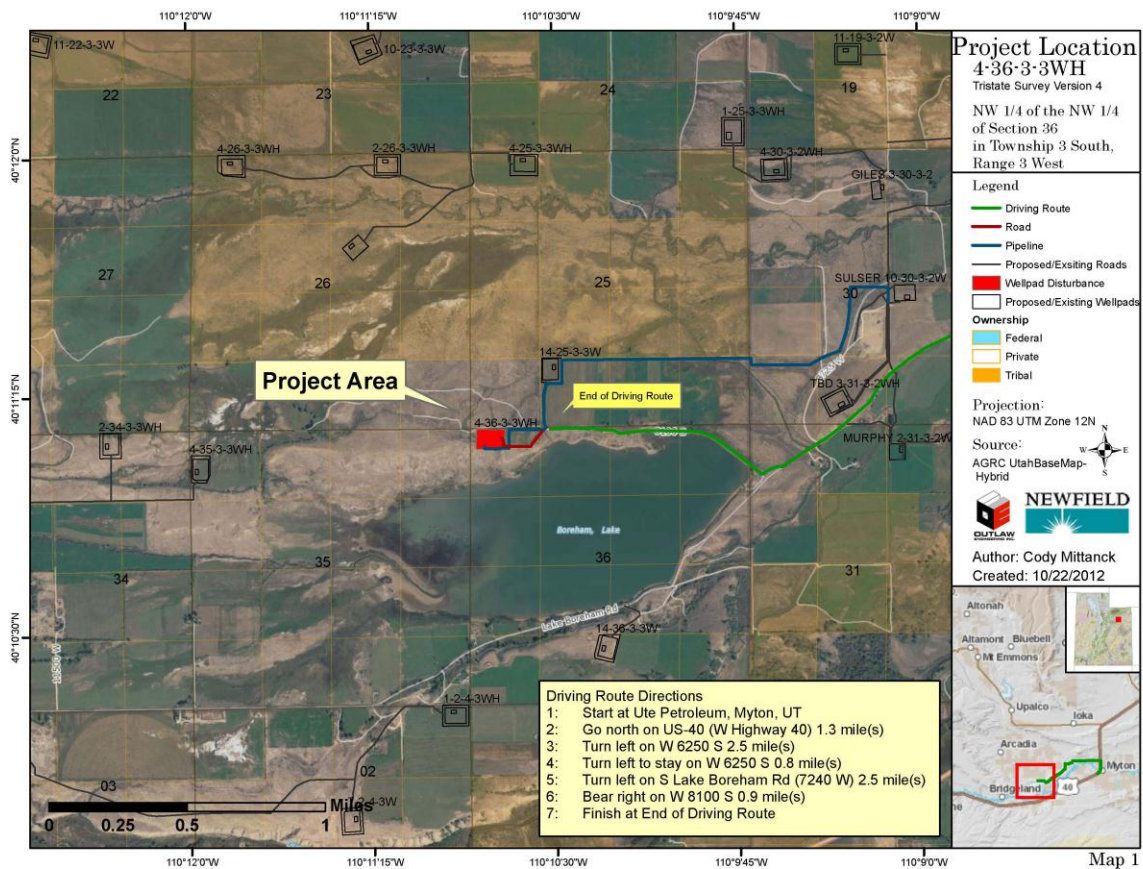
Field surveys conducted on October 17, 2012 focused on the presence of TEPC plant species, as listed by U.S. Fish and Wildlife Service (USFWS), and other state and federally protected plant species or associated habitat. This report documents the findings within the Project Area and the required 300-foot survey buffer for plant TES and SOC species. Nate Norman completed data collection and reporting was completed by Bridget Atkin. Respective vitae can be found in Appendix A.

The intent of this report is to summarize field survey methodology, site/data analysis, and results in order to help land managers and agency representatives assess potential impacts as well as provide guidance for Newfield during planning and permitting tasks associated with the operation of the existing facility.

### 1.1 PROJECT LOCATION

Well site 4-36-3-3WH is located approximately 3.5miles north east of Myton, Utah in Duchesne County. The Project Area included the areas immediately surrounding existing well head 4-36-3-3WH (Figure 1-1).



**Figure 1-1 Location map and detail showing Project Area associated with well site 4-36-3-3WH.**

## 1.2 GENERAL DESCRIPTION OF PROJECT AREA

The Project Area is situated in the central Uintah Valley. The relatively flat valley bottom is interspersed with flat-topped benches averaging approximately 300 feet in elevation. The Duchesne River and its tributaries drain the area. Many smaller creeks, washes, and canals also traverse the terrain. The area is used for agriculture, mainly as pastures and hayfields, but some areas are planted with row crops. Much of the vegetation is composed of introduced species such as Russian olive, tamarisk, Kentucky bluegrass, meadow fescue, summer cypress, sweetclover, tall wheatgrass, and crested wheatgrass. However, several native plant species are also common including narrowleaf cottonwood, common cottonwood, boxelder, greasewood, alkali sacaton, bottlebrush squirreltail, sunflower, and western wheatgrass. Water is close to the surface in the area and wetlands are common. Wetlands species include coyote willow, saltgrass, mountain rush, reed canarygrass, poverty sumpweed, and foxtail barley.

## 2.0 THREATENED, ENDANGERED, AND SENSITIVE SPECIES SURVEYED

---

### 2.1 Vegetation Survey

An online search of the USFWS Information, Planning, and Conservation System (IPaC) database for TEPC species that may occur within the Project Area was conducted.

The site was surveyed for TEPC plant habitat. Data were recorded using hand-held GPS (Global Positioning System) units running ArcPad10 GIS and Cybertracker data recording software. Field notes were also taken of the Project Area to record general site characteristics. Photographs were taken when applicable.

The site was first evaluated for potential habitat and subsequently surveyed for individual plants if pertinent.

#### 2.1.1 TEPC Species Habitat Requirements

Based on habitat assessments and USFWS review, the Project Area is within the potential habitat and geographic distribution for Graham beardtongue (*Penstemon grahamii*) and Ute ladies'-tresses (*Spiranthes diluvialis*) (ULT) (Appendix B). The Project Area is also located in a region that is known to support populations of Flowers' penstemon (*Penstemon flowersii*) (Secakuku 2012).

**Flowers' Penstemon** is listed as a Bureau of Land Management (BLM) sensitive species endemic to clay badlands in the vicinity of Roosevelt, Utah (Welsh 2008). Vegetation communities commonly associated with this species are characterized by shadscale, horsebrush, ephedra, mat-saltbush, galleta, and rabbitbrush communities at 5000 to 5400 feet elevation.

**Grahams beardtongue** is listed as Proposed Threatened by USFWS. It occurs in sparsely vegetated areas with shadscale, *Eriogonum* spp., horsebrush, ryegrass, and pinyon-juniper communities on shale ledges and talus of the Green River Formation at 4,600-6,700 feet elevation.

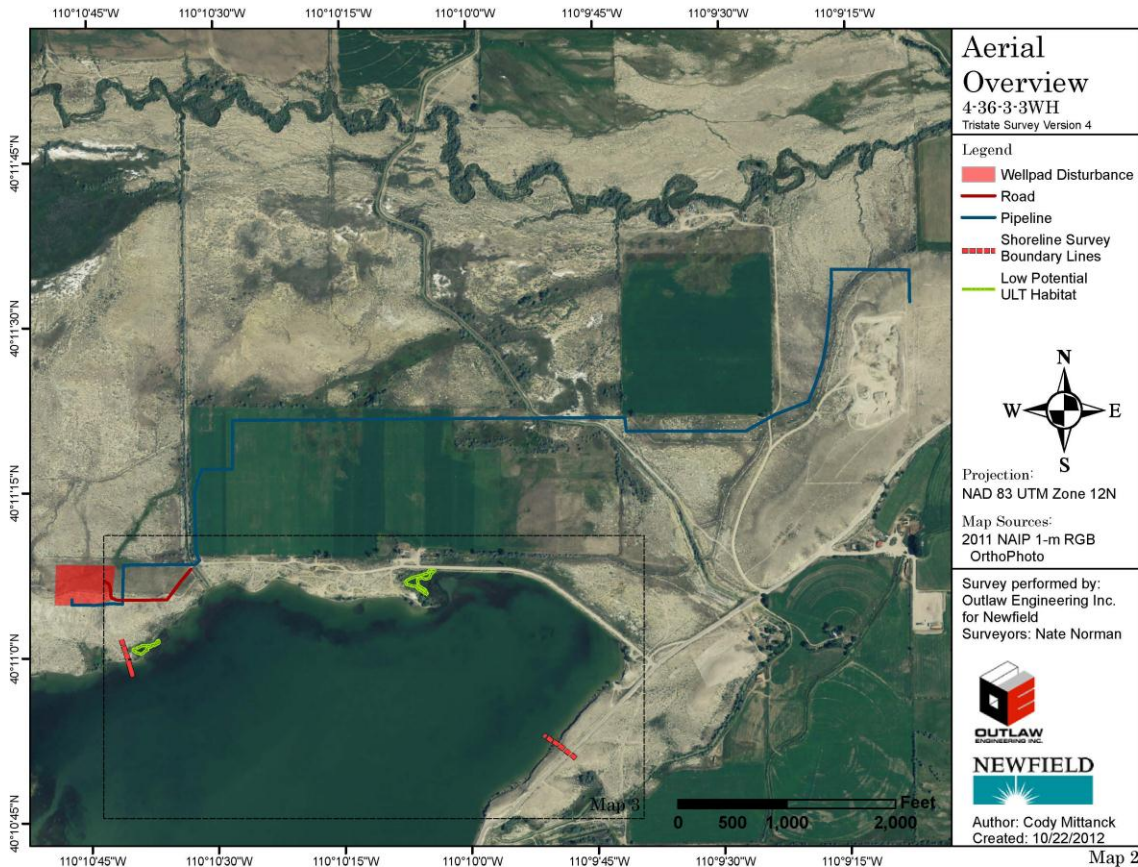
**Ute ladies'-tresses** is listed as Threatened by USFWS. This species grows in wet meadows and on stream banks of perennial streams and rivers.

Sites were evaluated in accordance with known ULT habitat parameters spelled out in "Ute ladies'-tresses Field Survey Guidelines, U.S. Fish and Wildlife Service" (USFWS 2007), Range-wide Status Review of ULT (Fertig et al. 2005), and personal knowledge of the area and ULT requirements.



Figure 2-1 shows the aerial overview where surveys focused on the presence or absence of ULT habitat along portions of the Lake Boreham shoreline. Areas that exhibited characteristics commonly associated with ULT were mapped.

**Figure 2-1 Aerial overview showing area surveyed along the Lake Boreham shoreline, ULT habitat mapped and proximity to well site 4-36-3-3WH.**





## 3.0 SURVEY RESULTS

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### 3.1 Plants

**Ute ladies'-tresses:** Wetland habitat was observed and is hydrologically connected to Lake Boreham. Primarily, habitat was not conducive to the support of ULT populations. The shoreline of Lake Boreham is comprised of cobbled surface substrate with remnant saline deposits at the high water marks (Figures 3-1 and 3-2). Two areas were observed along the shore that included marginal or low potential ULT habitat (Figure 3-3). These locations were mapped as potential habitat and are shown in Figure 3-4. No ULT surveys were done within the Project Area as it is outside of the regional blooming period.

**Grahams beardtongue:** Habitat was found with qualities conducive to the support of Grahams beardtongue, primarily in the areas north of the shore of Lake Boreham. The geologic stratum associated with this plant was found within the Project Area, including sparsely vegetated shale ledges. It is outside of the typical bloom period for this species.

**Flowers' Penstemon:** The area surrounding Lake Boreham is known to support populations of Flowers' penstemon. The north shore of the lake contains areas of sparsely vegetated shale ledges and badland soils that could potentially support this species; however, it is outside of the bloom period for this species which makes it difficult to rule out the presence of individual plants.

Upland areas located within the Project Area were also reviewed for potential Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*) and Pariette cactus (*Sclerocactus brevispinus*) habitat. Upland habitat between Lake Boreham and surrounding agricultural fields are outside of the USFWS and BLM *Sclerocatus* spp. polygon that has been mapped within the Uinta Basin. Also, the area did not present habitat ideal for colonization by these species.



**Figure 3-1 Habitat found along the majority of Lake Boreham was characterized by cobble substrate and bare ground.**



**Figure 3-2 Saline deposits were observed along the shore line of Lake Boreham, primarily along the high water marks. Saline soils would make the colonization of ULT populations within these areas unlikely.**





**Figure 3-3 Pockets of habitat located along Lake Boreham has a low potential to support ULT populations.**



**Figure 3-4 Shoreline survey area extended from the area adjacent to well site 4-36-3-3WH and extended around a portion of the northern and eastern shoreline of Lake Boreham. Two areas were mapped as low potential ULT habitat.**



## 4.0 REFERENCES

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## **5.0 APPENDICIES**

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## APPENDIX A

### RESUME / QUALIFICATIONS

#### Qualifications of Survey Team Leaders

##### NATE NORMAN – ENVIRONMENTAL SCIENTIST

Mr. Norman has 20 years of diversified experience in environmental science, with an emphasis on threatened and endangered species, wetlands, and riparian areas. He has conducted surveys for several rare plants in Utah, Idaho, Montana, and Nevada and found several populations of Ute ladies'-tresses (*Spiranthes diluvialis*), twinleaf onion (*Allium anceps*), Simpson's hedgehog cactus -SW Idaho ecotype, (*Pediocactus simpsonii*), Elko rockcress (*Boechera falcifructa*), Idaho penstemon (*Penstemon idahoensis*), and Parish's phacelia (*Phacelia parishii*) among many others. In addition, Mr. Norman has conducted surveys and monitoring studies of raptors and their nests, black-footed ferrets, pygmy rabbits, Utah prairie dogs, and southwestern willow flycatchers. While completing the work for Section 404 (of the Clean Water Act) permits through the U.S. Corps of Engineers, he has completed numerous threatened and endangered species clearances. Besides conducting rare species work, he has designed or overseen the development of construction/restoration plans for various wetlands and riparian areas in Utah, Nevada, Iowa, Michigan, and Idaho. Mr. Norman holds a B.S. degree in biology from Eastern Michigan University and is certified as a Professional Wetland Scientist by the National Wetland Society.

##### BRIDGET ATKIN – ENVIRONMENTAL SCIENTIST and PLANT ECOLOGIST

Ms. Atkin has 10 years of plant and environmental planning experience in the Intermountain West. She is experienced in the preparation and application of NEPA documents from scoping to project construction and compliance. She has managed projects involving the Clean Water Act, Section 404 Wetlands and was primary coordinator with Federal and State agencies. She is experienced with surveying and monitoring TEPC species, water-related planning, and permitting processes. She has managed projects focusing on monitoring and mapping flora resources throughout the Intermountain West and has conducted natural resource surveys, inventories, and plant identification. Her computer skills include ArcGIS, Excel, Word, and working with global positioning (GIS) systems. Her education includes an A.A.S. degree with an emphasis in architecture from Salt Lake Community College, a B.S. degree in horticulture from Utah State University (USU), and a M.S. degree in plant science from USU and is an M.L.A. candidate in landscape architecture and environmental planning at USU.



## **APPENDIX B**

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### **USFWS Information, Planning, and Conservation System Database Search Results**



U.S. Fish and Wildlife Service

## Natural Resources of Concern

**This resource list is to be used for planning purposes only — it is not an official species list.**

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

UTAH ECOLOGICAL SERVICES FIELD OFFICE  
2369 WEST ORTON CIRCLE, SUITE 50  
WEST VALLEY CITY, UT 84119  
(801) 975-3330  
<http://www.fws.gov>  
<http://www.fws.gov/utahfieldoffice/>

### *Project Name:*

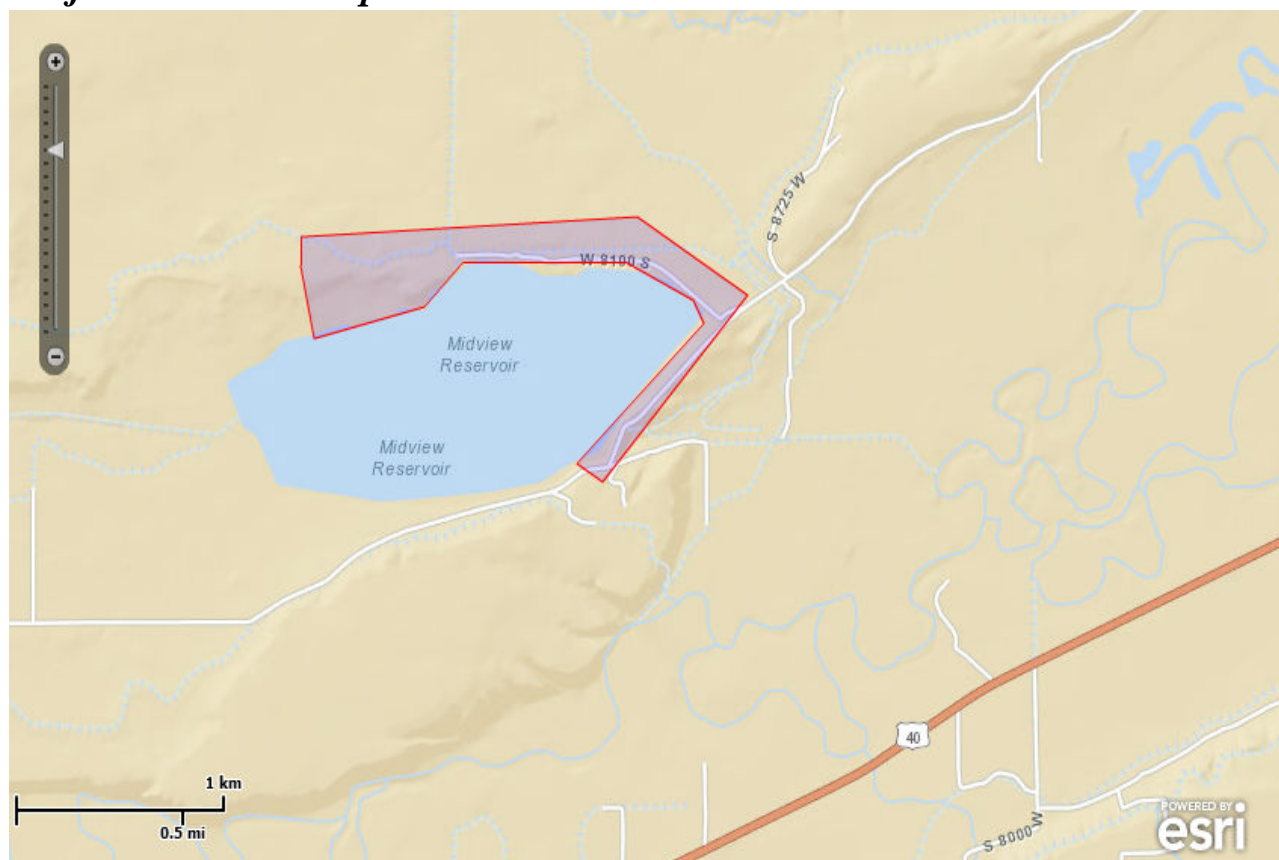
IPAC\_4-36-3-WH General



U.S. Fish and Wildlife Service

## Natural Resources of Concern

### *Project Location Map:*



### *Project Counties:*

Duchesne, UT

### *Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):*

MULTIPOLYGON (((-110.1846178 40.1852679, -110.1846178 40.1863826, -110.1654776 40.1871727, -110.159212 40.1840876, -110.1674517 40.1767431, -110.1689108 40.1774645, -110.1617011 40.1829729, -110.1623019 40.1838909, -110.1661642 40.185399, -110.1753481 40.185399, -110.1775797 40.1836286, -110.1838454 40.1823827, -110.1846178 40.1852679)))

### *Project Type:*

Oil Or Gas



U.S. Fish and Wildlife Service

## Natural Resources of Concern

### *Endangered Species Act Species List*

There are a total of **10** species in your species list

#### Species that may be affected by your project:

Birds			
Greater sage-grouse ( <i>Centrocercus urophasianus</i> ) Population: entire	Candidate	<a href="#">species info</a>	Utah Ecological Services Field Office
Mexican Spotted owl ( <i>Strix occidentalis lucida</i> )	Threatened	<a href="#">species info</a>	Utah Ecological Services Field Office
Yellow-Billed Cuckoo ( <i>Coccyzus americanus</i> ) Population: Western U.S. DPS	Candidate	<a href="#">species info</a>	Utah Ecological Services Field Office
Fishes			
Bonytail chub ( <i>Gila elegans</i> ) Population: entire	Endangered	<a href="#">species info</a>	Utah Ecological Services Field Office
Colorado pikeminnow ( <i>Ptychocheilus lucius</i> ) Population: except Salt and Verde R. drainages, AZ	Endangered	<a href="#">species info</a>	Utah Ecological Services Field Office
Humpback chub ( <i>Gila cypha</i> ) Population: entire	Endangered	<a href="#">species info</a>	Utah Ecological Services Field Office
Razorback sucker ( <i>Xyrauchen texanus</i> ) Population: entire	Endangered	<a href="#">species info</a>	Utah Ecological Services Field Office
Flowering Plants			
Graham beardtongue ( <i>Penstemon grahamii</i> )	Proposed Threatened	<a href="#">species info</a>	Utah Ecological Services Field Office
Ute ladies'-tresses ( <i>Spiranthes diluvialis</i> )	Threatened	<a href="#">species info</a>	Utah Ecological Services Field Office
Mammals			



U.S. Fish and Wildlife Service

## Natural Resources of Concern

Canada Lynx ( <i>Lynx canadensis</i> ) Population: (Contiguous U.S. DPS)	Threatened	<a href="#">species info</a>	Utah Ecological Services Field Office
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### ***FWS National Wildlife Refuges***

There are no refuges found within the vicinity of your project.

### ***FWS Migratory Birds***

Not yet available through IPaC.

### ***FWS Delineated Wetlands***

Not yet available through IPaC.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**CONFIDENTIAL**  
FORM APPROVED  
OMB NO. 1010-0137  
Expires: July 31, 2010

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

<b>1a. Type of Well</b> <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other <b>b. Type of Completion:</b> <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr., Other: _____								<b>5. Lease Serial No.</b> PATENTED	
								<b>6. If Indian, Allottee or Tribe Name</b>	
<b>2. Name of Operator</b> NEWFIELD EXPLORATION COMPANY								<b>7. Unit or CA Agreement Name and No.</b>	
<b>3. Address</b> 1401 17TH ST. SUITE 1000 DENVER, CO 80202				<b>3a. Phone No. (include area code)</b> (435) 646-3721		<b>8. Lease Name and Well No.</b> LAKE BOREHAM 4-36-3-3WH			
<b>4. Location of Well (Report location clearly and in accordance with Federal requirements)*</b>  At surface 204' FNL & 333' FWL (NW/NW) SEC. 36, T3S, R3W  At top prod. interval reported below 998' FNL & 983' FWL (NW/NW) SEC. 26, T3S, R3W  At total depth <b>666' FSL &amp; 903' FWL (SW/SW) SEC. 36, T3S, R3W</b> <b>BHL by DOGM HSM</b>								<b>9. AFI Well No.</b> 43-013-51194	
<b>10. Field and Pool or Exploratory</b> WILDCAT								<b>11. Sec., T., R., M., on Block and Survey or Area</b> SEC. 36, T3S, R3W	
<b>12. County or Parish</b> DUCHESENE								<b>13. State</b> UT	
<b>14. Date Spudded</b> 03/08/2012		<b>15. Date T.D. Reached</b> 06/23/2012		<b>16. Date Completed</b> 09/12/2012 <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod.		<b>17. Elevations (DF, RKB, RT, GL)*</b> 5296' GL 5314' KB			
<b>18. Total Depth:</b> MD 12610' TVD 8002'		<b>19. Plug Back T.D.:</b> MD 12511' TVD 8003		<b>20. Depth Bridge Plug Set:</b> MD TVD					
<b>21. Type Electric &amp; Other Mechanical Logs Run (Submit copy of each)</b> DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND						<b>22. Was well cored?</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) <b>Was DST run?</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) <b>Directional Survey?</b> <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit copy)			
<b>23. Casing and Liner Record (Report all strings set in well)</b>									
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"	9-5/8" J-55	36#	0	2523'		476 PREMLT II			
						177 PREMLT II			
8-3/4"	7" P-110	26#	0	8744'		300 PREMLT II		62'	
						550 50/50 POZ			
6-1/8"	4-1/2" P-110	13.5#	7506'	12606'		350 ELSTFOAM			
						50 ELASTISL			
<b>24. Tubing Record</b>									
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 @ 7475'	Hornet @ 7463'							
<b>25. Producing Intervals</b>									
Formation	Top	Bottom	Perforation Record		Size	No. Holes	Perf. Status		
A) Green River <i>wasatch</i>	8830' MD	12460' MD	8830-12460' MD		0.38"	513			
B)									
C)									
D)									
<b>27. Acid, Fracture, Treatment, Cement Squeeze, etc.</b>									
Depth Interval		Amount and Type of Material							
8830-12460' MD		Frac w/ 829390#s 30/50 white sand and 115192#s 100 mesh; 60339 bbls Lightning 17 fluid; 20 stages.							
<b>28. Production - Interval A</b>									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
8/3/12	9/22/12	24	➔	234	477	67			GAS LIFT SYSTEM
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➔					PRODUCING	
<b>28a. Production - Interval B</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	
			➔						

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

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## 28b. Production - Interval C

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

## 28c. Production - Interval D

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

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

SOLD AND 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
				GARDEN GULCH DOUGLAS CREEK	5751' 6852'
				BI-CARBONATE B LIMESTONE	7123' 7369'
				CASTLE PEAK BASAL CARBONATE	7771' 8440'
				wasatch	8249

## 32. Additional remarks (include plugging procedure):

The above well began flowing during the completion process, and continued until the well was shut in for installation of the gas lift system on 09/11/2012. The well was returned to production on 9/12/2012, and test data was taken ten (10) days following, on 9/22/2012.

## 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: Daily Completion Report

## 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*) Jennifer Peatross Title Production Technician  
 Signature [Signature] Date 10/25/2012

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 3)

(Form 3160-4, page 2)

**NEWFIELD**



## **NEWFIELD EXPLORATION CO.**

**DUCHESNE COUNTY, UT**

**LAKE BOREHAM 4-36-3-3WH**

**LAKE BOREHAM 4-36-3-3WH**

**LAKE BOREHAM 4-36-3-3WH CURVE/LAT**

**Survey: Survey #1**

## **Standard Survey Report**

**19 June, 2012**



**Weatherford®**



# Weatherford International Ltd.

## Survey Report



<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>Local Co-ordinate Reference:</b>	Well LAKE BOREHAM 4-36-3-WH
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>TVD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Site:</b>	LAKE BOREHAM 4-36-3-WH	<b>MD Reference:</b>	WELL @ 5313.60ft (PIONEER 62)
<b>Well:</b>	LAKE BOREHAM 4-36-3-WH	<b>North Reference:</b>	True
<b>Wellbore:</b>	LAKE BOREHAM 4-36-3-WH CURVE/LAT	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	LAKE BOREHAM 4-36-3-WH CURVE/LAT	<b>Database:</b>	EDM 2003.21 Single User Db

<b>Project</b>	DUCHESNE COUNTY, UT		
<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>	LAKE BOREHAM 4-36-3-WH			
<b>Site Position:</b>		<b>Northing:</b>	7,238,916.05 ft	<b>Latitude:</b> 40° 11' 6.800 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,009,346.72 ft	<b>Longitude:</b> 110° 10' 45.940 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b> 0.85 °

<b>Well</b>	LAKE BOREHAM 4-36-3-WH			
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	7,238,916.05 ft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,009,346.72 ft
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b> 5,295.60 ft

<b>Wellbore</b>	LAKE BOREHAM 4-36-3-WH CURVE/LAT				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2011	5/29/2012	11.30	65.84	52,180

<b>Design</b>	LAKE BOREHAM 4-36-3-WH CURVE/LAT			
<b>Audit Notes:</b>				
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b> 0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	175.84

<b>Survey Program</b>	Date 6/19/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
81.00	12,495.00	Survey #1 (LAKE BOREHAM 4-36-3-WH	MWD	MWD - Standard

<b>Survey</b>									
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.00	0.35	113.54	81.00	-0.10	0.23	0.12	0.43	0.43	0.00
169.00	0.30	89.22	169.00	-0.20	0.70	0.25	0.17	-0.06	-27.64
261.00	0.47	116.64	261.00	-0.37	1.28	0.46	0.27	0.18	29.80
353.00	0.40	140.35	352.99	-0.79	1.82	0.92	0.21	-0.08	25.77
460.00	0.76	149.44	459.99	-1.68	2.42	1.86	0.35	0.34	8.50
584.00	0.98	157.15	583.97	-3.37	3.25	3.60	0.20	0.18	6.22
709.00	1.39	160.27	708.95	-5.78	4.18	6.07	0.33	0.33	2.50
832.00	1.74	156.28	831.90	-8.90	5.43	9.27	0.30	0.28	-3.24
956.00	1.98	160.04	955.84	-12.63	6.92	13.10	0.22	0.19	3.03
1,080.00	1.79	155.17	1,079.77	-16.40	8.47	16.97	0.20	-0.15	-3.93
1,204.00	2.06	156.47	1,203.70	-20.20	10.17	20.89	0.22	0.22	1.05
1,327.00	1.61	161.53	1,326.63	-23.87	11.60	24.65	0.39	-0.37	4.11



Weatherford International Ltd.  
Survey Report



**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
**Site:** LAKE BOREHAM 4-36-3-3WH  
**Well:** LAKE BOREHAM 4-36-3-3WH  
**Wellbore:** LAKE BOREHAM 4-36-3-3WH CURVE/LAT  
**Design:** LAKE BOREHAM 4-36-3-3WH CURVE/LAT

**Local Co-ordinate Reference:** Well LAKE BOREHAM 4-36-3-3WH  
**TVD Reference:** WELL @ 5313.60ft (PIONEER 62)  
**MD Reference:** WELL @ 5313.60ft (PIONEER 62)  
**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)
1,453.00	1.50	160.56	1,452.59	-27.10	12.71	27.96	0.09	-0.09	-0.77
1,578.00	1.34	165.48	1,577.55	-30.06	13.62	30.97	0.16	-0.13	3.94
1,701.00	1.21	170.77	1,700.52	-32.74	14.19	33.68	0.14	-0.11	4.30
1,826.00	1.26	173.92	1,825.49	-35.41	14.55	36.37	0.07	0.04	2.52
1,951.00	1.14	174.15	1,950.46	-38.01	14.82	38.98	0.10	-0.10	0.18
2,076.00	1.12	176.96	2,075.44	-40.47	15.01	41.45	0.05	-0.02	2.25
2,200.00	1.22	177.01	2,199.41	-42.99	15.14	43.98	0.08	0.08	0.04
2,324.00	1.04	169.86	2,323.39	-45.42	15.41	46.42	0.18	-0.15	-5.77
2,434.00	1.19	172.21	2,433.37	-47.53	15.74	48.55	0.14	0.14	2.14
2,525.00	1.13	167.31	2,524.35	-49.35	16.07	50.38	0.13	-0.07	-5.38
2,556.00	1.36	172.88	2,555.34	-50.01	16.18	51.05	0.84	0.74	17.97
2,619.00	1.29	167.01	2,618.33	-51.44	16.43	52.50	0.24	-0.11	-9.32
2,681.00	1.38	177.40	2,680.31	-52.87	16.62	53.94	0.42	0.15	16.76
2,742.00	1.41	179.23	2,741.29	-54.35	16.67	55.42	0.09	0.05	3.00
2,804.00	1.48	175.71	2,803.27	-55.91	16.74	56.98	0.18	0.11	-5.68
2,867.00	1.62	176.40	2,866.25	-57.61	16.85	58.69	0.22	0.22	1.10
2,929.00	1.05	184.68	2,928.23	-59.05	16.86	60.12	0.97	-0.92	13.35
2,992.00	0.69	184.93	2,991.22	-60.01	16.78	61.07	0.57	-0.57	0.40
3,118.00	1.17	181.57	3,117.21	-62.05	16.68	63.10	0.38	0.38	-2.67
3,241.00	2.13	179.88	3,240.15	-65.59	16.65	66.63	0.78	0.78	-1.37
3,365.00	0.51	263.92	3,364.12	-67.95	16.11	68.94	1.72	-1.31	67.77
3,489.00	0.79	253.86	3,488.11	-68.25	14.74	69.14	0.24	0.23	-8.11
3,614.00	1.05	234.97	3,613.10	-69.15	12.97	69.91	0.32	0.21	-15.11
3,738.00	1.24	230.26	3,737.07	-70.66	11.01	71.27	0.17	0.15	-3.80
3,864.00	1.39	222.94	3,863.04	-72.65	8.92	73.10	0.18	0.12	-5.81
3,988.00	1.83	212.67	3,986.99	-75.42	6.83	75.71	0.42	0.35	-8.28
4,111.00	0.20	168.21	4,109.97	-77.28	5.81	77.50	1.38	-1.33	-36.15
4,236.00	0.84	191.04	4,234.96	-78.39	5.68	78.60	0.53	0.51	18.26
4,361.00	1.16	187.42	4,359.94	-80.55	5.34	80.72	0.26	0.26	-2.90
4,486.00	1.41	192.87	4,484.91	-83.30	4.84	83.43	0.22	0.20	4.36
4,608.00	1.69	196.13	4,606.87	-86.49	4.00	86.55	0.24	0.23	2.67
4,735.00	0.49	329.08	4,733.85	-87.82	3.20	87.82	1.62	-0.94	104.69
4,859.00	0.47	194.80	4,857.85	-87.86	2.80	87.83	0.71	-0.02	-108.29
4,984.00	1.05	201.58	4,982.84	-89.42	2.25	89.35	0.47	0.46	5.42
5,108.00	1.64	203.27	5,106.80	-92.11	1.13	91.95	0.48	0.48	1.36
5,235.00	0.70	27.99	5,233.79	-93.09	0.77	92.90	1.84	-0.74	-138.02
5,358.00	0.22	56.60	5,356.79	-92.30	1.32	92.15	0.42	-0.39	23.26
5,484.00	0.31	160.78	5,482.79	-92.49	1.64	92.36	0.33	0.07	82.68
5,608.00	0.91	189.25	5,606.78	-93.78	1.59	93.64	0.53	0.48	22.96
5,732.00	1.61	187.48	5,730.75	-96.48	1.21	96.31	0.57	0.56	-1.43
5,856.00	1.93	250.84	5,854.70	-98.89	-0.99	98.56	1.52	0.26	51.10
5,918.00	1.14	254.85	5,916.68	-99.39	-2.58	98.94	1.29	-1.27	6.47
5,979.00	0.79	74.28	5,977.67	-99.44	-2.76	98.97	3.16	-0.57	294.15
6,104.00	1.42	91.18	6,102.65	-99.24	-0.38	98.95	0.56	0.50	13.52
6,229.00	1.44	140.12	6,227.61	-100.47	2.18	100.37	0.95	0.02	39.15
6,353.00	2.07	165.85	6,351.56	-103.84	3.72	103.84	0.80	0.51	20.75
6,478.00	1.44	217.56	6,476.51	-107.27	3.32	107.23	1.31	-0.50	41.37
6,602.00	2.14	204.33	6,600.44	-110.62	1.41	110.43	0.65	0.56	-10.67
6,726.00	0.10	52.89	6,724.42	-112.66	0.55	112.41	1.80	-1.65	-122.13
6,852.00	0.56	231.01	6,850.42	-112.98	0.16	112.70	0.52	0.37	141.37
6,977.00	1.68	216.33	6,975.39	-114.85	-1.40	114.44	0.92	0.90	-11.74
7,101.00	2.67	214.11	7,099.30	-118.70	-4.10	118.09	0.80	0.80	-1.79
7,226.00	1.53	258.30	7,224.22	-121.45	-7.37	120.59	1.52	-0.91	35.35
7,350.00	2.24	240.72	7,348.15	-122.97	-11.10	121.84	0.73	0.57	-14.18



**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
**Site:** LAKE BOREHAM 4-36-3-WH  
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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)
7,442.00	2.68	237.05	7,440.07	-125.02	-14.48	123.64	0.51	0.48	-3.99
7,472.00	2.94	237.59	7,470.03	-125.81	-15.71	124.34	0.87	0.87	1.80
7,503.00	3.06	236.10	7,500.99	-126.70	-17.07	125.13	0.46	0.39	-4.81
7,534.00	2.90	231.89	7,531.95	-127.65	-18.38	125.98	0.87	-0.52	-13.58
7,565.00	3.03	173.13	7,562.91	-128.94	-18.89	127.23	9.39	0.42	-189.55
7,596.00	5.97	140.37	7,593.82	-131.00	-17.77	129.37	12.24	9.48	-105.68
7,627.00	8.75	125.55	7,624.56	-133.61	-14.82	132.19	10.79	8.97	-47.81
7,658.00	10.85	123.13	7,655.11	-136.58	-10.46	135.46	6.90	6.77	-7.81
7,690.00	12.96	127.87	7,686.42	-140.43	-5.10	139.69	7.26	6.59	14.81
7,720.00	13.99	131.15	7,715.59	-144.88	0.28	144.52	4.27	3.43	10.93
7,752.00	17.02	130.04	7,746.43	-150.44	6.78	150.54	9.51	9.47	-3.47
7,784.00	20.92	128.63	7,776.68	-157.02	14.84	157.68	12.27	12.19	-4.41
7,815.00	25.10	126.49	7,805.21	-164.39	24.45	165.73	13.75	13.48	-6.90
7,846.00	29.09	125.38	7,832.80	-172.67	35.88	174.82	12.97	12.87	-3.58
7,877.00	33.74	124.40	7,859.25	-181.90	49.14	184.99	15.09	15.00	-3.16
7,908.00	37.51	124.80	7,884.44	-192.15	64.00	196.29	12.18	12.16	1.29
7,940.00	41.89	125.75	7,909.06	-203.96	80.68	209.28	13.82	13.69	2.97
7,971.00	44.80	127.83	7,931.60	-216.71	97.71	223.23	10.46	9.39	6.71
8,002.00	48.10	132.22	7,952.96	-231.17	114.89	238.90	14.78	10.65	14.16
8,033.00	50.65	132.30	7,973.15	-246.99	132.30	255.94	8.23	8.23	0.26
8,064.00	54.65	131.64	7,991.95	-263.46	150.62	273.70	13.01	12.90	-2.13
8,095.00	58.60	130.57	8,009.00	-280.48	170.12	292.08	13.06	12.74	-3.45
8,126.00	62.53	129.59	8,024.23	-297.85	190.78	310.91	12.97	12.68	-3.16
8,158.00	63.94	129.20	8,038.64	-315.98	212.86	330.60	4.54	4.41	-1.22
8,189.00	65.93	128.33	8,051.78	-333.56	234.76	349.72	6.90	6.42	-2.81
8,220.00	68.14	128.77	8,063.87	-351.35	257.08	369.08	7.25	7.13	1.42
8,251.00	70.38	129.38	8,074.85	-369.63	279.58	388.94	7.46	7.23	1.97
8,282.00	71.64	129.94	8,084.93	-388.33	302.15	409.24	4.41	4.06	1.81
8,313.00	72.24	130.58	8,094.55	-407.38	324.64	429.87	2.76	1.94	2.06
8,344.00	72.32	131.60	8,103.98	-426.79	346.89	450.84	3.14	0.26	3.29
8,376.00	73.63	132.60	8,113.35	-447.30	369.59	472.95	5.07	4.09	3.13
8,407.00	75.07	133.85	8,121.71	-467.74	391.34	494.92	6.05	4.65	4.03
8,438.00	75.93	135.62	8,129.47	-488.87	412.66	517.53	6.18	2.77	5.71
8,469.00	75.80	135.91	8,137.05	-510.41	433.63	540.54	1.00	-0.42	0.94
<b>LANDING POINT LAKE BOREHAM 4-36-3-WH</b>									
8,469.26	75.81	135.91	8,137.11	-510.59	433.81	540.73	2.10	2.10	0.16
8,500.00	76.45	135.96	8,144.48	-532.03	454.56	563.62	2.10	2.10	0.16
8,531.00	78.24	137.15	8,151.27	-553.99	475.36	587.03	6.88	5.77	3.84
8,562.00	80.38	138.90	8,157.02	-576.64	495.73	611.10	8.86	6.90	5.65
8,593.00	82.21	140.55	8,161.71	-600.01	515.54	635.85	7.91	5.90	5.32
8,624.00	83.83	142.53	8,165.48	-624.11	534.67	661.27	8.22	5.23	6.39
8,655.00	85.03	143.77	8,168.49	-648.80	553.17	687.24	5.55	3.87	4.00
8,690.00	85.52	144.58	8,171.37	-677.08	573.59	716.93	2.70	1.40	2.31
8,767.00	85.43	146.78	8,177.45	-740.47	616.87	783.29	2.85	-0.12	2.86
8,798.00	85.62	148.22	8,179.87	-766.53	633.47	810.49	4.67	0.61	4.65
8,830.00	86.17	150.69	8,182.16	-794.02	649.69	839.08	7.89	1.72	7.72
8,862.00	87.96	153.27	8,183.80	-822.23	664.70	868.31	9.80	5.59	8.06
8,893.00	90.18	156.94	8,184.30	-850.34	677.75	897.29	13.83	7.16	11.84
8,925.00	91.11	158.67	8,183.94	-879.96	689.83	927.71	6.14	2.91	5.41
8,956.00	91.42	158.66	8,183.26	-908.83	701.11	957.33	1.00	1.00	-0.03
8,988.00	91.24	160.57	8,182.51	-938.82	712.25	988.04	5.99	-0.56	5.97
9,019.00	92.04	161.60	8,181.63	-968.13	722.30	1,018.01	4.21	2.58	3.32
9,051.00	91.97	162.91	8,180.51	-998.59	732.04	1,049.09	4.10	-0.22	4.09
9,082.00	91.85	164.29	8,179.47	-1,028.31	740.79	1,079.37	4.47	-0.39	4.45



**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
**Site:** LAKE BOREHAM 4-36-3-WH  
**Well:** LAKE BOREHAM 4-36-3-WH  
**Wellbore:** LAKE BOREHAM 4-36-3-WH CURVE/LAT  
**Design:** LAKE BOREHAM 4-36-3-WH CURVE/LAT

**Local Co-ordinate Reference:** Well LAKE BOREHAM 4-36-3-WH  
**TVD Reference:** WELL @ 5313.60ft (PIONEER 62)  
**MD Reference:** WELL @ 5313.60ft (PIONEER 62)  
**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)
9,114.00	92.28	163.71	8,178.32	-1,059.05	749.61	1,110.67	2.26	1.34	-1.81
9,146.00	92.77	165.12	8,176.91	-1,089.85	758.19	1,142.00	4.66	1.53	4.41
9,177.00	92.65	166.73	8,175.44	-1,119.88	765.72	1,172.51	5.20	-0.39	5.19
9,209.00	92.82	168.22	8,173.92	-1,151.08	772.66	1,204.13	4.68	0.53	4.66
9,241.00	92.40	169.83	8,172.46	-1,182.46	778.74	1,235.87	5.19	-1.31	5.03
9,272.00	92.71	172.31	8,171.08	-1,213.05	783.55	1,266.73	8.05	1.00	8.00
9,304.00	92.90	174.55	8,169.51	-1,244.80	787.21	1,298.66	7.02	0.59	7.00
9,336.00	92.28	176.02	8,168.06	-1,276.66	789.83	1,330.62	4.98	-1.94	4.59
9,399.00	92.78	176.79	8,165.28	-1,339.48	793.78	1,393.56	1.46	0.79	1.22
9,462.00	93.08	178.07	8,162.06	-1,402.33	796.60	1,456.45	2.08	0.48	2.03
9,526.00	92.41	176.52	8,159.00	-1,466.18	799.62	1,520.36	2.64	-1.05	-2.42
9,589.00	93.15	177.04	8,155.94	-1,529.01	803.15	1,583.27	1.44	1.17	0.83
9,652.00	93.15	180.94	8,152.48	-1,591.89	804.26	1,646.07	6.18	0.00	6.19
9,716.00	93.15	180.09	8,148.96	-1,655.79	803.69	1,709.76	1.33	0.00	-1.33
9,779.00	93.14	177.51	8,145.51	-1,718.68	805.00	1,772.57	4.09	-0.02	-4.10
9,842.00	94.07	180.69	8,141.54	-1,781.54	805.99	1,835.34	5.25	1.48	5.05
9,905.00	92.10	180.80	8,138.15	-1,844.44	805.17	1,898.01	3.13	-3.13	0.17
9,969.00	91.48	177.72	8,136.15	-1,908.39	806.00	1,961.86	4.91	-0.97	-4.81
10,032.00	93.95	181.90	8,133.17	-1,971.30	806.21	2,024.62	7.70	3.92	6.63
10,095.00	94.32	183.57	8,128.63	-2,034.06	803.21	2,087.00	2.71	0.59	2.65
10,159.00	92.84	183.13	8,124.63	-2,097.83	799.48	2,150.32	2.41	-2.31	-0.69
10,222.00	93.71	183.71	8,121.03	-2,160.61	795.73	2,212.67	1.66	1.38	0.92
10,284.00	91.79	182.42	8,118.06	-2,222.45	792.42	2,274.10	3.73	-3.10	-2.08
10,348.00	93.33	183.44	8,115.20	-2,286.30	789.15	2,337.55	2.89	2.41	1.59
10,412.00	93.21	185.48	8,111.55	-2,350.00	784.18	2,400.72	3.19	-0.19	3.19
10,474.00	92.22	185.25	8,108.61	-2,411.66	778.39	2,461.79	1.64	-1.60	-0.37
10,537.00	93.27	187.24	8,105.59	-2,474.21	771.55	2,523.68	3.57	1.67	3.16
10,600.00	93.09	187.58	8,102.10	-2,536.58	763.44	2,585.31	0.61	-0.29	0.54
10,664.00	93.09	186.07	8,098.65	-2,600.04	755.84	2,648.04	2.36	0.00	-2.36
10,727.00	92.04	185.33	8,095.83	-2,662.66	749.59	2,710.04	2.04	-1.67	-1.17
10,790.00	92.53	186.80	8,093.32	-2,725.26	742.94	2,771.99	2.46	0.78	2.33
10,853.00	94.05	188.32	8,089.70	-2,787.60	734.67	2,833.57	3.41	2.41	2.41
10,917.00	92.78	186.84	8,085.89	-2,850.93	726.24	2,896.12	3.04	-1.98	-2.31
10,981.00	93.09	186.39	8,082.61	-2,914.42	718.88	2,958.91	0.85	0.48	-0.70
11,044.00	93.52	187.14	8,078.98	-2,976.87	711.47	3,020.66	1.37	0.68	1.19
11,107.00	93.33	187.78	8,075.21	-3,039.23	703.30	3,082.26	1.06	-0.30	1.02
11,170.00	93.08	186.95	8,071.69	-3,101.61	695.24	3,143.89	1.37	-0.40	-1.32
11,233.00	92.96	185.44	8,068.37	-3,164.15	688.45	3,205.78	2.40	-0.19	-2.40
11,297.00	92.90	184.39	8,065.10	-3,227.83	682.97	3,268.89	1.64	-0.09	-1.64
11,360.00	93.08	184.49	8,061.81	-3,290.56	678.10	3,331.10	0.33	0.29	0.16
11,423.00	93.15	185.62	8,058.39	-3,353.22	672.56	3,393.19	1.79	0.11	1.79
11,486.00	93.08	186.44	8,054.97	-3,415.78	665.95	3,455.11	1.30	-0.11	1.30
11,550.00	92.65	186.78	8,051.77	-3,479.27	658.60	3,517.90	0.86	-0.67	0.53
11,613.00	93.21	186.61	8,048.55	-3,541.76	651.26	3,579.69	0.93	0.89	-0.27
11,676.00	93.15	186.65	8,045.05	-3,604.24	644.00	3,641.48	0.11	-0.10	0.06
11,739.00	93.03	186.90	8,041.66	-3,666.71	636.58	3,703.25	0.44	-0.19	0.40
11,803.00	94.25	186.77	8,037.59	-3,730.13	628.98	3,765.94	1.92	1.91	-0.20
11,866.00	92.84	186.12	8,033.70	-3,792.61	621.92	3,827.75	2.46	-2.24	-1.03
11,930.00	93.71	187.27	8,030.04	-3,856.07	614.47	3,890.50	2.25	1.36	1.80
11,993.00	94.02	187.37	8,025.80	-3,918.41	606.46	3,952.10	0.52	0.49	0.16
12,056.00	92.90	186.49	8,021.99	-3,980.84	598.87	4,013.80	2.26	-1.78	-1.40
12,120.00	92.96	185.46	8,018.72	-4,044.40	592.22	4,076.72	1.61	0.09	-1.61
12,183.00	92.35	184.65	8,015.80	-4,107.09	586.67	4,138.84	1.61	-0.97	-1.29
12,245.00	92.78	184.09	8,013.03	-4,168.85	581.96	4,200.09	1.14	0.69	-0.90





Weatherford International Ltd.  
Survey Report



**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
**Site:** LAKE BOREHAM 4-36-3-3WH  
**Well:** LAKE BOREHAM 4-36-3-3WH  
**Wellbore:** LAKE BOREHAM 4-36-3-3WH CURVE/LAT  
**Design:** LAKE BOREHAM 4-36-3-3WH CURVE/LAT

**Local Co-ordinate Reference:** Well LAKE BOREHAM 4-36-3-3WH  
**TVD Reference:** WELL @ 5313.60ft (PIONEER 62)  
**MD Reference:** WELL @ 5313.60ft (PIONEER 62)  
**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)
12,309.00	92.12	182.68	8,010.29	-4,232.68	578.18	4,263.48	2.43	-1.03	-2.20
12,372.00	92.59	183.21	8,007.71	-4,295.54	574.95	4,325.94	1.12	0.75	0.84
LAST SVY									
12,433.00	91.91	181.99	8,005.31	-4,356.43	572.18	4,386.47	2.29	-1.11	-2.00
PROJ SVY - PBHL LAKE BOREHAM 4-36-3-3WH									
12,495.00	91.91	181.99	8,003.24	-4,418.36	570.03	4,448.08	0.00	0.00	0.00

**Survey Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
12,433.00	8,005.31	-4,356.43	572.18	LAST SVY
12,495.00	8,003.24	-4,418.36	570.03	PROJ SVY

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



Project: DUCHESNE COUNTY, UT  
Site: LAKE BOREHAM 4-36-3-3WH  
Well: LAKE BOREHAM 4-36-3-3WH  
Wellbore: LAKE BOREHAM 4-36-3-3WH CURVE/LAT  
Design: LAKE BOREHAM 4-36-3-3WH CURVE/LAT  
Latitude: 40° 11' 6.800 N  
Longitude: 110° 10' 45.940 W  
GL: 5295.60  
KB: WELL @ 5313.60ft (PIONEER 62)



#### WELLBORE TARGET DETAILS (LAT/LONG)

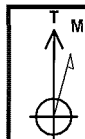
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL LAKE BOREHAM 4-36-3-3WH	7994.00	-4418.17	321.54	40° 10' 23.136 N	110° 10' 41.798 W	Point

#### WELL DETAILS: LAKE BOREHAM 4-36-3-3WH

+N/-S	+E/-W	Northing	Ground Level: Easting	5295.60 Latitude	Longitude	Slot
0.00	0.00	7238916.05	2009346.72	40° 11' 6.800 N	110° 10' 45.940 W	

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
7442.00	2.68	237.05	7440.07	-125.03	-14.49	0.00	0.00	123.65	Start 135.30 hold at 7442.00 MD
7577.30	2.68	237.05	7575.22	-128.48	-19.79	0.00	0.00	126.70	Start DLS 11.00 TFO 244.44
7996.45	45.00	123.89	7993.38	-221.50	101.63	11.00	244.44	228.29	Start DLS 11.00 TFO 39.33
8492.54	92.05	155.00	8133.75	-570.77	372.82	11.00	39.33	596.32	Start DLS 3.00 TFO 89.46
9472.95	92.05	184.43	8097.89	-1524.22	545.82	3.00	89.46	1559.81	Start 2904.49 hold at 9472.95 MD
12377.44	92.05	184.43	7994.00	-4418.17	321.54	0.00	0.00	4429.85	TD at 12377.44

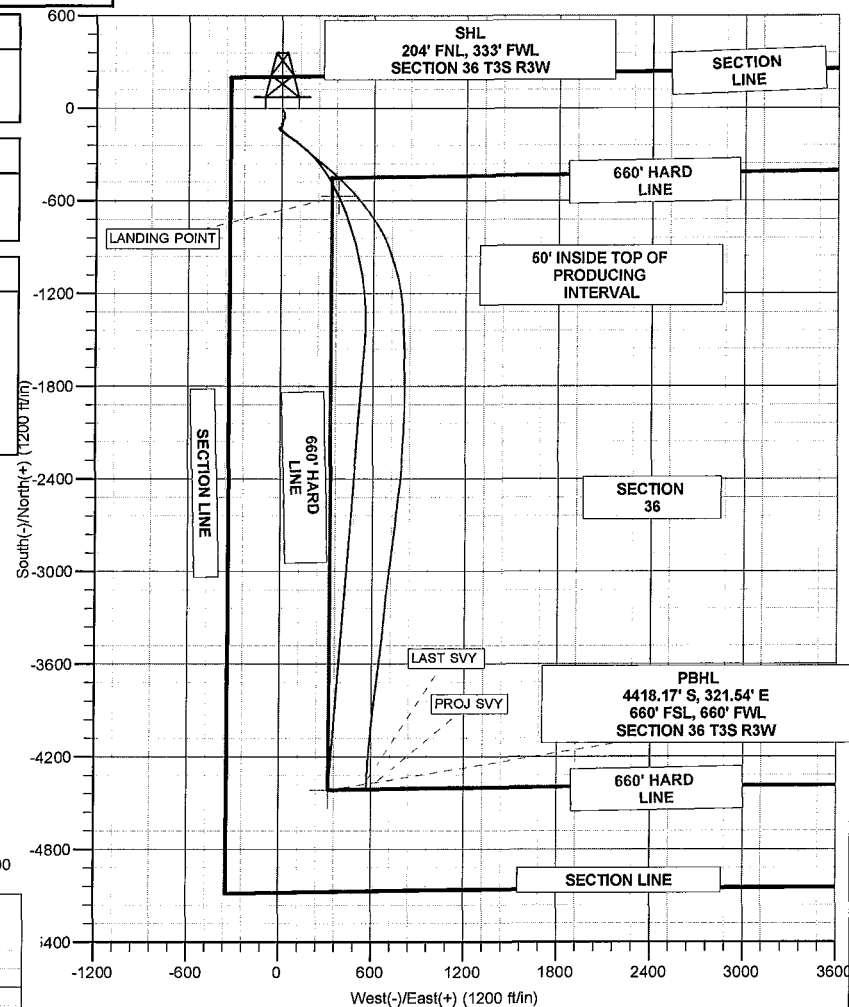
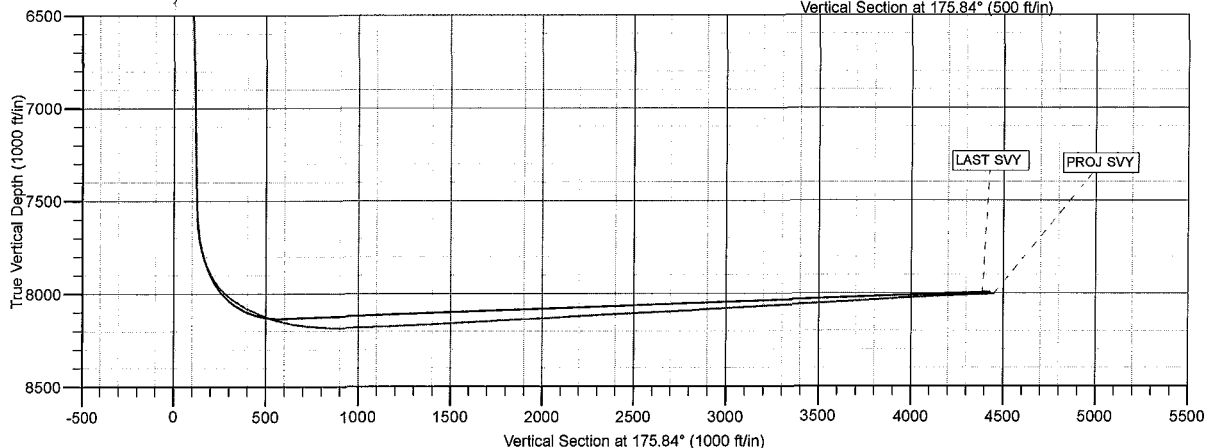
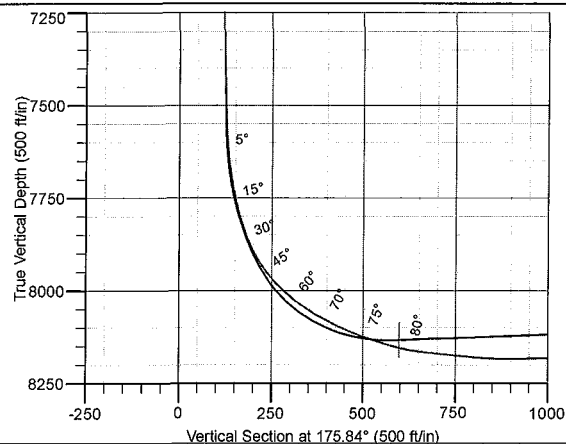


Azimuths to True North  
Magnetic North: 11.30°

Magnetic Field  
Strength: 52179.8snT  
Dip Angle: 65.84°  
Date: 5/29/2012  
Model: BGGM2011

#### CASING DETAILS

TVD	MD	Name	Size
8133.75	8492.54	7"	7



Survey: Survey #1 (LAKE BOREHAM 4-36-3-3WH/LAKE BOREHAM 4-36-3-3WH CURVE/LAT)

Created By: TRACY WILLIAMS Date: 7:42, June 19 2012

## Daily Activity Report

Format For Sundry

**LAKE BOREHAM 4-36-3-3WH**

**7/1/2012 To 11/30/2012**

**7/1/2012 Day: 6**

**Completion**

Rigless on 7/1/2012 - TIH with 2 3/8" 5.95# P-110 PH-6 tbg to make C/O run - Pressure test rig assist snub unit. Pressured bottom pipe rams to 5000 psig, leaked off. Bleed off pressure. Repair hydraulic valve on equalizer line. Pressure bottom pipe rams to 250 psig for 5 minutes, OK. Pressure to 5000 psig for 10 minutes, OK. Bleed off pressure. Pressure test middle pipe rams to 250 psig for 5 minutes, OK. Pressure to 5000 psig for 10 minutes, OK. Bleed off pressure. Pressure test top pipe rams to 250 psig for 5 minutes, OK. Pressure to 5000 psig for 10 minutes, OK. Bleed off pressure. Pressure test annular preventer to 250 psig for 5 minutes, OK. Pressure to 3000 psig for 10 minutes, OK. Bleed off pressure. - PU 3 3/4" bear claw mill, 3.13" OD 2 3/8" Reg box X 2 3/8" PAC pin x-over, 2.88" OD 2 3/8" PAC box X 2 3/8" box x-over, 3.50" Dual Piston Spiral Abrasive Perforator w/ 3 ports/ft at 120 deg. phasing, 2.88" OD 2 3/8" PAC X 2 3/8" PAC hydraulic disconnect, 3.13" OD 2 3/8" PAC x 2 3/8" PH-6 x-over, 2 3/8" X 4' pup jt, and 2.91" OD X 1.71" ID 'RN' nipple (No-Go 1.56" ID). - PU 1 jt 2 3/8" 5.95# P-110 PH-6 tbg, 2.91" OD X 1.71" ID 'R' profile nipple, 241 jts 2 3/8" 5.95# P-110 PH-6 tbg, 2.91" OD X 1.71" ID 'R' profile nipple (7,613') and 126 jts 2 3/8" 5.95# P-110 PH-6 tbg. Depth @ time of report 11,576'. Broke circulation @ 7,300', 10,098' and again @ 11,576'. Continuing in hole with work string. - JSA and safety meeting.

**Daily Cost:** \$0

**Cumulative Cost:** \$134,895

**7/2/2012 Day: 7**

**Completion**

Rigless on 7/2/2012 - Abrasive perforated toe frp 12,460'-57', Completed C/O & performed injection test. POOH with work string. - Circulate 2 WBV at 5500 psig and 2.1 bpm. - RD Baker-Hughes hard lines. PU power swivel on jt #397. SICP 1550 psig. Establish circulation at 1.8 bpm and 3800 psig holding 1550 psig back pressure on annulus. Rotate in hole to 12479', no sand encountered. Make connection with jt #398. Circulate and rotate to 12506'. - Circulate 2.5 WBV with water treated with Claycare and Alpha 425 biocide @ 1 gpt. - 9:10 p.m. - Completed pumping 2.5 WBV with water treated with Claycare and Alpha 425 biocide @ 1 gpt. ISIP 3,844 psi. Lay down 5 jts 2 3/8" PH-6, 393 jts in hole (12,385') placing the work string & BHA 2 jts above the top perforation @ 12,457'. 9:55 p.m. - Held PJSM to discuss testing pump iron & performing injection test. 10:15 p.m. - Tested Pump iron 250 psi low test X's 5 min & 9,000 psi high test X's 10 min. 10:31 p.m. - Good test. Bled pressure to 1,500 psi. Open well 1,533 psi on 4 1/2" csg. Brought pump on line & performed injection test as follows, 2 bpm - 4,000 psi, pumped 10 bbls, ending pressure @ 2 bpm was 3,900 psi 3 bpm - 4,300 psi, pumped 10 bbls, ending pressure @ 3 bpm was 4,233 psi 5 bpm - 5,176 psi, pumped 10 bbls, ending pressure @ 5 bpm was 5,150 psi 6 bpm - 5,700 psi, pumped 20 bbls ISIP - 5,640 psi, 5 min - 3,628 psi, 10 min - 3,536 psi, 15 min - 3,506. Pumped total of 50 bbls during injection test. SI well. - Held PJSM. R/D Baker Hughes fluid pump & POOH laying down 2 3/8", P-110, PH-6 work string. - - - jt# 386 in hole (12,183') tagged obstruction. P/U wt 70K, Normal S/O wt 52K, now S/O wt down to 30K. Made 4 attempts to work past obstruction with no progress. P/U 2.5 swivel. Baker Hughes fluid pump arrived on location @ 1:40 a.m. Held S/M and R/U pump. - Starting report with jt# 368 in hole (11,576') R/U TIW valve, TTS screen & kelly hose. Broke circulation @ 2 bpm, circ pressure 1,200 psi. P/U wt 70K, S/O wt 50K. Continue to TIH with 2 3/8" 5.95# P-110 PH-6 tbg. - Pump 12 bbl water, pressured to 2400 psi. SD pump. Pump 1/2 bbl/min at 900 psig for 5 minutes, did not see sliding sleeve in perforator shift. Increase rate to 1.5 bpm at 4000 psi, determined sleeve was open. Pump 78 bbl with 0.65 ppg 100 mesh sand at 2 bpm and 5400 psig while holding 2000 psig back

pressure on well bore. Noted 300 psig pressure drop on annulus and 200 psig drop at pump. Continued holding 2000 psig on annulus. Pu to spot perforator at 12459'. Pump 36 bbl with 0.65 ppg 100 mesh sand at 2 bpm and 5400 psig while holding 2000 psig back pressure on well bore. PU to spot perforator at 12458'. Pump 36 bbl with 0.65 ppg 100 mesh sand at 2 bpm and 5400 psig while holding 2000 psig back pressure on well bore. Flush tbg with 42 bbl 8.33# wtr. - LD power swivel and jt #397. RU Baker Hughes pump truck with TTS screen. Drop 0.562" ball. JSA and safety meeting. Pressure test lines to 6000 psig. PU to place perforator at 12460'. - Decision made to pump 50 bbl High visc sweep followed by 2 WBV 240 bbls clean fluid @ 4 bpm while reciprocating pipe & rotating. Pump pressure 2700 psig at 4 bpm. Clean water at returns when finished circulating. - 0 - 2:40 a.m. √ Swivel R/U completed. P/U jt# 387. Continue in hole with work string. Bring pump on line @ 2 bpm, circulating pressure 1,300 psi. P/U wt 66K, S/O wt 50K, free spinning torque 1,100#, drilling torque 1,500# 4:00 a.m. - P/U jt# 392 (12,300∓) Continue in hole with work string. Pump on line @ 2 bpm, circulating pressure 1,300 psi. P/U wt 66K, S/O wt 50K, free spinning torque 1,100#, drilling torque 1,300#. 5:14 a.m. - P/U jt# 395, Bear claw Mill (12,417∓) Continue in hole with work string. Pump on line @ 2 bpm, circulating pressure 1,300 psi. P/U wt 70K, S/O wt 54K, free spinning torque 1,400#, drilling torque 1,800#. 6:30 a.m. - P/U jt# 396, Bear Claw Mill @ (12,448∓) Continue in hole with work string. Pump on line @ 2 bpm, circulating pressure 1,300 psi. P/U wt 70K, S/O wt 56K, free spinning torque 1,400#, drilling torque 1,800#. 7:50 a.m. - P/U jt# 397, Bear Claw Mill @ (12,479∓) Continue in hole with work string. Pump rate 3 bpm, circulating pressure 1,300 psi. P/U wt 70K, S/O wt 62K, free spinning torque 1,500#, drilling torque 1,750#. 8:49 a.m. - jt# 397 is in hole the Bear Claw Mill will be @ 12,511∓ which is 6∓ above the FC. Decision made to pump 50 bbl High visc sweep followed by 2 WBV 240 bbls clean fluid @ 4 bpm while reciprocating pipe & rotating.

**Daily Cost:** \$0

**Cumulative Cost:** \$173,182

### 7/3/2012 Day: 8

### Completion

Rigless on 7/3/2012 - Completed laying down 2 3/8" PH-6 work string, R/D WOR BOP stack. R/U and test Weatherford 4 1/16" 10K Hydraulic Fracture Tree. - R/D BOP stack & R/U 10K 4 1/6" Weatherford frac tree. - POOH laying down 236 jts 2 3/8", P-110, PH-6 work string. - Crew change. JSA and safety meeting. - 10:00 SICP 1500 psig. Finish LD 162 jts 2 3/8" 5.95# P-110 PH-6 work string. SICP 0. - 6:00 p.m. - mStart testing Weatherford 4 1/16" 10K hydraulic Fracture Tree. 7:00 p.m. - Continue testing Weatherford 10K Hydraulic Frac Tree & R/D WOR. 8:00 p.m. √ Lower 10K Hydraulic Frac valve & Lower 10K Manual valves on Hydraulic Fracture Tree Testes as per procedure. R/U Cameron Lubricator onto frac tree & prepare to remove 2-way check valve. 9:00 p.m. √ Cameron 2-way check removed. R/D and release Cameron. 9:30 p.m. √ Continue with testing of valves on frac tree. 11:00 p.m. √ All testing completed as per procedure, 250 psi low test X∓s 10 min & 10,000 psi high test X∓s 10 min. R/D and released Weatherford test pump. 11:30 p.m. - SDFN

**Daily Cost:** \$0

**Cumulative Cost:** \$243,203

### 7/4/2012 Day: 9

### Completion

Rigless on 7/4/2012 - RD work over rig. - JSA and safety meeting. - RD WOR.

**Daily Cost:** \$0

**Cumulative Cost:** \$255,013

### 7/5/2012 Day: 10

### Completion

Rigless on 7/5/2012 - Perform DFIT. - 9:00 Baker Hughes on location. Spot in and RU pump

trk. Install Newfield Data Traps on wing valves at flow cross. 10:15 Test lines to 9000 psig on tbq and 4700 psig on csg. Open valves to data traps. 11:00 Pressure 7½ x 4 ½" annulus to 3261 psig. Pump into well. Establish rate at 3.75 bpm and 5200 psig. Pumped ttl 21 bbl wtr. ISIP 4924 psig. 5 min SIP 3460 psig. 10 min SIP 3392 psig. 15 min SIP 3342 psig. Left valves open to data traps. Start DFIT at 11:30 AM. 11:30 RD pump trk. Secure well.

**Daily Cost:** \$0

**Cumulative Cost:** \$265,585

**7/11/2012 Day: 11**

**Completion**

Rigless on 7/11/2012 - Pressure test 4.5" casing and annulus - Hold Safety meeting with Cameron Service hand. 1215 pm: Pressure test void on adapter flange to 8,200 psi. Tested good with no leakoff on 1hr test. 4.5" SICP - 1,918 psi, 4.5" annulus 1,850 psi. MIRU Cameron pressure testing unit and pressure up on annulus to 4,000 psi with 4.5" Sicc - 2,030 psi. Monitored pressures 10 min - 4.5" Sicc - 2,022 psi, 4.5" annulus 4,000 psi. 40 min - 4.5" Sicc - 2,006 psi, 4.5 annulus 4,000 psi. Bled pressure down on annulus and left 3,250 psi. on it with 4.5" Sicc - 1,990 psi. Cost entered today - Code 881120 - Western Water Solutions \$350.00 #13391 RNI \$931.35 #new070912C ITL \$1,572.50 #9683098 ITL \$611.00 #9686549

**Daily Cost:** \$0

**Cumulative Cost:** \$271,164

**7/12/2012 Day: 12**

**Completion**

Rigless on 7/12/2012 - Run RCBL - 4.5" SICp - 1,975 psi. 4.5" annulus 2,650 psi. Last reading yesterday 4.5" SICP - 1,990 psi. 4.5" annulus 3,250psi. Hold PJSM. MIRU Perforators WL Unit and HES Pump trucks (2) to pump down RCBL and Weatherford test unit recording pressure on Annulus. - Pressure test HES lines and 10K lubricator to 9,500 psi. Annulus pressure at beginning of pumpdown bled down to 500 psi. and recorded during pumpdown. Pump RCBL tools down at 3.6 bpm with max pressure of 6,600 psi. Pumped tools down to 12,460' before tools stopped. Annulus pressure 0 psi. Got pick up at 12,420', and started logging out of hole. 1700 pm: Out of hole with tools. Inspected on surface and found 10½" piece of bow spring gone and rubber off of swab cup used for pump down gone also. Pressure on annulus continuing to increase presently @ 400 psi. 4.5" SICP - 3,600 psi. Used total of 227 bbl for pump down. - RD Hes pump trucks and Perforators WL Unit and released.SDFN

**Daily Cost:** \$0

**Cumulative Cost:** \$289,332

**7/13/2012 Day: 13**

**Completion**

Rigless on 7/13/2012 - Pressure test - Pressure reading 4.5" SICP - 2,860 psi. Annulus - 1,000 psi. Hold PJSM. Rig up J&A flowiron. 1215 pm : Pressure test 250 psi low and 8,500 psi high. Secured well and shut down.

**Daily Cost:** \$0

**Cumulative Cost:** \$322,642

**7/20/2012 Day: 14**

**Completion**

Rigless on 7/20/2012 - MIRU Baker frac equipment and Pure Energy wireline, - MI & RU Equipment for 20 stage Hydraulic Fracture; - Continue to MI & RU equipment for 20 stage hydraulic fracture, Pressure testing pump lines at present, Preparing to start frac stage #1.

**Daily Cost:** \$0



**Cumulative Cost:** \$444,148

**7/21/2012 Day: 15**

**Completion**

Rigless on 7/21/2012 - continue hydraulic frac of 20 stages - Pressure test lubricator to 9,500 Psi, Started in hole with plug and guns, to perforate stage #2, - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH. Pump down with max pump rate of 9.1 bpm 5,071 psi, Gave pump operator 5 mins heads up and he shut down pump, tools @ 11,455', Brought pump back on line and was able to continue to pump tools down passed setting depth, Pulled up to setting depth, Try to set plug with no indications of the tool firing, called in and reported failure and POH with tools, all tools recovered, No cause for failure with first look at tools, Replacing complete tool string and will rerun pump down for stage #4 perfs. - Could'nt get down to set plug and Perf. Stage #2, ( Pressured Out) Came up and set plug and Perf. Stage #3, - OOH with stage #3 wireline, Plug appears to have set at 12,198' Perf. Interval 12,111.5'-12,110', - 12,106.5'-12,105', - 12,101.5'- 12,100' 3spf @ 60 deg. Phasing @ 16 gram charges @ 27 holes, (All Guns Fired) laid tools down and dropped ball (Have not opened well up at this time) Dropped ball and noticed that mandrell in setting tool had came off, Retrieved ball off of top master valve, and called field Supt. Mandrell OD 3-3/8" ID 2-5/8" @ Fishing Neck O.D. 1.61 Overall length of Mandrell is 7.5 inches long, Decision was made to P/D 3.75 gauge ring and clear perfs or tag CFP at 12,198' Rigged up tools & Tested lubricator to 9500 psi, RIH with BHA on Electric Wireline as follows: 3.75 gauge ring, - 2-2.75x5' wt bars, - 2.75 quick change, - 2-2.75x7' wt bars 2"x13' long fishing neck @ Total BHA Length 26'9" long, Pumped down @ 8bpm at 3,776 psi Line tension @ 820# 95fpm Gauge ring quit moving @ 12,104' K/O Pumps and POH with wireline, installing Baker ground valve and Prep. To Hydraulic Fracture stage #3: - Pressured test lines to 10,025 Psi, Set pop off @ 9,800 Psi, (250 psi on N2 regulator, 2,000 psi on bottle), Pressured backside to 3,400 Psi, Set pop off @ 3,900 Psi, Started to pump stage #1, Open well with SICP 2,335 psi, Broke back @ 6,480 Psi at 3.4 bbls, Final injection 9,320 psi, FG .949, pumped 972 bbls, 61 bbls 15% HCl, Max pressure 9,410 Psi, Min pressure 7,065 Psi, Avg pressure 8,910 Psi, Avg rate 11 bpm, Only able to bring rate up to 16 bpm for Step rate after acid, Estimated 4 holes open, 2853 psi Perf fric, 1665 psi NWB fric (FracPro). Ran additional Acid sweep with additional rate to try to get better diversion at perfs. Saw good clean up and briefly saw 17bpm, but had to slowly reduce rate to 10bpm @ 9400psi. Decision was made to run 3rd Acid Sweep across perfs and move on to Stg 2. Good job by crew making adjustments to rate & job. Add pumps had trouble with low pump rates, caused adds to be off. Turn well over to wireline. - Pressure test lubricator to 9,500 Psi, Started in hole with plug and guns, Ran to liner top @ 7,519, Collar locator not working properly, POH with tools and check tools, Changed out collar locator and checked operation of same, - Set Pop offs & Kickouts and started Stage #3 Hydraulic Fracture, Location Safety Mtg. Prime pumps and test lines to 9,800 psi, OK. Hydraulic Fracture Wasatch stage 3 as follows: Break down 17.1 bpm @ 5,495 psi. Avg rate: 58 bpm, Avg press: 8,095 psi, Max rate: 61. bpm, Max press: 8,630 Psi. FG.0.915, ISIP: 3,860 PSI, 5 MIN: 3,705 psi, 10 MIN: 3,690 psi. 15 MIN: 3,675 psi. Total RCP 30/50 White: 5,493 lbs, Total 30/50 White: 25,504 lbs. Total 15% FE acid 1,344 gal. Fluids @ FR water 3,054 BBLS. Avg HHP: 11,567. Total load to recover 3,285 . Including 231 bbl on pump down.

**Daily Cost:** \$0

**Cumulative Cost:** \$546,326

**7/22/2012 Day: 16**

**Completion**

Rigless on 7/22/2012 - Frac stages #4 thru stage #7 - Changed out pumps, Pressured test lines to 10,025 Psi, Set pop off @ 9,800 Psi, (250 psi on N2 regulator, 2,000 psi on bottle), Pressured backside to 3,400 Psi, Set pop off @ 3,900 Psi, Started to pump stage #4, Open well with SICP 3,590 psi, Broke back @ 4,915 Psi at 13.6 bbls, Final injection 6,495 psi, FG .897, pumped 1574 bbls, 5.2 bbls 15% HCl, Max pressure 9,315 Psi, Min pressure 6,145

Psi, Avg pressure 8,060 Psi, Avg rate 55 bpm, pumping 1.25 lbs sand and screenout, surged well and tried to get back into stage, pressured out, flow well back to flow back tank to clean up, 29.5% OF THE DESIGNED PROPPANT WAS PLACED IN THE FORMATION. 15,140 LBS OF PROPPANT PLACED IN THE FORMATION. 2,569 LBS OF PROPPANT LEFT IN CASING. - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH. Pump down with max pump rate of 9.1 bpm 5,071 Psi. ok, Set plug at 11,969', Perforate Stage 4 at (11,925'-28'), (11,920'-23'), (11,915'-18'). Final pressure of 3,746' & Falling. . 3 1/8" guns at 60 degrees, 3 spf, 27 holes. POOH, all shots fired and all tools recovered, drop ball HF stage 4. NOTE: (On secondary inspection of tool from first run, found wire shorted out, causing failure to fire setting tool for plug). - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH with tools at report time, to perf stage #8. - Flow back 225 bbls fluid with small amount of sand in returns, Shut in well and flowback, Brought pumps back on line and began flushing well bore, Pumped total of 628 bbls of flush (volume 3.5 times), last 80 bbls at 20 bpm @ Avg 9200 psi, dropped rate to 10 bpm @ 7,660 and falling slowly, shut in well and called in for orders, Will try to pump down guns only (no plug) and perf for stage 5, - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH. Pump down with max pump rate of 9 bpm 7,954 Psi. ok, No plug RIH over stage #4, Perforate Stage 5 at (11,724.5'-23'), (11,719.5'-18'), (11,713.5'-12'). Final pressure of 5,150 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 791 bbls on P/D, Prep. To Hydraulic Fracture Stage #5; - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH. Pump down with max pump rate of 9 bpm 5,264 Psi. ok, Set 10K CFTFP @ 11,409', Perforate Stage 7 at (11,370'-71.5'), (11,365.5'-66'), (11,360.5'-61'). Final pressure of 3,648 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 234 bbls on P/D, Prep. To Hydraulic Fracture Stage #7; - Location Safety Mtg. Prime pumps and test lines to 9,500 psi, OK. Hydraulic Fracture Wasatch stage 6 as follows: Break down 33.1 bpm @ 7,283 psi. Avg rate: 48 bpm, Avg press: 7,180 psi, Max rate: 50.0 bpm, Max press: 8,702 Psi. FG.0.922, ISIP: 3916 PSI, 5 MIN: 3,744 psi, 10 MIN: 3,719 psi. 15 MIN: 3,700 psi. Total 100 mesh White: 7,800 lbs, Total 30/50 White: 52,200 lbs. Total Prop 60,000 Total 15% HCL Acid 185 bbls. Avg HHP: 8,500. Total load to recover 3,799 bbls . Including 270 bbl on pump down - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH. Pump down with max pump rate of 8 bpm 5,686 Psi. ok, Set 10K CFTFP @ 11,582', Perforate Stage 6 at (11,546.5'-45'), (11,541.5'-40'), (11,536.5'-35'). Final pressure of 4,560 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 270 bbls on P/D, Prep. To Hydraulic Fracture Stage #6; - Location Safety Mtg. Prime pumps and test lines to 9,500 psi, OK. Hydraulic Fracture Wasatch stage 5 as follows: Break down 43.1 bpm @ 7,744 psi. Avg rate: 52 bpm, Avg press: 7,384 psi, Max rate: 57.0 bpm, Max press: 8,620 Psi. FG.0.925, ISIP: 3936 PSI, 5 MIN: 3,720 psi, 10 MIN: 3,689 psi. 15 MIN: 3,670 psi. Total 100 mesh White: 6,750 lbs, Total 30/50 White: 38,250 lbs. Total Prop 45,000 Total 15% HCL Acid 193 bbls. Avg HHP: 9,320. Total load to recover 4,708 bbls . Including 791 bbl on pump down. - Location Safety Mtg. Prime pumps and test lines to 9,500 psi, OK. Hydraulic Fracture Wasatch stage 7 as follows: Break down 16.9 bpm @ 4,920 psi. Avg rate: 57 bpm, Avg press: 7,340 psi, Max rate: 59.0 bpm, Max press: 8,145 Psi. FG.0.834, ISIP: 3,930 PSI, 5 MIN: 3,725 psi, 10 MIN: 3,695 psi. 15 MIN: 3,670 psi. Total 100 mesh White: 7,728 lbs, Total 30/50 White: 54,054 lbs. Total Prop 61,781 Total 15% HCL Acid 90 bbls. Avg HHP: 10,326. Total load to recover 3,522 bbls . Including 220 bbl on pump down

**Daily Cost:** \$0

**Cumulative Cost:** \$675,647

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**7/23/2012 Day: 17**

**Completion**

Rigless on 7/23/2012 - Perf & frac stage #8 & #9 of 20 Stages - Location Safety Mtg. Prime pumps to test lines, for frac of stage #11 at report time. - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH. Pump down with max pump rate of 8.4 bpm 5,960 Psi. ok, plug set 10,641', Perforate Stage #11 at (10,600'-01.5'), (10,595'-96.5'), (10,590'-91.5'). Final pressure of 3,783 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes.

POOH All Guns Fired, Used 145 bbls on P/D, Prep To Hydraulic Fracture Stage #11. - Shut down and tighten flange on BOP stack fix leak in pump line, and rubber seal in flowback line, all repairs completed and tested, Good, prepare to perf stage #11 - Location Safety Mtg. Prime pumps and test lines to 9,900 psi, OK. Hydraulic Fracture Wasatch stage #10 as follows: Break down 17 bpm @ 5,500 psi. Avg rate: 48 bpm, Avg press: 8,300 psi, Max rate: 62 bpm, Max press: 9,580 Psi. FG.0.953, ISIP: 4,160 PSI, 5 MIN: 3,825 psi, 10 MIN: 3,790 psi. 15 MIN: 3,779 psi. Total 100 mesh White: 5,272 lbs, Total 30/50 White: 25,873 lbs. Total Prop 31,145 Total 15% HCL Acid 120 bbls. Avg HHP: 9,785. Total load to recover 2,642 bbls Including 161 bbl on pump down; - Prep. To swap out 1 pump and repair check valves and replace ground valve, Check valves and ground valve on location chemicals on location, Acid transport in route to get more acid, Have enough acid on location for 1 more stage, Approx. 2 HRS before starting Hydraulic Fracture stage #10; - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH. Pump down with max pump rate of 8.9 bpm 4,651 Psi. ok, plug set 10,812', Perforate Stage #10 at (10,778'-79.5'), (10,773'-74.5'), (10,768'-69.5'). Final pressure of 4,176 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 194 bbls on P/D, Prep To Hydraulic Fracture Stage #10. - Location Safety Mtg. Prime pumps and test lines to 9,931 psi, OK. Hydraulic Fracture Wasatch stage #9 as follows: Break down 52 bpm @ 7487 psi. Avg rate: 50 bpm, Avg press: 7,176 psi, Max rate: 53. bpm, Max press: 7968 Psi. FG.0.941, ISIP: 4,063 PSI, 5 MIN: 3,788 psi, 10 MIN: 3,759 psi. 15 MIN: 3,743 psi. Total 100 mesh White: 7,651 lbs, Total 30/50 White: 54,031 lbs. Total Prop 61,682 Total 15% HCL Acid 198 bbls. Avg HHP: 8,864. Total load to recover 3,558 bbls Including 270 bbl on pump down; - Down 3.5 Hrs for Arrival and installation of 3" ground Valve (BakerHughes) Installed and Retested to 10,000 psi (Good Test) start stage #9 Hydraulic Fracture; - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. RIH. Pump down with max pump rate of 9 bpm 7,549 Psi. ok, plug set 11,018', Perforate Stage #9 at (10,975.5'-76'), (10,970.5'-71'), (10,964.5'-65'). Final pressure of 4,376 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 267 bbls on P/D, Prep To Hydraulic Fracture Stage #9. - Location Safety Mtg. Prime pumps and test lines to 9,931 psi, OK. Hydraulic Fracture Wasatch stage #8 as follows: Break down 20.1 bpm @ 5,630 psi. Avg rate: 52 bpm, Avg press: 7,765 psi, Max rate: 52. bpm, Max press: 9,405 Psi. FG.0.964, ISIP: 4,250 PSI, 5 MIN: 3,755 psi, 10 MIN: 3,725 psi. 15 MIN: 3,705 psi. Total 100 mesh White: 7,692 lbs, Total 30/50 White: 45,505 lbs. Total Prop 53,197 Total 15% HCL Acid 90 bbls. Avg HHP: 9,878. Total load to recover 3,254 bbls . Including 216 bbl on pump down. Note:(down for leak on blender repairs, (1 hour) ((resumed frac at 03:00am)). - RIH. Pump down with max pump rate of 9 bpm 4,088 Psi. ok, Set 10K CFTFP @ 11,191', Perforate Stage #8 at (11,546.5'-49'), (11,541.5'-44'), (11,536.5'-39'). Final pressure of 3,658 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 151 bbls on P/D, Prep. To Hydraulic Fracture Stage #8.

**Daily Cost:** \$0

**Cumulative Cost:** \$830,409

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## 7/24/2012 Day: 18

## Completion

Rigless on 7/24/2012 - finished stage#12 frac, shut down for HCR valve repairs, (down time 15 hrs) resumed operations at 23:00 hrs. - Shut down and tighten flange on BOP stack, Replace leaking seal on pump line and one on flowback line. All leaks repaired or replaced, Test all line, test good, turn over to W/L for stage 12 perf's. - Location Safety Mtg. Prime pumps and test lines to 10,060 psi, OK. Hydraulic Fracture Wasatch stage #11 as follows: Break down 17.6 bpm @ 5,565 psi. Avg rate: 54 bpm, Avg press: 8,380 psi, Max rate: 56 bpm, Max press: 9,300 Psi. FG.0.907, ISIP: 4,010 PSI, 5 MIN: 3,815 psi, 10 MIN: 3,795 psi. 15 MIN: 3,775 psi. Total 100 mesh White: 7,703 lbs, Total 30/50 White: 53,962 lbs. Total Prop 61,665 Total 15% HCL Acid 90 bbls. Avg HHP: 11,009. Total load to recover 2,574 bbls Including 158 bbl on pump down; - - Well turned over to Pure Energy for stage#13 perf's, PUMU plug and guns for perf run at report time, (Guns were left off of wire line while valve repairs were being done around well head.) - 7 1/2 3,267 psi, 4.5 3,258 psi, N2 245 psi

regulator, 1,800 psi bottle, Down time from 19:00 to 23:00 on night shift, (4Hrs). Inspected actuator and found stopping nut had worked loose and fell into hydraulic cylinder and stopping hydraulic piston from opening all the way open, Weatherford's service tech replaced stopping nut and put thread lock (lock tight) on set screw and replaced top bonnet and O-ring for manual hand wheel. function tested HCR valve, valve operating as designed, Pressured test HCR valve 9,909 Psi, tested good, Put Baker on line and tested surface frac equipment, tested good, called and reported repairs, Told to continue with frac operations. Weatherford's service tech repaired HCR hydraulic cylinder and replaced the following replacement parts: Replaced the Stopping Nut, Top Bonnet for hydraulic cylinder on HCR unit, and O-ring on manual hand wheel, No problems with the valve's gate, all problems was in hydraulic cylinder, - RIH. Pump down with max pump rate of 8.8 bpm 5,354 Psi. ok, Set 10K CFTFP @ 10,424', Perforate Stage #12 at (10,385.5'-86'), (10,380.5'-81'), (10,274.5'-75'). Final pressure of 3,736 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 130 bbls on P/D, Prep. To Hydraulic Fracture Stage #12. - Held PJSM. RU WL for pump down. Test to 9,500 Psi. OK. Start RIH and tag on Bottom HCR pick up and check valves all open and found lower HCR half open, Call Weatherford wellhead service Tech. - Location Safety Mtg. Prime pumps and test lines to 9,922 psi, OK. Resume Hydraulic Fracture Wasatch stage #12 as follows: Break down 18.0 bpm @ 6,125 psi. Avg rate: 52 bpm, Avg press: 7,635 psi, Max rate: 54 bpm, Max press: 8,535 Psi. FG.0.935, ISIP: 4,019 PSI, 5 MIN: 3,843 psi, 10 MIN: 3,808 psi. 15 MIN: 3,789 psi. Total 100 mesh White: 7,793 lbs, Total 30/50 White: 47,229 lbs. Total Prop 55,022 Total 15% HCL Acid 90 bbls. Avg HHP: 9,675. Total load to recover 3,761 bbls Including 130 bbl on pump down; - Replacing ring gasket and tighten flange, Will retest line and reset pop off and continue with rest of stage #12 at that time. (repair time about 1 hour). - Location Safety Mtg. Prime pumps and test lines to 9,931 psi, OK. Hydraulic Fracture Wasatch stage #12 as follows: NOTE: ((Over flushed 4.5" to perf's of sand, shut down frac stage, replace flange ring and tighten top manual frac valve and flowcross flange, (vibrated loose.) Tighten flange,) Retested frac lines and reset pop off and continued stage #12 frac. Down time 1 hour.)) - Weatherford service tech in route. 1100 AM Weatherford service tech arrived on location, Grease valve and cycle, valve continued to open up to half position, Pressure up on accumulator to 2,000 PSI. and cycle valve continuing to open to half position, Change out quick connect on HYD hoses and on accuator and cycle valve continuing to open to half position, Take quick connects off of accuator and tap on stem, stim would not move, pump grease into valve and pressured up to 5,000 psi abd cycle valve continuing to open to half position, put bleeder valve on grease port to bleed off and port had no pressure, put test pump onto grease port and pressured up to 5,000 PSI. with no bleed off, bleed off and pressure up again to 5,000 PSI with no bleed off, put grease port back on, cycle valve continuing to open to half position. 1800 PM Start to break down HYD accuator, to inspect accuator.

**Daily Cost:** \$0

**Cumulative Cost:** \$928,847

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**7/25/2012 Day: 19**

**Completion**

Rigless on 7/25/2012 - Perf & frac stages #13-14-15-16-17. - Location Safety Mtg. Prime pumps and test lines to 9,863 psi, OK. Hydraulic Fracture Wasatch stage #13 as follows: Break down 27.1 bpm @ 6,755 psi. Avg rate: 54 bpm, Avg press: 7,220 psi, Max rate: 55 bpm, Max press: 7,975 Psi. FG.0.924, ISIP: 3,930 PSI, 5 MIN: 3,810 psi, 10 MIN: N/A psi. 15 MIN: N/A psi. Total 100 mesh White: 7,779 lbs, Total 30/50 White: 53,751 lbs. Total Prop 61,529 Total 15% HCL Acid 90 bbls. Avg HHP: 9,609. Total load to recover 3,394 bbls Including 152 bbl on pump down; - RIH. Pump down with max pump rate of 9 bpm 4,378 Psi. ok, Set 10K CFTFP @ 10,050', Perforate Stage #14 at (10,005.5'-06'), (10,000.5'-01'), (9,994.5'-95'). Final pressure of 3,710 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 111 bbls on P/D, Prep. To Hydraulic Fracture Stage #14. - Change out crews, Location Safety Mtg. Prime pumps and test lines to 9,892 psi, OK. Hydraulic Fracture Wasatch stage #14 as follows: Break down 22.3 bpm @ 5,750 psi. Avg

rate: 54 bpm, Avg press: 7,280 psi, Max rate: 54 bpm, Max press: 7,900 Psi. FG.0.927, ISIP: 3,955 PSI, 5 MIN: 3,805 psi, 10 MIN: 3,780 psi. 15 MIN: 3,759 psi. Total 100 mesh White: 7,711 lbs, Total 30/50 White: 53,914 lbs. Total Prop 61,625 Total 15% HCL Acid 90 bbls. Avg HHP: 9,582. Total load to recover 3,302 bbls Including 149 bbl on pump down; - RIH. Pump down with max pump rate of 8 bpm 4,220 Psi. ok, Set 10K CFTFP @ 9,870', Perforate Stage #15 at (9,830'-31.5'), (9,825'-26.5'), (9,820'-21.5'). Final pressure of 3,804 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 119 bbls on P/D, Prep. To Hydraulic Fracture Stage #15. - Location Safety Mtg. Prime pumps and test lines to 9,973 psi, OK. Hydraulic Fracture Wasatch stage #15 as follows: Break down 49.3 bpm @ 8,199 psi. Avg rate: 49 bpm, Avg press: 6,738 psi, Max rate: 50 bpm, Max press: 8,199 Psi. FG.0.942, ISIP: 4,070 PSI, 5 MIN: 3,809 psi, 10 MIN: 3,785 psi. 15 MIN: 3,769 psi. Total 100 mesh White: 7,822 lbs, Total 30/50 White: 53,805 lbs. Total Prop 61,626 Total 15% HCL Acid 105 bbls. Avg HHP: 8,026. Total load to recover 3,209 bbls Including 119 bbl on pump down; - RIH. Pump down with max pump rate of 8 bpm 4,220, 1230 PM Pumped down to 9,750' picked up to plug depth @ 9,697' went to set plug and had dead short, plug did not set, set there for 8 min with no indication of plug setting, pull out of hole slow at 100 FPM, 1300 PM Wireline at surface inspect, found firing cap failed, change out plug and setting tool and inspect guns, 1330 PM Rig up and pressure test Lubricator and pressure test, RIH and pump down with max pump rate of 8 bpm 4,986 Psi. to 9,750' - RIH. Pump down with max pump rate of 8 bpm 4,986 Psi. ok, Set 10K CFTFP @ 9,697', Perforate Stage #16 at (9,655'-56.5'), (9,650'-51.5'), (9,645'-46.5'). Final pressure of 3,831 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 257 bbls on P/D, Prep. To Hydraulic Fracture Stage #16. - Location Safety Mtg. Prime pumps and test lines to 9,831 psi, OK. Hydraulic Fracture Wasatch stage #16 as follows: Break down 44.1 bpm @ 8,300 psi. Avg rate: 50 bpm, Avg press: 6,824 psi, Max rate: 52 bpm, Max press: 8,300 Psi. FG.0.920, ISIP: 3,901 PSI, 5 MIN: 3,818 psi, 10 MIN: 3,795 psi. 15 MIN: 3,774 psi. Total 100 mesh White: 7,888 lbs, Total 30/50 White: 54,880 lbs. Total Prop 62,768 Total 15% HCL Acid 91 bbls. Avg HHP: 8,396. Total load to recover 3,247 bbls Including 257 bbl on pump down; - RIH. Pump down with max pump rate of 9 bpm 4,113 Psi. ok, Tried to set 10K CFTFP, tools missed fired, No apparent reaction from tools, Wait on plug to set, Nothing, POH with tools and will replace tool string with new one and rerun stage #17 perf's tools. - RIH. Pump down with max pump rate of 9 bpm 4,315 Psi. ok, Set 10K CFTFP @ 9,480', Perforate Stage #17 at (9,445'-46.5'), (9,440'-41.5'), (9,435'-36.5'). Final pressure of 3,605 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 181 bbls on P/D, Prep. To Hydraulic Fracture Stage #17. - RIH. Pump down with max pump rate of 9 bpm 5,703 Psi. ok, Set 10K CFTFP @ 10,254', Perforate Stage #13 at (10,215.5'-16'), (10,210.5'-11'), (10,204.5'-05'). Final pressure of 3,722 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 141 bbls on P/D, Prep. To Hydraulic Fracture Stage #13. - Location Safety Mtg. Prime pumps and test lines to 9,979 psi, OK. Hydraulic Fracture Wasatch stage #17 as follows: Break down 16.9 bpm @ 5,055 psi. Avg rate: 54 bpm, Avg press: 6,985 psi, Max rate: 56 bpm, Max press: 7,850 Psi. FG.0.923, ISIP: 3,920 PSI, 5 MIN: 3,835 psi, 10 MIN: 3,790 psi. 15 MIN: 3,760 psi. Total 100 mesh White: 7,676 lbs, Total 30/50 White: 57,133 lbs. Total Prop 64,809 Total 15% HCL Acid 90 bbls. Avg HHP: 9,502. Total load to recover 3,286 bbls Including 181 bbl on pump down;

**Daily Cost:** \$0

**Cumulative Cost:** \$1,052,916

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**7/26/2012 Day: 20**

**Completion**

Rigless on 7/26/2012 - Finish 20 stage frac. - Location Safety Mtg. Prime pumps and test lines to 9,979 psi, OK. Hydraulic Fracture Wasatch stage #18 as follows: Break down 22.7 bpm @ 5,595 psi. Avg rate: 54 bpm, Avg press: 7,040 psi, Max rate: 55 bpm, Max press: 8,100 Psi. FG.0.925, ISIP: 3,940 PSI, 5 MIN: 3,860 psi, 10 MIN: 3,820 psi. 15 MIN: 3,795 psi. Total 100 mesh White: 7,675 lbs, Total 30/50 White: 55,284 lbs. Total Prop 62,959 Total 15% HCL Acid 91 bbls. Avg HHP: 9,249. Total load to recover 3,103 bbls Including 138 bbl on pump down; -



RIH. Pump down with max pump rate of 9 bpm 4,022 Psi. ok, Set 10K CFTFP @ 9,089', Perforate Stage #19 at (9,052-53.5'), (9,047-48.5'), (9,041-42.5'). Final pressure of 3,989 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 181 bbls on P/D, Prep. To Hydraulic Fracture Stage #19. - Location Safety Mtg. Prime pumps and test lines to 9,982 psi, OK. Hydraulic Fracture Wasatch stage #19 as follows: Break down 22.7 bpm @ 6,090 psi. Avg rate: 53 bpm, Avg press: 6,970 psi, Max rate: 57 bpm, Max press: 8,528 Psi. FG.0.925, ISIP: 3,934 PSI, 5 MIN: 3,837 psi, 10 MIN: 3,796 psi. 15 MIN: 3,766 psi. Total 100 mesh White: 3,523 lbs, Total 30/50 White: 59,813 lbs. Total Prop 63,336 Total 15% HCL Acid 90 bbls. Avg HHP: 9,071. Total load to recover 3,125 bbls Including 66 bbl on pump down; - Wire line will be down for about 1 hour due to coolant hose. - RIH. Pump down with max pump rate of 8 bpm 3,851 Psi. ok, Set 10K CFTFP @ 8,922', Perforate Stage #20 at (8,880-81.5'), (8,875- 76.5'), (8,869 - 70.5'). Final pressure of 3,501 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 58 bbls on P/D, Prep. To Hydraulic Fracture Stage #20. - Location Safety Mtg. Prime pumps and test lines to 9,844 psi, OK. Hydraulic Fracture Wasatch stage #20 as follows: Break down 10.2 bpm @ 4,377 psi. Avg rate: 54 bpm, Avg press: 7,095 psi, Max rate: 57 bpm, Max press: 8,617 Psi. FG.0.926, ISIP: 4,108 PSI, 5 MIN: 3,891 psi, 10 MIN: 3,863 psi. 15 MIN: 3,841 psi. Total 100 mesh White: 2,407 lbs, Total 30/50 White: 54,939 lbs. Total Prop 57,346 Total 15% HCL Acid 90 bbls. Avg HHP: 9,373. Total load to recover 3,098 bbls. - RU test lubricator to 7,500 psi. test good, bleed down to well pressure RIH. Kill plug # 1, Set 10K CFP @ 7,690' Pull out of hole, Bleed down pressure to 0 psi and perform negative test, test good, RU test lubricator to 7,500 psi. test good, bleed down to 0 psi, RIH. Kill plug # 2, Set 10K CFP @ 7,640' Pull out of hole, Well shut in and secured. - Start RDMO Pure wire line unit and baker HF equipment 1830 PM All HF equipment and wire line off location, stand by for weatherford bop stack ETA 2100 PM - RIH. Pump down with max pump rate of 8.8 bpm 4,062 Psi. ok, Set 10K CFTFP @ 9,262', Perforate Stage #18 at (9,235'-36.5'), (9,230'-31.5'), (9,224'- 25.5'). Final pressure of 3,635 psi & Falling. . 2-3/4" guns at 60 degrees, 6 spf, three 1.5' guns 27 holes. POOH All Guns Fired, Used 138 bbls on P/D, Prep. To Hydraulic Fracture Stage #18. - 1830 PM All HF equipment and wire line off location, stand by for weatherford bop stack ETA 2400 PM. Arrived location 24:00 PM.

**Daily Cost:** \$0

**Cumulative Cost:** \$2,025,224

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## 7/27/2012 Day: 21

## Completion

Rigless on 7/27/2012 - Nipple down frac stack, Nipple up and test BOP drill out stack. - ND frac stack & NU BOP Stack, No spacer spool sent out with BOP stack, - Wait on Weatherford to bring out spacer spool to go between frac valve and single BOP, unable to get handle on frac valve to close and open valve. - Continue to nipple up BOP stack, - 0800 AM Western WSU arrived begin MIRU, Continue torqueing up BOP stack, prepare to start pressure testing stack, 1030 AM BOP stack torqued up WSU rigged up Start testing BOP stack 1415 PM Pressure testing completed Tested Good, Continue to RU weatherford CSG crew, Prepare to start pulling 4.5" frac string - 1615 PM Opened 7" to tanks and bleed to 0 psi. Pulled 2 way check 4.5" frac string 0 PSI. Made up 4.5" joint and Backed out locking pins, Picked up on 4.5" frac string to 74K and pulled up out of seal assembly, continued to pick up and weight leveled out at 68K, Continue to pull out of hole laying down. - 19:00 to 21:00 7" cgs 0 PSI. Well dead. No drag on 4 1/2" while pulling, Pipe free. POH with 4 1/5" frac string and lay down same, POH and breaking threads at 10 RPM per jt (TH Hill rep on location) to insure no galling of threads. Lay out on racks and load onto Runner's trucks to be returned for inspection. Thread has some galling on threads, and has insert marks on upper threads, could be tongs marks, But actual source of marks unknown. The marks were on casing when pulled from well bore. Laid down 175 jts 4 1/2" 13.5# P-110 casing and seal bore assembly.

**Daily Cost:** \$0

**Cumulative Cost:** \$2,118,732

**7/28/2012 Day: 22****Completion**

Rigless on 7/28/2012 - ND/NU BOP's, PUMU 2 3/8 PH-6 tbg BHA #1 for drill CoFP out, RIH with same - Continue to RIH- BHA #1 consisting of 5 blade Concave junk mill 3.72" OD X 1.00" long, X-Over 2.88 OD X 1.38 ID X .75 long, Dual back pressure valve 2.88 OD X 1.00 ID X 2.00 long, X-Over 3.13 OD X 1.38 ID X 1.17 long, 1 JT 2 3/8" TBG P-110, 5.95#, and RN-Nipple 2.88 OD X 1.71 ID with no go .98 long, and start in hole with BHA # 1. Filling tubing every 1000' while going in hole. At present time we have 180 jts in hole at 5,659', (Liner top 7,506), 239 jts to liner. 2" nipple ran between jts 179 & 180 @ 5,628' - Finish rigging down Weatherford's casing crew and equipment, laying out 2 3/8 PH-6 workstring, and tally, change BOP stack and pipe rams and test same, - 7" cgs 0 PSI. Well dead. Laid out and tally 2 3/8, 5.95#, P-110, PH-6 tubing on racks, MIRU Weatherford and change out BOP stack and pipe rams and retest stack. - 1500 PM Pressure testing completed test good 250 psi low and 5000 psi high tested annular bag 250 low and 4,300 psi high, Pick up BHA #1 consisting of 5 blade Concave junk mill 3.72" OD X 1.00" long, X-Over 2.88 OD X 1.38 ID X .75 long, Dual back pressure valve 2.88 OD X 1.00 ID X 2.00 long, X-Over 3.13 OD X 1.38 ID X 1.17 long, 1 JT 2 3/8" TBG P-110, 5.95#, and RN-Nipple 2.88 OD X 1.71 ID with no go .98 long, and start in hole with BHA # 1.

**Daily Cost:** \$0

**Cumulative Cost:** \$2,170,015

**7/29/2012 Day: 23****Completion**

Rigless on 7/29/2012 - PUMU swivel and drill plug, C/O to PBTB - 1415 PM Circulated 270 BBLs around continue drilling on Plug #6 at 9,870', Drilled through plug #6 in 32 mins. PU WT 30K SO WT 26K NEU WT 28K currently pumping 3.5 bpm 4,000 psi, returns 3.5 bpm 2,750 psi. Continue rotating and circulating to plug #7 1533 PM Tagged Plug #7 at 10,050', Drilled through plug #7 in 26 mins. PU WT 37K SO WT 31K NEU WT 35K currently pumping 3.5 bpm 4,500 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #8 1640 PM Tagged Plug #8 at 10,254', Drilled through plug #8 in 20 mins. PU WT 36K SO WT 28K NEU WT 32K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #9 1730 PM Tagged Plug #9 at 10,424', Drilled through plug #9 in 20 mins. PU WT 34K SO WT 28K NEU WT 30K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #10 1840 PM Tagged Plug #10 at 10,812', Drilled through plug #10 in 20 mins. PU WT 34K SO WT 28K NEU WT 30K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #11 - 1900 PM Tagged Plug #11 at 10,912', Pick up and start circulating borroms up, Continue rotating and working TBG. PU WT 34K SO WT 28K NEU WT 30K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 Psi, 22:00 PM Pump bottoms up PU WT 34K SO WT 28K NEU WT 30K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating bottom up from plug #11 (10,641'), getting sand and CoFP cuttings, Circulate well clean, - Drilling out plug 1 with 2,500 psi circulation, at 3 1/2 bpm 2,500 psi, drilled thru plug #2 well bore psi 2,500 psi, no change. Drill out kill plug #1 - 5:00 mins, (7,640') circ 5 mins (jt 244), Drill out kill plug #2 - 10 mins, ( 7,690')( jt 246), Pump sweep and circulate bottoms up on first two plugs, 3 1/2 bpm at 2,500 psi. 1 hr 10min pump time. Wt up 26,000, S/O 18,000, neutral 24,000. Drilled thru plug #2 well bore psi 2,500 psi, no psi change after drilling out kill plug #2. Hang back swivel and RIH 49 jts tbg, tag CoFP #19 - 0628 AM Tagged Plug #1 at 8,922', Drilled through plug #1 in 25 mins. PU WT 28K SO WT 20K NEU WT 24K currently 0737 AM Tagged Plug #2 at 9,089', Drilled through plug #2 in 11 mins. PU WT 28K SO WT 20K NEU WT 24K currently pumping 3.5 bpm 4,600 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #3 0820 AM Tagged Plug #3 at 9,262', Drilled through plug #3 in 23 mins. PU WT 28K SO WT 20K NEU WT 24K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #4 1021 AM Tagged Plug #4 at 9,480', Drilled through plug #4 in xx mins.

PU WT 28K SO WT 20K NEU WT 24K currently pumping 3.5 bpm 4,200 psi, returns 3.5 bpm 2,750 psi. Continue rotating and circulating to plug #5 1021 AM Tagged Plug #4 at 9,480', Drilled through plug #4 in 27 mins. PU WT 28K SO WT 20K NEU WT 24K currently pumping 3.5 bpm 4,200 psi, returns 3.5 bpm 2,750 psi. Continue rotating and circulating to plug #5 1126 AM Tagged Plug #5 at 9,697', Drilled through plug #5 in 15 mins. PU WT 28K SO WT 20K NEU WT 24K currently pumping 3.5 bpm 4,200 psi, returns 3.5 bpm 2,750 psi. Continue rotating and circulating to plug #6 - 1220 PM Tagged Plug #6 at 9,870' pick up and start circulating bottoms up. Continue rotating and working TBG. PU WT 28K SO WT 20K NEU WT 24K currently pumping 3.5 bpm 4,200 psi, returns 3.5 bpm 2,750 psi. - Swab out Cudd pump trucks, and continue to drill out CoFP #11. PU WT 34K SO WT 28K NEU WT 30K. 22:00 PM Tagged Plug #11 at 10,812', Drilled through plug #11 in 17 mins. PU WT 34K SO WT 28K NEU WT 30K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #12 (11,018') 11:37 PM Tagged Plug #12 at 11,018', Drilled through plug #12 in 22 mins. PU WT 34K SO WT 28K NEU WT 30K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #13 (11,191') - Continue to RIH- BHA #1 consisting of 5 blade Concave junk mill 3.72' OD X 1.00' long, X-Over 2.88 OD X 1.38 ID X .75 long, Dual back pressure valve 2.88 OD X 1.00 ID X 2.00 long, X-Over 3.13 OD X 1.38 ID X 1.17 long, 1 JT 2 3/8" TBG P-110, 5.95#, and RN-Nipple 2.88 OD X 1.71 ID with no go .98 long, and start in hole with BHA # 1. Filling tubing every 1000' while going in hole. (Liner top 7,506'), 239 jts to liner. 2" nipple ran between jts 179 & 180 @ 5,628', Tag liner top 7,506' work thru and tagged #1 kill plug at 7,640', - 01:00 to 03:00 AM PUMU swivel on two line system for swivel, had to hang two lines from derrick, PUMU tbg jt and break circulation with 2,500 psi circulation,

**Daily Cost:** \$0

**Cumulative Cost:** \$2,212,246

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## 7/30/2012 Day: 24

## Completion

Rigless on 7/30/2012 - C/O to PBTD and circ clean, POH laying down 2 3/8 PH-6 workstring on rack 310 jts. - 0700 AM continue circulating bottoms up. 0820 AM Circulated 800 BBLS around, Got sand and plug cuttings back, circulated clean. 0823 AM Tagged Plug #16 at 11,969', Drilled through plug #16 in 22 mins. PU WT 37K SO WT 27K NEU WT 34K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #17, at 12,198' with setting tool mandrel on top of plug 0924 AM Tagged Plug #17 at 12,198', Set 2K down on plug and plug continued moving down hole, continue to rotate and circulating pushing plug down, PU WT 37K SO WT 27K NEU WT 34K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to PBTD 1015 AM Pushed Plug #17 down and tagged at 12,433', Continue drilling setting 2K to 8K down on plug and plug, PU WT 37K SO WT 27K NEU WT 34K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating 1415 PM Continue rotating and circulating at 12,433', setting various weights down on obstruction from feathering to 8K down, with FS torque 800 PSI and drilling torque 2,400 PSI with 8K setting down, attempted setting down with no rotation setting down 8K, attempted tapping down setting down 8K each with no success, continue rotating and circulating , PU WT 37K SO WT 27K NEU WT 34K 1545 PM Depth 12,433', Well circulated clean no sand or plug parts in returns, circulated 1056 bbls with sweeps since 1015 AM. Currently laying down swivel preparing to pull out of hole laying down TBG. - 04:15 AM to tagged plug #16, Pump bottoms up PU WT 26K SO WT 20K NEU WT 16K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating bottom up from plug #16 (11,969'), getting sand and plug cuttings, Circulate well clean. Pumping two time well volume. - 00:15 AM Tagged Plug #13 at 11,191', Drilled through plug #13 in 19 mins. PU WT 26K SO WT 18K NEU WT 26K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #14 (11,409') 01:25 AM Tagged Plug #14 at 11,409', Drilled through plug #14 in 23 mins. PU WT 26K SO WT 20K NEU WT 16K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #15 (11,582') 02:25 AM Tagged Plug #15 at

11,582', Drilled through plug #15 in 27 mins. PU WT 26K SO WT 20K NEU WT 16K currently pumping 3.5 bpm 4,400 psi, returns 3.5 bpm 2,700 psi. Continue rotating and circulating to plug #16 (11,969') Washed down 8 jts of sand to tag plug #16, No plug set on stage #5, (No plug between stages #4 and #6) - PUMU tubing hanger to land tubing in well head to MIRU Cudd snubbing unit. - 19:00 - 23:00 Continue to POH and lay down 2 3/8" PH-6 work string on racks, POH with 4,000 over pull of tubing wt. Tubing free and pulling smooth. POH and laid down 310 jts 2 3/8" PH-6 5.95# P-110 tubing. RDMO Graco hydro walk, Land tubing on hanger, Close in well and MIRU Cudd snubbing unit. - 1630 PM pull out of hole laying down TBG. Pick up weight 37K. SICP 2,750 PSI.

**Daily Cost:** \$0

**Cumulative Cost:** \$2,250,297

### 7/31/2012 Day: 25

### Completion

Rigless on 7/31/2012 - lay down 2 3/8" tbg, rig up snubbing unit, Finish laying down 2 3/8" workstring, RDMO snubbing unit, MIRU Perforators wireline and RIH gauge ring, RIH and set Baker Hornet pkr, @7,455', POH with setting tool. - 20:00 - 00:00 PM 7" SICP 2,800 psi RIH with Baker 10K hornet packer, with 10k rupture disc and set 7,455' (collar @ 7,479' liner top 7,515'), POH with setting tool at report time. - RIH with JB and 6.02" OD GR. 7,515' Top of 4 1/2" liner top. POH with same, Wait on lighting storm to move thru area before Picking up pkr and setting tool, (due to lighting in area and charge in setting tool 1/2 hr). Lay down gauge ring all tools recovered, Rigging up to RIH with Baker 10K hornet packer, with 10k rupture disc and set 7,455' collar @ 7,479' liner top 7,515' - 1545 PM RDMO Cudd snubbing unit MIRU Perforators for GRJB run for Baker 10K hornet packer. 1845 PM Pressure test lubricator, test good, Prepare to rih with JB and 6.02" OD GR. - 0000 -0130 Rig down Graco's lay down machine, move off location, - 0800 AM Start pressure testing snubbing stack, 250 psi low and 4,500 psi high. - 0400 - 0700 BOP stack 0 psi, 7" cgs 2,800 psi Rig down floor and spot in Cudd snubbing unit. Nipple down bag and single BOP (Removed single BOP because of stack height) and Rig up Cudd's snubbing unit. - 0130 -0400 (2 1/2 hrs) BOP stack 0 psi, 7" cgs 2,800 psi Try to land tubing on hanger in well head, Unable to get 2 7/8" tubing jt to slide thru bag, (We were pipe heave, 2 3/8" pipe and collars would go down thru bag), PUMU 20 jts 2 3/8" PH-6 tbg to insure of being pipe heavy and to add more tubing weight, still unable to hang off tubing, Flushed BOP stack and worked bag pressure and able to free up bag, lost hanger seal and pulled up and replaced hanger seal, and were finally able to get 2 7/8" landing jt to slide thru bag, Hung off tubing in well head, set pins on hanger, and bleed well pressure off BOP stack. Stack 0 psi, 7" 2,800 psi. - 1030 AM Cudd Snubbing rigged up and pressure testing completed, Continue to pull out of hole laying down TBG. 1415 PM Continue to snub out of hole 40 JTS remaining. 1545 PM All 2 3/8" TBG and BHA #1 at surface RDMO Cudd snubbing unit MIRU Perforators for GRJB run for Baker 10K hornet packer

**Daily Cost:** \$0

**Cumulative Cost:** \$2,355,527

### 8/1/2012 Day: 26

### Completion

Rigless on 8/1/2012 - Set packer, land TBG, RDMO, Turn over to production - 1400 PM Start ND BOP stack, NU Production tree 1645 PM Tree NU start pressure testing tree and hanger 250 PSI low and 10,000 PSI high - 01:00 - 04:00 AM 7" 0 psi Shut manual frac valve and bleed off well bore pressure (2,800 psi), and take negative pressure test, Well dead. RDMO Perforators wireline, Change out rams from 2 3/8" to 2 7/8" and test stack 250 low and 4,500 high, tested good. Rig up rig floor to RIH production tubing, - Tally 2 7/8" 6.5# L-80 8rd tubing, PUMU & RIH as follows: (Long string) 5 1/2" X 2 7/8" X (2.313 ID) retrieving head for On-Off tool (1.55"), 2 7/8" 6.5# L-80 EUE 8rd tbg jt (32.43"), 2 7/8" Baker X Nipple (1.33"), 125 jt of 2 7/8" 6.5# L-80 EUE 8rd tbg, - 1900 PM WSU, & Cudd pump off location, Turn well over to production., Prepare to open up to production tanks - 1830 PM Pressure testing

completed, Test good, Rig laid down, Start pumping down tbg and pump off plug at 1 BPM and sheared at 4,400 PSI. pump 5 bbls over at 2 BPM at 2,846 PSI. and shut down with SICP 2,700 PSI. - 00:00 to 01:00 PM 7 1/2 SICP 2,800 psi RIH with Baker 10K hornet packer, with 10k rupture disc and set 7,455 1/2 (collar @ 7,479 1/2 liner top 7,515 1/2), POH with setting tool and all tools recovered, RDMO Perforators Wireline, - 0800 AM - Tagged Packer on jt.#232 @ 7,452' spaced out to have 12,000# on pkr. P/U and lay 1 joint down, with 231 jts in. Start reverse Circulating Pkr fluid with Biocide around. 1400 PM Pressure tested pkr. to 2,000 psi (Good Test) released pressure off of 7", tested hanger to 250 psi low for 5 minutes & 4,500 psi high for 10 minutes (Good test and chart in well file), Had to Replace rubber on hanger, while setting hanger the picked to make sure tbg was still JED on, it appeared the hanger seal rolled up and cut the rubber and had to replace, Start RDMO BOP stack, prepare to NU tree and test hanger and tree (250 low and 10,000 PSI high) - 0700 AM continue to TIH with baker on/off tool

**Daily Cost:** \$0

**Cumulative Cost:** \$2,456,016

**8/2/2012 Day: 27**

**Completion**

Rigless on 8/2/2012 - Release equipment and catch up cost - Release equipment and catch up cost

**Daily Cost:** \$0

**Cumulative Cost:** \$2,466,573

**8/5/2012 Day: 28**

**Completion**

Rigless on 8/5/2012 - Capture final costs in DCR - Cost adjustment in DCR for non-captured costs

**Daily Cost:** \$0

**Cumulative Cost:** \$2,491,694

**8/19/2012 Day: 29**

**Completion**

Rigless on 8/19/2012 - Capture final Costs in DCR - Capture final Costs in DCR, Western Water Solutions Inv# 13753,13759,13761,13766,13780,13773,13770,13765,13757(\$2223), Shields Tk.# 8860,10462,10836,11135,12124,12126,8861,10839(\$7200)

**Daily Cost:** \$0

**Cumulative Cost:** \$2,528,442

**9/2/2012 Day: 30**

**Completion**

Rigless on 9/2/2012 - Enter final costs in DCR - Enter final costs in DCR

**Daily Cost:** \$0

**Cumulative Cost:** \$2,537,194

**9/11/2012 Day: 31**

**Completion**

Nabors #1420 on 9/11/2012 - Move Rig Equipment onto location and Rig Up to well -ND Prod tree and RU Bop stack- Start to pull Tubing out of hole - RU Hot oiler to well head pump 60 bbl. fluid @250 Deg down tubing 500 to 0 psi in well dead - Install Check Valve, Nipple down well head and rig up BOP stack 0 pressure on well - BOP stack Installed, Psi test as per NFX guidelines 250 low 5 Min and 3K High 10 Min Test Blind Pipe and annular Bag with



Weatherford Test unit - 16:15 - Pull Check Valve - Remove hanger pins - pull 52K J off packer WT 43K Pull 80 Stands EOT 2304-- - 36 Stands left to pull in AM 2350 Ft Tubing- Then RIH with Gas Mandrills- Shut Down for Night - Location secured 0 psi on casing and Tubing - Install TIW valve and Night Cap for Night - SWIFN - On Location Hold safety Meeting with Nabors Rig Crew 1420 , Discuss PPE ,FRC, Smoking area, Line of fire ,3 point Contact . Pinch crush points, slips trips & falls Muster points, Housekeeping, suspended loads. Tag Lines, communications Backing procedures and Spotters, Pressure Concerns, Environmental concerns, Wind Direction, Incident Reporting, Stop Job authority, Potential H2S - Tubing Psi 0 and Casing pressure 750 - Start to Move equipment onto Location - Spot rig and begin rigging up Equipment to Well and rig pump. Unload 3 Loads of produced water

**Daily Cost:** \$0

**Cumulative Cost:** \$2,544,284

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**9/12/2012 Day: 32**

**Completion**

Nabors #1420 on 9/12/2012 - POOH 36 Stands TBG - RIH 230 JTS with 7 Gas Mandrills , Land Tubing 15K Compression -ND BOP -RU Prod Tree - On Location Hold safety Meeting with Nabors Rig Crew 1420 ,Superior , Discuss PPE ,FRC, Smoking area, Line of fire ,3 point Contact . Pinch crush points, slips trips & falls Muster points, Housekeeping, suspended loads. Tag Lines, communications Backing procedures and Spotters, Pressure Concerns, Environmental concerns, Wind Direction, Incident Reporting, Stop Job authority, Potential H2S - Well head and Casing Pressure 0 - Pump 50 bbl. produced water in well - On Vacuum - Pick up Baker on off tool -1 JT tubing -X profile nipple with No Tubing Plug -Tally Tbg - RIH with Total 229 JTS tubing 28 Ft Pup JTs and install 7 gas lift mandrills at Depths (Tubing Detail updated on DCR) 7301,6745,6169,5557,4684,3517,2000 per Superior design- Run rabbit thru stands 84.85.86 at depth 5414 Feet Tight spot in Tubing ??? - Tag Packer 7457 Ft, Mark Joint to Space out with on off tool - String WT 44K - Latch on/off @ 7,457 ,Land tbg w/ 13.5k compression, packer. Tighten pins - Install Check Valve -ND BOPs and NU tree, Weatherford test unit Torque and Pressure test- 250 low and 5K high test for 10 Min all Tested Good- remove Check Valve. - RD Rig and WFD test unit Release all vendors off location - Secure Location -Turn Well over to Production. Captured costs in DCR 9/16/12 - Resume operations POOH with remaining 2 7/8 work string 36 Stands

**Daily Cost:** \$0

**Cumulative Cost:** \$2,567,666

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**9/16/2012 Day: 33**

**Completion**

Rigless on 9/16/2012 - Capture costs in DCR 9/16/12 - Capture costs in DCR 9/16/12

**Daily Cost:** \$0

**Cumulative Cost:** \$2,585,106

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**9/30/2012 Day: 34**

**Completion**

Rigless on 9/30/2012 - Enter final costs in DCR - Enter final costs in DCR

**Daily Cost:** \$0

**Cumulative Cost:** \$2,619,731

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

<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> Patented
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> 1001 17th Street, Suite 2000 , Denver, CO, 80202		<b>8. WELL NAME and NUMBER:</b> LAKE BOREHAM 4-36-3-3WH
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0204 FNL 0333 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 36 Township: 03.0S Range: 03.0W Meridian: U		<b>9. API NUMBER:</b> 43013511940000
<b>PHONE NUMBER:</b> 303 382-4443 Ext		<b>9. FIELD and POOL or WILDCAT:</b> NORTH MYTON BENCH
<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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<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 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	<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <b>10/29/2013</b>  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:
OTHER: <span style="border: 1px solid black; padding: 2px;">Site Facility/Site Security</span>				

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

SEE ATTACHED REVISED SITE FACILITY DIAGRAM

Accepted by the  
 Utah Division of  
 Oil, Gas and Mining  
**FOR RECORD ONLY**  
 November 05, 2013

<b>NAME (PLEASE PRINT)</b> Jill L Loyle	<b>PHONE NUMBER</b> 303 383-4135	<b>TITLE</b> Regulatory Technician
<b>SIGNATURE</b> N/A	<b>DATE</b> 10/29/2013	

**NEWFIELD PRODUCTION COMPANY**

LAKE BOREHAM 4-36-3-3  
SEC. 36 T3S R3W  
DUCHESE COUNTY, UTAH



NOT TO SCALE

### LEGEND

— · — · — · — FENCE

— — — — BERM

\_\_\_\_\_ ABOVEGROUND PIPING

..... UNDERGROUND PIPING  
(LOCATION APPROXIMATE)

MH

METER HOUSE



DIRECTION OF FLOW

bbl

BARREL(S)

LL

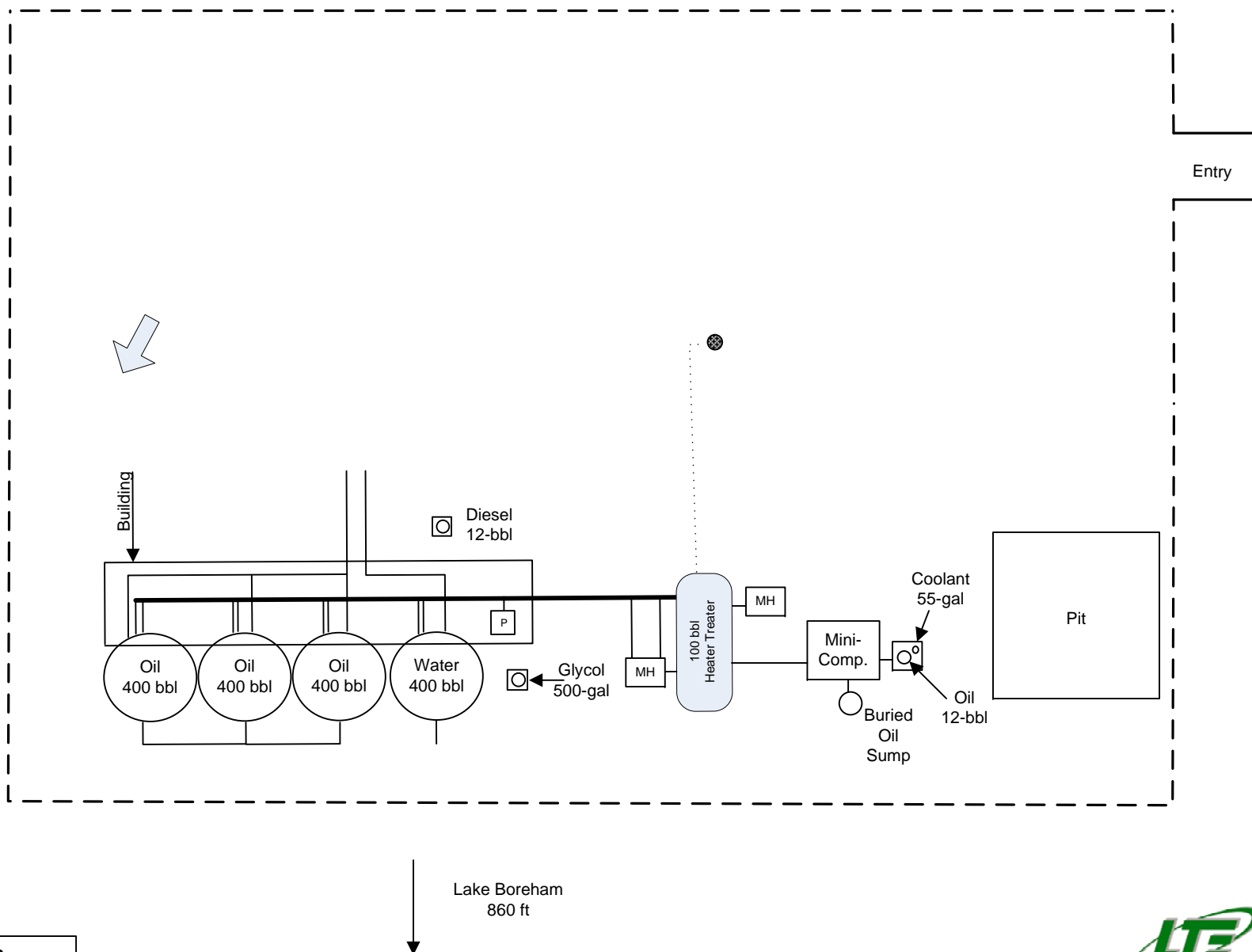
LOAD LINE

WELL HEAD

P

PUMP

- PIPING CONDUIT



**ALL UNDERGROUND PIPING IS FOR  
PROCESS FLOW DEMONSTRATION ONLY**



RECEIVED: Oct. 29, 2013

Division of Oil, Gas and Mining  
Operator Change/Name Change Worksheet-for State use only

Effective Date: 1/24/2020

<b>FORMER OPERATOR:</b>	<b>NEW OPERATOR:</b>
Newfield Production Company	Ovintiv Production, Inc.
<b>Groups:</b>	
Greater Monument Butte	

**WELL INFORMATION:**

Well Name	API Number	Town	Dir	Range	Dir	Sec	Entity Number	Type	Status
See Attached List									

Total Well Count: 4704

**OPERATOR CHANGES DOCUMENTATION:**

1. Sundry or legal documentation was received from the **FORMER** operator on:
2. Sundry or legal documentation was received from the **NEW** operator on:
3. New operator Division of Corporations Business Number:

3/16/2020

3/16/2020

755627-0143

**REVIEW:**

Receipt of Acceptance of Drilling Procedures for APD on:

Reports current for Production/Disposition & Sundries:

OPS/SI/TA well(s) reviewed for full cost bonding: Approved by Dustin

UIC5 on all disposal/injection/storage well(s) Approved on: Approved by Dayne

Surface Facility(s) included in operator change:

9/2/2020

1/14/2021

12/21/2020

3/25/2020

State 11-32 Pipeline  
Monument Butte St 10-36  
GB Fed 13-20-8-17  
Canvasback Fed 1-22-8-17  
Ashley Fed 8-14-9-15 Pipeline  
West Lateral 4C Slug Catcher (2-5-3-3)  
West Lateral Phase 5 Slug Catcher  
Bar F Slug Catcher  
Dart Slug Catcher  
Mullins Slug Catcher  
Temporary Produced Water Conditioning Site  
Dart Temporary Produced Water Facility  
Earl Temporary Water Treatment Facility

**NEW OPERATOR BOND VERIFICATION:**

State/fee well(s) covered by Bond Number(s):

B001834.A

107238142-Shut-In Bond

**DATA ENTRY:**

Well(s) update in the RBDMS on:

1/14/2021

Group(s) update in RDBMS on:

1/14/2021

Surface Facilities update in RBDMS on:

1/14/2021

Entities Updated in RBDMS on:

**COMMENTS:**

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

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
see attached list

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  
see attached

7. UNIT or CA AGREEMENT NAME:

8. WELL NAME and NUMBER:  
see attached

9. API NUMBER:  
attached

10. FIELD AND POOL, OR WILDCAT:  
attached

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER \_\_\_\_\_

2. NAME OF OPERATOR:  
Newfield Production Company

3. ADDRESS OF OPERATOR:  
4 Waterway Square Place St. CITY The Woodlands STATE TX ZIP 77380

PHONE NUMBER:  
(435) 646-4936

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: \_\_\_\_\_

COUNTY: \_\_\_\_\_

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: \_\_\_\_\_ STATE: **UTAH**

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<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 type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" 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 FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<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/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<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.

This sundry is serve as notification of the formal corporate name change of Newfield Production Company to Orintiv Production Inc. Attached is a list of all wells wells that will be operated under Orintiv Production Inc effective January 24, 2020.

PREVIOUS NAME:  
Newfield Producon Company  
4 Waterway Square Place Suite 100  
The Woodlands, TX 77380  
(435)646-4825

NEW NAME:  
Orintiv Production Inc.  
4 Waterway Square Place Suite 100  
The Woodlands, TX 77380  
(435)646-4825

NAME (PLEASE PRINT) Shon McKinnon TITLE Regulatory Manager, Rockies  
SIGNATURE  DATE 3/16/2020

(This space for State use only)



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

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

5. LEASE DESIGNATION AND SERIAL NUMBER:

see attached list

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

see attached

7. UNIT or CA AGREEMENT NAME:

8. WELL NAME and NUMBER:

see attached

9. API NUMBER:

attached

10. FIELD AND POOL, OR WILDCAT:

attached

1. TYPE OF WELL:

OIL WELL ☐

GAS WELL ☐

OTHER \_\_\_\_\_

2. NAME OF OPERATOR:

Newfield Production Company

3. ADDRESS OF OPERATOR:

4 Waterway Square Place St. CITY The Woodlands

STATE TX

ZIP 77380

PHONE NUMBER:

(435) 646-4936

4. LOCATION OF WELL

FOOTAGES AT SURFACE:

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE:

UTAH

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

TYPE OF SUBMISSION

TYPE OF ACTION



NOTICE OF INTENT  
(Submit in Duplicate)

Approximate date work will start:

☐ SUBSEQUENT REPORT  
(Submit Original Form Only)

Date of work completion:



ACIDIZE



ALTER CASING



CASING REPAIR



CHANGE TO PREVIOUS PLANS



CHANGE TUBING



CHANGE WELL NAME



CHANGE WELL STATUS



COMMINGLE PRODUCING FORMATIONS



CONVERT WELL TYPE



DEEPEN



FRACTURE TREAT



NEW CONSTRUCTION



OPERATOR CHANGE



PLUG AND ABANDON



PLUG BACK



PRODUCTION (START/RESUME)



RECLAMATION OF WELL SITE



RECOMPLETE - DIFFERENT FORMATION



REPERFORATE CURRENT FORMATION



SIDETRACK TO REPAIR WELL



TEMPORARILY ABANDON



TUBING REPAIR



VENT OR FLARE



WATER DISPOSAL



WATER SHUT-OFF



OTHER: \_\_\_\_\_

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

This sundry is serve as notification of the formal corporate name change of Newfield Production Company to Ovintiv Production Inc. Attached is a list of all wells wells that will be operated under Ovintiv Production Inc effective January 24, 2020.

PREVIOUS NAME:

Newfield Production Company  
4 Waterway Square Place Suite 100  
The Woodlands, TX 77380  
(435)646-4825

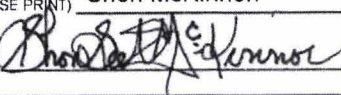
NEW NAME:

Ovintiv Production Inc.  
4 Waterway Square Place Suite 100  
The Woodlands, TX 77380  
(435)646-4825

NAME (PLEASE PRINT) Shon McKinnon

TITLE Regulatory Manager, Rockies

SIGNATURE



DATE

3/16/2020

(This space for State use only)



Division of Oil, Gas and Mining  
Operator Change/Name Change Worksheet-for State use only

Effective Date: 7/1/2021

<b>FORMER OPERATOR:</b>	<b>NEW OPERATOR:</b>
Ovintiv Production, Inc.	Ovintiv USA, Inc.
Groups: Greater Monument Butte	

**WELL INFORMATION:**

Well Name	API Number	Town	Dir	Range	Dir	Sec	Entity Number	Type	Status
See Attached List									

Total Well Count: 4689  
Pre-Notice Completed: 9/22/2021

**OPERATOR CHANGES DOCUMENTATION:**

1. Sundry or legal documentation was received from the **FORMER** operator on: 9/15/2021
2. Sundry or legal documentation was received from the **NEW** operator on: 9/15/2021
3. New operator Division of Corporations Business Number: 5053175-0143

**REVIEW:**

Receipt of Acceptance of Drilling Procedures for APD on: 9/15/2021  
Reports current for Production/Disposition & Sundries: 9/22/2021  
OPS/SIT/TA well(s) reviewed for full cost bonding: Approved by Dustin 10/25/2021  
UIC5 on all disposal/injection/storage well(s) Approved on: Approved by Dayne 10/4/2021

Surface Facility(s) included in operator change:

- Monument Butte Liq. Cond.
- Pleasant Valley (New)
- West Lateral 4C Slug Catcher (2-5-3-3)
- West Lateral Phase 5 Slug Catcher
- Bar F Slug Catcher
- Dart Slug Catcher
- Mullins Slug Catcher
- Ashley
- Sundance
- Ranch
- Pleasant Valley
- Monument Butte
- Ashley Fed 8-14-9-15 Pipeline
- Ute Tribal 4-13-4-2W Pipeline
- State 11-32 Pipeline
- Monument Butte St 10-36
- GB Fed 13-20-8-17
- Canvasback Fed 1-22-8-17

**NEW OPERATOR BOND VERIFICATION:**

State/fee well(s) covered by Bond Number(s): B001834-B  
107238142A

**DATA ENTRY:**

Well(s) update in the RBDMS on: 11/24/2021  
Group(s) update in RDBMS on: 11/21/2021  
Surface Facilities update in RBDMS on: 11/24/2021  
Entities Updated in RBDMS on: 11/24/2021

**COMMENTS:**

9/22/2021, Since the Newfield to Ovintiv operator change was processed at the beginning of 2021, Name change will only need to match the existing bonds in place under Ovintiv Production, Inc; no additional bond will be required at this time.

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:

See attached list

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:

8. WELL NAME and NUMBER:

9. API NUMBER:

10. FIELD AND POOL, OR WILDCAT:

1. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER \_\_\_\_\_

2. NAME OF OPERATOR:  
Ovintiv Production, Inc.

3. ADDRESS OF OPERATOR:  
4 Waterway SQ PL STE 100 CITY The Woodlands STATE TX ZIP 77380

PHONE NUMBER:  
(281) 210-5100

4. LOCATION OF WELL

FOOTAGES AT SURFACE:

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE:

UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: 7/1/2021	<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 type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" 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 FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<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/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<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.

This sundry is to serve as notification that Ovintiv Production Inc. merged into Ovintiv USA Inc. Attached is a list of all wells that will be operated under Ovintiv USA Inc. effect July 1, 2021.

PREVIOUS NAME:  
Ovintiv Production Inc.  
4 Waterway Square Place Suite 100  
The Woodlands, TX 77380  
(281) 210-5100

NEW NAME:  
Ovintiv USA Inc.  
4 Waterway Square Place Suite 100  
The Woodlands, TX 77380  
(281) 210-5100

NAME (PLEASE PRINT) Julia Carter

TITLE Manager, US Regulatory Operations

SIGNATURE 

DATE 9/8/2021

(This space for State use only)

APPROVED

By Utah Division of  
Oil, Gas, and Mining

Rachel Medina