

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING						FORM 3 AMENDED REPORT <input checked="" type="checkbox"/>
APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER NBU 921-35E1CS
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.						7. OPERATOR PHONE 720 929-6007
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL Kathy.SchneebeckDulnoan@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UO 01194 ST			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>
20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1691 FNL 1679 FWL	SE	35	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	1933 FNL 826 FWL	SW	35	9.0 S	21.0 E	S
At Total Depth	1933 FNL 826 FWL	SW	35	9.0 S	21.0 E	S
21. COUNTY UINTAH		22. DISTANCE TO NEAREST LEASE LINE (Feet) 826		23. NUMBER OF ACRES IN DRILLING UNIT 1083		
		25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 80		26. PROPOSED DEPTH MD: 9930 TVD: 9795		
27. ELEVATION - GROUND LEVEL 5108		28. BOND NUMBER 22013542		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		
ATTACHMENTS						
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES						
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER			<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN			
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)			<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER			
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)			<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP			
NAME Danielle Piernot		TITLE Regulatory Analyst		PHONE 720 929-6156		
SIGNATURE		DATE 11/18/2010		EMAIL gnbregulatory@anadarko.com		
API NUMBER ASSIGNED 43047513520000		 Permit Manager				

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	9930		
Pipe	Grade	Length	Weight			
	Grade I-80 Buttress	9930	11.6			

Proposed Hole, Casing, and Cement

String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	11	8.625	0	2440		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2440	28.0			

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

NBU 921-35E1CS

Surface: 1691 FNL / 1679 FWL SENW
BHL: 1933 FNL / 826 FWL SWNW

Section 35 T9S R21E

Unitah County, Utah
Mineral Lease: ST UT UO 01194 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **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	1532	
Birds Nest	1803	Water
Mahogany	2191	Water
Wasatch	4801	Gas
Mesaverde	7534	Gas
MVU2	8458	Gas
MVL1	9022	Gas
TVD	9795	
TD	9930	

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

Please refer to the attached Drilling Program

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

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. **Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 9,795' TVD, approximately equals 6,001 psi (calculated at 0.61 psi/foot).

Maximum anticipated surface pressure equals approximately 3,846 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

9. **Variances:**

Please refer to the attached 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 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 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 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. 16 of 16

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 Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,390	1,880	348,000
SURFACE	8-5/8"	0 to 2,440	28.00	IJ-55	LTC	0.85	1.65	5.04
PRODUCTION	4-1/2"	0 to 9,785	11.60	I-80	BTC	2.00	1.05	2.77
	4-1/2"	9,785 to 9,930	11.60	HCP-110	BTC	2.70	1.24	3.65

*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.21

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,846 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 12.0 ppg) 0.61 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,001 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	1,940'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	180	35%	11.00	3.82
Option 2	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	4,300'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	310	10%	11.00	3.38
	TAIL	5,630'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,090	10%	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

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. No centralizers will be used.

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.

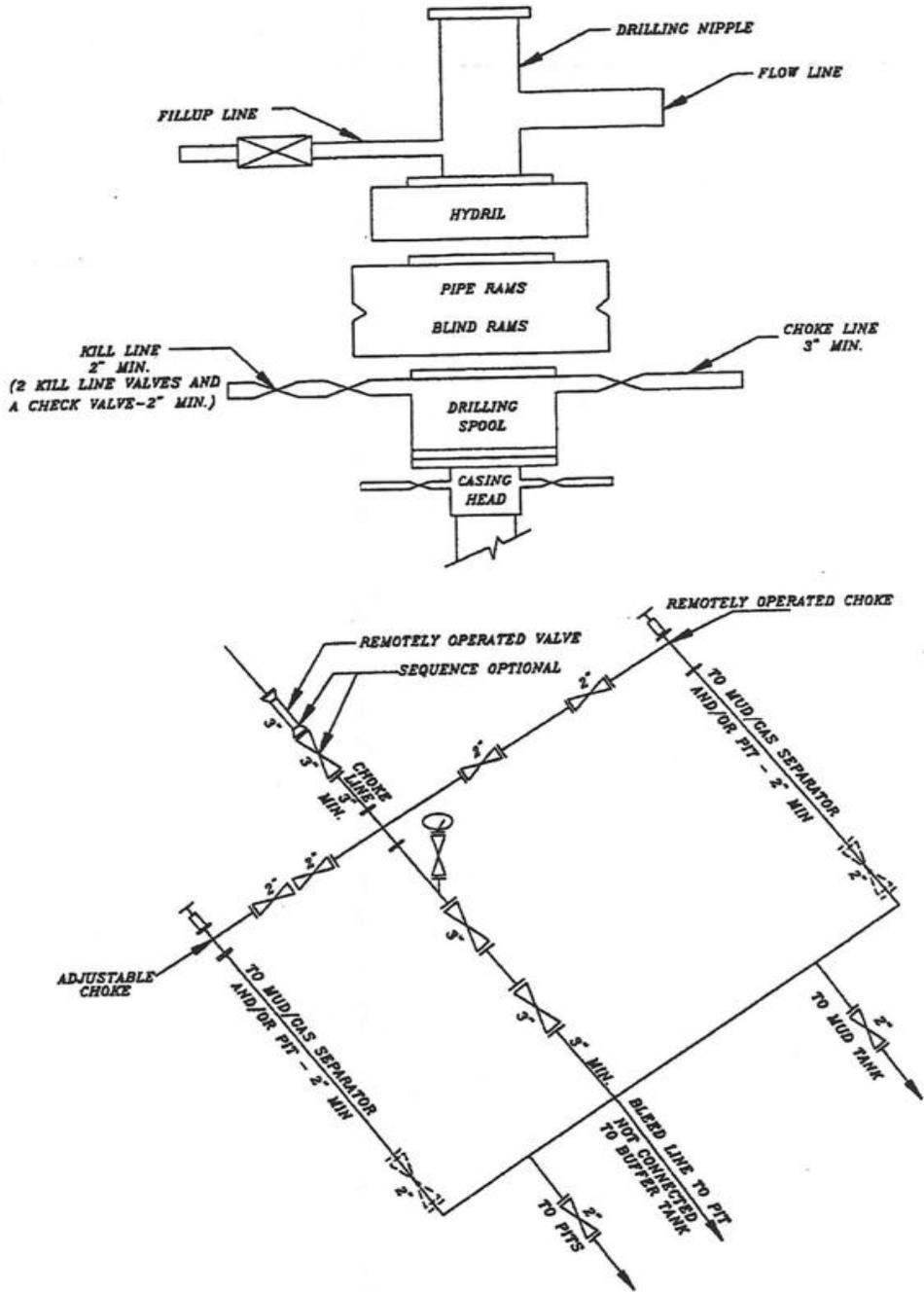
DRILLING ENGINEER: _____
 John Huycke / Emile Goodwin

DATE: _____

DRILLING SUPERINTENDENT: _____
 John Merkel / Lovel Young

DATE: _____

EXHIBIT A NBU 921-35E1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

T9S, R21E, S.L.B.&M.

WEST - 80.00 (G.L.O.)

N89°47'37"W - 2646.18' (Meas.)

N89°47'25"W - 2645.99' (Meas.)

Found 1" Aluminum Cap on 5/8" Rebar. Pile of Stones.

Found Uintah County Aluminum Cap in Pile of Stones.

Found Uintah County Aluminum Cap in Pile of Stones.

N00°21'17"W (Basis of Bearings)

2645.28' (Measured)

N00°03'W - 81.10 (G.L.O.)

N00°12'59"E (Measured to C.C.)

2703.72' (Measured to True Corner)

2702.74'

2.50 (G.L.O.)

164.44'

Found Uintah County Surveyor 1 1/2" Aluminum Cap on 5/8" Rebar in Pile of Stones.

Found 1 1/2" Aluminum Cap on 5/8" Rebar in Pile of Stones.

WELL LOCATION:
NBU 921-35E1CS
 ELEV. UNGRADED GROUND = 5107.5'

35

NBU 921-35E1CS (Surface Position)
 NAD 83 LATITUDE = 39.995134° (39° 59' 42.483")
 LONGITUDE = 109.522337° (109° 31' 20.414")
 NAD 27 LATITUDE = 39.995169° (39° 59' 42.610")
 LONGITUDE = 109.521650° (109° 31' 17.940")

NBU 921-35E1CS (Bottom Hole)
 NAD 83 LATITUDE = 39.994476° (39° 59' 40.115")
 LONGITUDE = 109.525377° (109° 31' 31.356")
 NAD 27 LATITUDE = 39.994511° (39° 59' 40.241")
 LONGITUDE = 109.524689° (109° 31' 28.882")

LOT 4

LOT 1

Found 1977 Brass Cap in Pile of Stones.

Found 1977 Brass Cap

Found 1977 Brass Cap

Found 1977 Brass Cap in Pile of Stones.

2501.71'

2.19 (G.L.O.)
144.58'

2543.51'

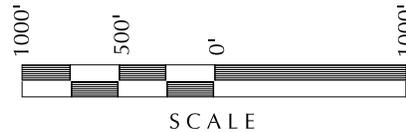
99.10' 1.51' (G.L.O.)
2678.51' (Meas.)
S89°06'03"W
S89°06'W - 40.59' (G.L.O.)

S89°07'53"W - 2666.15' (Meas.)
S89°06'W - 40.39 (G.L.O.)
Found 1977 Brass Cap in Pile of Stones.

S89°14'29"W - 2688.09' (Meas.)
S89°12'W - 40.73 (G.L.O.)
Found 1977 Brass Cap

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 S74°19'22"W 884.92' 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 1/4 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
 No. 6028691
 JOHN R. LAUGH
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH

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

WELL PAD: NBU 921-35F2

NBU 921-35E1CS
WELL PLAT

1933' FNL, 826' FWL (Bottom Hole)
SW 1/4 NW 1/4 OF SECTION 35, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.



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

TIMBERLINE

(435) 789-1365

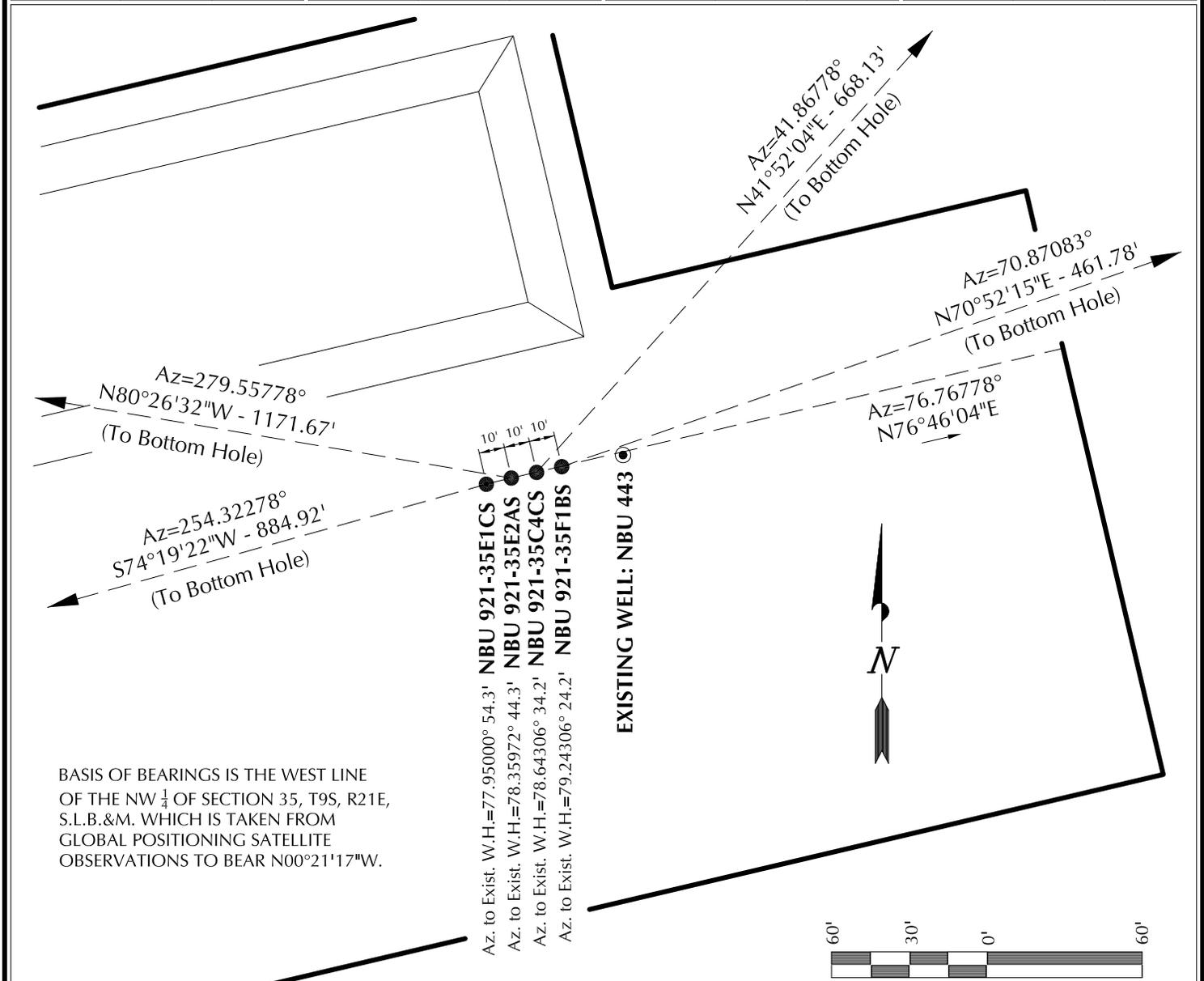
ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 10-01-10	SURVEYED BY: D.J.S.	SHEET NO: 4
DATE DRAWN: 10-01-10	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'		4 OF 16

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 921-35F1BS	39°59'42.551"	109°31'20.038"	39°59'42.677"	109°31'17.564"	1684' FNL	39°59'44.049"	109°31'14.435"	39°59'44.175"	109°31'11.961"	1531' FNL
NBU 921-35C4CS	39.995153°	109.522233°	39.995188°	109.521545°	1709' FWL	39.995569°	109.520676°	39.995604°	109.519989°	2146' FWL
NBU 921-35E2AS	39°59'42.529"	109°31'20.163"	39°59'42.655"	109°31'17.689"	1686' FNL	39°59'47.447"	109°31'14.439"	39°59'47.574"	109°31'11.965"	1187' FNL
NBU 921-35E1CS	39.995147°	109.522268°	39.995182°	109.521580°	1699' FWL	39.996513°	109.520678°	39.996548°	109.519990°	2148' FWL
NBU 921-35E2AS	39°59'42.507"	109°31'20.289"	39°59'42.633"	109°31'17.815"	1688' FNL	39°59'44.421"	109°31'35.133"	39°59'44.548"	109°31'32.658"	1498' FNL
NBU 921-35E1CS	39.995141°	109.522303°	39.995176°	109.521615°	1689' FWL	39.995673°	109.526426°	39.995708°	109.525738°	535' FWL
NBU 443	39°59'42.483"	109°31'20.414"	39°59'42.610"	109°31'17.940"	1691' FNL	39°59'40.115"	109°31'31.356"	39°59'40.241"	109°31'28.882"	1933' FNL
	39.995134°	109.522337°	39.995169°	109.521650°	1679' FWL	39.994476°	109.525377°	39.994511°	109.524689°	826' FWL
	39°59'42.596"	109°31'19.732"	39°59'42.722"	109°31'17.258"	1679' FNL					
	39.995165°	109.522148°	39.995200°	109.521461°	1733' 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 921-35F1BS	151.3'	436.3'	NBU 921-35C4CS	497.5'	445.9'	NBU 921-35E2AS	194.5'	-1155.4'	NBU 921-35E1CS	-239.1'	-852.0'



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

WELL PAD - NBU 921-35F2

WELL PAD INTERFERENCE PLAT
WELLS - NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



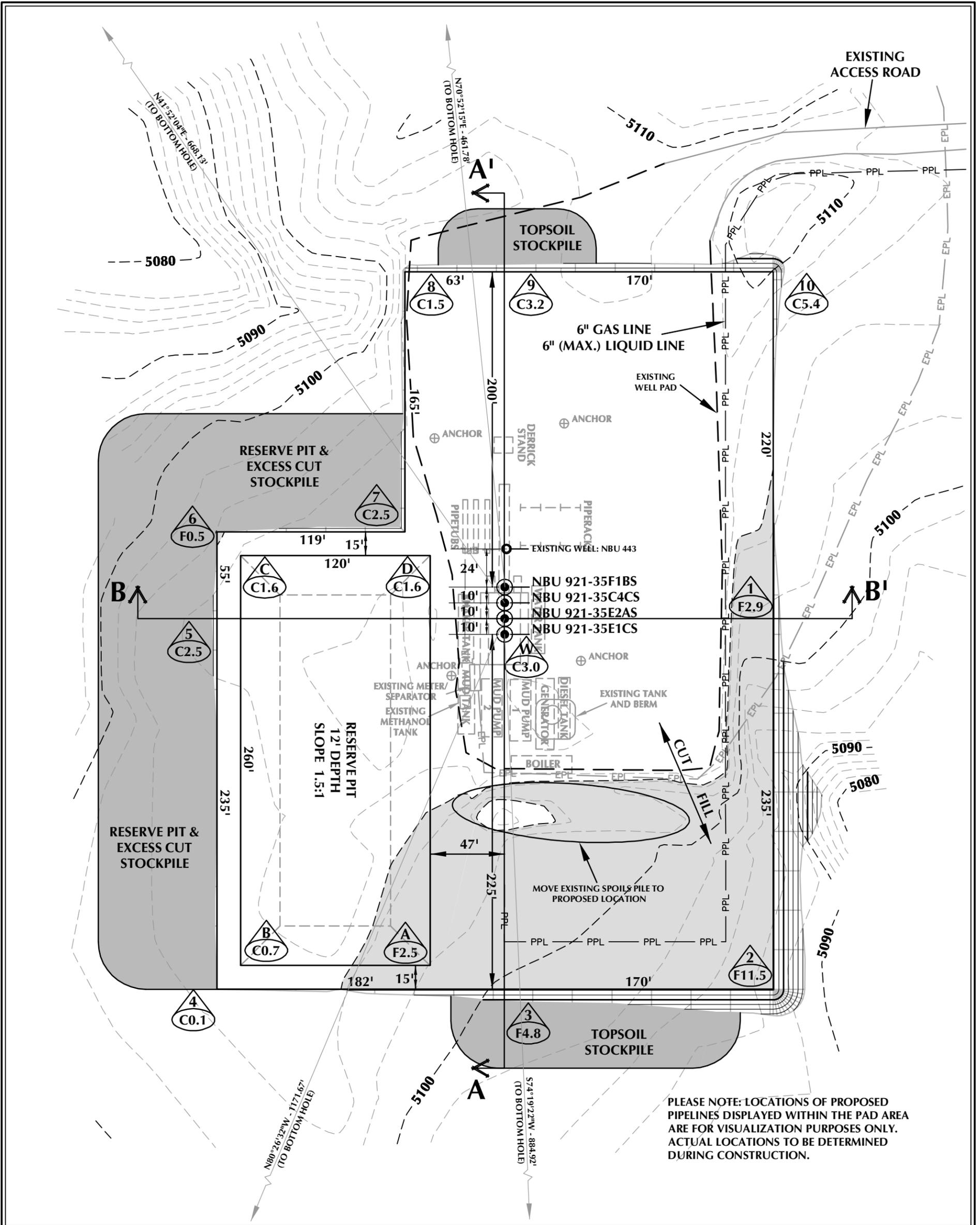
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DATE SURVEYED: 10-01-10	SURVEYED BY: D.J.S.	SHEET NO: 5
DATE DRAWN: 10-01-10	DRAWN BY: E.M.S.	
SCALE: 1" = 60'		5 OF 16



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 921-35F2 DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5107.5'
 FINISHED GRADE ELEVATION = 5104.5'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.44 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 921-35F2

WELL PAD - LOCATION LAYOUT
 NBU 921-35F1BS, NBU 921-35C4CS,
 NBU 921-35E2AS & NBU 921-35E1CS
 LOCATED IN SECTION 35, T9S, R21E,
 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 QUANTITIES

TOTAL CUT FOR WELL PAD = 9,194 C.Y.
 TOTAL FILL FOR WELL PAD = 7,785 C.Y.
 TOPSOIL @ 6" DEPTH = 1,716 C.Y.
 EXCESS MATERIAL = 1,409 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

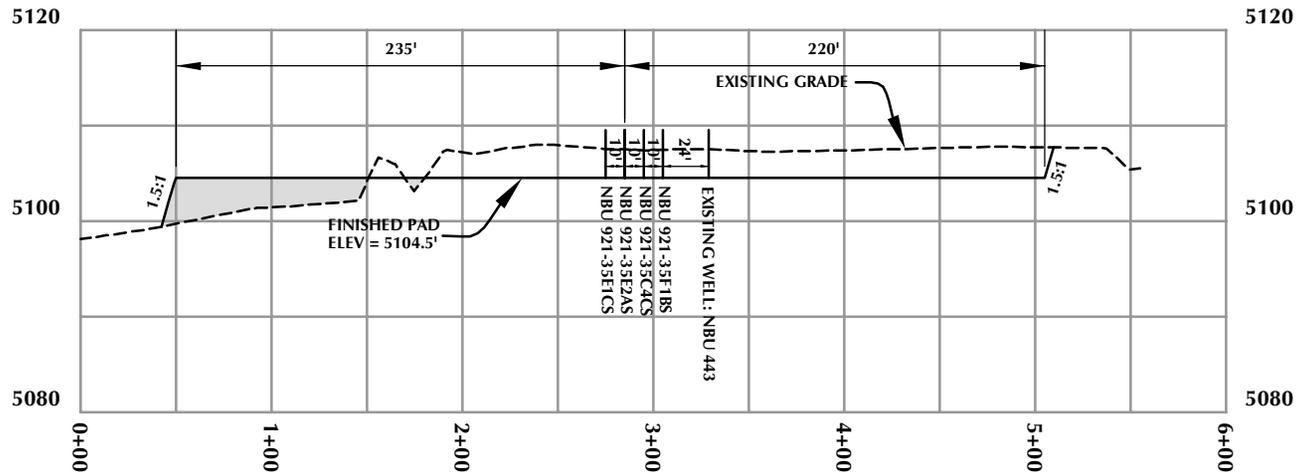
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE



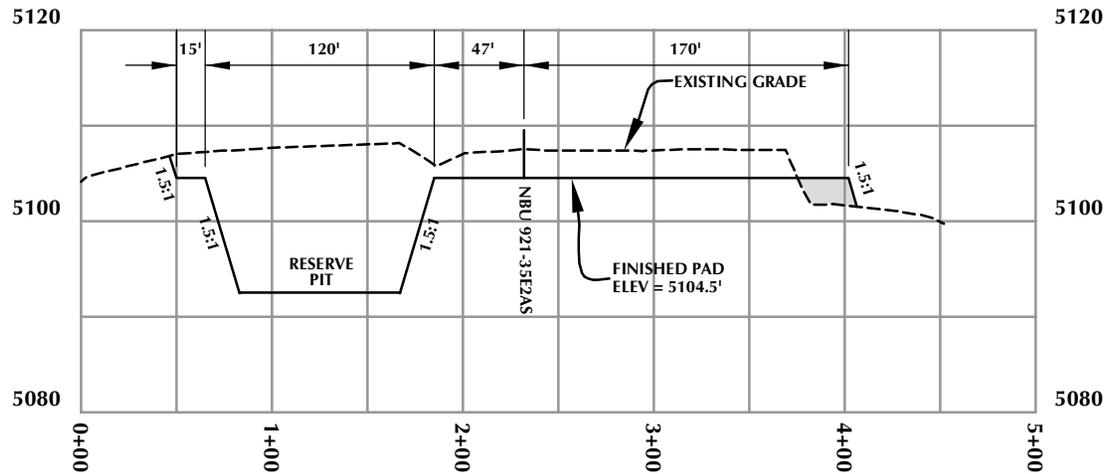
HORIZONTAL 0 30 60 1" = 60'
 2' CONTOURS

Scale: 1"=60' Date: 10/19/10 SHEET NO:
 REVISED: JFE 12/9/10 **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 921-35F2

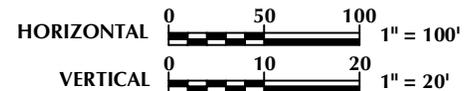
WELL PAD - CROSS SECTIONS
 NBU 921-35F1BS, NBU 921-35C4CS,
 NBU 921-35E2AS & NBU 921-35E1CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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

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

(435) 789-1365



Scale: 1"=100'

Date: 10/15/10

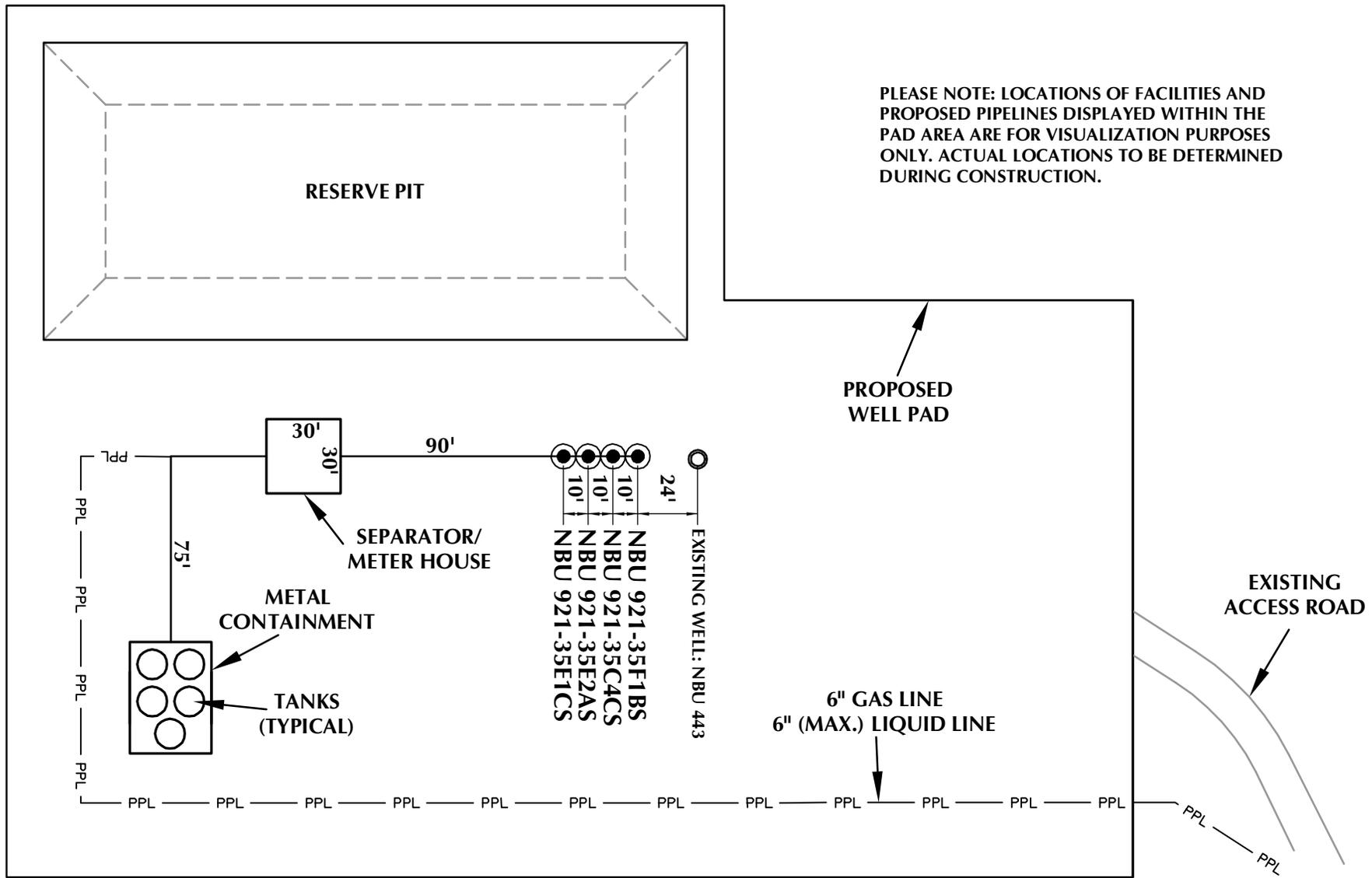
SHEET NO:

REVISED:

7

7 OF 16

'APIWellNo:43047513520000'
 C:\NA\B\0100_52_A\U\PODS_52_23_35\T9S\NBU_921-35F2\NBU_921-35F2_20101003.dwg, 10/12/2010 5:06:18 PM



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

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

WELL PAD - NBU 921-35F2

WELL PAD - FACILITIES DIAGRAM
NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH



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WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED PIPELINE
- 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: 10/19/10	SHEET NO:
REVISED:		8 8 OF 16

APW:unc:43047513520000

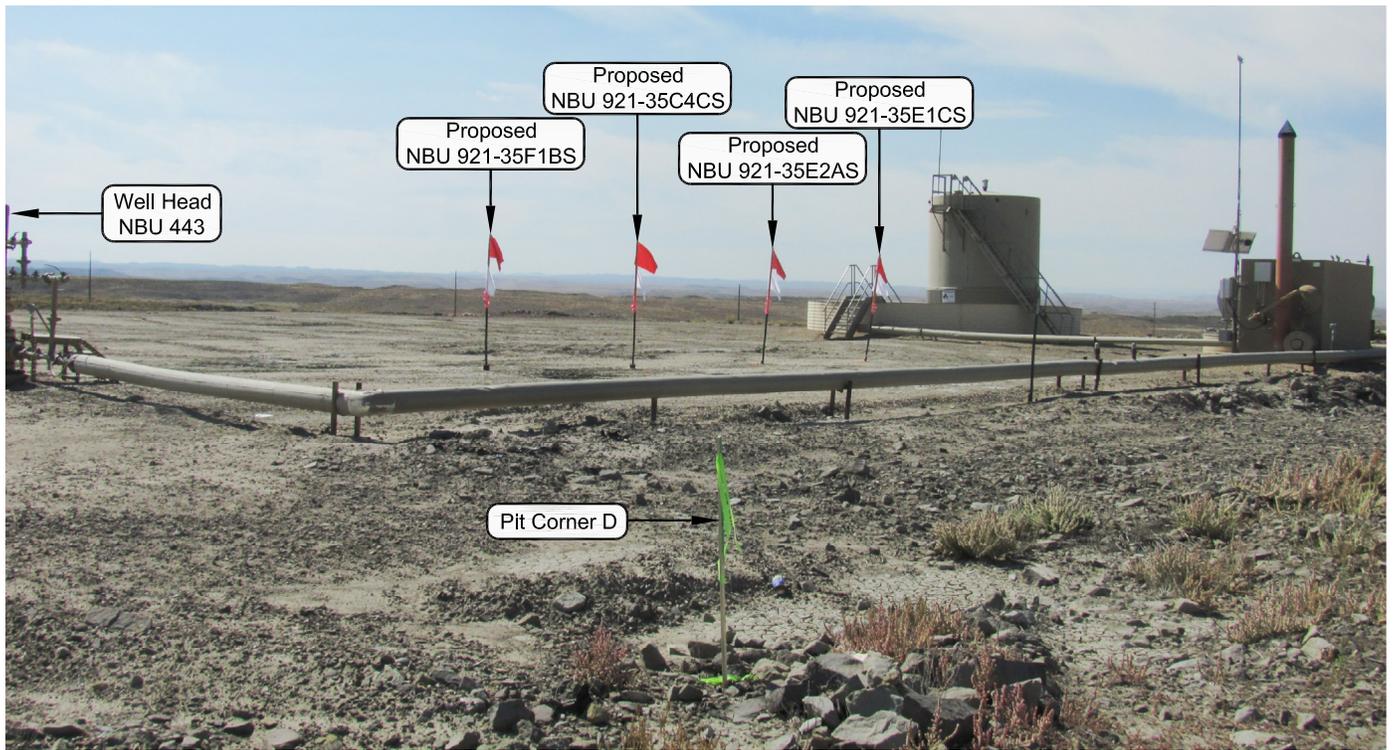


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHWESTERLY

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

WELL PAD - NBU 921-35F2

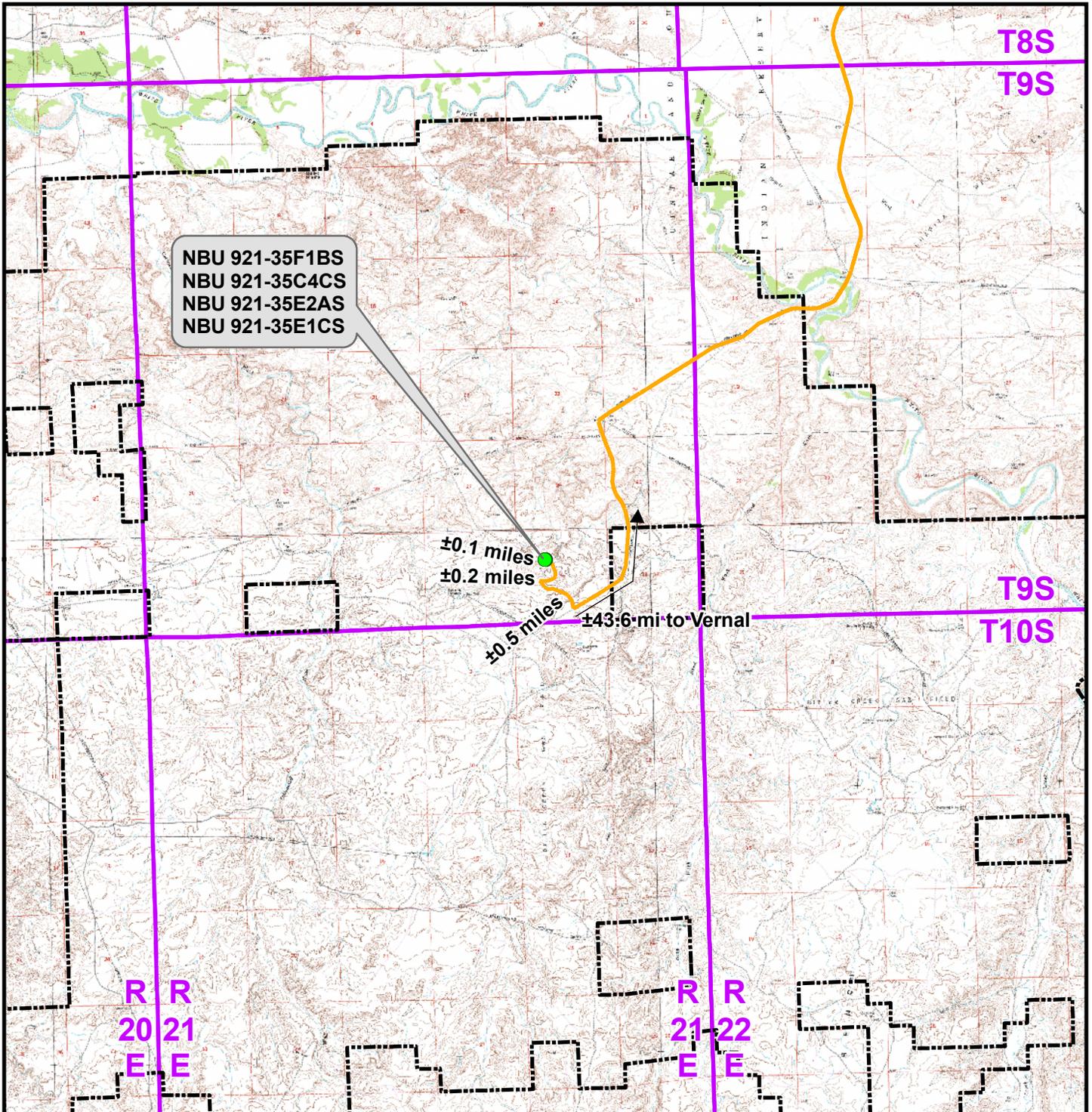
LOCATION PHOTOS
 NBU 921-35F1BS, NBU 921-35C4CS,
 NBU 921-35E2AS & NBU 921-35E1CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH.



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 PHOTOS TAKEN: 10-01-10	PHOTOS TAKEN BY: D.J.S.	SHEET NO: 9 9 OF 16
DATE DRAWN: 10-01-10	DRAWN BY: E.M.S.	
Date Last Revised:		



Legend

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

Distance From Well Pad - NBU 921-35F2 To Unit Boundary: ±3,573ft

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

WELL PAD - NBU 921-35F2

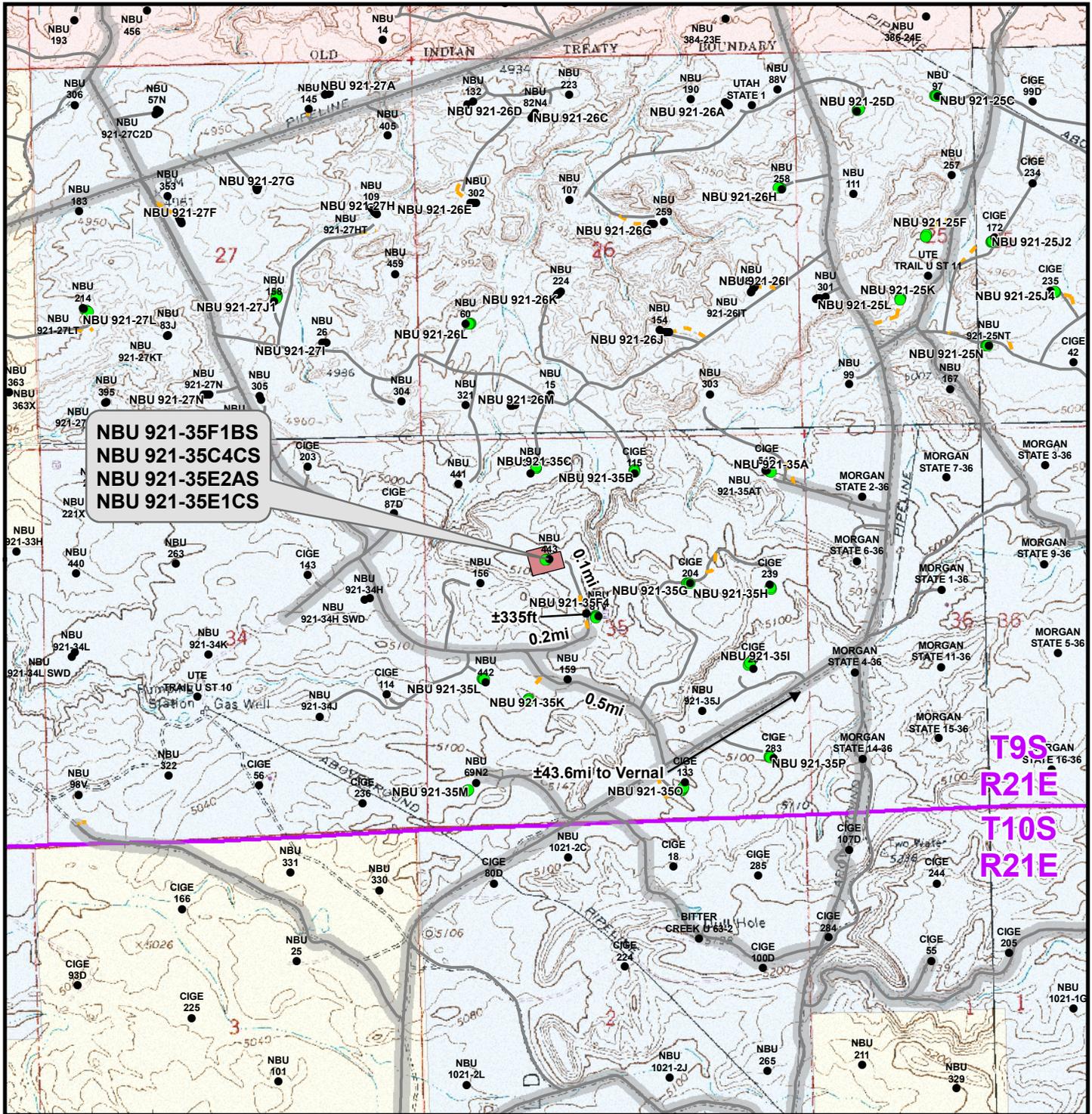
TOPO A
 NBU 921-35F1BS, NBU 921-35C4CS,
 NBU 921-35E2AS & NBU 921-35E1CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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: 19 Oct 2010	10
Revised:	Date:	



Legend

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

Total Proposed Road Length: ±0ft

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

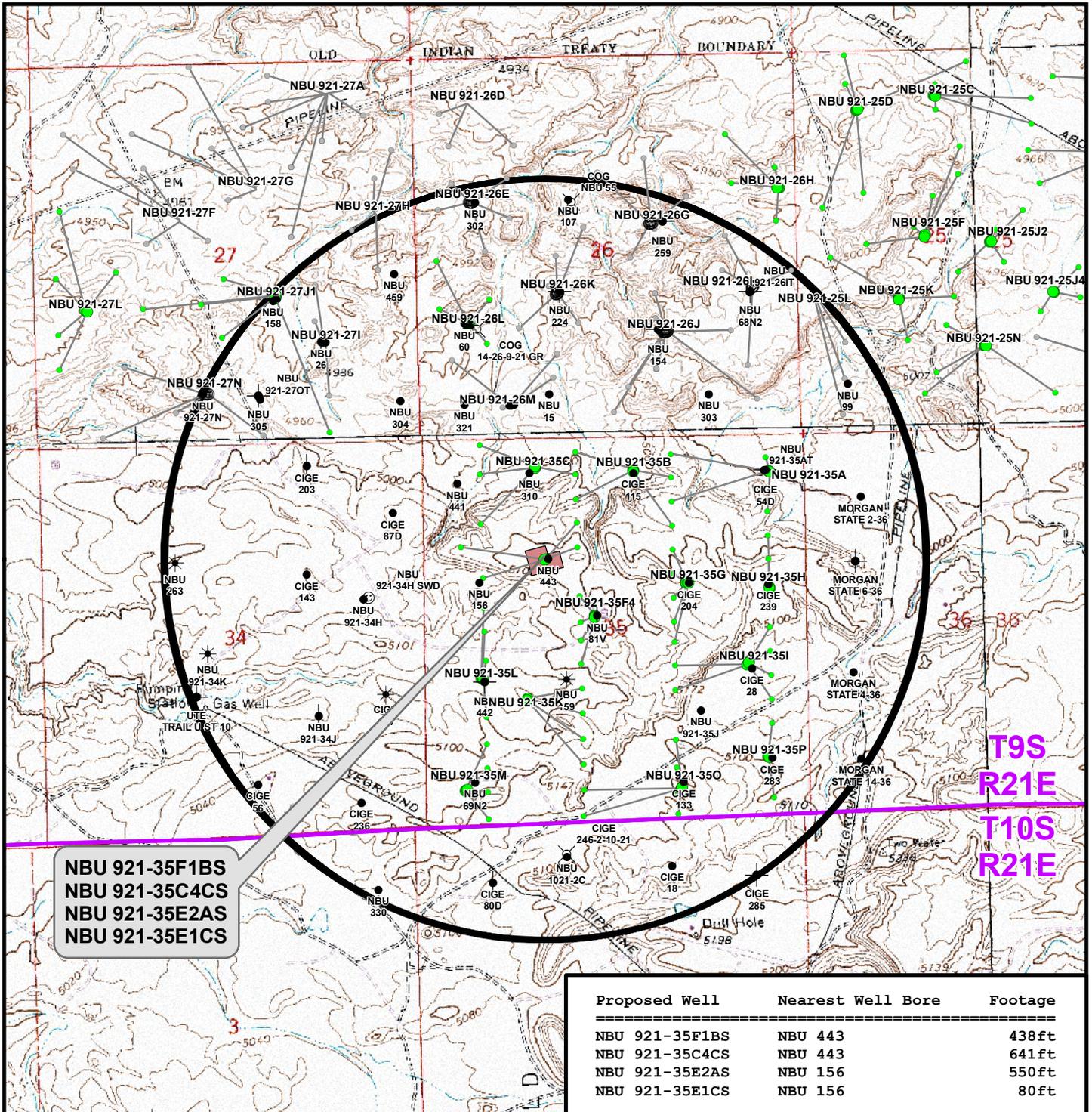
WELL PAD - NBU 921-35F2

TOPO B
NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:	11
Drawn: TL	Date: 19 Oct 2010	11 of 16	
Revised:	Date:		



Legend

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

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

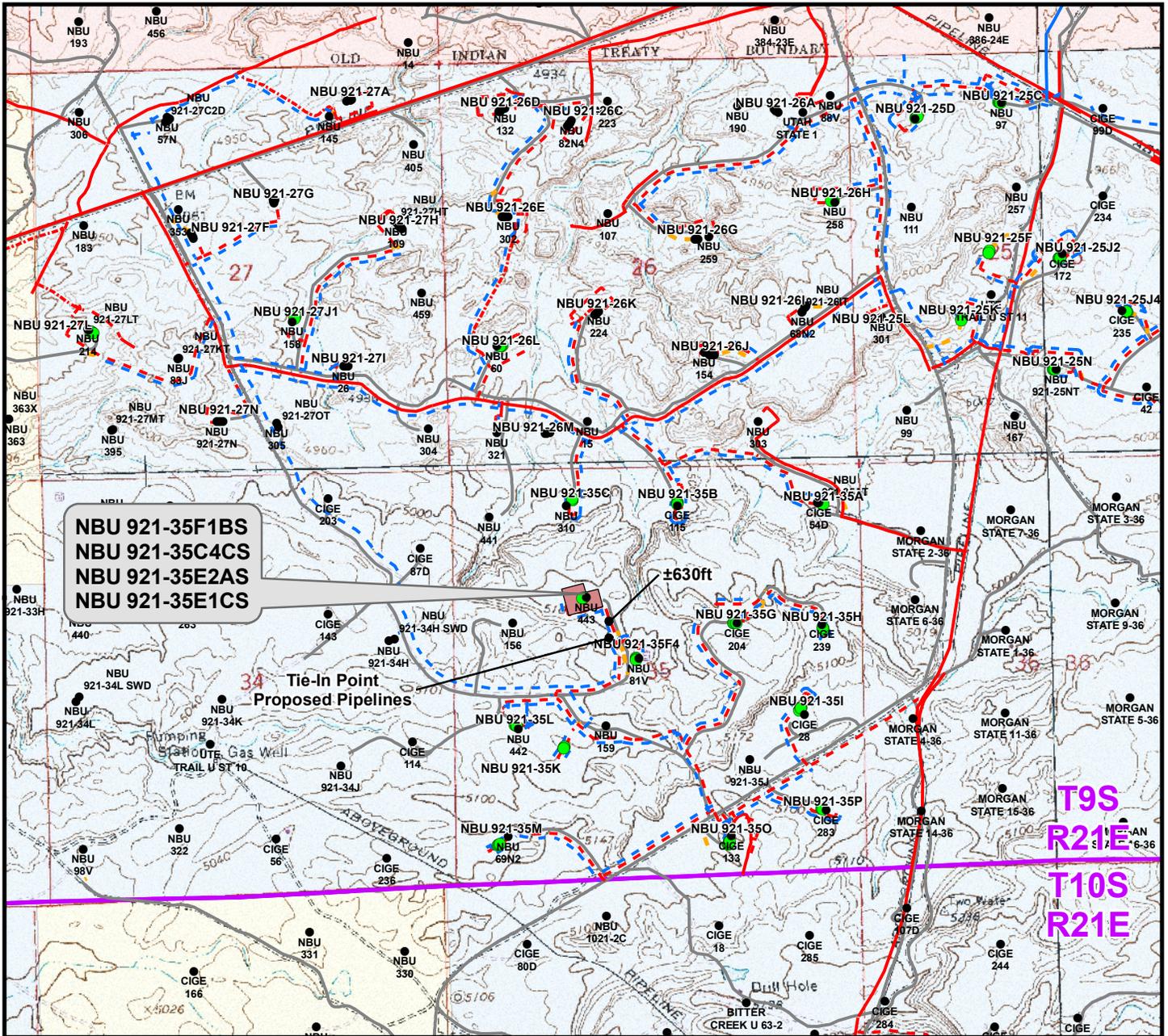
WELL PAD - NBU 921-35F2

TOPO C
NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 19 Oct 2010	12 12 of 16
Revised:	Date:	



**NBU 921-35F1BS
NBU 921-35C4CS
NBU 921-35E2AS
NBU 921-35E1CS**

**Tie-In Point
Proposed Pipelines**

**T9S
R21E
T10S
R21E**

Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±660ft
Proposed 6" (Max.) (Edge of Pad to 35F4 Intersection)	±630ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,290ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±660ft
Proposed 6" (Edge of Pad to 35F4 Intersection)	±630ft
TOTAL PROPOSED GAS PIPELINE =	±1,290ft

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 921-35F2

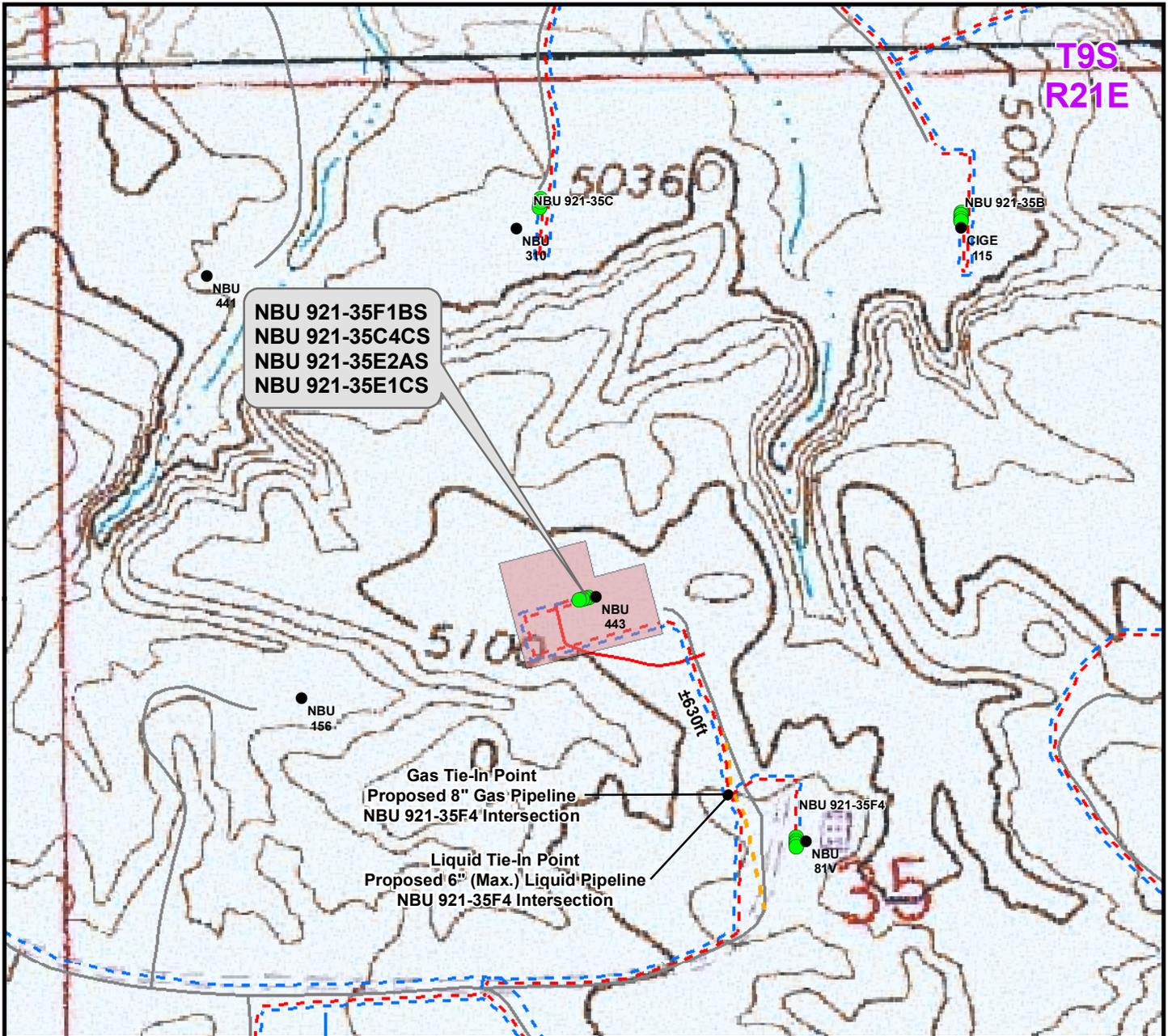
TOPO D
NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 13
Drawn: TL	Date: 19 Oct 2010	13 of 16
Revised:	Date:	



T9S
R21E

NBU 921-35F1BS
NBU 921-35C4CS
NBU 921-35E2AS
NBU 921-35E1CS

Gas Tie-In Point
Proposed 8" Gas Pipeline
NBU 921-35F4 Intersection

Liquid Tie-In Point
Proposed 6" (Max.) Liquid Pipeline
NBU 921-35F4 Intersection

Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±660ft
Proposed 6" (Max.) (Edge of Pad to 35F4 Intersection)	±630ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,290ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±660ft
Proposed 6" (Edge of Pad to 35F4 Intersection)	±630ft
TOTAL PROPOSED GAS PIPELINE =	±1,290ft

Legend

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

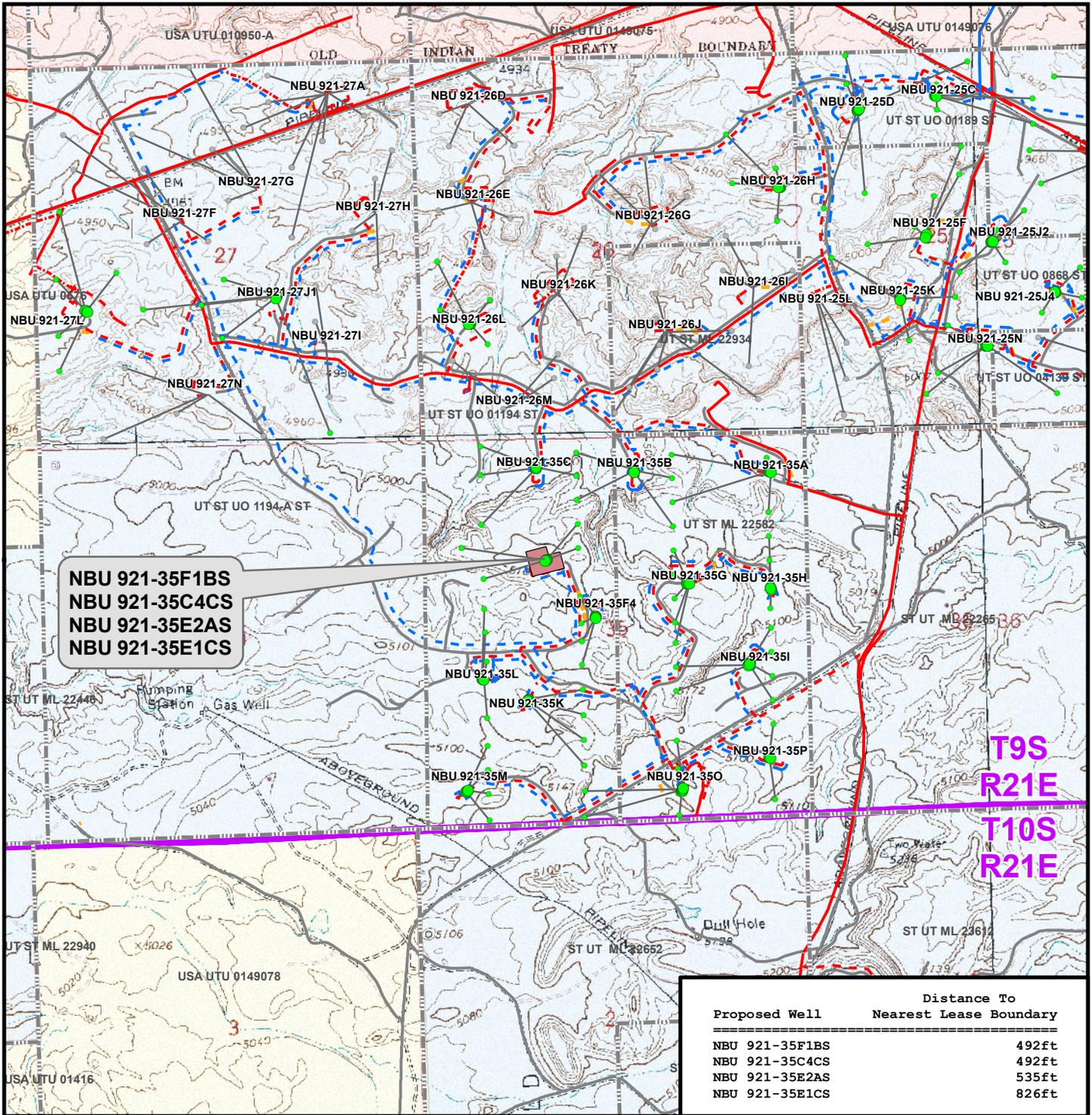
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35F2

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UTAH COUNTY, UTAH



Scale: 1" = 500ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 19 Oct 2010	14 14 of 16
Revised:	Date:	



**NBU 921-35F1BS
NBU 921-35C4CS
NBU 921-35E2AS
NBU 921-35E1CS**

**T9S
R21E
T10S
R21E**

Proposed Well	Distance To Nearest Lease Boundary
NBU 921-35F1BS	492ft
NBU 921-35C4CS	492ft
NBU 921-35E2AS	535ft
NBU 921-35E1CS	826ft

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 921-35F2

TOPO E
NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

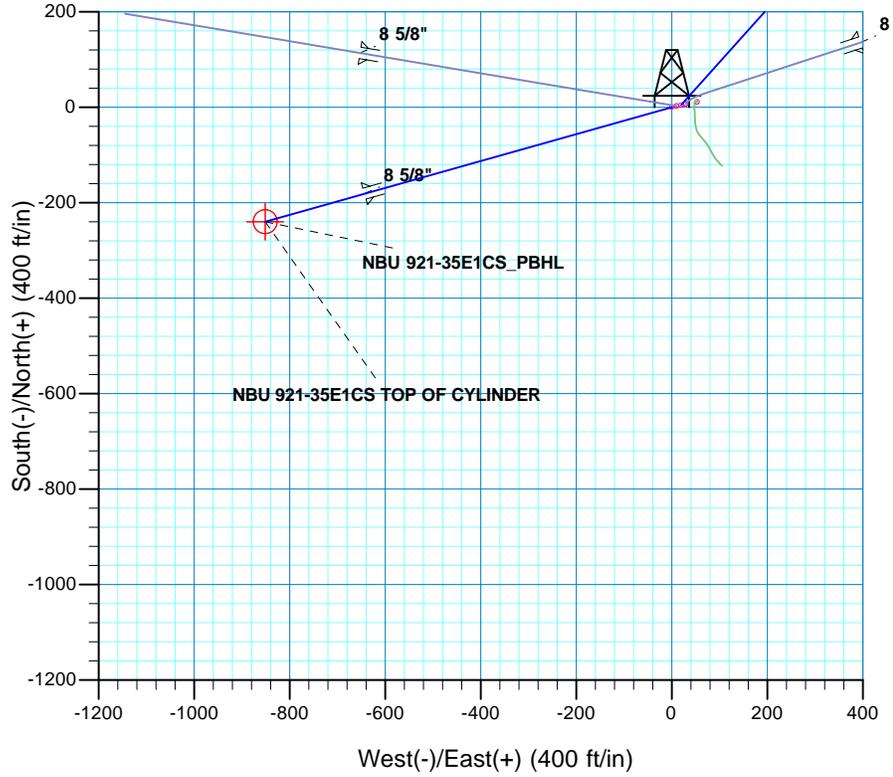
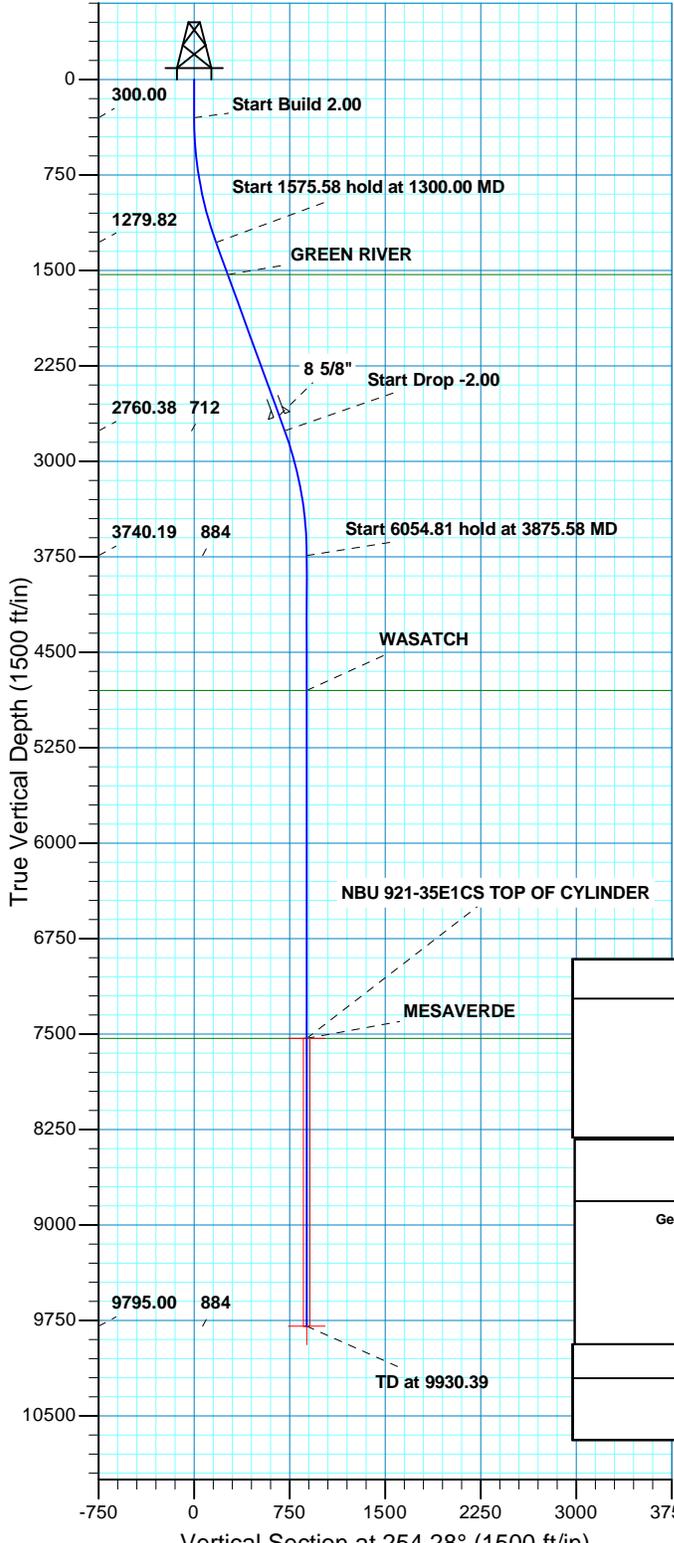
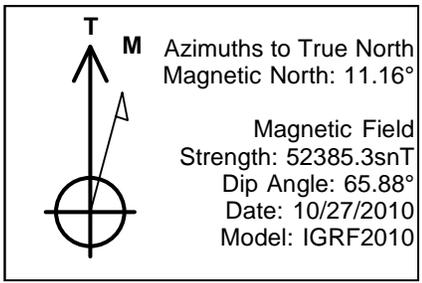
Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 19 Oct 2010	15 15 of 16
Revised:	Date:	

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 921-35F2
WELLS – NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
Section 35, T9S, R21E, 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 20.1 miles to a Class D County Road to the northwest. Exit right and proceed in a northwesterly direction along the Class D County Road approximately 0.5 miles to a second Class D County Road to the east. Exit right and proceed in an easterly then northeasterly direction along the second Class D County Road approximately 0.2 miles to the proposed NBU 921-35F4 well pad. Continue in a northwesterly direction through the proposed NBU 921-35F4 well pad approximately 335 feet to a service road to the northwest. Continue in a northwesterly direction along the service road approximately 0.1 miles to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 44.5 miles in a southerly direction.

WELL DETAILS: NBU 921-35E1CS						
GL 5105' & KB 14' @ 5119.00ft (ASSUMED)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14527718.97	2054478.12	39° 59' 42.608 N	109° 31' 17.940 W	
DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude Longitude Shape
TOP OF CYLINDER	7534.00	-239.63	-851.33	14527465.25	2053630.88	39° 59' 40.240 N 109° 31' 28.880 W Point
- plan hits target center						
PBHL	9795.00	-239.63	-851.33	14527465.25	2053630.88	39° 59' 40.240 N 109° 31' 28.880 W Circle (Radius: 25.00)
- plan hits target center						



SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	
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		
1300.00	20.00	254.28	1279.82	-46.81	-166.31	2.00	254.28	172.77		
2875.58	20.00	254.28	2760.38	-192.82	-685.03	0.00	0.00	711.65		
3875.58	0.00	0.00	3740.19	-239.63	-851.33	2.00	180.00	884.42		
9930.39	0.00	0.00	9795.00	-239.63	-851.33	0.00	0.00	884.42	NBU 921-35E1CS_PBHL	

PROJECT DETAILS: Uintah County, UT UTM12			FORMATION TOP DETAILS		
Geodetic System: Universal Transverse Mercator (US Survey Feet) Datum: NAD 1927 - Western US Ellipsoid: Clarke 1866 Zone: Zone 12N (114 W to 108 W) Location: SEC 35 T9S R21E System Datum: Mean Sea Level			TVDPath	MDPath	Formation
			1532.00	1568.37	GREEN RIVER
			4801.00	4936.39	WASATCH
			7534.00	7669.39	MESAVERDE

CASING DETAILS				
TVD	MD	Name	Size	
2641.00	2748.54	8 5/8"	8.625	



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 921-35F2 Pad
NBU 921-35E1CS**

OH

Plan: PLAN #1

Standard Planning Report

28 October, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-35F2 Pad, SEC 35 T9S R21E				
Site Position:		Northing:	14,527,718.98 usft	Latitude:	39° 59' 42.608 N
From:	Lat/Long	Easting:	2,054,478.12 usft	Longitude:	109° 31' 17.940 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.95 °

Well	NBU 921-35E1CS, 1691' FNL 1679' FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,527,718.98 usft	Latitude:	39° 59' 42.608 N
	+E/-W	0.00 ft	Easting:	2,054,478.12 usft	Longitude:	109° 31' 17.940 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,105.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/27/2010	11.16	65.88	52,385

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	254.28

Plan Sections										
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	
1,300.00	20.00	254.28	1,279.82	-46.81	-166.31	2.00	2.00	0.00	254.28	
2,875.58	20.00	254.28	2,760.38	-192.82	-685.03	0.00	0.00	0.00	0.00	
3,875.58	0.00	0.00	3,740.19	-239.63	-851.33	2.00	-2.00	0.00	180.00	
9,930.39	0.00	0.00	9,795.00	-239.63	-851.33	0.00	0.00	0.00	0.00	NBU 921-35E1CS_Pf

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
400.00	2.00	254.28	399.98	-0.47	-1.68	1.75	2.00	2.00	0.00	
500.00	4.00	254.28	499.84	-1.89	-6.72	6.98	2.00	2.00	0.00	
600.00	6.00	254.28	599.45	-4.25	-15.11	15.69	2.00	2.00	0.00	
700.00	8.00	254.28	698.70	-7.55	-26.84	27.88	2.00	2.00	0.00	
800.00	10.00	254.28	797.47	-11.79	-41.89	43.52	2.00	2.00	0.00	
900.00	12.00	254.28	895.62	-16.96	-60.26	62.60	2.00	2.00	0.00	
1,000.00	14.00	254.28	993.06	-23.06	-81.91	85.10	2.00	2.00	0.00	
1,100.00	16.00	254.28	1,089.64	-30.07	-106.83	110.98	2.00	2.00	0.00	
1,200.00	18.00	254.28	1,185.27	-37.99	-134.97	140.21	2.00	2.00	0.00	
1,300.00	20.00	254.28	1,279.82	-46.81	-166.31	172.77	2.00	2.00	0.00	
Start 1575.58 hold at 1300.00 MD										
1,400.00	20.00	254.28	1,373.78	-56.08	-199.23	206.97	0.00	0.00	0.00	
1,500.00	20.00	254.28	1,467.75	-65.35	-232.15	241.17	0.00	0.00	0.00	
1,568.37	20.00	254.28	1,532.00	-71.68	-254.66	264.56	0.00	0.00	0.00	
GREEN RIVER										
1,600.00	20.00	254.28	1,561.72	-74.61	-265.07	275.37	0.00	0.00	0.00	
1,700.00	20.00	254.28	1,655.69	-83.88	-298.00	309.58	0.00	0.00	0.00	
1,800.00	20.00	254.28	1,749.66	-93.15	-330.92	343.78	0.00	0.00	0.00	
1,900.00	20.00	254.28	1,843.63	-102.41	-363.84	377.98	0.00	0.00	0.00	
2,000.00	20.00	254.28	1,937.60	-111.68	-396.76	412.18	0.00	0.00	0.00	
2,100.00	20.00	254.28	2,031.57	-120.95	-429.69	446.38	0.00	0.00	0.00	
2,200.00	20.00	254.28	2,125.54	-130.21	-462.61	480.59	0.00	0.00	0.00	
2,300.00	20.00	254.28	2,219.51	-139.48	-495.53	514.79	0.00	0.00	0.00	
2,400.00	20.00	254.28	2,313.48	-148.75	-528.45	548.99	0.00	0.00	0.00	
2,500.00	20.00	254.28	2,407.45	-158.02	-561.38	583.19	0.00	0.00	0.00	
2,600.00	20.00	254.28	2,501.42	-167.28	-594.30	617.39	0.00	0.00	0.00	
2,700.00	20.00	254.28	2,595.39	-176.55	-627.22	651.60	0.00	0.00	0.00	
2,748.54	20.00	254.28	2,641.00	-181.05	-643.20	668.20	0.00	0.00	0.00	
8 5/8"										
2,800.00	20.00	254.28	2,689.35	-185.82	-660.14	685.80	0.00	0.00	0.00	
2,875.58	20.00	254.28	2,760.38	-192.82	-685.03	711.65	0.00	0.00	0.00	
Start Drop -2.00										
2,900.00	19.51	254.28	2,783.36	-195.06	-692.97	719.90	2.00	-2.00	0.00	
3,000.00	17.51	254.28	2,878.18	-203.66	-723.53	751.65	2.00	-2.00	0.00	
3,100.00	15.51	254.28	2,974.05	-211.36	-750.89	780.07	2.00	-2.00	0.00	
3,200.00	13.51	254.28	3,070.86	-218.15	-775.01	805.13	2.00	-2.00	0.00	
3,300.00	11.51	254.28	3,168.48	-224.02	-795.86	826.79	2.00	-2.00	0.00	
3,400.00	9.51	254.28	3,266.79	-228.96	-813.42	845.03	2.00	-2.00	0.00	
3,500.00	7.51	254.28	3,365.69	-232.97	-827.67	859.83	2.00	-2.00	0.00	
3,600.00	5.51	254.28	3,465.04	-236.04	-838.58	871.17	2.00	-2.00	0.00	
3,700.00	3.51	254.28	3,564.72	-238.17	-846.16	879.04	2.00	-2.00	0.00	
3,800.00	1.51	254.28	3,664.62	-239.36	-850.37	883.42	2.00	-2.00	0.00	
3,875.58	0.00	254.28	3,740.19	-239.63	-851.33	884.42	2.00	-2.00	0.00	
Start 6054.81 hold at 3875.58 MD										
3,900.00	0.00	0.00	3,764.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,000.00	0.00	0.00	3,864.61	-239.63	-851.33	884.42	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,100.00	0.00	0.00	3,964.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,200.00	0.00	0.00	4,064.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,164.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,264.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,364.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,464.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,564.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,664.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,764.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
4,936.39	0.00	0.00	4,801.00	-239.63	-851.33	884.42	0.00	0.00	0.00	
WASATCH										
5,000.00	0.00	0.00	4,864.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,100.00	0.00	0.00	4,964.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,064.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,164.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,264.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,364.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,464.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,564.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,664.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,764.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,864.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,100.00	0.00	0.00	5,964.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,064.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,164.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,264.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,364.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,464.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,564.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,664.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,764.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,864.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,964.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,064.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,164.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,264.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,364.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,464.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,669.39	0.00	0.00	7,534.00	-239.63	-851.33	884.42	0.00	0.00	0.00	
MESAVERDE - NBU 921-35E1CS TOP OF CYLINDER										
7,700.00	0.00	0.00	7,564.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,664.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,764.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,864.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,964.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,064.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,164.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,264.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,364.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,464.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,564.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,664.61	-239.63	-851.33	884.42	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,900.00	0.00	0.00	8,764.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,864.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,964.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,064.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,164.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,264.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,364.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,464.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,564.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,664.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,764.61	-239.63	-851.33	884.42	0.00	0.00	0.00	
9,930.39	0.00	0.00	9,795.00	-239.63	-851.33	884.42	0.00	0.00	0.00	
TD at 9930.39 - NBU 921-35E1CS_PBHL										

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	
NBU 921-35E1CS TOP - plan hits target center - Point	0.00	0.00	7,534.00	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
NBU 921-35E1CS_PBH - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,795.00	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,748.54	2,641.00	8 5/8"	8.625	11.000		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,568.37	1,532.00	GREEN RIVER				
4,936.39	4,801.00	WASATCH				
7,669.39	7,534.00	MESAVERDE				

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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
1,300.00	1,279.82	-46.81	-166.31	Start 1575.58 hold at 1300.00 MD
2,875.58	2,760.38	-192.82	-685.03	Start Drop -2.00
3,875.58	3,740.19	-239.63	-851.33	Start 6054.81 hold at 3875.58 MD
9,930.39	9,795.00	-239.63	-851.33	TD at 9930.39



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 921-35F2 Pad
NBU 921-35E1CS**

OH

Plan: PLAN #1

Standard Planning Report - Geographic

28 October, 2010



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-35F2 Pad, SEC 35 T9S R21E				
Site Position:		Northing:	14,527,718.98 usft	Latitude:	39° 59' 42.608 N
From:	Lat/Long	Easting:	2,054,478.12 usft	Longitude:	109° 31' 17.940 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.95 °

Well	NBU 921-35E1CS, 1691' FNL 1679' FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,527,718.98 usft	Latitude:	39° 59' 42.608 N
	+E/-W	0.00 ft	Easting:	2,054,478.12 usft	Longitude:	109° 31' 17.940 W
Position Uncertainty	0.00 ft		Wellhead Elevation:		Ground Level:	5,105.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/27/2010	11.16	65.88	52,385

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	254.28

Plan Sections										
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	
1,300.00	20.00	254.28	1,279.82	-46.81	-166.31	2.00	2.00	0.00	254.28	
2,875.58	20.00	254.28	2,760.38	-192.82	-685.03	0.00	0.00	0.00	0.00	
3,875.58	0.00	0.00	3,740.19	-239.63	-851.33	2.00	-2.00	0.00	180.00	
9,930.39	0.00	0.00	9,795.00	-239.63	-851.33	0.00	0.00	0.00	0.00	NBU 921-35E1CS_Pf

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,527,718.98	2,054,478.12	39° 59' 42.608 N	109° 31' 17.940 W	
100.00	0.00	0.00	100.00	0.00	0.00	14,527,718.98	2,054,478.12	39° 59' 42.608 N	109° 31' 17.940 W	
200.00	0.00	0.00	200.00	0.00	0.00	14,527,718.98	2,054,478.12	39° 59' 42.608 N	109° 31' 17.940 W	
300.00	0.00	0.00	300.00	0.00	0.00	14,527,718.98	2,054,478.12	39° 59' 42.608 N	109° 31' 17.940 W	
Start Build 2.00										
400.00	2.00	254.28	399.98	-0.47	-1.68	14,527,718.48	2,054,476.45	39° 59' 42.604 N	109° 31' 17.962 W	
500.00	4.00	254.28	499.84	-1.89	-6.72	14,527,716.98	2,054,471.43	39° 59' 42.590 N	109° 31' 18.026 W	
600.00	6.00	254.28	599.45	-4.25	-15.11	14,527,714.48	2,054,463.09	39° 59' 42.566 N	109° 31' 18.134 W	
700.00	8.00	254.28	698.70	-7.55	-26.84	14,527,710.98	2,054,451.41	39° 59' 42.534 N	109° 31' 18.285 W	
800.00	10.00	254.28	797.47	-11.79	-41.89	14,527,706.49	2,054,436.43	39° 59' 42.492 N	109° 31' 18.478 W	
900.00	12.00	254.28	895.62	-16.96	-60.26	14,527,701.02	2,054,418.15	39° 59' 42.441 N	109° 31' 18.714 W	
1,000.00	14.00	254.28	993.06	-23.06	-81.91	14,527,694.57	2,054,396.60	39° 59' 42.380 N	109° 31' 18.993 W	
1,100.00	16.00	254.28	1,089.64	-30.07	-106.83	14,527,687.14	2,054,371.81	39° 59' 42.311 N	109° 31' 19.313 W	
1,200.00	18.00	254.28	1,185.27	-37.99	-134.97	14,527,678.75	2,054,343.80	39° 59' 42.233 N	109° 31' 19.674 W	
1,300.00	20.00	254.28	1,279.82	-46.81	-166.31	14,527,669.41	2,054,312.61	39° 59' 42.146 N	109° 31' 20.077 W	
Start 1575.58 hold at 1300.00 MD										
1,400.00	20.00	254.28	1,373.78	-56.08	-199.23	14,527,659.60	2,054,279.85	39° 59' 42.054 N	109° 31' 20.500 W	
1,500.00	20.00	254.28	1,467.75	-65.35	-232.15	14,527,649.79	2,054,247.09	39° 59' 41.962 N	109° 31' 20.923 W	
1,568.37	20.00	254.28	1,532.00	-71.68	-254.66	14,527,643.08	2,054,224.68	39° 59' 41.900 N	109° 31' 21.213 W	
GREEN RIVER										
1,600.00	20.00	254.28	1,561.72	-74.61	-265.07	14,527,639.98	2,054,214.32	39° 59' 41.871 N	109° 31' 21.346 W	
1,700.00	20.00	254.28	1,655.69	-83.88	-298.00	14,527,630.17	2,054,181.56	39° 59' 41.779 N	109° 31' 21.770 W	
1,800.00	20.00	254.28	1,749.66	-93.15	-330.92	14,527,620.36	2,054,148.79	39° 59' 41.688 N	109° 31' 22.193 W	
1,900.00	20.00	254.28	1,843.63	-102.41	-363.84	14,527,610.54	2,054,116.03	39° 59' 41.596 N	109° 31' 22.616 W	
2,000.00	20.00	254.28	1,937.60	-111.68	-396.76	14,527,600.73	2,054,083.26	39° 59' 41.504 N	109° 31' 23.039 W	
2,100.00	20.00	254.28	2,031.57	-120.95	-429.69	14,527,590.92	2,054,050.50	39° 59' 41.413 N	109° 31' 23.462 W	
2,200.00	20.00	254.28	2,125.54	-130.21	-462.61	14,527,581.11	2,054,017.73	39° 59' 41.321 N	109° 31' 23.885 W	
2,300.00	20.00	254.28	2,219.51	-139.48	-495.53	14,527,571.30	2,053,984.97	39° 59' 41.230 N	109° 31' 24.308 W	
2,400.00	20.00	254.28	2,313.48	-148.75	-528.45	14,527,561.49	2,053,952.21	39° 59' 41.138 N	109° 31' 24.731 W	
2,500.00	20.00	254.28	2,407.45	-158.02	-561.38	14,527,551.67	2,053,919.44	39° 59' 41.046 N	109° 31' 25.154 W	
2,600.00	20.00	254.28	2,501.42	-167.28	-594.30	14,527,541.86	2,053,886.68	39° 59' 40.955 N	109° 31' 25.577 W	
2,700.00	20.00	254.28	2,595.39	-176.55	-627.22	14,527,532.05	2,053,853.91	39° 59' 40.863 N	109° 31' 26.000 W	
2,748.54	20.00	254.28	2,641.00	-181.05	-643.20	14,527,527.29	2,053,838.01	39° 59' 40.819 N	109° 31' 26.206 W	
8 5/8"										
2,800.00	20.00	254.28	2,689.35	-185.82	-660.14	14,527,522.24	2,053,821.15	39° 59' 40.772 N	109° 31' 26.423 W	
2,875.58	20.00	254.28	2,760.38	-192.82	-685.03	14,527,514.82	2,053,796.38	39° 59' 40.702 N	109° 31' 26.743 W	
Start Drop -2.00										
2,900.00	19.51	254.28	2,783.36	-195.06	-692.97	14,527,512.45	2,053,788.48	39° 59' 40.680 N	109° 31' 26.845 W	
3,000.00	17.51	254.28	2,878.18	-203.66	-723.53	14,527,503.35	2,053,758.06	39° 59' 40.595 N	109° 31' 27.238 W	
3,100.00	15.51	254.28	2,974.05	-211.36	-750.89	14,527,495.19	2,053,730.84	39° 59' 40.519 N	109° 31' 27.590 W	
3,200.00	13.51	254.28	3,070.86	-218.15	-775.01	14,527,488.01	2,053,706.84	39° 59' 40.452 N	109° 31' 27.900 W	
3,300.00	11.51	254.28	3,168.48	-224.02	-795.86	14,527,481.79	2,053,686.08	39° 59' 40.394 N	109° 31' 28.168 W	
3,400.00	9.51	254.28	3,266.79	-228.96	-813.42	14,527,476.56	2,053,668.61	39° 59' 40.345 N	109° 31' 28.393 W	
3,500.00	7.51	254.28	3,365.69	-232.97	-827.67	14,527,472.31	2,053,654.43	39° 59' 40.305 N	109° 31' 28.576 W	
3,600.00	5.51	254.28	3,465.04	-236.04	-838.58	14,527,469.06	2,053,643.57	39° 59' 40.275 N	109° 31' 28.717 W	
3,700.00	3.51	254.28	3,564.72	-238.17	-846.16	14,527,466.80	2,053,636.03	39° 59' 40.254 N	109° 31' 28.814 W	
3,800.00	1.51	254.28	3,664.62	-239.36	-850.37	14,527,465.55	2,053,631.83	39° 59' 40.242 N	109° 31' 28.868 W	
3,875.58	0.00	0.00	3,740.19	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
Start 6054.81 hold at 3875.58 MD										
3,900.00	0.00	0.00	3,764.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,000.00	0.00	0.00	3,864.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,100.00	0.00	0.00	3,964.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,200.00	0.00	0.00	4,064.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,300.00	0.00	0.00	4,164.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,400.00	0.00	0.00	4,264.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,500.00	0.00	0.00	4,364.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,600.00	0.00	0.00	4,464.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,700.00	0.00	0.00	4,564.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,800.00	0.00	0.00	4,664.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,900.00	0.00	0.00	4,764.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
4,936.39	0.00	0.00	4,801.00	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
WASATCH										
5,000.00	0.00	0.00	4,864.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,100.00	0.00	0.00	4,964.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,200.00	0.00	0.00	5,064.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,300.00	0.00	0.00	5,164.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,400.00	0.00	0.00	5,264.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,500.00	0.00	0.00	5,364.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,600.00	0.00	0.00	5,464.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,700.00	0.00	0.00	5,564.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,800.00	0.00	0.00	5,664.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
5,900.00	0.00	0.00	5,764.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,000.00	0.00	0.00	5,864.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,100.00	0.00	0.00	5,964.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,200.00	0.00	0.00	6,064.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,300.00	0.00	0.00	6,164.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,400.00	0.00	0.00	6,264.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,500.00	0.00	0.00	6,364.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,600.00	0.00	0.00	6,464.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,700.00	0.00	0.00	6,564.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,800.00	0.00	0.00	6,664.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
6,900.00	0.00	0.00	6,764.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,000.00	0.00	0.00	6,864.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,100.00	0.00	0.00	6,964.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,200.00	0.00	0.00	7,064.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,300.00	0.00	0.00	7,164.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,400.00	0.00	0.00	7,264.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,500.00	0.00	0.00	7,364.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,600.00	0.00	0.00	7,464.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,669.39	0.00	0.00	7,534.00	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
MESAVERDE - NBU 921-35E1CS TOP OF CYLINDER										
7,700.00	0.00	0.00	7,564.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,800.00	0.00	0.00	7,664.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
7,900.00	0.00	0.00	7,764.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,000.00	0.00	0.00	7,864.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,100.00	0.00	0.00	7,964.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,200.00	0.00	0.00	8,064.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,300.00	0.00	0.00	8,164.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,400.00	0.00	0.00	8,264.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,500.00	0.00	0.00	8,364.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,600.00	0.00	0.00	8,464.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,700.00	0.00	0.00	8,564.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,800.00	0.00	0.00	8,664.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
8,900.00	0.00	0.00	8,764.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,000.00	0.00	0.00	8,864.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,100.00	0.00	0.00	8,964.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,200.00	0.00	0.00	9,064.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,300.00	0.00	0.00	9,164.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,400.00	0.00	0.00	9,264.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,500.00	0.00	0.00	9,364.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,600.00	0.00	0.00	9,464.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,700.00	0.00	0.00	9,564.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,800.00	0.00	0.00	9,664.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,900.00	0.00	0.00	9,764.61	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
9,930.39	0.00	0.00	9,795.00	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
TD at 9930.39 - NBU 921-35E1CS_PBHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
NBU 921-35E1CS TOP - hit/miss target - Shape	0.00	0.00	7,534.00	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	
NBU 921-35E1CS_PBH - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,795.00	-239.63	-851.33	14,527,465.26	2,053,630.88	39° 59' 40.240 N	109° 31' 28.880 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,748.54	2,641.00	8 5/8"	8.625	11.000		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,568.37	1,532.00	GREEN RIVER				
4,936.39	4,801.00	WASATCH				
7,669.39	7,534.00	MESAVERDE				

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ASSUMED)
Site:	NBU 921-35F2 Pad	North Reference:	True
Well:	NBU 921-35E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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
1,300.00	1,279.82	-46.81	-166.31	Start 1575.58 hold at 1300.00 MD
2,875.58	2,760.38	-192.82	-685.03	Start Drop -2.00
3,875.58	3,740.19	-239.63	-851.33	Start 6054.81 hold at 3875.58 MD
9,930.39	9,795.00	-239.63	-851.33	TD at 9930.39

NBU 921-35C4CS

Surface: 1,686' FNL 1,699' FWL (SE/4NW/4)
BHL: 1,187' FNL 2,148' FWL (NE/4NW/4)

NBU 921-35F1BS

Surface: 1,684' FNL 1,709' FWL (SE/4NW/4)
BHL: 1,531' FNL 2,146' FWL (SE/4NW/4)

NBU 921-35E2AS

Surface: 1,688' FNL 1,689' FWL (SE/4NW/4)
BHL: 1,498' FNL 535' FWL (SW/4NW/4)

NBU 921-35E1CS

Surface: 1,691' FNL 1,679' FWL (SE/4NW/4)
BHL: 1,933' FNL 826' FWL (SW/4NW/4)

Pad: NBU 921-35F2
Section 35 T9S R21E
Mineral Lease: UO 01194 ST

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

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

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 roads and improved/unimproved lease roads. APC/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 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.

Where roads 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.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, 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 443. This well location is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of November 11, 2010.

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

Production facilities will be installed on the disturbed portion of each 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) aboveground 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.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM.

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 $\pm 1,290'$ and the individual segments are broken up as follows:

$\pm 660'$ (0.1 miles) –New 6" buried gas pipeline from the meter to the edge of the pad.

$\pm 630'$ (0.1 miles) –New 6" buried gas pipeline from the edge of pad to the NBU 921-35F4 pad intersection.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,290'$ and the individual segments are broken up as follows:

- $\pm 660'$ (0.1 miles) –New 6” buried liquid pipeline from the separator to the edge of the pad.
- $\pm 630'$ (0.1 miles) –New 6” buried liquid pipeline from the edge of pad to the NBU 921-35F4 pad intersection.

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. Kerr-McGee 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, Kerr-McGee requests a temporary 45' construction right-of-way and 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, ownership, and 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 of 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

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud 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 released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate 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 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).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner

will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare 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 work at a well location.

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, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

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, 1983 (NAD83) 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 are not limited to: 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 APC/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

K. Other Information:

None

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

Danielle Piernot
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

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.


Danielle Piernot

November 19, 2010
Date



Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
DENVER, CO 80217-3779

October 25, 2010

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 921-35E1CS
T9S-R21E
Section 35: SENW (Surf), SWNW (Bottom)
Surface: 1691' FNL, 1679' FWL
Bottom Hole: 1933' FNL, 826' FWL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 921-35E1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink that reads 'Joe Matney'.

Joe Matney
Sr. Staff Landman

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)

November 19, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 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 2010 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
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(Proposed PZ WASATCH-MESA VERDE)

NBU 921-35A Pad

43-047-51339	NBU 921-35A1BS	Sec 35 T09S R21E 0522 FNL 0455 FEL
	BHL	Sec 35 T09S R21E 0327 FNL 0499 FEL

43-047-51340	NBU 921-35A4CS	Sec 35 T09S R21E 0524 FNL 0445 FEL
	BHL	Sec 35 T09S R21E 1079 FNL 0494 FEL

43-047-51341	NBU 921-35B1BS	Sec 35 T09S R21E 0518 FNL 0474 FEL
	BHL	Sec 35 T09S R21E 0257 FNL 1813 FEL

43-047-51342	NBU 921-35B4BS	Sec 35 T09S R21E 0520 FNL 0464 FEL
	BHL	Sec 35 T09S R21E 0916 FNL 1817 FEL

NBU 921-35B Pad

43-047-51343	NBU 921-35B1CS	Sec 35 T09S R21E 0468 FNL 2339 FEL
	BHL	Sec 35 T09S R21E 0582 FNL 1816 FEL

43-047-51344	NBU 921-35B4CS	Sec 35 T09S R21E 0488 FNL 2340 FEL
	BHL	Sec 35 T09S R21E 1249 FNL 1818 FEL

43-047-51345	NBU 921-35C1BS	Sec 35 T09S R21E 0458 FNL 2338 FEL
	BHL	Sec 35 T09S R21E 0207 FNL 2154 FWL

43-047-51346	NBU 921-35C4BS	Sec 35 T09S R21E 0478 FNL 2339 FEL
	BHL	Sec 35 T09S R21E 0860 FNL 2144 FWL

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-35C Pad

43-047-51347 NBU 921-35C1CS Sec 35 T09S R21E 0399 FNL 1591 FWL
 BHL Sec 35 T09S R21E 0522 FNL 2147 FWL

43-047-51348 NBU 921-35D1BS Sec 35 T09S R21E 0389 FNL 1592 FWL
 BHL Sec 35 T09S R21E 0089 FNL 0831 FWL

43-047-51349 NBU 921-35D1CS Sec 35 T09S R21E 0409 FNL 1589 FWL
 BHL Sec 35 T09S R21E 0488 FNL 0823 FWL

43-047-51350 NBU 921-35D4CS Sec 35 T09S R21E 0418 FNL 1588 FWL
 BHL Sec 35 T09S R21E 1182 FNL 0818 FWL

NBU 921-35F2 Pad

43-047-51351 NBU 921-35C4CS Sec 35 T09S R21E 1686 FNL 1699 FWL
 BHL Sec 35 T09S R21E 1187 FNL 2148 FWL

43-047-51352 NBU 921-35E1CS Sec 35 T09S R21E 1691 FNL 1679 FWL
 BHL Sec 35 T09S R21E 1933 FNL 0826 FWL

43-047-51353 NBU 921-35E2AS Sec 35 T09S R21E 1688 FNL 1689 FWL
 BHL Sec 35 T09S R21E 1498 FNL 0535 FWL

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

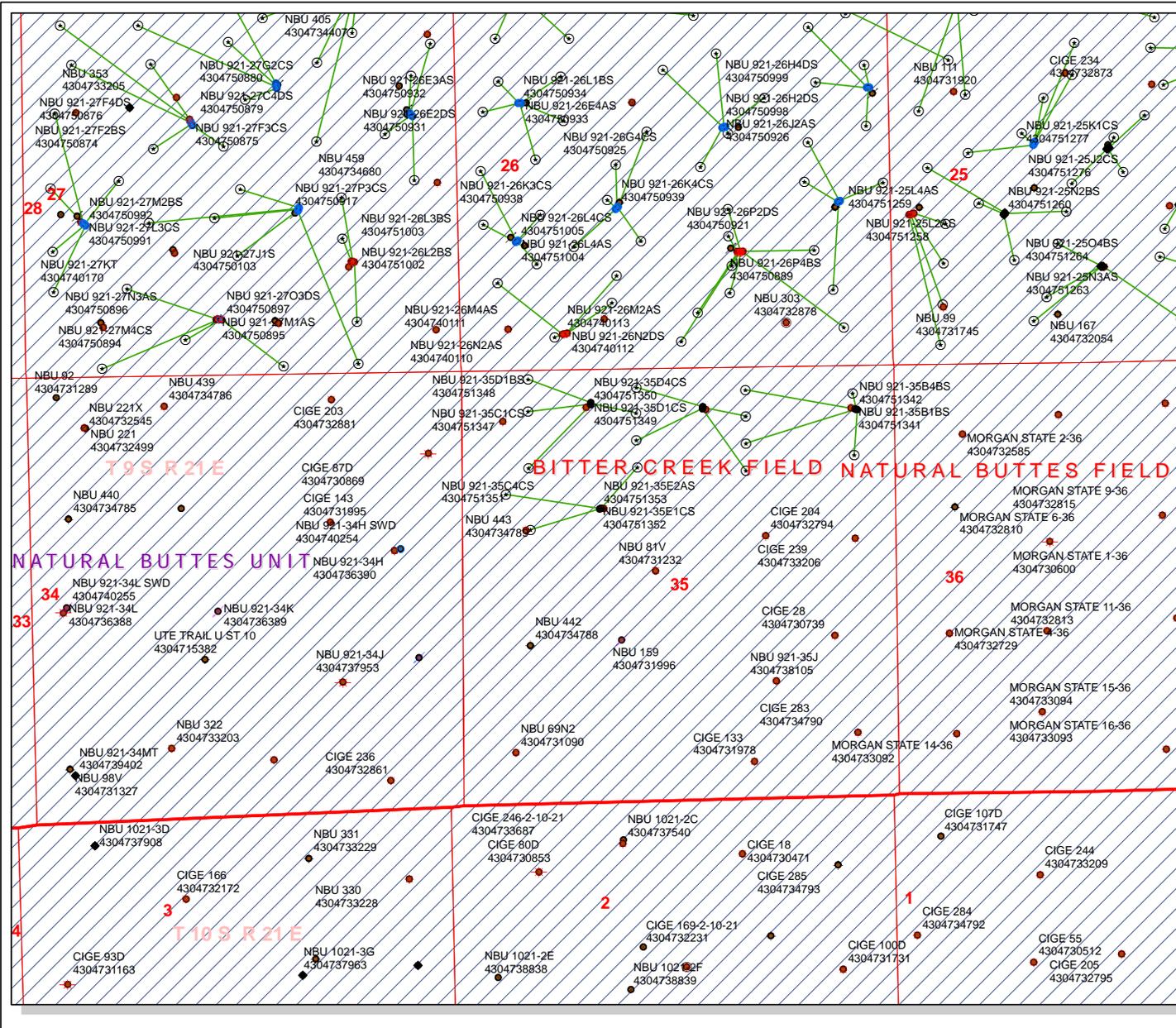
Michael L. Coulthard  Digitally signed by Michael L. Coulthard
 DN: cn=Michael L. Coulthard, o=Bureau of Land Management,
 ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
 Date: 2010.11.19 09:52:13 -07'00'

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

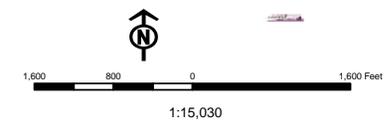
MCoulthard:mc:11-19-10

API Number: 4304751352
Well Name: NBU 921-35E1CS
Township 09.0 S Range 21.0 E Section 35
Meridian: SLBM
Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason



- | | |
|-----------------------------|---------------------------------------|
| Units | Wells Query |
| STATUS | ✕ <all other values> |
| ACTIVE | ◆ APD - Approved Permit |
| EXPLORATORY | ⊕ DRIL - Spudded (Drilling Commenced) |
| GAS STORAGE | ⊕ LOC - New Location |
| NF PP OIL | ⊕ GIW - Gas Injection |
| NF SECONDARY | ⊕ GS - Gas Storage |
| PI OIL | ⊕ LA - Location Abandoned |
| PP GAS | ⊕ LDC - Plugged Abandoned |
| PP GEOTHERML | ⊕ OPS - Operation Suspended |
| PP OIL | ⊕ PA - Plugged Abandoned |
| SECONDARY | ⊕ PGW - Producing Gas Well |
| TERMINATED | ⊕ POW - Producing Oil Well |
| Fields | ⊕ RET - Returned APD |
| Sections | ⊕ SGW - Shut-in Gas Well |
| Township | ⊕ SOW - Shut-in Oil Well |
| Bottom Hole Location - AGRC | ⊕ TA - Temp. Abandoned |
| | ⊕ TW - Test Well |
| | ⊕ WDW - Water Disposal |
| | ⊕ WWI - Water Injection Well |
| | ⊕ WSW - Water Supply Well |



From: Jim Davis
To: Bonner, Ed; Hill, Brad; Mason, Diana
CC: Curry, Kristine; Danielle Piernot; Garrison, LaVonne; Hayden, Martha;...
Date: 12/22/2010 5:49 AM
Subject: Kerr McGee APD approvals in 9S 21E Sec 35
Attachments: KMG approvals 921-35 on 12.22.2010.xls

The following wells have been approved by SITLA under the following arch and paleo stipulations. This is a long list, so I'm attaching a spreadsheet with the same information.

A note on arch and paleo stipulations: Wells that have an arch note "non-significant site" do not need to be avoided or mitigated. Only those that say "needs to be avoided".

The paleo reports make recommendations for "spot paleo monitoring" or "full paleo monitoring". It is my understanding that Kerr McGee is taking these stipulations and doing full monitoring in either case, in an abundance of caution.

-Jim Davis

Well Name	API	Paleo Stipulations	Arch Stipulations
Kerr-McGee's NBU 921-35A1BS (U-07-MQ-1437b,i,p,s)		API #4304751339	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35A4CS (U-07-MQ-1437b,i,p,s)		API #4304751340	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35B1BS (U-07-MQ-1437b,i,p,s)		API #4304751341	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35B4BS (U-07-MQ-1437b,i,p,s)		API #4304751342	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35B1CS (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)		API #4304751343	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35B4CS (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)		API #4304751344	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35C1BS (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)		API #4304751345	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35C4BS (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)		API #4304751346	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35C1CS (U-07-MQ-1437b,i,p,s)		API #4304751347	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35D1BS (U-07-MQ-1437b,i,p,s)		API #4304751348	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35D1CS (U-07-MQ-1437b,i,p,s)		API #4304751349	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35D4CS (U-07-MQ-1437b,i,p,s)		API #4304751350	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35C4CS (U-07-MQ-1437b,i,p,s)		API #4304751351	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35E1CS (U-07-MQ-1437b,i,p,s)		API #4304751352	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35E2AS (U-07-MQ-1437b,i,p,s)		API #4304751353	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35F1BS (U-07-MQ-1437b,i,p,s)		API #4304751355	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35F4BS (U-07-MQ-1437b,i,p,s)		API #4304751356	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35F4CS (U-07-MQ-1437b,i,p,s)		API #4304751357	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K1BS		API #4304751358	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)

MQ-1437b,i,p,s)			
Kerr-McGee's NBU 921-35K1CS	API #4304751359	IPC 10-97 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35G1BS	API #4304751360	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G1CS	API #4304751361	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G4BS	API #4304751362	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G4CS	API #4304751363	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35J1S	API #4304751364	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35H1BS	API #4304751365	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H1CS	API #4304751366	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H4BS	API #4304751367	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H4CS	API #4304751368	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I1BS	API #4304751369	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I1CS	API #4304751370	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I4BS	API #4304751371	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I4CS	API #4304751372	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35J1CS	API #4304751373	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35J4BS	API #4304751374	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K4BS	API #4304751375	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K4CS	API #4304751376	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35N1BS	API #4304751377	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35N1CS	API #4304751378	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35E4CS	API #4304751379	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P4CS	API #4304751380	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P1CS	API #4304751381	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P1BS	API #4304751382	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35O4CS	API #4304751383	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35O4BS	API #4304751384	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35O1CS	API #4304751385	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35L1BS	API #4304751386	IPC 10-99 Spot Paleo Monitoring	

(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35O1BS	API #4304751387	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)		
Kerr-McGee's NBU 921-35N4CS	API #4304751388	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)		
Kerr-McGee's NBU 921-35L1CS	API #4304751389	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35L4CS	API #4304751390	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M1BS	API #4304751391	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M1CS	API #4304751392	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M4BS	API #4304751393	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M4CS	API #4304751394	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35N4BS	API #4304751395	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)		

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-35E1CS 430475135			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2351	9795		
Previous Shoe Setting Depth (TVD)	40	2351		
Max Mud Weight (ppg)	8.3	12.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5975	11.7		

Calculations	Surf String	8.625	"
Max BHP (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	1018	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	736	NO <input type="text" value="air drill"/>
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	501	NO <input type="text"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	510	NO <input type="text" value="Reasonable depth in area"/>
Required Casing/BOPE Test Pressure=		2351	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

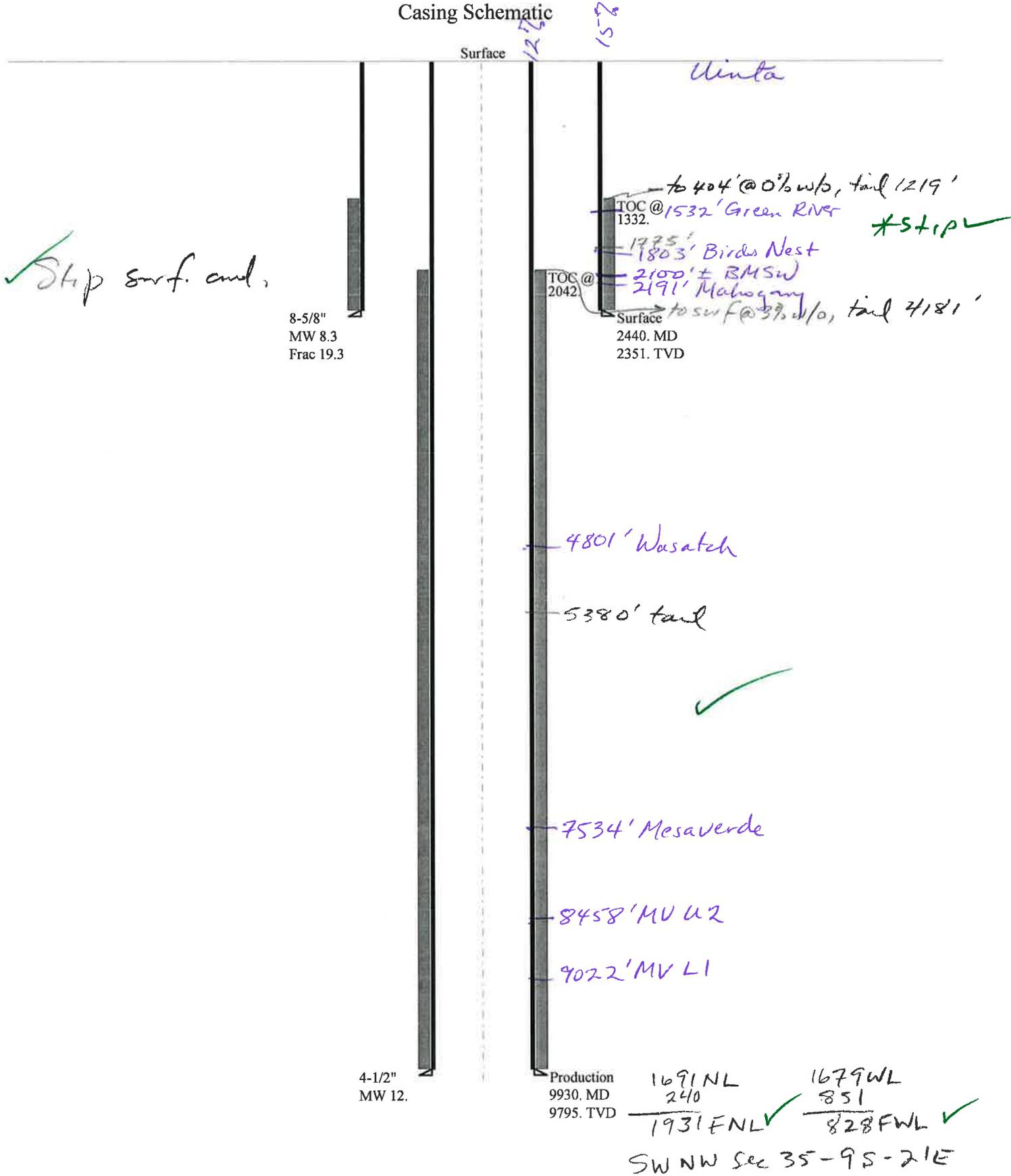
Calculations	Prod String	4.500	"
Max BHP (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	6112	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	4937	YES <input type="text"/>
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	3957	YES <input type="text" value="OK"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	4474	NO <input type="text" value="Reasonable"/>
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2351	psi *Assumes 1psi/ft frac gradient

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

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

43047513520000 NBU 921-35E1CS

Casing Schematic



Well name:	43047513520000 NBU 921-35E1CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-51352
Location:	UINTAH COUNTY		

Design parameters:

Collapse

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

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 107 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,332 ft

Burst

Max anticipated surface pressure: 2,147 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,429 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: 2,133 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 563 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 20 °

Re subsequent strings:

Next setting depth: 9,795 ft
Next mud weight: 12.000 ppg
Next setting BHP: 6,106 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,440 ft
Injection pressure: 2,440 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	2440	8.625	28.00	I-55	LT&C	2351	2440	7.892	96624
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	1017	1880	1.848	2429	3390	1.40	65.8	348	5.29 J

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

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

Date: December 30, 2010
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2351 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name:	43047513520000 NBU 921-35E1CS	
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.	
String type:	Production	Project ID: 43-047-51352
Location:	UINTAH COUNTY	

Design parameters:

Collapse

Mud weight: 12.000 ppg
Internal fluid density: 1.000 ppg

Burst

Max anticipated surface pressure: 3,951 psi
Internal gradient: 0.220 psi/ft
Calculated BHP: 6,106 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: 8,173 ft

Estimated cost: 130,030 (\$)

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 211 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 2,042 ft

Directional Info - Build & Drop

Kick-off point: 300 ft
Departure at shoe: 884 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	9800	4.5	11.60	I-80	LT&C	9665	9800	3.875	129360
1	130	4.5	11.60	HCP-110	Buttress	9795	9930	3.875	670

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	5523	6351	1.150	6077	7780	1.28	113.6	212	1.87 J
1	5597	8650	1.545	6106	10690	1.75	1.5	367.2	99.99 B

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

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

Date: December 30, 2010
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9795 ft, a mud weight of 12 ppg. An internal gradient of .052 psi/ft was used for collapse from TD to 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 921-35E1CS				
API Number	43047513520000	APD No	3166	Field/Unit	NATURAL BUTTES
Location: 1/4,1/4	SENW	Sec	35	Tw	9.0S
GPS Coord (UTM)	626211	4428058	Rng	21.0E	1691 FNL 1679 FWL
			Surface Owner		

Participants

See other comments:

Regional/Local Setting & Topography

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 37 air miles and 44.5 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs, furnishing water for antelope or livestock.

The NBU 921-35F2 pad will be enlarged to include four gas wells to be directionally drilled. They are the NBU 921-35F1BS, NBU 921-35C4CS, NBU 921-35E2AS and NBU 921-35E1CS. The pad extends a small existing pad containing the NBU 443 producing gas well in all directions except to the east. Terrain In the area is gentle and rolling. To obtain the needed fill for the enlarged pad the elevation at the well head will be cut. This cut however may be able to be reduced from the planned 3 feet to about 1 ½ feet. No drainages intersect the location and no diversions are needed. A major tributary of Sand Wash is about one mile to the east of the site and the White River about 3 miles down drainage. The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the only site in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

- Grazing
- Wildlife Habitat
- Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 352 Length 435	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation is a poor desert shrub type, which includes rabbit brush, Indian ricegrass, horsebrush, stipa commata, greasewood, broom snakeweed, shadscale and halogeton.

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Surface soils are a rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

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

Reserve Pit

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

Characteristics / Requirements

The proposed reserve pit is 120' x 260' x 12' deep located in a cut on the northwest corner of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner.

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

Other Observations / Comments

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Lovell Young, Grizz Oleen, Charles Chase, Colby Sutton, Doyle Holmes, Claudia Sass, (Kerr McGee), Mitch Batty, John Slaugh, (Timberline Engineering and Land Surveying), Jim Davis (SITLA) and Ben Williams, (UDWR).

Floyd Bartlett

11/30/2010

Evaluator

Date / Time

Application for Permit to Drill

Statement of Basis

1/5/2011

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
3166	43047513520000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 921-35E1CS		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	SEW 35 9S 21E S 1691 FNL 1679 FWL GPS Coord (UTM)			626207E	4428050N

Geologic Statement of Basis

Kerr McGee proposes to set 2,440' 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 2,100'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 35. The well is listed as 2,640 feet deep and used for drilling water. 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 should adequately protect. Any usable ground water.

Brad Hill
APD Evaluator

12/20/2010
Date / Time

Surface Statement of Basis

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 37 air miles and 44.5 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs, furnishing water for antelope or livestock.

The NBU 921-35F2 pad will be enlarged to include four gas wells to be directionally drilled. They are the NBU 921-35F1BS, NBU 921-35C4CS, NBU 921-35E2AS and NBU 921-35E1CS. The pad extends a small existing pad containing the NBU 443 producing gas well in all directions except to the east. Terrain in the area is gentle and rolling. To obtain the needed fill for the enlarged pad the elevation at the well head will be cut. This cut however may be able to be reduced from the planned 3 feet to about 1 ½ feet. No drainages intersect the location and no diversions are needed. A major tributary of Sand Wash is about one mile to the east of the site and the White River about 3 miles down drainage. The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the only site in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location excepted as covered above. SITLA provided a seed mix to be used when reclaiming the site.

Ben Williams represented the Utah Division of Wildlife Resources. Mr. Williams stated the area is classified as crucial yearlong antelope habitat but recommended no restrictions for this species. No other wildlife will be significantly affected.

Floyd Bartlett
Onsite Evaluator

11/30/2010
Date / Time

Application for Permit to Drill Statement of Basis

1/5/2011

Utah Division of Oil, Gas and Mining

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Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 11/18/2010

WELL NAME: NBU 921-35E1CS

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

CONTACT: Danielle Piernot

API NO. ASSIGNED: 43047513520000

PHONE NUMBER: 720 929-6156

PROPOSED LOCATION: SENW 35 090S 210E

SURFACE: 1691 FNL 1679 FWL

BOTTOM: 1933 FNL 0826 FWL

COUNTY: UINTAH

LATITUDE: 39.99510

UTM SURF EASTINGS: 626207.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UO 01194 ST

SURFACE OWNER: 3 - State

Permit Tech Review:

Engineering Review:

Geology Review:

LONGITUDE: -109.52164

NORTHINGS: 4428050.00

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE/FEE - 22013542
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 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: 460' Fr U Bdry & Uncommitted Tracts
- 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 - hmaconnald



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 921-35E1CS
API Well Number: 43047513520000
Lease Number: UO 01194 ST
Surface Owner: STATE
Approval Date: 1/5/2011

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 <https://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:

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

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

Reporting Requirements:

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

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

Approved By:



For John Rogers
Associate Director, Oil & Gas

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:
UO 01194 ST

SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 921-35E1CS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047513520000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779
PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL FOOTAGES AT SURFACE:
1691 FNL 1679 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SENW Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY:
UINTAH

STATE:
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"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 4/8/2011	<input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> APD EXTENSION OTHER: <input type="text"/>

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

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
RAN 14" 36.7# SCHEDULE PIPE. CMT W/28 SX READY MIX. SPUD WELL ON
04/08/2011 AT 9:30 AM.

NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/11/2011	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-35E1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047513520000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1691 FNL 1679 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 35 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: 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: 4/12/2011	<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.

MIRU AIR RIG ON APRIL 10, 2011. DRILLED 11" SURFACE HOLE TO 2600'.
 RAN 8 5/8" 28# IJ55 SURFACE CASING. CEMENTED SURFACE CASING. WELL
 IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

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

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/13/2011	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 921-35E1CS
Qtr/Qtr SENW Section 35 Township 9S Range 21E
Lease Serial Number UO-01194 ST
API Number 4304751352

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

Date/Time 04/08/2011 14:00 HRS AM PM

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

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

RECEIVED
APR 07 2011
DIV. OF OIL, GAS & MINING

Date/Time 04/21/2011 08:00 HRS AM PM

BOPE

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

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-35E1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047513520000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext
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11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 5/5/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input checked="" 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: 50px;" type="text"/>

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

The operator requests to change the total depth (TD) in the subject well location. TD will reside in the Blackhawk formation, which is in the Mesaverde group for this well. Please see attached drilling diagram for details.

Approved by the Utah Division of Oil, Gas and Mining

Date: 05/05/2011

By: *Derek Quist*

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 5/4/2011	

Well name:	43047513520000 NBU 921-35E1CS	
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.	
String type:	Production	Project ID: 43-047-51352
Location:	UINTAH COUNTY	

Design parameters:

Collapse

Mud weight: 13.000 ppg
Internal fluid density: 1.000 ppg

Minimum design factors:

Collapse:

Design factor 1.125

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 224 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Burst:

Design factor 1.00

Cement top:

968 ft → 4/28/10
Surface casing 2660'
✓ OK.

Burst

Max anticipated surface pressure: 4,875 psi
Internal gradient: 0.220 psi/ft
Calculated BHP: 7,230 psi

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: 885 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 0 °

No backup mud specified.

Tension is based on air weight.
Neutral point: 8,761 ft

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	10842	4.5	11.60	HCP-110	LT&C	10707	10842	3.875	52237
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	6674	8650	1.296 ✓	7230	10690	1.48 ✓	124.2	279	2.25 J ✓

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

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

Date: May 5, 2011
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 10707 ft, a mud weight of 13 ppg. An internal gradient of .052 psi/ft was used for collapse from TD. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

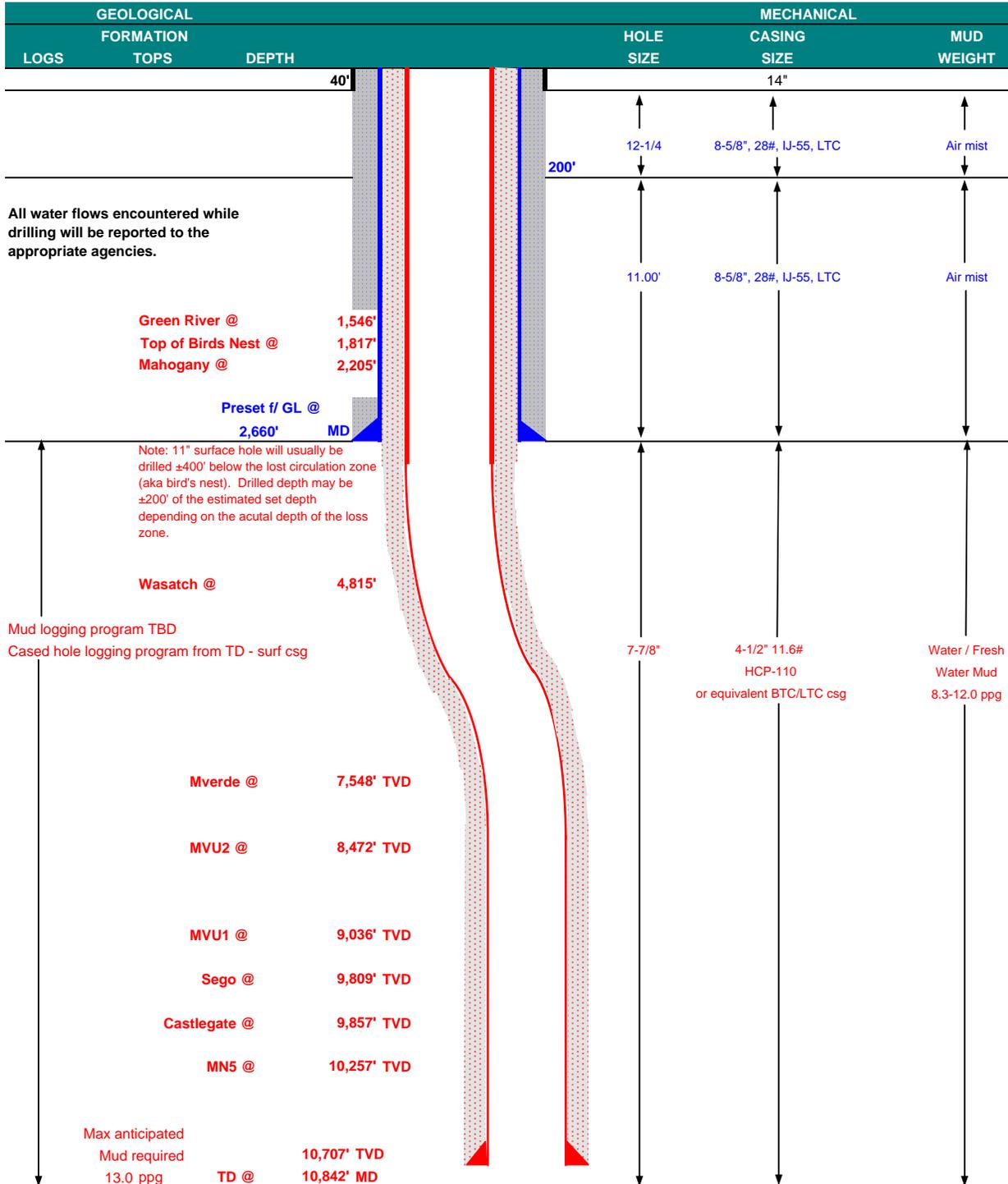
Engineering responsibility for use of this design will be that of the purchaser.

RECEIVED May. 04, 2011



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE May 5, 2011
 WELL NAME NBU 921-35E1CS TD 10,707' TVD 10,842' MD
 FIELD Natural Buttes COUNTY Uintah STATE Utah FINISHED ELEVATION 5,288'
 SURFACE LOCATION SENW 1691 FNL 1679 FWL Sec 35 T 9S R 21E
 Latitude: 39.995169 Longitude: -109.52165 NAD 27
 BTM HOLE LOCATION SWNW 1933 FNL 826 FWL Sec 35 T 9S R 21E
 Latitude: 39.994511 Longitude: -109.524689 NAD 27
 OBJECTIVE ZONE(S) Wasatch/Mesaverde
 ADDITIONAL INFO Regulatory Agencies: UDOGM (Minerals), SITLA (Surface), UDOGM Tri-County Health Dept.





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	BTC
								TENSION	
CONDUCTOR	14"	0-40'				3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,660	28.00	IJ-55	LTC	2.03	1.51	5.34	N/A
PRODUCTION	4-1/2"	0 to 10,842	11.60	HCP-110	LTC or BTC	10,690	8,650	279,000	367,000
						1.19	1.20	2.77	3.64

Surface Casing:

(Burst Assumptions: TD = 13.0 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 @ 9000 psi) 0.66 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	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1							
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	2,160'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	200	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	4,312'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	20%	11.00	3.38
	TAIL	6,530'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,540	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

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. No centralizers will be used.

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 / Emile Goodwin

DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

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

FORM 6

ENTITY ACTION FORM

Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078 Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751352	NBU 921-35E1CS		SEW	35	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	4/8/2011			4/25/11	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>W5MVD</i> SPUD WELL ON 04/08/2011 AT 9:30 AM. <i>BHL=SWNW</i>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751353	NBU 921-35E2AS		SEW	35	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	4/8/2011			4/25/11	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>W5MVD</i> SPUD WELL ON 04/08/2011 AT 11:00 AM. <i>BHL=SWNW</i>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751351	NBU 921-35C4CS		SEW	35	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	4/8/2011			4/25/11	
Comments: MIRU PETE MARTIN BUCKET RIG. SPUD WELL ON 04/08/2011 AT 1:00 PM. <i>BHL=NEW</i>							

ACTION CODES:

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

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

Title

Date

(5/2000)

RECEIVED

APR 11 2011

DIV. OF OIL, GAS & MINING

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# Ensign 139
Submitted By KENNY MORRIS Phone Number
435- 828-0984
Well Name/Number NBU-921-35E1CS
Qtr/Qtr SENW Section 35 Township 9S Range 21E
Lease Serial Number UO1194 ST
API Number 43047513520000

Casing – Time casing run starts, not cementing times.

- Production Casing
- Other

Date/Time 5/17/2011 18::00 AM PM

BOPE

- Initial BOPE test at surface casing point
- Other

Date/Time _____ AM PM

RECEIVED

MAY 16 2011

DIV OF OIL, GAS & MINING

Rig Move

Location To: _____

Date/Time _____ AM PM

Remarks WILL RUN CSG AND CEMENT TUESDAY EVENING
5/17/2011

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# Ensign 139
Submitted By KENNY MORRIS Phone Number
435- 828-0984
Well Name/Number NBU-921-35E1CS
Qtr/Qtr SENW Section 35 Township 9S Range 21E
Lease Serial Number UO1194 ST
API Number 43047513520000

Casing – Time casing run starts, not cementing times.

- Production Casing
- Other

Date/Time 5/17/2011 18::00 AM PM

BOPE

- Initial BOPE test at surface casing point
- Other

Date/Time _____ AM PM

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Remarks WILL RUN CSG AND CEMENT TUESDAY EVENING
5/17/2011

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Gas Well		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		8. WELL NAME and NUMBER: NBU 921-35E1CS
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		9. API NUMBER: 43047513520000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1691 FNL 1679 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 35 Township: 09.0S Range: 21.0E Meridian: S		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		COUNTY: UINTAH
STATE: UTAH		
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"/> SUBSEQUENT REPORT Date of Work Completion:	<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 style="width: 50px;" type="text"/>	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 5/18/2011		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2600' TO 10,840' ON MAY 16, 2011. RAN 4-1/2" 11.6# P110 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 139 ON MAY 18, 2011 @ 18:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 5/19/2011	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
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.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 921-35E1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047513520000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1691 FNL 1679 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 35 Township: 09.0S Range: 21.0E Meridian: S		COUNTY: UINTAH
		STATE: 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"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/5/2011	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <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"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input checked="" 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 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"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 08/05/2011 AT 2:00 PM. 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		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 8/11/2011

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		5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME UTU63047A
2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.		8. WELL NAME and NUMBER: NBU 921-35E1CS
3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217		9. API NUMBER: 4304751352
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: SEnw 1691 FNL 1679 FWL S35,T9S,R21E AT TOP PRODUCING INTERVAL REPORTED BELOW: SWNw 1897 FNL 813 FWL S35, T9S, R21E AT TOTAL DEPTH: SWNw 1950 FNL ⁸²⁶862 FWL S35, T9S, R21E		10 FIELD AND POOL, OR WILDCAT NATURAL BUTTES
14. DATE SPUDDED: 4/8/2011		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SEnw 35 9S 21E S
15. DATE T.D. REACHED: 5/16/2011		12. COUNTY UINTAH
16. DATE COMPLETED: 8/5/2011		13. STATE UTAH
18. TOTAL DEPTH: MD 10,840 TVD 10,698		17. ELEVATIONS (DF, RKB, RT, GL): 5105 GL
19. PLUG BACK T.D.: MD 10,779 TVD 10,637		20. IF MULTIPLE COMPLETIONS, HOW MANY? *
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) BHV-DSN/SD/ACTR-SCBL		21. DEPTH BRIDGE MD PLUG SET: TVD
23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis)		
WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report)		
DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (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#		40		28			
11	8 5/8" IJ-55	28#		2,587		900		0	
7 7/8"	4 1/2" P110	11.6#		10,821		1,638		1700	

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 3/8"	10,439							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A) MESAVERDE	7,804	10,646			7,804 10,646	0.36	195	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"/>

27. PERFORATION RECORD

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7804 - 10,646	PUMP 9,728 BBLS SLICK H2O & 226,191 LBS SAND

29. ENCLOSED ATTACHMENTS:

ELECTRICAL/MECHANICAL LOGS GEOLOGIC REPORT DST REPORT DIRECTIONAL SURVEY

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION CORE ANALYSIS OTHER: _____

30. WELL STATUS: **PROD**

RECEIVED

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 8/5/2011		TEST DATE: 8/10/2011		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 2,571	WATER - BBL: 600	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,748	CSG. PRESS. 2,526	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 2,571	WATER - BBL: 600	INTERVAL STATUS: PROD

INTERVAL B (As shown in Item #26)

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

INTERVAL C (As shown in Item #26)

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

INTERVAL D (As shown in Item #26)

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

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

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

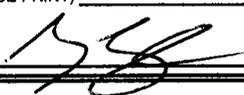
Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	1,609				
BIRD'S NEST	1,872				
MAHOGANY	2,453				
WASATCH	4,936	7,598			
MESAVERDE	7,598	10,840	TD		

34. FORMATION (Log) MARKERS:

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 1/4" bit. The remainder of surface hole was drilled with an 11" bit. 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) ANDREW LYTLETITLE REGULATORY ANALYSTSIGNATURE DATE 9/8/2011

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340

Fax: 801-359-3940

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35E1CS [RED]		Spud Conductor: 4/8/2011	Spud Date: 4/10/2011
Project: UTAH-UINTAH		Site: NBU 921-35F2 PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING		Start Date: 3/29/2011	End Date: 5/18/2011
Active Datum: RKB @5,119.00ft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
4/10/2011	4:00 - 15:00	11.00	MIRU	01	A	P		MOVE RIG AND EQUIPMENT ONTO LOCATION, DRESS TOP OF CONDUCTOR. INSTALL DIVERTER HEAD AND BOWIE LINE. BUILD DITCH. MOVE RIG OVER HOLE AND RIG UP.. SET CATWALK AND PIPE RACKS. RIG UP AND PRIME PIT PUMP AND MUD PUMP. P/U 1.83 DEG BENT HOUSING HUNTING MTR SN 8014 . 7/8 LOBE .17 RPM. M/U 12.25" Q507 SN 7133231 1ST RUN, W/ 7-18'S. INSTALL RUBBER SPUD SURFACE 04/10/2011 @ 21:00 HRS. DRILL 12.25" SURFACE HOLE F/40'-210' (170' @ 113'/HR) PSI ON/ OFF 690/410, UP/ DOWN/ ROT 27/22/25. 500 GPM, 45 RPM ON TOP DRIVE, 15-18K WOB TOO, PU AND ORIENT DIR TOOLS, TIH T/210' LD 12.25" BIT, PU 11" HUGHES, SN 7023549
	15:00 - 20:30	5.50	MIRU	01	B	P		
	20:30 - 21:00	0.50	PRSPD	01	B	P		
	21:00 - 22:30	1.50	DRLSUR	02	A	P		
4/11/2011	22:30 - 0:00	1.50	DRLSUR	06	A	P		DRILL/ SLIDE 11" SURFACE HOLE F/ 210'-2260' (2050' @ 85'/HR) PSI ON/ OFF 1300/1160, UP/ DOWN/ ROT 89/59/72. 136 SPM, 550 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE, CIRCULATING RESERVE PIT, LOST SURC @ 1790', DRLG W/ AIREATED WATER
4/11/2011	0:00 - 0:00	24.00	DRLSUR	02	C	P		
4/12/2011	0:00 - 5:15	5.25	DRLSUR	02	C	P		DRILL/ SLIDE 11" SURFACE HOLE F/ 2260'-2600' (62' @ 85'/HR) PSI ON/ OFF 1300/1160, UP/ DOWN/ ROT 90/62/76. 136 SPM, 550 GPM, 18-20K WOB, 45 RPM ON TOP DRIVE, CIRCULATING RESERVE PIT, LOST SURC @ 1790', DRLG W/ AIREATED WATER CURC AND COND HOLE CLEAN TOOH, LDDS AND DIR BHA RIG UP TO RUN 8.625" SURFACE CSG, MOVE PIPE RACKS AND CAT WALK, MOVE CSG OVER TO WORK AREA HELD SAFETY MEETING, RUN CSG. RAN 58JTS OF 8-5/8", 28#, J-55, 8 RND SURFACE CSG W/ LTC THREADS. LANDED FLOAT SHOE @ 2573.25' KB. RAN BAFFLE PLATE IN TOP OF SHOE JT LANDED 2527.54' KB. FILL CSG @ 500', 1500', AND 2570'. RELEASE RIG 04-12-2011 @ 17:00 HRS
	5:15 - 6:45	1.50	DRLSUR	05	F	P		
	6:45 - 10:30	3.75	DRLSUR	06	A	P		
	10:30 - 11:00	0.50	CSG	12	A	P		
	11:00 - 15:00	4.00	CSG	12	C	P		

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35E1CS [RED]		Spud Conductor: 4/8/2011		Spud Date: 4/10/2011	
Project: UTAH-UINTAH			Site: NBU 921-35F2 PAD		Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING			Start Date: 3/29/2011		End Date: 5/18/2011
Active Datum: RKB @5,119.00ft (above Mean Sea Level)			UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	15:00 - 23:00	8.00	CSG	12	E	P		<p>HOLD SAFETY MEETING. INSTALL CEMENT HEAD. PSI TEST TO 2000 PSI. PUMP 150 BBLs OF 8.3# H2O AHEAD. PUMP 20 BBLs OF 8.4# GEL WATER AHEAD. PUMP 300 SX (119 BBLs) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE). NO CIRC. DROP PLUG ON FLY AND DISPLACE W/157.8 BBLs OF 8.3# H2O. LIFT PRESSURE WAS 200 PSI, BUMP PLUG AND HOLD 600 PSI FOR 5 MIN. FLOAT HELD.</p> <p>TOP OUT, PUMP 150 SX (31 BBLs) OF 15.8# 1.15 YIELD TAIL(4 % CALC, 1/4# /SK OF FLOCELE) DOWN BACK SIDE, WAITED TW HRS, PUMPED 150 SX (31 BBLs)OF 15.8# 1.15 YIELD TAIL(4 % CALC, 1/4# /SK OF FLOCELE) DOWN BACK SIDE, WAITED TW HRS, PUMPED 150 SX (31 BBLs)OF 15.8# 1.15 YIELD TAIL(4 % CALC, 1/4# /SK OF FLOCELE) DOWN BACK SIDE, WAITED TW HRS, PUMPED 150 SX (31 BBLs)OF 15.8# 1.15 YIELD TAIL(4 % CALC, 1/4# /SK OF FLOCELE) DOWN BACK SIDE, CMT STAYED AT SURFACE. RIG DOWN CEMENTERS AND RELEASE CEMENTERS 23:00 HRS.</p> <p>CONDUCTOR CASING: Cond. Depth set: 40' Cement sx used: 28</p> <p>SPUD DATE/TIME: 04/10/2011 @ 21:00 HRS</p> <p>SURFACE HOLE: Surface From depth: 40' Surface To depth: 2,600 Total SURFACE hours: 29.5 Surface Casing size: 8.625" # of casing joints ran: 58 Casing set MD: 2573.25' # sx of cement: 200/600 Cement blend (ppg): 15.8/15.8 Cement yield (ft3/sk): 3.82/1.15/1.15 # of bbls to surface: 0 Describe cement issues: NONE Describe hole issues: NONE</p>
5/7/2011	16:00 - 0:00	8.00	DRLPRO	01	E	P		R/D & GET READY TO MOVE RIG
5/8/2011	0:00 - 7:00	7.00	DRLPRO	01	E	P		R/D GET READY F/ TRUCKS
	7:00 - 23:00	16.00	DRLPRO					HELD S/M RIG CREWS & JONES TRUCKING & MOVE RIG TO NBU-921-35E1CS HAD 2 FORKLIFTS-3 BED TRUCKS - 4 HAUL TRUCKS OFF LOC 01:30 & RAISE DERRICK @ 03:00 & CONT R.U.R.T
5/9/2011	23:00 - 0:00	1.00	DRLPRO	09	A	P		SLIP & CUT DRILL LINE
	0:00 - 1:30	1.50	DRLPRO	14	A	P		NIPPLE UP B.O.P'S & FLARE LINES
	1:30 - 5:30	4.00	DRLPRO	15	A	P		TEST B.O.P'S - PIPE - BLIND RAMS - 4" & 2" VALVES - HCR - CHOKE MAINFOLD 250 LOW 5000 HIGH - ANNULAR 250 LOW - 2500 HIGH & CASING 1500 PSI.
	5:30 - 6:00	0.50	DRLPRO	14	B	P		SET WEAR BUSHING
	6:00 - 6:30	0.50	DRLPRO	23		P		RIG INSPECTION

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35E1CS [RED] Spud Conductor: 4/8/2011 Spud Date: 4/10/2011
 Project: UTAH-UINTAH Site: NBU 921-35F2 PAD Rig Name No: ENSIGN 139/139, PROPETRO 11/11
 Event: DRILLING Start Date: 3/29/2011 End Date: 5/18/2011
 Active Datum: RKB @5,119.00ft (above Mean Sea Level) UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:30 - 12:30	6.00	DRLPRO	06	A	P		P/U BIT - MOTOR - DIR TOOLS - BHA & D.P & T.I.H & TAG CEMENT @ 2480
	12:30 - 14:30	2.00	DRLPRO	02	F	P		DRILL CEMENT & F.E
	14:30 - 0:00	9.50	DRLPRO	02	D	P		DIR DRILL F/ 2610 TO 3668 = 1058' ,AVG 111.3' FPH ,WOB16/ 20,RPM 42/115,STKS 104,GPM 510,PSI 1400/1750,TORG 3/7K,SLIDE 15 % , - MW 8.6 VIS 26,CIRC RES PIT
5/10/2011	0:00 - 11:30	11.50	DRLIN1	02	D	P		DIR DRILL F/ 3668 TO 5249 = 1581' ,AVG 137.4' FPH ,WOB16/ 20,RPM 42/115,STKS 104,GPM 510,PSI 1400/1750,TORG 3/7K,SLIDE 6 % , - MW 8.6 VIS 26,CIRC RES PIT
	11:30 - 12:00	0.50	DRLIN1	07	A	P		SER RIG
	12:00 - 0:00	12.00	DRLIN1	02	D	P		DIR DRILL F/ 5249 TO 6596 = 1347' ,AVG 112.25' FPH ,WOB16/ 20,RPM 42/115,STKS 104,GPM 510,PSI 1400/1750,TORG 3/7K,SLIDE 6% , - MW 8.6 VIS 26,CIRC RES PIT
5/11/2011	0:00 - 12:30	12.50	DRLPRO	02	D	P		DIR DRILL F/ 6596 TO 7511 =915' ,AVG 73' FPH ,WOB16/ 20,RPM 42/115,STKS 104,GPM 510,PSI 1650/1950,TORG 10/8K,SLIDE 2% 20',LT MUD UP @7000'
	12:30 - 13:00	0.50	DRLPRO	07	A	P		DAILY SERVICE,CHANGE TILT RAM ON BAILS
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DIR DRILL F/ 7511 TO 7970 =459' ,AVG 42' FPH ,WOB18/ 20,RPM 42/115,STKS 104,GPM 510,PSI 1650/1950,TORG 10/8K,SLIDE 5% ,
5/12/2011	0:00 - 10:00	10.00	DRLPRO	02	D	P		DIR DRILL F/ 7970 TO 8460=490' ,AVG 49' ,WOB 20,RPM 42/115,STKS 100,GPM 494,PSI 2050-2450,TORG 12/9K,SLIDE 7% ,
	10:00 - 10:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	10:30 - 0:00	13.50	DRLPRO	02	D	P		DIR DRILL F/8460 TO 9020=560' ,AVG 41' ,WOB 20,RPM 42/115,STKS 100,GPM 494,PSI 2050-2450,TORG 14/11K,SLIDE 5%,10' TO 20' FLARE ON CONN GAS,11.7/45,LT SEEPAGE
5/13/2011	0:00 - 11:00	11.00	DRLPRO	02	D	P		DIR DRILL F/9020 TO 9405=385' ,AVG 35' ,WOB 22,RPM 38/115,STKS 92,GPM 440,PSI 2050-2450,TORG 14/11K,SLIDE 0%,,12.0/44
	11:00 - 20:00	9.00	DRLPRO	06	A	P		FLOW CK OK,PUMP OUT 10 STNDS @280K TO 8709',PUMPPILL TOOH TO 4910' , UP REAM TO 4530' 2 HRS,TOOH L/D BHA #1
	20:00 - 0:00	4.00	DRLPRO	06	A	P		P/U BHA #2,SCRIBE TOOLS,TIH AND BREAK CIRC @1050,
5/14/2011	0:00 - 6:00	6.00	DRLPRO	06	A	P		TIH, WASH F/6220-6350,TIH TO BTM ,10 FILL,5' FLARE ON BTMS UP,6800 UNITS
	6:00 - 10:00	4.00	DRLPRO	02	D	P		DIR DRILL F/ 9405 TO 9685 =280' ,AVG 70' ,WOB 18,RPM 38/115,STKS 92,GPM 440,PSI 2050-2450,TORG 14/11K,SLIDE 0%,,12.2/44,CONN GAS 3050,BKGRND 600
	10:00 - 10:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	10:30 - 21:00	10.50	DRLPRO	02	D	P		DIR DRILL F/9685 TO 10140 =455' ,AVG 43' ,WOB 20,RPM 38/70,STKS 82,GPM 420,PSI 2050-2450,TORG 14/11K,SLIDE 0%,,12.4/44
	21:00 - 0:00	3.00	DRLPRO	22	G	S		10%LCM FOR 30 BBLS/HR SEEPAGE
5/15/2011	0:00 - 10:30	10.50	DRLPRO	22	G	S		LOST TOTAL RETURNS ,BUILD VOLUME RAISE LCM F/10% TO 25%,TRANSFER MUD FROM STORAGE,NO RETURNS,PUMP OUT TO 9100 AT MIDNITE,TOTAL LOST 400 BBLS
								TOOH TO REGAIN CIRC,6100',CIRC & BUILD VOLUME 12.2/45 30%,STAGE IN HOLE,CIRC 7500/8900 AND BTM,TOTAL LOST 460 BBL

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35E1CS [RED]	Spud Conductor: 4/8/2011	Spud Date: 4/10/2011
Project: UTAH-UJINTAH	Site: NBU 921-35F2 PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING	Start Date: 3/29/2011	End Date: 5/18/2011
Active Datum: RKB @5,119.00ft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	10:30 - 0:00	13.50	DRLPRO	02	D	P		DIR DRILL F/10140 TO 10570 =430 ',AVG 32 ',WOB 20,RPM 38/70,STKS 82,GPM 420,PSI 2050-2200,TORG 14/11K,SLIDE 0%,,12.3/44 28% LCM ,GAS 500BK,CONN 5450,HI 6100
5/16/2011	0:00 - 6:30	6.50	DRLPRO	02	D	P		DIR DRILL F/10570 TO TD 10840 =270 ',AVG 41 ',WOB 22,RPM 38/70,STKS 80,GPM 400,PSI 2150-2350,TORG 14/11K,SLIDE 0%,,12.3/44 28% LCM ,GAS 500BK,CONN 5450,HI 6100
	6:30 - 8:30	2.00	DRLPRO	05	C	P		FINAL SURVEY,,FLOW CHECK,CIRC BTMS UP F/SHORTTRIP TO SHOE,MW 12.4/44 26%LCM,BK GRND GAS 1400 UNITS
	8:30 - 9:00	0.50	DRLPRO	07	A	P		RIG SERVICE,CHANGE GRABBER DIES
	9:00 - 22:00	13.00	DRLPRO	06	E	P		PUMP OUT 8 STNDS @ 300K,PUMP DRY PILL,TOOH TO SHOE,TIGHT SPOT @5780-5680,CIRC AT SHOE,TIH,FILL @5056,8800,WASH 90' TO BTM
	22:00 - 23:00	1.00	DRLPRO	05	C	P		CIRC BTMS UP- 6800 UNITS 10' FLARE,STARTED TO CIRC SECOND BTMS UP WHEN TOPDRIVE & DW DOWN,STARTED LOSING CIRC ,30' OFF BTM
5/17/2011	23:00 - 0:00	1.00	DRLPRO	22	K	Z		WORK ON TOPDRIVE & DW ELECTRICAL
	0:00 - 4:00	4.00	DRLPRO	06	F	S		STAGE OUT,PUMP OUT OF HOLE TO 9050,BUILDING VOLUME WHILE TRIPPING
	4:00 - 6:30	2.50	DRLPRO	06	F	P		STAGE IN,TRIP IN TO 9860,10800,CIRC & CONDITION MUD,BUILD VOLUME
	6:30 - 7:00	0.50	DRLPRO	05	C	P		CIRC & CONDITION,TRANSFER MUD FOR VOLUME,MW 12.3/47 28%LCM
	7:00 - 15:00	8.00	DRLPRO	06	A	P		PUMP OUT 11 STNDS AT 300K,NO TIGHT HOLE, PULL WEARRING
	15:00 - 15:30	0.50	DRLPRO	14	B	P		
	15:30 - 22:30	7.00	EVALPR	11	D	P		SAFETY MT W/HALCO,R/U RUN TRIPLE COMBO TO LOGGERS DEPTH
	22:30 - 0:00	1.50	CSG	12	C	P		SAFETY MEET W/FRANKS,R/U RUN 4.5 P-110 11.6# BTC
5/18/2011	0:00 - 8:00	8.00	CSG	12	C	P		RUN 258 JTS 4.5" #11.6 P-110 BTC CSG TO SHOE DEPTH 10821',FC 10779',MARKERS@7654' & 4807, CIRC BTMS UP 5' FLARE 10 MIN
	8:00 - 10:00	2.00	CSG	05	D	P		
	10:00 - 13:00	3.00	CSG	12	E	P		PUMP 40 BBLS SPACER,496SX LEAD #12.3 2.12 YLD,1142SX TAIL #14.3 1.31 YLD ,DISPLACE 167BBLS CLAYFIX,FINALLIFT 2900 PSI,BUMPLUG 500 OVER,FLOATSHELD,10 BBLS SPACER TO RES,2 BBL TO TRUCK,PARTIAL RETURNS AT END OF DISPLACEMENT
	13:00 - 14:00	1.00	CSG	14	A	P		SET C-22 SLIPS ON CSG @ 110K,NDBOP,RUFF-CUT CSG
	14:00 - 18:00	4.00	RDMO	01	E	P		CLEAN PITS,PREP F/SKID,RIG RELEASE@ 18:00PM 5/18/2011 TO 921-35E2AS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35E1CS [RED] Spud Conductor: 4/8/2011 Spud Date: 4/10/2011
 Project: UTAH-UINTAH Site: NBU 921-35F2 PAD Rig Name No: ENSIGN 139/139, PROPETRO 11/11
 Event: DRILLING Start Date: 3/29/2011 End Date: 5/18/2011
 Active Datum: RKB @5,119.00ft (above Mean Sea Level) UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:00 - 18:00	0.00	RDMO					CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28 SPUD DATE/TIME: 4/10/2011 21:00 SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,600 Total SURFACE hours: 29.50 Surface Casing size: 8 5/8 # of casing joints ran: 58 Casing set MD: 2,573.3 # sx of cement: 800 Cement blend (ppg): 15.8 Cement yield (ft3/sk): 1.15 # of bbls to surface: Describe cement issues: NA Describe hole issues: NA PRODUCTION: Rig Move/Skid start date/time: 5/8/2011 7:00 Rig Move/Skid finish date/time: 5/8/2011 23:00 Total MOVE hours: 16.0 Prod Rig Spud date/time: 5/9/2011 14:30 Rig Release date/time: 5/18/2011 18:00 Total SPUD to RR hours: 219.5 Planned depth MD 10,848 Planned depth TVD 10,707 Actual MD: 10,840 Actual TVD: 10,698 Open Wells \$: AFE \$: Open wells \$/ft: PRODUCTION HOLE: Prod. From depth: 2,610 Prod. To depth: 10,840 Total PROD hours: 125.5 Log Depth: 10816 Float Collar Top Depth: 10779 Production Casing size: 4 1/2 # of casing joints ran: 258 Casing set MD: 10,821.0 Stage 1 # sx of cement: 496 LEAD 1142 TAIL Cement density (ppg): 12.3/14.3 Cement yield (ft3/sk): 2.12/1.31 Stage 2 # sx of cement: Cement density (ppg): Cement yield (ft3/sk): Top Out Cmt # sx of cement: Cement density (ppg): Cement yield (ft3/sk): Est. TOC (Lead & Tail) or 2 Stage : 4450/700 Describe cement issues: PARTIAL RETURNS Describe hole issues: LOST RETURNS@10140,30%LCM DIRECTIONAL INFO: KOP: 260 Max angle: 23.57@2133'

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35E1CS [RED]		Spud Conductor: 4/8/2011		Spud Date: 4/10/2011				
Project: UTAH-UINTAH		Site: NBU 921-35F2 PAD		Rig Name No: ENSIGN 139/139, PROPETRO 11/11				
Event: DRILLING		Start Date: 3/29/2011		End Date: 5/18/2011				
Active Datum: RKB @5,119.00ft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
								Departure: 903@4237'
								Max dogleg MD: 3.44@3694'

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 921-35E1CS [RED]		
Common Name	NBU 921-35E1CS		
Well Name	NBU 921-35E1CS	Wellbore No.	OH
Report No.	1	Report Date	7/18/2011
Project	UTAH-UINTAH	Site	NBU 921-35F2 PAD
Rig Name/No.		Event	COMPLETION
Start Date	7/22/2011	End Date	8/5/2011
Spud Date	4/10/2011	Active Datum	RKB @5,119.00ft (above Mean Sea Level)
UWI	SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0		

1.3 General

Contractor	CUTTERS WIRELINE	Job Method	PERFORATE	Supervisor	KEN WARREN
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

Fluid Type		Fluid Density		Gross Interval	7,804.0 (ft)-10,646.0 (ft)	Start Date/Time	7/25/2011 12:00AM
Surface Press		Estimate Res Press		No. of Intervals	33	End Date/Time	7/25/2011 12:00AM
TVD Fluid Top		Fluid Head		Total Shots	195	Net Perforation Interval	57.00 (ft)
Hydrostatic Press		Press Difference		Avg Shot Density	3.42 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL					Final Press Date	

1.5 Summary

2 Intervals

2.1 Perforated Interval

Date	Formation/Reservoir	CCL@ (ft)	CCL-T S (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	MESAVERDE/			7,804.0	7,806.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO	
														N	

2.1 Perforated Interval (Continued)

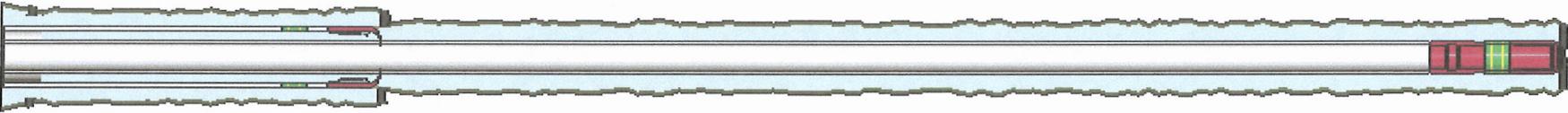
Date	Formation/ Reservoir	CCL@ (ft)	CCL-T S (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	MESAVERDE/			7,924.0	7,926.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			7,982.0	7,984.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,146.0	8,148.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,176.0	8,178.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,236.0	8,238.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,300.0	8,301.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,322.0	8,323.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,346.0	8,348.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,400.0	8,402.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,416.0	8,417.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,504.0	8,506.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,580.0	8,582.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,693.0	8,696.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,901.0	8,902.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			8,990.0	8,992.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			9,088.0	9,090.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			9,112.0	9,113.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			9,130.0	9,131.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			9,496.0	9,497.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			9,706.0	9,708.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			9,784.0	9,787.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (ft)	CCL-T S (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	MESAVERDE/			9,880.0	9,882.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,468.0	10,470.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,496.0	10,498.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,505.0	10,506.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,512.0	10,514.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,540.0	10,541.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,608.0	10,610.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,620.0	10,622.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,625.0	10,626.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,628.0	10,629.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/			10,644.0	10,646.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35E1CS [RED]	Spud Conductor: 4/8/2011	Spud Date: 4/10/2011
Project: UTAH-UINTAH	Site: NBU 921-35F2 PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 7/22/2011	End Date: 8/5/2011
Active Datum: RKB @5,119.00ft (above Mean Sea Level)	UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
7/22/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, PRESSURE TESTING
	7:15 - 15:00	7.75	COMP	47	B	P		MIRU B&C TESTERS, P/T CSG & FRAC VALVES TO 1000# W/ 23# LOSS IN 15 MIN. BUMP PRESSURE UP TO 3500# W/ 35# LOSS IN 15 MIN. BUMP PRESSURE UP TO 9000# W/ 149# LOSS IN 30 MIN, BUMP BACK UP TO 9000# W/ 35# LOSS IN 30 MIN. [GOOD TEST]
7/25/2011	7:00 - 7:45	0.75	COMP	48		P		MIRU CASED HOLE SOLUTIONS 1ST SHOOT LOWER MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE, AS PERSAY IN DESIGN. SWIFN. HSM, REVIEW PRE FRAC DESIGN. SET POP OFFS
	7:45 - 7:45	0.00	COMP	36	E	P		FRAC STG #1] WHP=2,005#, BRK DN PERFS=4,343#, @=4.8 BPM, INJ RT=50.1, INJ PSI=6,907#, ISIP=3,610#, FG=78, PUMP'D 2,303 BBLS SLK WTR W/ 54,807# TLC TOTAL PROP PUMP'D, ISIP=3,886#, FG=.80, AR=48.7, AP=6,863#, MR=50.3, MP=7,908#, NPI=276#, 22/26 86% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=10,571', PERF LOWER MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #2] WHP=3,270#, BRK DN PERFS=4,399#, @=4.3 BPM, INJ RT=50.3, INJ PSI=6,907#, ISIP=3,658#, FG=79, PUMP'D 3,213 BBLS SLK WTR W/ 96,444# 30/50 MESH TOTAL PROP PUMP'D, ISIP=4,041#, FG=.82, AR=50.2, AP=7,129#, MR=51, MP=8,978#, NPI=383#, 23/26 88% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,912', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN.
7/26/2011	6:45 - 7:00	0.25	COMP	48		P		HSM, HIGH PRESSURE & WIRELINE

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35E1CS [RED]	Spud Conductor: 4/8/2011	Spud Date: 4/10/2011
Project: UTAH-UINTAH	Site: NBU 921-35F2 PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 7/22/2011	End Date: 8/5/2011
Active Datum: RKB @5,119.00ft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 18:00	11.00	COMP	36	E	P		<p>FRAC STG #3] WHP=1,969#, BRK DN PERFS=3,557#, @=4.7 BPM, INJ RT=39.3, INJ PSI=5,771#, ISIP=2,620#, FG=.71, PUMP'D 653 BBLS SLK WTR W/ 10,873# 30/50 MESH TOTAL PROP PUMP'D, ISIP=3,022#, FG=.75, AR=48.8, AP=5,886#, MR=50.6, MP=6,218#, NPI=402#, 15/24 64% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,161', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #4] WHP=1,604#, BRK DN PERFS=3,451#, @=4.8 BPM, INJ RT=40.7, INJ PSI=5,361#, ISIP=2,784#, FG=.75, PUMP'D 857 BBLS SLK WTR W/ 16,109# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,914#, FG=.76, AR=49.7, AP=5,771#, MR=50.8, MP=6,242#, NPI=130#, 19/24 78% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,726', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #5] WHP=1,554#, BRK DN PERFS=3,075#, @=4.8 BPM, INJ RT=28.5, INJ PSI=5,964#, ISIP=2,211#, FG=.70, PUMP'D 653 BBLS SLK WTR W/ 11,145# 30/50 MESH TOTAL PROP PUMP'D, ISIP=3,110#, FG=.80, AR=31.3, AP=6,395#, MR=34, MP=6,694#, NPI=899#, 14/23 60% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,447', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #6] WHP=1,754#, BRK DN PERFS=4,629#, @=4.8 BPM, INJ RT=37.3, INJ PSI=5,589#, ISIP=2,283#, FG=.71, PUMP'D 639 BBLS SLK WTR W/ 11,239# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,647#, FG=.76, AR=47.8, AP=5,616#, MR=50.8, MP=6,324#, NPI=364# 14/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE SWIFN HSM, FRACING</p>
7/27/2011	7:00 - 7:15	0.25	COMP	48		P		

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35E1CS [RED]		Spud Conductor: 4/8/2011	Spud Date: 4/10/2011
Project: UTAH-UINTAH		Site: NBU 921-35F2 PAD	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 7/22/2011	End Date: 8/5/2011
Active Datum: RKB @5,119.00ft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 7:15	0.00	COMP	36	E	P		<p>PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,268', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #7] WHP=1,510#, BRK DN PERFS=3,212#, @=4.5 BPM, INJ RT=50, INJ PSI=5,330#, ISIP=2,130#, FG=.70, PUMP'D 715 BBLs SLK WTR W/ 12,151# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,688#, FG=.77, AR=50.4, AP=4,921#, MR=50.6, MP=5,571#, NPI=558#, 20/24 85% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>SUCTION ON PUMP BROKE OFF CAUSING PUMP LINE TO JUMP & CRACK SHUT DOWN [INJURIES] TOOK PUMP OFF LINE CAP'T MISSLE FLUSHED WELL</p> <p>PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,014', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #8] WHP=1,2265#, BRK DN PERFS=2,872#, @=5.8 BPM, INJ RT=31.1, INJ PSI=4,539#, ISIP=2,078#, FG=.70, PUMP'D 696 BBLs SLK WTR W/ 13,423# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,455#, FG=.75, AR=43, AP=6,017#, MR=44.3, MP=6,489#, NPI=377#, 14/24 60% CALC PERFS OPEN.</p> <p>P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=7,745'</p> <p>9,728 TOTAL BBLs PUMP'D 226,191# TOTAL SAND PUMP'D 1,006 GALS SCALE INHIB 187 GALS BIO</p>
8/4/2011	9:30 - 17:00	7.50	COMP	31	I	P		<p>MIRU, ND WH, NU 10K BOP, RU FLOOR & TBG EQUIP, SPOT TBG TRAILER, PU 3 7/8" BIT, POBS, XN SN, TALLY & PU TBG TO 7,740', RU POWER SWIVEL, FILL TBG BREAK CIRC, PRESS TEST BOP TO 3,000 PSI FOR 15 MIN, LOST 0 PSI, READY FOR D/O IN AM, SWI, SDFN.</p> <p>HSM, SLIPS, TRIPS & FALLS, LANDING TBG.</p>
8/5/2011	7:00 - 7:15	0.25	COMP	48		P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35E1CS [RED]	Spud Conductor: 4/8/2011	Spud Date: 4/10/2011
Project: UTAH-UINTAH	Site: NBU 921-35F2 PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 7/22/2011	End Date: 8/5/2011
Active Datum: RKB @5,119.00ft (above Mean Sea Level)	UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 17:00	9.75	COMP	44	C	P		<p>OPEN WELL, START DRLG PLUGS, SURFACE CSG VALVE OPEN & LOCKED.</p> <p>C/O 35' SAND, TAG 1ST PLUG @ 7,765' DRL PLUG IN 8 MIN. 700 PSI INCREASE RIH, CSG PRESS 50 PSI.</p> <p>C/O 30' SAND, TAG 2ND PLUG @ 8,014' DRL PLUG IN 10 MIN. 500 PSI INCREASE RIH, CSG PRESS 100 PSI.</p> <p>C/O 25' SAND, TAG 3RD PLUG @ 8,268' DRL PLUG IN 6 MIN. 500 PSI INCREASE RIH, CSG PRESS 125 PSI.</p> <p>C/O 30' SAND, TAG 4TH PLUG @ 8,448' DRL PLUG IN 9 MIN. 400 PSI INCREASE RIH, CSG PRESS 150 PSI.</p> <p>C/O 70' SAND, TAG 5TH PLUG @ 8,730' DRL PLUG IN 7 MIN. 300 PSI INCREASE RIH, CSG PRESS 250 PSI.</p> <p>C/O 30' SAND, TAG 6TH PLUG @ 9,161' DRL PLUG IN 6 MIN. 400 PSI INCREASE RIH, CSG PRESS 450 PSI.</p> <p>C/O 30' SAND, TAG 7TH PLUG @ 9,918' DRL PLUG IN 9 MIN. 300 PSI INCREASE RIH, CSG PRESS 350 PSI.</p> <p>C/O 15' SAND, TAG 8TH PLUG @ 10,565' DRL PLUG IN 8 MIN. 300 PSI INCREASE RIH, CSG PRESS 450 PSI.</p> <p>PBTD @ 10,777', BTM PERF @ 10,646', RIH TAG @ 10,675', C/O FROM 10,675' TO 10,760', 114' PAST BTM PERF W/ 339 JTS 2 3/8" L-80 TBG, LD 10 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 329 JTS 2 3/8" L-80, EOT 10,438.63'.</p> <p>RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 3,100 PSI, LET BIT FALL FOR 20 MIN.</p> <p>TURN OVER TO FLOW BACK CREW, RD & ROAD RIG TO NBU 922-18K PAD, SDFWE.</p> <p>KB= 14' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 343 JTS 329 JTS 2 3/8" L-80 = 10,421.60' TBG USED 329 JTS POBS= 2.20' TBG RETURNED 14 JTS EOT @ 10,438.63'</p> <p>TWTR= 9,728 BBLS TWR= 1,700 BBLS TWLTR= 8,028 BBLS CALLED CDC TALKED TO JUSTIN</p>
	14:00 - 14:00	0.00	PROD	50				<p>WELL TURNED TO SALES @ 1400 HR ON 8/5/11 - 1500 MCFD, 1920 BWPD, CP 2700#, FTP 2200#, CK 20/64"</p>

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35E1CS [RED]	Spud Conductor: 4/8/2011	Spud Date: 4/10/2011
Project: UTAH-UIINTAH	Site: NBU 921-35F2 PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 7/22/2011	End Date: 8/5/2011
Active Datum: RKB @5,119.00ft (above Mean Sea Level)	UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1691/W/0/1679/0/0	

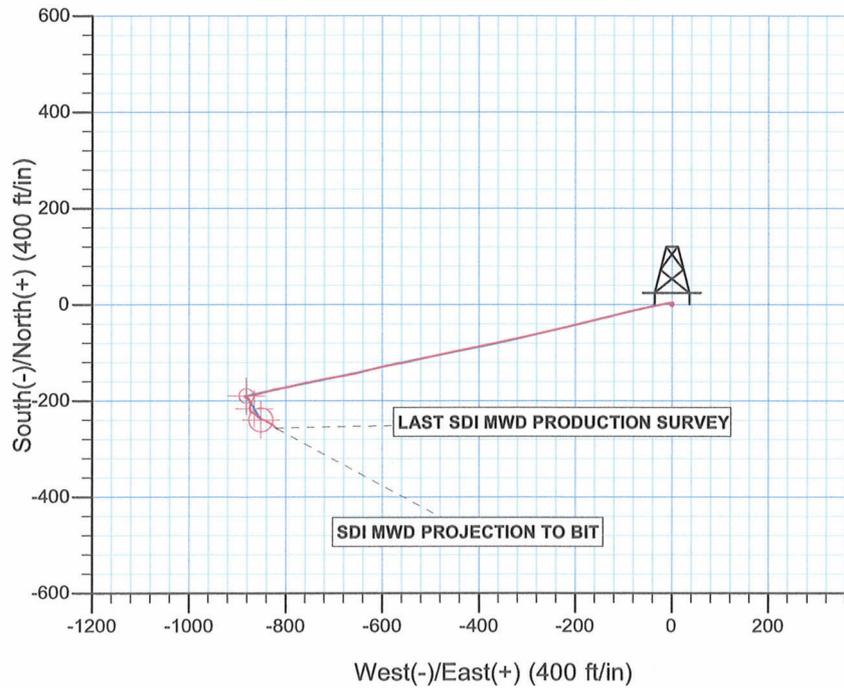
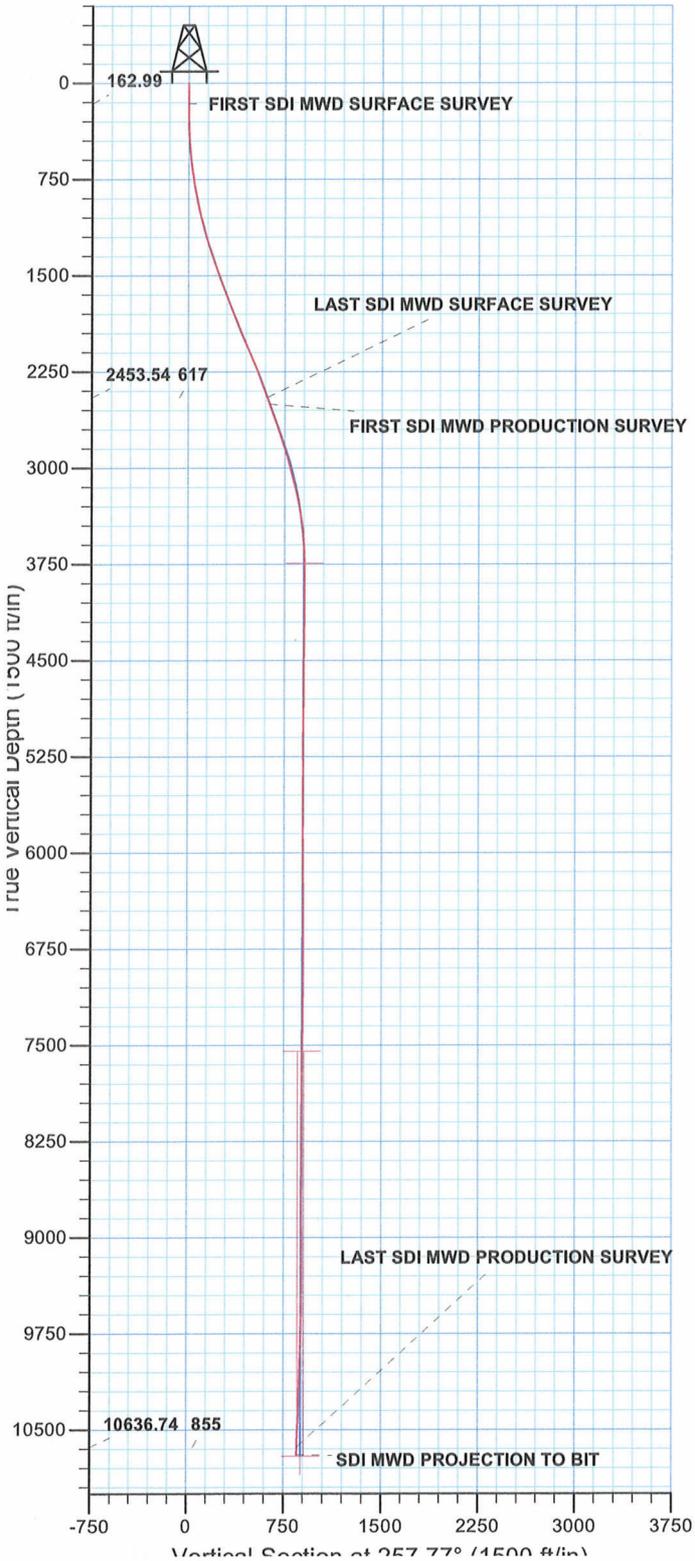
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/6/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 3350#, TP 2350#, 20/64" CK, 50 BWPH, HVY SAND, - GAS TTL BBLS RECOVERED: 2680 BBLS LEFT TO RECOVER: 7048
8/7/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 3300#, TP 2300#, 20/64" CK, 40 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 3746 BBLS LEFT TO RECOVER: 5982
8/8/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 3000#, TP 2100#, 20/64" CK, 32 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 4595 BBLS LEFT TO RECOVER: 5133
8/9/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2650#, TP 1850#, 20/64" CK, 25 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 5264 BBLS LEFT TO RECOVER: 4464
8/10/2011	7:00 -			50				WELL IP'D ON 8/10/11 - 2571 MCFD, 0 BOPD, 600 BWPD, CP 2526#, FTP 1748#, CK 20/64", LP 122#, 24 HRS

WELL DETAILS: NBU 921-35E1CS					
GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14527718.97	2054478.12	39° 59' 42.608 N	109° 31' 17.940 W



Azimuths to True North
 Magnetic North: 11.11°

Magnetic Field
 Strength: 52341.6snT
 Dip Angle: 65.86°
 Date: 04/05/2011
 Model: IGRF2010



PROJECT DETAILS: Uintah County, UT UTM12	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SEC 35 T9S R21E
System Datum:	Mean Sea Level



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore

LP

Uintah County, UT UTM12

NBU 921-35F2 Pad

NBU 921-35E1CS

OH

Design: OH

Standard Survey Report

24 May, 2011

Anadarko 
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Project:	Uintah County, UT UTM12	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Site:	NBU 921-35F2 Pad	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Well:	NBU 921-35E1CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-35F2 Pad, SEC 35 T9S R21E				
Site Position:		Northing:	14,527,718.98 usft	Latitude:	39° 59' 42.608 N
From:	Lat/Long	Easting:	2,054,478.12 usft	Longitude:	109° 31' 17.940 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.95 °

Well	NBU 921-35E1CS, 1691' FNL 1679' FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,527,718.98 usft	Latitude:	39° 59' 42.608 N
	+E/-W	0.00 ft	Easting:	2,054,478.12 usft	Longitude:	109° 31' 17.940 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,105.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	04/05/2011	11.11	65.86	52,342

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	257.77	

Survey Program	Date 05/24/2011				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,555.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,608.00	10,840.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1	

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
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	1.23	345.62	162.99	1.59	-0.41	0.06	0.80	0.80	0.00
FIRST SDI MWD SURFACE SURVEY									
250.00	1.23	327.16	249.97	3.28	-1.15	0.43	0.45	0.00	-21.22
333.00	1.85	265.03	332.94	3.91	-2.96	2.07	2.02	0.75	-74.86
423.00	3.61	255.53	422.84	3.08	-7.16	6.34	2.01	1.96	-10.56
513.00	4.75	253.07	512.60	1.29	-13.46	12.89	1.28	1.27	-2.73
603.00	6.33	260.37	602.18	-0.63	-21.92	21.56	1.92	1.76	8.11
693.00	7.74	260.37	691.50	-2.47	-32.79	32.57	1.57	1.57	0.00

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-35F2 Pad
Well: NBU 921-35E1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-35E1CS
TVD Reference: GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
MD Reference: GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

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)	
783.00	8.71	256.41	780.57	-5.09	-45.39	45.44	1.25	1.08	-4.40	
873.00	10.64	257.91	869.29	-8.43	-60.14	60.56	2.16	2.14	1.67	
963.00	12.05	256.06	957.52	-12.43	-77.38	78.26	1.62	1.57	-2.06	
1,053.00	13.98	256.32	1,045.21	-17.27	-97.06	98.52	2.15	2.14	0.29	
1,143.00	15.39	256.41	1,132.27	-22.65	-119.23	121.33	1.57	1.57	0.10	
1,233.00	16.88	254.65	1,218.72	-28.91	-143.44	146.31	1.74	1.66	-1.96	
1,323.00	18.38	255.97	1,304.49	-35.81	-169.81	173.54	1.72	1.67	1.47	
1,413.00	19.26	256.59	1,389.68	-42.69	-198.02	202.57	1.00	0.98	0.69	
1,503.00	19.61	256.76	1,474.55	-49.60	-227.16	232.51	0.39	0.39	0.19	
1,593.00	20.05	256.85	1,559.21	-56.56	-256.88	263.04	0.49	0.49	0.10	
1,683.00	20.75	257.73	1,643.57	-63.46	-287.49	294.40	0.85	0.78	0.98	
1,773.00	21.54	256.70	1,727.51	-70.65	-319.14	326.87	0.97	0.88	-1.14	
1,863.00	21.63	257.73	1,811.20	-77.98	-351.43	359.97	0.43	0.10	1.14	
1,953.00	21.54	258.79	1,894.89	-84.71	-383.85	393.08	0.44	-0.10	1.18	
2,043.00	22.51	258.52	1,978.32	-91.36	-416.94	426.83	1.08	1.08	-0.30	
2,133.00	23.57	258.61	2,061.14	-98.34	-451.46	462.05	1.18	1.18	0.10	
2,223.00	22.16	258.17	2,144.06	-105.37	-485.72	497.01	1.58	-1.57	-0.49	
2,313.00	22.25	257.73	2,227.39	-112.47	-518.98	531.03	0.21	0.10	-0.49	
2,403.00	21.37	257.56	2,310.94	-119.63	-551.64	564.46	0.98	-0.98	-0.19	
2,493.00	19.79	258.43	2,395.20	-126.21	-582.58	596.10	1.79	-1.76	0.97	
2,555.00	19.79	256.68	2,453.54	-130.74	-603.08	617.09	0.96	0.00	-2.82	
LAST SDI MWD SURFACE SURVEY										
2,608.00	19.17	255.43	2,503.50	-134.99	-620.23	634.75	1.41	-1.17	-2.36	
FIRST SDI MWD PRODUCTION SURVEY										
2,698.00	18.94	256.57	2,588.57	-142.10	-648.74	664.12	0.49	-0.26	1.27	
2,789.00	19.26	260.99	2,674.57	-147.88	-677.93	693.87	1.63	0.35	4.86	
2,879.00	18.54	259.67	2,759.71	-152.78	-706.67	722.99	0.93	-0.80	-1.47	
2,970.00	18.06	258.47	2,846.11	-158.19	-734.72	751.56	0.67	-0.53	-1.32	
3,060.00	15.58	259.10	2,932.25	-163.26	-760.26	777.59	2.76	-2.76	0.70	
3,151.00	14.64	255.76	3,020.11	-168.40	-783.41	801.30	1.41	-1.03	-3.67	
3,241.00	13.67	259.16	3,107.38	-173.20	-804.88	823.30	1.42	-1.08	3.78	
3,332.00	12.44	258.64	3,196.02	-177.15	-825.05	843.85	1.36	-1.35	-0.57	
3,422.00	11.02	251.96	3,284.15	-181.73	-842.74	862.11	2.18	-1.58	-7.42	
3,513.00	9.10	255.51	3,373.74	-186.22	-857.97	877.95	2.22	-2.11	3.90	
3,604.00	6.89	262.21	3,463.86	-188.76	-870.35	890.59	2.63	-2.43	7.36	
3,694.00	3.84	268.00	3,553.45	-189.60	-878.71	898.94	3.44	-3.39	6.43	
3,785.00	2.00	264.03	3,644.33	-189.87	-883.34	903.51	2.03	-2.02	-4.36	
3,875.00	0.17	297.60	3,734.31	-189.97	-885.02	905.18	2.07	-2.03	37.30	
3,966.00	0.32	143.01	3,825.31	-190.11	-884.99	905.17	0.53	0.16	-169.88	
4,056.00	0.51	169.53	3,915.31	-190.71	-884.76	905.08	0.29	0.21	29.47	
4,147.00	0.54	168.94	4,006.30	-191.53	-884.61	905.10	0.03	0.03	-0.65	
4,237.00	0.77	173.78	4,096.30	-192.55	-884.46	905.18	0.26	0.26	5.38	
4,328.00	0.43	53.47	4,187.29	-192.95	-884.12	904.93	1.16	-0.37	-132.21	

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-35F2 Pad
Well: NBU 921-35E1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-35E1CS
TVD Reference: GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
MD Reference: GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

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)	
4,418.00	0.47	81.18	4,277.29	-192.69	-883.48	904.25	0.24	0.04	30.79	
4,508.00	0.47	114.54	4,367.29	-192.79	-882.78	903.59	0.30	0.00	37.07	
4,599.00	0.70	119.80	4,458.28	-193.22	-881.96	902.88	0.26	0.25	5.78	
4,690.00	0.87	114.20	4,549.28	-193.78	-880.85	901.91	0.20	0.19	-6.15	
4,780.00	1.07	121.84	4,639.26	-194.50	-879.51	900.75	0.26	0.22	8.49	
4,871.00	1.17	116.83	4,730.25	-195.37	-877.96	899.42	0.15	0.11	-5.51	
4,961.00	0.75	147.62	4,820.23	-196.28	-876.82	898.51	0.72	-0.47	34.21	
5,052.00	1.03	138.44	4,911.22	-197.40	-875.96	897.90	0.34	0.31	-10.09	
5,142.00	1.01	135.28	5,001.21	-198.57	-874.87	897.08	0.07	-0.02	-3.51	
5,233.00	1.29	153.17	5,092.19	-200.05	-873.84	896.39	0.50	0.31	19.66	
5,324.00	0.96	211.76	5,183.17	-201.61	-873.78	896.66	1.25	-0.36	64.38	
5,414.00	1.10	209.88	5,273.16	-203.00	-874.61	897.76	0.16	0.16	-2.09	
5,505.00	0.74	69.02	5,364.15	-203.55	-874.49	897.77	1.91	-0.40	-154.79	
5,595.00	0.72	70.46	5,454.15	-203.15	-873.42	896.63	0.03	-0.02	1.60	
5,686.00	1.01	83.89	5,545.14	-202.88	-872.08	895.27	0.39	0.32	14.76	
5,776.00	1.23	143.77	5,635.12	-203.57	-870.72	894.09	1.26	0.24	66.53	
5,867.00	0.93	217.95	5,726.11	-204.94	-870.60	894.26	1.46	-0.33	81.52	
5,957.00	1.17	207.42	5,816.10	-206.33	-871.47	895.40	0.34	0.27	-11.70	
6,048.00	1.03	207.74	5,907.08	-207.88	-872.28	896.52	0.15	-0.15	0.35	
6,138.00	0.81	207.29	5,997.07	-209.16	-872.95	897.45	0.24	-0.24	-0.50	
6,229.00	0.79	202.35	6,088.06	-210.31	-873.48	898.21	0.08	-0.02	-5.43	
6,320.00	0.81	197.24	6,179.05	-211.51	-873.91	898.88	0.08	0.02	-5.62	
6,410.00	0.99	185.34	6,269.04	-212.89	-874.17	899.43	0.29	0.20	-13.22	
6,501.00	0.97	174.23	6,360.02	-214.44	-874.17	899.76	0.21	-0.02	-12.21	
6,591.00	1.09	179.96	6,450.01	-216.05	-874.09	900.02	0.18	0.13	6.37	
6,682.00	1.31	172.80	6,540.99	-217.95	-873.96	900.30	0.29	0.24	-7.87	
6,772.00	1.35	166.92	6,630.97	-220.00	-873.59	900.37	0.16	0.04	-6.53	
6,863.00	1.62	164.26	6,721.94	-222.29	-873.00	900.28	0.31	0.30	-2.92	
6,953.00	0.07	103.13	6,811.92	-223.52	-872.60	900.15	1.76	-1.72	-67.92	
7,044.00	0.03	78.02	6,902.92	-223.53	-872.52	900.07	0.05	-0.04	-27.59	
7,134.00	0.39	84.76	6,992.92	-223.50	-872.20	899.75	0.40	0.40	7.49	
7,225.00	0.52	86.20	7,083.92	-223.44	-871.47	899.03	0.14	0.14	1.58	
7,315.00	0.41	101.28	7,173.92	-223.48	-870.75	898.33	0.18	-0.12	16.76	
7,406.00	0.58	103.22	7,264.91	-223.65	-869.98	897.62	0.19	0.19	2.13	
7,496.00	0.41	137.57	7,354.91	-223.99	-869.32	897.04	0.37	-0.19	38.17	
7,587.00	0.70	125.46	7,445.91	-224.55	-868.65	896.51	0.34	0.32	-13.31	
7,677.00	1.05	125.35	7,535.89	-225.35	-867.53	895.58	0.39	0.39	-0.12	
7,768.00	1.05	137.72	7,626.88	-226.45	-866.29	894.60	0.25	0.00	13.59	
7,858.00	0.80	112.01	7,716.87	-227.29	-865.15	893.67	0.53	-0.28	-28.57	
7,949.00	0.58	90.40	7,807.86	-227.54	-864.10	892.89	0.37	-0.24	-23.75	
8,039.00	0.63	67.89	7,897.86	-227.35	-863.19	891.76	0.27	0.06	-25.01	
8,130.00	0.36	114.23	7,988.85	-227.28	-862.46	891.04	0.51	-0.30	50.92	
8,221.00	0.21	168.34	8,079.85	-227.56	-862.17	890.81	0.32	-0.16	59.46	
8,311.00	0.07	131.91	8,169.85	-227.76	-862.10	890.78	0.18	-0.16	-40.48	

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Project:	Uintah County, UT UTM12	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Site:	NBU 921-35F2 Pad	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Well:	NBU 921-35E1CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

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)	
8,402.00	0.31	288.64	8,260.85	-227.72	-862.29	890.96	0.41	0.26	172.23	
8,492.00	0.45	254.08	8,350.85	-227.74	-862.86	891.52	0.29	0.16	-38.40	
8,583.00	0.37	227.23	8,441.85	-228.04	-863.42	892.13	0.23	-0.09	-29.51	
8,673.00	0.24	150.64	8,531.85	-228.40	-863.54	892.32	0.44	-0.14	-85.10	
8,764.00	0.95	99.65	8,622.84	-228.69	-862.70	891.57	0.90	0.78	-56.03	
8,854.00	1.14	100.19	8,712.83	-228.97	-861.08	890.05	0.21	0.21	0.60	
8,945.00	0.29	355.46	8,803.82	-228.90	-860.21	889.18	1.37	-0.93	-115.09	
9,035.00	0.19	240.93	8,893.82	-228.75	-860.36	889.29	0.45	-0.11	-127.26	
9,125.00	0.32	221.90	8,983.82	-229.01	-860.66	889.64	0.17	0.14	-21.14	
9,217.00	0.41	197.39	9,075.82	-229.51	-860.93	890.01	0.19	0.10	-26.64	
9,307.00	0.66	155.69	9,165.81	-230.29	-860.81	890.06	0.50	0.28	-46.33	
9,398.00	0.44	136.89	9,256.81	-231.03	-860.36	889.77	0.31	-0.24	-20.66	
9,489.00	0.49	133.53	9,347.81	-231.55	-859.84	889.37	0.06	0.05	-3.69	
9,579.00	0.72	139.13	9,437.80	-232.24	-859.19	888.89	0.26	0.26	6.22	
9,670.00	0.74	134.16	9,528.79	-233.08	-858.39	888.29	0.07	0.02	-5.46	
9,760.00	0.72	130.40	9,618.79	-233.85	-857.54	887.62	0.06	-0.02	-4.18	
9,851.00	1.42	128.96	9,709.77	-234.93	-856.23	886.57	0.77	0.77	-1.58	
9,941.00	1.97	113.49	9,799.73	-236.25	-853.95	884.61	0.79	0.61	-17.19	
10,032.00	1.91	114.11	9,890.68	-237.50	-851.13	882.12	0.07	-0.07	0.68	
10,213.00	2.86	111.87	10,071.52	-240.39	-844.18	875.94	0.53	0.52	-1.35	
10,303.00	2.60	115.71	10,161.42	-242.11	-840.25	872.47	0.36	-0.29	4.49	
10,393.00	2.68	122.43	10,251.32	-244.12	-836.64	869.36	0.35	0.09	7.47	
10,484.00	3.00	121.31	10,342.21	-246.50	-832.81	866.13	0.36	0.35	-1.23	
10,575.00	3.05	126.32	10,433.08	-249.17	-828.82	862.80	0.30	0.05	5.51	
10,665.00	3.37	126.66	10,522.94	-252.17	-824.77	859.47	0.36	0.36	0.38	
10,756.00	3.50	131.48	10,613.78	-255.61	-820.54	856.07	0.35	0.14	5.30	
10,779.00	3.32	131.53	10,636.74	-256.51	-819.52	855.26	0.78	-0.78	0.22	
LAST SDI MWD PRODUCTION SURVEY										
10,840.00	3.32	131.53	10,697.64	-258.86	-816.87	853.17	0.00	0.00	0.00	
SDI MWD PROJECTION TO BIT										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
163.00	162.99	1.59	-0.41	FIRST SDI MWD SURFACE SURVEY	
2,555.00	2,453.54	-130.74	-603.08	LAST SDI MWD SURFACE SURVEY	
2,608.00	2,503.50	-134.99	-620.23	FIRST SDI MWD PRODUCTION SURVEY	
10,779.00	10,636.74	-256.51	-819.52	LAST SDI MWD PRODUCTION SURVEY	
10,840.00	10,697.64	-258.86	-816.87	SDI MWD PROJECTION TO BIT	

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 921-35F2 Pad
NBU 921-35E1CS**

OH

Design: OH

Survey Report - Geographic

24 May, 2011

Anadarko 
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Project:	Uintah County, UT UTM12	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Site:	NBU 921-35F2 Pad	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Well:	NBU 921-35E1CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-35F2 Pad, SEC 35 T9S R21E				
Site Position:		Northing:	14,527,718.98 usft	Latitude:	39° 59' 42.608 N
From:	Lat/Long	Easting:	2,054,478.12 usft	Longitude:	109° 31' 17.940 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.95 °

Well	NBU 921-35E1CS, 1691' FNL 1679' FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,527,718.98 usft	Latitude:	39° 59' 42.608 N
	+E/-W	0.00 ft	Easting:	2,054,478.12 usft	Longitude:	109° 31' 17.940 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,105.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	04/05/2011	11.11	65.86	52,342

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	257.77	

Survey Program	Date 05/24/2011				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,555.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,608.00	10,840.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,527,718.98	2,054,478.12	39° 59' 42.608 N	109° 31' 17.940 W
10.00	0.00	0.00	10.00	0.00	0.00	14,527,718.98	2,054,478.12	39° 59' 42.608 N	109° 31' 17.940 W
163.00	1.23	345.62	162.99	1.59	-0.41	14,527,720.56	2,054,477.69	39° 59' 42.624 N	109° 31' 17.945 W
FIRST SDI MWD SURFACE SURVEY									
250.00	1.23	327.16	249.97	3.28	-1.15	14,527,722.24	2,054,476.92	39° 59' 42.641 N	109° 31' 17.955 W
333.00	1.85	265.03	332.94	3.91	-2.96	14,527,722.84	2,054,475.09	39° 59' 42.647 N	109° 31' 17.978 W
423.00	3.61	255.53	422.84	3.08	-7.16	14,527,721.94	2,054,470.91	39° 59' 42.639 N	109° 31' 18.032 W
513.00	4.75	253.07	512.60	1.29	-13.46	14,527,720.04	2,054,464.64	39° 59' 42.621 N	109° 31' 18.113 W
603.00	6.33	260.37	602.18	-0.63	-21.92	14,527,717.98	2,054,456.21	39° 59' 42.602 N	109° 31' 18.222 W
693.00	7.74	260.37	691.50	-2.47	-32.79	14,527,715.96	2,054,445.38	39° 59' 42.584 N	109° 31' 18.361 W
783.00	8.71	256.41	780.57	-5.09	-45.39	14,527,713.14	2,054,432.82	39° 59' 42.558 N	109° 31' 18.523 W

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Project:	Uintah County, UT UTM12	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Site:	NBU 921-35F2 Pad	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Well:	NBU 921-35E1CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
873.00	10.64	257.91	869.29	-8.43	-60.14	14,527,709.55	2,054,418.13	39° 59' 42.525 N	109° 31' 18.713 W	
963.00	12.05	256.06	957.52	-12.43	-77.38	14,527,705.26	2,054,400.96	39° 59' 42.485 N	109° 31' 18.934 W	
1,053.00	13.98	256.32	1,045.21	-17.27	-97.06	14,527,700.10	2,054,381.36	39° 59' 42.438 N	109° 31' 19.187 W	
1,143.00	15.39	256.41	1,132.27	-22.65	-119.23	14,527,694.36	2,054,359.28	39° 59' 42.385 N	109° 31' 19.472 W	
1,233.00	16.88	254.65	1,218.72	-28.91	-143.44	14,527,687.69	2,054,335.17	39° 59' 42.323 N	109° 31' 19.783 W	
1,323.00	18.38	255.97	1,304.49	-35.81	-169.81	14,527,680.36	2,054,308.92	39° 59' 42.254 N	109° 31' 20.122 W	
1,413.00	19.26	256.59	1,389.68	-42.69	-198.02	14,527,673.01	2,054,280.84	39° 59' 42.186 N	109° 31' 20.485 W	
1,503.00	19.61	256.76	1,474.55	-49.60	-227.16	14,527,665.62	2,054,251.82	39° 59' 42.118 N	109° 31' 20.859 W	
1,593.00	20.05	256.85	1,559.21	-56.56	-256.88	14,527,658.16	2,054,222.21	39° 59' 42.049 N	109° 31' 21.241 W	
1,683.00	20.75	257.73	1,643.57	-63.46	-287.49	14,527,650.76	2,054,191.73	39° 59' 41.981 N	109° 31' 21.634 W	
1,773.00	21.54	256.70	1,727.51	-70.65	-319.14	14,527,643.04	2,054,160.19	39° 59' 41.910 N	109° 31' 22.041 W	
1,863.00	21.63	257.73	1,811.20	-77.98	-351.43	14,527,635.18	2,054,128.03	39° 59' 41.838 N	109° 31' 22.456 W	
1,953.00	21.54	258.79	1,894.89	-84.71	-383.85	14,527,627.91	2,054,095.73	39° 59' 41.771 N	109° 31' 22.873 W	
2,043.00	22.51	258.52	1,978.32	-91.36	-416.94	14,527,620.72	2,054,062.76	39° 59' 41.705 N	109° 31' 23.298 W	
2,133.00	23.57	258.61	2,061.14	-98.34	-451.46	14,527,613.17	2,054,028.35	39° 59' 41.636 N	109° 31' 23.742 W	
2,223.00	22.16	258.17	2,144.06	-105.37	-485.72	14,527,605.56	2,053,994.22	39° 59' 41.567 N	109° 31' 24.182 W	
2,313.00	22.25	257.73	2,227.39	-112.47	-518.98	14,527,597.91	2,053,961.08	39° 59' 41.497 N	109° 31' 24.609 W	
2,403.00	21.37	257.56	2,310.94	-119.63	-551.64	14,527,590.22	2,053,928.54	39° 59' 41.426 N	109° 31' 25.029 W	
2,493.00	19.79	258.43	2,395.20	-126.21	-582.58	14,527,583.12	2,053,897.71	39° 59' 41.361 N	109° 31' 25.427 W	
2,555.00	19.79	256.68	2,453.54	-130.74	-603.08	14,527,578.26	2,053,877.29	39° 59' 41.316 N	109° 31' 25.690 W	
LAST SDI MWD SURFACE SURVEY										
2,608.00	19.17	255.43	2,503.50	-134.99	-620.23	14,527,573.72	2,053,860.21	39° 59' 41.274 N	109° 31' 25.911 W	
FIRST SDI MWD PRODUCTION SURVEY										
2,698.00	18.94	256.57	2,588.57	-142.10	-648.74	14,527,566.13	2,053,831.83	39° 59' 41.204 N	109° 31' 26.277 W	
2,789.00	19.26	260.99	2,674.57	-147.88	-677.93	14,527,559.87	2,053,802.74	39° 59' 41.147 N	109° 31' 26.652 W	
2,879.00	18.54	259.67	2,759.71	-152.78	-706.67	14,527,554.50	2,053,774.08	39° 59' 41.098 N	109° 31' 27.021 W	
2,970.00	18.06	258.47	2,846.11	-158.19	-734.72	14,527,548.63	2,053,746.12	39° 59' 41.045 N	109° 31' 27.382 W	
3,060.00	15.58	259.10	2,932.25	-163.26	-760.26	14,527,543.13	2,053,720.67	39° 59' 40.994 N	109° 31' 27.710 W	
3,151.00	14.64	255.76	3,020.11	-168.40	-783.41	14,527,537.60	2,053,697.61	39° 59' 40.944 N	109° 31' 28.008 W	
3,241.00	13.67	259.16	3,107.38	-173.20	-804.88	14,527,532.45	2,053,676.22	39° 59' 40.896 N	109° 31' 28.283 W	
3,332.00	12.44	258.64	3,196.02	-177.15	-825.05	14,527,528.16	2,053,656.12	39° 59' 40.857 N	109° 31' 28.543 W	
3,422.00	11.02	251.96	3,284.15	-181.73	-842.74	14,527,523.30	2,053,638.52	39° 59' 40.812 N	109° 31' 28.770 W	
3,513.00	9.10	255.51	3,373.74	-186.22	-857.97	14,527,518.55	2,053,623.35	39° 59' 40.768 N	109° 31' 28.966 W	
3,604.00	6.89	262.21	3,463.86	-188.76	-870.35	14,527,515.81	2,053,611.02	39° 59' 40.742 N	109° 31' 29.125 W	
3,694.00	3.84	268.00	3,553.45	-189.60	-878.71	14,527,514.83	2,053,602.67	39° 59' 40.734 N	109° 31' 29.232 W	
3,785.00	2.00	264.03	3,644.33	-189.87	-883.34	14,527,514.48	2,053,598.05	39° 59' 40.731 N	109° 31' 29.292 W	
3,875.00	0.17	297.60	3,734.31	-189.97	-885.02	14,527,514.35	2,053,596.37	39° 59' 40.730 N	109° 31' 29.313 W	
3,966.00	0.32	143.01	3,825.31	-190.11	-884.99	14,527,514.21	2,053,596.41	39° 59' 40.729 N	109° 31' 29.313 W	
4,056.00	0.51	169.53	3,915.31	-190.71	-884.76	14,527,513.62	2,053,596.64	39° 59' 40.723 N	109° 31' 29.310 W	
4,147.00	0.54	168.94	4,006.30	-191.53	-884.61	14,527,512.80	2,053,596.81	39° 59' 40.715 N	109° 31' 29.308 W	
4,237.00	0.77	173.78	4,096.30	-192.55	-884.46	14,527,511.79	2,053,596.98	39° 59' 40.705 N	109° 31' 29.306 W	
4,328.00	0.43	53.47	4,187.29	-192.95	-884.12	14,527,511.39	2,053,597.32	39° 59' 40.701 N	109° 31' 29.302 W	
4,418.00	0.47	81.18	4,277.29	-192.69	-883.48	14,527,511.66	2,053,597.96	39° 59' 40.704 N	109° 31' 29.294 W	
4,508.00	0.47	114.54	4,367.29	-192.79	-882.78	14,527,511.57	2,053,598.66	39° 59' 40.703 N	109° 31' 29.285 W	
4,599.00	0.70	119.80	4,458.28	-193.22	-881.96	14,527,511.16	2,053,599.49	39° 59' 40.698 N	109° 31' 29.274 W	
4,690.00	0.87	114.20	4,549.28	-193.78	-880.85	14,527,510.62	2,053,600.61	39° 59' 40.693 N	109° 31' 29.260 W	
4,780.00	1.07	121.84	4,639.26	-194.50	-879.51	14,527,509.91	2,053,601.96	39° 59' 40.686 N	109° 31' 29.243 W	
4,871.00	1.17	116.83	4,730.25	-195.37	-877.96	14,527,509.07	2,053,603.52	39° 59' 40.677 N	109° 31' 29.223 W	
4,961.00	0.75	147.62	4,820.23	-196.28	-876.82	14,527,508.18	2,053,604.67	39° 59' 40.668 N	109° 31' 29.208 W	
5,052.00	1.03	138.44	4,911.22	-197.40	-875.96	14,527,507.08	2,053,605.55	39° 59' 40.657 N	109° 31' 29.197 W	
5,142.00	1.01	135.28	5,001.21	-198.57	-874.87	14,527,505.93	2,053,606.67	39° 59' 40.645 N	109° 31' 29.183 W	
5,233.00	1.29	153.17	5,092.19	-200.05	-873.84	14,527,504.46	2,053,607.72	39° 59' 40.631 N	109° 31' 29.170 W	
5,324.00	0.96	211.76	5,183.17	-201.61	-873.78	14,527,502.90	2,053,607.80	39° 59' 40.615 N	109° 31' 29.169 W	
5,414.00	1.10	209.88	5,273.16	-203.00	-874.61	14,527,501.50	2,053,607.00	39° 59' 40.602 N	109° 31' 29.180 W	
5,505.00	0.74	69.02	5,364.15	-203.55	-874.49	14,527,500.95	2,053,607.12	39° 59' 40.596 N	109° 31' 29.178 W	

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Project:	Uintah County, UT UTM12	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Site:	NBU 921-35F2 Pad	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Well:	NBU 921-35E1CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,595.00	0.72	70.46	5,454.15	-203.15	-873.42	14,527,501.37	2,053,608.19	39° 59' 40.600 N	109° 31' 29.164 W	
5,686.00	1.01	83.89	5,545.14	-202.88	-872.08	14,527,501.67	2,053,609.52	39° 59' 40.603 N	109° 31' 29.147 W	
5,776.00	1.23	143.77	5,635.12	-203.57	-870.72	14,527,500.99	2,053,610.89	39° 59' 40.596 N	109° 31' 29.130 W	
5,867.00	0.93	217.95	5,726.11	-204.94	-870.60	14,527,499.63	2,053,611.04	39° 59' 40.582 N	109° 31' 29.128 W	
5,957.00	1.17	207.42	5,816.10	-206.33	-871.47	14,527,498.22	2,053,610.19	39° 59' 40.569 N	109° 31' 29.139 W	
6,048.00	1.03	207.74	5,907.08	-207.88	-872.28	14,527,496.66	2,053,609.41	39° 59' 40.553 N	109° 31' 29.150 W	
6,138.00	0.81	207.29	5,997.07	-209.16	-872.95	14,527,495.37	2,053,608.76	39° 59' 40.541 N	109° 31' 29.158 W	
6,229.00	0.79	202.35	6,088.06	-210.31	-873.48	14,527,494.21	2,053,608.25	39° 59' 40.529 N	109° 31' 29.165 W	
6,320.00	0.81	197.24	6,179.05	-211.51	-873.91	14,527,493.00	2,053,607.84	39° 59' 40.518 N	109° 31' 29.171 W	
6,410.00	0.99	185.34	6,269.04	-212.89	-874.17	14,527,491.62	2,053,607.60	39° 59' 40.504 N	109° 31' 29.174 W	
6,501.00	0.97	174.23	6,360.02	-214.44	-874.17	14,527,490.07	2,053,607.63	39° 59' 40.489 N	109° 31' 29.174 W	
6,591.00	1.09	179.96	6,450.01	-216.05	-874.09	14,527,488.46	2,053,607.73	39° 59' 40.473 N	109° 31' 29.173 W	
6,682.00	1.31	172.80	6,540.99	-217.95	-873.96	14,527,486.56	2,053,607.90	39° 59' 40.454 N	109° 31' 29.171 W	
6,772.00	1.35	166.92	6,630.97	-220.00	-873.59	14,527,484.51	2,053,608.30	39° 59' 40.434 N	109° 31' 29.166 W	
6,863.00	1.62	164.26	6,721.94	-222.29	-873.00	14,527,482.24	2,053,608.93	39° 59' 40.411 N	109° 31' 29.159 W	
6,953.00	0.07	103.13	6,811.92	-223.52	-872.60	14,527,481.01	2,053,609.35	39° 59' 40.399 N	109° 31' 29.154 W	
7,044.00	0.03	78.02	6,902.92	-223.53	-872.52	14,527,481.01	2,053,609.43	39° 59' 40.399 N	109° 31' 29.153 W	
7,134.00	0.39	84.76	6,992.92	-223.50	-872.20	14,527,481.04	2,053,609.75	39° 59' 40.399 N	109° 31' 29.148 W	
7,225.00	0.52	86.20	7,083.92	-223.44	-871.47	14,527,481.11	2,053,610.47	39° 59' 40.400 N	109° 31' 29.139 W	
7,315.00	0.41	101.28	7,173.92	-223.48	-870.75	14,527,481.09	2,053,611.20	39° 59' 40.399 N	109° 31' 29.130 W	
7,406.00	0.58	103.22	7,264.91	-223.65	-869.98	14,527,480.93	2,053,611.97	39° 59' 40.398 N	109° 31' 29.120 W	
7,496.00	0.41	137.57	7,354.91	-223.99	-869.32	14,527,480.60	2,053,612.63	39° 59' 40.394 N	109° 31' 29.112 W	
7,587.00	0.70	125.46	7,445.91	-224.55	-868.65	14,527,480.05	2,053,613.31	39° 59' 40.389 N	109° 31' 29.103 W	
7,677.00	1.05	125.35	7,535.89	-225.35	-867.53	14,527,479.27	2,053,614.45	39° 59' 40.381 N	109° 31' 29.089 W	
7,768.00	1.05	137.72	7,626.88	-226.45	-866.29	14,527,478.19	2,053,615.71	39° 59' 40.370 N	109° 31' 29.073 W	
7,858.00	0.80	112.01	7,716.87	-227.29	-865.15	14,527,477.37	2,053,616.86	39° 59' 40.362 N	109° 31' 29.058 W	
7,949.00	0.58	90.40	7,807.86	-227.54	-864.10	14,527,477.14	2,053,617.91	39° 59' 40.359 N	109° 31' 29.044 W	
8,039.00	0.63	67.89	7,897.86	-227.35	-863.19	14,527,477.34	2,053,618.82	39° 59' 40.361 N	109° 31' 29.033 W	
8,130.00	0.36	114.23	7,988.85	-227.28	-862.46	14,527,477.42	2,053,619.55	39° 59' 40.362 N	109° 31' 29.023 W	
8,221.00	0.21	168.34	8,079.85	-227.56	-862.17	14,527,477.15	2,053,619.84	39° 59' 40.359 N	109° 31' 29.020 W	
8,311.00	0.07	131.91	8,169.85	-227.76	-862.10	14,527,476.95	2,053,619.92	39° 59' 40.357 N	109° 31' 29.019 W	
8,402.00	0.31	288.64	8,260.85	-227.72	-862.29	14,527,476.99	2,053,619.73	39° 59' 40.357 N	109° 31' 29.021 W	
8,492.00	0.45	254.08	8,350.85	-227.74	-862.86	14,527,476.96	2,053,619.16	39° 59' 40.357 N	109° 31' 29.028 W	
8,583.00	0.37	227.23	8,441.85	-228.04	-863.42	14,527,476.65	2,053,618.60	39° 59' 40.354 N	109° 31' 29.036 W	
8,673.00	0.24	150.64	8,531.85	-228.40	-863.54	14,527,476.29	2,053,618.49	39° 59' 40.351 N	109° 31' 29.037 W	
8,764.00	0.95	99.65	8,622.84	-228.69	-862.70	14,527,476.01	2,053,619.33	39° 59' 40.348 N	109° 31' 29.026 W	
8,854.00	1.14	100.19	8,712.83	-228.97	-861.08	14,527,475.76	2,053,620.95	39° 59' 40.345 N	109° 31' 29.006 W	
8,945.00	0.29	355.46	8,803.82	-228.90	-860.21	14,527,475.84	2,053,621.82	39° 59' 40.346 N	109° 31' 28.994 W	
9,035.00	0.19	240.93	8,893.82	-228.75	-860.36	14,527,475.99	2,053,621.67	39° 59' 40.347 N	109° 31' 28.996 W	
9,125.00	0.32	221.90	8,983.82	-229.01	-860.66	14,527,475.73	2,053,621.38	39° 59' 40.345 N	109° 31' 28.990 W	
9,217.00	0.41	197.39	9,075.82	-229.51	-860.93	14,527,475.22	2,053,621.12	39° 59' 40.340 N	109° 31' 29.004 W	
9,307.00	0.66	155.69	9,165.81	-230.29	-860.81	14,527,474.44	2,053,621.25	39° 59' 40.332 N	109° 31' 29.002 W	
9,398.00	0.44	136.89	9,256.81	-231.03	-860.36	14,527,473.71	2,053,621.71	39° 59' 40.325 N	109° 31' 28.996 W	
9,489.00	0.49	133.53	9,347.81	-231.55	-859.84	14,527,473.20	2,053,622.24	39° 59' 40.319 N	109° 31' 28.990 W	
9,579.00	0.72	139.13	9,437.80	-232.24	-859.19	14,527,472.52	2,053,622.90	39° 59' 40.313 N	109° 31' 28.981 W	
9,670.00	0.74	134.16	9,528.79	-233.08	-858.39	14,527,471.69	2,053,623.71	39° 59' 40.304 N	109° 31' 28.971 W	
9,760.00	0.72	130.40	9,618.79	-233.85	-857.54	14,527,470.93	2,053,624.57	39° 59' 40.297 N	109° 31' 28.960 W	
9,851.00	1.42	128.96	9,709.77	-234.93	-856.23	14,527,469.87	2,053,625.90	39° 59' 40.286 N	109° 31' 28.943 W	
9,941.00	1.97	113.49	9,799.73	-236.25	-853.95	14,527,468.60	2,053,628.21	39° 59' 40.273 N	109° 31' 28.914 W	
10,032.00	1.91	114.11	9,890.68	-237.50	-851.13	14,527,467.40	2,053,631.05	39° 59' 40.261 N	109° 31' 28.878 W	
10,123.00	2.86	111.67	10,071.52	-240.39	-844.18	14,527,464.62	2,053,638.05	39° 59' 40.232 N	109° 31' 28.788 W	
10,303.00	2.60	115.71	10,161.42	-242.11	-840.25	14,527,462.97	2,053,642.00	39° 59' 40.215 N	109° 31' 28.738 W	
10,393.00	2.68	122.43	10,251.32	-244.12	-836.64	14,527,461.01	2,053,645.65	39° 59' 40.195 N	109° 31' 28.692 W	
10,484.00	3.00	121.31	10,342.21	-246.50	-832.81	14,527,458.70	2,053,649.52	39° 59' 40.172 N	109° 31' 28.642 W	
10,575.00	3.05	126.32	10,433.08	-249.17	-828.82	14,527,456.09	2,053,653.55	39° 59' 40.145 N	109° 31' 28.591 W	

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 921-35E1CS
Project:	Uintah County, UT UTM12	TVD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Site:	NBU 921-35F2 Pad	MD Reference:	GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)
Well:	NBU 921-35E1CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,665.00	3.37	126.66	10,522.94	-252.17	-824.77	14,527,453.16	2,053,657.65	39° 59' 40.116 N	109° 31' 28.539 W	
10,756.00	3.50	131.48	10,613.78	-255.61	-820.54	14,527,449.80	2,053,661.93	39° 59' 40.082 N	109° 31' 28.485 W	
10,779.00	3.32	131.53	10,636.74	-256.51	-819.52	14,527,448.91	2,053,662.97	39° 59' 40.073 N	109° 31' 28.472 W	
LAST SDI MWD PRODUCTION SURVEY										
10,840.00	3.32	131.53	10,697.64	-258.86	-816.87	14,527,446.61	2,053,665.65	39° 59' 40.050 N	109° 31' 28.438 W	
SDI MWD PROJECTION TO BIT										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
163.00	162.99	1.59	-0.41	FIRST SDI MWD SURFACE SURVEY	
2,555.00	2,453.54	-130.74	-603.08	LAST SDI MWD SURFACE SURVEY	

Checked By: _____	Approved By: _____	Date: _____
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