

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL		1. WELL NAME and NUMBER NBU 922-36E1CS
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 720 929-6515
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217		9. OPERATOR E-MAIL julie.jacobson@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML-22650	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	1682 FNL 739 FWL	SWNW	36	9.0 S	22.0 E	S
Top of Uppermost Producing Zone	1903 FNL 824 FWL	SWNW	36	9.0 S	22.0 E	S
At Total Depth	1903 FNL 824 FWL	SWNW	36	9.0 S	22.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 824	23. NUMBER OF ACRES IN DRILLING UNIT 640
24. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 208	25. PROPOSED DEPTH MD: 10059 TVD: 10047	
26. ELEVATION - GROUND LEVEL 5288	27. BOND NUMBER 22013542	28. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496

Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 2440	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 10059	11.6	HCP-110 LT&C	13.0	Premium Lite High Strength	290	3.38	11.0
							50/50 Poz	1450	1.31	14.3

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 Gina Becker	TITLE Regulatory Analyst II	PHONE 720 929-6086
SIGNATURE	DATE 05/13/2011	EMAIL gina.becker@anadarko.com

API NUMBER ASSIGNED 43047516210000	APPROVAL	 Permit Manager
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Kerr-McGee Oil & Gas Onshore. L.P.**NBU 922-36E1CS**

Surface: 1682 FNL / 739 FWL SWNW
 BHL: 1903 FNL / 824 FWL SWNW

Section 36 T9S R22E

Unitah County, Utah
 Mineral Lease: ML-22650

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	1339	
Birds Nest	1627	Water
Mahogany	1994	Water
Wasatch	4439	Gas
Mesaverde	6647	Gas
MVU2	7667	Gas
MVL1	8250	Gas
Sego	8898	Gas
Castlegate	9013	Gas
MN5	9447	Gas
TVD	10047	
TD	10059	

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 10047' TVD, approximately equals
6,677 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,466 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the attached 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 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does 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.

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	LTC	BTC
								TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,440	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
PRODUCTION	4-1/2"	0 to 10,059	11.60	HCP-110	LTC or BTC	10,690	8,650	279,000	367,000
						1.19	1.27	2.98	3.92

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	1,940'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	180	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	3,939'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	290	20%	11.00	3.38
	TAIL	6,120'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,450	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

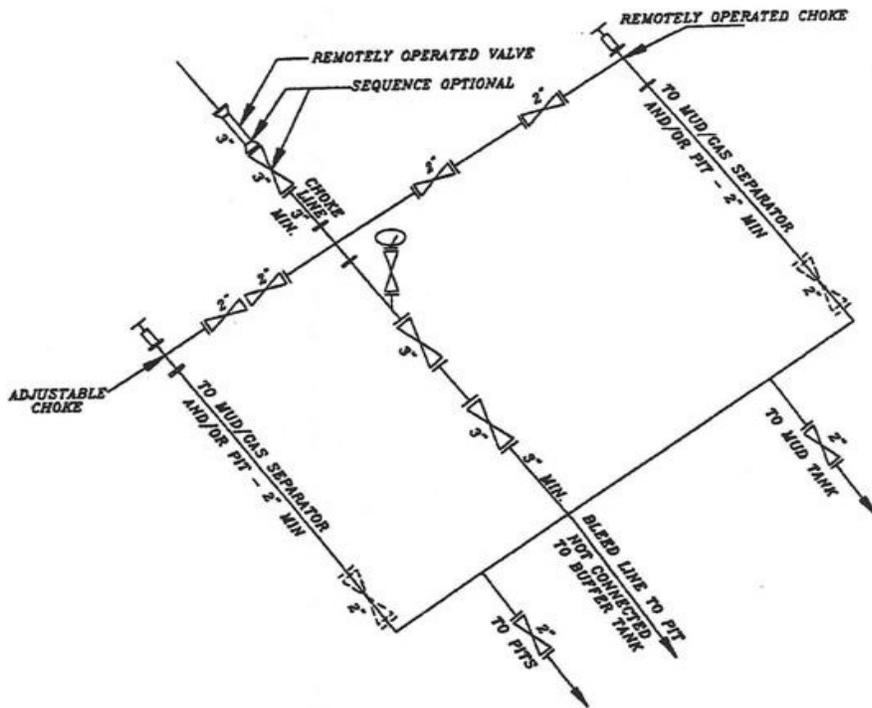
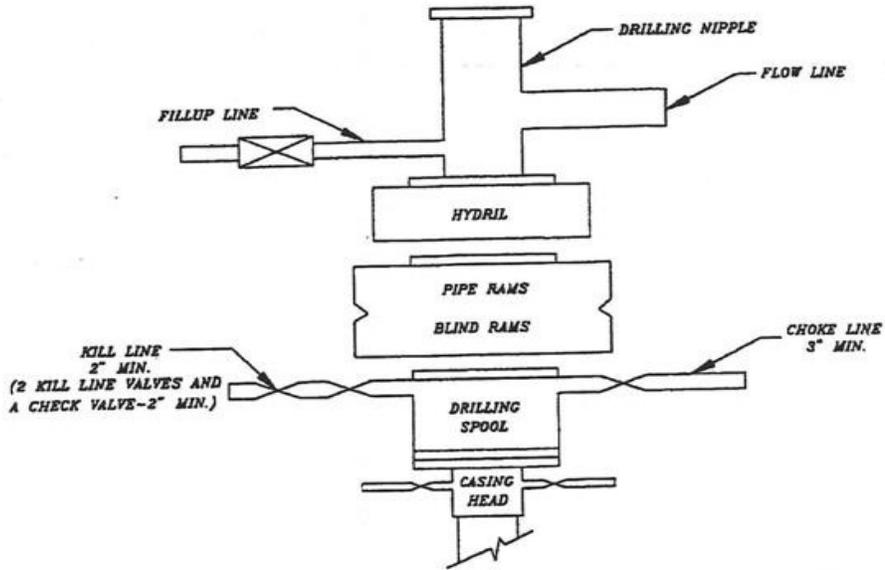
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

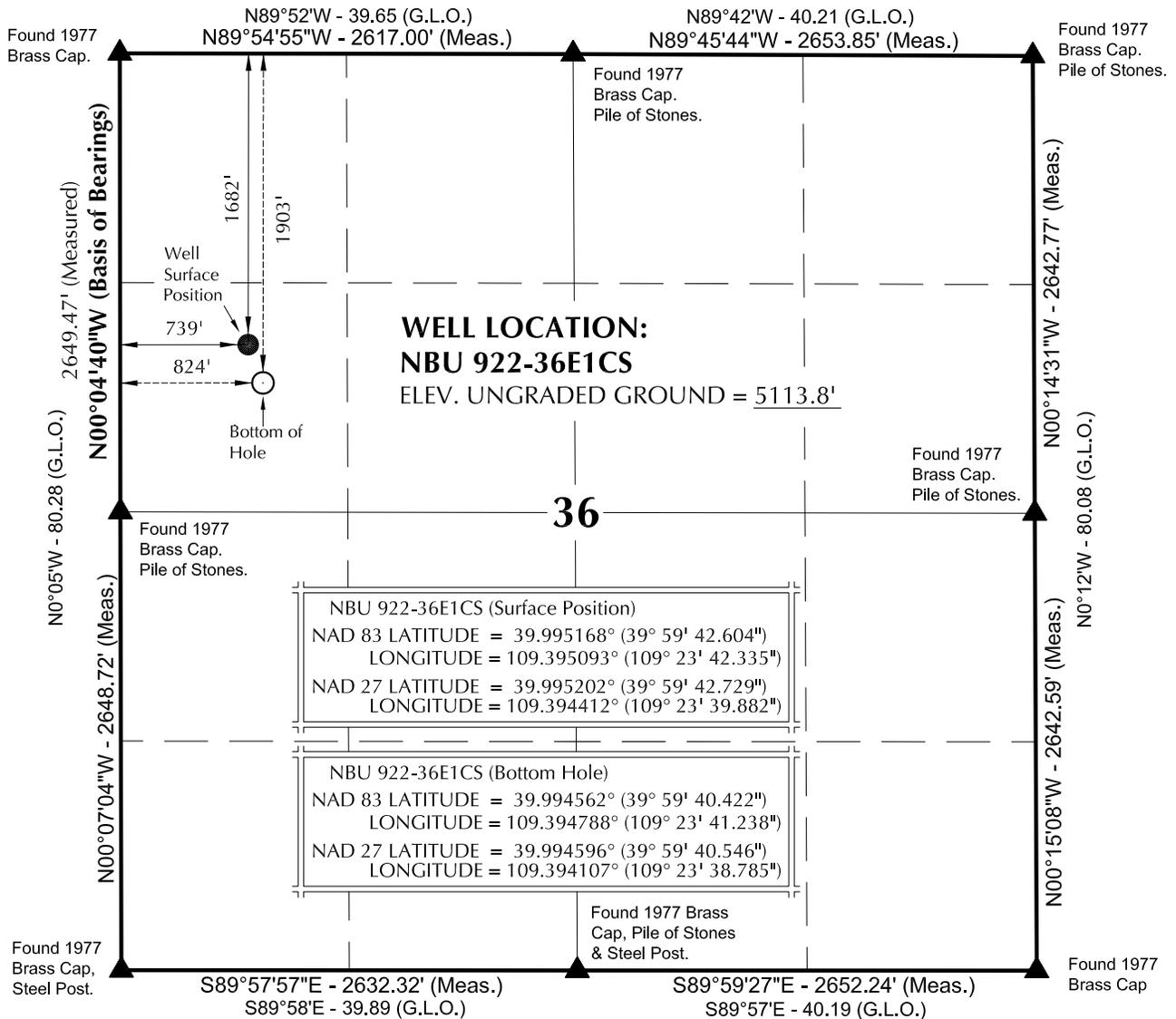
DATE:

EXHIBIT A
NBU 922-36E1CS



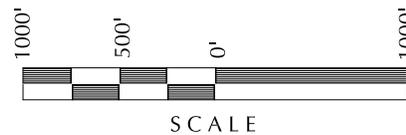
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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



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 S21°10'36"E 236.83' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

John R. Slough
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION NO. 6028691
 STATE OF UTAH

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

WELL PAD: NBU 922-36E

**NBU 922-36E1CS
 WELL PLAT**

**1903' FNL, 824' FWL (Bottom Hole)
 SW ¼ NW ¼ OF SECTION 36, T9S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH.**



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

TIMBERLINE

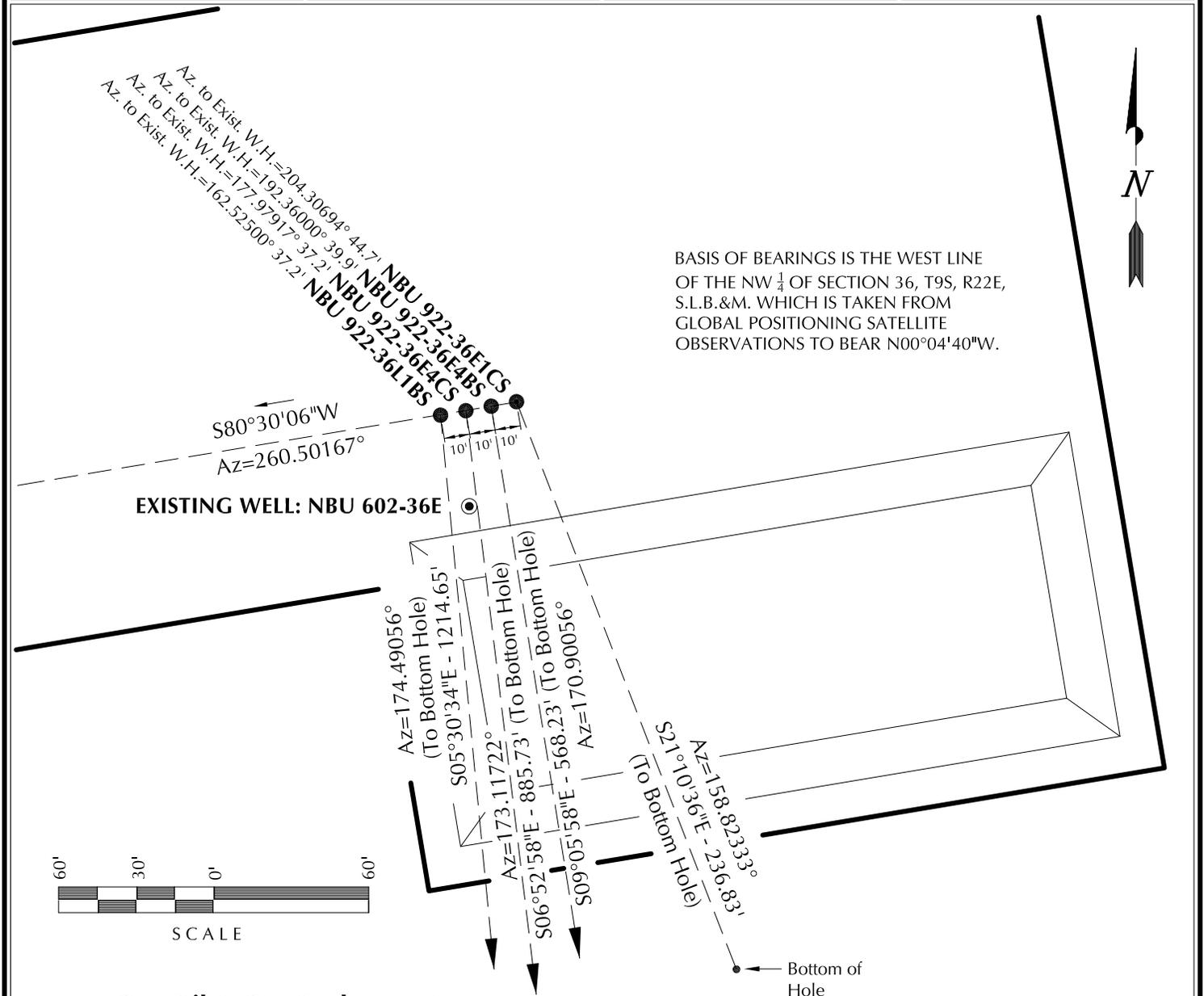
ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 09-01-10	SURVEYED BY: M.S.B.	SHEET NO: 1
DATE DRAWN: 11-15-10	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'		1 OF 16

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 922-36E1CS	39°59'42.604"	109°23'42.335"	39°59'42.729"	109°23'39.882"	1682' FNL 739' FWL	39°59'40.422"	109°23'41.238"	39°59'40.546"	109°23'38.785"	1903' FNL 824' FWL
NBU 922-36E4BS	39°59'42.587"	109°23'42.461"	39°59'42.711"	109°23'40.008"	1684' FNL 729' FWL	39°59'37.043"	109°23'41.312"	39°59'37.167"	109°23'38.860"	2245' FNL 818' FWL
NBU 922-36E4CS	39°59'42.570"	109°23'42.587"	39°59'42.694"	109°23'40.135"	1686' FNL 719' FWL	39°59'33.881"	109°23'41.233"	39°59'34.005"	109°23'38.780"	2565' FNL 824' FWL
NBU 922-36L1BS	39°59'42.553"	109°23'42.714"	39°59'42.677"	109°23'40.261"	1688' FNL 709' FWL	39°59'30.607"	109°23'41.228"	39°59'30.731"	109°23'38.775"	2401' FNL 824' FWL
NBU 602-36E	39°59'42.202"	109°23'42.571"	39°59'42.327"	109°23'40.118"	1723' FNL 720' FWL	39°59'42.202"	109°23'42.571"	39°59'42.327"	109°23'40.118"	

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-36E1CS	-220.8'	85.6'	NBU 922-36E4BS	-561.1'	89.9'	NBU 922-36E4CS	-879.3'	106.1'	NBU 922-36L1BS	-1,209.0'	116.6



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

WELL PAD - NBU 922-36E

WELL PAD INTERFERENCE PLAT
 WELLS - NBU 922-36E1CS, NBU 922-36E4BS,
 NBU 922-36E4CS & NBU 922-36L1BS
 LOCATED IN SECTION 36, T9S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH.

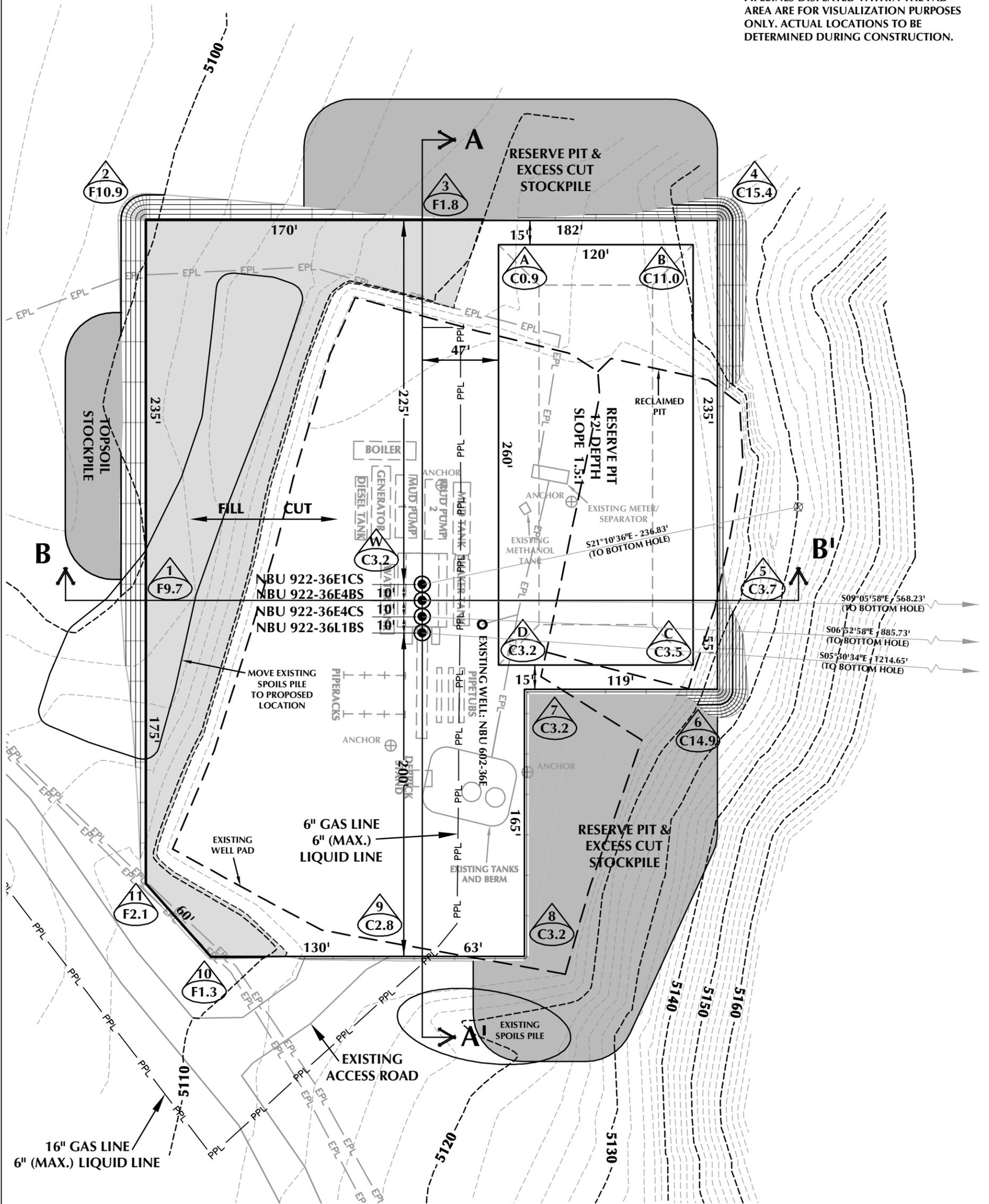


CONSULTING, LLC
 2155 North Main Street
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 Phone 307-674-0609
 Fax 307-674-0182

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

DATE SURVEYED: 09-01-10	SURVEYED BY: M.S.B.	SHEET NO: 5
DATE DRAWN: 11-16-10	DRAWN BY: E.M.S.	
SCALE: 1" = 60'	Date Last Revised:	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 922-36E DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5113.7'
 FINISHED GRADE ELEVATION = 5110.5'
 CUT SLOPES = 1:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.51 ACRES
 TOTAL DAMAGE AREA = 6.28 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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

WELL PAD - NBU 922-36E

WELL PAD - LOCATION LAYOUT
 NBU 922-36E1CS, NBU 922-36E4BS,
 NBU 922-36E4CS & NBU 922-36L1BS
 LOCATED IN SECTION 36, T9S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 12,737 C.Y.
 TOTAL FILL FOR WELL PAD = 9,062 C.Y.
 TOPSOIL @ 6" DEPTH = 1,540 C.Y.
 EXCESS MATERIAL = 3,675 C.Y.

RESERVE PIT QUANTITIES

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

WELL PAD LEGEND

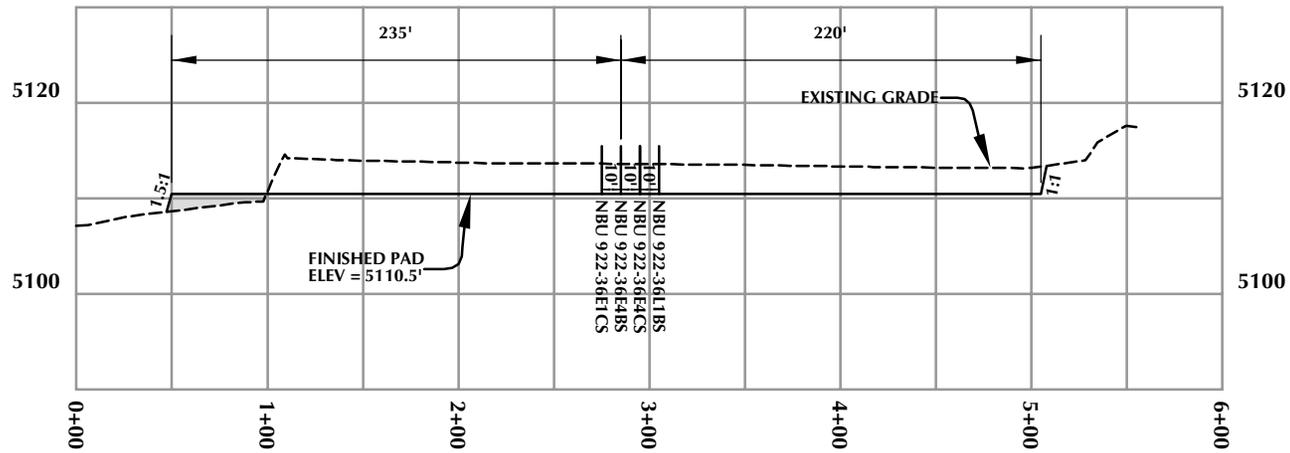
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE



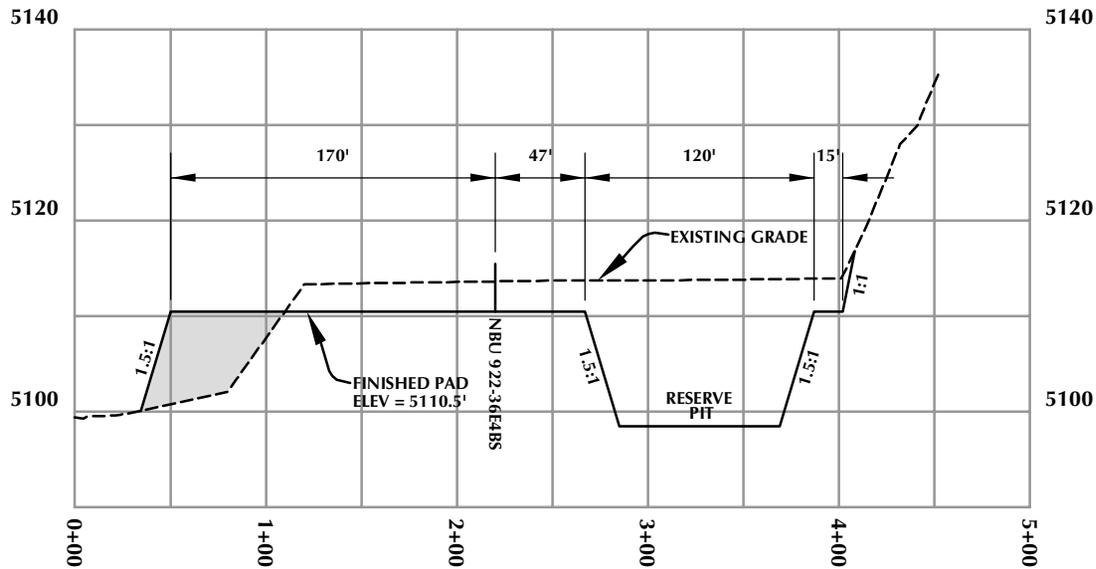
HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

SCALE: 1"=60' DATE: 12/3/10 SHEET NO:
 REVISED: **6** 6 OF 16

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



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 922-36E

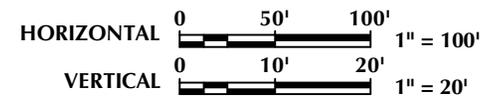
WELL PAD - CROSS SECTIONS
NBU 922-36E1CS, NBU 922-36E4BS,
NBU 922-36E4CS & NBU 922-36L1BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., Uintah County, Utah



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2155 North Main Street
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209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365



Scale: 1"=100'

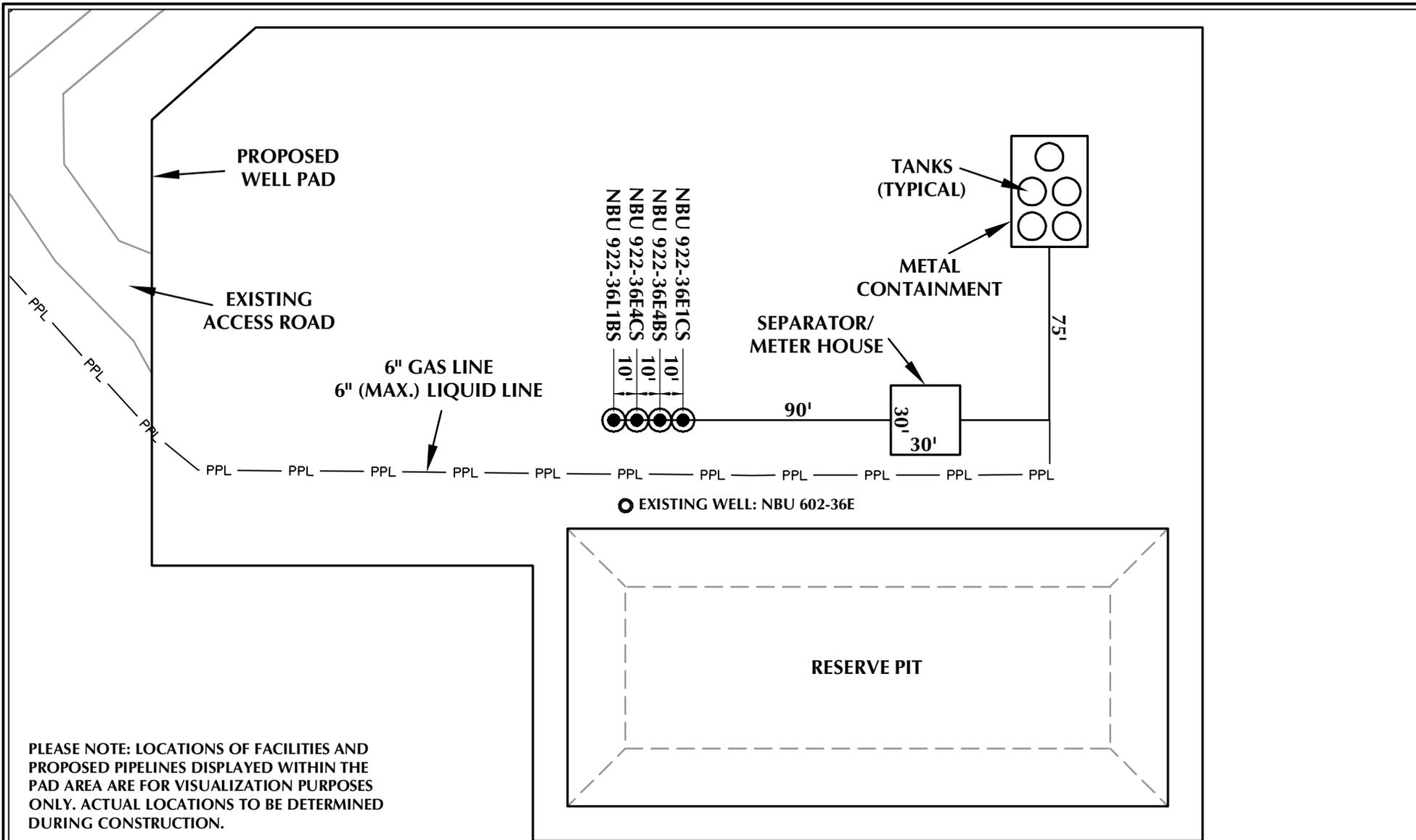
Date: 12/3/10

SHEET NO:

REVISED:

7

7 OF 16



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 922-36E

WELL PAD - FACILITIES DIAGRAM
NBU 922-36E1CS, NBU 922-36E4BS,
NBU 922-36E4CS & NBU 922-36L1BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., Uintah County, Utah



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

WELL PAD LEGEND

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

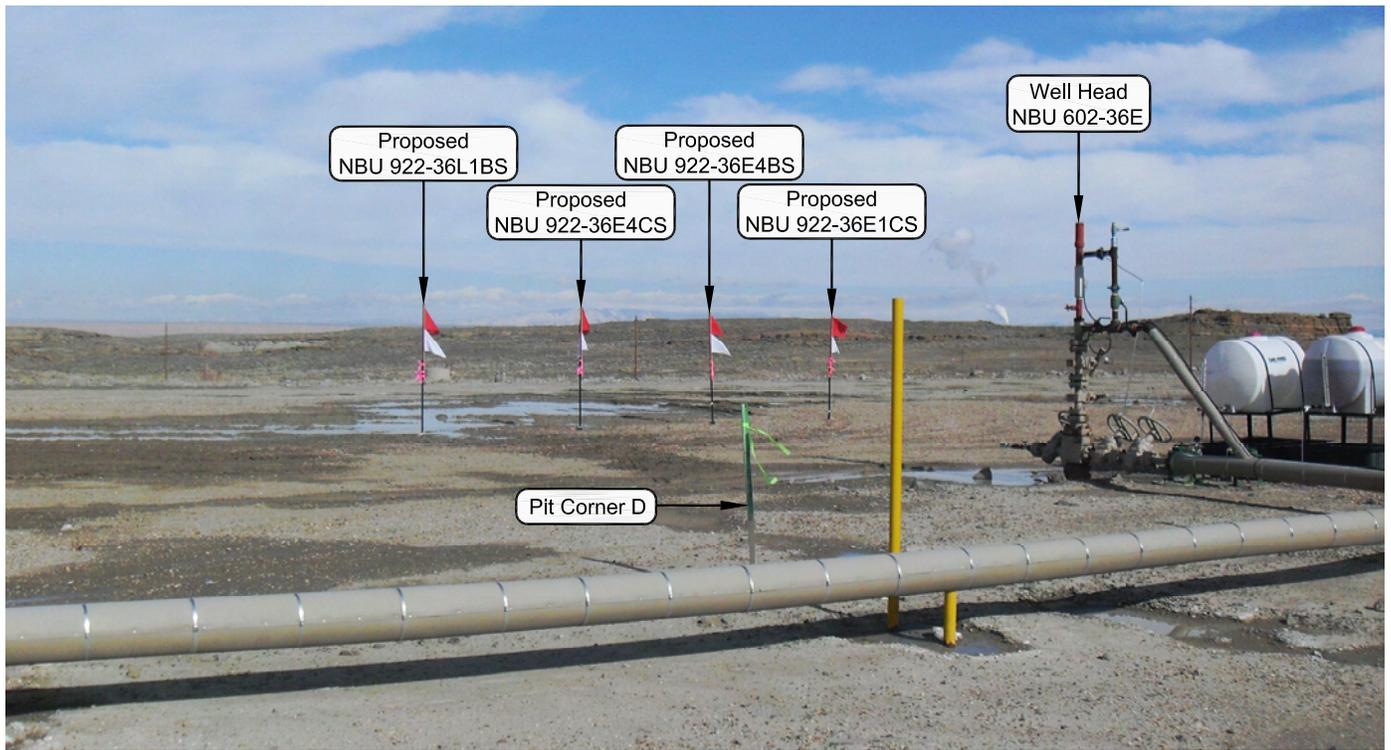


HORIZONTAL 0 30' 60' 1" = 60'

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

Scale: 1"=60' Date: 12/3/10
REVISED:

SHEET NO:
8 8 OF 16



Proposed
NBU 922-36L1BS

Proposed
NBU 922-36E4BS

Well Head
NBU 602-36E

Proposed
NBU 922-36E4CS

Proposed
NBU 922-36E1CS

Pit Corner D

PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



Existing Access Road

PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHEASTERLY

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

WELL PAD - NBU 922-36E

LOCATION PHOTOS

**NBU 922-36E1CS, NBU 922-36E4BS,
NBU 922-36E4CS & NBU 922-36L1BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.**



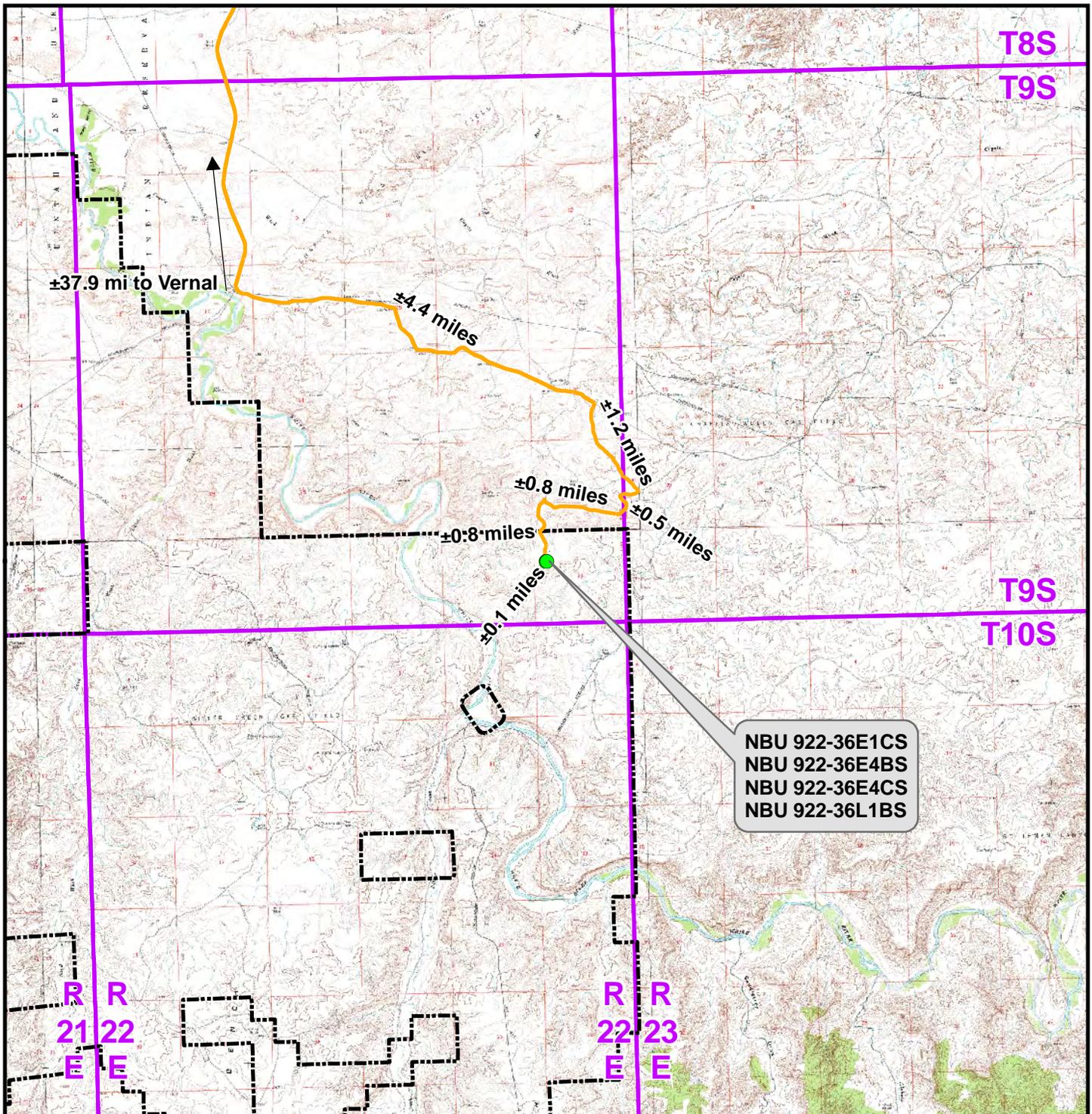
CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE

(435) 789-1365

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

DATE PHOTOS TAKEN: 09-01-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO: 9 9 OF 16
DATE DRAWN: 11-15-10	DRAWN BY: E.M.S.	
Date Last Revised:		



Legend

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

Distance From Well Pad - NBU 922-36E To Unit Boundary: ±1,682ft

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

WELL PAD - NBU 922-36E

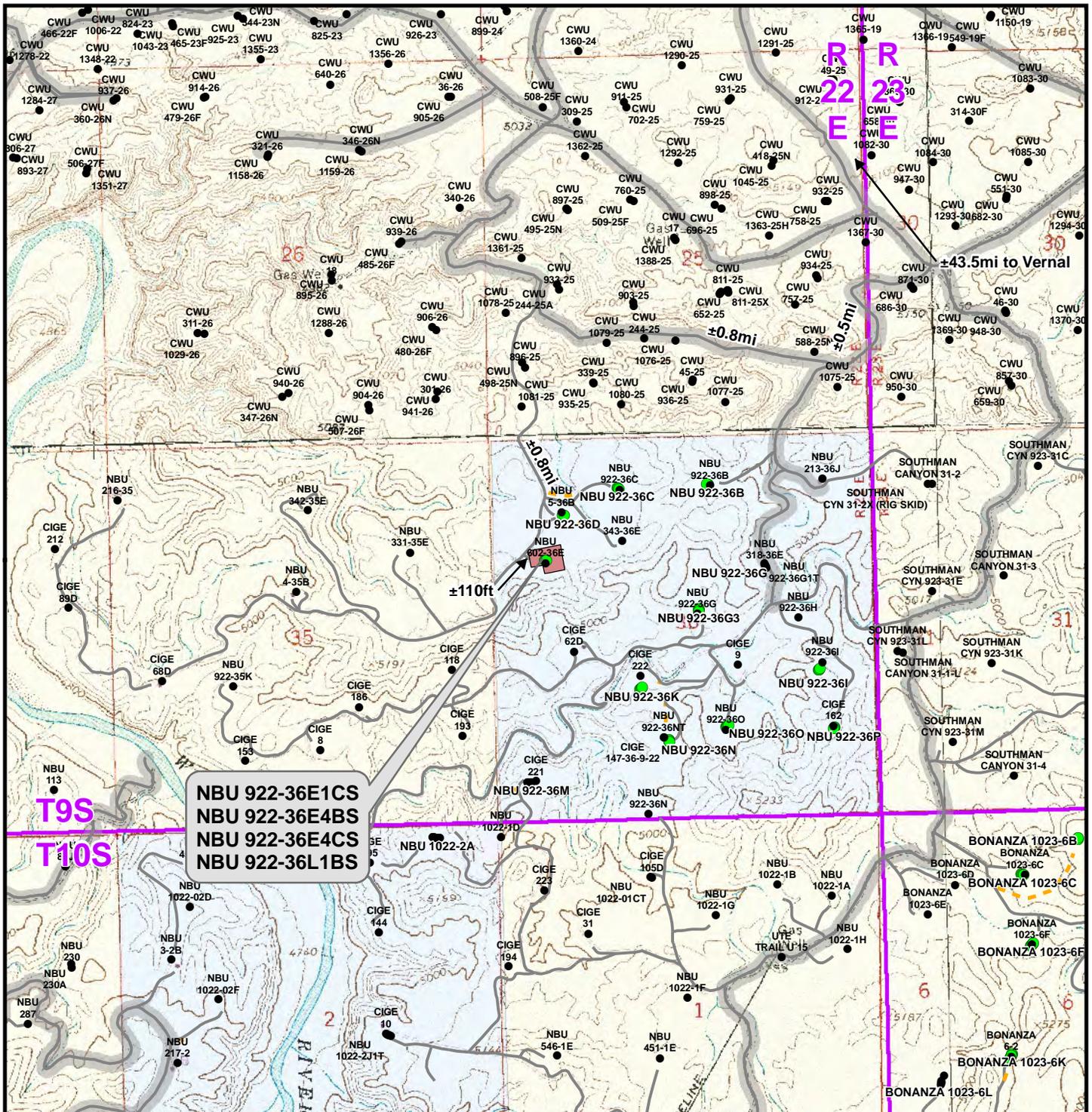
TOPO A
 NBU 922-36E1CS, NBU 922-36E4BS,
 NBU 922-36E4CS & NBU 922-36L1BS
 LOCATED IN SECTION 36, T9S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 3 Dec 2010	10
Revised:	Date:	



NBU 922-36E1CS
NBU 922-36E4BS
NBU 922-36E4CS
NBU 922-36L1BS

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

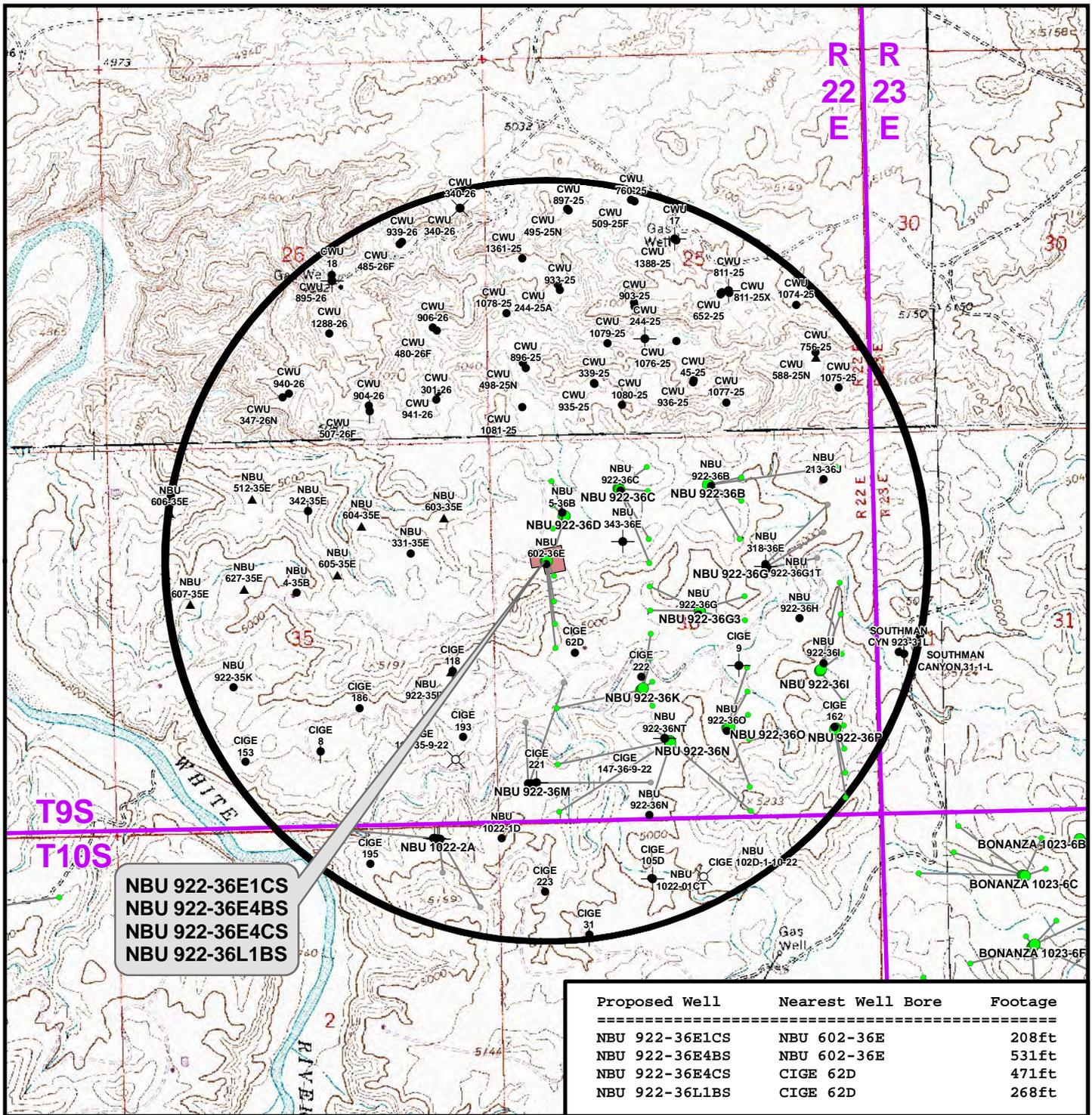
WELL PAD - NBU 922-36E

TOPO B
NBU 922-36E1CS, NBU 922-36E4BS,
NBU 922-36E4CS & NBU 922-36L1BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:	11
Drawn: TL	Date: 3 Dec 2010	11 of 16	
Revised:	Date:		



Legend

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

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

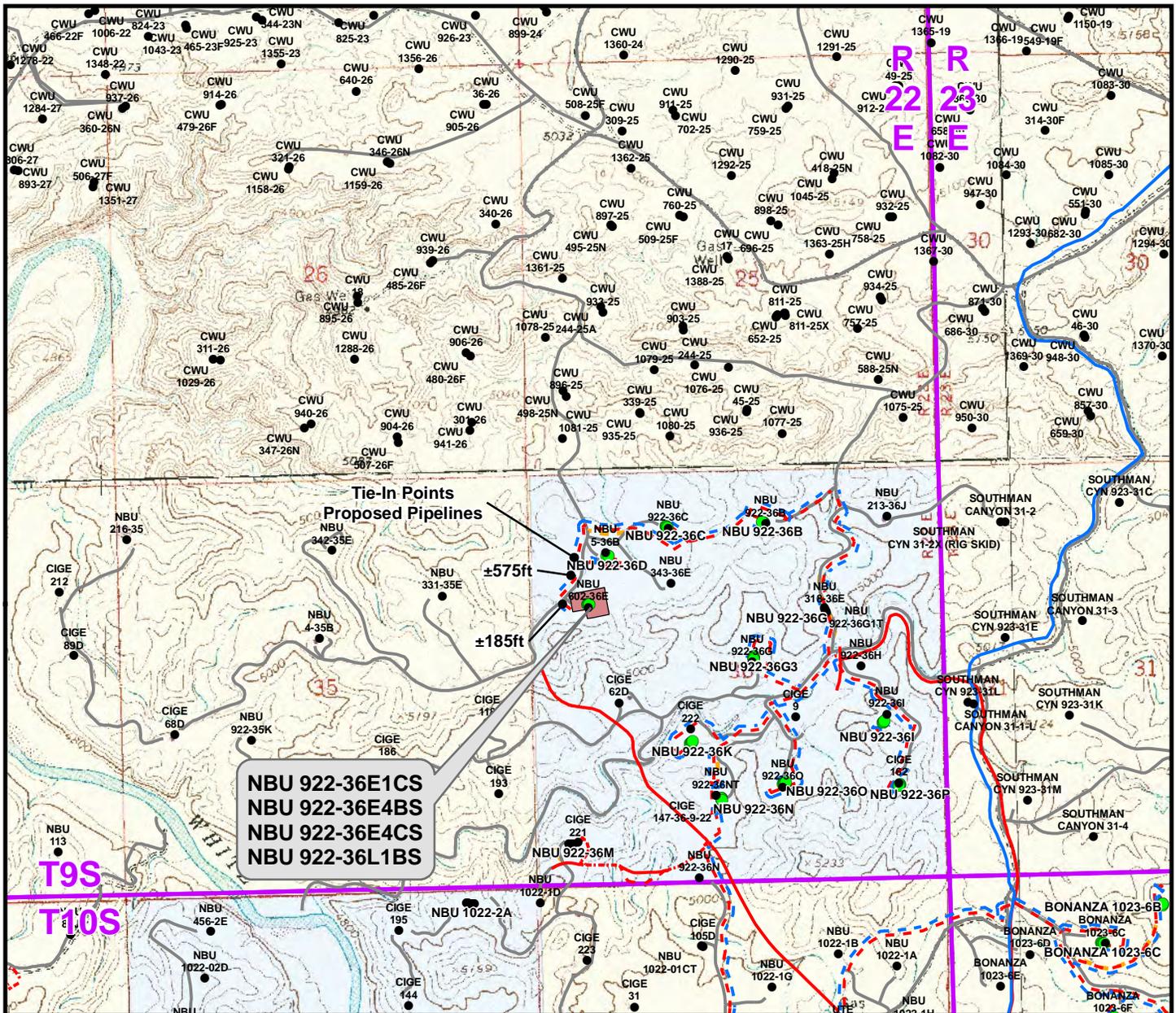
WELL PAD - NBU 922-36E

TOPO C
NBU 922-36E1CS, NBU 922-36E4BS,
NBU 922-36E4CS & NBU 922-36L1BS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 3 Dec 2010	12
Revised:	Date:	



**Tie-In Points
Proposed Pipelines**

±575ft
±185ft

**NBU 922-36E1CS
NBU 922-36E4BS
NBU 922-36E4CS
NBU 922-36L1BS**

Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±475ft
Proposed 6" (Max.) (Edge of Pad to Road Intersection)	±185ft
Proposed 6" (Max.) (Road Intersection to 36D Intersection)	±575ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,235ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±475ft
Proposed 6" (Edge of Pad to Road Intersection)	±185ft
Proposed 16" (Road Intersection to 36D Intersection)	±575ft
TOTAL PROPOSED GAS PIPELINE =	±1,235ft

Legend

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

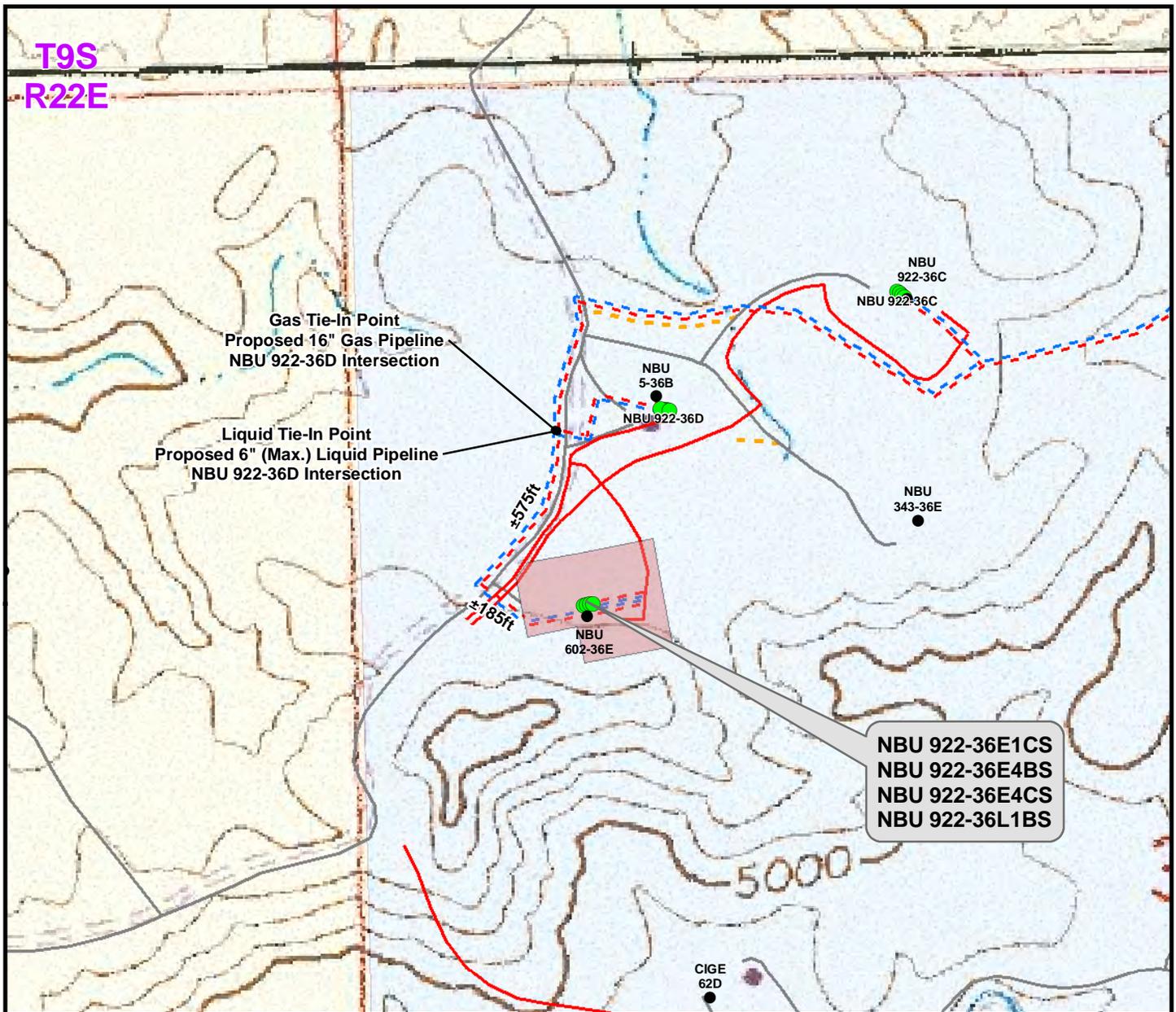
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-36E

TOPO D
NBU 922-36E1CS, NBU 922-36E4BS,
NBU 922-36E4CS & NBU 922-36L1BS
LOCATED IN SECTION 36, T9S, R22E,
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: 3 Dec 2010	13 13 of 16
Revised:	Date:	



**NBU 922-36E1CS
 NBU 922-36E4BS
 NBU 922-36E4CS
 NBU 922-36L1BS**

Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±475ft	Proposed 6" (Meter House to Edge of Pad)	±475ft
Proposed 6" (Max.) (Edge of Pad to Road Intersection)	±185ft	Proposed 6" (Edge of Pad to Road Intersection)	±185ft
Proposed 6" (Max.) (Road Intersection to 36D Intersection)	±575ft	Proposed 16" (Road Intersection to 36D Intersection)	±575ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,235ft	TOTAL PROPOSED GAS PIPELINE =	±1,235ft

Legend

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

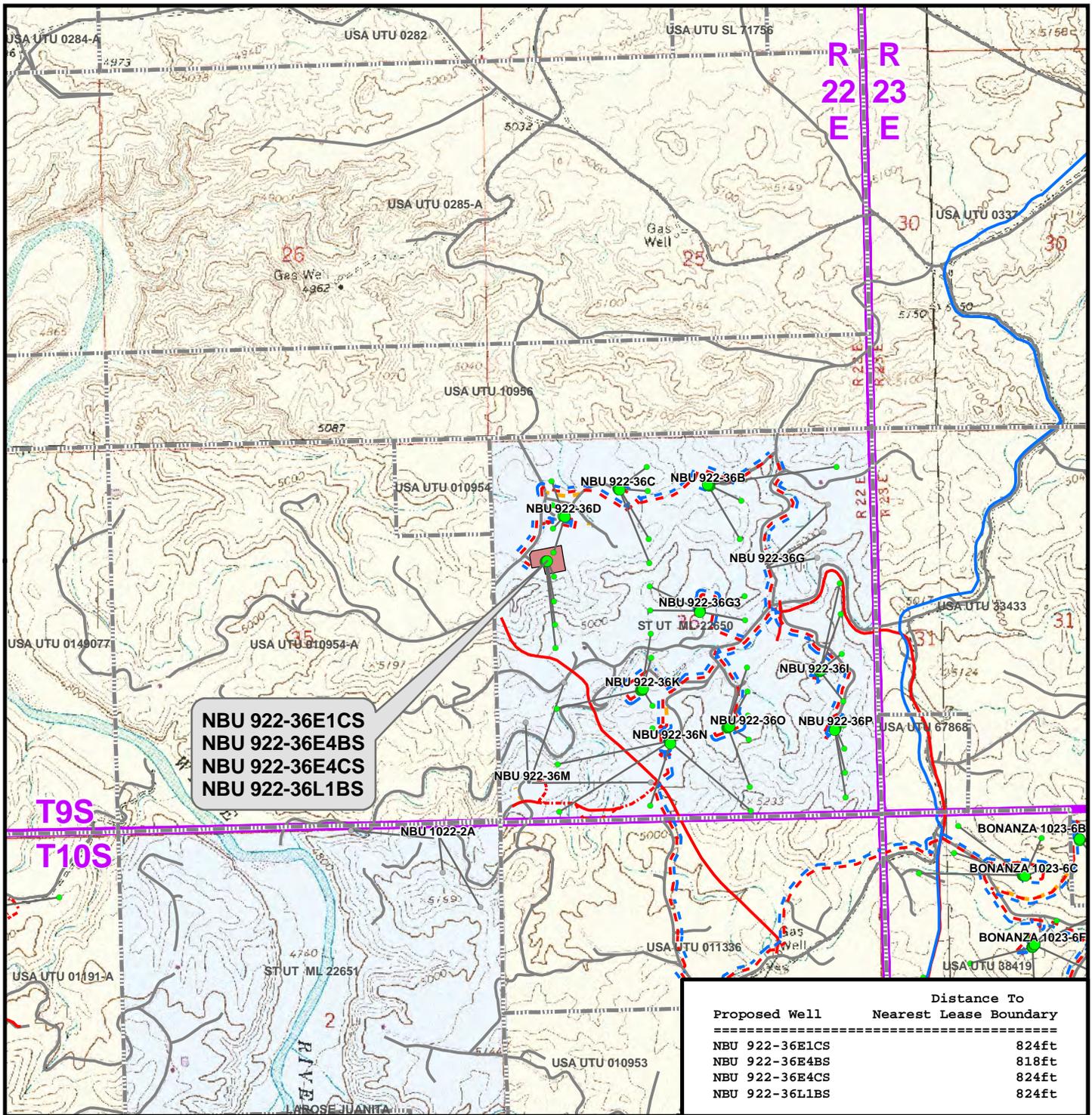
Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-36E

**TOPO D2 (PAD & PIPELINE DETAIL)
 NBU 922-36E1CS, NBU 922-36E4BS,
 NBU 922-36E4CS & NBU 922-36L1BS
 LOCATED IN SECTION 36, T9S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH**

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

Scale: 1" = 500ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 3 Dec 2010	14 14 of 16
Revised:	Date:	



**NBU 922-36E1CS
 NBU 922-36E4BS
 NBU 922-36E4CS
 NBU 922-36L1BS**

Proposed Well	Distance To Nearest Lease Boundary
NBU 922-36E1CS	824ft
NBU 922-36E4BS	818ft
NBU 922-36E4CS	824ft
NBU 922-36L1BS	824ft

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 - Existing
- - - Road - Existing
- Indian Reservation
- Bottom Hole - Existing
- - - Gas Pipeline - Existing
- State
- Private
- Well Path

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

WELL PAD - NBU 922-36E

TOPO E
 NBU 922-36E1CS, NBU 922-36E4BS,
 NBU 922-36E4CS & NBU 922-36L1BS
 LOCATED IN SECTION 36, T9S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH

609
 CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 3 Dec 2010	15 15 of 16
Revised:	Date:	

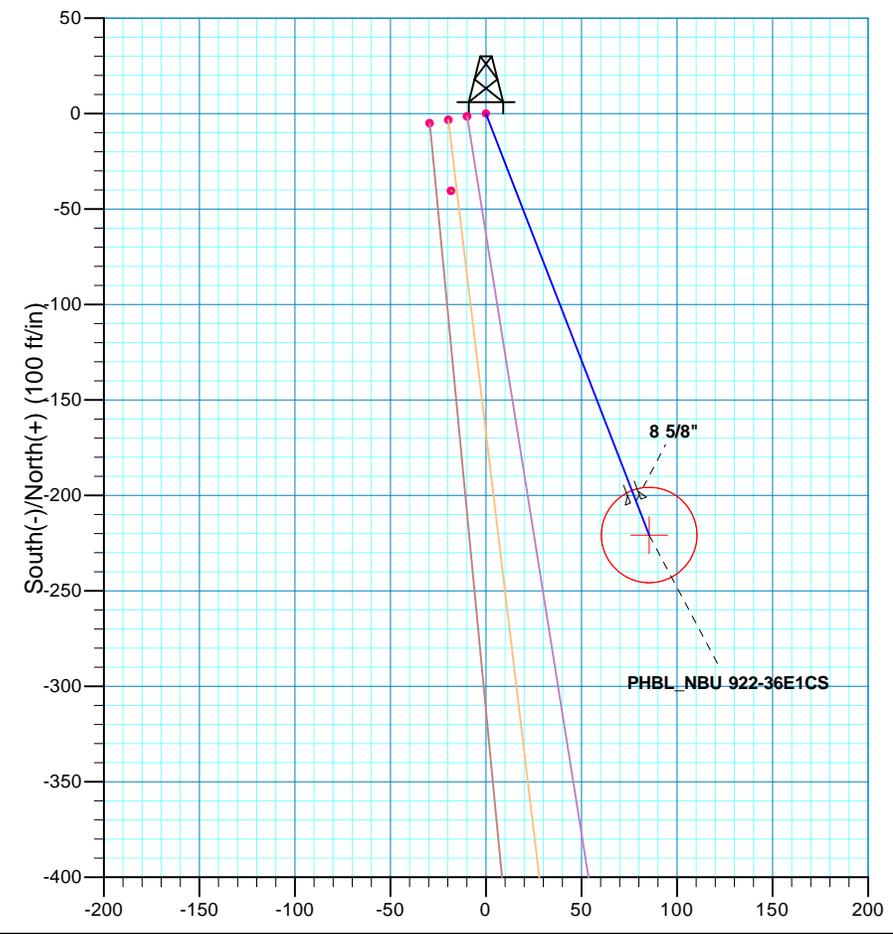
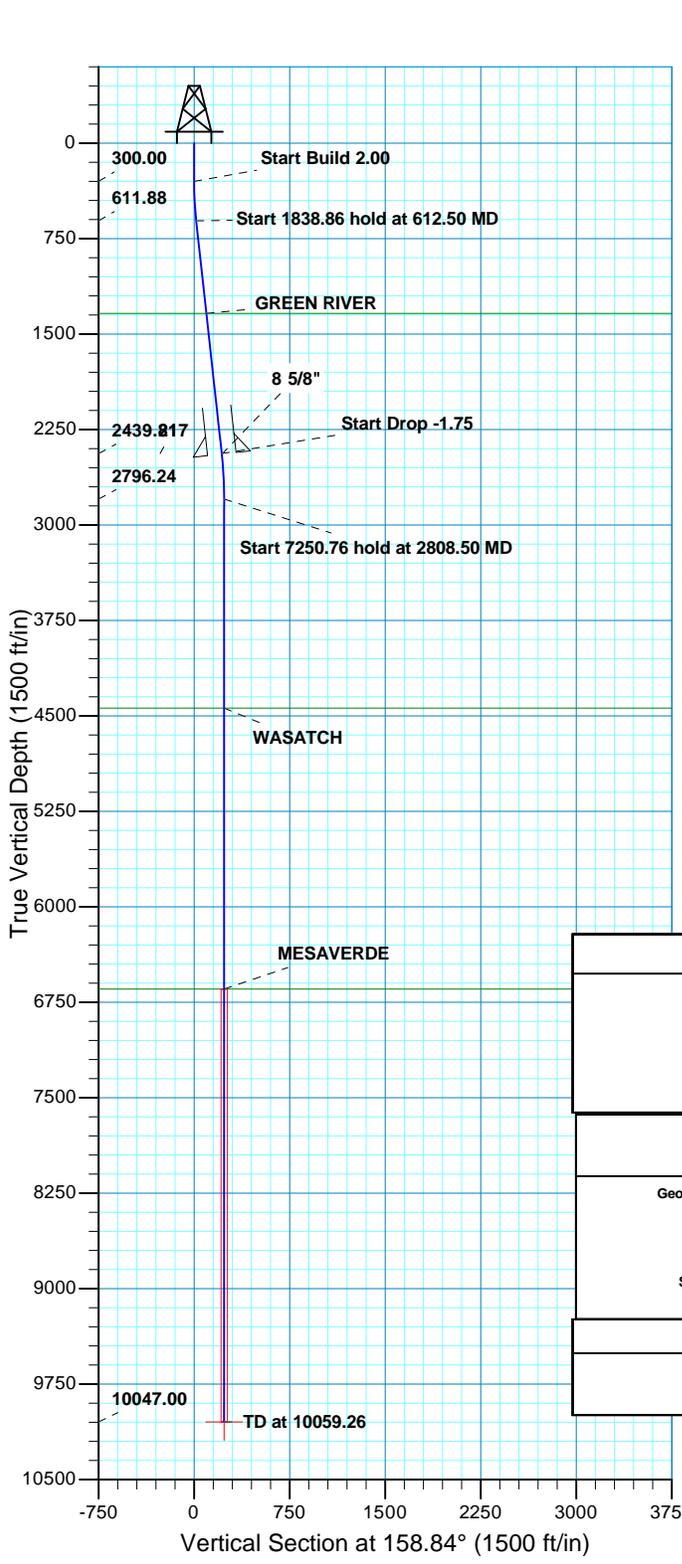
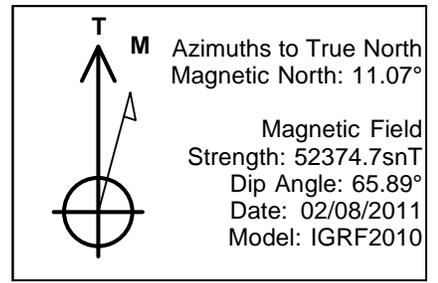
Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 922-36E
WELLS – NBU 922-36E1CS, NBU 922-36E4BS,
NBU 922-36E4CS & NBU 922-36L1BS
Section 36, T9S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southerly, then southeasterly direction along the Seven Sisters Road approximately 1.2 miles to a Class D County Road to the southwest. Exit right and proceed in a southwesterly, then southerly direction along the Class D County Road approximately 0.5 miles to a second Class D County Road to the west. Exit right and proceed in a westerly, then northwesterly direction along the second Class D County Road approximately 0.8 miles to a service road to the south. Exit left and proceed in a southerly direction along the service road approximately 0.8 miles to an access road to the southeast. Exit left and proceed in a southeasterly direction along the access road approximately 110 feet to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 45.6 miles in a southerly direction.



WELL DETAILS: NBU 922-36E1CS								
GL 5111 & KB 4 @ 5115.00ft (ASSUMED)								
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
0.00	0.00	14528347.59	2090116.75	39° 59' 42.727 N	109° 23' 39.883 W			
DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PHBL	10047.00	-220.72	85.44	14528128.45	2090206.16	39° 59' 40.546 N	109° 23' 38.785 W	Circle (Radius: 25.00)
- plan hits target center								



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
612.50	6.25	158.84	611.88	-15.88	6.15	2.00	158.84	17.03	
2451.36	6.25	158.84	2439.81	-202.57	78.42	0.00	0.00	217.22	
2808.50	0.00	0.00	2796.24	-220.72	85.44	1.75	180.00	236.68	
10059.26	0.00	0.00	10047.00	-220.72	85.44	0.00	0.00	236.68	
PHBL_NBU 922-36E1CS									

PROJECT DETAILS: Uintah County, UT UTM12		FORMATION TOP DETAILS		
Geodetic System: Universal Transverse Mercator (US Survey Feet)		TVDPath	MDPath	Formation
Datum: NAD 1927 - Western US		4439.00	4451.26	GREEN RIVER
Ellipsoid: Clarke 1866		6647.00	6659.26	WASATCH
Zone: Zone 12N (114 W to 108 W)				MESAVERDE
Location: SECTION 26 T9S R22E				
System Datum: Mean Sea Level				

CASING DETAILS				
TVD	MD	Name	Size	
2444.00	2455.57	8 5/8"	8.625	



Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 922-36E PAD
NBU 922-36E1CS**

OH

Plan: PLAN #1 2-8-11 RHS

Standard Planning Report

05 May, 2011



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Site:	NBU 922-36E PAD	North Reference:	True
Well:	NBU 922-36E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

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 922-36E PAD, SECTION 26 T9S R22E				
Site Position:	Northing:	14,528,347.60 usft	Latitude:	39° 59' 42.727 N	
From: Lat/Long	Easting:	2,090,116.75 usft	Longitude:	109° 23' 39.883 W	
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.03 °

Well	NBU 922-36E1CS, 1682 FNL 739 FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,528,347.60 usft	Latitude:	39° 59' 42.727 N
	+E/-W	0.00 ft	Easting:	2,090,116.75 usft	Longitude:	109° 23' 39.883 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,111.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/08/2011	11.07	65.89	52,375

Design	PLAN #1 2-8-11 RHS			
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	158.84

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	
612.50	6.25	158.84	611.88	-15.88	6.15	2.00	2.00	0.00	158.84	
2,451.36	6.25	158.84	2,439.81	-202.57	78.42	0.00	0.00	0.00	0.00	
2,808.50	0.00	0.00	2,796.24	-220.72	85.44	1.75	-1.75	0.00	180.00	
10,059.26	0.00	0.00	10,047.00	-220.72	85.44	0.00	0.00	0.00	0.00	PHBL_NBU 922-36E'



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Site:	NBU 922-36E PAD	North Reference:	True
Well:	NBU 922-36E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00										
400.00	2.00	158.84	399.98	-1.63	0.63	1.75	2.00	2.00	2.00	0.00
500.00	4.00	158.84	499.84	-6.51	2.52	6.98	2.00	2.00	2.00	0.00
600.00	6.00	158.84	599.45	-14.64	5.67	15.69	2.00	2.00	2.00	0.00
612.50	6.25	158.84	611.88	-15.88	6.15	17.03	2.00	2.00	2.00	0.00
Start 1838.86 hold at 612.50 MD										
700.00	6.25	158.84	698.86	-24.76	9.59	26.55	0.00	0.00	0.00	0.00
800.00	6.25	158.84	798.27	-34.91	13.52	37.44	0.00	0.00	0.00	0.00
900.00	6.25	158.84	897.67	-45.07	17.45	48.33	0.00	0.00	0.00	0.00
1,000.00	6.25	158.84	997.08	-55.22	21.38	59.21	0.00	0.00	0.00	0.00
1,100.00	6.25	158.84	1,096.48	-65.37	25.31	70.10	0.00	0.00	0.00	0.00
1,200.00	6.25	158.84	1,195.89	-75.52	29.24	80.99	0.00	0.00	0.00	0.00
1,300.00	6.25	158.84	1,295.29	-85.68	33.17	91.87	0.00	0.00	0.00	0.00
1,343.97	6.25	158.84	1,339.00	-90.14	34.90	96.66	0.00	0.00	0.00	0.00
GREEN RIVER										
1,400.00	6.25	158.84	1,394.70	-95.83	37.10	102.76	0.00	0.00	0.00	0.00
1,500.00	6.25	158.84	1,494.11	-105.98	41.03	113.65	0.00	0.00	0.00	0.00
1,600.00	6.25	158.84	1,593.51	-116.13	44.96	124.53	0.00	0.00	0.00	0.00
1,700.00	6.25	158.84	1,692.92	-126.29	48.89	135.42	0.00	0.00	0.00	0.00
1,800.00	6.25	158.84	1,792.32	-136.44	52.82	146.31	0.00	0.00	0.00	0.00
1,900.00	6.25	158.84	1,891.73	-146.59	56.75	157.19	0.00	0.00	0.00	0.00
2,000.00	6.25	158.84	1,991.13	-156.74	60.68	168.08	0.00	0.00	0.00	0.00
2,100.00	6.25	158.84	2,090.54	-166.90	64.61	178.97	0.00	0.00	0.00	0.00
2,200.00	6.25	158.84	2,189.95	-177.05	68.54	189.85	0.00	0.00	0.00	0.00
2,300.00	6.25	158.84	2,289.35	-187.20	72.47	200.74	0.00	0.00	0.00	0.00
2,400.00	6.25	158.84	2,388.76	-197.35	76.40	211.63	0.00	0.00	0.00	0.00
2,451.36	6.25	158.84	2,439.81	-202.57	78.42	217.22	0.00	0.00	0.00	0.00
Start Drop -1.75										
2,455.57	6.18	158.84	2,444.00	-202.99	78.58	217.67	1.75	-1.75	-1.75	0.00
8 5/8"										
2,500.00	5.40	158.84	2,488.20	-207.17	80.20	222.15	1.75	-1.75	-1.75	0.00
2,600.00	3.65	158.84	2,587.88	-214.53	83.05	230.04	1.75	-1.75	-1.75	0.00
2,700.00	1.90	158.84	2,687.76	-219.04	84.80	234.88	1.75	-1.75	-1.75	0.00
2,800.00	0.15	158.84	2,787.74	-220.71	85.44	236.67	1.75	-1.75	-1.75	0.00
2,808.50	0.00	0.00	2,796.24	-220.72	85.44	236.68	1.75	-1.75	-1.75	0.00
Start 7250.76 hold at 2808.50 MD										
2,900.00	0.00	0.00	2,887.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	2,987.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,087.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,187.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,287.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,387.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,487.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,587.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,687.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,787.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,887.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,987.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,087.74	-220.72	85.44	236.68	0.00	0.00	0.00	0.00



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Site:	NBU 922-36E PAD	North Reference:	True
Well:	NBU 922-36E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

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)
4,200.00	0.00	0.00	4,187.74	-220.72	85.44	236.68	0.00	0.00	0.00
4,300.00	0.00	0.00	4,287.74	-220.72	85.44	236.68	0.00	0.00	0.00
4,400.00	0.00	0.00	4,387.74	-220.72	85.44	236.68	0.00	0.00	0.00
4,451.26	0.00	0.00	4,439.00	-220.72	85.44	236.68	0.00	0.00	0.00
WASATCH									
4,500.00	0.00	0.00	4,487.74	-220.72	85.44	236.68	0.00	0.00	0.00
4,600.00	0.00	0.00	4,587.74	-220.72	85.44	236.68	0.00	0.00	0.00
4,700.00	0.00	0.00	4,687.74	-220.72	85.44	236.68	0.00	0.00	0.00
4,800.00	0.00	0.00	4,787.74	-220.72	85.44	236.68	0.00	0.00	0.00
4,900.00	0.00	0.00	4,887.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,000.00	0.00	0.00	4,987.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,100.00	0.00	0.00	5,087.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,200.00	0.00	0.00	5,187.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,300.00	0.00	0.00	5,287.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,400.00	0.00	0.00	5,387.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,500.00	0.00	0.00	5,487.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,600.00	0.00	0.00	5,587.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,700.00	0.00	0.00	5,687.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,800.00	0.00	0.00	5,787.74	-220.72	85.44	236.68	0.00	0.00	0.00
5,900.00	0.00	0.00	5,887.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,000.00	0.00	0.00	5,987.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,100.00	0.00	0.00	6,087.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,200.00	0.00	0.00	6,187.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,300.00	0.00	0.00	6,287.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,400.00	0.00	0.00	6,387.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,500.00	0.00	0.00	6,487.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,600.00	0.00	0.00	6,587.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,659.26	0.00	0.00	6,647.00	-220.72	85.44	236.68	0.00	0.00	0.00
MESAVERDE									
6,700.00	0.00	0.00	6,687.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,800.00	0.00	0.00	6,787.74	-220.72	85.44	236.68	0.00	0.00	0.00
6,900.00	0.00	0.00	6,887.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,000.00	0.00	0.00	6,987.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,100.00	0.00	0.00	7,087.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,200.00	0.00	0.00	7,187.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,300.00	0.00	0.00	7,287.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,400.00	0.00	0.00	7,387.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,500.00	0.00	0.00	7,487.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,600.00	0.00	0.00	7,587.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,700.00	0.00	0.00	7,687.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,800.00	0.00	0.00	7,787.74	-220.72	85.44	236.68	0.00	0.00	0.00
7,900.00	0.00	0.00	7,887.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,000.00	0.00	0.00	7,987.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,100.00	0.00	0.00	8,087.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,200.00	0.00	0.00	8,187.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,300.00	0.00	0.00	8,287.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,400.00	0.00	0.00	8,387.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,500.00	0.00	0.00	8,487.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,600.00	0.00	0.00	8,587.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,700.00	0.00	0.00	8,687.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,800.00	0.00	0.00	8,787.74	-220.72	85.44	236.68	0.00	0.00	0.00
8,900.00	0.00	0.00	8,887.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,000.00	0.00	0.00	8,987.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,100.00	0.00	0.00	9,087.74	-220.72	85.44	236.68	0.00	0.00	0.00



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Site:	NBU 922-36E PAD	North Reference:	True
Well:	NBU 922-36E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

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)
9,200.00	0.00	0.00	9,187.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,300.00	0.00	0.00	9,287.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,400.00	0.00	0.00	9,387.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,500.00	0.00	0.00	9,487.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,600.00	0.00	0.00	9,587.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,700.00	0.00	0.00	9,687.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,800.00	0.00	0.00	9,787.74	-220.72	85.44	236.68	0.00	0.00	0.00
9,900.00	0.00	0.00	9,887.74	-220.72	85.44	236.68	0.00	0.00	0.00
10,000.00	0.00	0.00	9,987.74	-220.72	85.44	236.68	0.00	0.00	0.00
10,059.26	0.00	0.00	10,047.00	-220.72	85.44	236.68	0.00	0.00	0.00
TD at 10059.26 - PHBL_NBU 922-36E1CS									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PHBL_NBU 922-36E1C: - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	10,047.00	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,455.57	2,444.00	8 5/8"	8.625	11.000	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,343.97	1,339.00	GREEN RIVER			
4,451.26	4,439.00	WASATCH			
6,659.26	6,647.00	MESAVERDE			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
300.00	300.00	0.00	0.00	Start Build 2.00	
612.50	611.88	-15.88	6.15	Start 1838.86 hold at 612.50 MD	
2,451.36	2,439.81	-202.57	78.42	Start Drop -1.75	
2,808.50	2,796.24	-220.72	85.44	Start 7250.76 hold at 2808.50 MD	
10,059.26	10,047.00	-220.72	85.44	TD at 10059.26	



Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 922-36E PAD
NBU 922-36E1CS**

OH

Plan: PLAN #1 2-8-11 RHS

Standard Planning Report - Geographic

05 May, 2011



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Site:	NBU 922-36E PAD	North Reference:	True
Well:	NBU 922-36E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

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 922-36E PAD, SECTION 26 T9S R22E				
Site Position:	Northing:	14,528,347.60 usft	Latitude:	39° 59' 42.727 N	
From: Lat/Long	Easting:	2,090,116.75 usft	Longitude:	109° 23' 39.883 W	
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.03 °

Well	NBU 922-36E1CS, 1682 FNL 739 FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,528,347.60 usft	Latitude:	39° 59' 42.727 N
	+E/-W	0.00 ft	Easting:	2,090,116.75 usft	Longitude:	109° 23' 39.883 W
Position Uncertainty	0.00 ft	Wellhead Elevation:		Ground Level:	5,111.00 ft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/08/2011	11.07	65.89	52,375

Design	PLAN #1 2-8-11 RHS			
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	158.84

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	
612.50	6.25	158.84	611.88	-15.88	6.15	2.00	2.00	0.00	158.84	
2,451.36	6.25	158.84	2,439.81	-202.57	78.42	0.00	0.00	0.00	0.00	
2,808.50	0.00	0.00	2,796.24	-220.72	85.44	1.75	-1.75	0.00	180.00	
10,059.26	0.00	0.00	10,047.00	-220.72	85.44	0.00	0.00	0.00	0.00	PHBL_NBU 922-36E'



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Site:	NBU 922-36E PAD	North Reference:	True
Well:	NBU 922-36E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

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	14,528,347.60	2,090,116.75	39° 59' 42.727 N	109° 23' 39.883 W	
100.00	0.00	0.00	100.00	0.00	0.00	14,528,347.60	2,090,116.75	39° 59' 42.727 N	109° 23' 39.883 W	
200.00	0.00	0.00	200.00	0.00	0.00	14,528,347.60	2,090,116.75	39° 59' 42.727 N	109° 23' 39.883 W	
300.00	0.00	0.00	300.00	0.00	0.00	14,528,347.60	2,090,116.75	39° 59' 42.727 N	109° 23' 39.883 W	
Start Build 2.00										
400.00	2.00	158.84	399.98	-1.63	0.63	14,528,345.98	2,090,117.41	39° 59' 42.711 N	109° 23' 39.875 W	
500.00	4.00	158.84	499.84	-6.51	2.52	14,528,341.14	2,090,119.38	39° 59' 42.663 N	109° 23' 39.851 W	
600.00	6.00	158.84	599.45	-14.64	5.67	14,528,333.07	2,090,122.67	39° 59' 42.583 N	109° 23' 39.810 W	
612.50	6.25	158.84	611.88	-15.88	6.15	14,528,331.83	2,090,123.18	39° 59' 42.570 N	109° 23' 39.804 W	
Start 1838.86 hold at 612.50 MD										
700.00	6.25	158.84	698.86	-24.76	9.59	14,528,323.01	2,090,126.78	39° 59' 42.482 N	109° 23' 39.760 W	
800.00	6.25	158.84	798.27	-34.91	13.52	14,528,312.93	2,090,130.89	39° 59' 42.382 N	109° 23' 39.710 W	
900.00	6.25	158.84	897.67	-45.07	17.45	14,528,302.85	2,090,135.00	39° 59' 42.282 N	109° 23' 39.659 W	
1,000.00	6.25	158.84	997.08	-55.22	21.38	14,528,292.77	2,090,139.11	39° 59' 42.181 N	109° 23' 39.608 W	
1,100.00	6.25	158.84	1,096.48	-65.37	25.31	14,528,282.69	2,090,143.23	39° 59' 42.081 N	109° 23' 39.558 W	
1,200.00	6.25	158.84	1,195.89	-75.52	29.24	14,528,272.61	2,090,147.34	39° 59' 41.981 N	109° 23' 39.507 W	
1,300.00	6.25	158.84	1,295.29	-85.68	33.17	14,528,262.53	2,090,151.45	39° 59' 41.880 N	109° 23' 39.457 W	
1,343.97	6.25	158.84	1,339.00	-90.14	34.90	14,528,258.10	2,090,153.26	39° 59' 41.836 N	109° 23' 39.435 W	
GREEN RIVER										
1,400.00	6.25	158.84	1,394.70	-95.83	37.10	14,528,252.45	2,090,155.56	39° 59' 41.780 N	109° 23' 39.406 W	
1,500.00	6.25	158.84	1,494.11	-105.98	41.03	14,528,242.37	2,090,159.68	39° 59' 41.680 N	109° 23' 39.356 W	
1,600.00	6.25	158.84	1,593.51	-116.13	44.96	14,528,232.29	2,090,163.79	39° 59' 41.579 N	109° 23' 39.305 W	
1,700.00	6.25	158.84	1,692.92	-126.29	48.89	14,528,222.21	2,090,167.90	39° 59' 41.479 N	109° 23' 39.255 W	
1,800.00	6.25	158.84	1,792.32	-136.44	52.82	14,528,212.13	2,090,172.01	39° 59' 41.379 N	109° 23' 39.204 W	
1,900.00	6.25	158.84	1,891.73	-146.59	56.75	14,528,202.05	2,090,176.13	39° 59' 41.278 N	109° 23' 39.154 W	
2,000.00	6.25	158.84	1,991.13	-156.74	60.68	14,528,191.97	2,090,180.24	39° 59' 41.178 N	109° 23' 39.103 W	
2,100.00	6.25	158.84	2,090.54	-166.90	64.61	14,528,181.89	2,090,184.35	39° 59' 41.078 N	109° 23' 39.053 W	
2,200.00	6.25	158.84	2,189.95	-177.05	68.54	14,528,171.81	2,090,188.46	39° 59' 40.977 N	109° 23' 39.002 W	
2,300.00	6.25	158.84	2,289.35	-187.20	72.47	14,528,161.73	2,090,192.58	39° 59' 40.877 N	109° 23' 38.952 W	
2,400.00	6.25	158.84	2,388.76	-197.35	76.40	14,528,151.65	2,090,196.69	39° 59' 40.777 N	109° 23' 38.901 W	
2,451.36	6.25	158.84	2,439.81	-202.57	78.42	14,528,146.48	2,090,198.80	39° 59' 40.725 N	109° 23' 38.875 W	
Start Drop -1.75										
2,455.57	6.18	158.84	2,444.00	-202.99	78.58	14,528,146.05	2,090,198.97	39° 59' 40.721 N	109° 23' 38.873 W	
8 5/8"										
2,500.00	5.40	158.84	2,488.20	-207.17	80.20	14,528,141.91	2,090,200.67	39° 59' 40.679 N	109° 23' 38.853 W	
2,600.00	3.65	158.84	2,587.88	-214.53	83.05	14,528,134.60	2,090,203.65	39° 59' 40.607 N	109° 23' 38.816 W	
2,700.00	1.90	158.84	2,687.76	-219.04	84.80	14,528,130.12	2,090,205.47	39° 59' 40.562 N	109° 23' 38.794 W	
2,800.00	0.15	158.84	2,787.74	-220.71	85.44	14,528,128.47	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
2,808.50	0.00	0.00	2,796.24	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
Start 7250.76 hold at 2808.50 MD										
2,900.00	0.00	0.00	2,887.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,000.00	0.00	0.00	2,987.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,100.00	0.00	0.00	3,087.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,200.00	0.00	0.00	3,187.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,300.00	0.00	0.00	3,287.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,400.00	0.00	0.00	3,387.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,500.00	0.00	0.00	3,487.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,600.00	0.00	0.00	3,587.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,700.00	0.00	0.00	3,687.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,800.00	0.00	0.00	3,787.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
3,900.00	0.00	0.00	3,887.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,000.00	0.00	0.00	3,987.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,100.00	0.00	0.00	4,087.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,200.00	0.00	0.00	4,187.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Site:	NBU 922-36E PAD	North Reference:	True
Well:	NBU 922-36E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,300.00	0.00	0.00	4,287.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,400.00	0.00	0.00	4,387.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,451.26	0.00	0.00	4,439.00	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
WASATCH										
4,500.00	0.00	0.00	4,487.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,600.00	0.00	0.00	4,587.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,700.00	0.00	0.00	4,687.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,800.00	0.00	0.00	4,787.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
4,900.00	0.00	0.00	4,887.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,000.00	0.00	0.00	4,987.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,100.00	0.00	0.00	5,087.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,200.00	0.00	0.00	5,187.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,300.00	0.00	0.00	5,287.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,400.00	0.00	0.00	5,387.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,500.00	0.00	0.00	5,487.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,600.00	0.00	0.00	5,587.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,700.00	0.00	0.00	5,687.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,800.00	0.00	0.00	5,787.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
5,900.00	0.00	0.00	5,887.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,000.00	0.00	0.00	5,987.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,100.00	0.00	0.00	6,087.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,200.00	0.00	0.00	6,187.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,300.00	0.00	0.00	6,287.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,400.00	0.00	0.00	6,387.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,500.00	0.00	0.00	6,487.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,600.00	0.00	0.00	6,587.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,659.26	0.00	0.00	6,647.00	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
MESAVERDE										
6,700.00	0.00	0.00	6,687.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,800.00	0.00	0.00	6,787.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
6,900.00	0.00	0.00	6,887.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,000.00	0.00	0.00	6,987.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,100.00	0.00	0.00	7,087.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,200.00	0.00	0.00	7,187.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,300.00	0.00	0.00	7,287.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,400.00	0.00	0.00	7,387.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,500.00	0.00	0.00	7,487.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,600.00	0.00	0.00	7,587.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,700.00	0.00	0.00	7,687.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,800.00	0.00	0.00	7,787.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
7,900.00	0.00	0.00	7,887.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,000.00	0.00	0.00	7,987.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,100.00	0.00	0.00	8,087.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,200.00	0.00	0.00	8,187.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,300.00	0.00	0.00	8,287.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,400.00	0.00	0.00	8,387.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,500.00	0.00	0.00	8,487.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,600.00	0.00	0.00	8,587.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,700.00	0.00	0.00	8,687.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,800.00	0.00	0.00	8,787.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
8,900.00	0.00	0.00	8,887.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,000.00	0.00	0.00	8,987.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,100.00	0.00	0.00	9,087.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,200.00	0.00	0.00	9,187.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5111 & KB 4 @ 5115.00ft (ASSUMED)
Site:	NBU 922-36E PAD	North Reference:	True
Well:	NBU 922-36E1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 2-8-11 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,300.00	0.00	0.00	9,287.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,400.00	0.00	0.00	9,387.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,500.00	0.00	0.00	9,487.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,600.00	0.00	0.00	9,587.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,700.00	0.00	0.00	9,687.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,800.00	0.00	0.00	9,787.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
9,900.00	0.00	0.00	9,887.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
10,000.00	0.00	0.00	9,987.74	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
10,059.26	0.00	0.00	10,047.00	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	
TD at 10059.26 - PHBL_NBU 922-36E1CS										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PHBL_NBU 922-36E1C: - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	10,047.00	-220.72	85.44	14,528,128.46	2,090,206.15	39° 59' 40.546 N	109° 23' 38.785 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,455.57	2,444.00	8 5/8"	8.625	11.000		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,343.97	1,339.00	GREEN RIVER				
4,451.26	4,439.00	WASATCH				
6,659.26	6,647.00	MESAVERDE				

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	
612.50	611.88	-15.88	6.15	Start 1838.86 hold at 612.50 MD	
2,451.36	2,439.81	-202.57	78.42	Start Drop -1.75	
2,808.50	2,796.24	-220.72	85.44	Start 7250.76 hold at 2808.50 MD	
10,059.26	10,047.00	-220.72	85.44	TD at 10059.26	

NBU 922-36E1CS

Surface: 1682' FNL 739' FWL (SW/4NW/4)
BHL: 1903' FNL 824' FWL (SW/4NW/4)

NBU 922-36E4BS

Surface: 1684' FNL 729' FWL (SW/4NW/4)
BHL: 2245' FNL 818' FWL (SW/4NW/4)

NBU 922-36E4CS

Surface: 1686' FNL 719' FWL (SW/4NW/4)
BHL: 2565' FNL 824' FWL (SW/4NW/4)

NBU 922-36L1BS

Surface: 1688' FNL 709' FWL (SW/4NW/4)
BHL: 2401' FSL 824' FWL (NW/4SW/4)

Pad: NBU 922-36E Pad
Section 36 T09S R22E
Mineral Lease: ML-22650

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

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each

other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

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

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

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

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the NBU 602-36E. The NBU 602-36E well location is a vertical well that is shut-in according to Utah Division of Oil, Gas and Mining (UDOGM) records as of April 15, 2011.

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

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

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 $\pm 1,235'$ and the individual segments are broken up as follows:

- ±475' (0.09 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2.
- ±185' (0.04 miles) –New 6" buried gas pipeline from the edge of pad to the road intersection and tie-in to the proposed 16" gas pipeline. Please refer to Topo D.
- ±575' (0.1 miles) –New 16" buried gas pipeline from the 6" tie at the road intersection to the proposed tie-in at the 36D intersection. Please refer to Topo D.

The total liquid gathering pipeline distance from the separator to the tie in point is ±1,235' and the individual segments are broken up as follows:

- ±475' (0.09 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2.
- ±185' (0.04 miles) –New 6" buried liquid pipeline from the edge of pad to the road intersection and tie-in to the proposed 6" liquid pipeline. Please refer to Topo D.
- ±575' (0.1 miles) –New 6" buried liquid pipeline from the 6" tie-in at the road intersection to the proposed tie-in at the 36D intersection. Please refer to Topo D.

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

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 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 and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

NBU 922-36E1CS / 36E4BS/
36E4CS/ 36L1BS

Surface Use Plan of Operations
Page 4

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:

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 922-36E1CS / 36E4BS/
36E4CS/ 36L1BS**

**Surface Use Plan of Operations
Page 5**

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

Materials Management

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

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

G. Ancillary Facilities:

None are anticipated.

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

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

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

I. Plans for Reclamation of the Surface:

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

Reclamation activities in both phases may include but 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 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

NBU 922-36E1CS / 36E4BS/
36E4CS/ 36L1BS

Surface Use Plan of Operations
Page 9

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

Gina T. Becker
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6086

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.


Gina T. Becker

May 12, 2011
Date



JOE JOHNSON
LANDMAN

KERR-MCGEE ONSHORE OIL & GAS, L.P.
1099 18TH STREET, SUITE 1800
DENVER, CO 80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

April 13, 2011

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 922-36E1CS
T9S-R22E
Section 36: SWNW/SWNW
Surface: 1682' FNL, 739' FWL
Bottom Hole: 1903' FNL, 824' 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 the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 922-36E1CS 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.

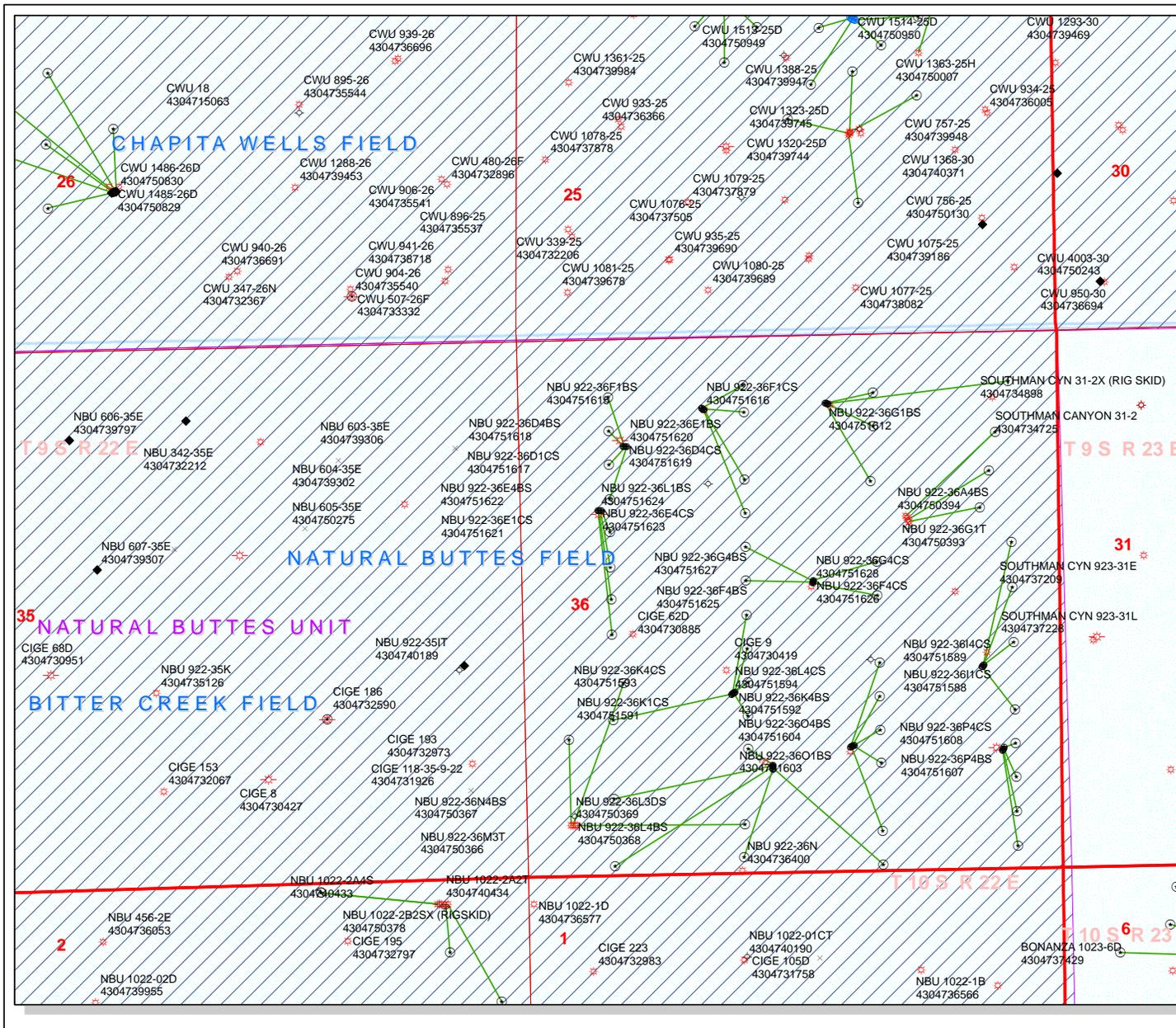
Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

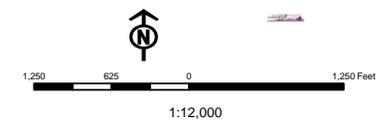
A handwritten signature in blue ink, appearing to read 'Joe D. Johnson', with a horizontal line underneath.

Joseph D. Johnson
Landman



API Number: 4304751621
Well Name: NBU 922-36E1CS
 Township T0.9 . Range R2.2 . Section 36
 Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

May 20, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 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 2011 within the Natural Buttes Unit, Uintah County, Utah.

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

NBU 922-36I PAD

43-047-51586	NBU 922-36H4BS	Sec 36 T09S R22E 2006 FSL 0799 FEL
	BHL	Sec 36 T09S R22E 2071 FNL 0494 FEL

43-047-51587	NBU 922-36H4CS	Sec 36 T09S R22E 2014 FSL 0792 FEL
	BHL	Sec 36 T09S R22E 2508 FNL 0495 FEL

43-047-51588	NBU 922-36I1CS	Sec 36 T09S R22E 2021 FSL 0785 FEL
	BHL	Sec 36 T09S R22E 2237 FSL 0494 FEL

43-047-51589	NBU 922-36I4CS	Sec 36 T09S R22E 1999 FSL 0805 FEL
	BHL	Sec 36 T09S R22E 1574 FSL 0493 FEL

NBU 922-36K PAD

43-047-51590	NBU 922-36K1BS	Sec 36 T09S R22E 1798 FSL 1998 FWL
	BHL	Sec 36 T09S R22E 2567 FSL 2148 FWL

43-047-51591	NBU 922-36K1CS	Sec 36 T09S R22E 1809 FSL 2015 FWL
	BHL	Sec 36 T09S R22E 2236 FSL 2147 FWL

43-047-51592	NBU 922-36K4BS	Sec 36 T09S R22E 1815 FSL 2023 FWL
	BHL	Sec 36 T09S R22E 1904 FSL 2147 FWL

43-047-51593	NBU 922-36K4CS	Sec 36 T09S R22E 1804 FSL 2006 FWL
	BHL	Sec 36 T09S R22E 1573 FSL 2146 FWL

43-047-51594	NBU 922-36L4CS	Sec 36 T09S R22E 1793 FSL 1990 FWL
	BHL	Sec 36 T09S R22E 1565 FSL 0821 FWL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
NBU 922-36N PAD		
43-047-51595	NBU 922-36M1CS	Sec 36 T09S R22E 1078 FSL 2379 FWL BHL Sec 36 T09S R22E 0792 FSL 0816 FWL
43-047-51596	NBU 922-36M4CS	Sec 36 T09S R22E 1068 FSL 2379 FWL BHL Sec 36 T09S R22E 0132 FSL 0819 FWL
43-047-51597	NBU 922-36N1BS	Sec 36 T09S R22E 1088 FSL 2379 FWL BHL Sec 36 T09S R22E 1253 FSL 2140 FWL
43-047-51598	NBU 922-36N4CS	Sec 36 T09S R22E 1048 FSL 2379 FWL BHL Sec 36 T09S R22E 0190 FSL 2081 FWL
43-047-51599	NBU 922-36O4CS	Sec 36 T09S R22E 1058 FSL 2379 FWL BHL Sec 36 T09S R22E 0085 FSL 1814 FEL
NBU 922-36O PAD		
43-047-51600	NBU 922-36J1CS	Sec 36 T09S R22E 1247 FSL 2113 FEL BHL Sec 36 T09S R22E 2071 FSL 1809 FEL
43-047-51601	NBU 922-36J4BS	Sec 36 T09S R22E 1254 FSL 2094 FEL BHL Sec 36 T09S R22E 1740 FSL 1816 FEL
43-047-51602	NBU 922-36J4CS	Sec 36 T09S R22E 1261 FSL 2075 FEL BHL Sec 36 T09S R22E 1409 FSL 1816 FEL
43-047-51603	NBU 922-36O1BS	Sec 36 T09S R22E 1257 FSL 2085 FEL BHL Sec 36 T09S R22E 1078 FSL 1815 FEL
43-047-51604	NBU 922-36O4BS	Sec 36 T09S R22E 1250 FSL 2103 FEL BHL Sec 36 T09S R22E 0415 FSL 1814 FEL
NBU 922-36P PAD		
43-047-51605	NBU 922-36P1BS	Sec 36 T09S R22E 1207 FSL 0606 FEL BHL Sec 36 T09S R22E 1243 FSL 0493 FEL
43-047-51606	NBU 922-36P1CS	Sec 36 T09S R22E 1198 FSL 0611 FEL BHL Sec 36 T09S R22E 0911 FSL 0493 FEL
43-047-51607	NBU 922-36P4BS	Sec 36 T09S R22E 1189 FSL 0616 FEL BHL Sec 36 T09S R22E 0580 FSL 0493 FEL
43-047-51608	NBU 922-36P4CS	Sec 36 T09S R22E 1181 FSL 0621 FEL BHL Sec 36 T09S R22E 0243 FSL 0492 FEL
NBU 922-36B PAD		
43-047-51609	NBU 922-36A1CS	Sec 36 T09S R22E 0678 FNL 2273 FEL BHL Sec 36 T09S R22E 0485 FNL 0494 FEL
43-047-51610	NBU 922-36B1CS	Sec 36 T09S R22E 0674 FNL 2282 FEL BHL Sec 36 T09S R22E 0579 FNL 1821 FEL
43-047-51611	NBU 922-36B4BS	Sec 36 T09S R22E 0682 FNL 2264 FEL BHL Sec 36 T09S R22E 0905 FNL 1828 FEL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51612	NBU 922-36G1BS	Sec 36 T09S R22E 0671 FNL 2291 FEL BHL Sec 36 T09S R22E 1439 FNL 1861 FEL
NBU 922-36C PAD		
43-047-51613	NBU 922-36C1CS	Sec 36 T09S R22E 0700 FNL 1741 FWL BHL Sec 36 T09S R22E 0485 FNL 2152 FWL
43-047-51614	NBU 922-36C4BS	Sec 36 T09S R22E 0706 FNL 1749 FWL BHL Sec 36 T09S R22E 0746 FNL 2153 FWL
43-047-51615	NBU 922-36F1BS	Sec 36 T09S R22E 0718 FNL 1765 FWL BHL Sec 36 T09S R22E 1407 FNL 2151 FWL
43-047-51616	NBU 922-36F1CS	Sec 36 T09S R22E 0712 FNL 1757 FWL BHL Sec 36 T09S R22E 1738 FNL 2150 FWL
NBU 922-36D PAD		
43-047-51617	NBU 922-36D1CS	Sec 36 T09S R22E 1062 FNL 0981 FWL BHL Sec 36 T09S R22E 0579 FNL 0825 FWL
43-047-51618	NBU 922-36D4BS	Sec 36 T09S R22E 1060 FNL 0971 FWL BHL Sec 36 T09S R22E 0910 FNL 0825 FWL
43-047-51619	NBU 922-36D4CS	Sec 36 T09S R22E 1064 FNL 0990 FWL BHL Sec 36 T09S R22E 1241 FNL 0825 FWL
43-047-51620	NBU 922-36E1BS	Sec 36 T09S R22E 1067 FNL 1000 FWL BHL Sec 36 T09S R22E 1572 FNL 0825 FWL
NBU 922-36E PAD		
43-047-51621	NBU 922-36E1CS	Sec 36 T09S R22E 1682 FNL 0739 FWL BHL Sec 36 T09S R22E 1903 FNL 0824 FWL
43-047-51622	NBU 922-36E4BS	Sec 36 T09S R22E 1684 FNL 0729 FWL BHL Sec 36 T09S R22E 2245 FNL 0818 FWL
43-047-51623	NBU 922-36E4CS	Sec 36 T09S R22E 1686 FNL 0719 FWL BHL Sec 36 T09S R22E 2565 FNL 0824 FWL
43-047-51624	NBU 922-36L1BS	Sec 36 T09S R22E 1688 FNL 0709 FWL BHL Sec 36 T09S R22E 2401 FSL 0824 FWL
NBU 922-36G3 PAD		
43-047-51625	NBU 922-36F4BS	Sec 36 T09S R22E 2414 FNL 2443 FEL BHL Sec 36 T09S R22E 2070 FNL 2149 FWL
43-047-51626	NBU 922-36F4CS	Sec 36 T09S R22E 2424 FNL 2445 FEL BHL Sec 36 T09S R22E 2401 FNL 2149 FWL
43-047-51627	NBU 922-36G4BS	Sec 36 T09S R22E 2405 FNL 2441 FEL BHL Sec 36 T09S R22E 2235 FNL 1818 FEL
43-047-51628	NBU 922-36G4CS	Sec 36 T09S R22E 2434 FNL 2447 FEL BHL Sec 36 T09S R22E 2566 FNL 1818 FEL

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: 2011.05.23 07:16:05 -06'00'

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

MCoulthard:mc:5-20-11

From: Jim Davis
To: Bonner, Ed; Garrison, LaVonne; Hill, Brad; Mason, Diana
CC: Gina Becker; Lytle, Andy
Date: 6/8/2011 3:00 PM
Subject: Kerr McGee APD approvals.

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

4304751586 NBU 922-36H4BS
4304751587 NBU 922-36H4CS
4304751588 NBU 922-36I1CS
4304751589 NBU 922-36I4CS
4304751590 NBU 922-36K1BS
4304751591 NBU 922-36K1CS
4304751592 NBU 922-36K4BS
4304751593 NBU 922-36K4CS
4304751594 NBU 922-36L4CS
4304751595 NBU 922-36M1CS
4304751596 NBU 922-36M4CS
4304751597 NBU 922-36N1BS
4304751598 NBU 922-36N4CS
4304751599 NBU 922-36O4CS
4304751600 NBU 922-36J1CS
4304751601 NBU 922-36J4BS
4304751602 NBU 922-36J4CS
4304751603 NBU 922-36O1BS
4304751604 NBU 922-36O4BS
4304751605 NBU 922-36P1BS
4304751606 NBU 922-36P1CS
4304751607 NBU 922-36P4BS
4304751608 NBU 922-36P4CS
4304751613 NBU 922-36C1CS
4304751614 NBU 922-36C4BS
4304751615 NBU 922-36F1BS
4304751616 NBU 922-36F1CS
4304751617 NBU 922-36D1CS
4304751618 NBU 922-36D4BS
4304751619 NBU 922-36D4CS
4304751620 NBU 922-36E1BS
4304751621 NBU 922-36E1CS
4304751622 NBU 922-36E4BS
4304751623 NBU 922-36E4CS
4304751624 NBU 922-36L1BS
4304751625 NBU 922-36F4BS
4304751626 NBU 922-36F4CS
4304751627 NBU 922-36G4BS
4304751628 NBU 922-36G4CS

Full paleo monitoring is a required condition for the approval of these APDs- as recommended in the paleo report.

4304751609 NBU 922-36A1CS
4304751610 NBU 922-36B1CS
4304751611 NBU 922-36B4BS
4304751612 NBU 922-36G1BS

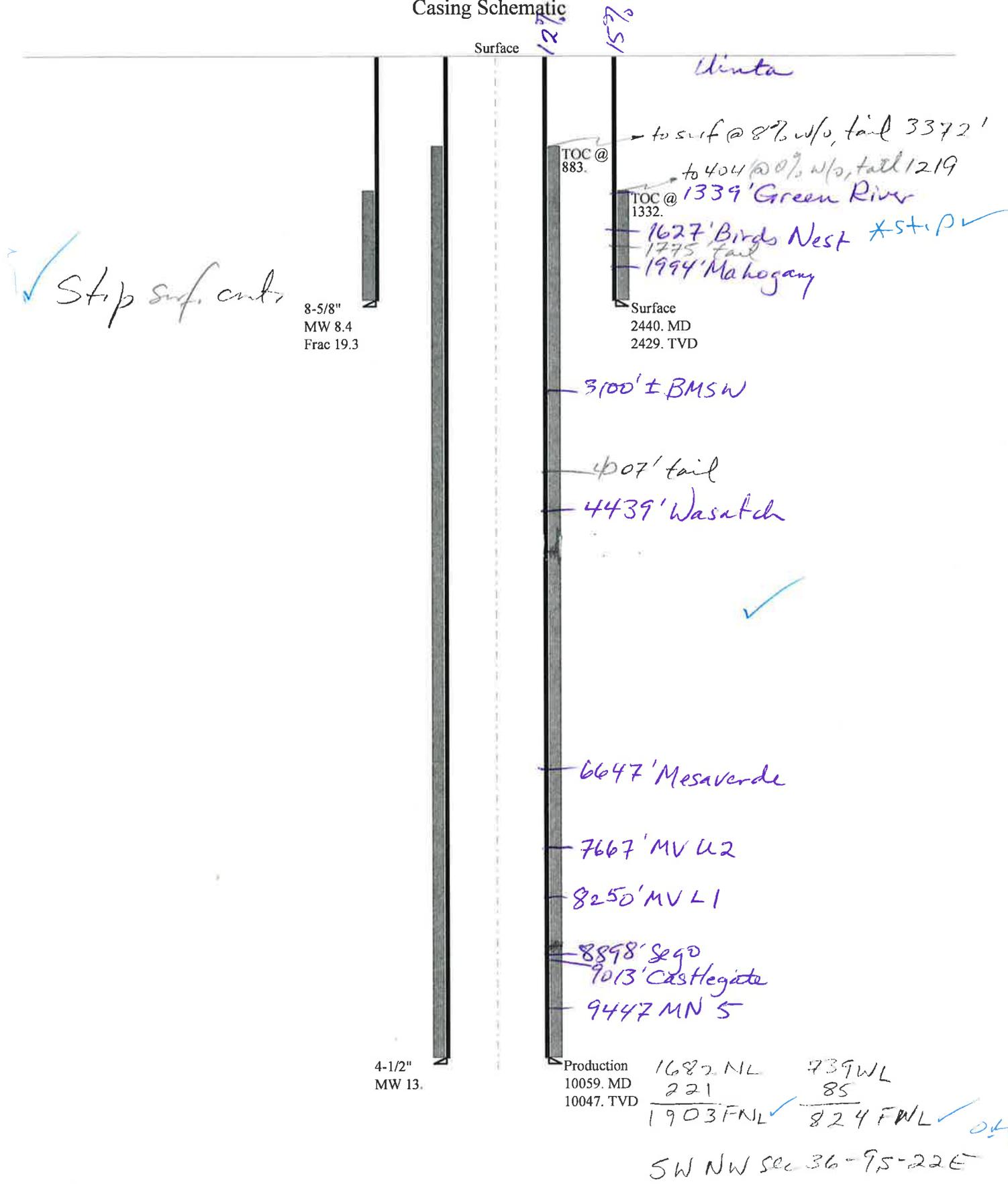
Thanks.
-Jim

API Well Number: 43047516210000

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

43047516210000 NBU 922-36E1CS

Casing Schematic



Well name:	43047516210000 NBU 922-36E1CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-51621
Location:	UINTAH	COUNTY	

Design parameters:

Collapse

Mud weight: 8.400 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 108 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

Cement top: 1,332 ft

Burst

Max anticipated surface pressure: 2,147 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 2,439 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: 2,137 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 216 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 6.25 °

Re subsequent strings:

Next setting depth: 10,059 ft
 Next mud weight: 13.000 ppg
 Next setting BHP: 6,793 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	2429	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	1060	1880	1.774	2439	3390	1.39	68	348	5.12 J

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

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

Date: July 20, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2429 ft, a mud weight of 8.4 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:	43047516210000 NBU 922-36E1CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-51621
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 13.000 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: 215 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

Cement top: 883 ft

Burst

Max anticipated surface pressure: 4,575 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 6,785 psi

No backup mud specified.

Tension:

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

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 237 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 0 °

Tension is based on air weight.
 Neutral point: 8,107 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	10059	4.5	11.60	HCP-110	LT&C	10047	10059	3.875	48464
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	6785	8650	1.275	6785	10690	1.58	116.5	279	2.39 J

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

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

Date: July 20, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 10047 ft, a mud weight of 13 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

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

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 922-36E1CS
API Number 43047516210000 **APD No** 3795 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SWNW **Sec** 36 **Tw** 9.0S **Rng** 22.0E 1682 **FNL** 739 **FWL**
GPS Coord (UTM) 637066 4428250 **Surface Owner**

Participants

Floyd Bartlett (DOGM), Sheila Wopsock, Lovell Young, Gina Becker, Mark Koehn, Griz Oleen (Kerr McGee), Ben Williams (UDWR) and Mitch Batty, John Slaugh (Timberline Engineering and Land Surveying).

Regional/Local Setting & Topography

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¾ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 42 air miles to the northwest. Access from Vernal is approximately 45.5 road miles following Utah State, Uintah County and oilfield development roads to the location.

Four additional gas wells will be added to and directionally drilled from the NBU 922-36E pad. They are the NBU 922-36E1CS, NBU 922-36E4BS, NBU 922-36E4CS and NBU 922-36L1BS. The pad contains the existing NBU 602-36E gas well. The existing pad will be significantly enlarged in all directions with most of the extension to the north and east into gentle terrain. The existing grade of the pad will be cut up to 3 feet to obtain the necessary fill to enlarge the pad. The previous and proposed reserve pit butts against a steep ridge to the south. The south edge of the proposed pit will be trimmed so as not to excavate more into this hill. The slope will be left nearly vertical as it currently exists. Maximum cut is 11.0 feet at Pit Corner B and maximum fill is 10.9 feet at Corner 2. The White River is approximately 1 mile to the west. The existing pad shows no stability problems and the site has no apparent concerns for constructing an enlarged pad and drilling and operating the planned wells. It is the only suitable location 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 455	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Area beyond the existing pad is poorly vegetated with greasewood, cheatgrass, black sagebrush, broom snakeweed, globemallow, Sitanion hystrix , shadscale, rabbitbrush, pepper weed, halogeton and annuals.

Sheep, deer, antelope, coyote, and other small mammals and birds.

Soil Type and Characteristics

Shallow 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?** N

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 reserve pit is planned mostly in an area of cut in the northwest side of the location. Dimensions are 120' x 260' x 12' deep with 2' of freeboard. Because the length of time the reserve pit will be used and the roughness of the terrain, Kerr McGee committed to line it with a 30-mil.liner and an appropriate thickness of felt sub-liner to cushion the rock

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

Other Observations / Comments

Floyd Bartlett
Evaluator

5/24/2011
Date / Time

Application for Permit to Drill

Statement of Basis

8/3/2011

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
3795	43047516210000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 922-36E1CS		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	SWNW 36 9S 22E S 1682 FNL 739 FWL GPS Coord (UTM)			637068E	4428249N

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 3,100'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location. 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 production casing cement should be brought up above the base of the moderately saline ground water in order to isolate it from fresher waters up hole. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill
APD Evaluator

6/20/2011
Date / Time

Surface Statement of Basis

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from $\frac{3}{4}$ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 42 air miles to the northwest. Access from Vernal is approximately 45.5 road miles following Utah State, Uintah County and oilfield development roads to the location.

Four additional gas wells will be added to and directionally drilled from the NBU 922-36E pad. They are the NBU 922-36E1CS, NBU 922-36E4BS, NBU 922-36E4CS and NBU 922-36L1BS. The pad contains the existing NBU 602-36E gas well. The existing pad will be significantly enlarged in all directions with most of the extension to the north and east into gentle terrain. The existing grade of the pad will be cut up to 3 feet to obtain the necessary fill to enlarge the pad. The previous and proposed reserve pit butts against a steep ridge to the south. The south edge of the proposed pit will be trimmed so as not to excavate more into this hill. The slope will be left nearly vertical as it currently exists. Maximum cut is 11.0 feet at Pit Corner B and maximum fill is 10.9 feet at Corner 2. The White River is approximately 1 mile to the west. The existing pad shows no stability problems and the site has no apparent concerns for constructing an enlarged pad and drilling and operating the planned wells. It is the only suitable location in the immediate area.

Both the surface and minerals are owned by SITLA. Ed Bonner and Jim Davis of SITLA were invited to attend the pre-site evaluation. Neither attended. SITLA is to be contacted for reclamation standards including a seed mix to be used.

Ben Williams of the Utah Division of Wildlife Resources attended the pre-site. Mr. Williams stated no wildlife values would be significantly affected by drilling and operating the additional wells at this location.

Application for Permit to Drill Statement of Basis

8/3/2011

Utah Division of Oil, Gas and Mining

Page 2

Floyd Bartlett
Onsite Evaluator

5/24/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

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

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/13/2011**API NO. ASSIGNED:** 43047516210000**WELL NAME:** NBU 922-36E1CS**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)**PHONE NUMBER:** 720 929-6086**CONTACT:** Gina Becker**PROPOSED LOCATION:** SWNW 36 090S 220E**Permit Tech Review:** **SURFACE:** 1682 FNL 0739 FWL**Engineering Review:** **BOTTOM:** 1903 FNL 0824 FWL**Geology Review:** **COUNTY:** UINTAH**LATITUDE:** 39.99520**LONGITUDE:** -109.39443**UTM SURF EASTINGS:** 637068.00**NORTHINGS:** 4428249.00**FIELD NAME:** NATURAL BUTTES**LEASE TYPE:** 3 - State**LEASE NUMBER:** ML-22650**PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE**SURFACE OWNER:** 3 - State**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**

Commingling Approved**LOCATION AND SITING:**

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

Comments: Presite Completed

Stipulations:

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



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 922-36E1CS
API Well Number: 43047516210000
Lease Number: ML-22650
Surface Owner: STATE
Approval Date: 8/3/2011

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

Contact Information:

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

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

Reporting Requirements:

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

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

Approved By:



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: ML-22650
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 922-36E1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047516210000
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: 1682 FNL 0739 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 36 Township: 09.0S Range: 22.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

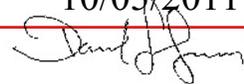
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/3/2011	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Pit Refurb/ ACTS"/>

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

Kerr-McGee Oil & Gas Onshore, LP is requesting to refurb the existing pit on this multi-well pad for completion operations. The refurb pit will be relined per the requirements in the COA of the APD. Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize this pit as an ACTS staging pit to be utilized for other completion operations in the area. The trucks will unload water into these tanks before the water is placed into the refurbished pit. The purpose of the frac tanks is to collect any hydro-carbons that may have been associated with the other completion operations before releasing into the pit. We plan to keep this pit open for 1 year. During this time the surrounding well location completion fluids will be recycled in this pit and utilized for other frac jobs in the surrounding sections. Thank you.

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

Date: 10/05/2011
By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 9/26/2011	

Please Review Attached Conditions of Approval

RECEIVED Sep. 26, 2011



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047516210000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
PHONE NUMBER: 720 929-6511	8. WELL NAME and NUMBER: NBU 922-36E1CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1682 FNL 0739 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 36 Township: 09.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047516210000
	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 checked="" type="checkbox"/> SPUD REPORT Date of Spud: 2/28/2012	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input 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 TRIPPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
 RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD
 WELL ON 02/28/2012 AT 1230 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 March 06, 2012

NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 3/1/2012	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By J. Scharnowske Phone Number 720.929.6304
Well Name/Number NBU 922-36E1CS
Qtr/Qtr SWNW Section 36 Township 9S Range 22E
Lease Serial Number ML-22650
API Number 4304751621

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

Date/Time 02/28/2012 07:00 HRS AM PM

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

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

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FEB 27 2012
DIV. OF OIL, GAS & MINING

Date/Time 03/04/2012 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	
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650	
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 922-36E1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047516210000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1682 FNL 0739 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 36 Township: 09.0S Range: 22.0E 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: 3/9/2012	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER		<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.			
MIRU AIR RIG ON MARCH 7, 2012. DRILLED SURFACE HOLE TO 2,597'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.			
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst	
SIGNATURE N/A	DATE 3/12/2012		

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: NBU 922-36E1CS
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5. PHONE NUMBER: 720 929-6511	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 checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 3/19/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The operator requests approval for changes in the drilling plan. Specifically, the operator requests approval for a FIT waiver, a closed loop drilling option and production casing change. All other aspects of the previously approved drilling plan will not change. Please see the attachment. Thank you.

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

Date: March 20, 2012

By: *Derek Duff*

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 3/19/2012	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 922-36E1CS**

Surface: 1682 FNL / 739 FWL SWNW
 BHL: 1903 FNL / 824 FWL SWNW

Section 36 T9S R22E

Unitah County, Utah
 Mineral Lease: ML-22650

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	1,339'	
Birds Nest	1,627'	Water
Mahogany	1,994'	Water
Wasatch	4,439'	Gas
Mesaverde	6,647'	Gas
Sego	8,898'	Gas
Castlegate	9,013'	Gas
Blackhawk	9,447'	Gas
TVD	10,047'	
TD	10,059'	

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 10047' TVD, approximately equals
 6,631 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,466 psi (bottom hole pressure
 minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. Anticipated Starting Dates:

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

9. Variations:

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

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

Variance for FIT Requirements

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

Conclusion

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

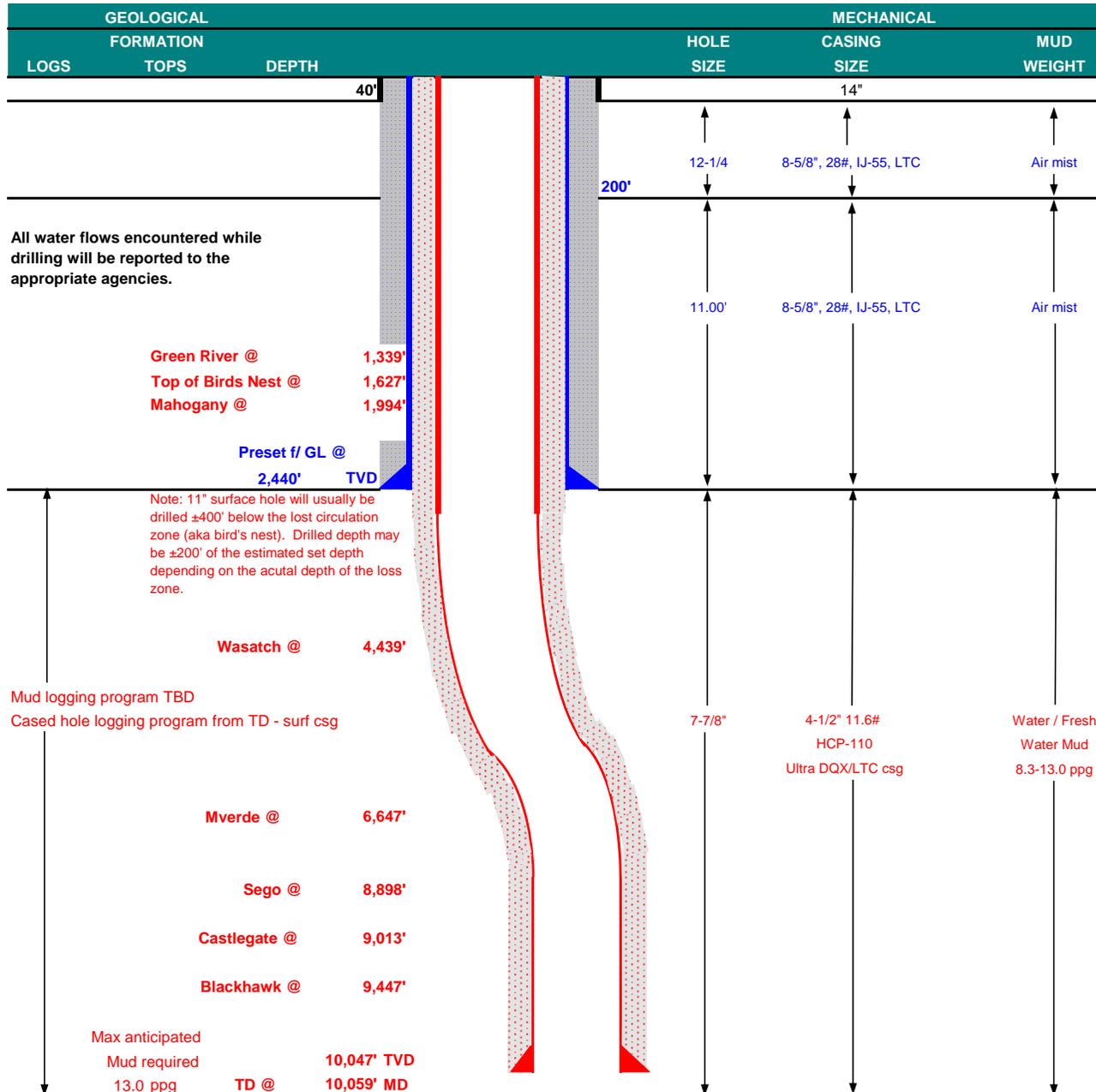
10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	February 8, 2012	
WELL NAME	NBU 922-36E1CS		TD	10,047'	TVD 10,059' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	SWNW 1682 FNL 739 FWL	Sec 36	T 9S	R 22E	FINISHED ELEVATION 5,114'
	Latitude: 39.995202	Longitude: -109.394412	NAD 27		
BTM HOLE LOCATION	SWNW 1903 FNL 824 FWL	Sec 36	T 9S	R 22E	
	Latitude: 39.994596	Longitude: -109.394107	NAD 27		
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	DQX
								TENSION	
CONDUCTOR	14"	0-40'							
						3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,440	28.00	IJ-55	LTC	2.21	1.65	5.82	N/A
						10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0 to 5,000	11.60	HCP-110	DQX	1.19	1.27		3.93
	4-1/2"	5,000 to 10,059'	11.60	HCP-110	LTC	1.19	1.27	5.93	

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	1,940'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	180	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	3,939'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	310	35%	12.00	3.38
TAIL	6,120'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,450	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. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

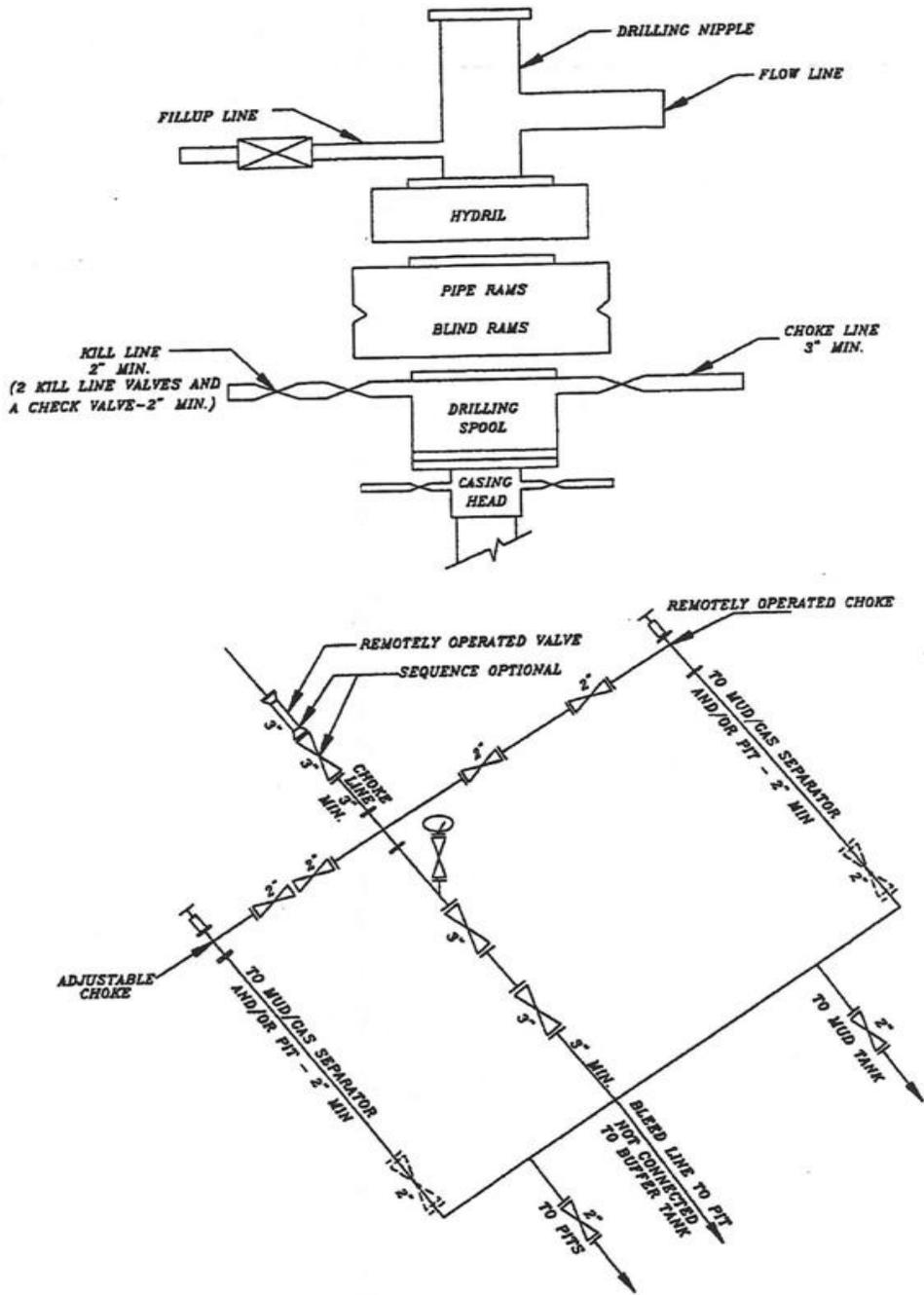
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

EXHIBIT A NBU 922-36E1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Requested Drilling Options:

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

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

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
4304751621	NBU 922-36E1CS		SWNW	36	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	2/28/2012		3/20/2012		
Comments: MIRU TRIPPLE A BUCKET RIG. <u>WSMVD</u> SPUD WELL ON 02/28/2012 AT 1230 HRS. <u>BHL SWNW</u>							

Well 2

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

Well 3

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

ACTION CODES:

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

SHEILA WOPSOCK

Name (Please Print)

Sheila Wopsock
Signature

REGULATORY ANALYST

3/1/2012

Title

Date

(5/2000)

RECEIVED

MAR 01 2012

Div. of Oil, Gas & Mining

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# Ensign 138
Submitted By DALTON KING Phone Number 435- 828-0982
Well Name/Number NBU 922-36E1CS
Qtr/Qtr SW/NW Section 36 Township 9S Range 22E
Lease Serial Number ML-22650
API Number 43-047-51621

Casing – Time casing run starts, not cementing times.

- Production Casing
 Other

Date/Time _____ AM PM

BOPE

- Initial BOPE test at surface casing point
 Other

Date/Time 4/25/2012 06:00 AM PM

Rig Move

Location To: _____

Date/Time _____ AM PM

Remarks TIME IS ESTIMATED

RECEIVED

APR 24 2012

DIV. OF OIL, GAS & MINING

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
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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"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
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<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 4/30/2012	<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
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	<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 ROTARY RIG. FINISHED DRILLING FROM 2597' TO 8915' ON 4/29/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN 138 RIG ON 4/30/2012 @ 14:00 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
 May 04, 2012

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 5/1/2012	

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# Ensign 138
Submitted By BRAD PEDERSEN Phone Number 435- 828-0982
Well Name/Number NBU 922-36E1CS
Qtr/Qtr SW/NW Section 36 Township 9S Range 22E
Lease Serial Number ML-22650
API Number 43-047-51621

Casing – Time casing run starts, not cementing times.

- Production Casing
 Other

Date/Time 4/30/2012 00:00 AM PM

BOPE

- Initial BOPE test at surface casing point
 Other

Date/Time _____ AM PM

Rig Move

Location To: NBU 922-36E4BS

Date/Time 4/30/2012 2:00 AM PM

Remarks TIME IS ESTIMATED

RECEIVED

MAY 01 2012

DIV. OF OIL, GAS & MINING

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1682 FNL 0739 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 36 Township: 09.0S Range: 22.0E Meridian: S	8. WELL NAME and NUMBER: NBU 922-36E1CS 9. API NUMBER: 43047516210000 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
PHONE NUMBER: 720 929-6511	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 4/17/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input 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.

Kerr-McGee respectfully requests authorization to shallow the above captioned well to the Mesaverde formation. All other aspects of the originally approved APD shall remain the same. Please see the attached updated drill plan. Thank you.

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

Date: May 09, 2012

By: *D. K. Quist*

NAME (PLEASE PRINT) Laura Abrams	PHONE NUMBER 720 929-6356	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 4/17/2012	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 922-36E1CS**

Surface:	1682 FNL / 739 FWL	SWNW
BHL:	1903 FNL / 824 FWL	SWNW

Section 36 T9S R22E

Uintah County, Utah
Mineral Lease: ML-22650

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	1,331'	
Birds Nest	1,634'	Water
Mahogany	2,102'	Water
Wasatch	4,439'	Gas
Mesaverde	6,647'	Gas
Sego	8,913'	Gas
TVD	8,913'	
TD	8,924'	

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 8913' TVD, approximately equals
5,704 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 3,731 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

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

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

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

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

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

Background

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

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

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

Variance for FIT Requirements

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

Conclusion

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

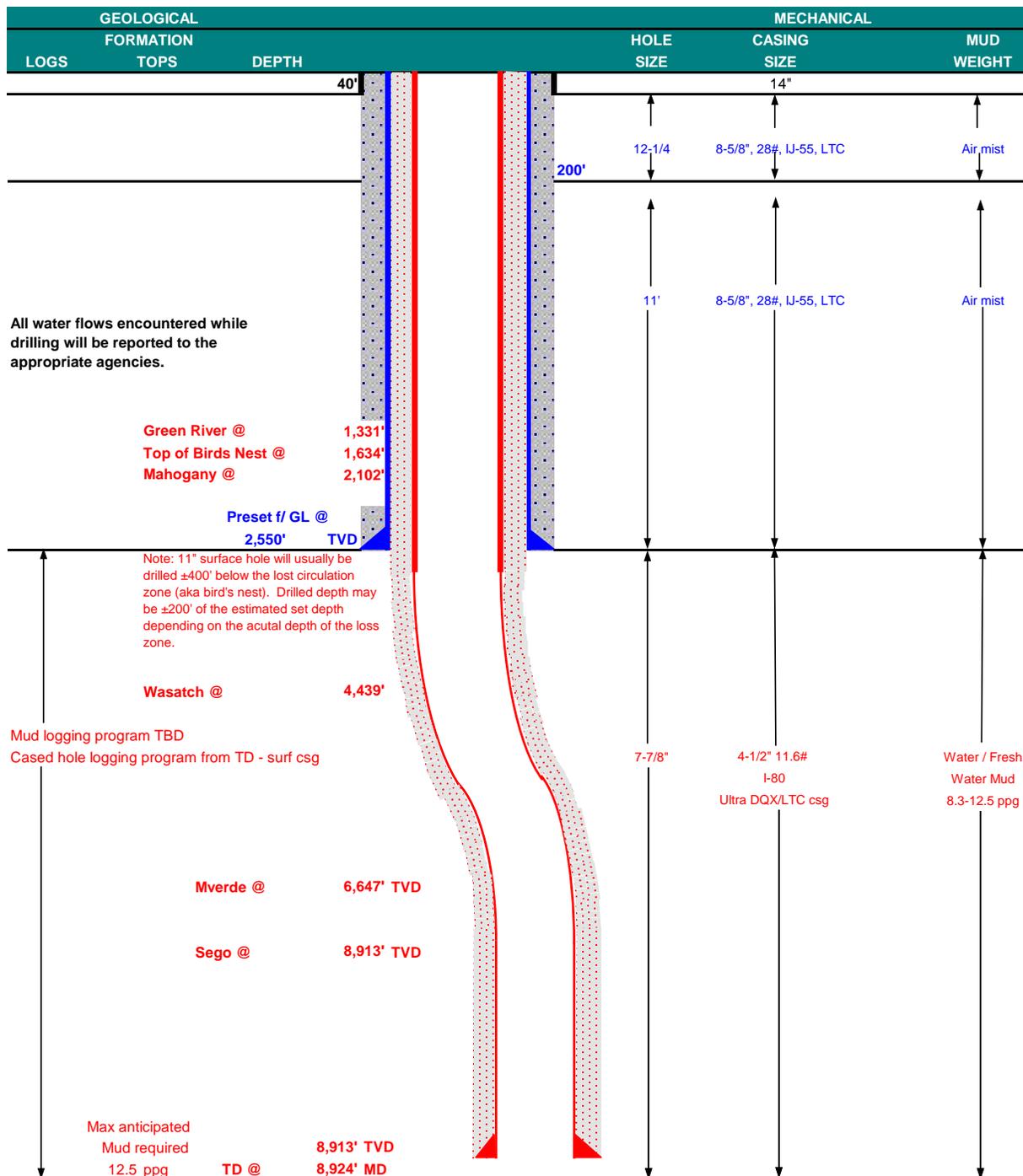
10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	April 17, 2012	
WELL NAME	NBU 922-36E1CS		TD	8,913'	TVD 8,924' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION 5110.5	
SURFACE LOCATION	SWNW 1682 FNL	739 FWL	Sec 36 T 9S R 22E		
	Latitude: 39.995168	Longitude: -109.395093		NAD 83	
BTM HOLE LOCATION	SWNW 1903 FNL	824 FWL	Sec 36 T 9S R 22E		
	Latitude: 39.994562	Longitude: -109.394788		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	LTC		DQX TENSION
							COLLAPSE		
CONDUCTOR	14"	0-40'				3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,550	28.00	IJ-55	LTC	2.12	1.58	5.57	N/A
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	7,780	6,350	223,000	267,035
						1.11	1.10		3.19
						7,780	6,350	223,000	267,035
	4-1/2"	5,000 to 8,924'	11.60	I-80	LTC	1.11	1.10	6.06	

Surface casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe
 Fracture at surface shoe with 0.1 psi/ft gas gradient above
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	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	2,050'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,934'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	310	35%	12.00	3.38
	TAIL	4,990'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,180	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. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

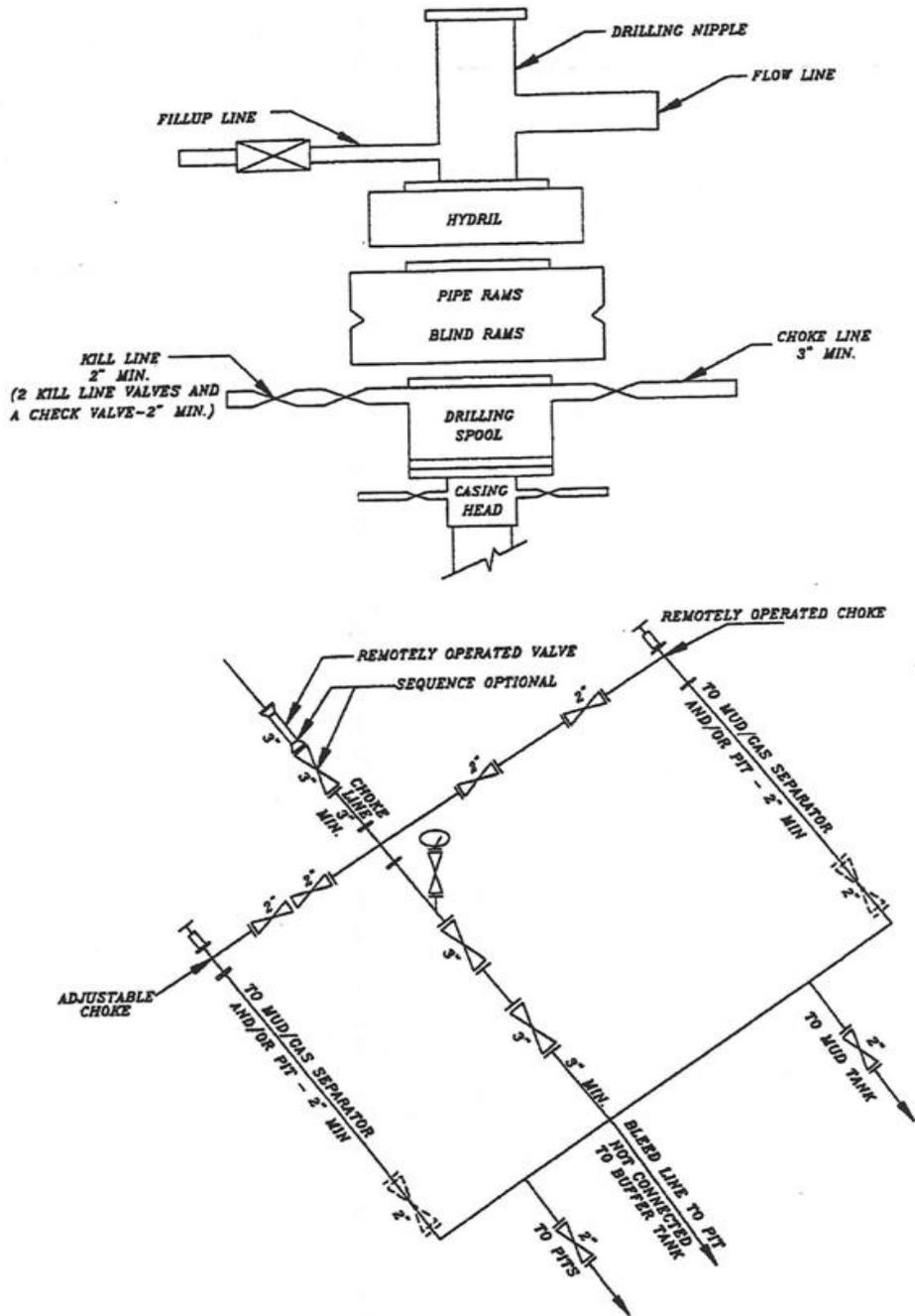
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

EXHIBIT A NBU 922-36E1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: NBU 922-36E1CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1682 FNL 0739 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 36 Township: 09.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047516210000
10. PHONE NUMBER: 720 929-6511	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 checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 6/20/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Cement Squeeze"/>

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

Anadarko is requesting sundry approval for the attached completion procedure. The well has been fracture stimulated but needs to be followed by a remedial cement squeeze. The NBU 922-36E1CS well has been identified as requiring remediation and is currently being monitored and handled by our bradenhead best management practices.

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

Date: June 25, 2012

By: 

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 6/20/2012	

Greater Natural Buttes Unit



NBU 922-36E1CS
CEMENT SQUEEZE PROCEDURE

DATE: 6/20/2012
AFE#: 2049849
API#: 4304751621

COMPLETIONS ENGINEER: James Page, Denver, CO
(720) 929-6747 (Office)
(303) 501-2731 (Cell)

SIGNATURE:

ENGINEERING MANAGER: JEFF DUFRESNE

SIGNATURE:

REMEMBER SAFETY FIRST!

Name: NBU 922-36E1CS
Location: SW NE SW NW Sec 36 T9S R22E
LAT: 39.995168 **LONG:** -109.395093 **COORDINATE:** NAD83 (Surface Location)
Uintah County, UT
Date: 6/20/2012

ELEVATIONS: 5111' GL 5125' KB *Frac Registry TVD: 8893'*

TOTAL DEPTH: 8915' **PBTD:** 8861'
SURFACE CASING: 8 5/8", 28# J-55 LT&C @ 2567'
PRODUCTION CASING: 4 1/2", 11.6#, I-80 DQX @ 5023'
 4 1/2", 11.6#, I-80 LTC @ 5023-8907'
 Marker Joint **4988-5008 & 6588-6609'**

TUBULAR PROPERTIES:

	BURST (psi)	COLLAPSE (psi)	DRIFT DIA. (in.)	CAPACITIES	
				(bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55 tbg	7,700	8,100	1.901"	0.00387	0.1624
4 1/2" 11.6# I-80 (See above)	7780	6350	3.875"	0.0155	0.6528
2 3/8" by 4 1/2" Annulus				0.0101	0.4227

TOPS:

1339' Green River Top
 1635' Bird's Nest Top
 2001' Mahogany Top
 4465' Wasatch Top
 6623' Mesaverde Top

BOTTOMS:

6623' Wasatch Bottom
 8915' Mesaverde Bottom (TD)

T.O.C. @ 580'

GENERAL:

- All perforation depths are from Baker's Induction-Density-Neutron log dated 04/29/2012
- Hydraulic isolation estimated at **5132'** based upon from Schlumberger's cbl dated 5/30/12 . Requires Cement Remediation
- Well was originally completed on 6/19/2012
- 8000 psi CBP at~6796'.
- Maximum surface pressure **2500 psi**. Inform engineering if cement pumping pressure > 600psi.

PROCEDURE:

1. NU and Test BOPs. Pressure test casing to 1000 and 3500 psi for 15 minutes each.
2. RIH and perf the following 3-3/8" gun, 23 gm, 0.36" hole:

From	To	spf	# of shots
2579	2580	6	6

***Location picked off CBL; See Below*
3. Establish injection rate into perforations
4. Monitor annulus between surface casing and 4-1/2" casing for communication. Based on communication results; perform desired cement squeeze.
5. RIH set CICR at ~2560'.
6. R/U cement company and pump recommended cement job into perforations based on injection rate and pressure. PUH w/stinger and cap with CICR with cement. Reverse circulate clean. WOC for a minimum 12 hours prior to drill out.
7. POOH. TIH with 3 7/8" bit, pump off sub, SN and tubing. D-O CICR and cement to ~2700'. Pressure test casing and perforations to 1000 psi for 10 minutes. Also verify that there is no gas flow or pressure building up on the surface casing. Contact engineer if there is a test failure.
8. Drill plugs and clean out to PBTD. Shear off bit and land tubing at $\pm 8427'$ unless indicated otherwise by the well's behavior.
9. Clean out well with foam and/or swabbing unit until steady flow has been established from completion.
10. **Leave surface casing valve open.** Monitor and report any flow from surface casing. RDMO

For design questions, please call
James Page, Denver, CO
(720) 929-6747 (Office)
(303) 501-2731 (Cell)

For field implementation questions, please call
Jeff Samuels, Vernal, UT
(435) 781-7046 (Office)

NOTES:

Verify that the Braden head valve is locked OPEN.

Key Contact information

Production Engineer

Brad Laney: 435/781-7031, 435/828-5469

Blair Corbett: 435/781-9714, 435/322-0119

Ben Smiley: 435/781-7010, 936/524-4231

Completion Supervisor Foreman

Jeff Samuels: 435-828-6515, 435-781-7046

Completion Manager

Jeff Dufresne: 720-929-6281, 303-241-8428

Vernal Main Office

435-789-3342

Emergency Contact Information—Call 911

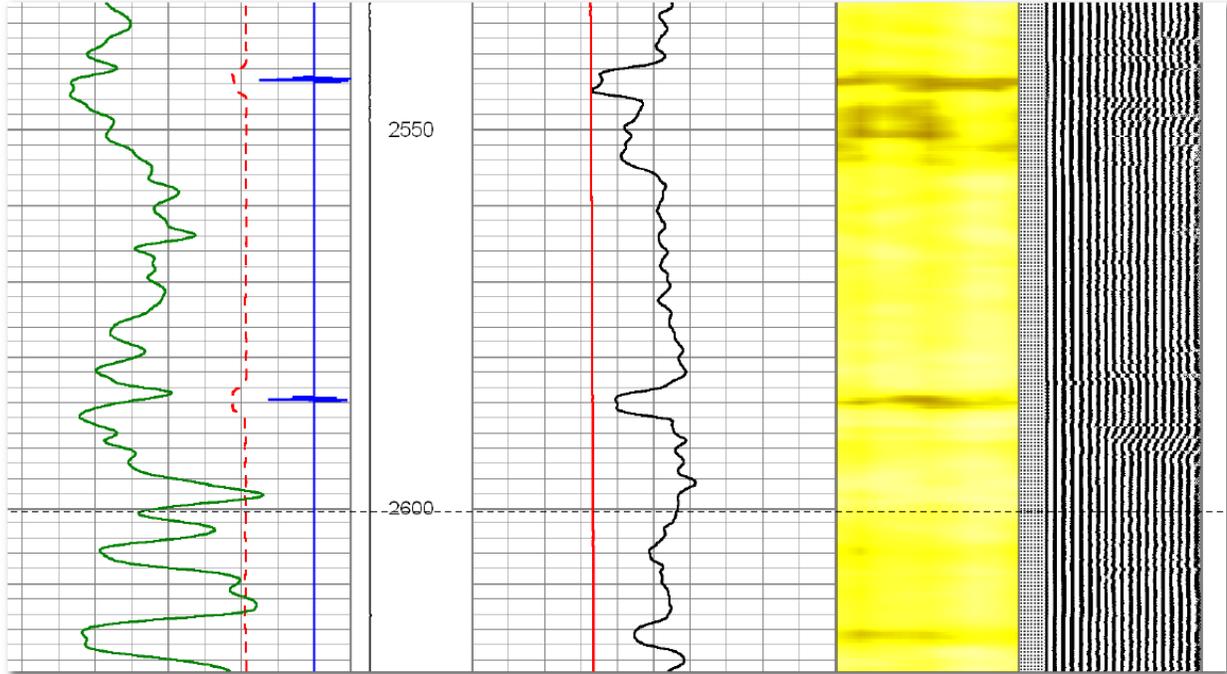
Vernal Regional Hospital Emergency: 435-789-3342

Police: (435) 789-5835

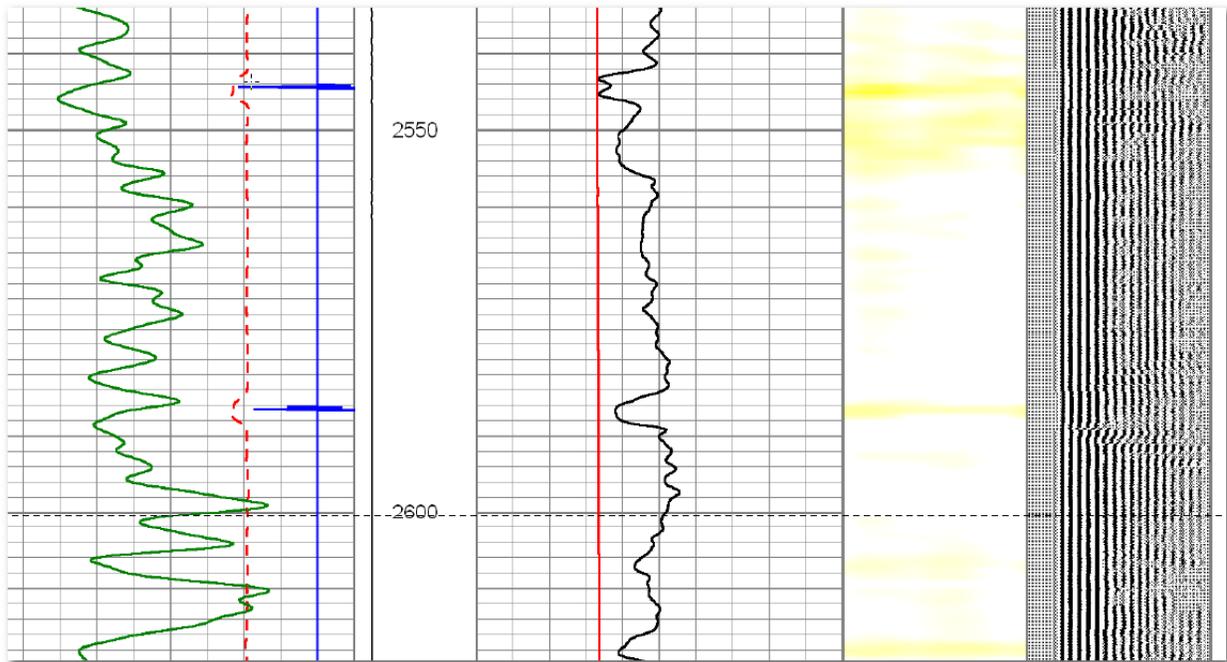
Fire: 435-789-4222

Perf and Squeeze 2579-2580'

NBU 922-36E1CS - CBL 5/320/2012 – Run @ 0 PSI.



NBU 922-36E1CS - CBL 6/8/2012 – Run @ 1500 PSI.



Name NBU 922-36E1CS
 Perforation and CBP Summary

Stage	Zones	Perforations		SPF	Holes	Fracture Coverage		
		Top, ft	Bottom, ft					
1	MESAVERDE	8623	8624	4	4	8620.5	to	8627.5
	MESAVERDE	8638	8639	4	4	8635.5	to	8645.5
	MESAVERDE	8791	8792	4	4	8789.5	to	8796.5
	MESAVERDE	8823	8824	4	4	8820	to	8831
	MESAVERDE	8847	8849	4	8	8846	to	8864.5
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	8,595	
2	MESAVERDE	8457	8458	4	4	8453	to	8462
	MESAVERDE	8467	8468	4	4	8464.5	to	8469
	MESAVERDE	8496	8497	4	4	8494	to	8502
	MESAVERDE	8515	8516	4	4	8510	to	8523
	MESAVERDE	8553	8554	4	4	8548	to	8556
	MESAVERDE	8564	8565	4	4	8562	to	8573
	MESAVERDE							
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	8,440	
3	MESAVERDE	8318	8320	4	8	8312	to	8323
	MESAVERDE	8370	8371	4	4	8369.5	to	8372
	MESAVERDE	8388	8390	4	8	8379.5	to	8396
	MESAVERDE	8409	8410	4	4	8403.5	to	8411
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	8,292	
4	MESAVERDE	8055	8056	3	3	8053.5	to	8057.5
	MESAVERDE	8085	8086	3	3	8081.5	to	8092.5
	MESAVERDE	8130	8132	3	6	8108	to	8141
	MESAVERDE	8166	8167	3	3	8162.5	to	8169.5
	MESAVERDE	8193	8194	3	3	8189	to	8195
	MESAVERDE	8225	8226	3	3	8223.5	to	8227.5
	MESAVERDE	8261	8262	3	3	8259	to	8265.5
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	8,036	
5	MESAVERDE	7809	7810	4	4	7799.5	to	7814
	MESAVERDE	7973	7974	4	4	7972.5	to	7976
	MESAVERDE	7983	7984	4	4	7983.5	to	7986.5
	MESAVERDE	8003	8006	4	12	7998	to	8019
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	7,748	
6	MESAVERDE	7524	7525	4	4	7520	to	7534.5
	MESAVERDE	7625	7626	4	4	7622	to	7627.5
	MESAVERDE	7635	7636	4	4	7632.5	to	7637.5
	MESAVERDE	7662	7663	4	4	7660.5	to	7671.5
	MESAVERDE	7716	7718	4	8	7700	to	7733.5
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	7,504	
7	MESAVERDE	7249	7250	3	3	7244	to	7256
	MESAVERDE	7301	7302	3	3	7300	to	7307.5
	MESAVERDE	7336	7337	3	3	7333	to	7344
	MESAVERDE	7365	7366	3	3	7351	to	7381
	MESAVERDE	7409	7410	3	3	7409	to	7412
	MESAVERDE	7415	7416	3	3	7414.5	to	7417
	MESAVERDE	7472	7474	3	6	7466.5	to	7486
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	7,223	
8	MESAVERDE	7017	7018	4	4	7016	to	7021.5
	MESAVERDE	7083	7084	4	4	7076	to	7091.5
	MESAVERDE	7097	7098	4	4	7094.5	to	7101
	MESAVERDE	7125	7126	4	4	7120	to	7134
	MESAVERDE	7191	7193	4	8	7166.5	to	7200
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	6,984	
9	MESAVERDE	6846	6847	4	4	6820	to	6853.5
	MESAVERDE	6859	6860	4	4	6856	to	6862
	MESAVERDE	6916	6917	4	4	6915	to	6918
	MESAVERDE	6936	6938	4	8	6921.5	to	6947.5
	MESAVERDE	6953	6954	4	4	6952.5	to	6955
	MESAVERDE							
	MESAVERDE							
	MESAVERDE							
	# of Perfs/stage				24	CBP DEPTH	6,796	
	Totals	Total			216			Total

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
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 922-36E1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047516210000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6514 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1682 FNL 0739 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 36 Township: 09.0S Range: 22.0E 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"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/2/2012	<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.

Well was completed, finishing well completion report.

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

FOR RECORD ONLY

August 08, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 8/2/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
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
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047516210000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6514 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1682 FNL 0739 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 36 Township: 09.0S Range: 22.0E 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"/> 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: 6/29/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<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.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 6/29/2012. 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
 August 16, 2012

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 8/15/2012	

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:
ML-22650

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME
UTU63047A

8. WELL NAME and NUMBER:
NBU 922-36E1CS ✓

9. API NUMBER:
4304751621

10. FIELD AND POOL, OR WILDCAT
NATURAL BUTTES

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
SWNW 36 9S 22E S

12. COUNTY
UINTAH

13. STATE
UTAH

14. DATE SPUDED: **2/28/2012**

15. DATE T.D. REACHED: **4/29/2012**

16. DATE COMPLETED: **6/29/2012** ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
5111 GL

18. TOTAL DEPTH: MD **8,915** TVD **8,903**

19. PLUG BACK T.D.: MD **8,861** TVD **8,849**

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
BHP-HDIL/ZDL/CNGR-CBL/GR/CCL/TEMP

23. WAS WELL CORED? NO YES (Submit analysis)
WAS DST RUN? NO YES (Submit report)
DIRECTIONAL SURVEY? NO YES (Submit copy)

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

3. ADDRESS OF OPERATOR: **P.O. BOX 173779** CITY **DENVER** STATE **CO** ZIP **80217** PHONE NUMBER: **(720) 929-6000**

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: **SWNW 1682 FNL 739 FEL S36,T9S,R22E**
AT TOP PRODUCING INTERVAL REPORTED BELOW: **SWNW 1896 FNL 854 FEL S36,T9S,R22E**
AT TOTAL DEPTH: **SWNW 1905 FNL 881 FEL S36,T9S,R22E** *BHL by HSM*

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#	0	40		28			
11"	8 5/8" J-55	28#	0	2,567		815		0	
7 7/8"	4 1/2" I-80	11.6#	0	8,907		1,648		580	

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"	8,418							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	6,846	8,849			6,846 8,849	0.36	216	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
6846-8849	PUMP 8118 BBLs SLICK H2O & 156,711 LBS 30/50 OTTAWA SAND 9 STAGES

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

AUG 28 2012

DIV. OF OIL, GAS & MINING

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 6/29/2012		TEST DATE: 6/30/2012		HOURS TESTED: 24		TEST PRODUCTION RATES: →		OIL - BBL: 0	GAS - MCF: 2,362	WATER - BBL: 495	PROD. METHOD: FLWG
CHOKE SIZE: 20/64	TBG. PRESS. 1,823	CSG. PRESS. 2,492	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 2,362	WATER - BBL: 495	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.

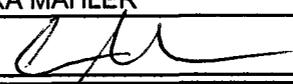
34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	1,339
				BIRD'S NEST	1,635
				MAHOGANY	2,001
				WASATCH	4,465
				MESAVERDE	6,623

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. DQX csg was run from surface to 5023'; LTC csg was run from 5023' to 8907'. Attached is the chronological well history, perforation report & final survey. Performed cement squeeze procedure as per NOI approved June 25, 2012.

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

NAME (PLEASE PRINT) CARA MAHLER TITLE REGULATORY ANALYST
 SIGNATURE  DATE 8/16/2012

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 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 11/22/2011

End Date: 4/30/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/NW/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/7/2012	11:00 - 13:00	2.00	MIRU	01	B	P		MOVE TO NBU 922-36E1CS (WELL 4/4) INSTALL DIVERTOR HEAD AND BLUEY LINE. BUILD DITCH. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PIT PUMP. RIG UP PUMP. PRIME PUMP. INSPECT RIG. HELD PRE-SPUD SAFETY MEETING. PU BHA & SPUD @ 13:30
	13:00 - 13:30	0.50	MIRU	06	A	P		DRL F/ 44' T/210' (166'@ 110.66' PER HR)
	13:30 - 15:00	1.50	DRLSUR	02	D	P		WOB, 5-15 KRPM, 45 UP/DWN/ROT WEIGHTS 20/20/20 PSI ON BTTM, 600 OFF BTTM, 400 M.W. 8.34, VIS 27 POOH, PU 11" BIT & DIR.TOOLS
	15:00 - 15:30	0.50	DRLSUR	06	A	P		TIH T/210'
	15:30 - 0:00	8.50	DRLSUR	02	D	P		DRL F/210' T/1210' (1000'@ 117.64 ' PER HR) WOB, 20 RPM, 40 UP/DWN/ROT WEIGHTS 61/50/57 PSI ON BTTM/1300 OFF BTTM/1100 M.W. 8.34, VIS 27
3/8/2012	0:00 - 12:00	12.00	DRLSUR	02	D	P		1.54' RIGHT & 1.98' ABOVE THE LINE DRL F/1210 T/2350 (1140'@ 95' PER HR) WOB, 20 RPM, 45 UP/DWN/ROT WEIGHTS 85/74/78 PSI ON BTTM/1500 OFF BTTM/1150 M.W. 8.34, VIS 27 1.54' RIGHT & 1.98' ABOVE THE LINE

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 11/22/2011

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Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/W/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:00 - 15:30	3.50	DRLSUR	02	D	P		DRL F/2350 T/2597 (247" @ 70.57' PER HR) WOB, 20 RPM, 45 UP/DWN/ROT WEIGHTS 88/70/79 PSI ON BTTM/1800 OFF BTTM/1480 M.W. 8.34, VIS 27
	15:30 - 17:30	2.00	DRLSUR	05	D	P		.5' RIGHT & 13' ABOVE TARGET CIRC FOR CASING
	17:30 - 21:00	3.50	DRLSUR	06	D	P		LDDS, BHA & DIR. TOOLS
	21:00 - 22:00	1.00	DRLSUR	12	A	P		MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG.
	22:00 - 0:00	2.00	DRLSUR	12	C	P		MOVE CSG INTO POSITION TO P/U. RUN 58 JTS 8 5/8", 28# J55 CASING SHOE @2557'
3/9/2012	0:00 - 0:30	0.50	DRLSUR	12	C	P		BAFFLE @ 2511' RUN 58 JTS 8 5/8", 28# J55 CASING SHOE @2557'
	0:30 - 4:30	4.00	DRLSUR	05	D	P		BAFFLE @ 2511' PUMP RESERVE PIT DOWN
	4:30 - 5:00	0.50	DRLSUR	12	B	P		LAND CSNG @ 04:30 RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES,.

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

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UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/NW/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	5:00 - 6:00	1.00	DRLSUR	12	E	P		<p>PRO PETRO MAKE UP CMT HEAD & LOAD PLUG</p> <p>PRESSURE TEST LINES TO 2000 PSI.</p> <p>PUMP 140 BBLS OF WATER AHEAD.</p> <p>PUMP 20 BBLS OF 8.3# GEL WATER AHEAD.</p> <p>PUMP (300 SX) 61.35 BBLS OF TAIL 15.8# 1.15 YD 5 GAL/SK PREMIUM CEMENT W/ 2% CALC. CMT TOP 1266'</p> <p>DROP PLUG ON FLY.</p> <p>DISPLACE W/ 156.6 BBLS OF H2O.</p> <p>NO CIRC THROUGH OUT.</p> <p>FINAL LIFT OF 150 PSI AT 4 BBL/MIN.</p> <p>DID NOT BUMP PLUG. SHUT IN CEMENT HEAD.</p> <p>PUMP (150 SX) 30.64 BBLS OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACK SIDE. SHUT DOWN AND CLEAN TRUCK. NO CEMENT TO SURFACE.</p>
	6:00 - 7:00	1.00	DRLSUR	13	A	P		<p>PUMP 100 SKS (20.4 BBLS) DOWN-NBU 922-36E4BS (CEMENT TO SURFACE)</p> <p>WOC, 1.5 HOURS PUMP 125 SKS (25.6 BBLS)</p> <p>NO CMT TO SURFACE</p> <p>TOPPED OFF CMT @ 16:00 WITH TRIPLE A DRILLING. 140 SKS CMT</p>
4/23/2012	12:00 - 18:00	6.00	RDMO	01	E	P		<p>RELEASE RIG 07:00</p> <p>RIG DOWN THE FLOOR, KOOMY LINES, FLOW LINES, FLARE LINES, GET TEH DOLLY IN POSITION, UNSPOOL DRILLING LINE, FOLD THE BOARD , TIE OFF DERRICK LINES. RIG DOWN ELECTRIC TO THE SUBSTRUCTURE, BLEED THE DERRICK CYLIDERS, LOWER THE DERIICK. MOVE 0.5 MILES</p>
	18:00 - 0:00	6.00	RDMO	01	E	P		<p>FINISH PREPPING THE DERRICK FOR MOBILIZATION, RIG DOWN THE GAS BUSTER AND GEN #2, RIG DOWN THE ELECTRIAL LINES, BUILDINGS, MUD TANKS, AND AC HOUSE. RIG DOWN THE PRE MIX AND WATER TANK.</p>
4/24/2012	0:00 - 6:00	6.00	RDMO	01	E	P		<p>RIG DOWN THE MUD TANKS / ELECTRIC / WATER TANK / PRE MIX TANK / DICONECT WATER AND AIR LINES. WAIT ON DAYLIGHT TO MOVE.</p>
	6:00 - 15:00	9.00	MIRU	01	B	P		<p>MIRU WITH R.W. JONES: 7 TRUCKS / 2 FORKLIFTS / 2 PUSHERS / 2 SWAMPERS / 0 EXTRA RIG HANDS. TRUCKS ARRIVED @ 06:30 WE HELD A SAFETY MEETING THEN PROCEDED TO MOVE 1/4 MILE / DERRICK IN THE AIR @ 14:00 / TRUCKS OFF LOCATION @ 14:30 .</p>

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 11/22/2011

End Date: 4/30/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/N/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:00 - 0:00	9.00	MIRU	01	B	P		RIG UP ELECTRIC AND PAYSON / START GEN #1 & #2 / CENTER THE RIG OVER THE HOLE / FINISH THE DERRICK WORK / RIG UP AIR AND WATER / RIG UP THE FLOOR, CATWALK .
4/25/2012	0:00 - 2:00	2.00	MIRU	01	B	P		RU THE FLARE LINES AND RUN THE PAYSON TO THE PITS
	2:00 - 3:00	1.00	PRSPD	14	A	P		NIPPLE UP AND FUNCTION TEST BOP
	3:00 - 8:00	5.00	PRSPD	15	A	P		SAFETY MEETING W/ A-1 TESTING, RIG UP & TEST FLOOR VALVES, TOP DRIVE VALVE, INSIDE & OUTSIDE KILL LINE VALVES, INSIDE CHOKE LINE VALVE , HCR VALVE, CHOKE MANIFOLD, PIPE & BLIND RAMS 250 PSI F/ 5 MIN , 5000 PSI F/ 10 MIN, ANNULAR 250 PSI F/ 5 MIN, 2500 PSI F/ 10 MIN, CASING TO 1500 PSI F/ 30 MIN, RIG DOWN
	8:00 - 8:30	0.50	PRSPD	14	B	P		TESTER
	8:30 - 9:00	0.50	PRSPD	07	C	P		SET WEAR BUSHING
	9:00 - 16:30	7.50	PRSPD	06	A	P		CHANGE OUT SAVER SUB
	16:30 - 19:30	3.00	DRLPRO	02	D	P		PICK UP SMITH MSI 616 BIT, SDI .28 RPG/ 1.5 BEND MOTOR, DIRECTIONAL TOOLS ORIENT MWD, HWDP, INSTALL DRILLING RUBBER, PICK UP DRILL PIPE ,TAG
	19:30 - 0:00	4.50	DRLPRO	02	D	P		CEMENT @ 2270' DRILL CEMENT, FLOAT EQUIPMENT & OPEN HOLE F/ 2270' TO 2607' (337') WOB 10/12 RPM 30 SPM 80, GPM 360 (NOTE: CEMENT JOB ON SURFACE DID NOT BUMP PLUG)
4/26/2012	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 2607' TO 3139' , 532' @ 118.2' HR WOB 18-20, SPM 120, GPM 540 RPM 50/151 TRQ ON/OFF 10/8 PSI ON/OFF 1851/1397 PU/SO/ROT 112/108/110 SLIDE: 100' ,1.17 HRS = 85.71' HR ROTATE: 532' 4.5 HRS = 118.2' HR WATER 8.4 NOV: RUNNING CONVENTIONAL BIT POSITION: @ 3140' 17' N, 11.5' W
								DRILL F/ 3139' TO 3947' 808' @ 134.6' HR WOB 18-20, SPM 120, GPM 540 RPM 50/151 TRQ ON/OFF 10/8 PSI ON/OFF 1937/1427 PU/SO/ROT 117/111/113 SLIDE: 34' ,34 HRS = 100' HR ROTATE: 773' 5.08 HRS = 152.1' HR WATER 8.5 NOV: DEWATERING BIT POSITION: @ 3800' 35' N, 9' W

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 11/22/2011

End Date: 4/30/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/NW/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 12:30	6.50	DRLPRO	02		D		DRILL F/ 3947' TO 4621' 674' @ 103.6' HR WOB 18-21, SPM 120, GPM 540 RPM 50/151 TRQ ON/OFF 10/8 PSI ON/OFF2032/1528 PU/SO/ROT 123/104/111 SLIDE: 60' ,1 HR = 60' HR ROTATE: 603', 4.4 HRS = 137' HR WATER 8.5 NOV: DEWATERING BIT POSITION: @ 4623' 13.6'N ,3.4' E
	12:30 - 13:30	1.00	DRLPRO	07	A	P		RIG SERVICE
	13:30 - 0:00	10.50	DRLPRO	02		D		DRILL F/ 4621' TO 5818' 1197' @ 114' HR WOB 18-21, SPM 120, GPM 540 RPM 50/151 TRQ ON/OFF 10/7 PSI ON/OFF 2245/1775 PU/SO/ROT 151/131/141 SLIDE: 32' ,.52 HRS = 54.2' HR ROTATE: 1165' , 9.91 HRS = 117.5' HR PRE TREAT WATER @ 5700' & START LIGHT MUD UP F/ TRIP MW 9, VIS 33 NOV: DEWATERING W/ 1 CENTRAFUGE @ 30%, 1 CENTRAFUGE CONVENTIONAL BIT POSITION: @ 5796' 15' N, 5.5' W
4/27/2012	0:00 - 2:30	2.50	DRLPRO	02		D		DRILL F/ 5818' TO 6039' 221' @ 88.4' HR WOB 18-21, SPM 120, GPM 540 RPM 50/151 TRQ ON/OFF 10/7 PSI ON/OFF 2250/1780 PU/SO/ROT 152/130/143 SLIDE: 20' IN .42 HRS = 47.6' HR ROTATE: 201' IN 2.08 HRS = 96.6' HR PUMPING LCM SWEEPS ,LOST 150 BBLS WATER TO SEEPAGE. START LIGHT MUD UP F/ TRIP MW 9, VIS 33 NOV: DEWATERING W/ 1 CENTRAFUGE @ 1' STREAM, 1 CENTRAFUGE CONVENTIONAL BIT POSITION: @ 5985' 12' N, 9' W LIGHT MUD UP BEFORE TRIP AS INSTRUCTED BY DRLG ENG.
	2:30 - 3:00	0.50	DRLPRO	05	C	P		CIRC, MIX PILL
	3:00 - 6:30	3.50	DRLPRO	06	J	P		PUMP OUT 1 STAND, PUMP PILL, TRIP OUT OF HOLE , LAY DOWN 10 JOINTS HEAVY WATE DRILL PIPE, NO PROBLEMS
	6:30 - 9:00	2.50	DRLPRO	06	J	P		PICKUP 10 JOINTS HEAVY WATE DRILL PIPE, 77 JOINTS NEW HARD BANNED PIPE, TRIP IN HOLE TO SHOE
	9:00 - 10:00	1.00	DRLPRO	07	A	P		FILL PIPE , RIG SERVICE
	10:00 - 10:30	0.50	DRLPRO	08	B	Z		REPAIR GRABBER BLOCK & DIES IN GRABBER BOX
	10:30 - 13:30	3.00	DRLPRO	06	J	P		TRIP IN HOLE

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 11/22/2011

End Date: 4/30/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/W/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:30 - 18:00	4.50	DRLPRO	02	D	P		DRILL F/ 6039' TO 6340' 301' @ 66.8' HR WOB 18-21, SPM 120, GPM 540 RPM 50/151 TRQ ON/OFF 10/7 PSI ON/OFF 2343/1787 PU/SO/ROT 163/141/148 SLIDE: 0 ROTATE: 301' IN 4.5 HRS = 66.8' HR MUD WT 9.0 VIS 37 BIT POSITION: @ 6324' 11' N, 11' W OF CENTER NOV: DEWATERING W/ 1 CENTRAFUGE @ 1" STREAM, CYCLING 1 CENTRAFUGE CONVENTIONAL 1 HOUR EVERY 2 HRS AS INSTRUCTED BY DRLG ENG WHILE RAISING MUD WEIGHT PUMPING LCM SWEEPS TO CONTROL SEEPAGE HAD MODERATE SLIVERS & SLOUGHING AFTER TRIP, PUMPED 2 HIGH VIS SWEEPS HOLE CLEANED UP
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILL F/ 6340' TO 6900' , 560' @ 93.3' HR WOB 20-23, SPM 100, GPM 450 RPM 50/126 TRQ ON/OFF 12/8 PSI ON/OFF 2297/1780 PU/SO/ROT 165/150/155 SLIDE: 32' IN .75 HRS = 42.6' HR ROTATE: 528' IN 5.25 HRS = 100.5' HR MUD WT 9.5 VIS 37 BIT POSITION: @ 6836' 7' N, 10' W OF CENTER NOV: DEWATERING W/ 1 CENTRAFUGE @ 1" STREAM, CYCLING 1 CENTRAFUGE CONVENTIONAL 1 HOUR EVERY 2 HRS AS INSTRUCTED BY DRLG ENG WHILE RAISING MUD WEIGHT PUMPING LCM SWEEPS TO CONTROL SEEPAGE ,LOST APPROX 100 BBLs MUD TO SEEPAGE HAD TO SLOW PUMP STROKES AS SCREENS WERE BLINDING OFF FROM SANDS

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED Spud Date: 3/7/2012
 Project: UTAH-UINTAH Site: NBU 922-36E PAD Rig Name No: PROPETRO 11/11, ENSIGN 138/138
 Event: DRILLING Start Date: 11/22/2011 End Date: 4/30/2012
 Active Datum: RKB @5,125.00usft (above Mean Sea Level) UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/NW/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/28/2012	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 6900' TO 7477' , 577' @ 96.1' HR WOB 20-23, SPM 100, GPM 450 RPM 50/126 TRQ ON/OFF 12/8 PSI ON/OFF 2297/1780 PU/SO/ROT 165/150/155 SLIDE: 20' IN .50 HRS = 40' HR ROTATE: 557' IN 5.5 HRS = 101.2 MUD WT 10, VIS 37 BIT POSITION: @ 7420' 8' N, 2.5' W NOV: DEWATERING W/ 1 CENTRAFUGE @ 1" STREAM, CYCLING 1 CENTRAFUGE CONVENTIONAL 1 HOUR EVERY 3 HRS AS INSTRUCTED BY DRLG ENG WHILE RAISING MUD WEIGHT PUMPING LCM SWEEPS TO CONTROL SEEPAGE ,LOST APPROX 50 BBLS MUD TO SEEPAGE HAD TO SLOW PUMP STROKES TO 100 SPM / 450 GPM AS SCREENS WERE BLINDING OFF FROM SANDS,LCM, POLY & FOAMED UP MUD
	6:00 - 15:30	9.50	DRLPRO	02	D	P		DRILL F/ 7477' TO 8219' , 742' @ 78.1' HR WOB 20-23, SPM 100, GPM 450 RPM 50/126 TRQ ON/OFF 12/8 PSI ON/OFF 2343/1998 PU/SO/ROT 171/145/155 SLIDE: 45' IN 1.34 HRS = 33.5' HR ROTATE: 697' IN 8.16 HRS =85.4' HR MUD WT 10.6, VIS 38 BIT POSITION: @ 8160' 7.5' N, .85' W OF CENTER NOV: DEWATERING W/ 1 CENTRAFUGE @ 1" STREAM, CYCLING 1 CENTRAFUGE CONVENTIONAL 1 HOUR EVERY 3 HRS AS INSTRUCTED BY DRLG ENG WHILE RAISING MUD WEIGHT. PUMPING LCM SWEEPS TO CONTROL SEEPAGE ,LOST APPROX 225 BBLS MUD TO SEEPAGE HAD TO SLOW PUMP STROKES TO 100 SPM / 450 GPM AS SCREENS WERE BLINDING OFF FROM SANDS,LCM, POLY & FOAMED UP MUD
	15:30 - 16:00	0.50	DRLPRO	07	A	P		RIG SERVICE

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 11/22/2011

End Date: 4/30/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682NW/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DRILL F/ 8219' TO 8876' , 657' @ 82.1' HR WOB 20-23, SPM 100, GPM 450 RPM 50/126 TRQ ON/OFF 14/9 PSI ON/OFF 2860/2210 PU/SO/ROT 190/164/174 SLIDE: 0 ROTATE: 657' 1N 8 HRS = 82.1' HR MUD WT 11.5, VIS 43 BIT POSITION: @ 8822' 1' S, 14' E OF CENTER 10'-15' FLARE @ 8470' ,25' TO 30' BOTTOMS UP FLARE NOV: CYCLING 1 CENTRAFUGE CONVENTIONAL 1 HOUR EVERY 3 HRS AS INSTRUCTED BY DRLG ENG WHILE RAISING MUD WEIGHT. PUMPING LCM SWEEPS TO CONTROL SEEPAGE ,LOST APPROX 80 BBLS MUD TO SEEPAGE HAD TO SLOW PUMP STROKES TO 100 SPM / 450 GPM AS SCREENS WERE BLINDING OFF FROM SANDS,LCM, POLY & FOAMED UP MUD
4/29/2012	0:00 - 0:30	0.50	DRLPRO	02	D	P		DRILL F/ 8876' TO 8915' , 39' @ 78' HR WOB 20-23, SPM 100, GPM 450 RPM 50/126 TRQ ON/OFF 14/9 PSI ON/OFF 2860/2210 PU/SO/ROT 190/164/174 SLIDE: 0 ROTATE: 39' IN .5 HRS = 78' HR MUD WT 11.5, VIS 43 BIT POSITION: @ 8915' 2' S, 17' E CENTER 10'-15' ' BOTTOMS UP FLARE NOV: SHUT DOWN
	0:30 - 2:00	1.50	DRLPRO	05	C	P		CIRC F/ SHORT TRIP, MIX PILL
	2:00 - 5:30	3.50	DRLPRO	06	E	P		SHORT TRIP TO SHOE, NO PROBLEMS
	5:30 - 9:00	3.50	DRLPRO	06	E	P		FILL PIPE, TRIP IN HOLE
	9:00 - 12:00	3.00	DRLPRO	05	A	P		CIRCULATE & CONDITION F/ LOGS, HAD A 30' TO 40' FLARE ALMOST INSTANTLY AFTER BREAKING CIRC, TALKED W/ DRLG ENG AND WAS INSTRUCTED TO RAISE MUD WT TO 11.8
	12:00 - 18:00	6.00	DRLPRO	06	A	P		TRIP OUT OF HOLE, LAY DOWN MWD, MOTOR & BIT, NO PROBLEMS ON TRIP
	18:00 - 23:00	5.00	DRLPRO	11	C	P		SAFETY MEETING W/ BAKER ATLAS, RIG UP AND RUN TRIPLE COMBO LOGS TO 8907' ,NO PROBLEMS, RIG DOWN LOGGERS
	23:00 - 23:30	0.50	DRLPRO	14	B	P		PULL WEAR BUSHING
	23:30 - 0:00	0.50	DRLPRO	12	A	P		SAFETY MEETING W/ FRANKS WESTSTATES, RIG UP CASERS
4/30/2012	0:00 - 8:00	8.00	CSGPRO	12	C	P		RUN 212 JTS (92 JTS 3880.07 LTC, 120 JTS 5023.45' DQX) 4.5, 11.6, 180 PRODUCTION CASING TO 8906.52', TOP OF FLOAT 8861.36, TOP OF M V MARKER 6602.74, TOP OF X/O 5003.31
	8:00 - 9:30	1.50	CSGPRO	05	D	P		CIRCULATE BOTTOMS UP , NO FLARE , RIG DOWN CASERS, SAFETY MEETING W/ BJ SERVICES

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 11/22/2011

End Date: 4/30/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/W/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:30 - 12:30	3.00	CSGPRO	12	E	P		RIG UP CEMENTERS, PRESSURE TEST LINES TO 4500 PSI, DROPPED BOTTOM PLUG, PUMPED 5 BBL 8.4 WATER SPACER, 40 BBL. OF SEAL BOND SPACER ,473 SX PREMIUM LITE II CEMENT + 0.4% BWOC R-3 + 0.25 LBS/SX CELLO FLAKE + 5 LBS/SX KOL SEAL + 0.2% BWOC SODIUM METASILICATE + 8% BWOC BENTONITE II +.4 BWOC FL-52A + 101.9% FRESH WATER 12.5#, 2.02 YIELD LEAD CEMENT , 1175 SX 50:50 POZ (ASH FLY) CLASS G + 10% BWOW SODIUM CHLORIDE + 0.2% BWOC R-3 + .5% BWOC EC-1 + .005 LB/SX STATIC FREE + 2% BENTONITE II + 59% FRESH WATER, DROPPED THE TOP PLUG, DISPLACE W/ 137.7 BBLs CLAYCARE + 1 GAL MAGNACIDE @ 8.34 PPG WATER , FINAL LIFT 2600 PSI, BUMPED BLUG @ 3500 PSI , FLOATS HELD, , TOP OF TAIL EST @ 3500 ' ,TOP OF LEAD 14' , 35 BBL. OF CEMENT BACK TO SURFACE. FLUSH STACK, R/D CEMENTERS
	12:30 - 13:00	0.50	CSGPRO	14	B	P		SET C-22 SLIPS THROUGH STACK @ 100K
	13:00 - 14:00	1.00	CSGPRO	14	A	P		NIPPLE DOWN BOP & CUT OFF CASING, RELEASE RIG @ 14:00 4/30/2012 TO NBU 922-E4BS

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 922-36E1CS RED	Wellbore No.	OH
Well Name	NBU 922-36E1CS	Wellbore Name	NBU 922-36E1CS
Report No.	1	Report Date	6/14/2012
Project	UTAH-UINTAH	Site	NBU 922-36E PAD
Rig Name/No.		Event	COMPLETION
Start Date	6/14/2012	End Date	6/29/2012
Spud Date	3/7/2012	Active Datum	RKB @5,125.00usft (above Mean Sea Level)
UWI	SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/NW/0/739/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	6,846.0 (usft)-8,849.0 (usft)	Start Date/Time	8/15/2012 12:00AM
No. of Intervals	48	End Date/Time	8/15/2012 12:00AM
Total Shots	216	Net Perforation Interval	58.00 (usft)
Avg Shot Density	3.72 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/15/2012 12:00AM	MESAVERDE/			6,846.0	6,847.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO	N

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/15/2012 12:00AM	MESAVERDE/			6,859.0	6,860.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			6,916.0	6,917.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			6,936.0	6,938.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			6,953.0	6,954.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,017.0	7,018.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,083.0	7,084.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,097.0	7,098.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,125.0	7,126.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,191.0	7,193.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,249.0	7,250.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,301.0	7,302.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,336.0	7,337.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,365.0	7,366.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,409.0	7,410.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,415.0	7,416.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,472.0	7,474.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,524.0	7,525.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,625.0	7,626.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,635.0	7,636.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,662.0	7,663.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,716.0	7,718.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

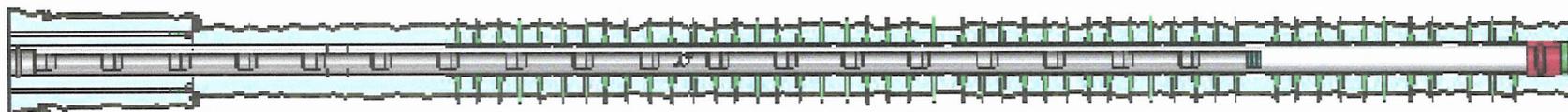
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/15/2012 12:00AM	MESAVERDE/			7,809.0	7,810.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,973.0	7,974.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			7,983.0	7,984.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,003.0	8,006.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,055.0	8,056.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,085.0	8,086.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,130.0	8,132.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,166.0	8,167.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,193.0	8,194.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,225.0	8,226.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,261.0	8,262.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,318.0	8,320.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,370.0	8,371.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,388.0	8,390.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,409.0	8,410.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,457.0	8,458.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,467.0	8,468.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,496.0	8,497.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,515.0	8,516.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,553.0	8,554.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,564.0	8,565.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/15/2012 12:00AM	MESAVERDE/			8,623.0	8,624.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,638.0	8,639.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,791.0	8,792.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,823.0	8,824.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/15/2012 12:00AM	MESAVERDE/			8,847.0	8,849.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: MILES-GRAY 1/1

Event: COMPLETION

Start Date: 6/14/2012

End Date: 6/29/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/W/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/7/2012	-							
6/13/2012	13:30 - 15:15	1.75	COMP	30	A	P		MIRU, N/D WH, N/U BOPS,
	15:15 - 17:30	2.25	COMP	31	I	P		P/U 3 7/8" BIT, RIH W/ 2 3/8" L-80 TBG, TALLY AND BROACH TBG IN, RIH 180 JT TO @ 5714', SWI SDFN JSA-SAFETY MEETING
6/14/2012	7:00 - 7:15	0.25	COMP	48		P		NO PRESSURE ON WELL, TIH TAG @ 8857', R/U SWMVEL, ESTB CIRC, C/O TO 8861' PBDT, CIRC WELL CLEAN, R/D SWMVEL,
	7:15 - 9:00	1.75	COMP	31	I	P		TOOH W/ LAY TBG DN ON TRAILER, N/D BOPS N/U FRAC VALVE, R/D UNIT MOVE OFF LOC,
	9:00 - 15:00	6.00	COMP	31	I	P		WHP 0 PSI. FILL SURFACE CSG. MIRU B&C QUICK TEST.
	18:00 - 19:11	1.18	SUBSPR	33	C	P		PSI TEST T/ 1068 PSI. HELD FOR 15 MIN LOST 12 PSI. PSI TEST T/ 3550 PSI. HELD FOR 15 MIN LOST 32 PSI. 1ST PSI TEST T/ 7006 PSI. HELD FOR 30 MIN LOST 62 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SW HELD SAFETY MEETING: CRANES
6/15/2012	6:45 - 7:00	0.25	SURFPR	48		P		PERF STG 1) PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWIFW
	7:00 - 8:30	1.50	SURFPR	37		P		HSM & JSA W/SUPERIOR & CASED HOLE SOLUTIONS.
6/18/2012	6:45 - 7:00	0.25	COMP	48		P		MIRU SUPERIOR WELL SERVICE. PT SURFACE EQUIP TO 9500 PSI.
	7:36 - 8:18	0.70	COMP	36	E	P		FRAC STG 1) WHP 1382 PSI. BRK DWN PERF 4.6 BPM @ 4206 PSI. ISIP 2398 PSI. FG. 0.71. EST INJ RATE 49.3 BPM @ 4595 PSI. 24/24 PERFS OPEN - 100%. MP 6594 PSI, MR 50.5 BPM, AP 4763 PSI, AR 48.8 BPM. ISIP 2505 PSI, FG. 0.73, NPI 107 PSI. X-OVER FOR WL.
	8:23 - 9:23	1.00	COMP	37	B	P		PERF STG 2) P/U HALCO 8K CBP & 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 90 DEG PHSG. RIH SET CBP @ 8595'. PERF MESA VERDE AS PER PERF DESIGN. POOH & HANG BACK LUB. X-OVER FOR FRAC
	10:17 - 10:35	0.30	COMP	36	E	P		FRAC STG 2) WHP 2199 PSI. BRK DWN PERF 5.1 BPM @ 3062 PSI. ISIP 2302 PSI. FG. 0.71. EST INJ RATE 50.5 BPM @ 4773 PSI. 24/24 PERFS OPEN - 100%. MP 5109 PSI, MR 51.7 BPM, AP 4669 PSI, AR 50 BPM. ISIP 2565 PSI, FG. 0.74, NPI 263 PSI. X-OVER FOR WL.
10:40 - 11:40	1.00	COMP	37	B	P		PERF STG 3) P/U HALCO 8K CBP & 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 90 DEG PHSG. RIH SET CBP @ 8441'. PERF MESA VERDE AS PER PERF DESIGN. POOH & HANG BACK LUB. X-OVER FOR FRAC	

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED		Spud Date: 3/7/2012	
Project: UTAH-UINTAH		Site: NBU 922-36E PAD	Rlg Name No: MILES-GRAY 1/1
Event: COMPLETION		Start Date: 6/14/2012	End Date: 6/29/2012
Active Datum: RKB @5,125.00usft (above Mean Sea Level)		UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682/NW/0/739/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:20 - 12:37	0.28	COMP	36	E	P		FRAC STG 3) WHP 2083 PSI. BRK DWN PERF 4.8 BPM @ 4719 PSI. ISIP 2391 PSI. FG. 0.72. EST INJ RATE 51.2 BPM @ 5119 PSI. 24/24 PERFS OPEN - 100%. MP 5392 PSI, MR 52.1 BPM, AP 4544 PSI, AR 51.7 BPM. ISIP 2653 PSI, FG. 0.76, NPI 262 PSI. X-OVER FOR WL
	12:42 - 13:42	1.00	COMP	37	B	P		PERF STG 4) P/U HALCO 8K CBP & 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG. RIH SET CBP @ 8292'. PERF MESA VERDE AS PER PERF DESIGN. POOH & HANG BACK LUB. X-OVER FOR FRAC
	14:07 - 14:35	0.47	COMP	36	E	P		FRAC STG 4) WHP 2329 PSI. BRK DWN PERF 4.8 BPM @ 3806 PSI. ISIP 2379 PSI. FG. 0.73. EST INJ RATE 52.1 BPM @ 4285 PSI. 24/24 PERFS OPEN - 100%. MP 5415 PSI, MR 52.1 BPM, AP 4156 PSI, AR 51.5 BPM. ISIP 2417 PSI, FG. 0.73, NPI 38 PSI. X-OVER FOR WL.
	14:40 - 15:40	1.00	COMP	37	B	P		PERF STG 5) P/U HALCO 8K CBP & 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 90 DEG PHSG. RIH SET CBP @ 8036'. PERF MESA VERDE AS PER PERF DESIGN. POOH & HANG BACK LUB. X-OVER FOR FRAC
	16:32 - 16:48	0.27	COMP	36	E	P		FRAC STG 5) WHP 2035 PSI. BRK DWN PERF 7.2 BPM @ 2689 PSI. ISIP 2111 PSI. FG. 0.71. EST INJ RATE 52.1 BPM @ 4471 PSI. 24/24 PERFS OPEN - 100%. MP 4772 PSI, MR 52.5 BPM, AP 4315 PSI, AR 51.5 BPM. ISIP 2210 PSI, FG. 0.72, NPI 99 PSI. . X-OVER FOR WL
	16:53 - 17:53	1.00	COMP	37	B	P		PERF STG 6) P/U HALCO 8K CBP & 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 90 DEG PHSG. RIH SET CBP @ 7748'. PERF MESA VERDE AS PER PERF DESIGN. POOH & HANG BACK LUB. X-OVER FOR FRAC
6/19/2012	6:45 - 7:00	0.25	COMP	48		P		HSM & JSA W/SUPERIOR & CASED HOLE SOLUTIONS.
	7:24 - 7:40	0.27	COMP	36	E	P		FRAC STG 6) WHP 1781 PSI. BRK DWN PERF 4.7 BPM @ 2344 PSI. ISIP 1781 PSI. FG. 0.67. EST INJ RATE 54.3 BPM @ 3927 PSI. 24/24 PERFS OPEN - 100%. MP 4984 PSI, MR 54.5 BPM, AP 3652 PSI, AR 52.8 BPM. ISIP 2119 PSI, FG. 0.72, NPI 338 PSI. X-OVER FOR WL
	7:45 - 8:45	1.00	COMP	37	B	P		PERF STG 7) P/U HALCO 8K CBP & 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG. RIH SET CBP @ 7504'. PERF MESA VERDE AS PER PERF DESIGN. POOH & HANG BACK LUB. X-OVER FOR FRAC
	8:45 - 9:36	0.85	COMP	36	E	P		FRAC STG 7) WHP 1883 PSI. BRK DWN PERF 4.7 BPM @ 2623 PSI. ISIP 1463 PSI. FG. 0.64. EST INJ RATE 51.9 BPM @ 3132 PSI. 24/24 PERFS OPEN - 100%. MP 4565 PSI, MR 53.5 BPM, AP 3952 PSI, AR 51.8 BPM. ISIP 2278 PSI, FG. 0.75, NPI 815 PSI. RAN FR @ 0.25/M. X-OVER FOR WL

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: MILES-GRAY 1/1

Event: COMPLETION

Start Date: 6/14/2012

End Date: 6/29/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/09/S/22/E/36/0/0/26/PM/N/1682/NW/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:38 - 10:34	0.93	COMP	37	B	P		PERF STG 8) P/U HALCO 8K CBP & 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 90 DEG PHSG. RIH SET CBP @ 7223'. PERF MESA VERDE AS PER PERF DESIGN. POOH & HANG BACK LUB. X-OVER FOR FRAC
	10:36 - 10:58	0.37	COMP	36	E	P		FRAC STG 8) WHP 955 PSI. BRK DWN PERF 7.2 BPM @ 1654 PSI. ISIP 1286 PSI. FG. 0.62. EST INJ RATE 51.4 BPM @ 3298 PSI. 24/24 PERFS OPEN - 100%. MP 4074 PSI, MR 53.2 BPM, AP 3499 PSI, AR 51.9 BPM. ISIP 2006 PSI, FG. 0.72, NPI 720 PSI. RAN FR @ 0.25/M. (((OUT OF SAND))) X-OVER FOR WL.
	11:03 - 12:03	1.00	COMP	37	B	P		PERF STG 9) P/U HALCO 8K CBP & 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 90 DEG PHSG. RIH SET CBP @ 7184'. PERF MESA VERDE AS PER PERF DESIGN. POOH & HANG BACK LUB. X-OVER FOR FRAC
	14:41 - 15:05	0.40	COMP	36	E	P		FRAC STG 9) WHP 685 PSI. BRK DWN PERF 7.7 BPM @ 1542 PSI. ISIP 1191 PSI. FG. 0.61. EST INJ RATE 52.1 BPM @ 3146 PSI. 24/24 PERFS OPEN - 100%. MP 3294 PSI, MR 52.1 BPM, AP 3118 PSI, AR 51.9 BPM. ISIP 1080 PSI, FG. 0.61, NPI (-111) PSI. RAN FR @ 0.25/M. X-OVER FOR WL.
	15:10 - 15:55	0.75	COMP	34	I	P		KILL PLUG) RIH W/HALCO 8K CBP & SET @ 6796'. POOH & L/D TOOLS. R/D WIRELINE & FRAC CREW. SWM - SDFN. TOTAL BBLS: 8118 TOTAL SND: 156711#
6/26/2012	7:00 - 8:00	1.00	RDMO	30	G	P		RD F/ NBU 922-36E4BS TO NBU 922-36E1CS
	8:00 - 8:30	0.50	COMP	48		P		HSM, REVIEW RD
	8:30 - 9:30	1.00	COMP	30	A	P		MIRU.
	9:30 - 11:00	1.50	COMP	47	C	P		INSTALL NEW WING VALVES ON BOP.
	11:00 - 11:45	0.75	COMP	30	F	P		ND WH, NU BOP'S, RU FLOOR & TBG EQUIPMENT, P.T BOP'S TO 3000 PSI, P.T. 4-1/2 CSG TO 1000 PSI & 3500 PSI FOR 15 MINS, HELD.
	11:45 - 14:00	2.25	COMP	34	H	P		RU CASED HOLE SOLUTIONS, RIH W/ 3-1/8 GUN , 23 GM, 0.36 HOLE & PERFERATED F/ 2579' TO 2581' 6SPF W/ 6 HOLES, POOH TOOLS,PUMP & EST INJECTION RATE INTO PERFORATIONS @ 3 BPM W/ 700 PSI. NO CIRCULATION & NO SURFACE CSG & 4-1/2 CSG COMMUNICATION, RUN WIRELINE & RIH 3.625 GAUGE RING TO 2700', POOH TOOL, RIH 4-1/2 CCR & SET @ 2580', POOH TOOL, RD CASED HOLE SOLUTIONS.
	14:00 - 16:00	2.00	COMP	31	I	P		PU STINGER, TALLY & RIH 79 JTS. 2-3/8 L-80 TBG F/ TRAILER, EOT 2513' SWM, SDFN.
6/27/2012	7:00 - 7:30	0.50	COMP	48		P		HSM, REVIEW PUMPING CMT

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: MILES-GRAY 1/1

Event: COMPLETION

Start Date: 6/14/2012

End Date: 6/29/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682NW/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:30 - 18:30	11.00	COMP	51		P		RIH 2 JTS. STING INTO CCR, RU SUPERIOR WELL SERVICES, P.T. LINES TO 1500 PSI, PUMP 5 BBLS FRESH WTR TO EST INJECTION RATE @ 3.5 BPM @ 1150 PSI. MIX & PUMP 10 BBLS SUPER GEL 15 INTO PERFS, FLUSH W/ 12 BBLS FRESH WTR, START MIXING 100 SKS OF CLASS "G" CMT (20.5 BBLS) W/ 3% CACL2 @ 15.8 PPG, YIELD 1.15, SHUT DWN FOR 60 MINS, EST INJECTION RATE @ 2.5 BPM @ 1200 PSI, MIX & PUMP 100 SKS OF CLASS "G" CMT (20.5 BBLS) W/ 2% CACL2 @ 15.8 PPG, YIELD 1.15, SHUT DWN FOR 80MINS, EST INJECTION @ 2.3 BPM @ 950 PSI. SQUEEZE NOT HOLDING, MIX & PUMP 100 SKS OF CLASS "G" CMT (20.5 BBLS) @ 15.8 PPG, YIELD 1.15, SHUT DWN FOR 60 MINS, INJECTION RATE @ 2.1 @ 930 PSI.MIX & PUMP 100 SKS OF CLASS "G" CMT (20.5 BBLS) @ 15.8 PPG, YIELD 1.15, SHUT DWN FOR 90 MINS, PUMP INTO PERF @ 1 BPM @ 1000 PSI. SQUEEZE NOT HOLDING, ORDER MORE CMT,MIX & PUMP 500 SKS OF CLASS "G" CMT (102 BBLS) @ 15.8 PPG, YIELD 1.15, SQUEEZE NOT HOLDING, DISPLACE TBG W/ 12 BBLS WTR, SWI W/ 900 PSI. SDFN.
6/28/2012	7:00 - 7:30	0.50	COMP	48		P		HSM, REVIEW SQUEEZE PERFS.
	7:30 - 8:30	1.00	COMP					SITP. 200 PSI. BLEW TBG DWN, PUMP INTO SQUEEZE @ 1 BPM @ 1410 PSI. MIX & PUMP 80 SKS CLASS "G" CMT, @ 1 BPM @ 975 PSI. (16.3 BBLS) @ 15.8 PPG, YIELD 1.15 PRESSURED OUT @ 2100 PSI. SHUT DWN FOR 10 MINS, STINGOUT REVERSE OUT, RD SUPERIOR WELL SERVICES, TOTAL 980 SKS.
	8:30 - 15:00	6.50	COMP	31	I	P		LD 1 JNT, POOH 80 JTS. 2-3/8 L-80 TBG, LD STINGER, PU 1.875 XN & POBS, 3-7/8 BIT & RIH 76 JTS. EOT @ 2422', SWI, SDFN.
6/29/2012	7:00 - 7:15	0.25	COMP	48		P		HSM, REVIEW D/O CCR & 9 CBP'S.
	7:15 - 7:45	0.50	COMP	47	A	P		PU 1 JNT, NU PWR SWWL, TAG CMT @ 2558'
	7:45 - 9:15	1.50	COMP	44	B	P		EST CIRC W/ RIG PUMP, D/O CMT @ 2558' TO 2560' (2' CMT) D/O CCR @ 2560' IN 90 MINS, CIRC WELL CLEAN
	9:15 - 9:30	0.25	COMP	44	A	P		D/O CMT F/ 2560' TO 2580' (20' CMT) FELL THROUGH, CIRC WELL CLEAN, LD PWR SWWL.
	9:30 - 9:40	0.17	COMP	33	C	P		PRESSURE TEST 4-1/2 CSG & PERFORATIONS TO 1800 PSI. FOR 15 MINS, HELD, NO GAS FLOW OR PRESSURE BUILDING ON SURFACE CSG,
	9:40 - 11:45	2.08	COMP	31	I	P		RIH TBG & TALLY 2-3/8 L-80 TBG F/ TRAILER TAG @ 6791', RU PWR SWWL

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-36E1CS RED

Spud Date: 3/7/2012

Project: UTAH-UINTAH

Site: NBU 922-36E PAD

Rig Name No: MILES-GRAY 1/1

Event: COMPLETION

Start Date: 6/14/2012

End Date: 6/29/2012

Active Datum: RKB @5,125.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/22/E/36/0/0/26/PM/N/1682NW/0/739/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	11:45 - 15:15	3.50	COMP	44	D	P		<p>CBP # 1 TAG @ 6791' D/O 5' SAND TO CBP @ 6796' HAD NO INCREASE PSI. CBP # 2 TAG @ 6954' D/O 30' SAND TO CBP @ 6984' HAD NO INCREASE PSI. CBP # 3 TAG @ 7193' D/O 30' SAND TO CBP @ 7223' HAD 200 PSI. INCREASE. CBP # 4 TAG @ 7474' D/O 30' SAND TO CBP @ 7504' HAD 200 PSI. INCREASE. CBP # 5 TAG @ 7718' D/O 30' SAND TO CBP @ 7748' HAD 100 PSI. INCREASE. CBP # 6 TAG @ 8006' D/O 30' SAND TO CBP @ 8036' HAD 200 PSI. INCREASE. CBP # 7 TAG @ 8262' D/O 30' SAND TO CBP @ 8292' HAD 300 PSI. INCREASE. CBP # 8 TAG @ 8411' D/O 30' SAND TO CBP @ 8441' HAD 300 PSI. INCREASE. CBP # 9 TAG @ 8565' D/O 30' SAND TO CBP @ 8595' HAD 300 PSI. INCREASE. RIH W/ TBG & TAG SAND @ 8849' C/O TO PBTD @ 8861' CIRC WELL CLEAN, RD PWR SWWL. POOH LD 28 JTS. ON TRAILER, RD FLOOR & TBG EQUIPMENT, ND BOP'S, NU WH, P.T. HARDLINE F/ WH TO HALL 9000 TO 3000 PSI. HELD. DROP BALL WAITED 30 MINS, PUMP BIT-OFF W/ 1800 PSI. TURN WELL OVER TO FLOW TESTERS, RDMO. MOVE TO NBU 922-36E4BS.</p> <p align="right">TBG DETAIL:</p> <p>KB-----14' HANGER-----83 265 JTS. 2-3/8 L-80 TBG-----8400.56' 1.875 XN POBS-----2.20' EOT-----8417.59'</p> <p>DELIVERED 293 JTS. 2-3/8 L-80 TBG USED 265 JTS. 2-3/8 L-80 TBG. RETURN 28 JTS. 2-3/8 L-80 TBG.</p>
	15:15 - 18:00	2.75	COMP					

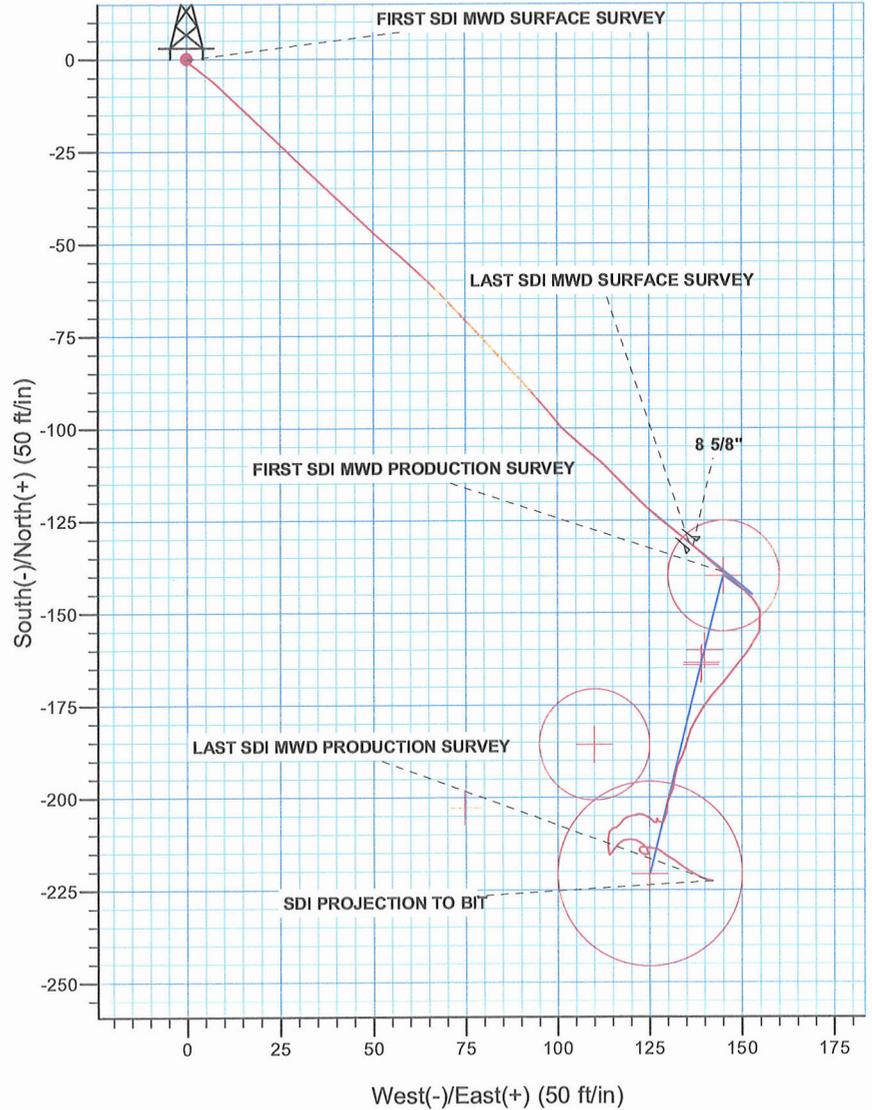
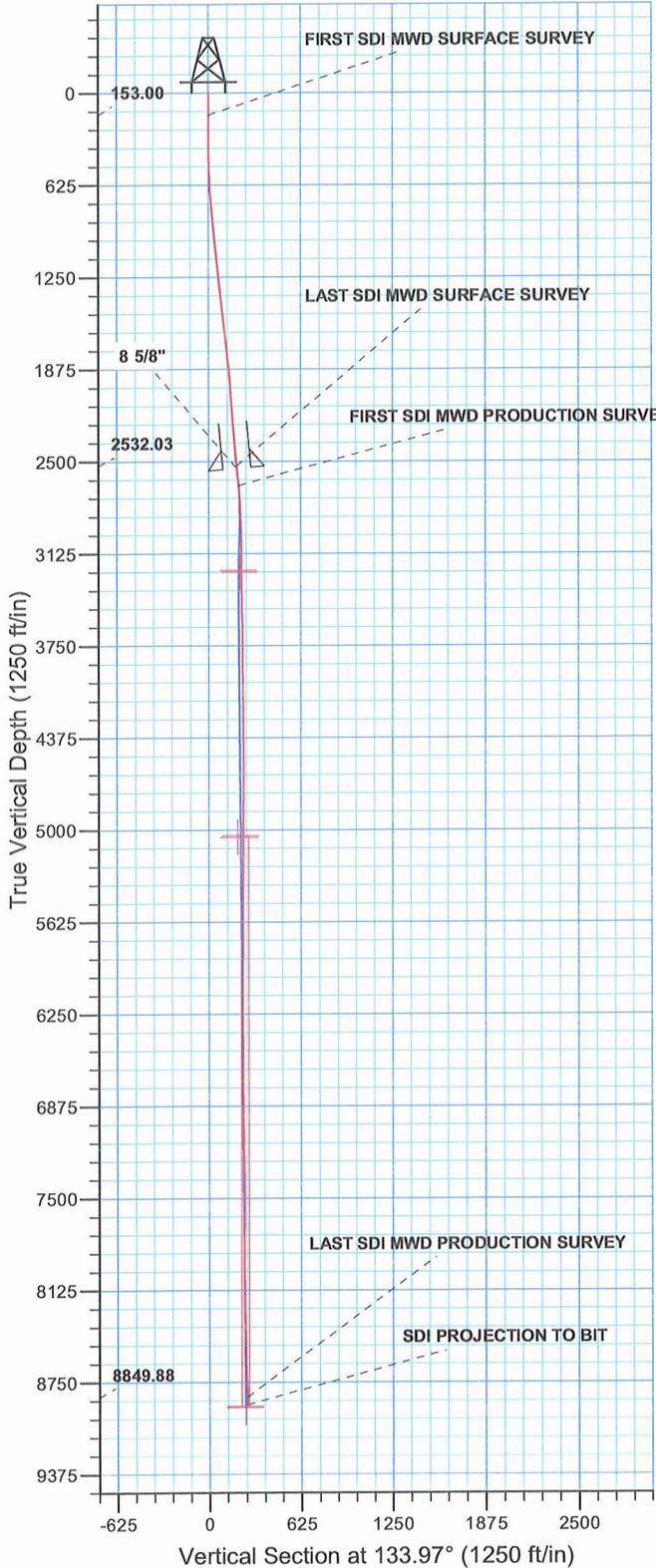
6/30/2012

WELL DETAILS: NBU 922-36E1CS					
GL 5111 & KB 14 @ 5125.00ft (ENSGN 138)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14528347.59	2090116.75	39.995202	-109.394412



Azimuths to True North
 Magnetic North: 11.07°

Magnetic Field
 Strength: 52374.6snT
 Dip Angle: 65.89°
 Date: 02/08/2011
 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: SECTION 26 T9S R22E
System Datum: Mean Sea Level

Design: OH (NBU 922-36E1CS/OH)
Created By: Gabe Kendall Date: 8:45, June 13 2012



Scientific Drilling

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 922-36E PAD
NBU 922-36E1CS**

OH

Design: OH

Standard Survey Report

13 June, 2012

Anadarko 
Petroleum Corporation

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36E PAD
Well: NBU 922-36E1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36E1CS
TVD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
MD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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 922-36E PAD, SECTION 26 T9S R22E				
Site Position:		Northing:	14,528,347.60 usft	Latitude:	39.995202
From:	Lat/Long	Easting:	2,090,116.75 usft	Longitude:	-109.394412
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.03 °

Well	NBU 922-36E1CS, 1682 FNL 739 FWL				
Well Position	+N/-S	0.00 ft	Northing:	14,528,347.60 usft	Latitude: 39.995202
	+E/-W	0.00 ft	Easting:	2,090,116.75 usft	Longitude: -109.394412
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level: 5,111.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/08/11	11.07	65.89	52,375

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	133.97	

Survey Program	Date 06/13/12				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,541.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,675.00	8,915.00	Survey #2 SDI MWD SURFACE (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	
153.00	0.18	198.95	153.00	-0.21	-0.07	0.10	0.13	0.13	0.00	
FIRST SDI MWD SURFACE SURVEY										
180.00	0.18	191.64	180.00	-0.29	-0.10	0.14	0.08	0.00	-27.07	
209.00	0.17	178.81	209.00	-0.38	-0.10	0.19	0.14	-0.03	-44.24	
236.00	0.35	176.17	236.00	-0.50	-0.10	0.28	0.67	0.67	-9.78	
263.00	0.44	145.50	263.00	-0.67	-0.03	0.44	0.84	0.33	-113.59	
291.00	0.41	125.34	291.00	-0.82	0.11	0.65	0.54	-0.11	-72.00	
321.00	0.35	124.58	321.00	-0.93	0.27	0.84	0.20	-0.20	-2.53	

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36E PAD
Well: NBU 922-36E1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36E1CS
TVD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
MD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
351.00	0.47	128.25	351.00	-1.06	0.44	1.06	0.41	0.40	12.23
441.00	0.69	119.74	440.99	-1.56	1.21	1.95	0.26	0.24	-9.46
531.00	1.85	126.95	530.97	-2.70	2.84	3.92	1.30	1.29	8.01
621.00	3.43	130.29	620.87	-5.31	6.05	8.05	1.76	1.76	3.71
711.00	4.66	133.19	710.64	-9.56	10.77	14.39	1.39	1.37	3.22
801.00	5.30	133.63	800.30	-14.93	16.44	22.20	0.71	0.71	0.49
891.00	5.80	134.34	889.88	-20.97	22.71	30.90	0.56	0.56	0.79
981.00	6.30	133.94	979.38	-27.58	29.51	40.39	0.56	0.56	-0.44
1,071.00	6.14	133.65	1,068.85	-34.33	36.55	50.14	0.18	-0.18	-0.32
1,161.00	6.36	133.68	1,158.32	-41.09	43.64	59.94	0.24	0.24	0.03
1,251.00	5.97	131.55	1,247.79	-47.64	50.75	69.60	0.50	-0.43	-2.37
1,341.00	5.63	130.82	1,337.33	-53.63	57.59	78.68	0.39	-0.38	-0.81
1,431.00	5.96	134.80	1,426.87	-59.81	64.25	87.76	0.58	0.37	4.42
1,521.00	6.16	135.74	1,516.37	-66.56	70.93	97.26	0.25	0.22	1.04
1,611.00	5.98	136.36	1,605.87	-73.41	77.54	106.77	0.21	-0.20	0.69
1,791.00	6.89	138.80	1,784.73	-88.32	91.12	126.90	0.53	0.51	1.36
1,881.00	5.71	139.56	1,874.19	-95.79	97.58	136.74	1.31	-1.31	0.84
1,971.00	3.27	132.72	1,963.90	-100.94	102.37	143.76	2.77	-2.71	-7.60
2,061.00	2.86	132.43	2,053.77	-104.20	105.92	148.57	0.46	-0.46	-0.32
2,151.00	3.78	128.96	2,143.62	-107.58	109.88	153.77	1.05	1.02	-3.86
2,241.00	5.46	135.68	2,233.33	-112.51	115.18	161.01	1.96	1.87	7.47
2,331.00	5.96	135.05	2,322.88	-118.88	121.47	169.96	0.56	0.56	-0.70
2,421.00	4.81	128.99	2,412.48	-124.56	127.71	178.39	1.42	-1.28	-6.73
2,511.00	5.04	128.12	2,502.15	-129.37	133.75	186.08	0.27	0.26	-0.97
2,541.00	5.19	129.15	2,532.03	-131.04	135.84	188.74	0.59	0.50	3.43
LAST SDI MWD SURFACE SURVEY									
2,675.00	5.21	133.74	2,665.48	-139.07	144.93	200.87	0.31	0.01	3.43
FIRST SDI MWD PRODUCTION SURVEY									
2,770.00	4.78	130.14	2,760.12	-144.61	151.08	209.13	0.56	-0.45	-3.79
2,865.00	3.41	163.88	2,854.89	-149.88	154.89	215.53	2.86	-1.44	35.52
2,959.00	3.80	198.60	2,948.71	-155.51	154.67	219.29	2.32	0.41	36.94
3,054.00	3.51	224.22	3,043.53	-160.58	151.64	220.62	1.73	-0.31	26.97
3,148.00	3.29	211.76	3,137.36	-164.94	148.21	221.18	0.82	-0.23	-13.26
3,243.00	2.80	225.99	3,232.23	-168.87	145.11	221.68	0.94	-0.52	14.98
3,338.00	2.55	217.22	3,327.13	-172.16	142.16	221.84	0.50	-0.26	-8.23
3,432.00	2.28	215.93	3,421.04	-175.34	139.80	222.35	0.29	-0.29	-1.37
3,527.00	2.39	206.79	3,515.96	-178.64	137.80	223.20	0.41	0.12	-9.62
3,621.00	2.17	205.40	3,609.89	-182.00	136.15	224.34	0.24	-0.23	-1.48
3,716.00	2.35	190.03	3,704.82	-185.54	135.04	226.00	0.66	0.19	-16.18
3,810.00	1.91	209.70	3,798.75	-188.80	133.93	227.47	0.90	-0.47	20.93
3,905.00	2.09	204.56	3,893.69	-191.75	132.42	228.43	0.27	0.19	-5.41
3,999.00	2.23	181.51	3,987.83	-195.14	131.66	230.24	0.93	0.15	-24.52
4,094.00	0.93	205.20	4,082.59	-197.68	131.28	231.73	1.50	-1.37	24.94

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36E PAD
Well: NBU 922-36E1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36E1CS
TVD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
MD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,188.00	1.26	201.23	4,176.57	-199.34	130.59	232.38	0.36	0.35	-4.22	
4,283.00	1.65	194.12	4,271.54	-201.64	129.87	233.46	0.45	0.41	-7.48	
4,378.00	1.97	181.79	4,366.50	-204.59	129.49	235.24	0.53	0.34	-12.98	
4,472.00	1.14	240.42	4,460.47	-206.67	128.63	236.06	1.79	-0.88	62.37	
4,567.00	0.56	317.87	4,555.46	-206.79	127.49	235.33	1.22	-0.61	81.53	
4,661.00	0.36	349.84	4,649.45	-206.16	127.13	234.63	0.34	-0.21	34.01	
4,756.00	0.15	249.20	4,744.45	-205.91	126.96	234.34	0.44	-0.22	-105.94	
4,851.00	0.31	190.87	4,839.45	-206.21	126.80	234.42	0.28	0.17	-61.61	
4,945.00	0.44	174.99	4,933.45	-206.82	126.78	234.84	0.17	0.14	-16.68	
5,040.00	0.97	313.79	5,028.45	-206.62	126.23	234.31	1.40	0.56	146.11	
5,134.00	0.95	305.00	5,122.43	-205.63	125.02	232.74	0.16	-0.02	-9.35	
5,228.00	0.88	288.65	5,216.42	-204.95	123.70	231.32	0.29	-0.07	-17.39	
5,323.00	0.48	287.33	5,311.42	-204.60	122.63	230.31	0.42	-0.42	-1.39	
5,418.00	0.34	263.05	5,406.41	-204.51	121.97	229.77	0.23	-0.15	-25.56	
5,512.00	0.08	196.11	5,500.41	-204.61	121.67	229.63	0.34	-0.28	-71.21	
5,607.00	0.97	258.68	5,595.41	-204.83	120.87	229.20	0.99	0.94	65.86	
5,702.00	0.93	250.53	5,690.39	-205.25	119.35	228.40	0.15	-0.04	-8.58	
5,796.00	0.98	232.60	5,784.38	-205.99	117.99	227.94	0.32	0.05	-19.07	
5,891.00	1.25	211.33	5,879.36	-207.37	116.81	228.04	0.52	0.28	-22.39	
5,985.00	0.44	262.73	5,973.35	-208.29	115.92	228.04	1.10	-0.86	54.68	
6,080.00	0.38	260.18	6,068.35	-208.39	115.25	227.62	0.07	-0.06	-2.68	
6,175.00	0.53	231.26	6,163.35	-208.72	114.59	227.38	0.28	0.16	-30.44	
6,269.00	0.53	209.58	6,257.34	-209.37	114.04	227.44	0.21	0.00	-23.06	
6,364.00	0.81	184.17	6,352.34	-210.42	113.77	227.97	0.42	0.29	-26.75	
6,458.00	0.87	186.80	6,446.33	-211.79	113.64	228.83	0.08	0.06	2.80	
6,553.00	0.91	173.32	6,541.32	-213.26	113.64	229.85	0.22	0.04	-14.19	
6,647.00	1.13	174.92	6,635.30	-214.92	113.81	231.13	0.24	0.23	1.70	
6,742.00	0.60	53.08	6,730.30	-215.56	114.29	231.91	1.61	-0.56	-128.25	
6,836.00	1.56	29.52	6,824.28	-214.15	115.32	231.67	1.10	1.02	-25.06	
6,931.00	1.02	49.96	6,919.25	-212.48	116.60	231.44	0.74	-0.57	21.52	
7,025.00	1.00	70.45	7,013.24	-211.66	118.01	231.89	0.38	-0.02	21.80	
7,120.00	0.81	89.75	7,108.23	-211.38	119.47	232.74	0.38	-0.20	20.32	
7,215.00	1.10	103.54	7,203.22	-211.59	121.03	234.01	0.39	0.31	14.52	
7,309.00	1.34	128.24	7,297.19	-212.49	122.77	235.88	0.61	0.26	26.28	
7,404.00	1.16	143.56	7,392.17	-213.95	124.21	237.93	0.40	-0.19	16.13	
7,499.00	0.84	198.05	7,487.16	-215.38	124.57	239.19	1.01	-0.34	57.36	
7,593.00	1.16	303.97	7,581.15	-215.51	123.56	238.55	1.71	0.34	112.68	
7,688.00	0.40	278.71	7,676.14	-214.92	122.44	237.33	0.86	-0.80	-26.59	
7,782.00	0.65	0.31	7,770.14	-214.34	122.12	236.70	0.76	0.27	86.81	
7,877.00	0.39	55.53	7,865.14	-213.61	122.39	236.39	0.56	-0.27	58.13	
7,971.00	0.48	93.54	7,959.13	-213.46	123.04	236.75	0.31	0.10	40.44	
8,066.00	0.87	91.35	8,054.13	-213.50	124.16	237.59	0.41	0.41	-2.31	
8,160.00	0.84	99.52	8,148.12	-213.63	125.55	238.68	0.13	-0.03	8.69	
8,255.00	0.88	111.82	8,243.11	-214.02	126.92	239.93	0.20	0.04	12.95	

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36E PAD
Well: NBU 922-36E1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36E1CS
TVD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
MD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)
8,350.00	0.90	132.00	8,338.09	-214.79	128.15	241.35	0.33	0.02	21.24
8,444.00	1.41	118.32	8,432.07	-215.83	129.72	243.20	0.61	0.54	-14.55
8,539.00	1.52	126.77	8,527.04	-217.14	131.75	245.58	0.25	0.12	8.89
8,633.00	1.62	124.85	8,621.01	-218.64	133.84	248.13	0.12	0.11	-2.04
8,728.00	1.67	124.21	8,715.97	-220.19	136.09	250.82	0.06	0.05	-0.67
8,822.00	2.37	113.68	8,809.91	-221.74	139.00	253.99	0.84	0.74	-11.20
8,862.00	2.00	102.62	8,849.88	-222.22	140.44	255.36	1.40	-0.93	-27.65
LAST SDI MWD PRODUCTION SURVEY									
8,915.00	2.00	102.62	8,902.85	-222.63	142.25	256.94	0.00	0.00	0.00
SDI PROJECTION TO BIT									

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
153.00	153.00	-0.21	-0.07	FIRST SDI MWD SURFACE SURVEY
2,541.00	2,532.03	-131.04	135.84	LAST SDI MWD SURFACE SURVEY
2,675.00	2,665.48	-139.07	144.93	FIRST SDI MWD PRODUCTION SURVEY
8,862.00	8,849.88	-222.22	140.44	LAST SDI MWD PRODUCTION SURVEY
8,915.00	8,902.85	-222.63	142.25	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 922-36E PAD
NBU 922-36E1CS**

OH

Design: OH

Survey Report - Geographic

13 June, 2012

Anadarko 
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	Local Co-ordinate Reference:	Well NBU 922-36E1CS
Project:	Uintah County, UT UTM12	TVD Reference:	GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
Site:	NBU 922-36E PAD	MD Reference:	GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
Well:	NBU 922-36E1CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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 922-36E PAD, SECTION 26 T9S R22E				
Site Position:		Northing:	14,528,347.60 usft	Latitude:	39.995202
From:	Lat/Long	Easting:	2,090,116.75 usft	Longitude:	-109.394412
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.03 °

Well	NBU 922-36E1CS, 1682 FNL 739 FWL				
Well Position	+N/-S	0.00 ft	Northing:	14,528,347.60 usft	Latitude: 39.995202
	+E/-W	0.00 ft	Easting:	2,090,116.75 usft	Longitude: -109.394412
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level: 5,111.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/08/11	11.07	65.89	52,375

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	133.97	

Survey Program	Date	06/13/12			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,541.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,675.00	8,915.00	Survey #2 SDI MWD SURFACE (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	14,528,347.60	2,090,116.75	39.995202	-109.394412
10.00	0.00	0.00	10.00	0.00	0.00	14,528,347.60	2,090,116.75	39.995202	-109.394412
153.00	0.18	198.95	153.00	-0.21	-0.07	14,528,347.39	2,090,116.68	39.995202	-109.394413
FIRST SDI MWD SURFACE SURVEY									
180.00	0.18	191.64	180.00	-0.29	-0.10	14,528,347.30	2,090,116.66	39.995201	-109.394413
209.00	0.17	178.81	209.00	-0.38	-0.10	14,528,347.22	2,090,116.65	39.995201	-109.394413
236.00	0.35	176.17	236.00	-0.50	-0.10	14,528,347.09	2,090,116.66	39.995201	-109.394413
263.00	0.44	145.50	263.00	-0.67	-0.03	14,528,346.93	2,090,116.73	39.995200	-109.394412
291.00	0.41	125.34	291.00	-0.82	0.11	14,528,346.78	2,090,116.87	39.995200	-109.394412
321.00	0.35	124.58	321.00	-0.93	0.27	14,528,346.67	2,090,117.04	39.995200	-109.394411
351.00	0.47	128.25	351.00	-1.06	0.44	14,528,346.55	2,090,117.21	39.995199	-109.394411

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36E PAD
Well: NBU 922-36E1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36E1CS
TVD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
MD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
441.00	0.69	119.74	440.99	-1.56	1.21	14,528,346.06	2,090,117.98	39.995198	-109.394408	
531.00	1.85	126.95	530.97	-2.70	2.84	14,528,344.95	2,090,119.63	39.995195	-109.394402	
621.00	3.43	130.29	620.87	-5.31	6.05	14,528,342.39	2,090,122.89	39.995188	-109.394391	
711.00	4.66	133.19	710.64	-9.56	10.77	14,528,338.24	2,090,127.69	39.995176	-109.394374	
801.00	5.30	133.63	800.30	-14.93	16.44	14,528,332.97	2,090,133.46	39.995161	-109.394354	
891.00	5.80	134.34	889.88	-20.97	22.71	14,528,327.04	2,090,139.83	39.995145	-109.394331	
981.00	6.30	133.94	979.38	-27.58	29.51	14,528,320.56	2,090,146.75	39.995126	-109.394307	
1,071.00	6.14	133.65	1,068.85	-34.33	36.55	14,528,313.93	2,090,153.91	39.995108	-109.394282	
1,161.00	6.36	133.68	1,158.32	-41.09	43.64	14,528,307.30	2,090,161.12	39.995089	-109.394256	
1,251.00	5.97	131.55	1,247.79	-47.64	50.75	14,528,300.88	2,090,168.34	39.995071	-109.394231	
1,341.00	5.63	130.82	1,337.33	-53.63	57.59	14,528,295.01	2,090,175.29	39.995055	-109.394207	
1,431.00	5.96	134.80	1,426.87	-59.81	64.25	14,528,288.96	2,090,182.06	39.995038	-109.394183	
1,521.00	6.16	135.74	1,516.37	-66.56	70.93	14,528,282.33	2,090,188.87	39.995019	-109.394159	
1,611.00	5.98	136.36	1,605.87	-73.41	77.54	14,528,275.60	2,090,195.59	39.995001	-109.394135	
1,791.00	6.89	138.80	1,784.73	-88.32	91.12	14,528,260.94	2,090,209.44	39.994960	-109.394087	
1,881.00	5.71	139.56	1,874.19	-95.79	97.58	14,528,253.58	2,090,216.04	39.994939	-109.394064	
1,971.00	3.27	132.72	1,963.90	-100.94	102.37	14,528,248.52	2,090,220.92	39.994925	-109.394047	
2,061.00	2.86	132.43	2,053.77	-104.20	105.92	14,528,245.33	2,090,224.52	39.994916	-109.394034	
2,151.00	3.78	128.96	2,143.62	-107.58	109.88	14,528,242.02	2,090,228.55	39.994907	-109.394020	
2,241.00	5.46	135.68	2,233.33	-112.51	115.18	14,528,237.19	2,090,233.93	39.994893	-109.394001	
2,331.00	5.96	135.05	2,322.88	-118.88	121.47	14,528,230.93	2,090,240.34	39.994876	-109.393979	
2,421.00	4.81	128.99	2,412.48	-124.56	127.71	14,528,225.36	2,090,246.67	39.994860	-109.393956	
2,511.00	5.04	128.12	2,502.15	-129.37	133.75	14,528,220.66	2,090,252.80	39.994847	-109.393935	
2,541.00	5.19	129.15	2,532.03	-131.04	135.84	14,528,219.03	2,090,254.92	39.994842	-109.393927	
LAST SDI MWD SURFACE SURVEY										
2,675.00	5.21	133.74	2,665.48	-139.07	144.93	14,528,211.16	2,090,264.16	39.994820	-109.393895	
FIRST SDI MWD PRODUCTION SURVEY										
2,770.00	4.78	130.14	2,760.12	-144.61	151.08	14,528,205.74	2,090,270.40	39.994805	-109.393873	
2,865.00	3.41	163.88	2,854.89	-149.88	154.89	14,528,200.54	2,090,274.31	39.994791	-109.393859	
2,959.00	3.80	198.60	2,948.71	-155.51	154.67	14,528,194.90	2,090,274.19	39.994775	-109.393860	
3,054.00	3.51	224.22	3,043.53	-160.58	151.64	14,528,189.78	2,090,271.25	39.994761	-109.393871	
3,148.00	3.29	211.76	3,137.36	-164.94	148.21	14,528,185.36	2,090,267.90	39.994749	-109.393883	
3,243.00	2.80	225.99	3,232.23	-168.87	145.11	14,528,181.37	2,090,264.87	39.994738	-109.393894	
3,338.00	2.55	217.22	3,327.13	-172.16	142.16	14,528,178.03	2,090,261.98	39.994729	-109.393905	
3,432.00	2.28	215.93	3,421.04	-175.34	139.80	14,528,174.80	2,090,259.68	39.994721	-109.393913	
3,527.00	2.39	206.79	3,515.96	-178.64	137.80	14,528,171.47	2,090,257.74	39.994712	-109.393920	
3,621.00	2.17	205.40	3,609.89	-182.00	136.15	14,528,168.08	2,090,256.15	39.994702	-109.393926	
3,716.00	2.35	190.03	3,704.82	-185.54	135.04	14,528,164.52	2,090,255.10	39.994693	-109.393930	
3,810.00	1.91	209.70	3,798.75	-188.80	133.93	14,528,161.24	2,090,254.05	39.994684	-109.393934	
3,905.00	2.09	204.56	3,893.69	-191.75	132.42	14,528,158.27	2,090,252.60	39.994676	-109.393940	
3,999.00	2.23	181.51	3,987.63	-195.14	131.66	14,528,154.87	2,090,251.90	39.994666	-109.393942	
4,094.00	0.93	205.20	4,082.59	-197.68	131.28	14,528,152.31	2,090,251.57	39.994659	-109.393944	
4,188.00	1.26	201.23	4,176.57	-199.34	130.59	14,528,150.65	2,090,250.90	39.994655	-109.393946	
4,283.00	1.65	194.12	4,271.54	-201.64	129.87	14,528,148.34	2,090,250.23	39.994648	-109.393949	
4,378.00	1.97	181.79	4,366.50	-204.59	129.49	14,528,145.37	2,090,249.90	39.994640	-109.393950	
4,472.00	1.14	240.42	4,460.47	-206.67	128.63	14,528,143.28	2,090,249.07	39.994635	-109.393953	
4,567.00	0.56	317.87	4,555.46	-206.79	127.49	14,528,143.14	2,090,247.94	39.994634	-109.393957	
4,661.00	0.36	349.84	4,649.45	-206.16	127.13	14,528,143.76	2,090,247.57	39.994636	-109.393958	
4,756.00	0.15	249.20	4,744.45	-205.91	126.96	14,528,144.01	2,090,247.40	39.994637	-109.393959	
4,851.00	0.31	190.67	4,839.45	-206.21	126.80	14,528,143.71	2,090,247.24	39.994636	-109.393960	
4,945.00	0.44	174.99	4,933.45	-206.82	126.78	14,528,143.10	2,090,247.23	39.994634	-109.393960	
5,040.00	0.97	313.79	5,028.45	-206.62	126.23	14,528,143.28	2,090,246.68	39.994635	-109.393962	
5,134.00	0.95	305.00	5,122.43	-205.63	125.02	14,528,144.26	2,090,245.45	39.994638	-109.393966	
5,228.00	0.88	288.65	5,216.42	-204.95	123.70	14,528,144.91	2,090,244.12	39.994639	-109.393971	
5,323.00	0.48	287.33	5,311.42	-204.60	122.63	14,528,145.24	2,090,243.04	39.994640	-109.393975	

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 922-36E PAD
Well: NBU 922-36E1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-36E1CS
TVD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
MD Reference: GL 5111 & KB 14 @ 5125.00ft (ENSIGN 138)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,418.00	0.34	263.05	5,406.41	-204.51	121.97	14,528,145.32	2,090,242.38	39.994641	-109.393977
5,512.00	0.08	196.11	5,500.41	-204.61	121.67	14,528,145.21	2,090,242.09	39.994640	-109.393978
5,607.00	0.97	258.68	5,595.41	-204.83	120.87	14,528,144.98	2,090,241.28	39.994640	-109.393981
5,702.00	0.93	250.53	5,690.39	-205.25	119.35	14,528,144.54	2,090,239.78	39.994639	-109.393986
5,796.00	0.98	232.60	5,784.38	-205.99	117.99	14,528,143.77	2,090,238.43	39.994637	-109.393991
5,891.00	1.25	211.33	5,879.36	-207.37	116.81	14,528,142.37	2,090,237.27	39.994633	-109.393995
5,985.00	0.44	262.73	5,973.35	-208.29	115.92	14,528,141.43	2,090,236.40	39.994630	-109.393998
6,080.00	0.38	260.18	6,068.35	-208.39	115.25	14,528,141.32	2,090,235.73	39.994630	-109.394001
6,175.00	0.53	231.26	6,163.35	-208.72	114.59	14,528,140.98	2,090,235.08	39.994629	-109.394003
6,269.00	0.53	209.58	6,257.34	-209.37	114.04	14,528,140.32	2,090,234.54	39.994627	-109.394005
6,364.00	0.81	184.17	6,352.34	-210.42	113.77	14,528,139.26	2,090,234.29	39.994624	-109.394006
6,458.00	0.87	186.80	6,446.33	-211.79	113.64	14,528,137.89	2,090,234.18	39.994621	-109.394007
6,553.00	0.91	173.32	6,541.32	-213.26	113.64	14,528,136.43	2,090,234.21	39.994617	-109.394007
6,647.00	1.13	174.92	6,635.30	-214.92	113.81	14,528,134.76	2,090,234.41	39.994612	-109.394006
6,742.00	0.60	53.08	6,730.30	-215.56	114.29	14,528,134.14	2,090,234.90	39.994610	-109.394004
6,836.00	1.56	29.52	6,824.28	-214.15	115.32	14,528,135.57	2,090,235.90	39.994614	-109.394001
6,931.00	1.02	49.96	6,919.25	-212.48	116.60	14,528,137.26	2,090,237.16	39.994619	-109.393996
7,025.00	1.00	70.45	7,013.24	-211.66	118.01	14,528,138.10	2,090,238.55	39.994621	-109.393991
7,120.00	0.81	89.75	7,108.23	-211.38	119.47	14,528,138.40	2,090,240.00	39.994622	-109.393986
7,215.00	1.10	103.54	7,203.22	-211.59	121.03	14,528,138.22	2,090,241.56	39.994621	-109.393980
7,309.00	1.34	128.24	7,297.19	-212.49	122.77	14,528,137.36	2,090,243.32	39.994619	-109.393974
7,404.00	1.16	143.56	7,392.17	-213.95	124.21	14,528,135.92	2,090,244.79	39.994615	-109.393969
7,499.00	0.84	198.05	7,487.16	-215.38	124.57	14,528,134.50	2,090,245.17	39.994611	-109.393968
7,593.00	1.16	303.97	7,581.15	-215.51	123.56	14,528,134.35	2,090,244.17	39.994610	-109.393971
7,688.00	0.40	278.71	7,676.14	-214.92	122.44	14,528,134.92	2,090,243.03	39.994612	-109.393975
7,782.00	0.65	0.31	7,770.14	-214.34	122.12	14,528,135.50	2,090,242.70	39.994614	-109.393976
7,877.00	0.39	55.53	7,865.14	-213.61	122.39	14,528,136.22	2,090,242.96	39.994616	-109.393975
7,971.00	0.48	93.54	7,959.13	-213.46	123.04	14,528,136.39	2,090,243.61	39.994616	-109.393973
8,066.00	0.87	91.35	8,054.13	-213.50	124.16	14,528,136.37	2,090,244.73	39.994616	-109.393969
8,160.00	0.84	99.52	8,148.12	-213.63	125.55	14,528,136.27	2,090,246.13	39.994616	-109.393964
8,255.00	0.88	111.82	8,243.11	-214.02	126.92	14,528,135.90	2,090,247.50	39.994614	-109.393959
8,350.00	0.90	132.00	8,338.09	-214.79	128.15	14,528,135.16	2,090,248.74	39.994612	-109.393955
8,444.00	1.41	118.32	8,432.07	-215.83	129.72	14,528,134.14	2,090,250.33	39.994610	-109.393949
8,539.00	1.52	126.77	8,527.04	-217.14	131.75	14,528,132.87	2,090,252.39	39.994606	-109.393942
8,633.00	1.62	124.85	8,621.01	-218.84	133.84	14,528,131.40	2,090,254.51	39.994602	-109.393935
8,728.00	1.67	124.21	8,715.97	-220.19	136.09	14,528,129.90	2,090,256.78	39.994598	-109.393926
8,822.00	2.37	113.68	8,809.91	-221.74	139.00	14,528,128.40	2,090,259.72	39.994593	-109.393916
8,862.00	2.00	102.62	8,849.88	-222.22	140.44	14,528,127.94	2,090,261.17	39.994592	-109.393911
LAST SDI MWD PRODUCTION SURVEY									
8,915.00	2.00	102.62	8,902.85	-222.63	142.25	14,528,127.57	2,090,262.98	39.994591	-109.393905
SDI PROJECTION TO BIT									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
153.00	153.00	-0.21	-0.07	FIRST SDI MWD SURFACE SURVEY
2,541.00	2,532.03	-131.04	135.84	LAST SDI MWD SURFACE SURVEY
2,675.00	2,665.48	-139.07	144.93	FIRST SDI MWD PRODUCTION SURVEY
8,862.00	8,849.88	-222.22	140.44	LAST SDI MWD PRODUCTION SURVEY
8,915.00	8,902.85	-222.63	142.25	SDI PROJECTION TO BIT