

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

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>						<b>1. WELL NAME and NUMBER</b> NBU 922-30P3DS				
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						<b>3. FIELD OR WILDCAT</b> NATURAL BUTTES				
<b>4. TYPE OF WELL</b> Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> NATURAL BUTTES				
<b>6. NAME OF OPERATOR</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.						<b>7. OPERATOR PHONE</b> 720 929-6515				
<b>8. ADDRESS OF OPERATOR</b> P.O. Box 173779, Denver, CO, 80217						<b>9. OPERATOR E-MAIL</b> julie.jacobson@anadarko.com				
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> ML 22935			<b>11. MINERAL OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			<b>12. SURFACE OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>				
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>						<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>				
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>						<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>				
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>			<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>			<b>19. SLANT</b> VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
<b>20. LOCATION OF WELL</b>		<b>FOOTAGES</b>		<b>QTR-QTR</b>	<b>SECTION</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>MERIDIAN</b>		
LOCATION AT SURFACE		261 FNL 789 FWL		NWNW	32	9.0 S	22.0 E	S		
Top of Uppermost Producing Zone		229 FSL 778 FEL		SESE	30	9.0 S	22.0 E	S		
At Total Depth		229 FSL 778 FEL		SESE	30	9.0 S	22.0 E	S		
<b>21. COUNTY</b> UINTAH			<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 229			<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 200				
<b>27. ELEVATION - GROUND LEVEL</b> 4965			<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 712			<b>26. PROPOSED DEPTH</b> MD: 10790 TVD: 10467				
<b>28. BOND NUMBER</b> 22013542			<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 43-8496							
<b>Hole, Casing, and Cement Information</b>										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	11	8.625	0 - 2560	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
PROD	7.875	4.5	0 - 10790	11.6	HCP-110 LT&C	12.5	Premium Lite High Strength	320	3.38	12.0
							50/50 Poz	1590	1.31	14.3
<b>ATTACHMENTS</b>										
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
<b>NAME</b> Laura Abrams				<b>TITLE</b> Regulatory Analyst II				<b>PHONE</b> 720 929-6356		
<b>SIGNATURE</b>				<b>DATE</b> 05/18/2012				<b>EMAIL</b> Laura.Abrams@anadarko.com		
<b>API NUMBER ASSIGNED</b> 43047526950000				<b>APPROVAL</b> <div style="text-align: center;">                       Permit Manager                 </div>						

**Kerr-McGee Oil & Gas Onshore. L.P.**

**NBU 922-30P3DS**

Surface: 261 FNL / 789 FWL      NWNW  
BHL: 229 FSL / 778 FEL      SESE

Section 32 T9S R22E

Unitah County, Utah  
Mineral Lease: ST ML 22935

**ONSHORE ORDER NO. 1****DRILLING PROGRAM**

**1. & 2.a Estimated Tops of Important Geologic Markers:**  
**Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:**

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,320'	
Birds Nest	1,641'	Water
Mahogany	2,108'	Water
Wasatch	4,575'	Gas
Mesaverde	7,119'	Gas
Sego	9,368'	Gas
Castlegate	9,414'	Gas
Blackhawk	9,867'	Gas
TVD =	10,467'	
TD =	10,790'	

- 2.c** Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr-McGee drills to a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

**3. Pressure Control Equipment (Schematic Attached)**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**4. Proposed Casing & Cementing Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**5. Drilling Fluids Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**6. Evaluation Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**7. Abnormal Conditions:**

**7.a Blackhawk (Part of Mesaverde Group)**

Maximum anticipated bottom hole pressure calculated at 10467' TVD, approximately equals  
6,699 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,381 psi (bottom hole pressure  
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-  
 (0.22 psi/ft-partial evac gradient x TVD of next csg point))

**7.b Wasach Formation/Mesaverde Group**

Maximum anticipated bottom hole pressure calculated at 9368' TVD, approximately equals  
5,714 psi (0.61 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,678 psi (bottom hole pressure  
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-  
 (0.22 psi/ft-partial evac gradient x TVD of next csg point))

**8. Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

**9. Variances:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program  
 Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements  
 associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated  
 with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current  
 air drilling practices for constructing the surface casing hole should be granted a variance to Onshore  
 Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a  
 historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to  
 drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing  
 hole in approximately 675 wells without incident of blow out or loss of life.

**Background**

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the  
 surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling  
 operation does not drill through productive or over pressured formations in KMG field, but does  
 penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome  
 the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole  
 for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the  
 Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through  
 a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### **Variance for BOPE Requirements**

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

#### **Variance for Mud Material Requirements**

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

#### **Variance for Special Drilling Operation (surface equipment placement) Requirements**

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does not put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

#### **Variance for FIT Requirements**

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

**Conclusion**

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

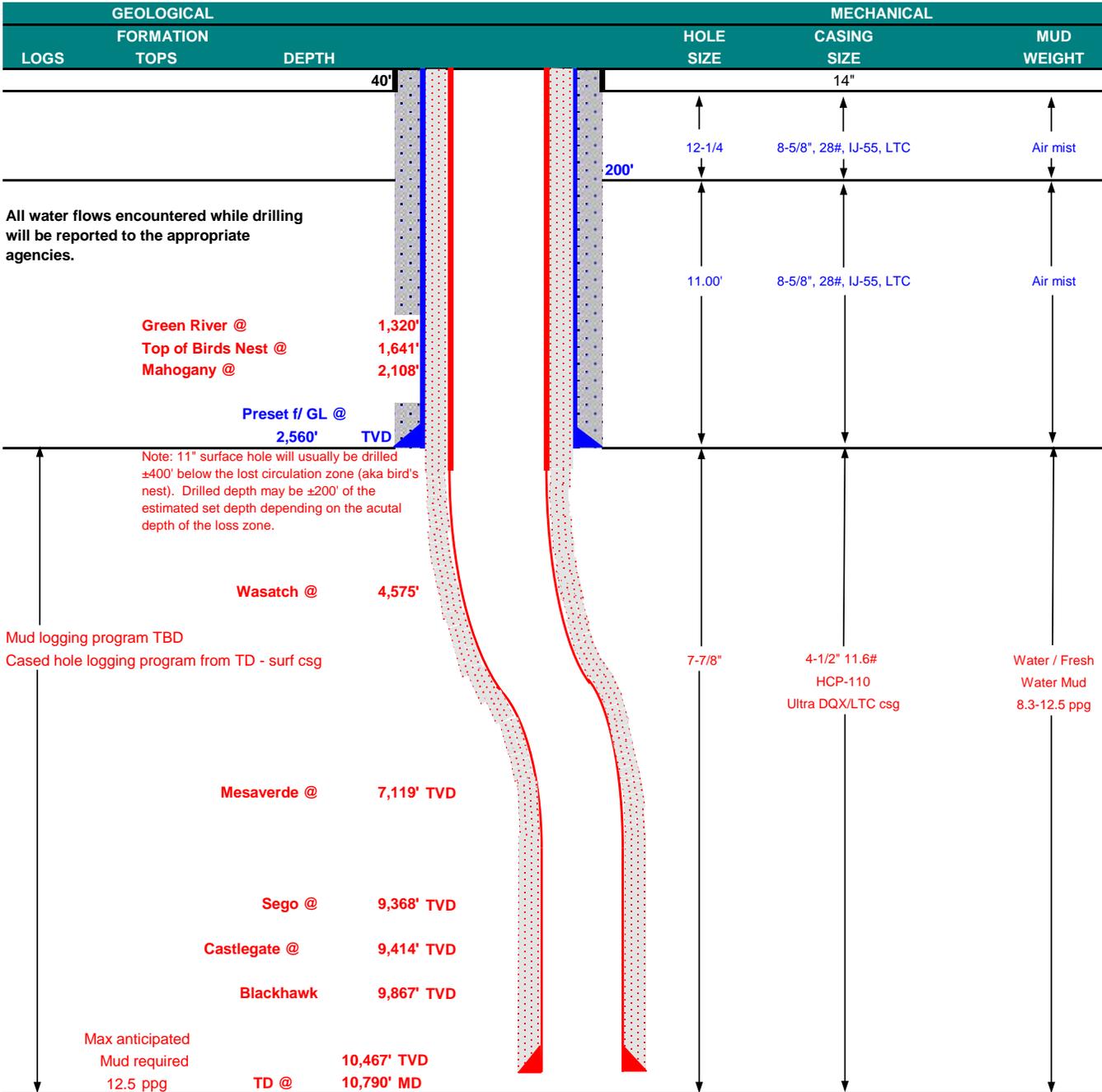
10. **Other Information:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



**KERR-McGEE OIL & GAS ONSHORE LP**  
**Blackhawk Drilling Program**

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	May 17, 2012	
WELL NAME	<b>NBU 922-30P3DS</b>			TD	10,467'	TVD 10,790' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION 4,965'
SURFACE LOCATION	NWNW	261 FNL	789 FWL	Sec 32	T 9S	R 22E
	Latitude: 39.999063	Longitude: -109.470472		NAD 83		
BTM HOLE LOCATION	SESE	229 FSL	778 FEL	Sec 30	T 9S	R 22E
	Latitude: 40.000399	Longitude: -109.476065		NAD 83		
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)					
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.					





**KERR-McGEE OIL & GAS ONSHORE LP**  
**Blackhawk Drilling Program**

**CASING PROGRAM**

							DESIGN FACTORS		
							LTC	DQX	
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'							
							3,390	1,880	348,000
SURFACE	8-5/8"	0	to 2,560	28.00	IJ-55	LTC	2.10	1.57	5.54
							10,690	8,650	279,000
PRODUCTION	4-1/2"	0	to 5,000	11.60	HCP-110	DQX	1.19	1.27	3.63
	4-1/2"	5,000	to 10,790'	11.60	HCP-110	LTC	1.19	1.27	5.13

**Surface Casing:**

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**Production casing:**

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
<b>Option 1</b>		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>						
SURFACE	2,060'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00	3.82
<b>Option 2</b>		+ 0.25 pps Flocele + 3% salt BWOW				
	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	4,070'	Premium Lite II +0.25 pps	320	35%	12.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
	6,720'	50/50 Poz/G + 10% salt + 2% gel	1,590	35%	14.30	1.31
		+ 0.1% R-3				

\*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

\*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

**FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

**ADDITIONAL INFORMATION**

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: \_\_\_\_\_  
Nick Spence / Danny Showers / Chad Loesel

DATE: \_\_\_\_\_

DRILLING SUPERINTENDENT: \_\_\_\_\_  
Kenny Gathings / Lovel Young

DATE: \_\_\_\_\_





**KERR-McGEE OIL & GAS ONSHORE LP**  
**Wasatch/Mesaverde Drilling Program**

**CASING PROGRAM**

							DESIGN FACTORS			
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	LTC	DQX
		TENSION								
CONDUCTOR	14"	0-40'								
SURFACE	8-5/8"	0	to 2,560	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
							2.10	1.57	5.54	N/A
PRODUCTION	4-1/2"	0	to 5,000	11.60	I-80	DQX	7,780	6,350		267,035
							1.11	1.09		2.91
							7,780	6,350	223,000	
	4-1/2"	5,000	to 9,691'	11.60	I-80	LTC	1.11	1.09	5.02	

**Surface Casing:**

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe  
Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**Production casing:**

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**CEMENT PROGRAM**

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
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<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>							
SURFACE	LEAD	2,060'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,071'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	35%	12.00	3.38
	TAIL	5,620'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,330	35%	14.30	1.31

\*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

\*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

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**DRILLING ENGINEER:**

Nick Spence / Danny Showers / Chad Loesel

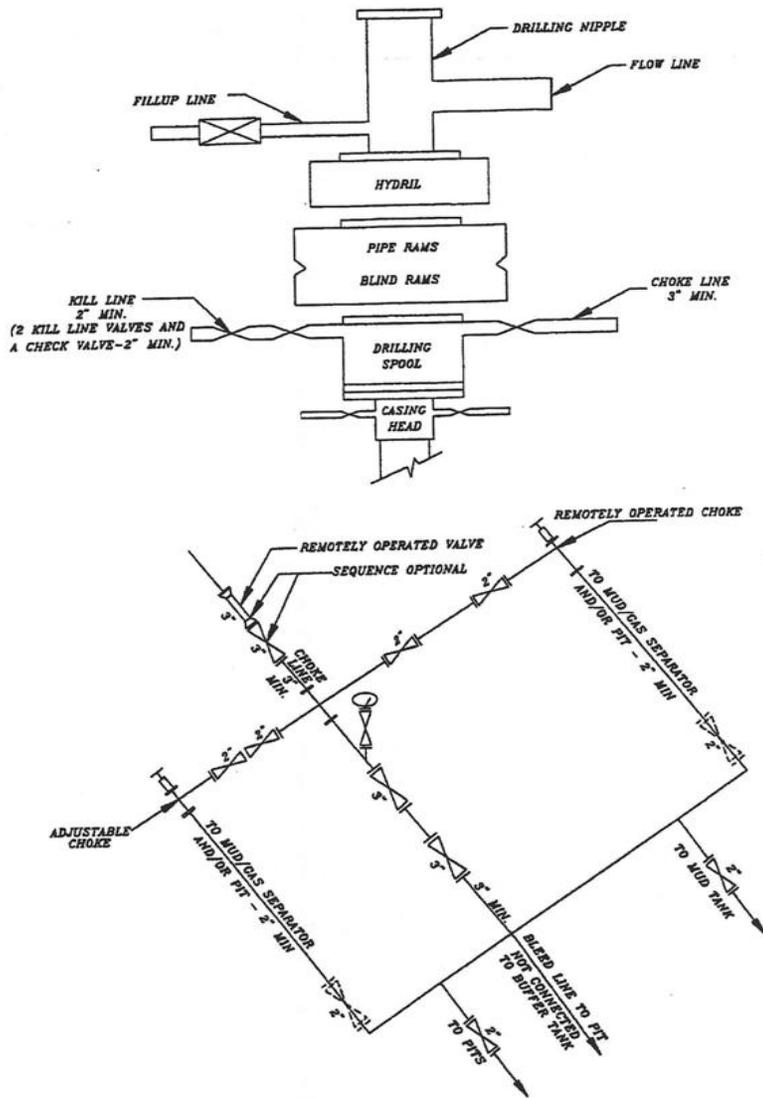
**DATE:**

**DRILLING SUPERINTENDENT:**

Kenny Gathings / Lovel Young

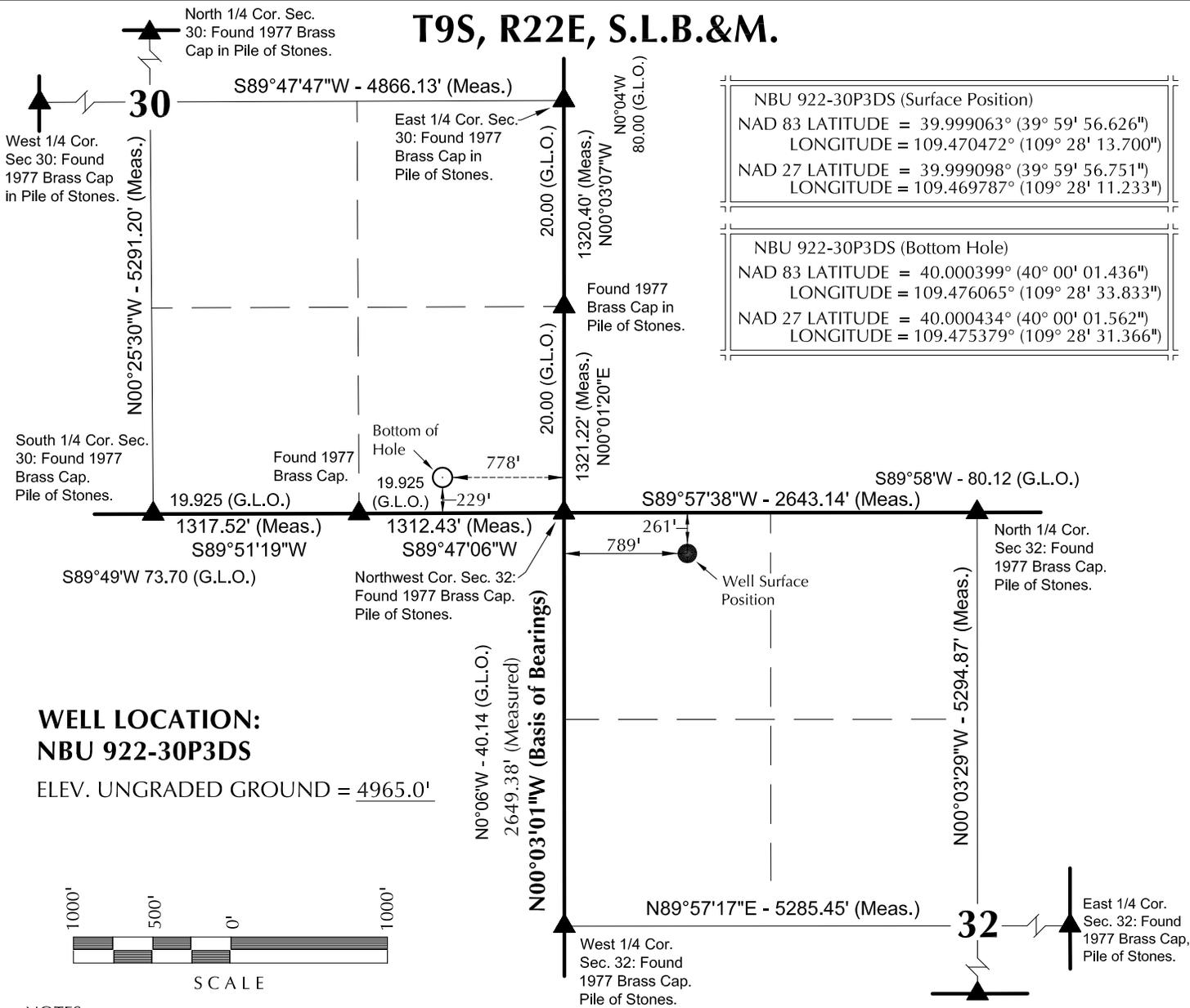
**DATE:**

**EXHIBIT A**  
**NBU 922-30P3DS**



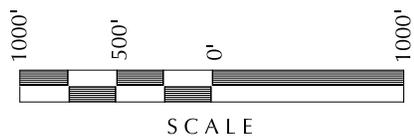
**SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK**

# T9S, R22E, S.L.B.&M.



NBU 922-30P3DS (Surface Position)	
NAD 83 LATITUDE = 39.999063° (39° 59' 56.626")	LONGITUDE = 109.470472° (109° 28' 13.700")
NAD 27 LATITUDE = 39.999098° (39° 59' 56.751")	LONGITUDE = 109.469787° (109° 28' 11.233")
NBU 922-30P3DS (Bottom Hole)	
NAD 83 LATITUDE = 40.000399° (40° 00' 01.436")	LONGITUDE = 109.476065° (109° 28' 33.833")
NAD 27 LATITUDE = 40.000434° (40° 00' 01.562")	LONGITUDE = 109.475379° (109° 28' 31.366")

**WELL LOCATION:**  
**NBU 922-30P3DS**  
 ELEV. UNGRADED GROUND = 4965.0'



- NOTES:**
- ▲ = Section Corners Located
  - 1. Well footages are measured at right angles to the Section Lines.
  - 2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
  - 3. The Bottom of hole bears N72°44'11"W 1641.14' from the Surface Position.
  - 4. Bearings are based on Global Positioning Satellite observations.
  - 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

**SURVEYOR'S CERTIFICATE**

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.

John R. Laugh  
 PROFESSIONAL LAND SURVEYOR  
 REGISTRATION No. 6028691  
 STATE OF UTAH  
 1-3-11

**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street - Denver, Colorado 80202

**WELL PAD: NBU 922-32D1**

**NBU 922-30P3DS**  
**WELL PLAT**  
**229' FSL, 778' FEL (Bottom Hole)**  
**SE ¼ SE ¼ OF SECTION 30, T9S, R22E,**  
**S.L.B.&M., UTAH COUNTY, UTAH.**

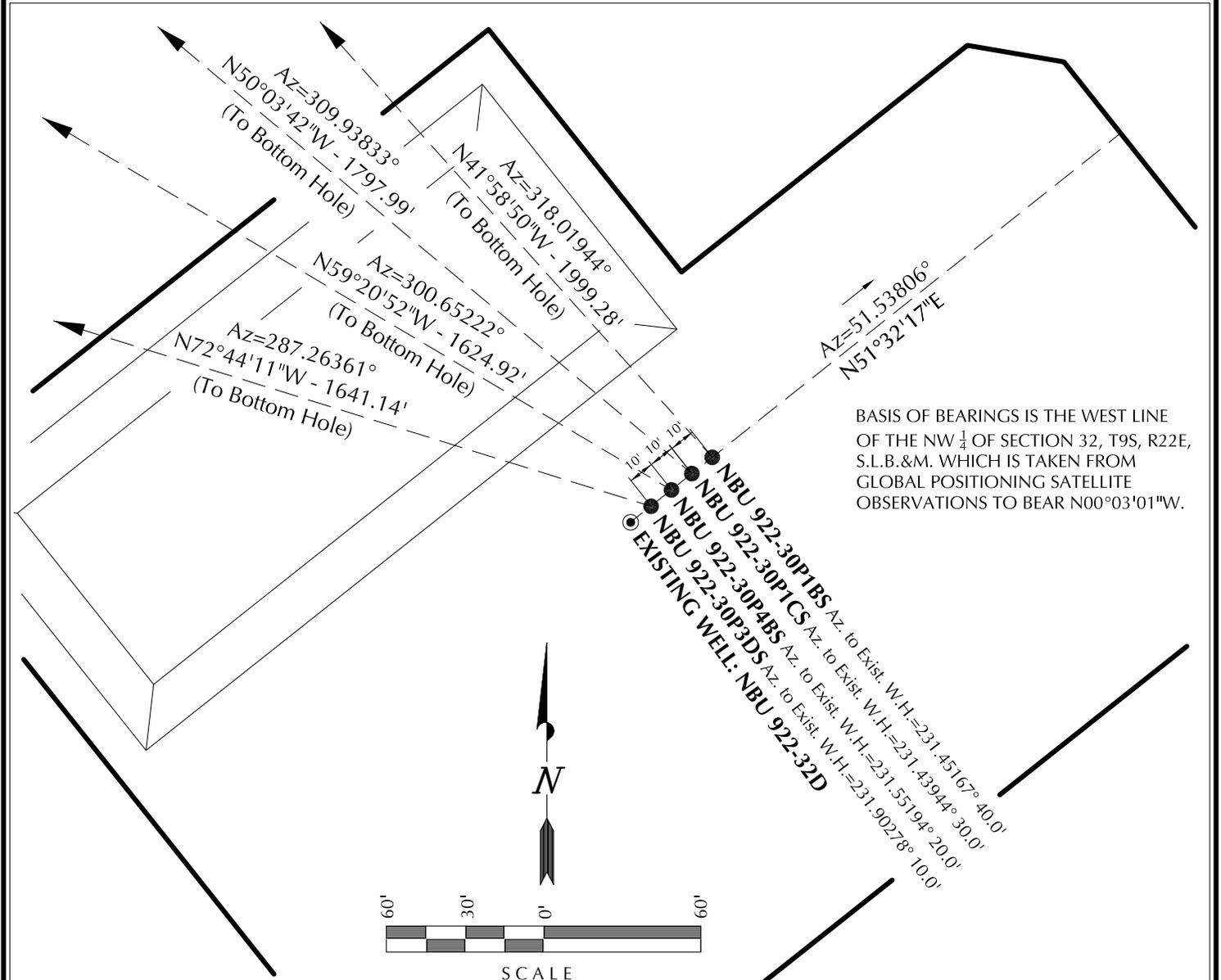
**609**  
**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

**TIMBERLINE** (435) 789-1365  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 07-19-10	SURVEYED BY: M.S.B.	SHEET NO: <b>4</b>
DATE DRAWN: 07-20-10	DRAWN BY: K.O.B.	
SCALE: 1" = 1000'		Date Last Revised: 12-30-10 E.M.S.
		4 OF 16

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 922-30P1BS	39°59'56.811"	109°28'13.398"	39°59'56.937"	109°28'10.932"	243' FNL	40°00'11.493"	109°28'30.580"	40°00'11.619"	109°28'28.112"	1246' FSL
	39.999114°	109.470388°	39.999149°	109.469703°	813' FWL	40.003193°	109.475161°	40.003228°	109.474476°	525' FEL
NBU 922-30P1CS	39°59'56.750"	109°28'13.499"	39°59'56.875"	109°28'11.033"	249' FNL	40°00'08.152"	109°28'31.210"	40°00'08.278"	109°28'28.743"	908' FSL
	39.999097°	109.470416°	39.999132°	109.469731°	805' FWL	40.002264°	109.475336°	40.002299°	109.474651°	574' FEL
NBU 922-30P4BS	39°59'56.688"	109°28'13.599"	39°59'56.813"	109°28'11.133"	255' FNL	40°00'04.871"	109°28'31.558"	40°00'04.997"	109°28'29.091"	576' FSL
	39.999080°	109.470444°	39.999115°	109.469759°	797' FWL	40.001353°	109.475433°	40.001388°	109.474748°	601' FEL
NBU 922-30P3DS	39°59'56.626"	109°28'13.700"	39°59'56.751"	109°28'11.233"	261' FNL	40°00'01.436"	109°28'33.833"	40°00'01.562"	109°28'31.366"	229' FSL
	39.999063°	109.470472°	39.999098°	109.469787°	789' FWL	40.000399°	109.476065°	40.000434°	109.475379°	778' FEL
NBU 922-32D	39°59'56.565"	109°28'13.800"	39°59'56.690"	109°28'11.334"	268' FNL					
	39.999046°	109.470500°	39.999081°	109.469815°	781' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole											
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-30P1BS	1,486.2'	-1,337.3'	NBU 922-30P1CS	1,154.2'	-1,378.6'	NBU 922-30P4BS	828.4'	-1,397.9'	NBU 922-30P3DS	487.0'	-1,567.2'



**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street - Denver, Colorado 80202

**WELL PAD - NBU 922-32D1**

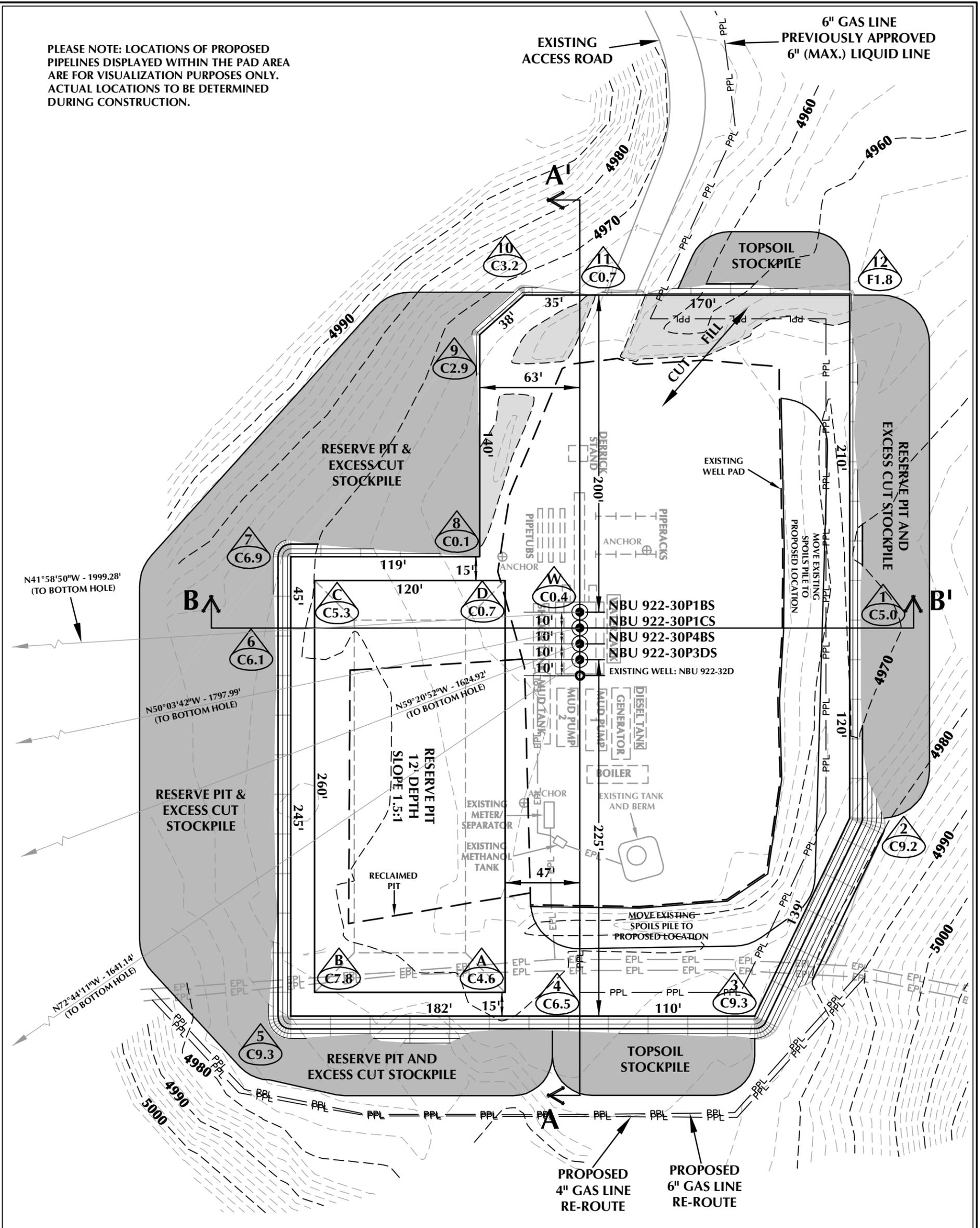
**WELL PAD INTERFERENCE PLAT**  
 WELLS - NBU 922-30P1BS, NBU 922-30P1CS,  
 NBU 922-30P4BS & NBU 922-30P3DS  
 LOCATED IN SECTION 32, T9S, R22E,  
 S.L.B.&M., UTAH COUNTY, UTAH.

**609 CONSULTING, LLC**  
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 Sheridan WY 82801  
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 Fax 307-674-0182

**TIMBERLINE** (435) 789-1365  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 07-19-10	SURVEYED BY: M.S.B.	SHEET NO: <b>5</b> 5 OF 16
DATE DRAWN: 07-20-10	DRAWN BY: K.O.B.	
SCALE: 1" = 60'	Date Last Revised: 12-30-10 E.M.S.	

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



**WELL PAD - NBU 922-32D1 DESIGN SUMMARY**

EXISTING GRADE @ CENTER OF WELL PAD = 4965.1'  
 FINISHED GRADE ELEVATION = 4964.7'  
 CUT SLOPES = 1.5:1  
 FILL SLOPES = 1.5:1  
 TOTAL WELL PAD AREA = 3.47 ACRES  
 TOTAL DAMAGE AREA = 6.28 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00

**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-32D1

WELL PAD - LOCATION LAYOUT  
 NBU 922-30P1BS, NBU 922-30P1CS,  
 NBU 922-30P4BS & NBU 922-30P3DS  
 LOCATED IN SECTION 32, T9S, R22E,  
 S.L.B.&M., UTAH COUNTY, UTAH



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**WELL PAD QUANTITIES**

TOTAL CUT FOR WELL PAD = 14,112 C.Y.  
 TOTAL FILL FOR WELL PAD = 644 C.Y.  
 TOPSOIL @ 6" DEPTH = 1,785 C.Y.  
 EXCESS MATERIAL = 13,468 C.Y.

**RESERVE PIT QUANTITIES**

TOTAL CUT FOR RESERVE PIT  
 +/- 11,020 CY  
 RESERVE PIT CAPACITY (2' OF FREEBOARD)  
 +/- 42,290 BARRELS

**WELL PAD LEGEND**

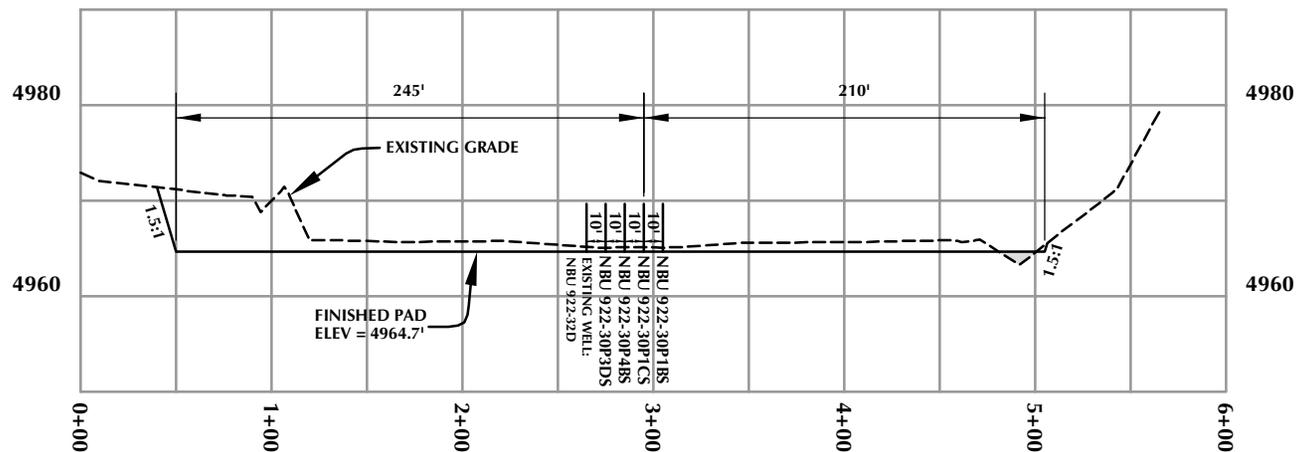
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE



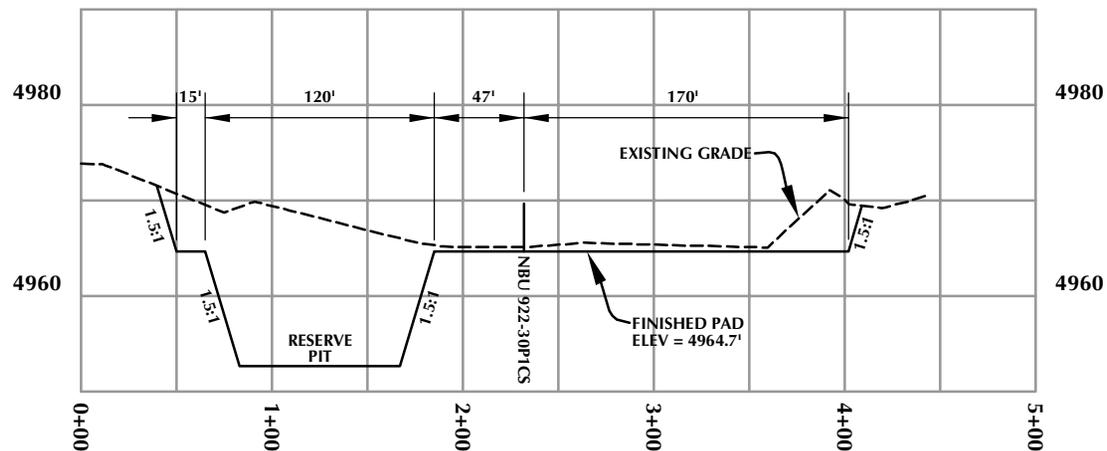
HORIZONTAL 0 30 60 1" = 60'  
 2' CONTOURS

Scale: 1"=60' Date: 1/14/11 SHEET NO:  
 REVISED: TAR 3/21/11 **6** 6 OF 16

**TIMBERLINE** (435) 789-1365  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078



**CROSS SECTION A-A'**



**CROSS SECTION B-B'**

**Kerr-McGee Oil & Gas Onshore, LP**  
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-32D1

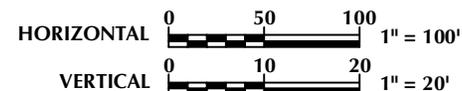
WELL PAD - CROSS SECTIONS  
NBU 922-30P1BS, NBU 922-30P1CS,  
NBU 922-30P4BS & NBU 922-30P3DS  
LOCATED IN SECTION 32, T9S, R22E,  
S.L.B.&M., Uintah County, Utah



CONSULTING, LLC  
2155 North Main Street  
Sheridan, WY 82801  
Phone 307-674-0609  
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**TIMBERLINE**  
ENGINEERING & LAND SURVEYING, INC.  
209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365



Scale: 1"=100'

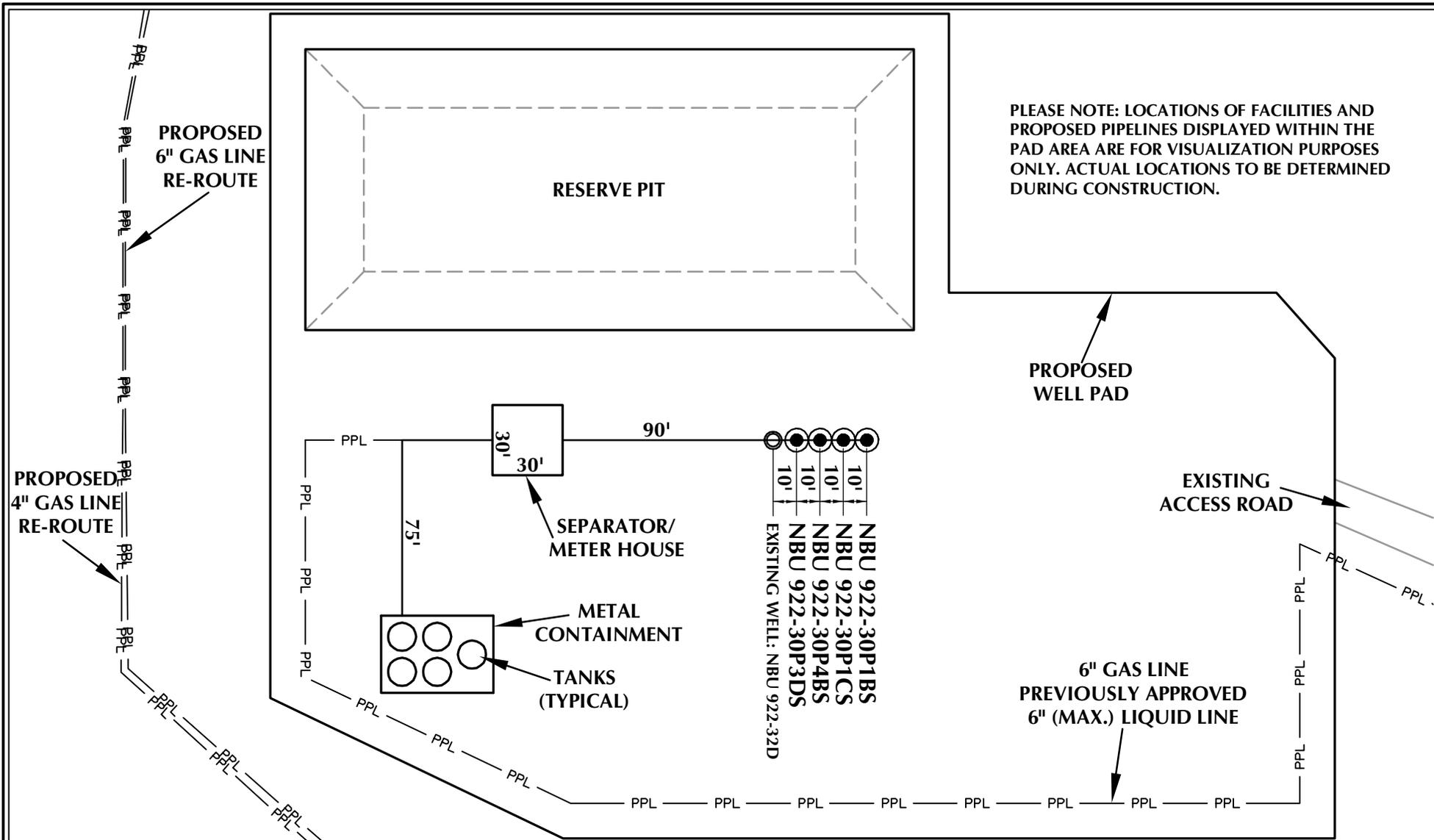
Date: 1/14/11

SHEET NO:

REVISED:

**7**

7 OF 16



**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street - Denver, Colorado 80202

**WELL PAD - NBU 922-32D1**

**WELL PAD - FACILITIES DIAGRAM**  
 NBU 922-30P1BS, NBU 922-30P1CS,  
 NBU 922-30P4BS & NBU 922-30P3DS  
 LOCATED IN SECTION 32, T9S, R22E,  
 S.L.B.&M., Uintah County, Utah



**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

**WELL PAD LEGEND**

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE



**HORIZONTAL** 0 30' 60' 1" = 60'

**TIMBERLINE**  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

Scale: 1"=60'

Date: 1/14/11

SHEET NO:

REVISED:

TAR  
 3/21/11

**8**

8 OF 16

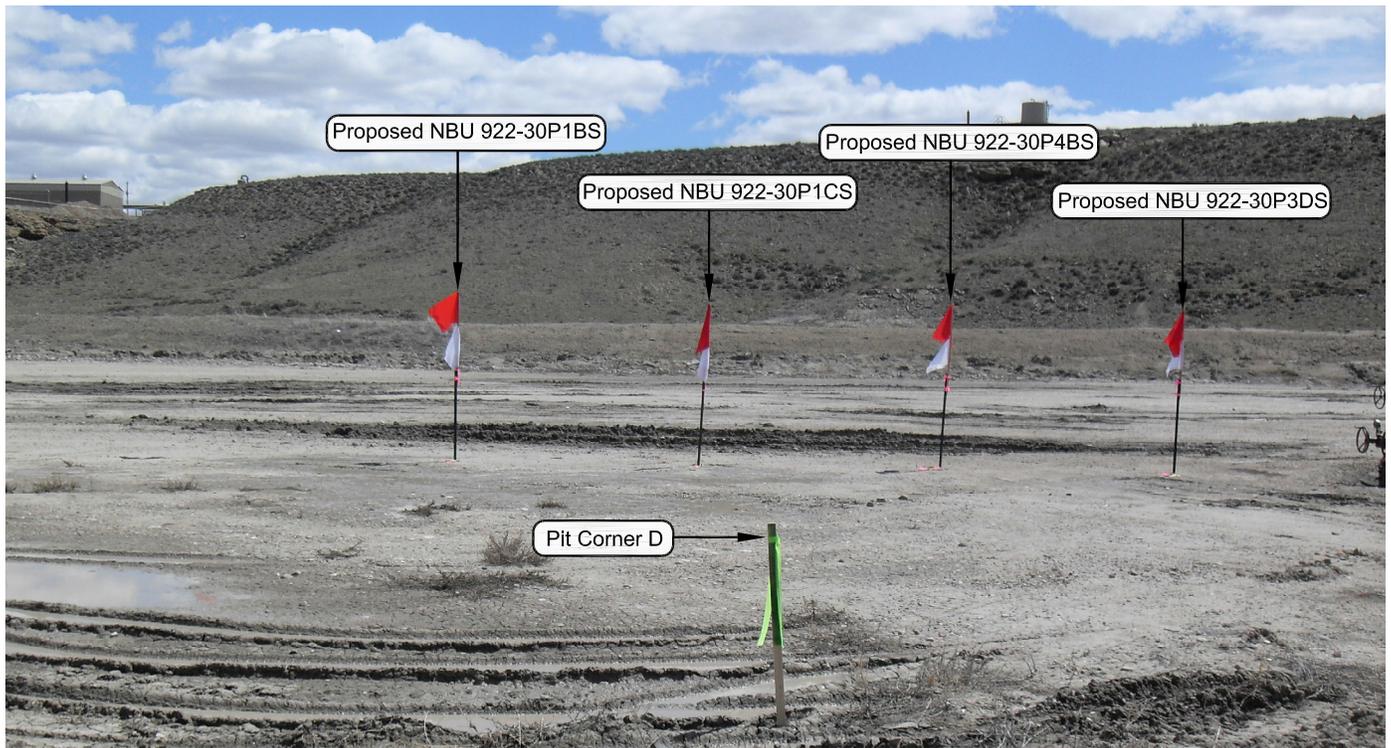


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHWESTERLY

**Kerr-McGee Oil & Gas Onshore, LP**  
1099 18th Street - Denver, Colorado 80202

**WELL PAD - NBU 922-32D1**

**LOCATION PHOTOS**

**NBU 922-30P1BS, NBU 922-30P1CS,  
NBU 922-30P4BS & NBU 922-30P3DS  
LOCATED IN SECTION 32, T9S, R22E,  
S.L.B.&M., UINTAH COUNTY, UTAH.**



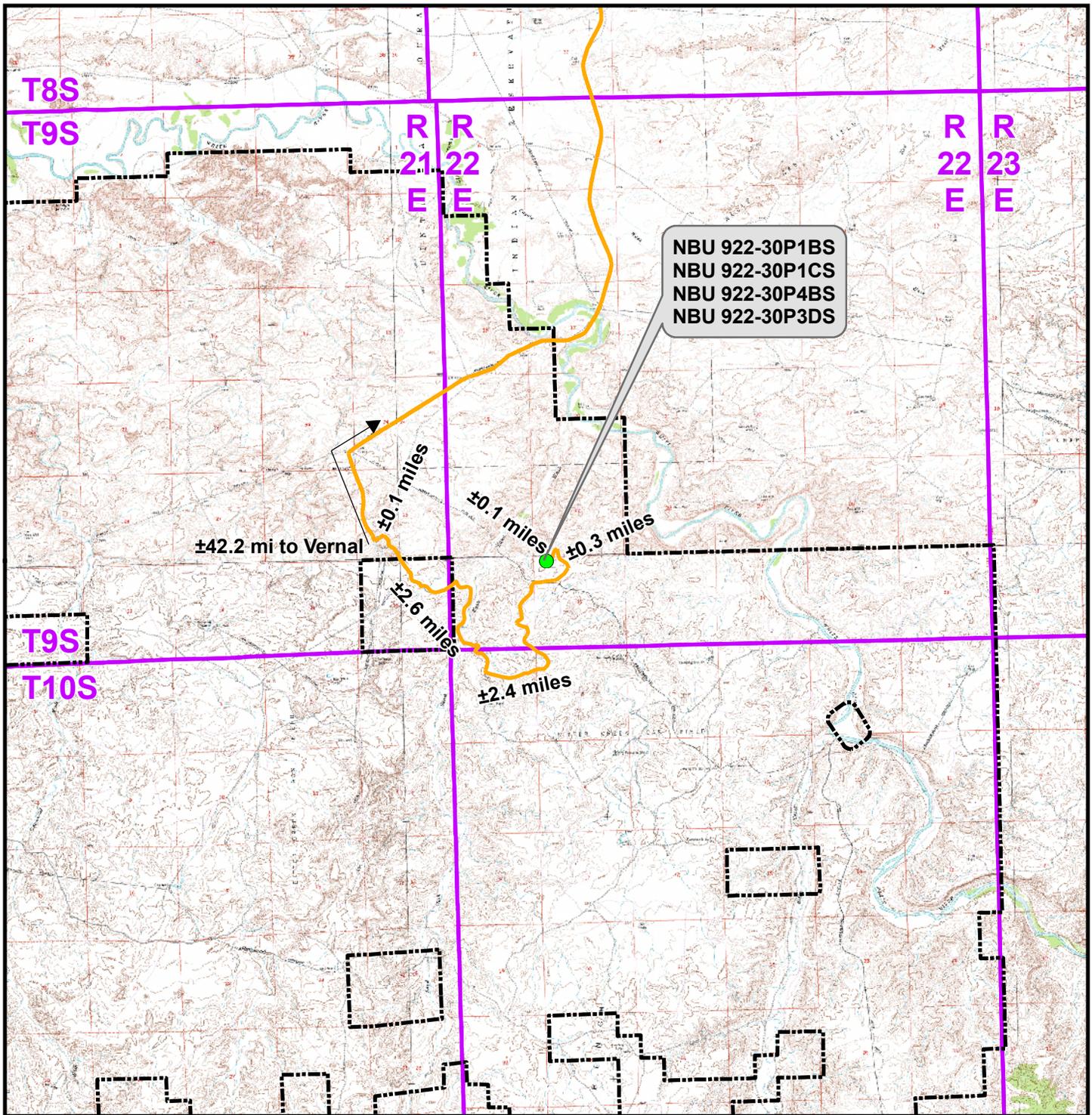
**CONSULTING, LLC**  
2155 North Main Street  
Sheridan WY 82801  
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Fax 307-674-0182

**TIMBERLINE**

(435) 789-1365

**ENGINEERING & LAND SURVEYING, INC.**  
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 04-22-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO: <b>9</b>
DATE DRAWN: 07-20-10	DRAWN BY: K.O.B.	
Date Last Revised: 12-30-10 E.M.S.		9 OF 16



**Legend**

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

Distance From Well Pad - NBU 922-32D1 To Unit Boundary: ±4,480ft

**Kerr-McGee Oil & Gas Onshore, LP**  
1099 18th Street, Denver, Colorado 80202

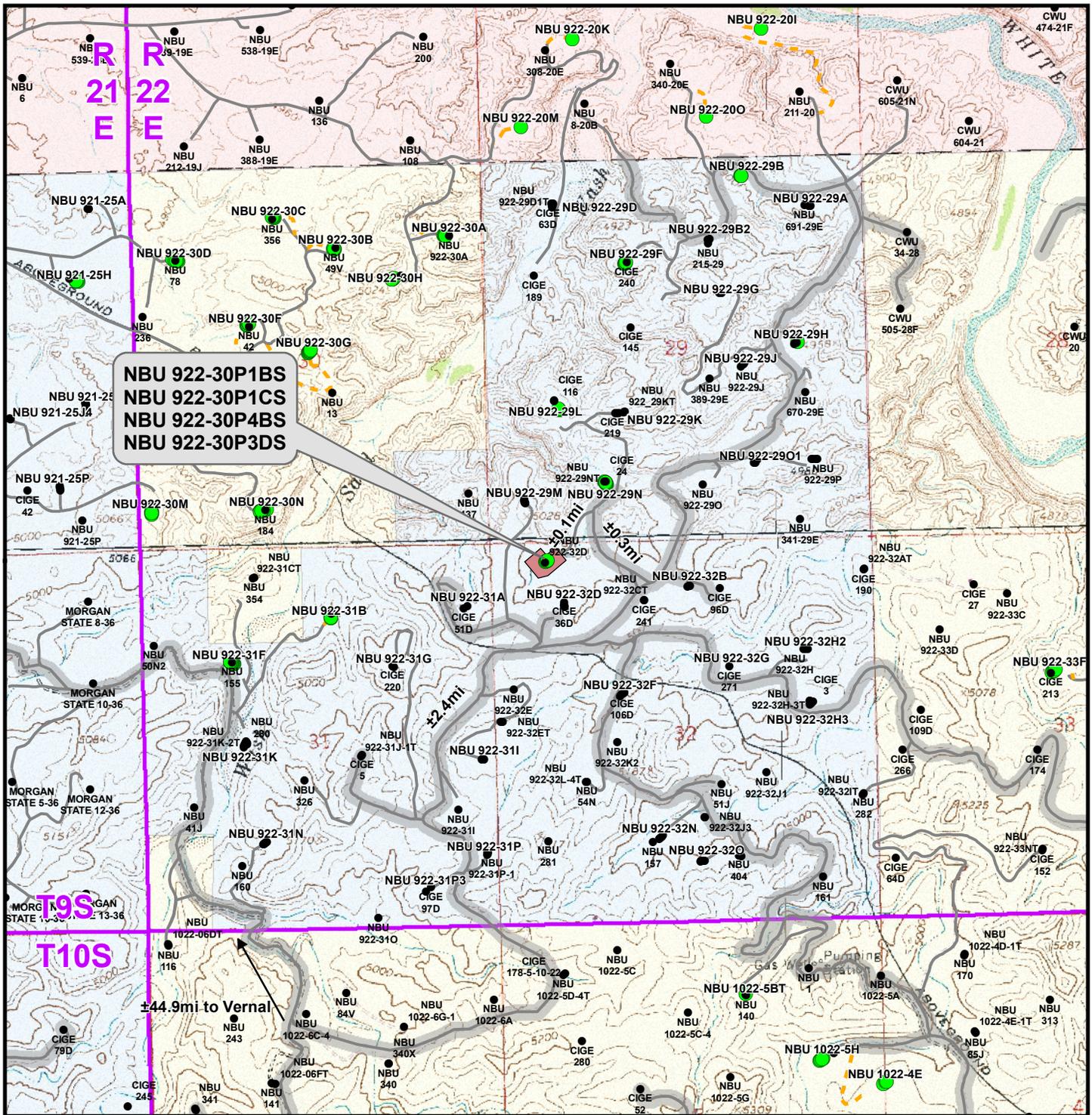
**WELL PAD - NBU 922-32D1**

**TOPO A**  
NBU 922-30P1BS, NBU 922-30P1CS,  
NBU 922-30P4BS & NBU 922-30P3DS  
LOCATED IN SECTION 32, T9S, R22E,  
S.L.B.&M., UINTAH COUNTY, UTAH

**CONSULTING, LLC**  
2155 North Main Street  
Sheridan, WY 82801  
Phone (307) 674-0609  
Fax (307) 674-0182



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 14 Jan 2011	10
Revised:	Date:	



**Legend**

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- State
- Indian Reservation
- Private

Total Proposed Road Length: ±0ft

**Kerr-McGee Oil & Gas Onshore, LP**  
1099 18th Street, Denver, Colorado 80202

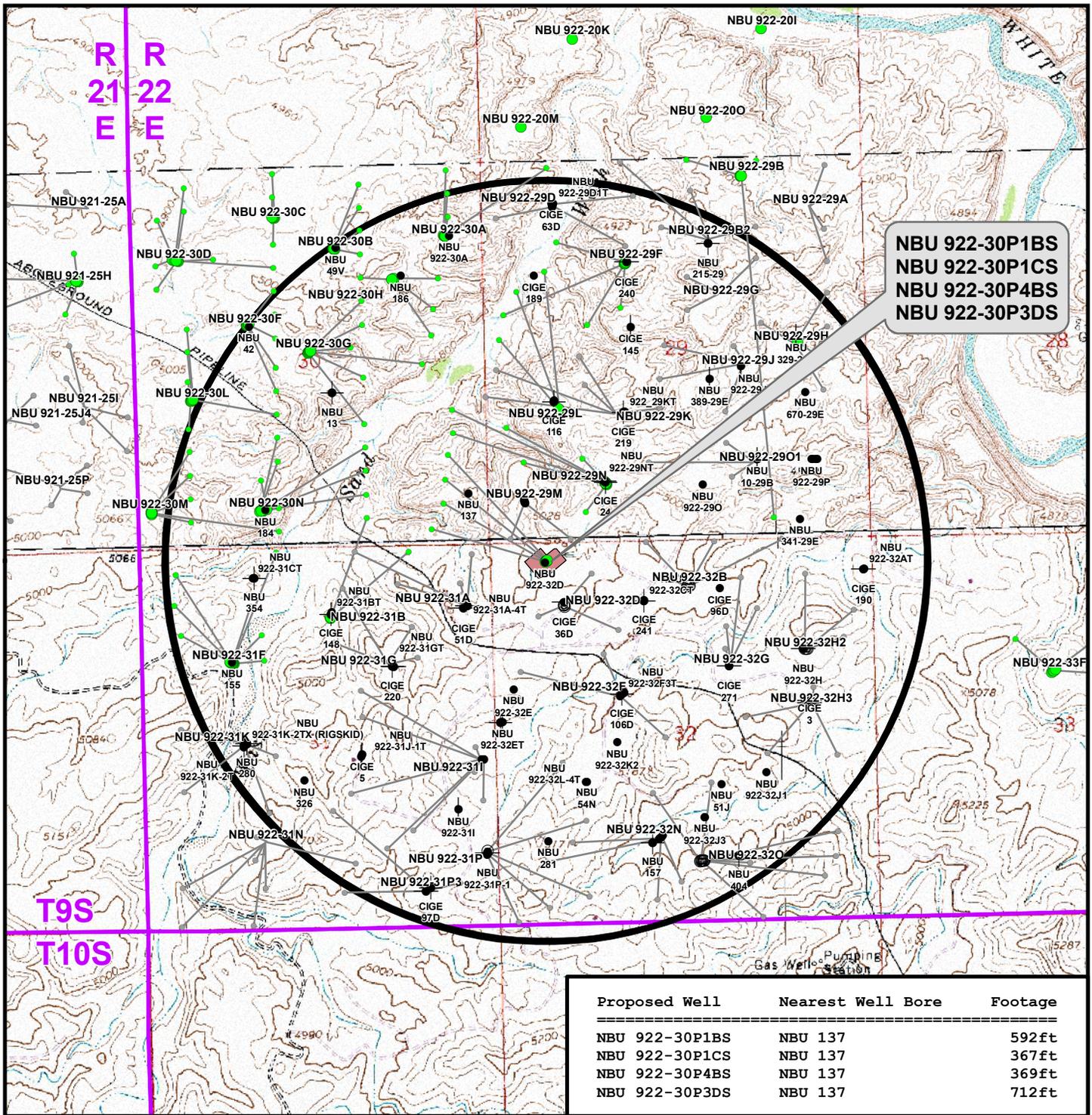
**WELL PAD - NBU 922-32D1**

**TOPO B**  
NBU 922-30P1BS, NBU 922-30P1CS,  
NBU 922-30P4BS & NBU 922-30P3DS  
LOCATED IN SECTION 32, T9S, R22E,  
S.L.B.&M., UTAH COUNTY, UTAH

**CONSULTING, LLC**  
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: <b>11</b> of 16
Drawn: KGS	Date: 14 Jan 2011	
Revised:	Date:	



**NBU 922-30P1BS  
NBU 922-30P1CS  
NBU 922-30P4BS  
NBU 922-30P3DS**

Proposed Well	Nearest Well Bore	Footage
NBU 922-30P1BS	NBU 137	592ft
NBU 922-30P1CS	NBU 137	367ft
NBU 922-30P4BS	NBU 137	369ft
NBU 922-30P3DS	NBU 137	712ft

**Legend**

- Well - Proposed
- Bottom Hole - Proposed
- Well Pad
- Temporarily-Abandoned
- Well Path
- Bottom Hole - Existing
- Well - 1 Mile Radius
- ★ Active
- Shut-In
- ⊙ Spudded (Drilling commenced; Not yet completed)
- ▲ Approved permit (APD); not yet spudded
- Plugged and Abandoned
- New Permit (Not yet approved or drilled)
- ⊕ Inactive
- ⊗ Location Abandoned
- ⊗ Drilling Operations Suspended
- ⊗ Dry hole marker, buried
- ⊗ Returned APD (Unapproved)

**Kerr-McGee Oil & Gas Onshore, LP**  
1099 18th Street, Denver, Colorado 80202

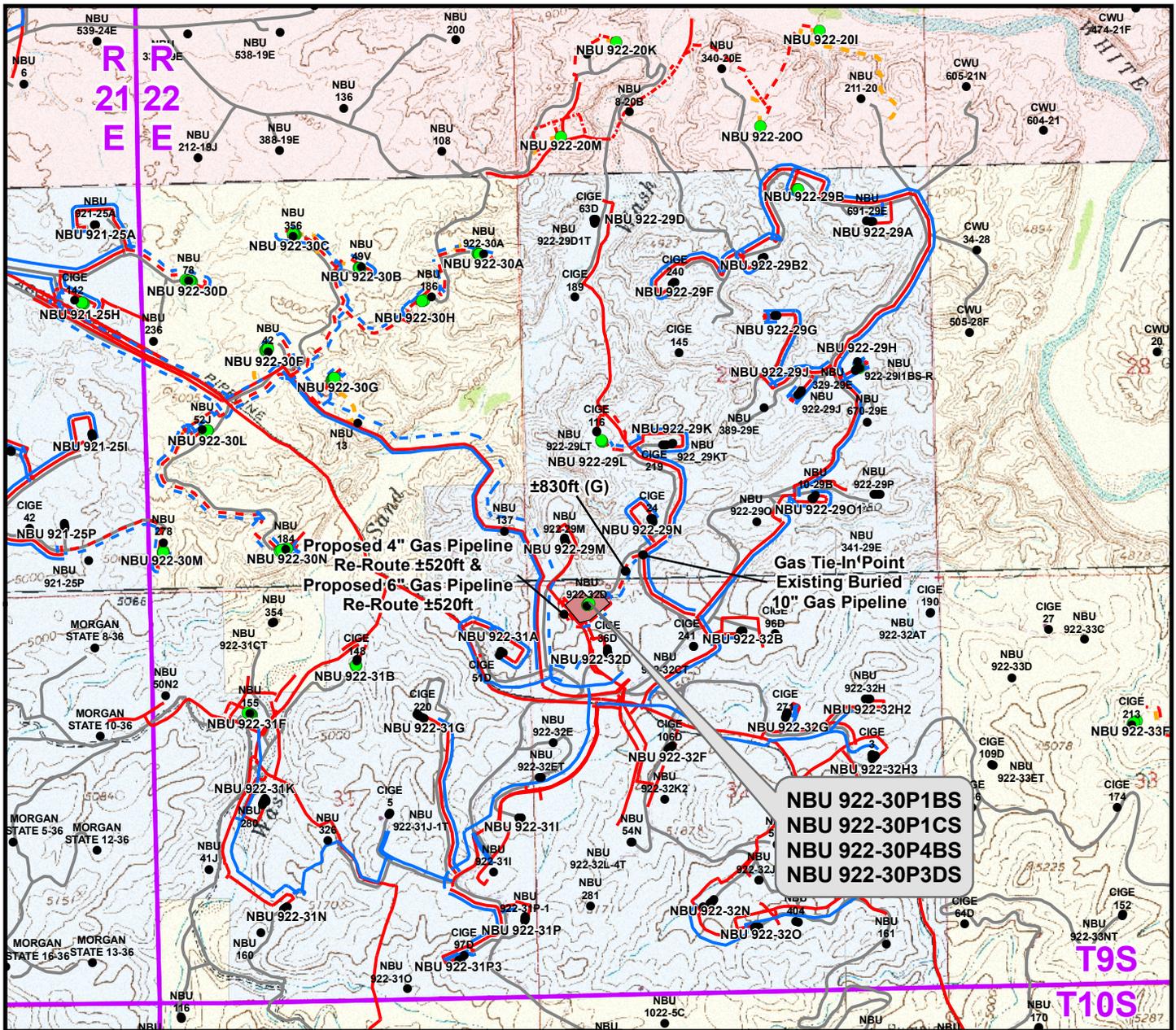
**WELL PAD - NBU 922-32D1**

**TOPO C**  
NBU 922-30P1BS, NBU 922-30P1CS,  
NBU 922-30P4BS & NBU 922-30P3DS  
LOCATED IN SECTION 32, T9S, R22E,  
S.L.B.&M., UTAH COUNTY, UTAH

**609**  
CONSULTING, LLC  
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: KGS	Date: 14 Jan 2011	<b>12</b> 12 of 16
Revised:	Date:	



**Note:**  
 The liquid pipeline associated with the NBU 922-32D1 pad was permitted via sundry.

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±760ft
Proposed 6" (Edge of Pad to Existing Buried 10" Gas Pipeline)	±830ft
Proposed 4" (Proposed Pipeline Re-route)	±520ft
Proposed 6" (Proposed Pipeline Re-route)	±520ft
<b>TOTAL PROPOSED GAS PIPELINE =</b>	<b>±2,630ft</b>

**Legend**

- Well - Proposed
- Well Pad
- - - Gas Pipeline - Proposed
- - - Liquid Pipeline - Proposed
- - - Road - Proposed
- Bureau of Land Management
- Well - Existing
- - - Gas Pipeline - To Be Upgraded
- - - Liquid Pipeline - To Be Upgraded
- - - Road - Existing
- Indian Reservation
- - - Gas Pipeline - Existing
- - - Liquid Pipeline - Existing
- State
- Private

**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street, Denver, Colorado 80202

**WELL PAD - NBU 922-32D1**

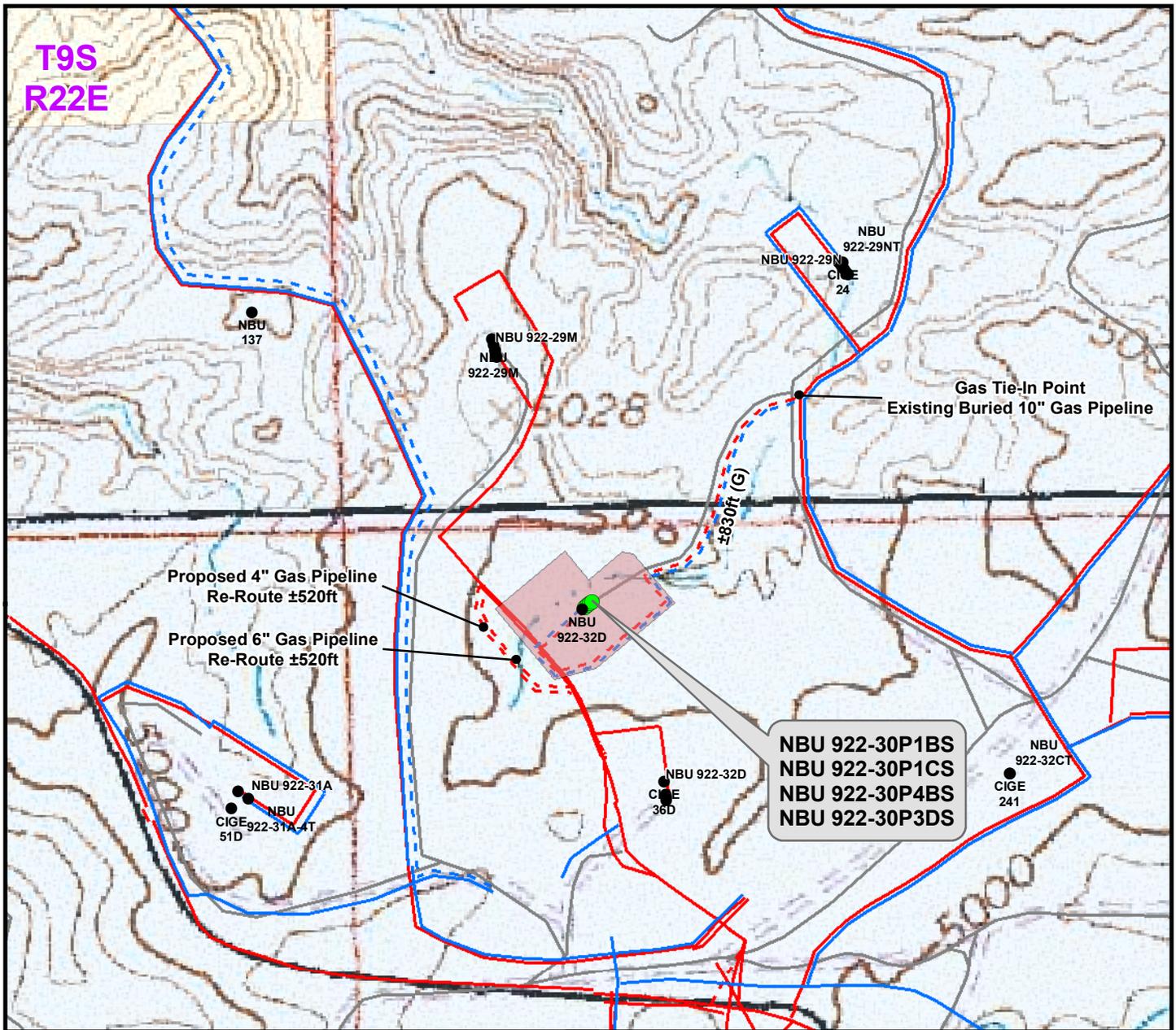
**TOPO D**  
 NBU 922-30P1BS, NBU 922-30P1CS,  
 NBU 922-30P4BS & NBU 922-30P3DS  
 LOCATED IN SECTION 32, T9S, R22E,  
 S.L.B.&M., UTAH COUNTY, UTAH

**609**

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Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No: **13** of 16

Drawn: KGS Date: 14 Jan 2011  
 Revised: TL Date: 21 Mar 2011



**Note:**  
 -----  
 The liquid pipeline associated with the NBU 922-32D1 pad was permitted via sundry.

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±760ft
Proposed 6" (Edge of Pad to Existing Buried 10" Gas Pipeline)	±830ft
Proposed 4" (Proposed Pipeline Re-route)	±520ft
Proposed 6" (Proposed Pipeline Re-route)	±520ft
<b>TOTAL PROPOSED GAS PIPELINE =</b>	<b>±2,630ft</b>

**Legend**

- Well - Proposed
- Well Pad
- - - Gas Pipeline - Proposed
- - - Liquid Pipeline - Proposed
- - - Road - Proposed
- Bureau of Land Management
- Well - Existing
- - - Gas Pipeline - To Be Upgraded
- - - Liquid Pipeline - To Be Upgraded
- - - Road - Existing
- Indian Reservation
- - - Gas Pipeline - Existing
- - - Liquid Pipeline - Existing
- - - State
- - - Private

**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street, Denver, Colorado 80202

**WELL PAD - NBU 922-32D1**

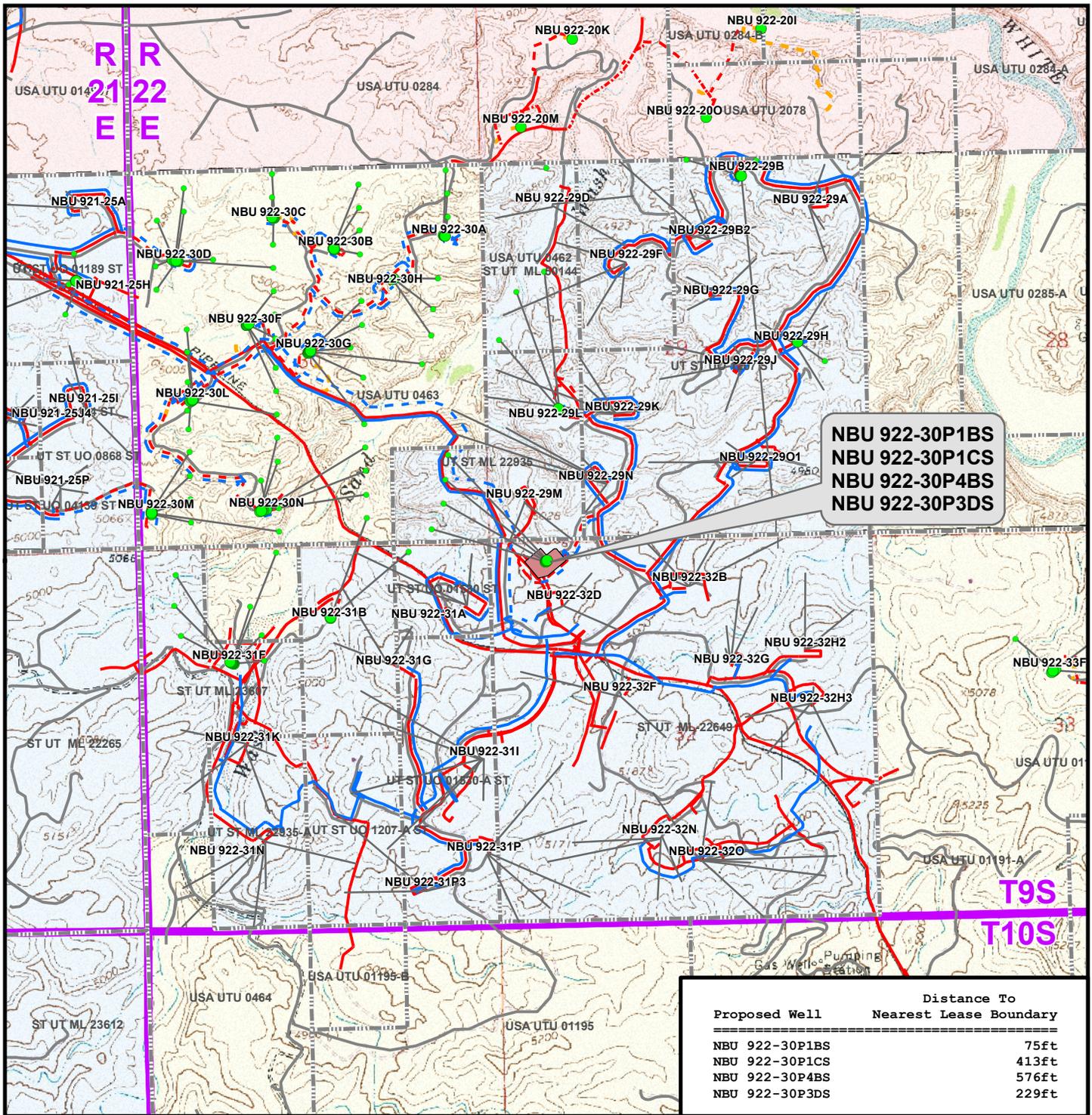
**TOPO D2 (PAD & PIPELINE DETAIL)**  
 NBU 922-30P1BS, NBU 922-30P1CS,  
 NBU 922-30P4BS & NBU 922-30P3DS  
 LOCATED IN SECTION 32, T9S, R22E,  
 S.L.B.&M., UTAH COUNTY, UTAH

**609**  
 CONSULTING, LLC  
 2155 North Main Street  
 Sheridan, WY 82801  
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Scale: 1" = 500ft	NAD83 USP Central	Sheet No:
Drawn: KGS	Date: 14 Jan 2011	<b>14</b>
Revised: TL	Date: 21 Mar 2011	

14 of 16



**Legend**

- Well - Proposed
- Well Pad
- - - Gas Pipeline - Proposed
- - - Liquid Pipeline - Proposed
- - - Road - Proposed
- Bureau of Land Management
- Bottom Hole - Proposed
- ▭ Lease Boundary
- - - Gas Pipeline - To Be Upgraded
- - - Liquid Pipeline - To Be Upgraded
- - - Road - Existing
- Indian Reservation
- Bottom Hole - Existing
- - - Gas Pipeline - Existing
- - - Liquid Pipeline - Existing
- - - State
- Private
- Well Path

**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street, Denver, Colorado 80202

**WELL PAD - NBU 922-32D1**

**TOPO E**  
 NBU 922-30P1BS, NBU 922-30P1CS,  
 NBU 922-30P4BS & NBU 922-30P3DS  
 LOCATED IN SECTION 32, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

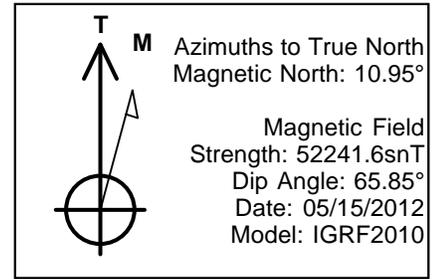
**CONSULTING, LLC**  
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 Sheridan, WY 82801  
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Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No: **15** of 16  
 Drawn: KGS Date: 14 Jan 2011  
 Revised: TL Date: 21 Mar 2011

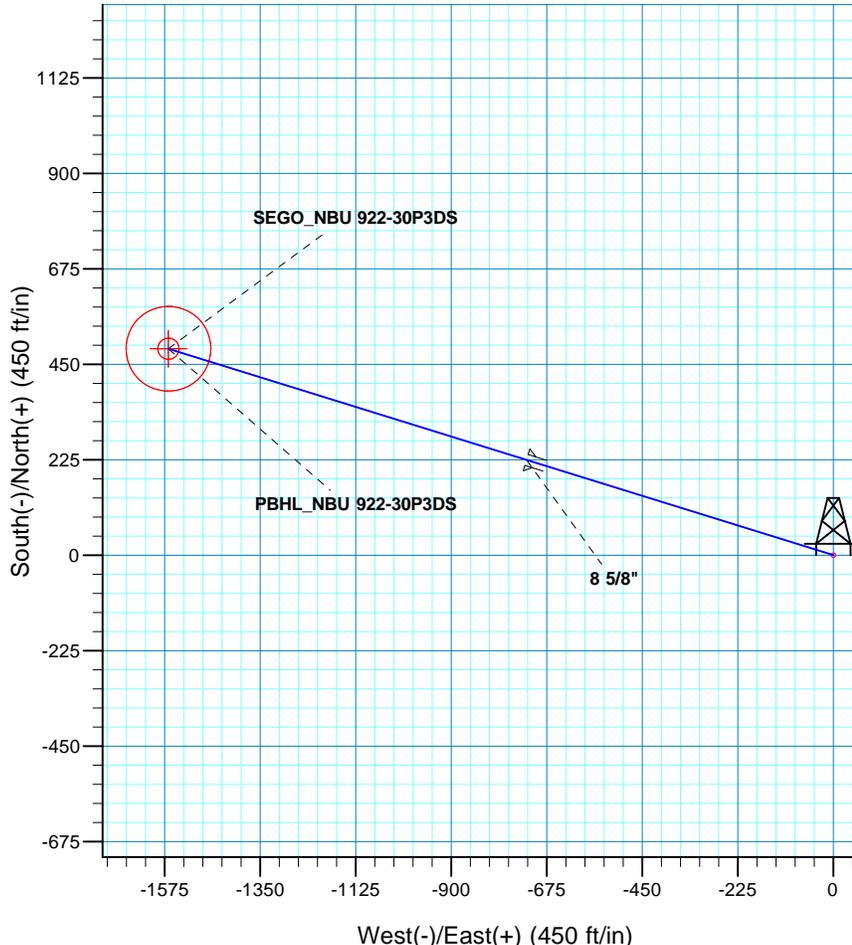
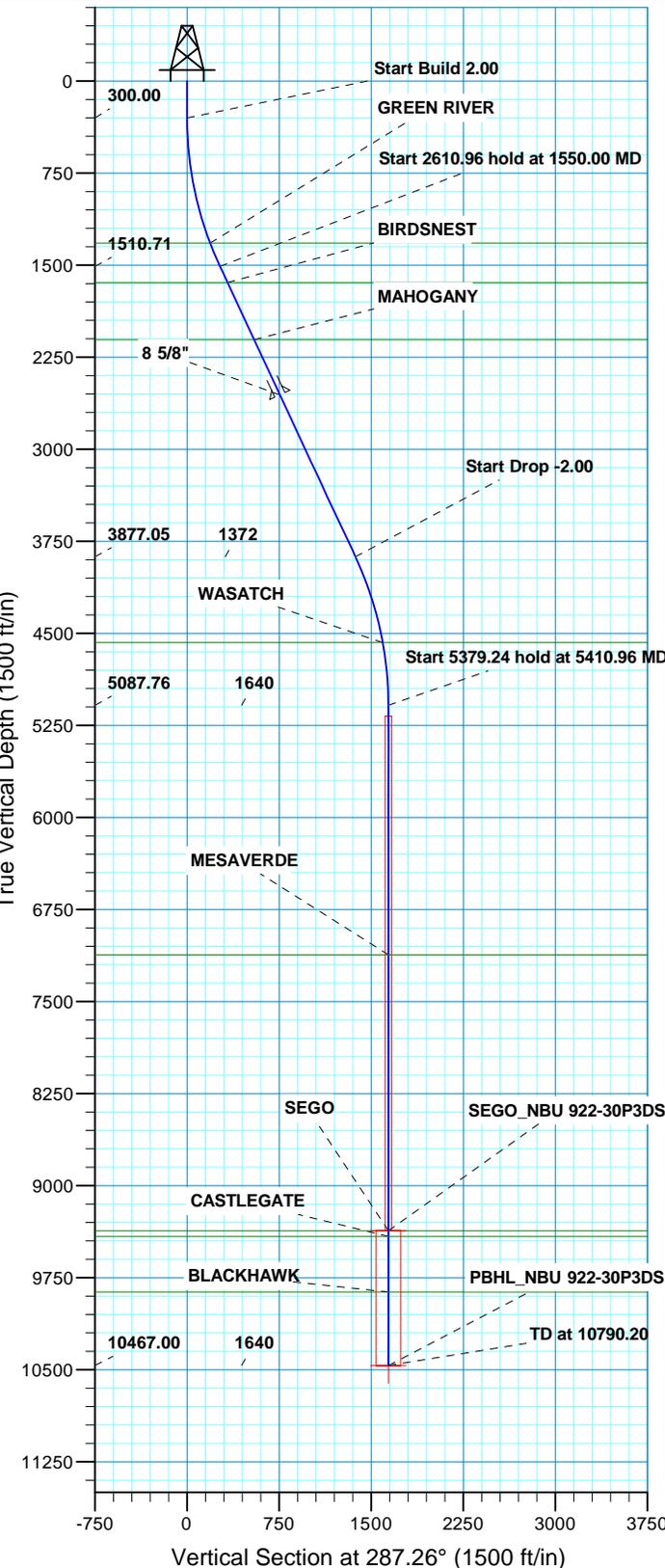
**Kerr-McGee Oil & Gas Onshore, LP  
WELL PAD – NBU 922-32D1  
WELLS – NBU 922-30P1BS, NBU 922-30P1CS,  
NBU 922-30P4BS & NBU 922-30P3DS  
Section 32, T9S, R22E, S.L.B.&M.**

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 2.6 miles to a third Class D County Road to the east. Exit left and proceed in an easterly then northerly direction along the third Class D County Road approximately 2.4 miles to a fourth Class D County Road to the northwest. Exit left and proceed in a northwesterly then northeasterly direction along the fourth Class D Country Road approximately 0.3 miles to a service road to the southwest. Exit left and proceed in a southwesterly direction along service road approximately 0.1 miles to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 47.7 miles in a southerly direction.



WELL DETAILS: NBU 922-30P3DS									
GL 4965 & KB 4 @ 4969.00ft (ASSUMED)									
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
0.00	0.00	14529394.93	2067405.13	39.999098	-109.469787				
DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
SEGO	9368.00	486.64	-1566.41	14529854.60	2067405.60	40.000434	-109.475379	Circle (Radius: 25.00)	
PBHL	10467.00	486.64	-1566.41	14529854.60	2067405.60	40.000434	-109.475379	Circle (Radius: 100.00)	
- plan hits target center									



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	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	
1550.00	25.00	287.26	1510.71	79.63	-256.32	2.00	287.26	268.41	
4160.96	25.00	287.26	3877.05	407.00	-1310.08	0.00	0.00	1371.85	
5410.96	0.00	0.00	5087.76	486.64	-1566.41	2.00	180.00	1640.26	
10790.20	0.00	0.00	10467.00	486.64	-1566.41	0.00	0.00	1640.26	PBHL_NBU 922-30P3DS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N				FORMATION TOP DETAILS			
Geodetic System: Universal Transverse Mercator (US Survey Feet)	TVDPath	MDPath	Formation	1320.00	1342.88	GREEN RIVER	
Datum: NAD 1927 (NADCON CONUS)	1641.00	1693.76	BIRDSNEST	2108.00	2209.03	MAHOGANY	
Ellipsoid: Clarke 1866	4575.00	4895.42	WASATCH	7119.00	7442.20	MESAVERDE	
Zone: Zone 12N (114 W to 108 W)	9368.00	9691.20	SEGO	9414.00	9737.20	CASTLEGATE	
Location: SECTION 32 T10S R22E	9867.00	10190.20	BLACKHAWK				
System Datum: Mean Sea Level							

CASING DETAILS			
TVD	MD	Name	Size
2558.00	2705.55	8 5/8"	8.625

RECEIVED



# Scientific Drilling

## **US ROCKIES REGION PLANNING**

**UTAH - UTM (feet), NAD27, Zone 12N**

**NBU 921-32D1 PAD**

**NBU 922-30P3DS**

**OH**

**Plan: PLAN #1 PRELIMINARY**

## **Standard Planning Report**

**15 May, 2012**





<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Site:</b>	NBU 921-32D1 PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30P3DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

<b>Project</b>	UTAH - UTM (feet), NAD27, Zone 12N		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	NBU 921-32D1 PAD, SECTION 32 T10S R22E				
<b>Site Position:</b>	<b>Northing:</b>	14,529,394.93 usft	<b>Latitude:</b>	39.999098	
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,068,980.12 usft	<b>Longitude:</b>	-109.469787
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.98 °

<b>Well</b>	NBU 922-30P3DS, 261 FNL 789 FWL					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	14,529,394.93 usft	<b>Latitude:</b>	39.999098
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,068,980.12 usft	<b>Longitude:</b>	-109.469787
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	4,965.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	05/15/12	10.94	65.85	52,242

<b>Design</b>	PLAN #1 PRELIMINARY			
<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	287.26

<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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,550.00	25.00	287.26	1,510.71	79.63	-256.32	2.00	2.00	0.00	287.26	
4,160.96	25.00	287.26	3,877.05	407.00	-1,310.08	0.00	0.00	0.00	0.00	
5,410.96	0.00	0.00	5,087.76	486.64	-1,566.41	2.00	-2.00	0.00	180.00	
10,790.20	0.00	0.00	10,467.00	486.64	-1,566.41	0.00	0.00	0.00	0.00	PBHL_NBU 922-30P3



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Site:</b>	NBU 921-32D1 PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30P3DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

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	0.00
100.00	0.00	0.00	100.00	0.00	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	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>										
400.00	2.00	287.26	399.98	0.52	-1.67	1.75	2.00	2.00	2.00	0.00
500.00	4.00	287.26	499.84	2.07	-6.66	6.98	2.00	2.00	2.00	0.00
600.00	6.00	287.26	599.45	4.66	-14.99	15.69	2.00	2.00	2.00	0.00
700.00	8.00	287.26	698.70	8.27	-26.62	27.88	2.00	2.00	2.00	0.00
800.00	10.00	287.26	797.47	12.91	-41.56	43.52	2.00	2.00	2.00	0.00
900.00	12.00	287.26	895.62	18.57	-59.78	62.60	2.00	2.00	2.00	0.00
1,000.00	14.00	287.26	993.06	25.25	-81.27	85.10	2.00	2.00	2.00	0.00
1,100.00	16.00	287.26	1,089.64	32.92	-105.98	110.98	2.00	2.00	2.00	0.00
1,200.00	18.00	287.26	1,185.27	41.60	-133.90	140.21	2.00	2.00	2.00	0.00
1,300.00	20.00	287.26	1,279.82	51.26	-164.99	172.77	2.00	2.00	2.00	0.00
1,342.88	20.86	287.26	1,320.00	55.70	-179.28	187.74	2.00	2.00	2.00	0.00
<b>GREEN RIVER</b>										
1,400.00	22.00	287.26	1,373.17	61.89	-199.21	208.60	2.00	2.00	2.00	0.00
1,500.00	24.00	287.26	1,465.21	73.48	-236.52	247.67	2.00	2.00	2.00	0.00
1,550.00	25.00	287.26	1,510.71	79.63	-256.32	268.41	2.00	2.00	2.00	0.00
<b>Start 2610.96 hold at 1550.00 MD</b>										
1,600.00	25.00	287.26	1,556.03	85.90	-276.50	289.54	0.00	0.00	0.00	0.00
1,693.76	25.00	287.26	1,641.00	97.66	-314.34	329.16	0.00	0.00	0.00	0.00
<b>BIRDSNEST</b>										
1,700.00	25.00	287.26	1,646.66	98.44	-316.86	331.80	0.00	0.00	0.00	0.00
1,800.00	25.00	287.26	1,737.29	110.98	-357.22	374.06	0.00	0.00	0.00	0.00
1,900.00	25.00	287.26	1,827.92	123.52	-397.58	416.32	0.00	0.00	0.00	0.00
2,000.00	25.00	287.26	1,918.55	136.05	-437.94	458.59	0.00	0.00	0.00	0.00
2,100.00	25.00	287.26	2,009.18	148.59	-478.30	500.85	0.00	0.00	0.00	0.00
2,200.00	25.00	287.26	2,099.81	161.13	-518.66	543.11	0.00	0.00	0.00	0.00
2,209.03	25.00	287.26	2,108.00	162.26	-522.30	546.93	0.00	0.00	0.00	0.00
<b>MAHOGANY</b>										
2,300.00	25.00	287.26	2,190.44	173.67	-559.02	585.37	0.00	0.00	0.00	0.00
2,400.00	25.00	287.26	2,281.07	186.21	-599.38	627.63	0.00	0.00	0.00	0.00
2,500.00	25.00	287.26	2,371.70	198.75	-639.73	669.90	0.00	0.00	0.00	0.00
2,600.00	25.00	287.26	2,462.34	211.28	-680.09	712.16	0.00	0.00	0.00	0.00
2,700.00	25.00	287.26	2,552.97	223.82	-720.45	754.42	0.00	0.00	0.00	0.00
2,705.55	25.00	287.26	2,558.00	224.52	-722.69	756.77	0.00	0.00	0.00	0.00
<b>8 5/8"</b>										
2,800.00	25.00	287.26	2,643.60	236.36	-760.81	796.68	0.00	0.00	0.00	0.00
2,900.00	25.00	287.26	2,734.23	248.90	-801.17	838.94	0.00	0.00	0.00	0.00
3,000.00	25.00	287.26	2,824.86	261.44	-841.53	881.20	0.00	0.00	0.00	0.00
3,100.00	25.00	287.26	2,915.49	273.98	-881.89	923.47	0.00	0.00	0.00	0.00
3,200.00	25.00	287.26	3,006.12	286.52	-922.25	965.73	0.00	0.00	0.00	0.00
3,300.00	25.00	287.26	3,096.75	299.05	-962.61	1,007.99	0.00	0.00	0.00	0.00
3,400.00	25.00	287.26	3,187.38	311.59	-1,002.97	1,050.25	0.00	0.00	0.00	0.00
3,500.00	25.00	287.26	3,278.01	324.13	-1,043.32	1,092.51	0.00	0.00	0.00	0.00
3,600.00	25.00	287.26	3,368.64	336.67	-1,083.68	1,134.78	0.00	0.00	0.00	0.00
3,700.00	25.00	287.26	3,459.27	349.21	-1,124.04	1,177.04	0.00	0.00	0.00	0.00
3,800.00	25.00	287.26	3,549.90	361.75	-1,164.40	1,219.30	0.00	0.00	0.00	0.00
3,900.00	25.00	287.26	3,640.54	374.28	-1,204.76	1,261.56	0.00	0.00	0.00	0.00
4,000.00	25.00	287.26	3,731.17	386.82	-1,245.12	1,303.82	0.00	0.00	0.00	0.00
4,100.00	25.00	287.26	3,821.80	399.36	-1,285.48	1,346.09	0.00	0.00	0.00	0.00



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Site:</b>	NBU 921-32D1 PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30P3DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

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)	
4,160.96	25.00	287.26	3,877.05	407.00	-1,310.08	1,371.85	0.00	0.00	0.00	
<b>Start Drop -2.00</b>										
4,200.00	24.22	287.26	3,912.54	411.83	-1,325.61	1,388.11	2.00	-2.00	0.00	
4,300.00	22.22	287.26	4,004.43	423.52	-1,363.26	1,427.53	2.00	-2.00	0.00	
4,400.00	20.22	287.26	4,097.65	434.26	-1,397.82	1,463.72	2.00	-2.00	0.00	
4,500.00	18.22	287.26	4,192.07	444.03	-1,429.25	1,496.64	2.00	-2.00	0.00	
4,600.00	16.22	287.26	4,287.59	452.81	-1,457.52	1,526.24	2.00	-2.00	0.00	
4,700.00	14.22	287.26	4,384.07	460.60	-1,482.59	1,552.49	2.00	-2.00	0.00	
4,800.00	12.22	287.26	4,481.42	467.38	-1,504.43	1,575.36	2.00	-2.00	0.00	
4,895.42	10.31	287.26	4,575.00	472.91	-1,522.23	1,594.00	2.00	-2.00	0.00	
<b>WASATCH</b>										
4,900.00	10.22	287.26	4,579.50	473.15	-1,523.01	1,594.81	2.00	-2.00	0.00	
5,000.00	8.22	287.26	4,678.21	477.91	-1,538.31	1,610.83	2.00	-2.00	0.00	
5,100.00	6.22	287.26	4,777.41	481.63	-1,550.31	1,623.40	2.00	-2.00	0.00	
5,200.00	4.22	287.26	4,876.99	484.33	-1,558.99	1,632.49	2.00	-2.00	0.00	
5,300.00	2.22	287.26	4,976.83	486.00	-1,564.35	1,638.11	2.00	-2.00	0.00	
5,400.00	0.22	287.26	5,076.80	486.63	-1,566.39	1,640.24	2.00	-2.00	0.00	
5,410.96	0.00	0.00	5,087.76	486.64	-1,566.41	1,640.26	2.00	-2.00	0.00	
<b>Start 5379.24 hold at 5410.96 MD</b>										
5,500.00	0.00	0.00	5,176.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,276.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,376.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,476.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,576.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,676.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,100.00	0.00	0.00	5,776.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,200.00	0.00	0.00	5,876.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,300.00	0.00	0.00	5,976.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,076.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,176.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,276.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,376.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,476.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,576.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,676.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,776.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,200.00	0.00	0.00	6,876.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,300.00	0.00	0.00	6,976.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,076.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,442.20	0.00	0.00	7,119.00	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
<b>MESAVERDE</b>										
7,500.00	0.00	0.00	7,176.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,276.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,376.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,476.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,576.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,676.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,776.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,876.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,976.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,076.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,176.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,276.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00	



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Site:</b>	NBU 921-32D1 PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30P3DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

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)
8,700.00	0.00	0.00	8,376.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
8,800.00	0.00	0.00	8,476.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
8,900.00	0.00	0.00	8,576.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,000.00	0.00	0.00	8,676.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,100.00	0.00	0.00	8,776.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,200.00	0.00	0.00	8,876.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,300.00	0.00	0.00	8,976.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,400.00	0.00	0.00	9,076.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,500.00	0.00	0.00	9,176.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,600.00	0.00	0.00	9,276.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,691.20	0.00	0.00	9,368.00	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
<b>SEGO - SEGO_NBU 922-30P3DS</b>									
9,700.00	0.00	0.00	9,376.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,737.20	0.00	0.00	9,414.00	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
<b>CASTLEGATE</b>									
9,800.00	0.00	0.00	9,476.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
9,900.00	0.00	0.00	9,576.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,000.00	0.00	0.00	9,676.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,100.00	0.00	0.00	9,776.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,190.20	0.00	0.00	9,867.00	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
<b>BLACKHAWK</b>									
10,200.00	0.00	0.00	9,876.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,300.00	0.00	0.00	9,976.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,400.00	0.00	0.00	10,076.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,500.00	0.00	0.00	10,176.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,600.00	0.00	0.00	10,276.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,700.00	0.00	0.00	10,376.80	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
10,790.20	0.00	0.00	10,467.00	486.64	-1,566.41	1,640.26	0.00	0.00	0.00
<b>TD at 10790.20 - PBHL_NBU 922-30P3DS</b>									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEGO_NBU 922-30P3D - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,368.00	486.64	-1,566.41	14,529,854.60	2,067,405.59	40.000434	-109.475379
PBHL_NBU 922-30P3D: - plan hits target center - Circle (radius 100.00)	0.00	0.00	10,467.00	486.64	-1,566.41	14,529,854.60	2,067,405.59	40.000434	-109.475379

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,705.55	2,558.00	8 5/8"	8.625	11.000	



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4965 & KB 4 @ 4969.00ft (ASSUMED)
<b>Site:</b>	NBU 921-32D1 PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30P3DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,342.88	1,320.00	GREEN RIVER			
1,693.76	1,641.00	BIRDSNEST			
2,209.03	2,108.00	MAHOGANY			
4,895.42	4,575.00	WASATCH			
7,442.20	7,119.00	MESAVERDE			
9,691.20	9,368.00	SEGO			
9,737.20	9,414.00	CASTLEGATE			
10,190.20	9,867.00	BLACKHAWK			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
1,550.00	1,510.71	79.63	-256.32	Start 2610.96 hold at 1550.00 MD	
4,160.96	3,877.05	407.00	-1,310.08	Start Drop -2.00	
5,410.96	5,087.76	486.64	-1,566.41	Start 5379.24 hold at 5410.96 MD	
10,790.20	10,467.00	486.64	-1,566.41	TD at 10790.20	

**NBU 922-32D1 PAD**

<b>NBU 922-30P1BS</b>			
Surface:	243 FNL / 813 FWL	NWNW	Lot
BHL:	1246 FSL / 525 FEL	SESE	Lot
<b>NBU 922-30P1CS</b>			
Surface:	249 FNL / 805 FWL	NWNW	Lot
BHL:	908 FSL / 574 FEL	SESE	Lot
<b>NBU 922-30P3DS</b>			
Surface:	261 FNL / 789 FWL	NWNW	Lot
BHL:	229 FSL / 778 FEL	SESE	Lot
<b>NBU 922-30P4BS</b>			
Surface:	255 FNL / 797 FWL	NWNW	Lot
BHL:	576 FSL / 601 FEL	SESE	Lot

Section 30 T9S R22E  
Mineral Lease: ST ML 22935

Uintah County, Utah  
Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

**A. Existing Roads:**

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

**B. Planned Access Roads:**

No new access road is proposed. (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

**C. Location of Existing and Proposed Facilities:**

This pad will expand the existing pad for the NBU 922-32D. The NBU 922-32D well location is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of May 4, 2012.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

**Gathering Facilities:**

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is  $\pm 1,590'$  and the individual segments are broken up as follows:

- $\pm 760'$  (0.14 miles) – New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 830'$  (0.16 miles) – New 6" buried gas pipeline from the edge of pad to the existing 10" pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 520'$  (0.10 miles) – 4" buried gas gathering pipeline re-route around southwesterly edge of pad expansion. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 520'$  (0.10 miles) – 6" buried gas gathering pipeline re-route around southwesterly edge of pad expansion. Please refer to Topo D2 - Pad and Pipeline Detail.

**The liquid pipeline associated with the NBU 922-32D1 pad was permitted via sundry.**

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

**D. Location and Type of Water Supply:**

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

**E. Source of Construction Materials:**

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

**F. Methods for Handling Waste Materials:**

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E  
 Ace Oilfield in Sec. 2 T6S R20E  
 MC&MC in Sec. 12 T6S R19E  
 Pipeline Facility in Sec. 36 T9S R20E  
 Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E  
 Bonanza Evaporation Pond in Sec. 2 T10S R23E  
 Ouray #1 SWD in Sec. 1 T9S R21E  
 NBU 159 SWD in Sec. 35 T9S R21E  
 CIGE 112D SWD in Sec. 19 T9S R21E  
 CIGE 114 SWD in Sec. 34 T9S R21E  
 NBU 921-34K SWD in Sec. 34 T9S R21E  
 NBU 921-33F SWD in Sec. 33 T9S R21E  
 NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

### **Materials Management**

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

**G. Ancillary Facilities:**

None are anticipated.

**H. Well Site Layout (see Well Pad Design Summary):**

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

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

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

**Interim Reclamation**

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/ completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

**Final Reclamation**

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

**Seeding and Measures Common to Interim and Final Reclamation**

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

**J. Surface/Mineral Ownership:**

SITLA

675 East 500 South, Suite 500

Salt Lake City, UT 84102

**L. Other Information:**

None

**M. Lessee's or Operators' Representative & Certification:**

Laura Abrams  
Regulatory Analyst II  
Kerr-McGee Oil & Gas Onshore LP  
PO Box 173779  
Denver, CO 80217-3779  
(720) 929-6356

Tommy Thompson  
General Manager, Drilling  
Kerr-McGee Oil & Gas Onshore LP  
PO Box 173779  
Denver, CO 80217-3779  
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

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



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Laura Abrams

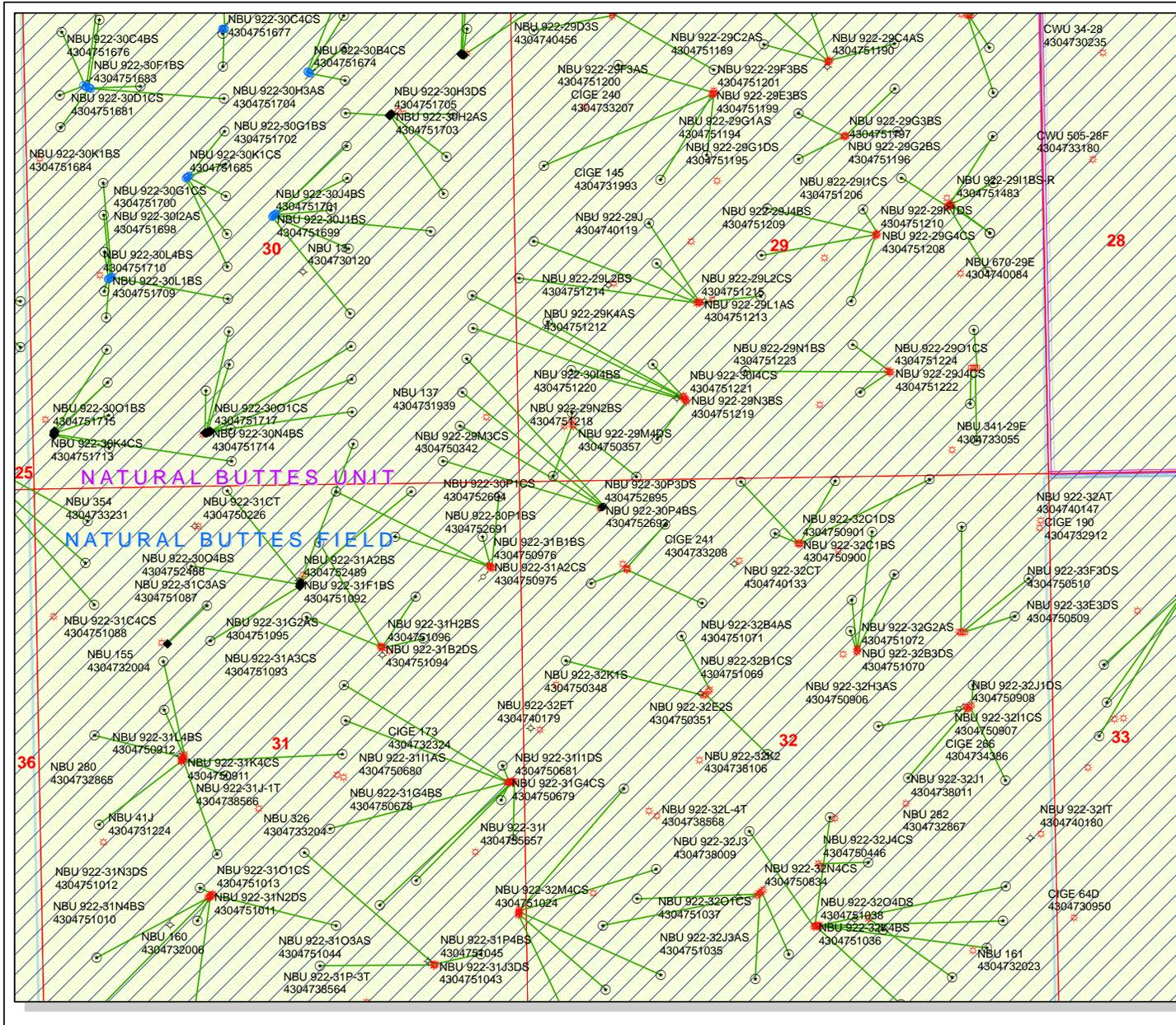
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May 15, 2012

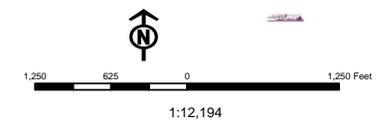
Date

API Number: 4304752695  
Well Name: NBU 922-30P3DS  
Township T0.9 . Range R2.2 . Section 32  
Meridian: SLBM  
Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:  
Map Produced by Diana Mason



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



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

## IN REPLY REFER TO:

3160

(UT-922)

May 30, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Natural Buttes Unit  
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
<b>WELL PAD - NBU 922-32D1</b>		
43-047-52691	NBU 922-30P1BS	Sec 32 T09S R22E 0243 FNL 0813 FWL
	BHL	Sec 30 T09S R22E 1246 FSL 0525 FEL
43-047-52693	NBU 922-30P4BS	Sec 32 T09S R22E 0255 FNL 0797 FWL
	BHL	Sec 30 T09S R22E 0576 FSL 0601 FEL
43-047-52694	NBU 922-30P1CS	Sec 32 T09S R22E 0249 FNL 0805 FWL
	BHL	Sec 30 T09S R22E 0908 FSL 0574 FEL
43-047-52695	NBU 922-30P3DS	Sec 32 T09S R22E 0261 FNL 0789 FWL
	BHL	Sec 30 T09S R22E 0229 FSL 0778 FEL
<b>WELL PAD - NBU 921-23B</b>		
43-047-52696	NBU 921-23B1BS	Sec 23 T09S R21E 1133 FNL 2116 FEL
	BHL	Sec 23 T09S R21E 0247 FNL 1816 FEL
43-047-52706	NBU 921-23B4BS	Sec 23 T09S R21E 1124 FNL 2098 FEL
	BHL	Sec 23 T09S R21E 0907 FNL 1816 FEL
43-047-52716	NBU 921-23B1CS	Sec 23 T09S R21E 1128 FNL 2107 FEL
	BHL	Sec 23 T09S R21E 0577 FNL 1816 FEL
43-047-52723	NBU 921-23B4CS	Sec 23 T09S R21E 1137 FNL 2125 FEL
	BHL	Sec 23 T09S R21E 1238 FNL 1816 FEL
<b>WELL PAD - NBU 921-23G</b>		
43-047-52700	NBU 921-23G1CS	Sec 23 T09S R21E 2126 FNL 1774 FEL
	BHL	Sec 23 T09S R21E 1898 FNL 1817 FEL
43-047-52701	NBU 921-23G4BS	Sec 23 T09S R21E 2144 FNL 1799 FEL
	BHL	Sec 23 T09S R21E 2228 FNL 1817 FEL

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API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-52702	NBU 921-23H4BS	Sec 23 T09S R21E 2115 FNL 1758 FEL
	BHL	Sec 23 T09S R21E 2061 FNL 0493 FEL
43-047-52703	NBU 921-23H4CS	Sec 23 T09S R21E 2132 FNL 1782 FEL
	BHL	Sec 23 T09S R21E 2391 FNL 0493 FEL
43-047-52732	NBU 921-23I1BS	Sec 23 T09S R21E 2138 FNL 1790 FEL
	BHL	Sec 23 T09S R21E 2556 FSL 0494 FEL
43-047-52739	NBU 921-23G1BS	Sec 23 T09S R21E 2120 FNL 1766 FEL
	BHL	Sec 23 T09S R21E 1568 FNL 1816 FEL
<b>WELL PAD - NBU 921-23H</b>		
43-047-52704	NBU 921-23H1CS	Sec 23 T09S R21E 1343 FNL 0762 FEL
	BHL	Sec 23 T09S R21E 1731 FNL 0493 FEL
43-047-52705	NBU 921-23A1BS	Sec 23 T09S R21E 1344 FNL 0802 FEL
	BHL	Sec 23 T09S R21E 0082 FNL 0493 FEL
43-047-52711	NBU 921-23H1BS	Sec 23 T09S R21E 1343 FNL 0752 FEL
	BHL	Sec 23 T09S R21E 1401 FNL 0493 FEL
43-047-52714	NBU 921-23A4CS	Sec 23 T09S R21E 1343 FNL 0772 FEL
	BHL	Sec 23 T09S R21E 1071 FNL 0493 FEL
43-047-52722	NBU 921-23A1CS	Sec 23 T09S R21E 1343 FNL 0792 FEL
	BHL	Sec 23 T09S R21E 0412 FNL 0493 FEL
43-047-52724	NBU 921-23A4BS	Sec 23 T09S R21E 1343 FNL 0782 FEL
	BHL	Sec 23 T09S R21E 0741 FNL 0493 FEL
<b>WELL PAD - NBU 921-23J</b>		
43-047-52707	NBU 921-23J4BS	Sec 23 T09S R21E 1628 FSL 2036 FEL
	BHL	Sec 23 T09S R21E 1734 FSL 1817 FEL
43-047-52713	NBU 921-23I1CS	Sec 23 T09S R21E 1618 FSL 2034 FEL
	BHL	Sec 23 T09S R21E 2227 FSL 0494 FEL
43-047-52717	NBU 921-23O1BS	Sec 23 T09S R21E 1589 FSL 2029 FEL
	BHL	Sec 23 T09S R21E 1074 FSL 1818 FEL
43-047-52719	NBU 921-23J4CS	Sec 23 T09S R21E 1599 FSL 2031 FEL
	BHL	Sec 23 T09S R21E 1404 FSL 1818 FEL
43-047-52720	NBU 921-23O1CS	Sec 23 T09S R21E 1579 FSL 2028 FEL
	BHL	Sec 23 T09S R21E 0743 FSL 1818 FEL
43-047-52731	NBU 921-23I4BS	Sec 23 T09S R21E 1608 FSL 2032 FEL
	BHL	Sec 23 T09S R21E 1897 FSL 0494 FEL
<b>WELL PAD - NBU 921-23K</b>		
43-047-52708	NBU 921-23K1BS	Sec 23 T09S R21E 2431 FSL 1995 FWL
	BHL	Sec 23 T09S R21E 2563 FSL 2147 FWL
43-047-52709	NBU 921-23J1BS	Sec 23 T09S R21E 2419 FSL 2022 FWL
	BHL	Sec 23 T09S R21E 2395 FSL 1817 FEL

API #	WELL NAME			LOCATION						
(Proposed PZ WASATCH-MESA VERDE)										
43-047-52710	NBU 921-23J1CS	Sec	23	T09S	R21E	2415	FSL	2032	FWL	
		BHL	Sec	23	T09S	R21E	2064	FSL	1817	FEL
43-047-52712	NBU 921-23G4CS	Sec	23	T09S	R21E	2423	FSL	2013	FWL	
		BHL	Sec	23	T09S	R21E	2559	FNL	1817	FEL
43-047-52726	NBU 921-23K4BS	Sec	23	T09S	R21E	2435	FSL	1986	FWL	
		BHL	Sec	23	T09S	R21E	1901	FSL	2148	FWL
43-047-52740	NBU 921-23K1CS	Sec	23	T09S	R21E	2427	FSL	2004	FWL	
		BHL	Sec	23	T09S	R21E	2232	FSL	2147	FWL
<b>WELL PAD - NBU 921-23C</b>										
43-047-52715	NBU 921-23C1CS	Sec	23	T09S	R21E	0790	FNL	1963	FWL	
		BHL	Sec	23	T09S	R21E	0413	FNL	2145	FWL
43-047-52725	NBU 921-23C4BS	Sec	23	T09S	R21E	0789	FNL	1973	FWL	
		BHL	Sec	23	T09S	R21E	0743	FNL	2145	FWL
43-047-52727	NBU 921-23D4BS	Sec	23	T09S	R21E	0794	FNL	1924	FWL	
		BHL	Sec	23	T09S	R21E	0910	FNL	0823	FWL
43-047-52730	NBU 921-23D1BS	Sec	23	T09S	R21E	0792	FNL	1944	FWL	
		BHL	Sec	23	T09S	R21E	0249	FNL	0823	FWL
43-047-52741	NBU 921-23C1BS	Sec	23	T09S	R21E	0791	FNL	1954	FWL	
		BHL	Sec	23	T09S	R21E	0083	FNL	2145	FWL
43-047-52743	NBU 921-23D1CS	Sec	23	T09S	R21E	0793	FNL	1934	FWL	
		BHL	Sec	23	T09S	R21E	0579	FNL	0823	FWL
<b>WELL PAD - NBU 921-23F</b>										
43-047-52721	NBU 921-23E1BS	Sec	23	T09S	R21E	1888	FNL	1982	FWL	
		BHL	Sec	23	T09S	R21E	1572	FNL	0823	FWL
43-047-52728	NBU 921-23D4CS	Sec	23	T09S	R21E	1885	FNL	1992	FWL	
		BHL	Sec	23	T09S	R21E	1241	FNL	0823	FWL
43-047-52729	NBU 921-23F1BS	Sec	23	T09S	R21E	1882	FNL	2002	FWL	
		BHL	Sec	23	T09S	R21E	1405	FNL	2146	FWL
43-047-52742	NBU 921-23F1CS	Sec	23	T09S	R21E	1879	FNL	2011	FWL	
		BHL	Sec	23	T09S	R21E	1735	FNL	2146	FWL
<b>WELL PAD - NBU 921-23L</b>										
43-047-52738	NBU 921-23L4BS	Sec	23	T09S	R21E	1782	FSL	0991	FWL	
		BHL	Sec	23	T09S	R21E	1739	FSL	0824	FWL
43-047-52754	NBU 921-23L4CS	Sec	23	T09S	R21E	1788	FSL	0999	FWL	
		BHL	Sec	23	T09S	R21E	1408	FSL	0824	FWL
43-047-52758	NBU 921-23L1CS	Sec	23	T09S	R21E	1794	FSL	1007	FWL	
		BHL	Sec	23	T09S	R21E	2070	FSL	0824	FWL

API #	WELL NAME			LOCATION						
(Proposed PZ WASATCH-MESA VERDE)										
<b>WELL PAD - NBU 921-23P</b>										
43-047-52744	NBU 921-23P4BS	Sec	23	T09S	R21E	0383	FSL	1166	FEL	
		BHL	Sec	23	T09S	R21E	0578	FSL	0494	
43-047-52746	NBU 921-23O4BS	Sec	23	T09S	R21E	0375	FSL	1205	FEL	
		BHL	Sec	23	T09S	R21E	0414	FSL	1818	
43-047-52747	NBU 921-23I4CS	Sec	23	T09S	R21E	0377	FSL	1195	FEL	
		BHL	Sec	23	T09S	R21E	1567	FSL	0494	
43-047-52748	NBU 921-23O4CS	Sec	23	T09S	R21E	0373	FSL	1215	FEL	
		BHL	Sec	23	T09S	R21E	0084	FSL	1818	
43-047-52749	NBU 921-23P1CS	Sec	23	T09S	R21E	0381	FSL	1175	FEL	
		BHL	Sec	23	T09S	R21E	0907	FSL	0494	
43-047-52751	NBU 921-23P4CS	Sec	23	T09S	R21E	0379	FSL	1185	FEL	
		BHL	Sec	23	T09S	R21E	0005	FSL	0494	
<b>WELL PAD - NBU 921-23M</b>										
43-047-52745	NBU 921-23N4CS	Sec	23	T09S	R21E	0791	FSL	1329	FWL	
		BHL	Sec	23	T09S	R21E	0105	FSL	2149	
43-047-52750	NBU 921-23N1CS	Sec	23	T09S	R21E	0790	FSL	1339	FWL	
		BHL	Sec	23	T09S	R21E	0910	FSL	2148	
43-047-52752	NBU 921-23K4CS	Sec	23	T09S	R21E	0794	FSL	1310	FWL	
		BHL	Sec	23	T09S	R21E	1571	FSL	2148	
43-047-52753	NBU 921-23M4BS	Sec	23	T09S	R21E	0795	FSL	1300	FWL	
		BHL	Sec	23	T09S	R21E	0415	FSL	0824	
43-047-52755	NBU 921-23N1BS	Sec	23	T09S	R21E	0792	FSL	1319	FWL	
		BHL	Sec	23	T09S	R21E	1240	FSL	2148	
43-047-52756	NBU 921-23M1BS	Sec	23	T09S	R21E	0796	FSL	1290	FWL	
		BHL	Sec	23	T09S	R21E	1077	FSL	0824	
43-047-52759	NBU 921-23N4BS	Sec	23	T09S	R21E	0788	FSL	1349	FWL	
		BHL	Sec	23	T09S	R21E	0495	FSL	2158	

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

Michael L. Coulthard

Digitally signed by Michael L. Coulthard  
 DN: cn=Michael L. Coulthard, o=Bureau of Land Management,  
 ou=Branch of Minerals, email=Michael\_Coulthard@blm.gov, c=US  
 Date: 2012.05.30 10:20:35 -0600

RECEIVED: May 30, 2012

API Well Number: 43047526950000

bcc: File - Natural Buttes Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:5-30-12

RECEIVED: May 30, 2012

API	Well Name	Surface Location
43-047-52691	NBU 922-30P1BS	Sec 32 T09S R22E 0243 FNL 0813 FWL
43-047-52693	NBU 922-30P4BS	Sec 32 T09S R22E 0255 FNL 0797 FWL
43-047-52694	NBU 922-30P1CS	Sec 32 T09S R22E 0249 FNL 0805 FWL
43-047-52695	NBU 922-30P3DS	Sec 32 T09S R22E 0261 FNL 0789 FWL
43-047-52696	NBU 921-23B1BS	Sec 23 T09S R21E 1133 FNL 2116 FEL
43-047-52700	NBU 921-23G1CS	Sec 23 T09S R21E 2126 FNL 1774 FEL
43-047-52701	NBU 921-23G4BS	Sec 23 T09S R21E 2144 FNL 1799 FEL
43-047-52702	NBU 921-23H4BS	Sec 23 T09S R21E 2115 FNL 1758 FEL
43-047-52703	NBU 921-23H4CS	Sec 23 T09S R21E 2132 FNL 1782 FEL
43-047-52704	NBU 921-23H1CS	Sec 23 T09S R21E 1343 FNL 0762 FEL
43-047-52705	NBU 921-23A1BS	Sec 23 T09S R21E 1344 FNL 0802 FEL
43-047-52706	NBU 921-23B4BS	Sec 23 T09S R21E 1124 FNL 2098 FEL
43-047-52707	NBU 921-23J4BS	Sec 23 T09S R21E 1628 FSL 2036 FEL
43-047-52708	NBU 921-23K1BS	Sec 23 T09S R21E 2431 FSL 1995 FWL
43-047-52709	NBU 921-23J1BS	Sec 23 T09S R21E 2419 FSL 2022 FWL
43-047-52710	NBU 921-23J1CS	Sec 23 T09S R21E 2415 FSL 2032 FWL
43-047-52711	NBU 921-23H1BS	Sec 23 T09S R21E 1343 FNL 0752 FEL
43-047-52712	NBU 921-23G4CS	Sec 23 T09S R21E 2423 FSL 2013 FWL
43-047-52713	NBU 921-23I1CS	Sec 23 T09S R21E 1618 FSL 2034 FEL
43-047-52714	NBU 921-23A4CS	Sec 23 T09S R21E 1343 FNL 0772 FEL
43-047-52715	NBU 921-23C1CS	Sec 23 T09S R21E 0790 FNL 1963 FWL
43-047-52716	NBU 921-23B1CS	Sec 23 T09S R21E 1128 FNL 2107 FEL
43-047-52717	NBU 921-23O1BS	Sec 23 T09S R21E 1589 FSL 2029 FEL
43-047-52719	NBU 921-23J4CS	Sec 23 T09S R21E 1599 FSL 2031 FEL
43-047-52720	NBU 921-23O1CS	Sec 23 T09S R21E 1579 FSL 2028 FEL
43-047-52721	NBU 921-23E1BS	Sec 23 T09S R21E 1888 FNL 1982 FWL
43-047-52722	NBU 921-23A1CS	Sec 23 T09S R21E 1343 FNL 0792 FEL
43-047-52723	NBU 921-23B4CS	Sec 23 T09S R21E 1137 FNL 2125 FEL
43-047-52724	NBU 921-23A4BS	Sec 23 T09S R21E 1343 FNL 0782 FEL
43-047-52725	NBU 921-23C4BS	Sec 23 T09S R21E 0789 FNL 1973 FWL
43-047-52726	NBU 921-23K4BS	Sec 23 T09S R21E 2435 FSL 1986 FWL
43-047-52727	NBU 921-23D4BS	Sec 23 T09S R21E 0794 FNL 1924 FWL
43-047-52728	NBU 921-23D4CS	Sec 23 T09S R21E 1885 FNL 1992 FWL
43-047-52729	NBU 921-23F1BS	Sec 23 T09S R21E 1882 FNL 2002 FWL
43-047-52730	NBU 921-23D1BS	Sec 23 T09S R21E 0792 FNL 1944 FWL
43-047-52731	NBU 921-23I4BS	Sec 23 T09S R21E 1608 FSL 2032 FEL
43-047-52732	NBU 921-23I1BS	Sec 23 T09S R21E 2138 FNL 1790 FEL
43-047-52738	NBU 921-23L4BS	Sec 23 T09S R21E 1782 FSL 0991 FWL
43-047-52739	NBU 921-23G1BS	Sec 23 T09S R21E 2120 FNL 1766 FEL
43-047-52740	NBU 921-23K1CS	Sec 23 T09S R21E 2427 FSL 2004 FWL
43-047-52741	NBU 921-23C1BS	Sec 23 T09S R21E 0791 FNL 1954 FWL
43-047-52742	NBU 921-23F1CS	Sec 23 T09S R21E 1879 FNL 2011 FWL
43-047-52743	NBU 921-23D1CS	Sec 23 T09S R21E 0793 FNL 1934 FWL
43-047-52744	NBU 921-23P4BS	Sec 23 T09S R21E 0383 FSL 1166 FEL
43-047-52745	NBU 921-23N4CS	Sec 23 T09S R21E 0791 FSL 1329 FWL
43-047-52746	NBU 921-23O4BS	Sec 23 T09S R21E 0375 FSL 1205 FEL

<b>API</b>	<b>Well Name</b>	<b>Surface Location</b>
43-047-52747	NBU 921-23I4CS	Sec 23 T09S R21E 0377 FSL 1195 FEL
43-047-52748	NBU 921-23O4CS	Sec 23 T09S R21E 0373 FSL 1215 FEL
43-047-52749	NBU 921-23P1CS	Sec 23 T09S R21E 0381 FSL 1175 FEL
43-047-52750	NBU 921-23N1CS	Sec 23 T09S R21E 0790 FSL 1339 FWL
43-047-52751	NBU 921-23P4CS	Sec 23 T09S R21E 0379 FSL 1185 FEL
43-047-52752	NBU 921-23K4CS	Sec 23 T09S R21E 0794 FSL 1310 FWL
43-047-52753	NBU 921-23M4BS	Sec 23 T09S R21E 0795 FSL 1300 FWL
43-047-52754	NBU 921-23L4CS	Sec 23 T09S R21E 1788 FSL 0999 FWL
43-047-52755	NBU 921-23N1BS	Sec 23 T09S R21E 0792 FSL 1319 FWL
43-047-52756	NBU 921-23M1BS	Sec 23 T09S R21E 0796 FSL 1290 FWL
43-047-52758	NBU 921-23L1CS	Sec 23 T09S R21E 1794 FSL 1007 FWL
43-047-52759	NBU 921-23N4BS	Sec 23 T09S R21E 0788 FSL 1349 FWL

**From:** Jeff Conley  
**To:** Hill, Brad; Mason, Diana  
**CC:** Bonner, Ed; Davis, Jim; Garrison, LaVonne; laura.abrams@anadarko.com  
**Date:** 9/25/2012 10:52 AM  
**Subject:** Anadarko APD Approvals

Hi,

The following wells have been cleared by SITLA for arch. Paleo is cleared under the condition that a permitted paleontologist monitor all ground disturbing activities at the beginning of construction/development and spot-monitor thereafter as paleontological conditions merit.

(4304752693) NBU 922-30P4BS  
(4304752694) NBU 922-30P1CS  
(4304752695) NBU 922-30P3DS  
(4304752691) NBU 922-30P1BS

Thanks,

Jeff Conley  
SITLA Resource Specialist  
(801)-538-5157  
jconley@utah.gov

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 922-30P3DS 43047526			
String	SURF	PROD		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2560	10467		
Previous Shoe Setting Depth (TVD)	0	2560		
Max Mud Weight (ppg)	8.3	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	10690		
Operators Max Anticipated Pressure (psi)	6699	12.3		

Calculations	SURF String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	1105	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	798	NO air/mist system, air bowl
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	542	NO REasonable depth in area
			*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=		2373	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

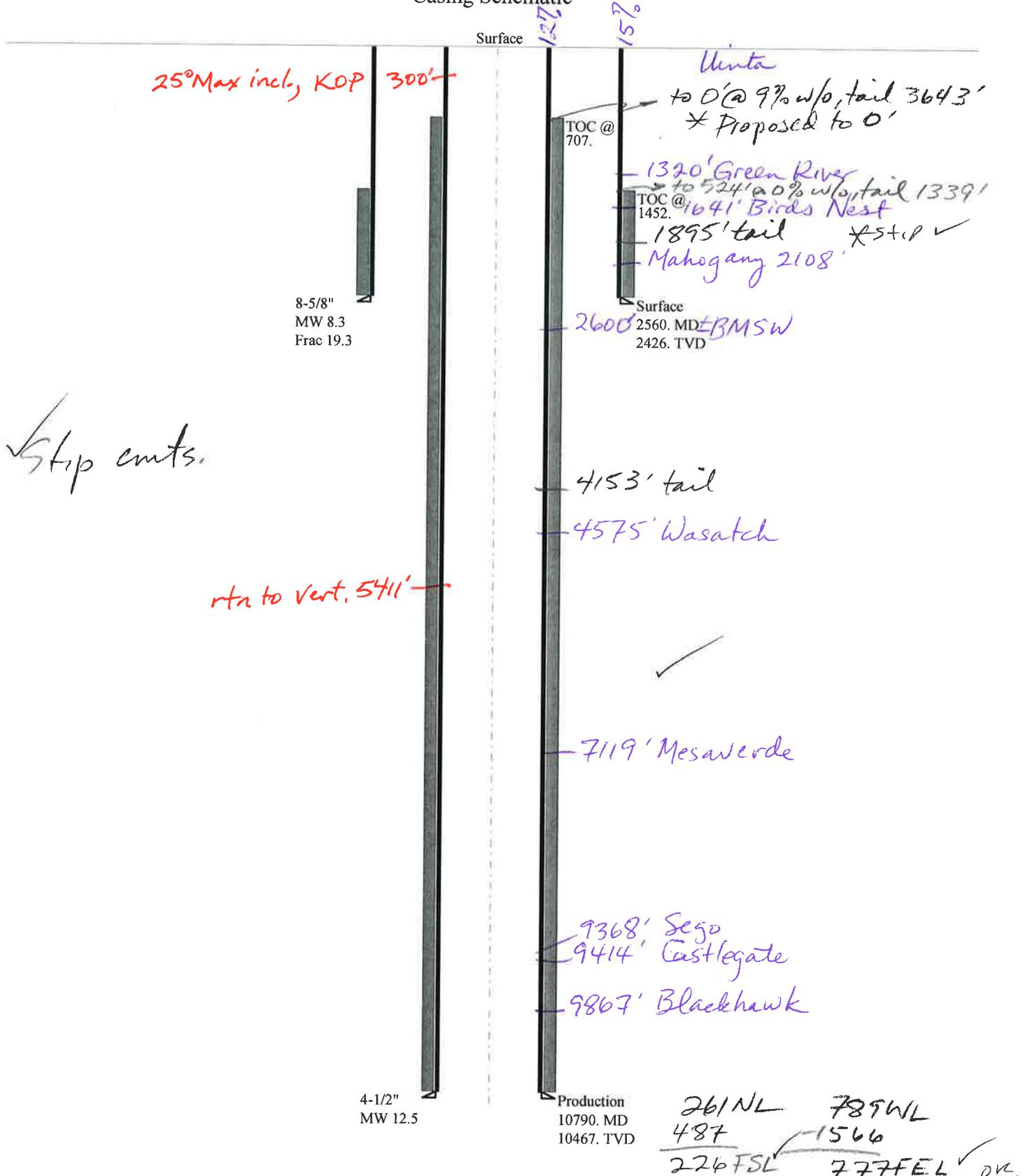
Calculations	PROD String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	6804	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	5548	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	4501	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	5064	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2560	psi *Assumes 1psi/ft frac gradient

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

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

# 43047526950000 NBU 922-30P3DS

## Casing Schematic



✓ slip emts.

rtn to vert. 5411'

SESE Sec 32-9S-22E

Well name:	<b>43047526950000 NBU 922-30P3DS</b>	
Operator:	<b>KERR-MCGEE OIL &amp; GAS ONSHORE, L.P.</b>	
String type:	Surface	Project ID: 43-047-52695
Location:	UINTAH COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 8.300 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: 108 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft  
Cement top: 1,452 ft

**Burst**

Max anticipated surface pressure: 2,135 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,426 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: 2,232 ft

**Directional well information:**

Kick-off point 300 ft  
Departure at shoe: 695 ft  
Maximum dogleg: 2 °/100ft  
Inclination at shoe: 25 °

**Re subsequent strings:**

Next setting depth: 10,467 ft  
Next mud weight: 12.500 ppg  
Next setting BHP: 6,797 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,426 ft  
Injection pressure: 2,426 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	2560	8.625	28.00	I-55	LT&C	2426	2560	7.892	101376
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	1046	1880	1.797	2426	3390	1.40	67.9	348	5.12 J

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

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

Date: November 5, 2012  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2426 ft, a mud weight of 8.3 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

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

Well name:	<b>43047526950000 NBU 922-30P3DS</b>	
Operator:	<b>KERR-MCGEE OIL &amp; GAS ONSHORE, L.P.</b>	
String type:	Production	Project ID: 43-047-52695
Location:	UINTAH COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 12.500 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: 221 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: 707 ft

**Burst**

Max anticipated surface pressure: 4,494 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 6,797 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)

**Directional well information:**

Kick-off point 300 ft  
Departure at shoe: 1640 ft  
Maximum dogleg: 2 °/100ft  
Inclination at shoe: 0 °

Tension is based on air weight.  
Neutral point: 8,834 ft

Estimated cost: 159,896 (\$)

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 (\$)
2	5000	4.5	11.60	HCP-110	DQX	4678	5000	3.875	132000
1	5790	4.5	11.60	HCP-110	LT&C	10467	10790	3.875	27896

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
2	3038	8035	2.645	5523	10690	1.94	121.4	367.2	3.02 B
1	6797	8650	1.273	6797	10690	1.57	67.1	279	4.16 J

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

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

Date: November 5, 2012  
Salt Lake City, Utah

**Remarks:**

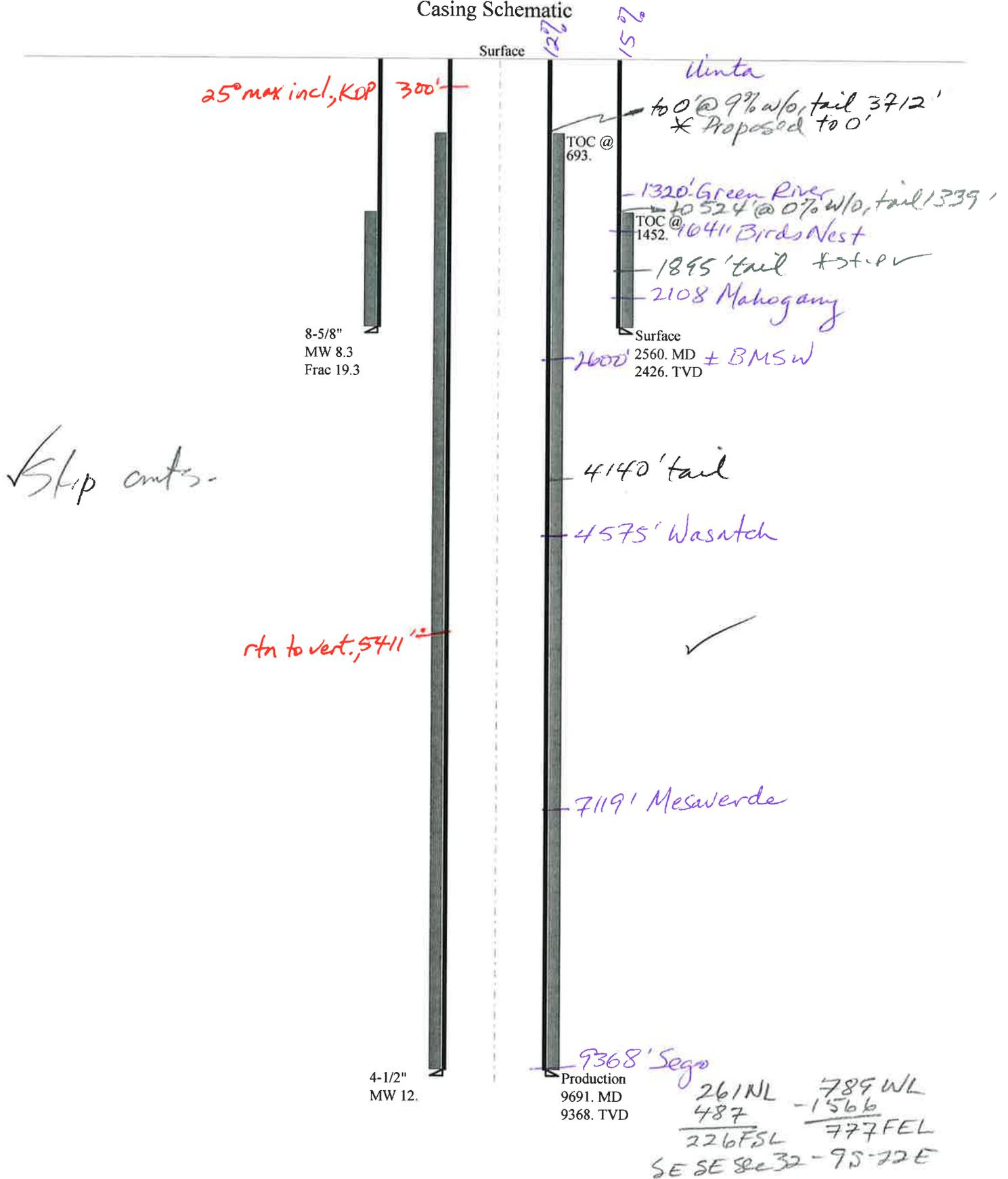
Collapse is based on a vertical depth of 10467 ft, a mud weight of 12.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

# 43047526950000alt NBU 922-30P3DS

## Casing Schematic



Well name:	<b>43047526950000alt NBU 922-30P3DS</b>		
Operator:	<b>KERR-MCGEE OIL &amp; GAS ONSHORE, L.P.</b>		
String type:	Production	Project ID:	43-047-52695
Location:	UINTAH COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 12.000 ppg  
 Internal fluid density: 1.000 ppg

**Burst**

Max anticipated surface pressure: 3,779 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP: 5,840 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor: 1.125

**Burst:**

Design factor: 1.00

**Tension:**

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

Tension is based on air weight.  
 Neutral point: 8,011 ft

Estimated cost: 193,921 (\$)

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 205 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,000 ft

Cement top: 693 ft

**Directional well information:**

Kick-off point: 300 ft  
 Departure at shoe: 1640 ft  
 Maximum dogleg: 2 °/100ft  
 Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	5000	4.5	11.60	I-80	DQX	4678	5000	3.875	132000
1	4691	4.5	11.60	I-80	LT&C	9368	9691	3.875	61921

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
2	2673	5817	2.176	4808	7780	1.62	108.7	267	2.46 J
1	5353	6360	1.188	5840	7780	1.33	54.4	212	3.90 J

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

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

Date: November 5, 2012  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 9368 ft, a mud weight of 12 ppg. An internal gradient of .052 psi/ft was used for collapse from TD to 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

## ON-SITE PREDRILL EVALUATION

### Utah Division of Oil, Gas and Mining

**Operator** KERR-MCGEE OIL & GAS ONSHORE, L.P.  
**Well Name** NBU 922-30P3DS  
**API Number** 43047526950000      **APD No** 5966      **Field/Unit** NATURAL BUTTES  
**Location: 1/4,1/4** NWNW      **Sec** 32      **Tw** 9.0S      **Rng** 22.0E      261 FNL 789 FWL  
**GPS Coord (UTM)** 630573 4428778      **Surface Owner**

#### Participants

Jaime Scharnowske, Gina Becker, Cara Mahler, Doyle Holmes, (Anadarko). Mitch Batty, (Timberline). Jim Davis (SITLA), David Hackford, (DOGM).

#### Regional/Local Setting & Topography

The general area is in the Natural Buttes Unit on the east slope of the Sand Wash drainage of Uintah, County approximately 47.7 miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the general area is characterized by wide drainage bottoms and open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the area. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. Also, no springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The existing pad of the producing NBU 922-32D gas well will be slightly enlarged to add four wells that will be directionally drilled. They are the NBU 922-30P1BS, NBU 922-30P1CS, NBU 922-30P3DS, and NBU 922-30P4BS. Kerr McGee representatives at the pre-site did not know the future of the existing well. The reserve pit will be on the west side of the location. The White River is approximately 1.5 miles to the Northeast. No stability concerns were noted with the existing pad. The selected site appears to be an acceptable site for constructing a pad, drilling and operating the additional wells.

#### Surface Use Plan

##### **Current Surface Use**

Grazing  
Wildlfe Habitat  
Existing Well Pad

<b>New Road Miles</b>	<b>Well Pad</b>	<b>Src Const Material</b>	<b>Surface Formation</b>
0	<b>Width</b> 352 <b>Length</b> 425	Onsite	UNTA

**Ancillary Facilities** N

**Waste Management Plan Adequate?** Y**Environmental Parameters****Affected Floodplains and/or Wetlands** N**Flora / Fauna**

Vegetation includes black sagebrush, bud sage, horsebrush, halogeton, curly mesquite, shadscale, cheatgrass, broom snakeweed, rabbit brush and spring annuals.

Antelope, coyote, small mammals and birds. Endangered fish species exist in the White River. Domestic sheep graze the area in the winter.

**Soil Type and Characteristics**

Rocky sandy clay loam.

**Erosion Issues** N**Sedimentation Issues** N**Site Stability Issues** N**Drainage Diversion Required?** N**Berm Required?** N**Erosion Sedimentation Control Required?** N

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

**Reserve Pit**

<b>Site-Specific Factors</b>		<b>Site Ranking</b>
<b>Distance to Groundwater (feet)</b>	100 to 200	5
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>		20
<b>Native Soil Type</b>	Mod permeability	10
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>		0
<b>Affected Populations</b>		
<b>Presence Nearby Utility Conduits</b>	Not Present	0
	<b>Final Score</b>	40    1 Sensitivity Level

**Characteristics / Requirements**

The reserve pit is planned in an area of cut on the west side of the location. Dimensions are 260' x 120' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a felt sub-liner.

API Well Number: 43047526950000

**Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y**

**Other Observations / Comments**

David Hackford  
**Evaluator**

5/23/2012  
**Date / Time**

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

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<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Owner</b>	<b>CBM</b>
5966	43047526950000	LOCKED	GW	S	No
<b>Operator</b>	KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>Surface Owner-APD</b>		
<b>Well Name</b>	NBU 922-30P3DS		<b>Unit</b>	NATURAL BUTTES	
<b>Field</b>	NATURAL BUTTES		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWNW 32 9S 22E S 261 FNL 789 FWL GPS Coord (UTM) 630573E 4428776N				

**Geologic Statement of Basis**

Kerr McGee proposes to set 2,560' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,600'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 32. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement program should adequately protect ground water in this area.

Brad Hill  
APD Evaluator

11/1/2012  
Date / Time

**Surface Statement of Basis**

The general area is in the Natural Buttes Unit of Uintah County, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the general area is characterized by wide drainage bottoms and open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the area. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. Also, no springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The existing pad of the producing NBU 922-32D gas well will be slightly enlarged to add four wells that will be directionally drilled. They are the NBU 922-30P1BS, NBU 922-30P1CS, NBU 922-30P3DS, and NBU 922-30P4BS. Kerr McGee representatives at the pre-site did not know the future of the existing well. The White River is approximately 1.5 miles to the northeast. No stability concerns were noted with the existing pad. The selected site appears to be an acceptable site for constructing a pad, drilling and operating the additional wells.

New construction will amount to 50" or less on all sides of the existing location. Reserve pit will be constructed in the same area as the reserve pit for the original location.

The surface and minerals for all wells proposed are owned by SITLA. Jim Davis of SITLA and Ben Williams of DWR were invited to the pre-site evaluation. Jim Davis attended and had no concerns regarding the drilling of these wells or the enlargement of the location.

David Hackford  
**Onsite Evaluator**

5/23/2012  
**Date / Time**

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

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the west side of the location.

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/18/2012

API NO. ASSIGNED: 43047526950000

WELL NAME: NBU 922-30P3DS

OPERATOR: KERR-MCGEE OIL &amp; GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6356

CONTACT: Laura Abrams

PROPOSED LOCATION: NWNW 32 090S 220E

Permit Tech Review: 

SURFACE: 0261 FNL 0789 FWL

Engineering Review: 

BOTTOM: 0229 FSL 0778 FEL

Geology Review: 

COUNTY: UINTAH

LATITUDE: 39.99908

LONGITUDE: -109.47038

UTM SURF EASTINGS: 630573.00

NORTHINGS: 4428776.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22935

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 3 - State

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE - 22013542
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 43-8496
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingle Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit: NATURAL BUTTES
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 173-14
- Effective Date: 12/2/1999
- Siting: Suspends General Siting
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 3 - Commingle - ddoucet  
 5 - Statement of Basis - bhill  
 15 - Directional - dmason  
 17 - Oil Shale 190-5(b) - dmason  
 25 - Surface Casing - hmacdonald



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:** NBU 922-30P3DS  
**API Well Number:** 43047526950000  
**Lease Number:** ML 22935  
**Surface Owner:** STATE  
**Approval Date:** 11/8/2012

### Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE 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

### Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

### General:

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

### Conditions of Approval:

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

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

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

Surface casing shall be cemented to the surface.

**Additional Approvals:**

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

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

**Notification Requirements:**

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

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

**Contact Information:**

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

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

**Reporting Requirements:**

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

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

plugging

**Approved By:**

A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers  
Associate Director, Oil & Gas

<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>		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22935
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>1. TYPE OF WELL</b> Gas Well		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>8. WELL NAME and NUMBER:</b> NBU 922-30P3DS
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		<b>9. API NUMBER:</b> 43047526950000
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0261 FNL 0789 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 32 Township: 09.0S Range: 22.0E Meridian: S		<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
		<b>COUNTY:</b> UINTAH
		<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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 4/8/2013	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<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"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Spud well 04/08/2013 @ 07:00. MIRU Triple A Bucket Rig, drill 20" conductor hole to 40', run 14", 36.7# schedule 10 conductor pipe, cement with 28 sacks ready mix. Anticipated surface spud date and surface casing cement 05/15/2013-05/16/2013.		
		<b>Accepted by the          Utah Division of          Oil, Gas and Mining          FOR RECORD ONLY          April 09, 2013</b>
<b>NAME (PLEASE PRINT)</b>	<b>PHONE NUMBER</b>	<b>TITLE</b>
Doreen Green	435 781-9758	Regulatory Analyst II
<b>SIGNATURE</b>		<b>DATE</b>
N/A		4/9/2013

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22935	

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

<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-30P3DS
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<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047526950000
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<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6511	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
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<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0261 FNL 0789 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 32 Township: 09.0S Range: 22.0E Meridian: S	<b>COUNTY:</b> UINTAH
<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"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:			
<input type="checkbox"/> SPUD REPORT Date of Spud:			
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/2/2013			

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

No activity for the month of June 2013. Well TD at 40 ft.

**Accepted by the  
 Utah Division of  
 Oil, Gas and Mining  
 FOR RECORD ONLY  
 July 02, 2013**

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/2/2013	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22935	
<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES	
<b>8. WELL NAME and NUMBER:</b> NBU 922-30P3DS	
<b>9. API NUMBER:</b> 43047526950000	
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	
<b>COUNTY:</b> UINTAH	
<b>STATE:</b> UTAH	

**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.

<b>1. TYPE OF WELL</b> Gas Well	<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>PHONE NUMBER:</b> 720 929-6511
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0261 FNL 0789 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 32 Township: 09.0S Range: 22.0E Meridian: S	

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"/> 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 checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/5/2013	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
 No activity for the month of July 2013. Well TD at 40 ft.

**Accepted by the  
 Utah Division of  
 Oil, Gas and Mining  
 FOR RECORD ONLY  
 August 08, 2013**

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 8/5/2013	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22935	
<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES	
<b>8. WELL NAME and NUMBER:</b> NBU 922-30P3DS	
<b>9. API NUMBER:</b> 43047526950000	
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	
<b>COUNTY:</b> UINTAH	
<b>STATE:</b> UTAH	

**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.

<b>1. TYPE OF WELL</b> Gas Well	<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>PHONE NUMBER:</b> 720 929-6511
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0261 FNL 0789 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 32 Township: 09.0S Range: 22.0E Meridian: S	

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"/> 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 checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/5/2013	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Drilled to 5,206 ft. in August 2013.

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

**FOR RECORD ONLY**

September 06, 2013

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 9/5/2013	

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# SST 8 Submitted By JOSH SHEPPARD Phone Number 435- 828-0987

Well Name/Number NBU 922-30P3DS

Qtr/Qtr NW / NW 4 Section 32 Township 9S Range 22E

Lease Serial Number ML 22935

API Number 4304752695

Casing – Time casing run starts, not cementing times.

- Production Casing  
 Other

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

RECEIVED

AUG 28 2013

BOPE

- Initial BOPE test at surface casing point  
 Other

DIV. OF OIL, GAS & MINING

Date/Time 8/29/2013 1700 AM  PM

Rig Move

Location To: NBU 922 - 32D1 PAD

Date/Time 8/28/2013 2000 AM   
PM

Remarks RIG MOVE & BOP TEST / TIME IS ESTIMATED

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# SST 8 Submitted By

JOSH SHEPPARD Phone Number 435- 828-0987

Well Name/Number NBU 922-30P3DS

Qtr/Qtr NW / NW 4 Section 32 Township 9S Range 22E

Lease Serial Number ML 22935

API Number 4304752695

Casing – Time casing run starts, not cementing times.

Production Casing

Other

Date/Time 9/8/2013 2200 AM  PM

BOPE

Initial BOPE test at surface casing point

Other

Date/Time 8/29/2013 1700 AM  PM

Rig Move

Location To: NBU 922 - 3P4BS

Date/Time 9/9/2013 1200 AM  PM

Remarks CASING RUN & SKID TIME IS

APROXIMATE

RECEIVED

SEP 12 2013

DIV. OF OIL, GAS & MINING

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22935	
<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES	
<b>8. WELL NAME and NUMBER:</b> NBU 922-30P3DS	
<b>9. API NUMBER:</b> 43047526950000	
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	
<b>COUNTY:</b> UINTAH	
<b>STATE:</b> UTAH	

**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.

<b>1. TYPE OF WELL</b> Gas Well	<b>1. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>PHONE NUMBER:</b> 720 929-6511
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0261 FNL 0789 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 32 Township: 09.0S Range: 22.0E Meridian: S	

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"/> 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 checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/4/2013	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Drilled to 10,875 ft. since last report.

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

**FOR RECORD ONLY**

October 07, 2013

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 10/4/2013	

<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>1. TYPE OF WELL</b> Gas Well	<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22935
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0261 FNL 0789 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 32 Township: 09.0S Range: 22.0E Meridian: S	<b>8. WELL NAME and NUMBER:</b> NBU 922-30P3DS
<b>PHONE NUMBER:</b> 720 929-6511	<b>9. API NUMBER:</b> 43047526950000
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	<b>COUNTY:</b> UINTAH
	<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"/> 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 checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/18/2013	<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 checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
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	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 11/18/2013. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 November 21, 2013

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 11/21/2013	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22935
		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well		<b>8. WELL NAME and NUMBER:</b> NBU 922-30P3DS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>9. API NUMBER:</b> 43047526950000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0261 FNL 0789 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 32 Township: 09.0S Range: 22.0E Meridian: S		<b>COUNTY:</b> UINTAH
		<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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/26/2013	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. <b>FINISHED DRILLING TO 10875 ON 9/7/2013. CEMENTED PRODUCTION CASING. RELEASED SST 8 RIG ON 9/9/2013. DETAILS OF CASING AND CEMENT WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.</b>		
		<b>Accepted by the          Utah Division of          Oil, Gas and Mining          FOR RECORD ONLY          November 27, 2013</b>
<b>NAME (PLEASE PRINT)</b>	<b>PHONE NUMBER</b>	<b>TITLE</b>
Teena Paulo	720 929-6236	Staff Regulatory Specialist
<b>SIGNATURE</b>		<b>DATE</b>
N/A		11/26/2013

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

AMENDED REPORT  FORM 8  
 (highlight changes)

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  OTHER \_\_\_\_\_  
 b. TYPE OF WORK: NEW WELL  HORIZ. LATS  DEEP-EN  RE-ENTRY  DIFF. RESVR.  OTHER \_\_\_\_\_

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**ST ML 22935**  
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME  
**UTU63047A**

8. WELL NAME and NUMBER:  
**NBU 922-30P3DS**

2. NAME OF OPERATOR:  
**KERR-MCGEE OIL AND GAS ONSHORE LP**

9. API NUMBER:  
**43-047-52695**

3. ADDRESS OF OPERATOR:  
 P.O. Box 173779 CITY Denver STATE Co ZIP 82017

PHONE NUMBER:  
 720-929-6000

10. FIELD AND POOL, OR WILDCAT  
**Natural Buttes**

4. LOCATION OF WELL (FOOTAGES)  
 AT SURFACE: **NWNW 261 FNL 789 FWL SEC 32**  
 AT TOP PRODUCING INTERVAL REPORTED BELOW: **SESE 195 FSL 806 FEL SEC 30**  
 AT TOTAL DEPTH: **SESE 99 FSL 729 FEL SEC 30**

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:  
**NWNW 32 9S 22E SLB**

12. COUNTY **UINTAH** 13. STATE **UTAH**

14. DATE SPUDDED: **4/8/2013** 15. DATE T. D. REACHED: **9/7/2013** 16. DATE COMPLETED: **11/18/2013**  
 ABANDONED  READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):  
**4991 RKB**

18. TOTAL DEPTH: MD **10875** TVD **10534**

19. PLUG BACK T.D.: MD **10799** TVD **10461**

20. IF MULTIPLE COMPLETIONS, HOW MANY? \*

21. DEPTH BRIDGE PLUG SET: MD \_\_\_\_\_ TVD \_\_\_\_\_

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  
**RADIAL CEMENT GAMMA RAY/CCL LOG**

23. WAS WELL CORED? NC  YES  (Submit analysis)  
 WAS DST RUN? NC  YES  (Submit report)  
 DIRECTIONAL SURVEY? NC  YES  (Submit copy)

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20	14 STL	36.7	0	40		28			
11	8.63 J-55	28	24	2771		800		0	
7.875	4.5 P-110	11.6	24	10846		1885		4200	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2.375	10291							

26. PRODUCING INTERVALS

27. PERFORATION RECORD

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	7438	10543			7,438 10,543	0.36	231	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7,438-10,543	PUMP 16,996 BBL SLICKWATER AND 359,193 LBS 30/50 MESH SAND 10 STAGES

29. ENCLOSED ATTACHMENTS:  
 ELECTRICAL/MECHANICAL LOGS  GEOLOGICAL REPORT  DST REPORT  DIRECTIONAL SURVEY  
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION  CORE ANALYSIS  OTHER:

30. WELL STATUS:  
**PRODUCING**

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: <b>11/18/2013</b>	TEST DATE: <b>11/21/2013</b>	HOURS TESTED: <b>24</b>	TEST PRODUCTION RATES: →	OIL - BBL: <b>0</b>	GAS - MCF: <b>2716</b>	WATER - BBL: <b>0</b>	PROD. METHOD: <b>Flowing</b>
CHOKE SIZE: <b>20/64</b>	TBG. PRESS. <b>1297</b>	CSG. PRESS. <b>249</b>	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR RATES: →	INTERVAL STATUS <b>Producing</b>

INTERVAL B (As shown in Item #26)

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

INTERVAL C (As shown in Item #26)

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

INTERVAL D (As shown in Item #26)

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

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

**SOLD**

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				<b>GREEN RIVER</b>	<b>1363</b>
				<b>BIRD'S NEST</b>	<b>1778</b>
				<b>MAHOGANY</b>	<b>2277</b>
				<b>WASATCH</b>	<b>4929</b>
				<b>MESAVERDE</b>	<b>7426</b>

35. ADDITIONAL REMARKS (Include plugging procedures)

The first 210 ft. of the surface hole was drilled with a 12 ¼ in. bit. The remainder of surface hole was drilled with an 11 in. bit. DQX csg was run from surface to 5034 ft.; LTC csg was run from 5034 ft. to 10,846 ft. Attached is the chronological well history, perforation report & final survey.

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

NAME (PLEASE PRINT) Kay Kelly

TITLE Sr Staff Regulatory Specialist

SIGNATURE *Kay Kelly*

DATE 12/10/13

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340  
Fax: 801-359-3940

US ROCKIES REGION  
**Operation Summary Report**

Well: NBU 922-30P3DS RED				Spud Date: 8/8/2013				
Project: UTAH-UINTAH			Site: NBU 922-32D1 PAD			Rig Name No: PROPETRO 12/12, SST 8/8		
Event: DRILLING			Start Date: 7/28/2013			End Date: 9/9/2013		
Active Datum: RKB @4,991.00usft (above Mean Sea Level)				UWI: NWW/NW/0/9/S/22/E/32/0/0/26/PM/N/261/NW/0/789/0/0				

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/7/2013	22:30 - 0:00	1.50	MIRU	01	B	P	64	SKID RIG 30' RIG UP DIVERTER & FLOW LINE. SPOT RIG MAT OVER WELL. SPOT RIG OVER WELL. SET CAT WALK & PIPE RACKS. HOOK UP AND PRIME PUMP.
8/8/2013	0:00 - 1:00	1.00	MIRU	01	B	P	64	FINISH SKIDDING RIG 30' RIG UP DIVERTER & FLOW LINE. SPOT RIG MAT OVER WELL. SPOT RIG OVER WELL. SET CAT WALK & PIPE RACKS. HOOK UP AND PRIME PUMP.
	1:00 - 1:30	0.50	MIRU	23		P	64	PRE SPUD JOB SAFETY MEETING WITH RIG CREW, NOV CREW, AND SCIENTIFIC CREW. REVIEW DIRECTIONAL PLANS WITH DIRECTIONAL DRILLERS PRIOR TO SPUD.
	1:30 - 2:00	0.50	DRLSUR	06	A	P	64	PICK UP 12 1/4" BIT & 8" MUD MOTOR. TRIP IN HOLE.
	2:00 - 3:30	1.50	DRLSUR	02	B	P	64	DRILL 12.25" SURFACE HOLE F/ 44'- T/ 210' BIT ROP= 166' @ 166 FPH WOB= 5-15K. RPM= TOP DRIVE~55 / MOTOR ~83 / TOTAL RPM~138 PUMPING 491 GPM @ 120 SPM STAND PIPE PRESSURE ON/OFF BOTTOM = 800/600 TORQUE ON/OFF BOTTOM = 1,700/700 UP/DN/ROT = 22/20/20 PEAK ON LINE MUD WT = 8.4
	3:30 - 4:30	1.00	DRLSUR	06	A	P	230	TRIP OUT OF HOLE. LAY DOWN 12 1/4" BIT
	4:30 - 7:00	2.50	DRLSUR	06	A	P	230	PICK UP 11" BIT & DIRECTIONAL ASSEMBLY, SCRIBE. TRIP IN HOLE
	7:00 - 12:00	5.00	DRLSUR	02	B	P	230	DRILL 11". SURFACE HOLE, F/ 210' - T/ 710', 490' @ 98 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 925/660 TORQUE ON OFF = 3,000/900 UP/DOWN/ ROT 50/48/49 K. DRAG 1 K. PEAK ON LINE MUD WT 8.4 SLID 0' = 0% 0' ABOVE & 0' RIGHT OF THE LINE HOLE ISSUES= NONE

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:00 - 18:00	6.00	DRLSUR	02	B	P	730	DRILL 11". SURFACE HOLE, F/ 710' - T/ 1310', 600' @ 100 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1180/890 TORQUE ON OFF = 3,000/900 UP/DOWN/ ROT 60/50/52 K. DRAG 8 K. PEAK ON LINE MUD WT 8.4 SLID 29' = 5.82% 3.4' ABOVE & 0.2' RIGHT OF THE LINE HOLE ISSUES= NONE
	18:00 - 0:00	6.00	DRLSUR	02	B	P	1330	DRILL 11". SURFACE HOLE, F/ 1310' - T/ 1700', 390' @ 65 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1000/800 TORQUE ON OFF = 3,100/1,500 UP/DOWN/ ROT 62/48/55 K. DRAG 7 K. PEAK ON LINE MUD WT 8.4 SLID 116' = 18.65% 3.59' ABOVE & 0.03' RIGHT OF THE LINE HOLE ISSUES= NONE
8/9/2013	0:00 - 6:00	6.00	DRLSUR	02	B	P	1720	DRILL 11". SURFACE HOLE, F/ 1700' - T/ 2150', 450' @ 75 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1300/1050 TORQUE ON OFF = 3,100/1,500 UP/DOWN/ ROT 78/53/62 K. DRAG 16 K. PEAK ON LINE MUD WT 8.4 SLID 67' = 15.65% 5.00' ABOVE & 12.0' LEFT OF THE LINE HOLE ISSUES= HOLE TAKING FLUID @ 2100
	6:00 - 12:00	6.00	DRLSUR	02	B	P	2170	DRILL 11". SURFACE HOLE, F/ 2150' - T/ 2600', 450' @ 75 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1440/1320 TORQUE ON OFF = 3,100/1,700 UP/DOWN/ ROT 81/57/67 K. DRAG 14 K. PEAK ON LINE MUD WT 8.4 SLID 75' = 19.23% 6.7' ABOVE & 5.0' LEFT OF THE LINE HOLE ISSUES= HOLE TAKING FLUID @ 2100

## Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:00 - 14:30	2.50	DRLSUR	02	B	P	2620	DRILL 11". SURFACE HOLE, F/ 2600' - T/ 2780', 180' @ 72 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1530/1350 TORQUE ON OFF = 3,100/1,500 UP/DOWN/ ROT 62/48/55 K. DRAG 7 K. PEAK ON LINE MUD WT 8.4 SLID 116' = 18.65% 3.59' ABOVE & 0.03' RIGHT OF THE LINE HOLE ISSUES= HOLE TAKING FLUID @ 2100
	14:30 - 16:30	2.00	DRLSUR	05	C	P	2800	CIRCULATE AND CONDITION HOLE / PUMPING 491 GPM @ 120 SPM / RETURNS CLEAN COMING OVER SHAKERS / MUD TANKS 1/2 FULL / 4 - 400 BBL UPRIGHT STORAGE TANKS FULL / 2 - 400 BBL UPRIGHT STORAGE TANKS EMPTY
	16:30 - 19:30	3.00	DRLSUR	06	D	P	2800	LAY DOWN DRILL PIPE & BHA
	19:30 - 20:30	1.00	DRLSUR	12	A	P	2800	PRE JOB SAFETY MEETING WITH PRO PETRO RIG CREW . MOVE PIPE RACKS AND CATWALK. RIG UP TO RUN SURFACE CASING. CLEAR UNRELATED TOOLS.
	20:30 - 0:00	3.50	DRLSUR	12	C	P	2800	RAN 62 JOINTS (2,750.5') OF 8-5/8", 28#, J-55, LT&C CASING WITH TOPCO FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE SHOE. 5 CENTRALIZERS SPACED 10' ABOVE SHOE, 2ND & 3RD COLLARS AND EVERY THIRD COLLAR TO 2,393'. LANDED SHOE @ 2,750.5' KB. BAFFLE PLATE @ 2,704' KB.

## Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/10/2013	0:00 - 2:30	2.50	DRLSUR	12	E	P	2800	<p>CEMENT JOB SAFETY MEETING WITH PRO PETRO CEMENTERS.</p> <p>RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING.</p> <p>PRESSURE TEST LINES TO 2500 PSI.</p> <p>PUMP 161 BBLS OF WATER AHEAD CLEARING SHOE.</p> <p>MIX AND PUMP 20 BBLS OF GEL WATER FLUSH AHEAD OF CEMENT. MIX AND PUMP 300 SX OF PREMIUM CEMENT WITH 2% CACL2 &amp; 0.25 LB/SX FLOCELE. 61.4 BBLS MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. DROP PLUG ON FLY, DISPLACE WITH 168.7 BBLS OF FRESH WATER. PARTIAL RETURNS THROUGH OUT JOB, FINAL LIFT OF 440 PSI AT 3 BBL/MINUTE. BUMPED PLUG @ 800. HELD @ 800 PSI FOR 5 MINS WITHOUT BLEED OFF.</p> <p>TESTED FLOAT AND FLOAT HELD.</p> <p>RELEASE RIG @ 02:30, 8/10/2013</p> <p>TOP JOB # 1: PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, 3% GR-3, &amp; .25 LB/SX FLOCELE, 30.7 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO CEMENT RETURNS TO SURFACE.</p> <p>WAIT ON CEMENT 2.5 HOURS.</p> <p>TOP JOB # 2: CEMENT DOWN BACKSIDE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, &amp; .25 LB/SX FLOCELE, 30.7 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX.</p> <p>WAIT ON CEMENT 2.0 HOURS.</p> <p>TOP JOB # 3: CEMENT DOWN BACKSIDE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, &amp; .25 LB/SX FLOCELE, 30.7 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX.</p> <p>WAIT ON CEMENT 1.0 HOURS.</p> <p>TOP JOB # 4: CEMENT DOWN BACKSIDE WITH 50 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, &amp; .25 LB/SX FLOCELE, 10.2 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX.</p> <p>2 BBLS CEMENT RETURNS TO SURFACE.</p> <p>CEMENT HELD AT SURFACE</p> <p>RIG DOWN PRO PETRO CEMENTERS.</p> <p>CEMENT JOB FINISHED @ 08:30 8/10/2013</p>

Operation Summary Report

Well: NBU 922-30P3DS RED			Spud Date: 8/8/2013		
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD		Rig Name No: PROPETRO 12/12, SST 8/8	
Event: DRILLING		Start Date: 7/28/2013		End Date: 9/9/2013	
Active Datum: RKB @4,991.00usft (above Mean Sea Level)			UWI: NWNW/09/S/22/E/32/0/0/26/PM/N/261N/0789/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/26/2013	6:00 - 18:00	12.00	RDMO	01	E	P	2800	RIG DOWN AND GET READY FOR MOBILIZATION  SET UP CONTAINMENTS TRANSFERED DRILLING MUD TO THE NEW SITE. MOVED MUD CHEMICALS . RIGGED DOWN THE FLOOR LD THE TOP DRIVE LOADED AND MOVED THE V DOOR, 2- CONEX, TOP DRIVE, CATWALK, MOVED OUT THE FRONT YARD TO THE NBU 922-32D1 PAD SKIDDED BACK TO POSITION 1 ON THE PAD LOWERED THE DERRICK. RIGGED DOWN THE GAS BUSTER, PITS, PRE-MIX, UNNEEDED ELECTRIC LINES.  R.W. JONES: 6 TRUCKS 2 FORKLIFTS 2 PUSHERS 3 SWAMPERS 1 SAFETY MAN  JD TRUCKING: 6 WATER TRUCKS 2 BED TRUCKS 2 ROUSTABOUTS  SST: 6 EXTRA HANDS
	18:00 - 0:00	6.00	RDMO	21	C	P	2800	WAITING ON DAYLIGHT AND TRUCKS TO BEGIN RIG MOB
8/27/2013	0:00 - 6:00	6.00	RDMO	21	C	P	2800	WAITING ON DAYLIGHT TO MOVE

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 19:00	13.00	MIRU3	01	A	P	2800	<p>RIGGED DOWN THE BACK YARD: UNPLUG ALL ELECTRIC LINES, AND LOAD OUT THE EQUIPMENT. MOVED ALL EQUIPMENT TO THE NBU 922-32D1 PAD. LOADED OUT / SPLIT THE DERRICK, SPLIT THE SUB.</p> <p>SET THE BACKYARD IN , SET THE SKID RAILS AND 3/4 OF THE SUB BEFORE SHUTTING DOWN FOR THE DAY DUE TO DOT HOURS.</p> <p>100% OF EQUIPMENT IS MOBILIZED TO THE NEW SITE AND STAGED. 20% RIGGED UP</p> <p>18 MILE MOVE</p> <p>RW JONES: ON LOCATION 7:00 TO 19:00 15 TRUCKS 2 FORKLIFTS 1 CRANE 2 RIGGERS 2 TRUCK PUSHERS 1 SAFETY MAN 4 SWAMPERS 2 PILOT CARS</p> <p>JD: 2 ROUSTABOUTS 1 BACKHOE 1 SKID STEER 1 - 1 TON</p> <p>MOUNTAIN WEST: 2 ROAD TRUCKS 1 - 1 TON WITH 2</p> <p>SST: 6 EXTRA HANDS FOR RIGGING UP 1 SUPERINTENDANT</p>
	19:00 - 0:00	5.00	MIRU3	01	B	P	2800	WAIT ON DAYLIGHT TO BEGIN RIGGING UP
8/28/2013	0:00 - 6:00	6.00	MIRU3	21	C	P	2800	WAIT ON DAYLIGHT AND TRUCKS TO RIG UP

## Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 18:00	12.00	MIRU3	01	B	P	2800	STACK UP SUB / SET FLOOR EQUIPMENT / DRESS OUT DERRICK / PIN DERRICK TO RIG FLOOR / RAISE DERRICK / RIG UP FLOWLINE / RIG UP GAS BUSTER / PULL POWER CORDS  CRANE RELEASED @ 1430 RW JONES: ON LOCATION 7:00 TO 19:00 5 TRUCKS 1 FORKLIFTS 1 CRANE 2 RIGGERS 2 TRUCK PUSHERS 1 SAFETY MAN 3 SWAMPERS  SST: 2 RIG MANAGERS
	18:00 - 0:00	6.00	MIRU3	01	B	P	2800	WAIT ON DAYLIGHT
8/29/2013	0:00 - 6:00	6.00	MIRU	01	B	P	2800	WAIT ON DAYLIGHT
	6:00 - 0:00	18.00	MIRU	01	B	P	2800	PICK UP TOP DRIVE / RIG UP FLOOR TOOLS / TROUBLESHOOT TOP DRIVE ELECTRICAL / TROUBLE SHOOT HPU ELECTRICAL/ SET IN CAT WALK / SET BEAVER SLIDE / RIG UP FLARE LINES /  RELEASE TRUCKS @ 1000 RW JONES // TRUCKS -1 FORKLIFT-1 TRUCK PUSHER-1  SST// 1 EXTRA RIG MANAGER
8/30/2013	0:00 - 1:00	1.00	PRSPD	01	B	P	2800	RIG UP FLARE LINES / CHANGE OUT SAVER SUB / RIG UP PASON / NIPPLE UP FLOW LINES
	1:00 - 2:30	1.50	PRSPD	14	A	P	2800	NIPPLE UP BOP
	2:30 - 6:00	3.50	PRSPD	15	A	P	2800	HELD A SAFETY MEETING WITH A-1 TESTER, FILL THE TRUCK WITH WATER, RIGGED UP TESTER TESTING CASING AND CHOKE TO 1500 PSI FOR 30 MINUTES. TEST ANNULAR TO 2500 PSI FOR 10 MIN AND 250 PSI FOR 5 MINUTES. TEST I-BOP VALVE, FLOOR VALVE, DART VALVE, PIPE AND BLIND RAMS, INSIDE AND OUTSIDE KILL LINE VALVES INSIDE OUTSIDE CHOKE LINE VALVE, HCR VALVE, CHOKE LINE, CHOKE MANIFOLD VALVES TO 5000 PSI FOR 10 MINUTES AND 250 PSI FOR 5 MINUTES.
	6:00 - 7:00	1.00	PRSPD	06	A	P	2800	SET WEAR BUSHING
	7:00 - 16:00	9.00	PRSPD	06	A	P	2800	LOAD PIPE RACKS / STRAP BHA / STRAP DRILL PIPE/ PICK UP .16 MOTOR / MAKE UP BIT / SCRIBE DIRECTIONAL TOOLS / PICK UP DIRECTIONAL TOOLS / INSTALL MWD TOOL / PICK UP HEAVY WEIGHT DRILL PIPE / RIG UP LAY DOWN TRUCK / PICK UP DRILL PIPE / TAG CEMENT @ 2670' RIG DOWN LAY DOWN TRUCK
	16:00 - 18:00	2.00	PRSPD	09	A	P	2800	CUT DRILL LINE

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 19:00	1.00	DRLPRC	02	F	P	2800	DRILL SHOE TRACK F/ 2670-2770 WOB 10 SPM 90 GPM 377 ROT 40 MUD MOTOR RPM 60 PSI 700
	19:00 - 0:00	5.00	DRLPRC	02	D	P	2800	DRILL SLIDE 2800' - 3224' ( 424' @ 85' / HR) WEIGHT ON BIT 18-22 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 65, MUD MOTOR RPM 152 STROKES PER MINUTE 130 GALLONS PER MINUTE 544 OFF/ON PSI 1400 / 1800 DIFFERENTIAL 400 TORQUE HIGH/LOW 5000/9000 OFF BOTTOM TORQUE 4000 STRING WEIGHT UP/DOWN/ROT 112/100/106 DRAG 6 K. BOS DEWATER AS NEEDED WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 32 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 0 BBL/HR NO FLARE  BIT POSITION:Bit Position: 3224' MD: 3224' Low 0.30' Right 4.36' Proposal  Footage Feet% Total: 424' Slide: 83' = 19.6 % Rotate: 341' = 80.4% Time/Min/Hrs%:1900 Hrs.-2400 Hrs = 5.0Hrs. Total Drilling: 4.58 hrs: Total Connection/Rig Time: .42 hrs=8.4% Slide: 1.25 hrs= 27.3 % Rotate: 3.33 hrs= 72.7%  Projection to Bit from Last Survey MD: 3224' Low 0.30' Right 4.36' Proposal  Last survey MD:3149 ' Inc 28.4 Azm 287.3 TVD 2953.05'

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/31/2013	0:00 - 8:30	8.50	DRLPRC	02	D	P	3224	DRILL SLIDE 3224' - 4160' ( 936' @ 110' / HR) WEIGHT ON BIT 18-22 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 65, MUD MOTOR RPM 152 STROKES PER MINUTE 130 GALLONS PER MINUTE 544 OFF/ON PSI 1600 / 1800 DIFFERENTIAL 200 TORQUE HIGH/LOW 6000/9000 OFF BOTTOM TORQUE 6000 STRING WEIGHT UP/DOWN/ROT 112/100/106 DRAG 6 K. BOS DEWATER AS NEEDED WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 32 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 0 BBL/HR NO FLARE  Bit Position: 3800' MD: 3800' Low 4.67' Left 1.88' Proposal  Footage Feet% Total: 576' Slide: 65'= 11.2 % Rotate: 511'= 88.8% Time/Min/Hrs%:1900 Hrs.-2400 Hrs = 5.0Hrs. Total Drilling: 4.33 hrs: <span style="float:right">Total</span> Connection/Rig Time: .67 hrs=13.4% Slide: 1.17 hrs= 27.0 % Rotate: 3.17 hrs= 73.0%  Projection to Bit from Last Survey MD: 3800' Low 4.67' Left 1.88' Proposal  Last survey MD:3720 ' Inc 25.3 Azm 283.1 TVD 3458.1' RIG SERVICE
	8:30 - 9:00	0.50	DRLPRC	07	A	P	4160	

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:00 - 20:00	11.00	DRLPRC	02	D	P	4160	DRILL SLIDE 3885' - 5206' (1321' @ 120' / HR) WEIGHT ON BIT 18-22 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 65, MUD MOTOR RPM 152 STROKES PER MINUTE 130 GALLONS PER MINUTE 544 OFF/ON PSI 1600 / 1800 DIFFERENTIAL 200 TORQUE HIGH/LOW 7500 / 12000 OFF BOTTOM TORQUE 7500 STRING WEIGHT UP/DOWN/ROT 160 / 95 / 120 DRAG 6 K. BOS DEWATER AS NEEDED WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 32 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 0 BBL/HR NO FLARE  Bit Position: 5206' MD: 5206' East 14.39' South 13.78' PBHL  Footage Feet% Total: 191' Slide: 27' = 14.1 % Rotate: 164' = 85.9% Time/Min/Hrs%:1800 Hrs.-2400 Hrs = 6.0 Hrs. Total Drilling: 1.84 hrs: <span style="float:right">Total</span> Connection/Rig Time: 4.16 hrs=69.3% Slide: .67 hrs= 36.4 % Rotate: 1.17 hrs= 63.6%  Projection to Bit from Last Survey MD: 5206' East 14.39' South 13.78' PBHL  Last survey MD: 5146' Inc 7.5 Azm 291.7 TVD 4809.7'
	20:00 - 20:30	0.50	DRLPRC	05	A	P	5206	CIRCULATE F/ TRIP OUT OF HOLE
	20:30 - 22:30	2.00	DRLPRC	06	A	P	5206	TRIP OUT OF HOLE F/ HARD BANDED DRILL PIPE / TIGHT HOLE @ 4800' , 4650'
	22:30 - 0:00	1.50	DRLPRC	06	A	P	5206	PICK UP HARD BANDED DRILL PIPE
9/1/2013	0:00 - 2:30	2.50	DRLPRV	06	A	P	5206	TRIP IN HOLE PICKING UP 41 JOINTS NEW HARD BAND DRILL PIPE

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	2:30 - 6:00	3.50	DRLPRV	02	B	P	5206	DRILL SLIDE 5206' - 5397' (191' @ 54.5' / HR) WEIGHT ON BIT 18-22 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 65, MUD MOTOR RPM 152 STROKES PER MINUTE 130 GALLONS PER MINUTE 544 OFF/ON PSI 1600 / 1800 DIFFERENTIAL 200 TORQUE HIGH/LOW 7500 / 12000 OFF BOTTOM TORQUE 7500 STRING WEIGHT UP/DOWN/ROT 160 / 95 / 120 DRAG 6 K. BOS DEWATER AS NEEDED WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 13 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 0 BBL/HR NO FLARE Bit Position: 5315' MD: 5315' East 4.64' South 8.98' PBHL  Footage Feet% Total: 109' Slide: 28' = 25.7 % Rotate: 81' = 74.3% Time/Min/Hrs%:0000 Hrs.-0500 Hrs = 5.0 Hrs. Total Drilling: 2.00 hrs: <span style="float:right">Total</span> Connection/Rig Time: 4.00 hrs=67.0% Slide: 1.25 hrs= 62.5 % Rotate: .75 hrs= 37.5%  Projection to Bit from Last Survey MD: 5315' East 4.64' South 8.98' PBHL  Last survey MD: 5242' Inc 6.0 Azm 296.4 TVD 4904.98'

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 13:30	7.50	DRLPRV	02	B	P	5397	DRILL SLIDE 5397' - 6062' (665' @ 88.6' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 130 GALLONS PER MINUTE 544 OFF/ON PSI 1800 / 2100 DIFFERENTIAL 300 TORQUE HIGH/LOW 9000 / 15000 OFF BOTTOM TORQUE 900 STRING WEIGHT UP/DOWN/ROT 160 / 95 / 120 DRAG 6 K. BOS DEWATER AS NEEDED WT 9.0 VIS 34. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 39 BBL. FLUID FOR HOLE VOLUME 49 BARRELS LOSSES @ 7 BBL/HR NO FLARE Bit Position: 6062' MD: 6062' West 5.26' South 4.45' PBHL  Footage Feet% Total: 745' Slide: 68' = 9.1 % Rotate: 677' = 91.9% Time/Min/Hrs%: 0500 Hrs. - 1400 Hrs = 9.0 Hrs. Total Drilling: 8.25 hrs: <span style="float: right;">Total</span> Connection/Rig Time: .75 hrs = 8.3 % Slide: 2.75 hrs = 33.3 % Rotate: 5.5 hrs = 64.7%  Projection to Bit from Last Survey MD: 6062' West 5.26' South 4.45' PBHL  Last survey MD: 6003' Inc .8 Azm 100.8 TVD 5665.18' RIG SERVICE
	13:30 - 14:00	0.50	DRLPRV	07	A	P	6062	

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:00 - 0:00	10.00	DRLPRV	02	B	P	6062	DRILL SLIDE 6062' - 6823' (761' @ 76' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 130 GALLONS PER MINUTE 544 OFF/ON PSI 1800 / 2100 DIFFERENTIAL 300 TORQUE HIGH/LOW 11000 / 15000 OFF BOTTOM TORQUE 11000 STRING WEIGHT UP/DOWN/ROT 190 / 100 145 DRAG 45 K. BOS DEWATER AS NEEDED WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 43 BBL. FLUID FOR HOLE VOLUME 49 BARRELS LOSSES @ 7 BBL/HR NO FLARE Bit Position: 6823' MD: 6823' West 9.57' North 0.44' PBHL  Footage Feet% Total: 761' Slide: 35' = 4.6% Rotate: 726' = 95.4 % Time/Min/Hrs%: 1400 Hrs.-2400 Hrs = 10.0 Hrs. Total Drilling: 8.91 hrs: <span style="float: right;">Total</span> Connection/Rig Time: 1.09 hrs = 10.9 % Slide: 1.41 hrs = 15.8% Rotate: 7.5 hrs = 84.2 %  Projection to Bit from Last Survey MD: 6823' West 9.57' North 0.44' PBHL  Last survey MD: 6763' Inc 0.4 Azm 250.5 TVD 6425.13'

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/2/2013	0:00 - 6:00	6.00	DRLPRV	02	B	P	6823	DRILL SLIDE 6823' - 7190 ' (367' @ 61.1' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 130 GALLONS PER MINUTE 544 OFF/ON PSI 1800 / 2100 DIFFERENTIAL 300 TORQUE HIGH/LOW 11000 / 15000 OFF BOTTOM TORQUE 11000 STRING WEIGHT UP/DOWN/ROT 190 / 100 145 DRAG 45 K. BOS DEWATER AS NEEDED WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 43 BBL. FLUID FOR HOLE VOLUME 49 BARRELS LOSSES @ 7 BBL/HR NO FLARE  Bit Position: 7109' MD: 7109' West 10.84' South 0.05' PBHL  Footage Feet% Total: 286' Slide: 30'= 10.4% Rotate: 256'= 89.6 % Time/Min/Hrs%:0000 Hrs-0500 Hrs = 5.0 Hrs. Total Drilling: 4.83 hrs: <span style="float:right">Total</span> Connection/Rig Time: 0.17hrs= 3.4 % Slide: 1.75 hrs=36.2% Rotate: 3.08 hrs=63.8 %  Projection to Bit from Last Survey MD: 7109' West 10.84' South 0.05' PBHL  Last survey MD: 6953' Inc 0.6 Azm 177.1 TVD 6615.12'

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 15:30	9.50	DRLPRV	02	B	P	7190	NDRILL SLIDE 7190' - 7773' (583' @ 61' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 130 GALLONS PER MINUTE 544 OFF/ON PSI 1800 / 2100 DIFFERENTIAL 300 TORQUE HIGH/LOW 11000 / 15000 OFF BOTTOM TORQUE 11000 STRING WEIGHT UP/DOWN/ROT 190 / 100 145 DRAG 45 K. BOS DEWATER AS NEEDED WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 36 BBL. FLUID FOR HOLE VOLUME BARRELS LOSSES @ 6 BBL/HR NO FLARE Bit Position: 7773' MD: 7773' West 10.80' North 2.2' PBHL  Footage Feet% Total: 665' Slide: 30' = 4.5% Rotate: 635' = 95.5 % Time/Min/Hrs%: 0500 Hrs-1600 Hrs = 11.0 Hrs. Total Drilling: 10.0 hrs: <span style="float: right;">Total</span> Connection/Rig Time: 1.0 hrs = 9.0 % Slide: 1.25hrs = 11.4% Rotate: 8.59 hrs = 88.6 %  Projection to Bit from Last Survey MD: 7773' West 10.80' North 2.2' PBHL  Last survey MD: 7714' Inc 1.4 Azm 92.0 TVD 7375.92' RIG SERVICE
	15:30 - 16:00	0.50	DRLPRV	07	A	P	7773	

**Operation Summary Report**

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:00 - 0:00	8.00	DRLPRV	02	B	P	7773	DRILL SLIDE 7773' - 8215' (44' @ 55' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 140 GALLONS PER MINUTE 595 OFF/ON PSI 2400/2600 DIFFERENTIAL 200 TORQUE HIGH/LOW 19000 / 14000 OFF BOTTOM TORQUE 14000 STRING WEIGHT UP/DOWN/ROT 250 / 125 / 165 DRAG 85 K. BOS DEWATER RUNNING CONVENTIONAL WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 30 BBL. FLUID FOR HOLE VOLUME 40 BARRELS LOSSES @ 5 BBL/HR NO FLARE Bit Position: 8215' MD: 8215' West 1.95' South 0.60' PBHL  Footage Feet% Total: 434' Slide: 23 '= 5.2% Rotate: 411'= 94.8 % Time/Min/Hrs%:1600 Hrs-2400 Hrs = 8.0 Hrs. Total Drilling: 7.25 hrs: <span style="float:right">Total</span> Connection/Rig Time: .75 hrs= 9.4 % Slide: 1.5 hrs= 20.7% Rotate: 5.75 hrs= 79.3 %  Projection to Bit from Last Survey MD: 8215' West 1.95' South 0.60' PBHL  Last survey MD: 8094' Inc 1.5 Azm 138.7 TVD 7755.81'

**Operation Summary Report**

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/09/S/22/E/32/0/0/26/PM/N/261N/0789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/3/2013	0:00 - 6:00	6.00	DRLPRV	02	B	P	8215	DRILL SLIDE 8215' - 8439' (224' @ 37' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 20K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 140 GALLONS PER MINUTE 595 OFF/ON PSI 2400/2600 DIFFERENTIAL 200 TORQUE HIGH/LOW 19000 / 14000 OFF BOTTOM TORQUE 14000 STRING WEIGHT UP/DOWN/ROT 250 / 125 / 165 DRAG 85 K. BOS DEWATER RUNNING CONVENTIONAL WT 8.9 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 14 BBL. FLUID FOR HOLE VOLUME 30 BARRELS LOSSES @ 5 BBL/HR NO FLARE  Bit Position: 8373' MD: 8373' East 0.36' South 3.70' PBHL  Footage Feet% Total: 158' Slide: 19' = 12% Rotate: 139' = 88 % Time/Min/Hrs%:0000 Hrs-0500 Hrs = 5.0 Hrs. Total Drilling: 4.75 hrs: <span style="float:right">Total</span> Connection/Rig Time: .25 hrs= 5.0 % Slide: 2.75 hrs= 57.9% Rotate: 2.0 hrs= 42.1 %  Projection to Bit from Last Survey MD: 8373' East 0.36' South 3.70' PBHL  Last survey MD: 8285' Inc 1.3 Azm 141.5 TVD 7946.77'

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 16:00	10.00	DRLPRV	02	B	P	8439	DRILL SLIDE 8205' - 9106' (901' @ 90' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 22K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 140 GALLONS PER MINUTE 595 OFF/ON PSI 2400/2600 DIFFERENTIAL 200 TORQUE HIGH/LOW 22000 / 18000 OFF BOTTOM TORQUE 18000 STRING WEIGHT UP/DOWN/ROT 250 / 125 / 165 DRAG 85 K. BOS OFFLINE WT 9.1 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 50 BBL. FLUID FOR HOLE VOLUME 400 BARRELS LOSSES @ 4 BBL/HR 10' FLARE Bit Position: 9106' MD: 9106' East 4.6' South 16.80' PBHL  Footage Feet% Total: 733' Slide: 0' = 0% Rotate: 733' = 100 % Time/Min/Hrs%:0500 Hrs-1600 Hrs = 11 Hrs. Total Drilling: 9.68 hrs: <span style="float:right">Total</span> Connection/Rig Time: 1.32 hrs= 12.0 % Slide: 0.0 hrs= 0.0% Rotate: 9.68 hrs= 100 %  Projection to Bit from Last Survey MD: 9106' East 4.6' South 16.80' PBHL  Last survey MD: 9106' Inc 1.7 Azm 162.0 TVD 8707.62' RIG SERVICE
	16:00 - 16:30	0.50	DRLPRV	07	A	P	9106	RIG SERVICE

## Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NW/NW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:30 - 17:00	0.50	DRLPRV	02	B	P	9120	DRILL SLIDE 9106' - 9120' (14' @ 28' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 22K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 140 GALLONS PER MINUTE 595 OFF/ON PSI 2400/2600 DIFFERENTIAL 200 TORQUE HIGH/LOW 22000 / 21000 OFF BOTTOM TORQUE 19000 STRING WEIGHT UP/DOWN/ROT 250 / 125 / 165 DRAG 85 K. BOS OFF LINE WT 9.1 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 0 BBL. FLUID FOR HOLE VOLUME 0 BARRELS LOSSES @ 4 BBL/HR 10' FLARE
	17:00 - 18:00	1.00	DRLPRV	05	C	P	9120	CIRCULATE BOTTOMS UP / SPOT 11LB PILL
	18:00 - 0:00	6.00	DRLPRV	06	F	P	9120	100K OVER PULL / SST POLICY T/BACK REAM/ PUMP F/ F/9120 - 5665
9/4/2013	0:00 - 3:00	3.00	DRLPRV	06	A	P	9120	TRIP OUT OF HOLE / 100K OVER PULL / SST POLICY T- BACK REAM PUMP OUT F/ 5665-4190 / TRIP OUT OF HOLE TO SHOE DEPTH
	3:00 - 6:30	3.50	DRLPRV	08	A	P	9120	CHANGE OUT MUD SAVER VALVE / CHANGE OUT GRABBER DIES
	6:30 - 8:00	1.50	DRLPRV	06	A	P	9120	TRIP OUT OF HOLE / BREAK OFF BIT / LD MUD MOTOR
	8:00 - 14:30	6.50	DRLPRV	06	A	P	9120	PICK UP 1.5" BEND, .16 MOTOR / MAKE UP BIT / SCRIBE DIRECTIONAL TOOLS / CHANGE OUT BATTERIES IN MWD TOOL / TRIP IN HOLE T/4200' WASH & REAM F/ 4200'-6318'
	14:30 - 15:00	0.50	DRLPRV	05	B	P	9120	CIRCULATE BOTTOMS UP / SPOT 20 BBL 11.5 LB PILL
	15:00 - 19:30	4.50	DRLPRV	06	A	P	9120	TRIP IN HOLE F/ 6318'-7317' / WASH & REAM F/ 7318' - 7454' / TRIP IN HOLE F/ 7454' - 8249' / WORK THROUGH TIGHT HOLE @ 8249' / WASH & REAM F/ 8249' - 9120'
	19:30 - 20:30	1.00	DRLPRV	05	F	P	9120	CIRCULATE / WORK TORQUE OUT OF HOLE

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	20:30 - 23:30	3.00	DRLPRV	02	B	P	9120	DRILL SLIDE 9120 - 9330' (210" @ 70' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 22K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 140 GALLONS PER MINUTE 595 OFF/ON PSI 2400/2600 DIFFERENTIAL 200 TORQUE HIGH/LOW 22000 / 18000 OFF BOTTOM TORQUE 18000 STRING WEIGHT UP/DOWN/ROT 250 / 125 / 165 DRAG 85 K. BOS OFFLINE WT 9.1 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 15 BARRELS LOSSES @ 5 BBL/HR 10' FLARE Bit Position: 9328' MD: 9328' East 8.62' South 24.1' PBHL  Footage Feet% Total: 208' Slide: 13' = 6.3% Rotate: 195' = 93.7 % Time/Min/Hrs%:2030 Hrs-2400 Hrs = 3.5 Hrs. Total Drilling: 2.25 hrs: <span style="float:right">Total</span> Conn/Ream/Rig Time: 1.25 hrs= 35.7 % Slide: .83 hrs= 36.9% Rotate: 1.42 hrs= 63.1 %  Projection to Bit from Last Survey MD: 9328' East 8.62' South 24.1' PBHL  Last survey MD: 9236' Inc 1.9 Azm 146.1 TVD 8707.62'
	23:30 - 0:00	0.50	DRLPRV	05	F	P	9330	CLEAN HOLE / WORK THROUGH TIGHT SPOT
9/5/2013	0:00 - 1:30	1.50	DRLPRV	05	F	X	9330	PUMP LCM SWEEP / WORK THROUGH TIGHT HOLE

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	1:30 - 6:00	4.50	DRLPRV	02	B	P	9330	DRILL SLIDE 9120 - 9330' (210" @ 70' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 22K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 140 GALLONS PER MINUTE 595 OFF/ON PSI 2400/2600 DIFFERENTIAL 200 TORQUE HIGH/LOW 22000 / 18000 OFF BOTTOM TORQUE 18000 STRING WEIGHT UP/DOWN/ROT 250 / 125 / 165 DRAG 85 K. BOS OFFLINE WT 9.1 VIS 33. ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 20 BBL. FLUID FOR HOLE VOLUME 15 BARRELS LOSSES @ 5 BBL/HR 10' FLARE Bit Position: 9582' MD: 9582' East 14.81' South 30.83' PBHL  Footage Feet% Total: 254' Slide: 0' = 0% Rotate: 254' = 100 % Time/Min/Hrs%:0000 Hrs-0500 Hrs = 5.0 Hrs. Total Drilling: 1.75 hrs: <span style="float:right">Total</span> Conn/Ream/Rig Time: 3.25 hrs= 65 % Slide: 0 hrs= 0% Rotate: 1.75 hrs= 100 %  Projection to Bit from Last Survey MD: 9582' East 14.81' South 30.83' PBHL  Last survey MD: 9427' Inc 2.0 Azimuth 138.7 TVD 9088.41'
	6:00 - 10:00	4.00	DRLPRV	05	B	P	9672	WORK THROUGH TIGHT SPOT / DISPLACE 9.8 MUD WITH 11.5 MUD / 460GPM / PRIOR TO TRIP OUT OF HOLE / 150 BBLs LOSSES / BUILD VOLUME FOR TRIP
	10:00 - 19:30	9.50	DRLPRV	06	F	P	9672	TRIP OUT OF HOLE T/ STAND 4 STANDS HEAVY WEIGHT DRILL PIPE BACK F/ TORQUE ISSUES / 100K+ OVER PULL / BACK REAM & PUMP OUT OF HOLE F/9672 - 8082 / PUMP OUT STRAIGHT PULL F/ 8082 - 7582 / BACK REAM F/ 7582-5353 / TRIP OUT OF HOLE F/5353 - BIT / BREAK OFF BIT
	19:30 - 0:00	4.50	DRLPRV	06	F	P	9672	MAKE UP SECURITY MM65M 7 7/8 BIT 6X15 NOZZLES / CHANGE OUT GAP SUB / TRIP IN HOLE T/ 2770
9/6/2013	0:00 - 1:00	1.00	DRLPRV	06	F	X	9672	TRIP IN HOLE W/ BHA / PICK UP 12 JOINTS 4 1/2 DRILL PIPE
	1:00 - 2:30	1.50	DRLPRV	09	A	P	9672	CUT & SLIP DRILL LINE

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	2:30 - 3:30	1.00	DRLPRV	06	F	X	9672	TRIP IN HOLE 3 STANDS / DRILL LINE DOG NUT NOT PROPERLY SEATED / TRIP OUT 3 STANDS
	3:30 - 4:00	0.50	DRLPRV	08	A	Z	9672	HANG BLOCKS / UNSPOOL DRAW WORKS / RESEAT DOG NUT / SPOOL UP DRAW WORKS / UN HANG BLOCKS
	4:00 - 10:00	6.00	DRLPRV	06	F	X	9672	TRIP IN HOLE F/ 2770- 4400 / WASH AND REAM F/ 4400 - 8097
	10:00 - 11:30	1.50	DRLPRV	06	F	X	9672	WORK THROUGH TIGHT HOLE F/ 8097 - 8109
	11:30 - 15:00	3.50	DRLPRV	06	F	X	9672	WASH AND REAM F/ 8109 - 9672'
	15:00 - 0:00	9.00	DRLPRV	02	B	P	9672	DRILL SLIDE 9762 - 10160' (398" @ 45' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 22K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 110 RUN 1 PUMP @ 1800 GALLONS PER MINUTE 595 OFF/ON PSI 2300/2500 DIFFERENTIAL 200 TORQUE HIGH/LOW 22000 / 18000 OFF BOTTOM TORQUE 18000 STRING WEIGHT UP/DOWN/ROT 255/125/180 DRAG 75 K. BOS OFFLINE WT 11.9 VIS 36 ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 25 BBL. FLUID FOR HOLE VOLUME 275 BARRELS LOSSES @ 30 BBL/HR 0' FLARE Bit Position: 10172' MD: 10172' East 34.13' South 59.52' PBHL  Footage Feet% Total: 380' Slide: 0' = 0% Rotate: 380' = 100 % Time/Min/Hrs%: 1715 Hrs-2400 Hrs = 6.75 Hrs. Total Drilling: 5.83 hrs: Total Conn/Ream/Rig Time: .92 hrs = 13.6 % Slide: 0 hrs = 0% Rotate: 5.83 hrs = 100 %  Projection to Bit from Last Survey MD: 10172' East 34.13' South 59.52' PBHL  Last survey MD: 10017' Inc 3.3 Azimuth 146.1 TVD 9677.58'

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/7/2013	0:00 - 6:00	6.00	DRLPRV	02	B	P	10,160	DRILL SLIDE 10160 - 10523' (363" @ 60' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 22K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 110 GALLONS PER MINUTE 595 OFF/ON PSI 2300/2500 DIFFERENTIAL 200 TORQUE HIGH/LOW 22000 / 18000 OFF BOTTOM TORQUE 18000 STRING WEIGHT UP/DOWN/ROT 255/125/180 DRAG 75 K. BOS OFFLINE WT 11.9 VIS 36 ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 22 BBL. FLUID FOR HOLE VOLUME 50 BARRELS LOSSES @ BBL/HR 0' FLARE  Bit Position: 10475' MD: 10475' East 46.13' South 73.81' PBHL  Footage Feet% Total: 303' Slide: 0' = 0% Rotate: 303' = 100 % Time/Min/Hrs%:0000 Hrs-0500 Hrs = 5.0 Hrs. Total Drilling: 4.17 hrs: Total Conn/Ream/Rig Time: .83 hrs= 16.6 % Slide: 0 hrs= 0% Rotate: 4.17 hrs= 100 %  Projection to Bit from Last Survey MD: 10' East 46.13' South 73.81' PBHL  Last survey MD: 10475' Inc 3.5 Azimuth 143.6 TVD 9962.05'

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 13:00	7.00	DRLPRV	02	B	P	10,523	DRILL SLIDE 10523 - 10875' (352" @ 50' / HR) WEIGHT ON BIT 20 - 24 K. AVERAGE WEIGHT ON BIT 22K ROTARY RPM 70 MUD MOTOR RPM 87 STROKES PER MINUTE 110 GALLONS PER MINUTE 460 OFF/ON PSI 2300/2500 DIFFERENTIAL 200 TORQUE HIGH/LOW 22000 / 18000 OFF BOTTOM TORQUE 18000 STRING WEIGHT UP/DOWN/ROT 295/135/195 DRAG 100 K. BOS OFFLINE WT 12.2 VIS 36 ///// DRILLING WITH FLOWZAN MUD CHEM ///// PUMP LCM SWEEPS TO HELP WITH LOSSES. USED 22 BBL. FLUID FOR HOLE VOLUME 200 BARRELS LOSSES @ 28.5 BBL/HR 0' FLARE Bit Position: 10875' MD: 10875' East 58.93' South 96.00' PBHL  Footage Feet% Total: 400' Slide: 0' = 0% Rotate: 400' = 100 % Time/Min/Hrs%:0500 Hrs-1300 Hrs = x.8.00 Hrs. Total Drilling: 7.25 hrs: Total Conn/Ream/Rig Time: .75 hrs= 9.375 % Slide: 0 hrs= 0% Rotate:7.25 hrs= 100 %  Projection to Bit from Last Survey MD: 10875' East 58.93' South 96.00' PBHL  Last survey MD: 10779' Inc 3.3 Azimuth 142.1 TVD 10533.99'
	13:00 - 16:00	3.00	DRLPRV	05	C	P	10,875	CONDITION MUD & CIRCULATE / PUMP 2 SWEEPS / 460 GPM / 12.2 MWT / 39 VIS / LOSSES - 100BBLs
	16:00 - 0:00	8.00	DRLPRV	06	E	P	10,875	WIPER TRIP F/10875-3500' BACKREAM & PUMP OUT F/10875-5769
9/8/2013	0:00 - 4:00	4.00	DRLPRV	06	E	P	10,875	TRIP OUT OF HOLE F / 5769 - 3500'
	4:00 - 4:30	0.50	DRLPRV	07	A	P	10,875	RIG SERVICE
	4:30 - 9:00	4.50	DRLPRV	06	E	P	10,875	TRIP IN HOLE F/ 3500'-10875 / TAGGED BRIDGES @ 4538' , 6544' , 7967' , WASH AND REAM F/ 10734'-10875'
	9:00 - 11:30	2.50	DRLPRV	05	C	P	10,875	PUMP 2 SWEEPS / BUILD VOLUME
	11:30 - 12:30	1.00	DRLPRV	06	A	P	10,875	TRIP OUT OF HOLE / 100K OVER PULL BACK REAM F/ 10875-9975 / PUMP OUT OF HOLE F/9975-9593
	12:30 - 13:00	0.50	DRLPRV	08	A	Z	10,875	CHANGE OUT GRABBER DIES
	13:00 - 21:30	8.50	DRLPRV	06	A	P	10,875	TRIP OUT OF HOLE / PUMP OUT OF HOLE F/9593-6298 / TRIP OUT OF HOLE F/ 6298-99' / LAY DOWN DIRECTIONAL TOOLS / BREAK OFF BIT / LAY DOWN MOTOR

## Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: PROPETRO 12/12, SST 8/8
Event: DRILLING		Start Date: 7/28/2013	End Date: 9/9/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/09/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	21:30 - 22:00	0.50	CSGPRO	06	D	P	10,875	RETRIEVE WEAR BUSHING
	22:00 - 23:00	1.00	CSGPRO	12	A	P	10,875	RIG UP KIMZEY CASING EQUIPMENT / RIG UP LAY DOWN TRUCK
	23:00 - 0:00	1.00	CSGPRO	12	C		10,875	RAN 246 TOTAL JTS. OF CASING (130 JOINTS OF 4.5"/11.6# / HC P-110/ LTC + 2 MARKER) + (113 JTS. OF 4.5"/ 11.6#/ HC P-110/ DQX) + ( 1-DQX CROSS OVER). LANDED @ 10846.41', FLOAT COLLAR @ 10798.98', MESA VERDE MARKER @ 7472.29', BLACK HAWK MARKER @ 10200.74' CROSS OVER JT. @ 5012.34'.
9/9/2013	0:00 - 9:00	9.00	CSGPRO	12	C	P	10,875	RAN 246 TOTAL JTS. OF CASING (130 JOINTS OF 4.5"/11.6# / HC P-110/ LTC + 2 MARKER) + (113 JTS. OF 4.5"/ 11.6#/ HC P-110/ DQX) + ( 1-DQX CROSS OVER). LANDED @ 10846.41', FLOAT COLLAR @ 10798.98', MESA VERDE MARKER @ 7472.29', BLACK HAWK MARKER @ 10200.74' CROSS OVER JT. @ 5012.34'. LAND CASING W/100K
	9:00 - 10:30	1.50	CSGPRO	05	A	P	10,875	CIRCULATE 4 1/2 CASING / 100SPM / 420 GPM / FINAL CIRCULATING 865 PSI / RIG DOWN CASING CREW
	10:30 - 11:00	0.50	CSGPRO	12	B	P	10,875	HELD SAFETY MEETING / RIG UP BAKER CEMENT CREW
	11:00 - 14:00	3.00	CSGPRO	12	E	P	10,875	PRESSURE TEST TO 6700 PSI. PUMP 25 BBLS OF FRESH WATER. PUMP 194 BBLS (615 SX) OF PREMIUM LITE II LEAD CEMENT, 13.0 PPG 1.77 YLD, .05 LB/SACK OF STATIC FREE + .6%BWOC R-3 +.25 LBS/SACK CELLO FLAKE + 5 LBS/SACK KOL-SEAL + .4% BWOC FL-52 + .4%BWOC SODIUM METASILICATE + 6% BWOC BENTONITE + 84.8 %FRESH WATER . FOLLOWED BY 299 BBLS (1270 SX) OF 14.3# 1.32 YD 5.92 GAL/SK. POZ 50/50 TAIL CEMENT + 2% BWOC BENTONITEII + .005 LB/SACK STATIC FREE + 10% BWOW SODIUM CHLORIDE + .55%BWOC R-3 + .002GPS FP-6L + 58.8% FRESH WATER . SHUT DOWN AND FLUSH LINES. DROP PLUG AND DISPLACE W/ 134 BBLS OF FRESH WATER TREATED WITH CLAYFIX AND MAGNACIDE. FULL RETURNS. LIFT PSI OF 2350 / BUMP PLUG 2900 PSI. . PRESSURE HELD 5 MINS. FLOAT HELD. FLOW BACK 2.5 BBLS. EST. TOC FOR LEAD 2700', EST TOC FOR TAIL 4421'. RIG DOWN CEMENTERS.
	14:00 - 15:00	1.00	CSGPRO	12	D	P	10,875	SET PACK OFF TOOL
	15:00 - 16:00	1.00	CSGPRO	14	A	P	10,875	NIPPLE DOWN BOP / RELEASE RIG @ 9/9/2013 1600



US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/11/2013 12:00AM	MESAVERDE/			7,471.0	7,472.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,494.0	7,495.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,512.0	7,513.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,557.0	7,558.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,636.0	7,637.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,700.0	7,701.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,740.0	7,741.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,794.0	7,795.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,809.0	7,810.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,846.0	7,847.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,873.0	7,874.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,938.0	7,939.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			7,956.0	7,957.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/2013 12:00AM	MESAVERDE/			8,070.0	8,071.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

RECEIVED: Dec. 12, 2013

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/11/201 3 12:00AM	MESAVEERDE/			8,084.0	8,085.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,094.0	8,095.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,104.0	8,105.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,125.0	8,126.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,192.0	8,193.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,205.0	8,206.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,220.0	8,221.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,247.0	8,248.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,302.0	8,303.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,391.0	8,392.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,420.0	8,421.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,433.0	8,434.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,481.0	8,482.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			8,507.0	8,508.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/11/201 3 12:00AM	MESAVARDE/			8,552.0	8,553.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,562.0	8,563.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,616.0	8,617.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,637.0	8,638.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,665.0	8,666.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,688.0	8,689.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,703.0	8,704.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,771.0	8,772.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,819.0	8,820.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,876.0	8,877.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,934.0	8,935.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,947.0	8,948.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,955.0	8,956.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVARDE/			8,983.0	8,984.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/11/201 3 12:00AM	MESAVEERDE/			8,988.0	8,989.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,004.0	9,005.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,030.0	9,031.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,041.0	9,042.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,082.0	9,083.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,203.0	9,204.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,221.0	9,222.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,254.0	9,255.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,265.0	9,266.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,292.0	9,293.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,327.0	9,328.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,345.0	9,346.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,385.0	9,386.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			9,418.0	9,420.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/11/201 3 12:00AM	MESAVEERDE/			10,322.0	10,323.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,335.0	10,336.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,343.0	10,344.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,350.0	10,351.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,362.0	10,363.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,372.0	10,373.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,386.0	10,387.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,429.0	10,430.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,437.0	10,438.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,447.0	10,448.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,490.0	10,491.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,501.0	10,502.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
11/11/201 3 12:00AM	MESAVEERDE/			10,542.0	10,543.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

US ROCKIES REGION  
**Operation Summary Report**

Well: NBU 922-30P3DS RED			Spud Date: 8/8/2013		
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD		Rig Name No: MILES 3/3	
Event: COMPLETION		Start Date: 10/27/2013		End Date: 11/18/2013	
Active Datum: RKB @4,991.00usft (above Mean Sea Level)			UWI: NWNW/09/S/22/E/32/0/0/26/PM/N/261NW/0789/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/7/2013	-							
10/27/2013	9:00 - 10:00	1.00	SUBSPR	52	E	P		SURFACE HAD 250 PSI, BLED GAS OFF WELL RU HOT OILER, FILLED SURFACE WITH 10 BBLs H2O, PRESSURED TO 500 PSI BROKE BACK TO 350 PSI, PUMPED 20 BBLs @ 1 1/2 BPM 350-400 PSI ISIP 350 BLED WELL DOWN SLIGHT FLOW SWI
10/28/2013	7:30 - 12:00	4.50	SUBSPR	51	B	P		RU SCHLUMBERGER , HELD SAFETY MEETING : CEMENT DUST SURFACE CASING HAD 200 PSI. CEMENTED SURFACE AS DETAILED BELOW ESTABLISHED INJECTION RATE @ 2.5 BPM 350 PSI PUMPED 15 BBLs FRSH WATER PUMPED 20 BBLs CALCIUM CLORIDE PUMPED 10 BBLs FRESH WATER PUMPED 20 BBLs ZONE LOCK PUMPED 10 BBLs FRESH WATER PUMPED 131 BBLs THIXOTROPIC CEMENT AT 12.5# 390 SKS @ AVG 3.0 BPM AVG PRESSURE 473 PSI FLUSHED WITH 3 BBLs DISPLACEMENT FRESH WATER ISIP 250 PSI, SWI
10/31/2013	8:00 - 13:00	5.00	SUBSPR	34		P		RU WL RAN CBL FROM 4300 TO SURFACE TOP OF CEMENT SURFACE RU WL SWI
11/6/2013	10:00 - 11:00	1.00	SUBSPR	52	B	P		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 9000 PSI. HELD FOR 15 MIN LOST -56 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI.  PRESSURE TEST 8 5/8 X 4 1/2 TO 552 PSI HELD FOR 5 MIN LOST -142 PSI, BLED PSI OFF , REINSTALLED POP OFF SWIFN NO PRESSURE ON SURFACE CASING SURFACE CASING FULL
11/8/2013	7:00 - 12:00	5.00	SUBSPR	37		P		PERF STG 1)PU 3 1/8 EXP GUN, 19 GM, .40 HOLE SIZE. RIH PERFWELL, AS PER PERF DESIGN. POOH. SWIFW
11/11/2013	6:30 - 6:45	0.25	FRAC	48		P		HSM-JSA

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: MILES 3/3
Event: COMPLETION		Start Date: 10/27/2013	End Date: 11/18/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:45 - 18:00	11.25	FRAC	36	H	P		FRAC STG #1) WHP 227 PSI, BRK 4447 PSI @ 3.9 BPM. ISIP 3737 PSI, FG. 0.8 ISIP 3675 PSI, FG. 0.79, NPI -62 PSI, X/O TO WL.  SET CBP & PERF STG #2 AS DESIGNED, X/O TO FRAC.  FRAC STG #2) WHP 1443 PSI, BRK 3971 PSI @ 6.3 BPM. ISIP 3029 PSI, FG. 0.73 ISIP 3787 PSI, FG. 0.8, NPI 758 PSI, X/O TO WL.  SET CBP & PERF STG #3 AS DESIGNED, SWI, SDFN. HSM-JSA
11/12/2013	6:15 - 6:30	0.25	FRAC	48		P		
	6:30 - 17:30	11.00	FRAC	36	H	P		FRAC STG #3) WHP 2421 PSI, BRK 5174 PSI @ 4.6 BPM. ISIP 3554 PSI, FG. 0.82 ISIP 2662 PSI, FG. 0.72, NPI -892 PSI, X/O TO WL.  SET CBP & PERF STG #4 AS DESIGNED, X/O TO FRAC.  FRAC STG #4) WHP 2345 PSI, BRK 4959 PSI @ 3.9 BPM. ISIP 2514 PSI, FG. 0.71 ISIP 2726 PSI, FG. 0.74, NPI 212 PSI, X/O TO WL.  SET CBP & PERF STG #5 AS DESIGNED, X/O TO FRAC.  FRAC STG #5) WHP 2197 PSI, BRK 5453 PSI @ 5.3 BPM. ISIP 2702 PSI, FG. 0.74 ISIP 2310 PSI, FG. 0.7, NPI -392 PSI, X/O TO WL.  SET CBP & PERF STG #6 AS DESIGNED, SWI, SDFN. HSM-JSA
11/13/2013	6:15 - 6:30	0.25	FRAC	48		P		

## Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: MILES 3/3
Event: COMPLETION		Start Date: 10/27/2013	End Date: 11/18/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PM/N/261/N/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:30 - 17:00	10.50	FRAC	36	H	P		FRAC STG #6) WHP 1680 PSI, BRK 2159 PSI @ 3.5 BPM. ISIP 1912 PSI, FG. 0.66 ISIP 2350 PSI, FG. 0.71, NPI 438 PSI, X/O TO WL.  SET CBP & PERF STG #7 AS DESIGNED, X/O TO FRAC.  FRAC STG #7) WHP 1853 PSI, BRK 2577 PSI @ 3.5 BPM. ISIP 1757 PSI, FG. 0.65 ISIP 2483 PSI, FG. 0.74, NPI 726 PSI, X/O TO WL.  SET CBP & PERF STG #8 AS DESIGNED, X/O TO FRAC.  FRAC STG #8) WHP 897 PSI, BRK 2592 PSI @ 3.5 BPM. ISIP 1945 PSI, FG. 0.68 ISIP 2379 PSI, FG. 0.73, NPI 434 PSI, X/O TO WL.  SET CBP & PERF STG #9 AS DESIGNED, X/O TO FRAC.  FRAC STG #9) WHP 1366 PSI, BRK 1812 PSI @ 3.8 BPM. ISIP 1445 PSI, FG. 0.62 ISIP 1980 PSI, FG. 0.69, NPI 535 PSI, SWI, SDFN.
11/14/2013	7:00 - 7:15	0.25	FRAC	48		P		HSM-JSA
	7:15 - 14:00	6.75	FRAC	36	H	P		SET CBP & PERF STG #10 AS DESIGNED, X/O TO FRAC.  FRAC STG #10) WHP 1225 PSI, BRK 2136 PSI @ 3.9 BPM. ISIP 1413 PSI, FG. 0.63 ISIP 2056 PSI, FG. 0.71, NPI 643 PSI, X/O TO WL.  SET TOP KILL PLUG, SWI, RDMO WL & FRACEQUIP.  TOTAL CLN FLUID- 16996 BBLS TOTAL SAND- 359193 LBS
11/15/2013	7:00 - 7:30	0.50	DRLOUT	48		P		HS, RIGGING UP RIG & EQUIP.
	7:30 - 9:00	1.50	DRLOUT	30	A	P		MIRU, ND WH NU BOPS RIG UP FLOOR & EQUIP.
	9:00 - 15:00	6.00	DRLOUT	31	I	P		PU 37/8 BIT, POBS, 232 JTS 23/8 P-110, TAG UP @ 7352' RU DRLG EQUIP PREP TO D/O 11/18/13, SWI SDFWE
11/18/2013	7:00 - 7:30	0.50	DRLOUT	48		P		HSM, DRILLING OUT PLUGS TROUGH VESSEL.

Operation Summary Report

Well: NBU 922-30P3DS RED		Spud Date: 8/8/2013	
Project: UTAH-UINTAH		Site: NBU 922-32D1 PAD	Rig Name No: MILES 3/3
Event: COMPLETION		Start Date: 10/27/2013	End Date: 11/18/2013
Active Datum: RKB @4,991.00usft (above Mean Sea Level)		UWI: NWNW/0/9/S/22/E/32/0/0/26/PMN/261NW/0/789/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:30 - 17:00	9.50	DRLOUT	44	D	P		RU DRLG EQUIP, BROKE CIRC CONV, TEST BOPS TO 3,000 PSI, RIH.  C/O 30' SAND TAG 1ST PLUG @ 7390' DRL PLG IN 7 MIN, 700 PSI INCREASE RIH.  C/O 25' SAND TAG 2ND PLUG @ 7665' DRL PLG IN 4 MIN, 400 PSI INCREASE RIH.  C/O 30' SAND TAG 3RD PLUG @ 7904' DRL PLG IN 5 MIN, 300 PSI INCREASE RIH.  C/O 25' SAND TAG 4TH PLUG @ 8153' DRL PLG IN 7 MIN, 500 PSI INCREASE RIH.  C/O 20' SAND TAG 5TH PLUG @ 8457' DRL PLG IN 10 MIN, 400 PSI INCREASE RIH.  C/O 10' SAND TAG 6TH PLUG @ 8678' DRL PLG IN 8 MIN, 300 PSI INCREASE RIH.  C/O 20' SAND TAG 7TH PLUG @ 8973' DRL PLG IN 9 MIN, 500 PSI INCREASE RIH.  C/O 20' SAND TAG 8TH PLUG @ 9244' DRL PLG IN 7 MIN, 400 PSI INCREASE RIH.  C/O 25' SAND TAG 9TH PLUG @ 9454' DRL PLG IN 3 MIN, 500 PSI INCREASE RIH.  C/O 50' SAND TAG 10TH PLUG @ 10,417' DRL PLG IN 4 MIN, 500 PSI INCREASE RIH.  C/O TO 10,664', CIRC CLN, RD SWIVEL, L/D 12 JTS, LAND TBG, ND BOPS NU WH, PUMPED OFF BIT, TURN WELL TO FB CREW.  ( SURFACE VALVE OPEN & LOCKED ) SICP 2,000, FTP 100  KB = 24' 41/16 HANGER = .83' 324 JTS 23/8 P-110 = 10,264.41' POBS W/ 1.875 XN = 2.20' EOT @ 10,291.44'  TWTR 17,326 BBLs TWR 1200 BBLs TWLTR 16,126 BBLs  346 JT HAULED OUT, P-110 324 LANDED 22 TO RETURN  WELL TURNED TO SALES @ 1700 HR ON 11/18/2013. 3200 MCFD, 1650 BWPD, FCP 1975#, FTP 1607#, 20/64" CK.
	17:00 - 17:00	0.00	DRLOUT	50				

# Anadarko Petroleum Corporation



**Project:** Uintah Co., UT (UTM)  
**Site:** Sec 32-T9S-R22E  
**Well:** NBU 922-30P3DS  
**Wellbore:** Original Hole  
**Surveys:**  
**Rig:** SST 8

**Surface Location:**  
 SHL 261' FNL & 789' FWL Sec 32-T9S-R22E

Universal Transverse Mercator (US Survey Feet)  
 Zone 12N (114 W to 108 W)  
**Elevation: 4960' GL + 24' KB @ 4984.00ft (SST 8)**  

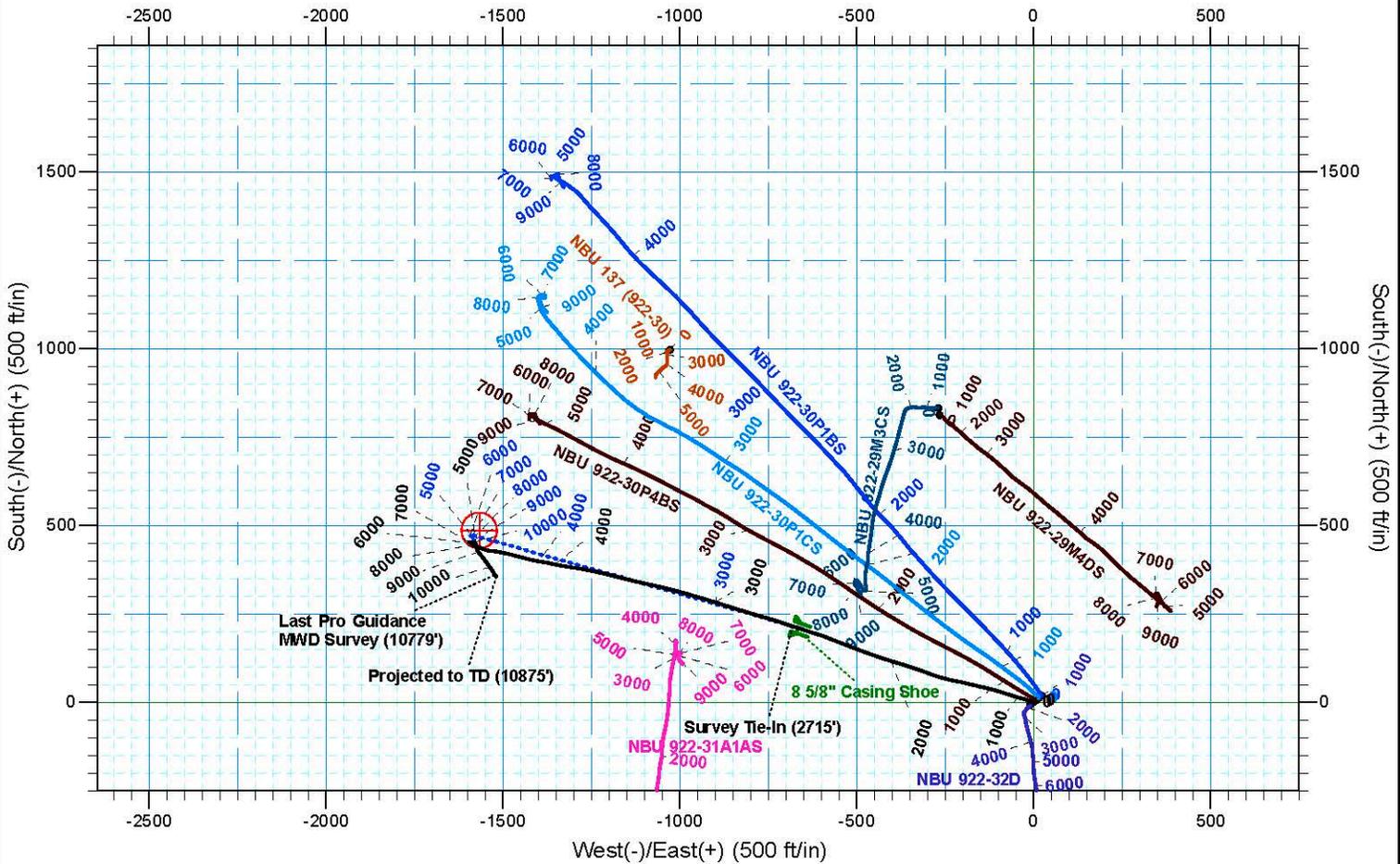
Northing	Easting	Latitude	Longitude
14529423.97	2068984.26	39.999098	-109.469787

**SECTION DETAILS**  
 Plan 2

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
2715.00	27.70	288.70	2568.21	215.89	-680.79	0.00	0.00	714.19	Surface Survey Tie-In/Begin Turn at 2715' MD, 2568' TVD
2785.78	27.70	285.88	2630.88	225.67	-712.19	1.85	-91.25	747.08	Begin Hold at 2786' MD, 2631' TVD
3990.78	27.70	285.88	3697.78	378.96	-1250.94	0.00	0.00	1307.05	Begin Drop at 3991' MD, 3698' TVD
5488.08	0.00	0.00	5137.42	476.10	-1592.34	1.85	180.00	1661.89	Begin Build at 5488' MD, 5137' TVD
5594.75	0.32	148.88	5244.09	475.84	-1592.18	0.30	148.88	1661.67	Begin Hold at 5595' MD, 5244' TVD
10817.73	0.32	148.88	10467.00	451.02	-1577.20	0.00	180.00	1639.99	PBHL

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

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PBHL	10467.00	486.65	-1566.41	40.000434	-109.475379



Last Pro Guidance  
 MWD Survey (10779')  
 Projected to TD (10875')

Survey Tie-In (2715')  
 NBU 922-31A1AS  
 2000

**Azimuths to True North**  
 Magnetic North: 10.78°

Magnetic Field  
 Strength: 52112.5snT  
 Dip Angle: 65.82°  
 Date: 09/01/2013  
 Model: IGRF2010

To convert a Magnetic Direction to a Grid Direction, Add 9.79°

Created By: Bob Hays Date: 9:14, November 05 2013

# Anadarko Petroleum Corporation



**Project:** Uintah Co., UT (UTM)  
**Site:** Sec 32-T9S-R22E  
**Well:** NBU 922-30P3DS  
**Wellbore:** Original Hole  
**Surveys:**  
**Rig:** SST 8

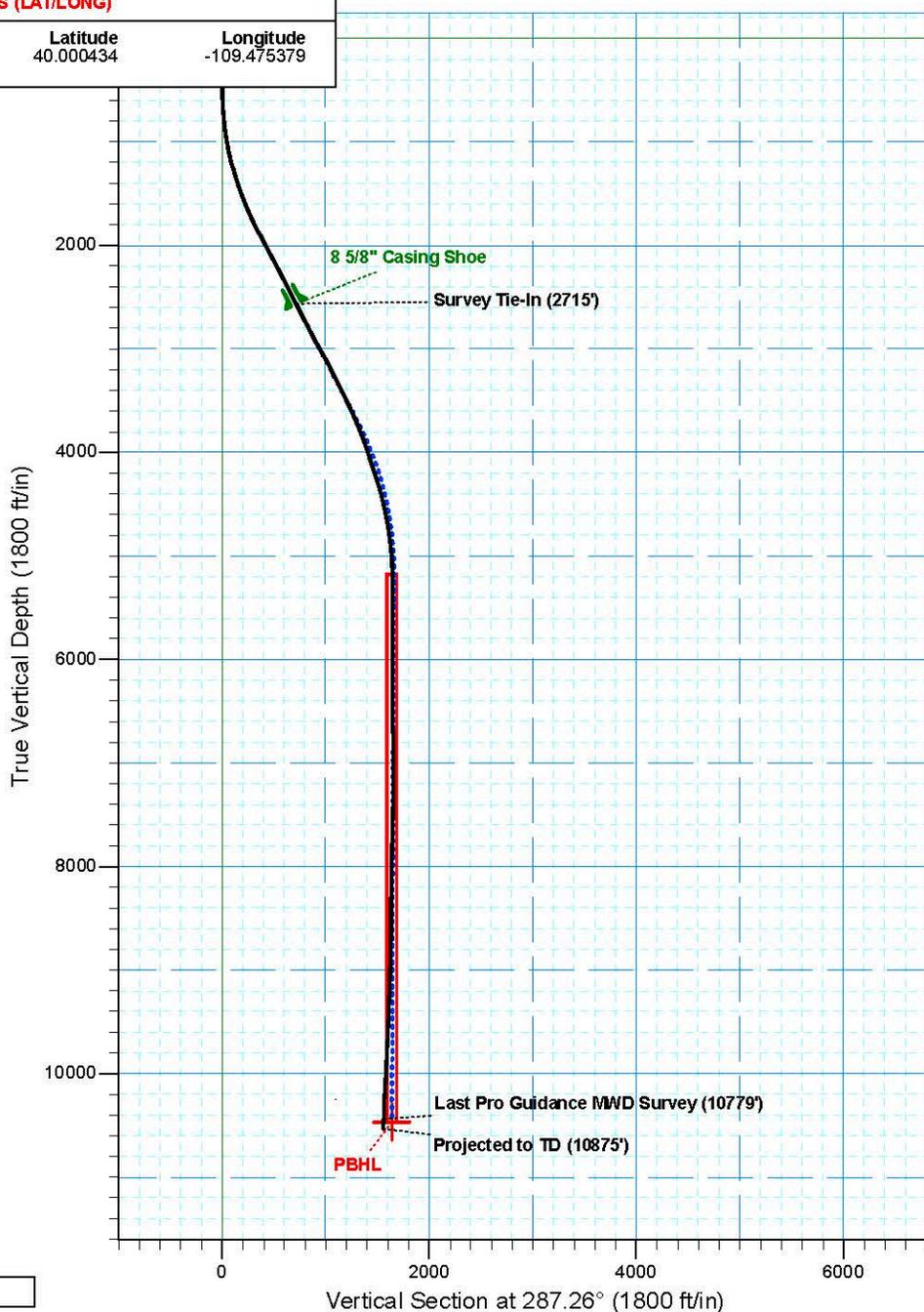
**Surface Location:**  
 SHL 261' FNL & 789' FWL Sec 32-T9S-R22E  
 Universal Transverse Mercator (US Survey Feet)  
 Zone 12N (114 W to 108 W)  
**Elevation:** 4960' GL + 24' KB @ 4984.00ft (SST 8)  
**Northing** 14529423.97    **Easting** 2068984.26    **Latitude** 39.999098    **Longitude** -109.469787

**SECTION DETAILS**  
 Plan 2

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
2715.00	27.70	288.70	2568.21	215.89	-680.79	0.00	0.00	714.19	Surface Survey Tie-In/Begin Turn at 2715' MD, 2568' TVD
2785.78	27.70	285.88	2630.88	225.67	-712.19	1.85	-91.25	747.08	Begin Hold at 2786' MD, 2631' TVD
3990.78	27.70	285.88	3697.78	378.96	-1250.94	0.00	0.00	1307.05	Begin Drop at 3991' MD, 3698' TVD
5488.08	0.00	0.00	5137.42	476.10	-1592.34	1.85	180.00	1661.89	Begin Build at 5488' MD, 5137' TVD
5594.75	0.32	148.88	5244.09	475.84	-1592.18	0.30	148.88	1661.67	Begin Hold at 5595' MD, 5244' TVD
10817.73	0.32	148.88	10467.00	451.02	-1577.20	0.00	180.00	1639.99	<b>PBHL</b>

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

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
<b>PBHL</b>	10467.00	486.65	-1566.41	40.000434	-109.475379





# **Anadarko Petroleum Corporation**

Uintah Co., UT (UTM)  
Sec 32-T9S-R22E  
NBU 922-30P3DS

Original Hole

Design: Surveys

## **Standard Survey Report**

05 November, 2013





<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Project:</b>	Uintah Co., UT (UTM)	<b>TVD Reference:</b>	4960' GL + 24' KB @ 4984.00ft (SST 8)
<b>Site:</b>	Sec 32-T9S-R22E	<b>MD Reference:</b>	4960' GL + 24' KB @ 4984.00ft (SST 8)
<b>Well:</b>	NBU 922-30P3DS	<b>North Reference:</b>	True
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Uintah Co., UT (UTM)		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	Sec 32-T9S-R22E				
<b>Site Position:</b>		<b>Northing:</b>	14,529,442.97 ft	<b>Latitude:</b>	39.999149
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,069,007.47 ft	<b>Longitude:</b>	-109.469703
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.98 °

<b>Well</b>	NBU 922-30P3DS					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	14,529,423.98 ft	<b>Latitude:</b>	39.999098
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,068,984.26 ft	<b>Longitude:</b>	-109.469787
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft	<b>Ground Level:</b>	4,960.00 ft

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	09/01/13	10.78	65.82	52,113

<b>Survey Program</b>	Date 11/04/13				
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
180.00	2,715.00	Surface Surveys (Original Hole)	MWD	MWD	
2,864.00	10,779.00	Pro Guidance MWD Surveys (Original Hd	MWD	MWD	
10,875.00	10,875.00	Projected to TD (Original Hole)	Projection	Projection	

<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	
180.00	0.00	339.76	180.00	0.00	0.00	0.00	0.00	0.00	0.00	
262.00	0.26	281.58	262.00	0.04	-0.18	0.19	0.32	0.32	0.00	
347.00	0.38	268.18	347.00	0.07	-0.65	0.64	0.17	0.14	-15.76	
433.00	0.44	281.84	433.00	0.13	-1.26	1.24	0.13	0.07	15.88	
523.00	1.41	305.31	522.98	0.84	-2.50	2.64	1.14	1.08	26.08	
613.00	2.69	294.17	612.92	2.34	-5.33	5.79	1.48	1.42	-12.38	
703.00	4.48	294.85	702.74	4.68	-10.45	11.37	1.99	1.99	0.76	
793.00	5.89	287.65	792.38	7.56	-18.04	19.47	1.72	1.57	-8.00	
883.00	7.74	283.60	881.74	10.39	-28.33	30.14	2.12	2.06	-4.50	
973.00	9.46	286.56	970.72	13.92	-41.31	43.58	1.97	1.91	3.29	
1,063.00	11.26	287.12	1,059.25	18.62	-56.80	59.77	2.00	2.00	0.62	
1,153.00	12.84	287.82	1,147.26	24.26	-74.72	78.55	1.76	1.76	0.78	
1,243.00	14.68	287.29	1,234.68	30.71	-95.13	99.96	2.05	2.04	-0.59	
1,333.00	16.62	284.83	1,321.34	37.40	-118.47	124.23	2.28	2.16	-2.73	



<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Project:</b>	Uintah Co., UT (UTM)	<b>TVD Reference:</b>	4960' GL + 24' KB @ 4984.00ft (SST 8)
<b>Site:</b>	Sec 32-T9S-R22E	<b>MD Reference:</b>	4960' GL + 24' KB @ 4984.00ft (SST 8)
<b>Well:</b>	NBU 922-30P3DS	<b>North Reference:</b>	True
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 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)	
1,423.00	18.82	282.02	1,407.06	43.72	-145.11	151.55	2.62	2.44	-3.12	
1,513.00	20.93	283.43	1,491.70	50.47	-174.95	182.05	2.40	2.34	1.57	
1,603.00	21.47	281.74	1,575.61	57.56	-206.71	214.48	0.91	0.60	-1.88	
1,693.00	23.92	284.04	1,658.64	65.34	-240.54	249.10	2.89	2.72	2.56	
1,783.00	24.66	288.40	1,740.67	75.69	-276.06	286.09	2.16	0.82	4.84	
1,873.00	27.03	289.81	1,821.67	88.55	-313.12	325.30	2.72	2.63	1.57	
1,963.00	28.58	288.88	1,901.27	102.45	-352.74	367.25	1.79	1.72	-1.03	
2,053.00	27.96	286.59	1,980.54	115.44	-393.33	409.87	1.39	-0.69	-2.54	
2,143.00	28.75	287.91	2,059.74	128.12	-434.14	452.61	1.12	0.88	1.47	
2,233.00	28.40	289.93	2,138.78	142.07	-474.86	495.63	1.14	-0.39	2.24	
2,323.00	28.14	291.51	2,218.05	157.15	-514.73	538.18	0.88	-0.29	1.76	
2,413.00	26.73	291.16	2,297.92	172.24	-553.35	579.54	1.58	-1.57	-0.39	
2,503.00	26.18	289.17	2,378.50	186.06	-590.98	619.57	1.16	-0.61	-2.21	
2,593.00	26.38	288.17	2,459.20	198.82	-628.73	659.41	0.54	0.22	-1.11	
2,683.00	26.64	288.00	2,539.74	211.29	-666.92	699.58	0.30	0.29	-0.19	
2,715.00	27.70	288.70	2,568.21	215.89	-680.79	714.19	3.46	3.31	2.19	
<b>Survey Tie-In (2715')</b>										
2,864.00	27.30	286.50	2,700.37	236.70	-746.35	782.97	0.73	-0.27	-1.48	
2,959.00	27.70	286.80	2,784.64	249.27	-788.38	826.84	0.45	0.42	0.32	
3,054.00	27.10	286.80	2,868.98	261.90	-830.23	870.56	0.63	-0.63	0.00	
3,149.00	28.40	287.30	2,953.05	274.88	-872.52	914.79	1.39	1.37	0.53	
3,244.00	29.90	287.40	3,036.02	288.68	-916.69	961.06	1.58	1.58	0.11	
3,339.00	29.00	285.60	3,118.74	301.95	-961.46	1,007.76	1.33	-0.95	-1.89	
3,434.00	27.60	284.00	3,202.39	313.47	-1,005.00	1,052.75	1.68	-1.47	-1.68	
3,529.00	27.70	285.20	3,286.54	324.58	-1,047.66	1,096.79	0.60	0.11	1.26	
3,625.00	25.20	282.90	3,372.49	335.00	-1,089.12	1,139.47	2.81	-2.60	-2.40	
3,720.00	25.30	283.10	3,458.41	344.11	-1,128.61	1,179.88	0.14	0.11	0.21	
3,815.00	25.40	284.00	3,544.26	353.64	-1,168.15	1,220.47	0.42	0.11	0.95	
3,910.00	24.80	282.90	3,630.29	363.02	-1,207.34	1,260.68	0.80	-0.63	-1.16	
4,005.00	24.10	283.20	3,716.77	371.90	-1,245.64	1,299.89	0.75	-0.74	0.32	
4,100.00	21.00	279.00	3,804.50	378.99	-1,281.35	1,336.10	3.68	-3.26	-4.42	
4,195.00	19.80	279.70	3,893.54	384.36	-1,314.02	1,368.90	1.29	-1.26	0.74	
4,290.00	18.70	279.00	3,983.23	389.46	-1,344.93	1,399.92	1.18	-1.16	-0.74	
4,385.00	18.50	280.40	4,073.27	394.56	-1,374.79	1,429.95	0.52	-0.21	1.47	
4,480.00	17.90	281.90	4,163.52	400.29	-1,403.90	1,459.45	0.80	-0.63	1.58	
4,575.00	17.50	284.70	4,254.02	406.93	-1,432.01	1,488.26	0.99	-0.42	2.95	
4,671.00	17.20	285.30	4,345.65	414.34	-1,459.66	1,516.86	0.36	-0.31	0.63	
4,766.00	15.50	283.10	4,436.81	420.92	-1,485.57	1,543.57	1.90	-1.79	-2.32	
4,860.00	12.40	279.00	4,528.03	425.35	-1,507.78	1,566.09	3.46	-3.30	-4.36	
4,955.00	10.80	274.90	4,621.09	427.70	-1,526.72	1,584.88	1.89	-1.68	-4.32	
5,051.00	9.10	283.30	4,715.64	430.22	-1,543.08	1,601.24	2.32	-1.77	8.75	
5,146.00	7.50	291.70	4,809.65	434.24	-1,556.15	1,614.92	2.11	-1.68	8.84	
5,242.00	6.00	296.40	4,904.98	438.79	-1,566.46	1,626.12	1.66	-1.56	4.90	
5,337.00	4.90	296.10	4,999.55	442.78	-1,574.56	1,635.03	1.16	-1.16	-0.32	



**Professional Directional LTD**

Survey Report



<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Project:</b>	Uintah Co., UT (UTM)	<b>TVD Reference:</b>	4960' GL + 24' KB @ 4984.00ft (SST 8)
<b>Site:</b>	Sec 32-T9S-R22E	<b>MD Reference:</b>	4960' GL + 24' KB @ 4984.00ft (SST 8)
<b>Well:</b>	NBU 922-30P3DS	<b>North Reference:</b>	True
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 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)	
5,432.00	3.40	280.20	5,094.30	445.06	-1,580.97	1,641.83	1.98	-1.58	-16.74	
5,527.00	1.60	239.00	5,189.21	444.88	-1,584.88	1,645.51	2.56	-1.89	-43.37	
5,622.00	0.50	33.50	5,284.20	444.54	-1,585.79	1,646.28	2.17	-1.16	162.63	
5,717.00	0.70	31.90	5,379.20	445.38	-1,585.25	1,646.02	0.21	0.21	-1.68	
5,812.00	0.70	45.90	5,474.19	446.28	-1,584.53	1,645.59	0.18	0.00	14.74	
5,907.00	0.60	89.70	5,569.19	446.68	-1,583.62	1,644.84	0.52	-0.11	46.11	
6,003.00	0.80	100.80	5,665.18	446.56	-1,582.46	1,643.69	0.25	0.21	11.56	
6,098.00	1.10	352.20	5,760.17	447.34	-1,581.93	1,643.42	1.63	0.32	-114.32	
6,192.00	1.10	340.60	5,854.15	449.08	-1,582.35	1,644.34	0.24	0.00	-12.34	
6,287.00	0.40	322.80	5,949.15	450.21	-1,582.85	1,645.16	0.77	-0.74	-18.74	
6,383.00	0.30	301.30	6,045.14	450.61	-1,583.27	1,645.67	0.17	-0.10	-22.40	
6,478.00	0.60	293.90	6,140.14	450.94	-1,583.94	1,646.41	0.32	0.32	-7.79	
6,573.00	0.70	295.10	6,235.14	451.38	-1,584.92	1,647.48	0.11	0.11	1.26	
6,668.00	0.40	280.80	6,330.13	451.69	-1,585.77	1,648.38	0.34	-0.32	-15.05	
6,763.00	0.40	250.50	6,425.13	451.64	-1,586.41	1,648.98	0.22	0.00	-31.89	
6,858.00	0.50	184.90	6,520.13	451.12	-1,586.76	1,649.15	0.52	0.11	-69.05	
6,953.00	0.60	177.10	6,615.12	450.21	-1,586.77	1,648.89	0.13	0.11	-8.21	
7,049.00	1.60	297.70	6,711.11	450.33	-1,587.93	1,650.04	2.06	1.04	125.63	
7,143.00	1.70	294.00	6,805.07	451.51	-1,590.36	1,652.71	0.16	0.11	-3.94	
7,238.00	1.30	281.90	6,900.04	452.30	-1,592.71	1,655.19	0.53	-0.42	-12.74	
7,333.00	1.30	269.60	6,995.01	452.52	-1,594.84	1,657.29	0.29	0.00	-12.95	
7,428.00	1.00	77.40	7,090.01	452.69	-1,595.11	1,657.59	2.41	-0.32	176.63	
7,524.00	1.50	81.30	7,185.98	453.07	-1,593.05	1,655.74	0.53	0.52	4.06	
7,619.00	1.50	87.00	7,280.95	453.32	-1,590.58	1,653.45	0.16	0.00	6.00	
7,714.00	1.40	92.00	7,375.92	453.34	-1,588.17	1,651.17	0.17	-0.11	5.26	
7,809.00	1.40	98.10	7,470.89	453.14	-1,585.87	1,648.90	0.16	0.00	6.42	
7,904.00	1.40	100.80	7,565.86	452.76	-1,583.58	1,646.60	0.07	0.00	2.84	
7,999.00	1.30	115.20	7,660.84	452.08	-1,581.46	1,644.38	0.37	-0.11	15.16	
8,094.00	1.50	138.70	7,755.81	450.69	-1,579.67	1,642.25	0.63	0.21	24.74	
8,190.00	1.10	143.60	7,851.79	449.00	-1,578.29	1,640.44	0.43	-0.42	5.10	
8,285.00	1.30	141.50	7,946.77	447.43	-1,577.08	1,638.81	0.22	0.21	-2.21	
8,379.00	0.50	134.20	8,040.75	446.31	-1,576.12	1,637.57	0.86	-0.85	-7.77	
8,475.00	0.40	192.60	8,136.75	445.69	-1,575.89	1,637.17	0.47	-0.10	60.83	
8,570.00	0.70	167.40	8,231.75	444.80	-1,575.84	1,636.85	0.40	0.32	-26.53	
8,665.00	1.20	172.40	8,326.73	443.24	-1,575.58	1,636.14	0.53	0.53	5.26	
8,760.00	1.40	155.10	8,421.71	441.20	-1,574.96	1,634.95	0.46	0.21	-18.21	
8,856.00	1.40	161.80	8,517.68	439.03	-1,574.10	1,633.48	0.17	0.00	6.98	
8,951.00	1.40	163.70	8,612.65	436.81	-1,573.41	1,632.16	0.05	0.00	2.00	
9,046.00	1.70	162.00	8,707.62	434.36	-1,572.65	1,630.71	0.32	0.32	-1.79	
9,141.00	1.70	154.00	8,802.58	431.75	-1,571.60	1,628.93	0.25	0.00	-8.42	
9,236.00	1.90	146.10	8,897.53	429.18	-1,570.10	1,626.74	0.34	0.21	-8.32	
9,331.00	2.10	145.70	8,992.47	426.43	-1,568.24	1,624.15	0.21	0.21	-0.42	
9,427.00	2.00	138.70	9,088.41	423.72	-1,566.15	1,621.34	0.28	-0.10	-7.29	



<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30P3DS
<b>Project:</b>	Uintah Co., UT (UTM)	<b>TVD Reference:</b>	4960' GL + 24' KB @ 4984.00ft (SST 8)
<b>Site:</b>	Sec 32-T9S-R22E	<b>MD Reference:</b>	4960' GL + 24' KB @ 4984.00ft (SST 8)
<b>Well:</b>	NBU 922-30P3DS	<b>North Reference:</b>	True
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 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)	
9,522.00	2.30	136.50	9,183.34	421.09	-1,563.74	1,618.26	0.33	0.32	-2.32	
9,637.00	2.80	140.60	9,298.23	417.25	-1,560.37	1,613.90	0.46	0.43	3.57	
9,732.00	3.40	148.50	9,393.09	413.05	-1,557.42	1,609.85	0.77	0.63	8.32	
9,827.00	3.60	146.40	9,487.91	408.17	-1,554.30	1,605.42	0.25	0.21	-2.21	
9,922.00	3.30	147.20	9,582.74	403.38	-1,551.17	1,601.01	0.32	-0.32	0.84	
10,017.00	3.30	146.10	9,677.58	398.82	-1,548.16	1,596.78	0.07	0.00	-1.16	
10,112.00	3.50	136.00	9,772.42	394.46	-1,544.62	1,592.11	0.66	0.21	-10.63	
10,207.00	3.60	148.80	9,867.23	389.82	-1,541.06	1,587.33	0.84	0.11	13.47	
10,302.00	3.50	143.60	9,962.05	384.94	-1,537.80	1,582.76	0.35	-0.11	-5.47	
10,398.00	3.60	146.00	10,057.87	380.08	-1,534.37	1,578.05	0.19	0.10	2.50	
10,493.00	3.70	143.90	10,152.68	375.13	-1,530.90	1,573.27	0.18	0.11	-2.21	
10,589.00	3.30	149.20	10,248.50	370.25	-1,527.66	1,568.73	0.54	-0.42	5.52	
10,684.00	3.60	150.00	10,343.32	365.32	-1,524.77	1,564.50	0.32	0.32	0.84	
10,779.00	3.30	142.10	10,438.15	360.58	-1,521.60	1,560.07	0.59	-0.32	-8.32	
<b>Last Pro Guidance MWD Survey (10779')</b>										
10,875.00	3.30	142.10	10,533.99	356.22	-1,518.20	1,555.53	0.00	0.00	0.00	
<b>Projected to TD (10875')</b>										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,715.00	2,568.21	215.89	-680.79	Survey Tie-In (2715')	
10,779.00	10,438.15	360.58	-1,521.60	Last Pro Guidance MWD Survey (10779')	
10,875.00	10,533.99	356.22	-1,518.20	Projected to TD (10875')	