

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 1022-11F4S		
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 720 929-6587		
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217				9. OPERATOR E-MAIL mary.mondragon@anadarko.com		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ST UO 01197A		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	2571 FSL 2215 FWL	NESW	11	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	2615 FNL 2540 FWL	SENW	11	10.0 S	22.0 E	S
At Total Depth	2615 FNL 2540 FWL	SENW	11	10.0 S	22.0 E	S
21. COUNTY UINTAH		22. DISTANCE TO NEAREST LEASE LINE (Feet) 2215		23. NUMBER OF ACRES IN DRILLING UNIT 1674		
		25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 20		26. PROPOSED DEPTH MD: 8431 TVD: 8400		
27. ELEVATION - GROUND LEVEL 5115		28. BOND NUMBER 22013542		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORCANCE 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 Kathy Schneebeck-Dulnoan	TITLE Staff Regulatory Analyst	PHONE 720 929-6007
SIGNATURE	DATE 11/07/2008	EMAIL Kathy.SchneebeckDulnoan@anadarko.com
API NUMBER ASSIGNED 43047502120000	APPROVAL  Permit Manager	

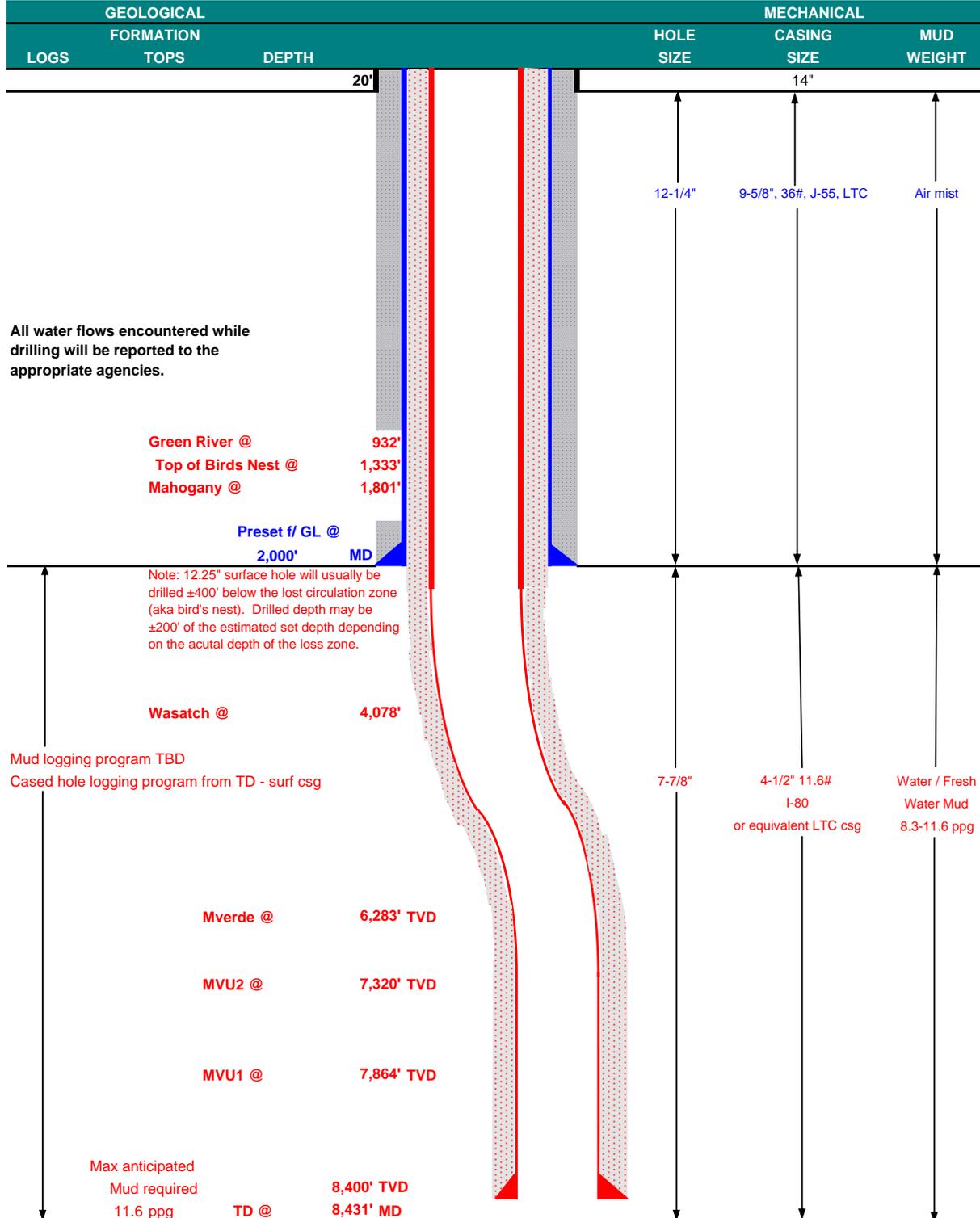
Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	4600		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2000	36.0			
	Cement Interval	Top (MD)	Bottom (MD)			
		0	4600			
		Cement Description	Class	Sacks	Yield	Weight
			Class G Cement	265	1.18	15.6

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	8431		
Pipe	Grade	Length	Weight			
	Grade I-80 LT&C	8431	11.6			
	Cement Interval	Top (MD)	Bottom (MD)			
		0	8431			
		Cement Description	Class	Sacks	Yield	Weight
			Premium Lite High Strength	340	3.38	11.0
			50/50 Poz	1190	1.31	14.3



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	March 20, 2009	
WELL NAME	NBU 1022-11F4S		TD	8,400'	8,431' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
		ELEVATION	5,115' GL KB 5,130'		
SURFACE LOCATION	NE/4 SW/4	2,571' FSL	2,215' FWL	Sec 11 T 10S R 22E	
	Latitude:	39.981933	Longitude:	-109.291047	NAD 27
BTM HOLE LOCATION	SE/4 NW/4	2,615' FNL	2,540' FWL	Sec 11 T 10S R 22E	
	Latitude:	39.963561	Longitude:	-109.406897	NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3520	2020	453000
SURFACE	9-5/8"	0 to 2,000'	36.00	J-55	LTC	1.09	2.16	8.01
PRODUCTION	4-1/2"	0 to 8,431'	11.60	I-80	LTC	2.41	1.25	2.36

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

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,124 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 4,990 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	50		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE Option 2	LEAD	1500	65/35 Poz + 6% Gel + 10 pps gilsonite + .25 pps Flocele + 3% salt BWOW	360	35%	12.60	1.81
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,571'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	340	40%	11.00	3.38
	TAIL	4,860'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1190	40%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER: _____
John Huycke / Grant Schluender

DATE: _____

DRILLING SUPERINTENDENT: _____
John Merkel / Lovel Young

DATE: _____

**NBU 1022-11F4S
Twin to NBU #367
NESW Sec. 11 T10S R22E
UINTAH COUNTY, UTAH
ST UO 01197A**

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	932'
Birds Nest	1333'
Mahogany	1801'
Wasatch	4078'
Mesaverde	6283'
MVU2	7320'
MVL1	7864'
TVD	8400'
TD	8431'

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River	932'
Water	Birds Nest	1333'
Water	Mahogany	1801'
Gas	Wasatch	4078'
Gas	Mesaverde	6283'
Gas	MVU2	7320'
Gas	MVL1	7864'
Water	N/A	
Other Minerals	N/A	

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 bottomhole pressure calculated at 8431' TD, approximately equals 4990 psi (calculated at 0.59 psi/foot).

Maximum anticipated surface pressure equals approximately 3124 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

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 to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 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.

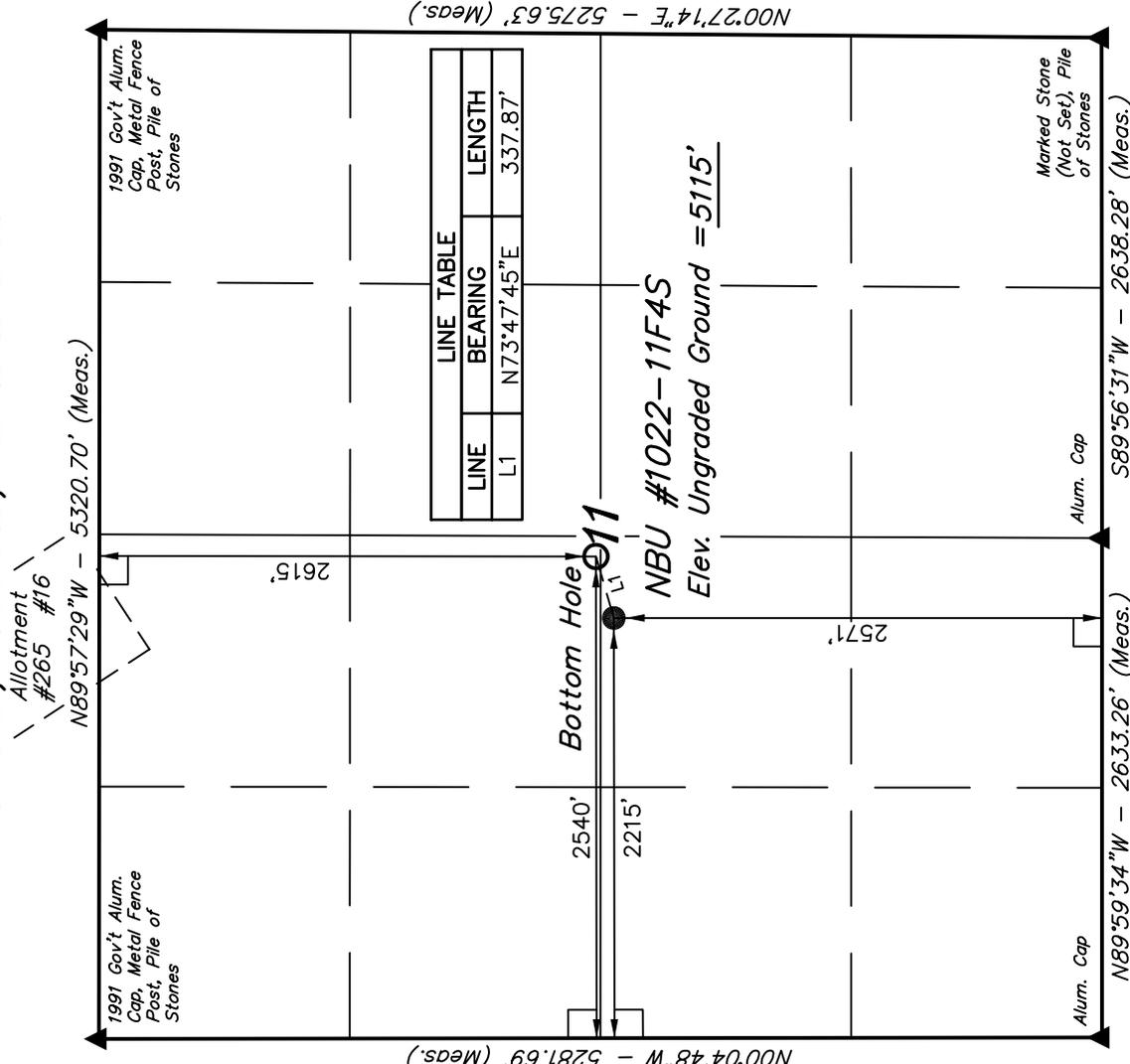
Conclusion

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.

T10S, R22E, S.L.B.&M.



Kerr-McGee Oil & Gas Onshore LP

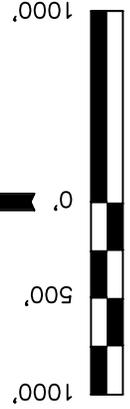
Well location, NBU #1022-11F4S, located as shown in the NE 1/4 SW 1/4 of Section 11, T10S, R22E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 CORNER OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

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

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING

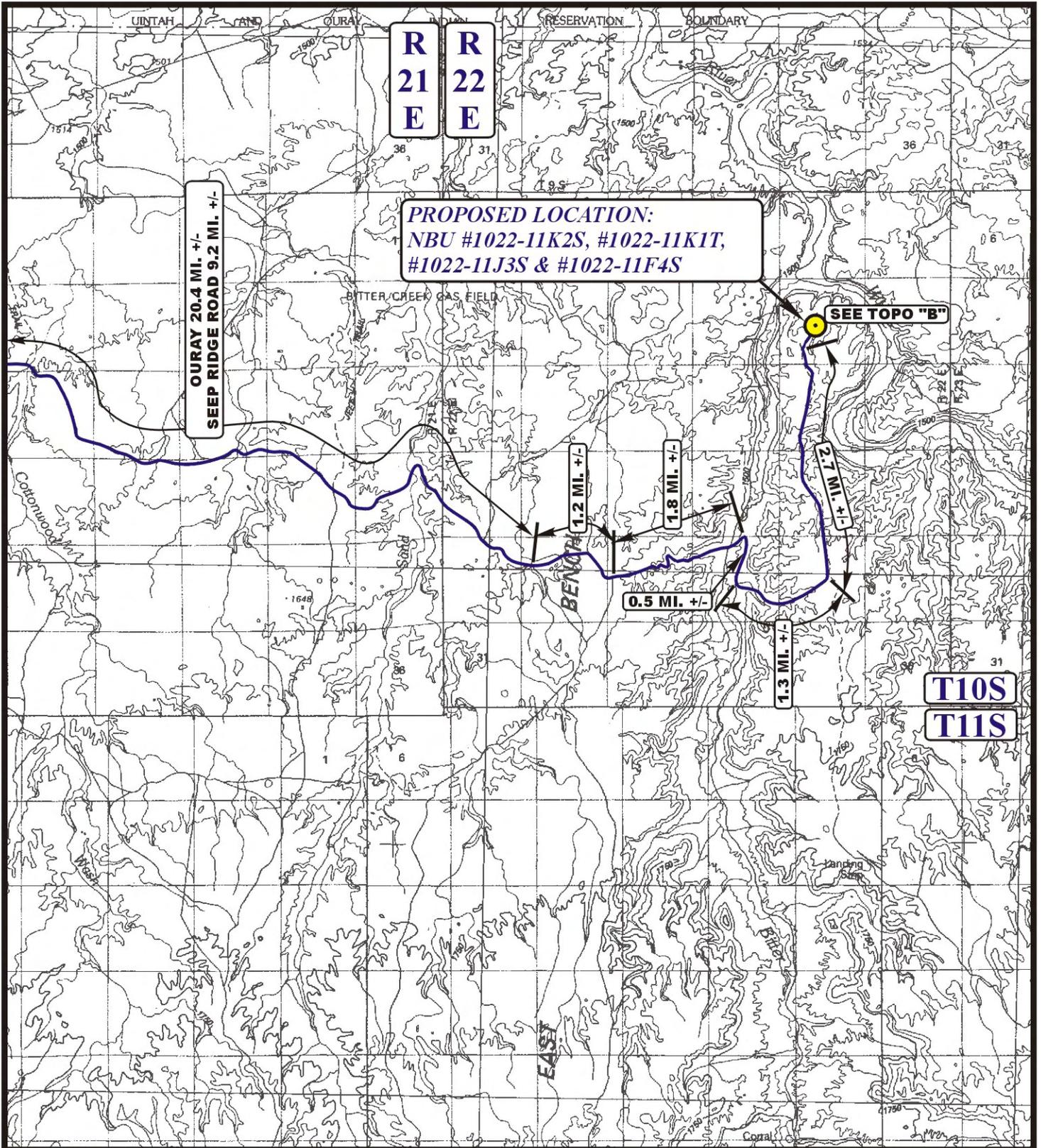
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE	1" = 1000'	DATE SURVEYED:	08-19-08	DATE DRAWN:	09-09-08
PARTY	D.S. E.D. C.C.	REFERENCES	G.L.O. PLAT		
WEATHER	HOT	FILE	Kerr-McGee Oil & Gas Onshore LP		

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LA TITUDE = 39°57'48.70" (39.963528)	LA TITUDE = 39°57'47.77" (39.963269)
LONGITUDE = 109°24'27.28" (109.407578)	LONGITUDE = 109°24'31.45" (109.408736)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LA TITUDE = 39°57'48.82" (39.963561)	LA TITUDE = 39°57'47.89" (39.963303)
LONGITUDE = 109°24'24.83" (109.406897)	LONGITUDE = 109°24'29.00" (109.408056)



LEGEND:

PROPOSED LOCATION



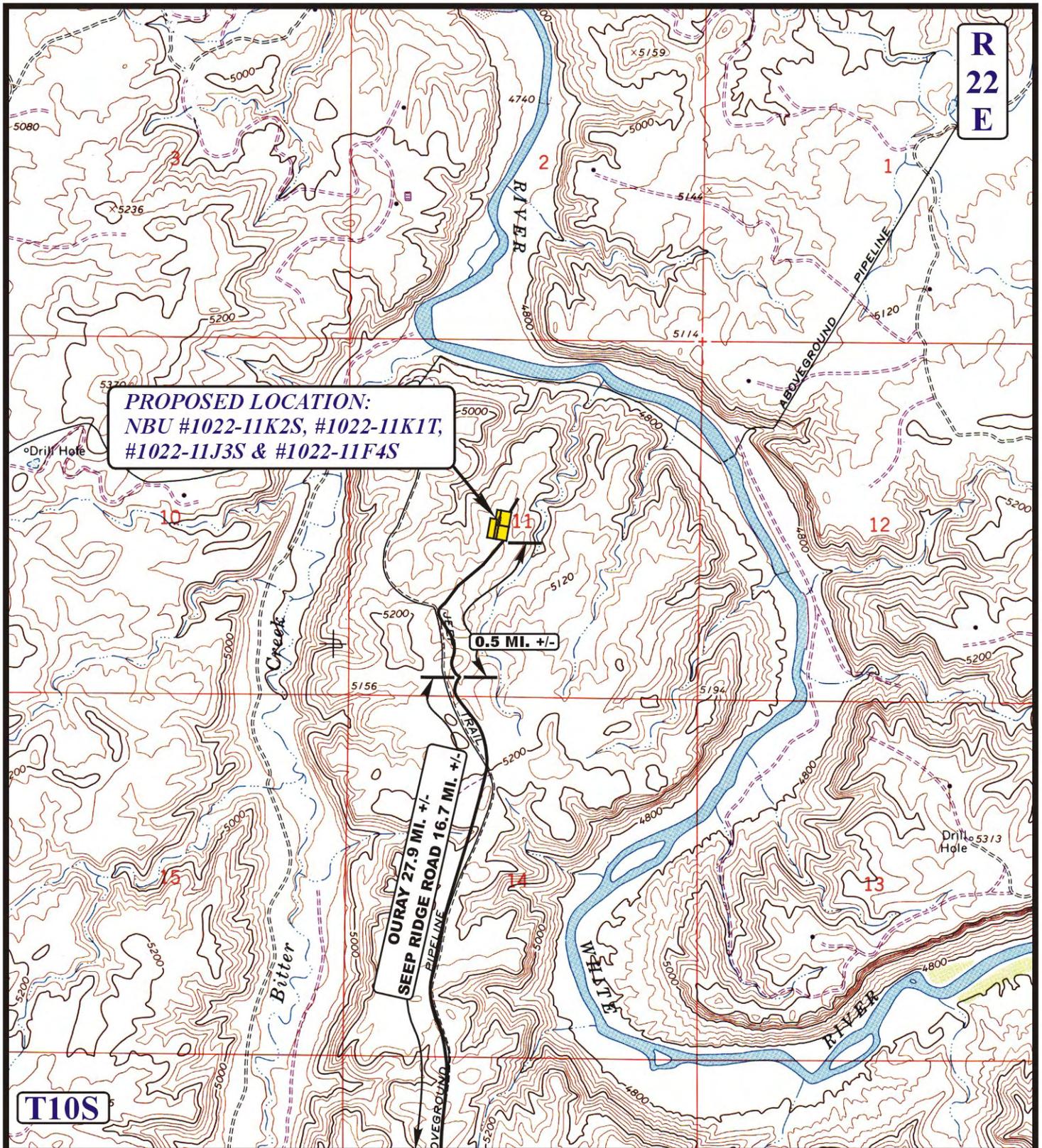
Kerr-McGee Oil & Gas Onshore LP

NBU #1022-11K2S, #1022-11K1T,
#1022-11J3S & #1022-11F4S
SECTION 11, T10S, R22E, S.L.B.&M.
NE 1/4 SW 1/4

U&L S Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC **09 15 08**
MAP MONTH DAY YEAR
SCALE: 1:100,000 DRAWN BY: J.H. REVISED: 00-00-00

A
TOPO



**PROPOSED LOCATION:
NBU #1022-11K2S, #1022-11K1T,
#1022-11J3S & #1022-11F4S**

**SEEP RIDGE ROAD 16.7 MI. +/-
PIPELINE**

**OURAY 27.9 MI. +/-
ROAD**

0.5 MI. +/-

T10S

**R
22
E**

LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING ROAD

Kerr-McGee Oil & Gas Onshore LP

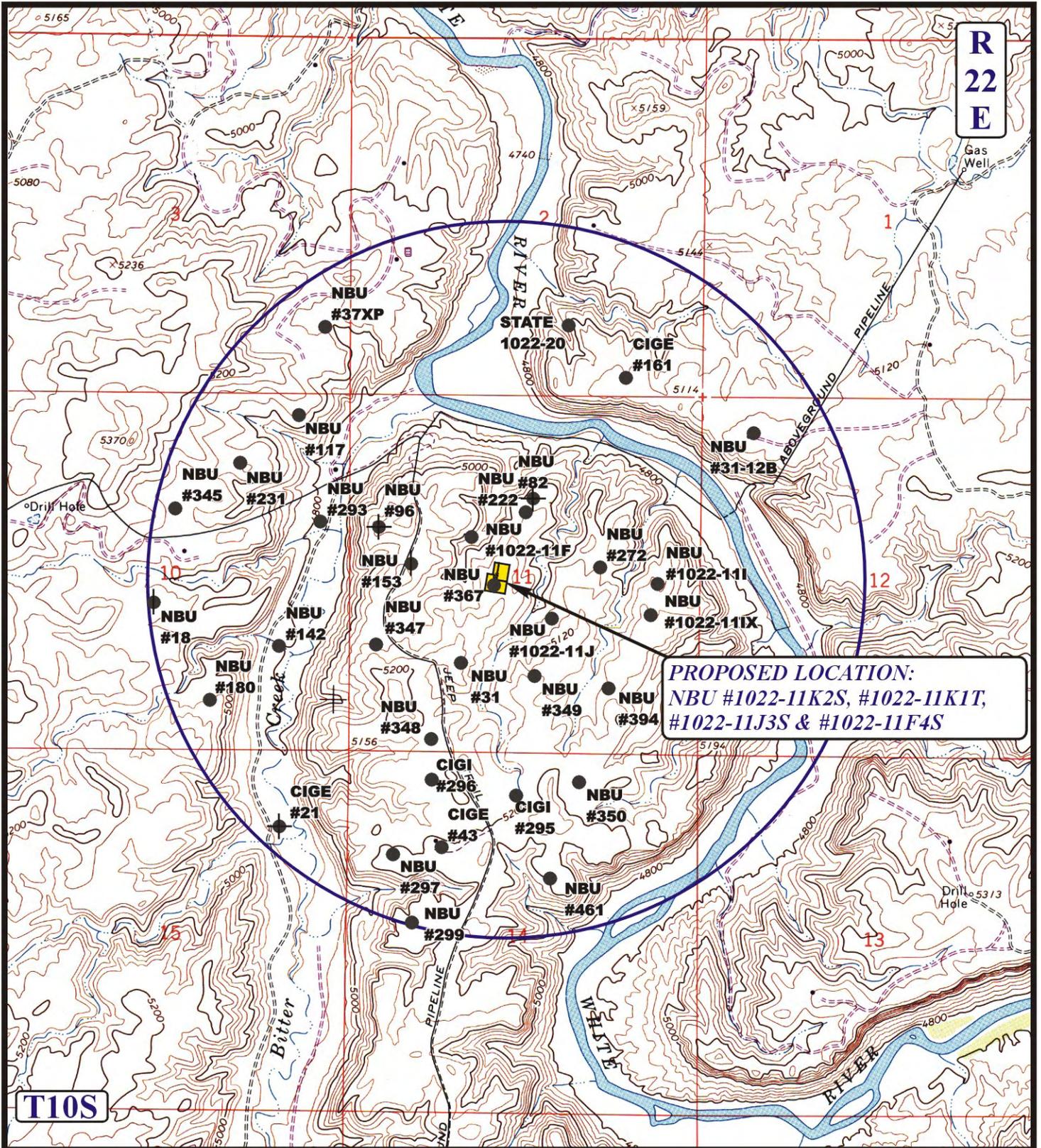
NBU #1022-11K2S, #1022-11K1T,
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SECTION 11, T10S, R22E, S.L.B.&M.
NE 1/4 SW 1/4

U&L S Utah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813



TOPOGRAPHIC **09 15 08**
MAP MONTH DAY YEAR
SCALE: 1" = 2000' DRAWN BY: J.H. REVISED: 00-00-00

B
TOPO



PROPOSED LOCATION:
 NBU #1022-11K2S, #1022-11K1T,
 #1022-11J3S & #1022-11F4S

LEGEND:

- | | |
|-------------------|-------------------------|
| ⊗ DISPOSAL WELLS | ⊕ WATER WELLS |
| ● PRODUCING WELLS | ● ABANDONED WELLS |
| ● SHUT IN WELLS | ● TEMPORARILY ABANDONED |



Kerr-McGee Oil & Gas Onshore LP

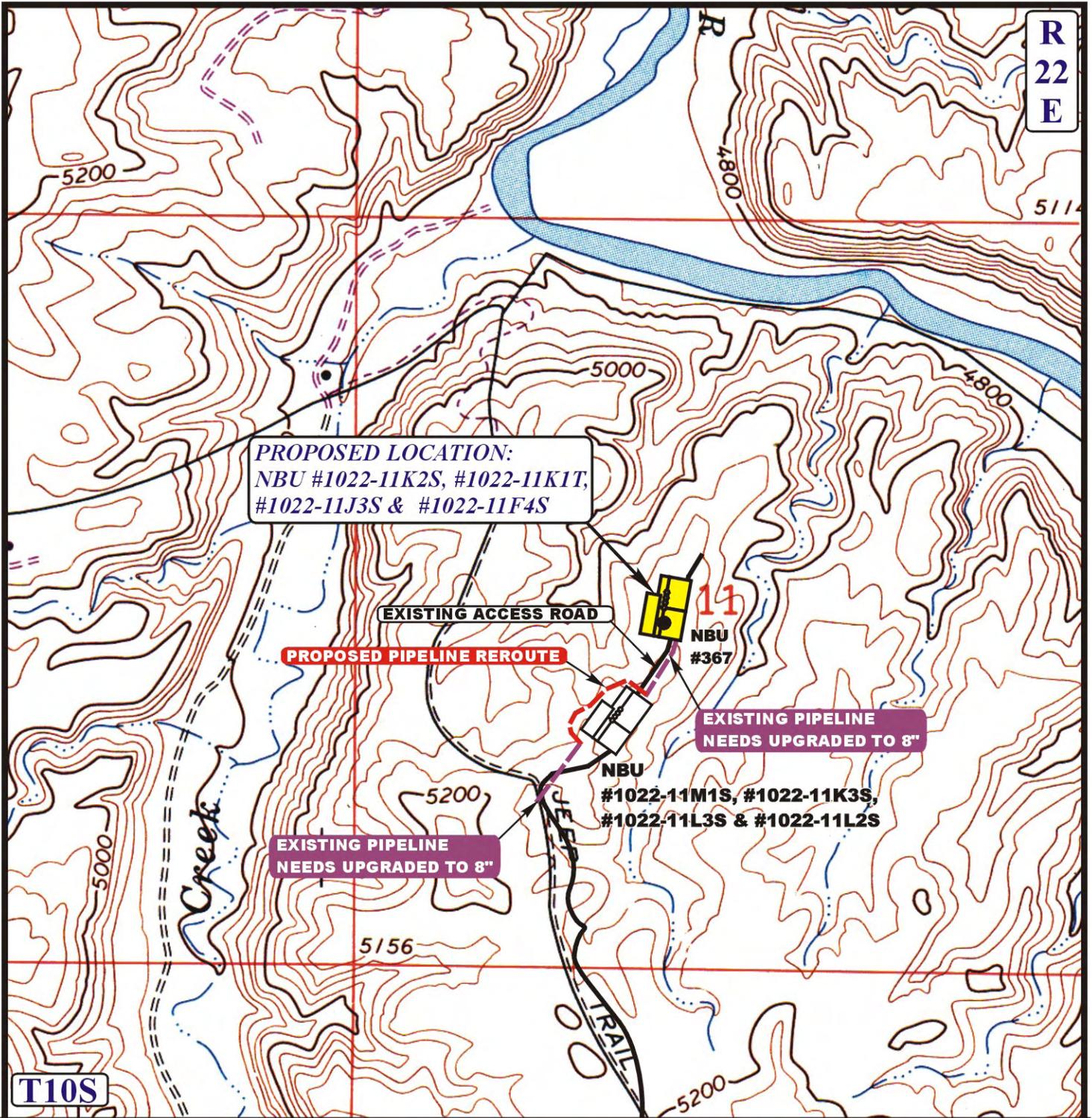
NBU #1022-11K2S, #1022-11K1T,
 #1022-11J3S & #1022-11F4S
 SECTION 11, T10S, R22E, S.L.B.&M.
 NE 1/4 SW 1/4



Utah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP **09 15 08**
 MONTH DAY YEAR
 SCALE: 1" = 2000' DRAWN BY: J.H. REVISED: 00-00-00





APPROXIMATE TOTAL UPGRADED PIPELINE DISTANCE = 1,900' +/-

APPROXIMATE TOTAL UPGRADED PIPELINE DISTANCE = 1,700' +/-

LEGEND:

-  EXISTING PIPELINE
-  EXISTING PIPELINE NEEDS UPGRADED TO 8"
-  PROPOSED PIPELINE REROUTE
-  PROPOSED ACCESS

Kerr-McGee Oil & Gas Onshore LP

NBU #1022-11K2S, #1022-11K1T,
 #1022-11J3S & #1022-11F4S
 SECTION 11, T10S, R22E, S.L.B.&M.
 NE 1/4 SW 1/4

U&L S **Utah Engineering & Land Surveying**
 85 South 200 East Vernal, Utah 84078
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TOPOGRAPHIC **09 15 08**
MAP MONTH DAY YEAR
 SCALE: 1" = 1000' DRAWN BY: J.H. REVISED: 00-00-00

D
TOPO



Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: Plan #1

Kerr McGee Oil and Gas Onshore LP

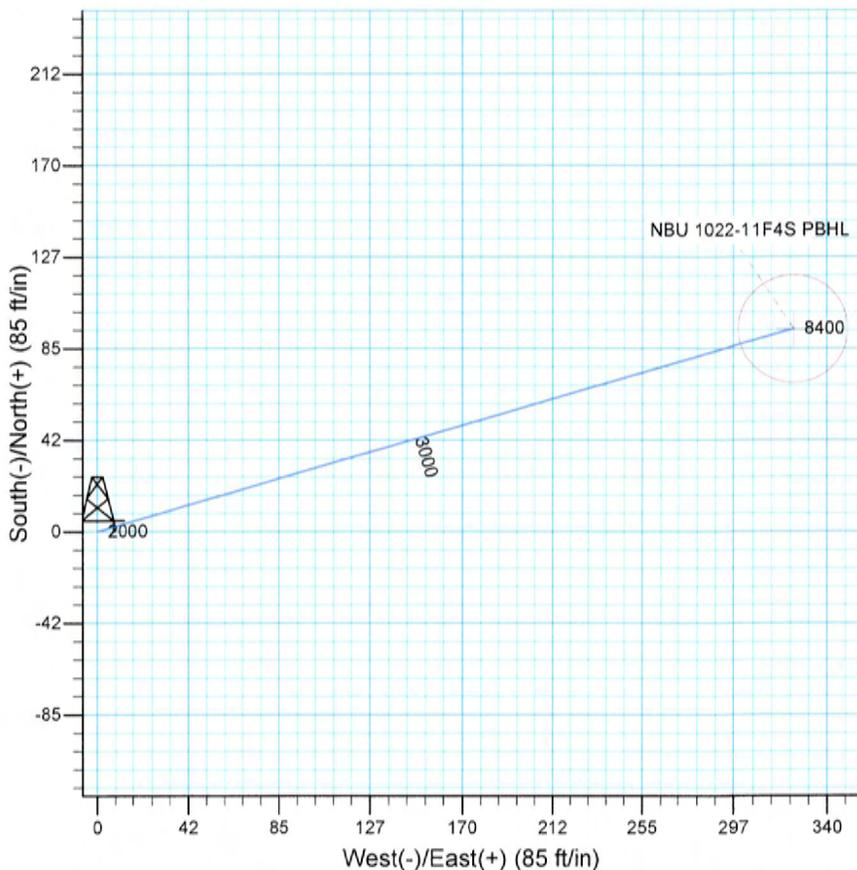
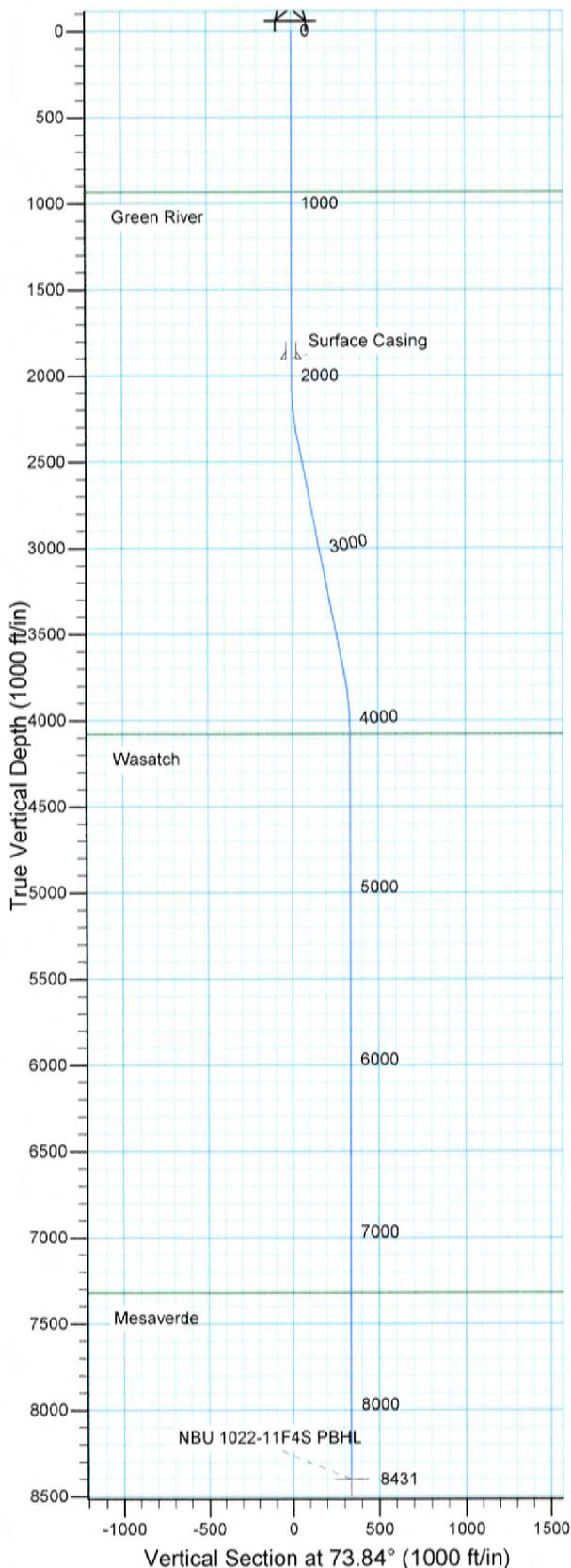


Azimuths to True North
Magnetic North: 11.35°

Magnetic Field
Strength: 52606.7snT
Dip Angle: 65.93°
Date: 10/30/2008
Model: IGRF2005-10

WELL DETAILS: NBU 1022-11F4S

GL 5115' & RKB 18' @ 5133.00ft 5115.00
+N/-S 0.00 +E/-W 0.00 Northing 600536.41 Easting 2586308.32 Latitude 39° 57' 47.890 N Longitude 109° 24' 29.000 W



Plan: Plan #1 (NBU 1022-11F4S/OH)
Created By: Julie Cruse Date: 2008-10-31
PROJECT DETAILS: Uintah County, UT NAD27
Geodetic System: US State Plane 1927 (Exact solution) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: Utah Central 4302 Location: Sec 11 T10S R22E System Datum: Mean Sea Level Local North: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
2374.35	11.23	73.84	2371.96	10.18	35.12	3.00	73.84	36.57	
3734.48	11.23	73.84	3706.04	83.92	289.55	0.00	0.00	301.46	
4108.83	0.00	0.00	4078.00	94.10	324.67	3.00	180.00	338.03	
8430.83	0.00	0.00	8400.00	94.10	324.67	0.00	0.00	338.03	NBU 1022-11F4S PBHL

APIWellNo:43047502120000



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT NAD27
NBU 1022-11K2 Pad
NBU 1022-11F4S
OH**

Plan: Plan #1

Standard Planning Report

31 October, 2008

Database: EDM 2003.16 Multi User DB
Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well NBU 1022-11F4S
TVD Reference: GL 5115' & RKB 18' @ 5133.00ft
MD Reference: GL 5115' & RKB 18' @ 5133.00ft
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 1022-11K2 Pad, Sec 11 T10S R22E				
Site Position:		Northing:	600,477.52 ft	Latitude:	39° 57' 47.310 N
From:	Lat/Long	Easting:	2,586,300.35 ft	Longitude:	109° 24' 29.120 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	1.34 °

Well	NBU 1022-11F4S, 2571' FSL 2215' FWL					
Well Position	+N/-S	0.00 ft	Northing:	600,536.41 ft	Latitude:	39° 57' 47.890 N
	+E/-W	0.00 ft	Easting:	2,586,308.32 ft	Longitude:	109° 24' 29.000 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,115.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2005-10	10/30/2008	(°) 11.35	(°) 65.93	(nT) 52,607

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	73.84

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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,374.35	11.23	73.84	2,371.96	10.18	35.12	3.00	3.00	0.00	73.84	
3,734.48	11.23	73.84	3,706.04	83.92	289.55	0.00	0.00	0.00	0.00	
4,108.83	0.00	0.00	4,078.00	94.10	324.67	3.00	-3.00	0.00	180.00	
8,430.83	0.00	0.00	8,400.00	94.10	324.67	0.00	0.00	0.00	0.00	NBU 1022-11F4S PB

'APIWellNo:43047502120000'

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MD Reference: GL 5115' & RKB 18' @ 5133.00ft
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
932.00	0.00	0.00	932.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	3.00	73.84	2,099.95	0.73	2.51	2.62	3.00	3.00	0.00
2,200.00	6.00	73.84	2,199.63	2.91	10.05	10.46	3.00	3.00	0.00
2,300.00	9.00	73.84	2,298.77	6.55	22.58	23.51	3.00	3.00	0.00
2,374.35	11.23	73.84	2,371.96	10.18	35.12	36.57	3.00	3.00	0.00
2,400.00	11.23	73.84	2,397.12	11.57	39.92	41.57	0.00	0.00	0.00
2,500.00	11.23	73.84	2,495.20	16.99	58.63	61.04	0.00	0.00	0.00
2,600.00	11.23	73.84	2,593.29	22.41	77.33	80.52	0.00	0.00	0.00
2,700.00	11.23	73.84	2,691.37	27.84	96.04	99.99	0.00	0.00	0.00
2,800.00	11.23	73.84	2,789.46	33.26	114.75	119.47	0.00	0.00	0.00
2,900.00	11.23	73.84	2,887.54	38.68	133.45	138.94	0.00	0.00	0.00
3,000.00	11.23	73.84	2,985.63	44.10	152.16	158.42	0.00	0.00	0.00
3,100.00	11.23	73.84	3,083.71	49.52	170.86	177.90	0.00	0.00	0.00
3,200.00	11.23	73.84	3,181.80	54.94	189.57	197.37	0.00	0.00	0.00
3,300.00	11.23	73.84	3,279.88	60.37	208.27	216.85	0.00	0.00	0.00
3,400.00	11.23	73.84	3,377.97	65.79	226.98	236.32	0.00	0.00	0.00
3,500.00	11.23	73.84	3,476.05	71.21	245.69	255.80	0.00	0.00	0.00
3,600.00	11.23	73.84	3,574.14	76.63	264.39	275.27	0.00	0.00	0.00
3,700.00	11.23	73.84	3,672.22	82.05	283.10	294.75	0.00	0.00	0.00
3,734.48	11.23	73.84	3,706.04	83.92	289.55	301.46	0.00	0.00	0.00
3,800.00	9.26	73.84	3,770.52	87.17	300.74	313.12	3.00	-3.00	0.00
3,900.00	6.26	73.84	3,869.59	90.93	313.72	326.63	3.00	-3.00	0.00
4,000.00	3.26	73.84	3,969.23	93.24	321.69	334.93	3.00	-3.00	0.00
4,100.00	0.26	73.84	4,069.17	94.10	324.65	338.01	3.00	-3.00	0.00
4,108.83	0.00	0.00	4,078.00	94.10	324.67	338.03	3.00	-3.00	0.00
Wasatch									
4,200.00	0.00	0.00	4,169.17	94.10	324.67	338.03	0.00	0.00	0.00
4,300.00	0.00	0.00	4,269.17	94.10	324.67	338.03	0.00	0.00	0.00
4,400.00	0.00	0.00	4,369.17	94.10	324.67	338.03	0.00	0.00	0.00
4,500.00	0.00	0.00	4,469.17	94.10	324.67	338.03	0.00	0.00	0.00

'APIWellNo:43047502120000'

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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)
4,600.00	0.00	0.00	4,569.17	94.10	324.67	338.03	0.00	0.00	0.00
4,700.00	0.00	0.00	4,669.17	94.10	324.67	338.03	0.00	0.00	0.00
4,800.00	0.00	0.00	4,769.17	94.10	324.67	338.03	0.00	0.00	0.00
4,900.00	0.00	0.00	4,869.17	94.10	324.67	338.03	0.00	0.00	0.00
5,000.00	0.00	0.00	4,969.17	94.10	324.67	338.03	0.00	0.00	0.00
5,100.00	0.00	0.00	5,069.17	94.10	324.67	338.03	0.00	0.00	0.00
5,200.00	0.00	0.00	5,169.17	94.10	324.67	338.03	0.00	0.00	0.00
5,300.00	0.00	0.00	5,269.17	94.10	324.67	338.03	0.00	0.00	0.00
5,400.00	0.00	0.00	5,369.17	94.10	324.67	338.03	0.00	0.00	0.00
5,500.00	0.00	0.00	5,469.17	94.10	324.67	338.03	0.00	0.00	0.00
5,600.00	0.00	0.00	5,569.17	94.10	324.67	338.03	0.00	0.00	0.00
5,700.00	0.00	0.00	5,669.17	94.10	324.67	338.03	0.00	0.00	0.00
5,800.00	0.00	0.00	5,769.17	94.10	324.67	338.03	0.00	0.00	0.00
5,900.00	0.00	0.00	5,869.17	94.10	324.67	338.03	0.00	0.00	0.00
6,000.00	0.00	0.00	5,969.17	94.10	324.67	338.03	0.00	0.00	0.00
6,100.00	0.00	0.00	6,069.17	94.10	324.67	338.03	0.00	0.00	0.00
6,200.00	0.00	0.00	6,169.17	94.10	324.67	338.03	0.00	0.00	0.00
6,300.00	0.00	0.00	6,269.17	94.10	324.67	338.03	0.00	0.00	0.00
6,400.00	0.00	0.00	6,369.17	94.10	324.67	338.03	0.00	0.00	0.00
6,500.00	0.00	0.00	6,469.17	94.10	324.67	338.03	0.00	0.00	0.00
6,600.00	0.00	0.00	6,569.17	94.10	324.67	338.03	0.00	0.00	0.00
6,700.00	0.00	0.00	6,669.17	94.10	324.67	338.03	0.00	0.00	0.00
6,800.00	0.00	0.00	6,769.17	94.10	324.67	338.03	0.00	0.00	0.00
6,900.00	0.00	0.00	6,869.17	94.10	324.67	338.03	0.00	0.00	0.00
7,000.00	0.00	0.00	6,969.17	94.10	324.67	338.03	0.00	0.00	0.00
7,100.00	0.00	0.00	7,069.17	94.10	324.67	338.03	0.00	0.00	0.00
7,200.00	0.00	0.00	7,169.17	94.10	324.67	338.03	0.00	0.00	0.00
7,300.00	0.00	0.00	7,269.17	94.10	324.67	338.03	0.00	0.00	0.00
7,350.83	0.00	0.00	7,320.00	94.10	324.67	338.03	0.00	0.00	0.00
Mesaverde									
7,400.00	0.00	0.00	7,369.17	94.10	324.67	338.03	0.00	0.00	0.00
7,500.00	0.00	0.00	7,469.17	94.10	324.67	338.03	0.00	0.00	0.00
7,600.00	0.00	0.00	7,569.17	94.10	324.67	338.03	0.00	0.00	0.00
7,700.00	0.00	0.00	7,669.17	94.10	324.67	338.03	0.00	0.00	0.00
7,800.00	0.00	0.00	7,769.17	94.10	324.67	338.03	0.00	0.00	0.00
7,900.00	0.00	0.00	7,869.17	94.10	324.67	338.03	0.00	0.00	0.00
8,000.00	0.00	0.00	7,969.17	94.10	324.67	338.03	0.00	0.00	0.00
8,100.00	0.00	0.00	8,069.17	94.10	324.67	338.03	0.00	0.00	0.00
8,200.00	0.00	0.00	8,169.17	94.10	324.67	338.03	0.00	0.00	0.00
8,300.00	0.00	0.00	8,269.17	94.10	324.67	338.03	0.00	0.00	0.00
8,400.00	0.00	0.00	8,369.17	94.10	324.67	338.03	0.00	0.00	0.00
8,430.83	0.00	0.00	8,400.00	94.10	324.67	338.03	0.00	0.00	0.00

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 1022-11F4S PBHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,400.00	94.10	324.67	600,638.07	2,586,630.70	39° 57' 48.820 N	109° 24' 24.830 W

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Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,900.00	1,900.00	Surface Casing	9.625	13.500

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
932.00	932.00	Green River		0.00	
4,108.83	4,078.00	Wasatch		0.00	
7,350.83	7,320.00	Mesaverde		0.00	

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS
ONSHORE LP'S 73 PROPOSED NBU WELL LOCATIONS
IN TOWNSHIP 10S, RANGE 22E
UINTAH COUNTY, UTAH

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ONSHORE LP'S 73 PROPOSED NBU WELL LOCATIONS
IN TOWNSHIP 10S, RANGE 22E
UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

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

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

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

MOAC Report No. 08-268

October 16, 2008

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

INTRODUCTION

A Class I literature review was completed by Montgomery Archaeological Consultants, Inc. (MOAC) in October 2008 of Kerr-McGee Onshore's 73 proposed NBU well locations in Township 10S, Range 22E. The project area is situated south of the White River and southeast of the Ouray, Uintah County, Utah. The wells are designated NBU 1022-1I, 1022-1J, 1022-1N, 1022-1P, 1022-2A2T, 1022-2A3S, 1022-2A4S, 1022-2B2S, 1022-2D, 1022-2F, 1022-2J1T, 1022-2J2S, 1022-2J3S, 1022-2O2S, 1022-03A2T, 1022-03A3S, 1022-03B2S, 1022-03B4T, 1022-03C1S, 1022-04H2CS, 1022-04H3BS, 1022-03H2T, 1022-03L4BS, 1022-03L3DS, 1022-03M1DS, 1022-03M2DS, 1022-03J3T, 1022-03L2T, 1022-03N4T, 1022-03P4T, 1022-03O3T, 1022-04K3S, 1022-04M1S, 1022-05H2BS, 1022-05H2CS, 1022-05E4S, 1022-05F2S, 1022-05K1S, 1022-05L1S, 1022-05IT, 1022-06DT, 1022-06ET, 1022-06FT, 1022-06I3AS, 1022-06J4CS, 1022-06O1BS, 1022-06P1CS, 1022-7AT, 1022-7A4BS, 1022-7A4CS, 1022-7B2DS, 1022-08GT, 1022-08IT, 1022-09AT, 1022-11F4S, 1022-11J3S, 1022-11K1T, 1022-11K2S, 1022-11K3S, 1022-11L2S, 1022-11L3S, 1022-11M1S, 1022-13H, 1022-24O, 1022-24O2S, 1022-24P2S, 1022-24P4S, 1022-25H, 1022-32B3S, 1022-32D1S, 1022-32D4AS, 1022-32D4DS, and 1022-35M.

The purpose of this Class I review is to identify, classify, and evaluate the previously conducted cultural resource inventories and archaeological sites in the project area in order to comply with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventory was implemented to attain compliance with a number of federal and state mandates, including the National Environmental Policy Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1978, and the Utah State Antiquities Act of 1973 (amended 1990).

The project area in which Kerr-McGee Onshore's 73 proposed NBU well locations occur was previously inventoried by MOAC in 2007 for the Class III inventory of Township 10 South, Range 22 East (Montgomery 2008; U-07-MQ-1438b,s,p). A file search was completed by consulting MOAC's Class I existing data review of 459 square miles (293,805 acres) covering the Greater NBU study area between Bonanza and Ouray in Uintah County, northeastern Utah (Patterson et al. 2008). Kerr-McGee Oil & Gas Onshore LP proposes to explore and develop oil and natural gas resources throughout the area. Record searches were performed for this Class I project by Marty Thomas at the Utah State Historic Preservation Office (SHPO) on various dates between June 14, 2006 and January 27, 2007. The results of this Class I data review and Class III inventory indicated that no previously recorded sites occur in the current project area.

DESCRIPTION OF THE PROJECT AREA

The project area is situated west of the White River and both sides of Bitter Creek in the Uinta Basin. The legal description is Township 10S, Range 22E, Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 24, 25, 32, 36; Township 11S, Range 22E, Sections 1 and 2 (Figures 1, 2 and 3; Table 1). Land status is public land administered by the Bureau of Land Management (BLM) Vernal Field Office and School and Institutional Trust Lands Administration (SITLA) property.

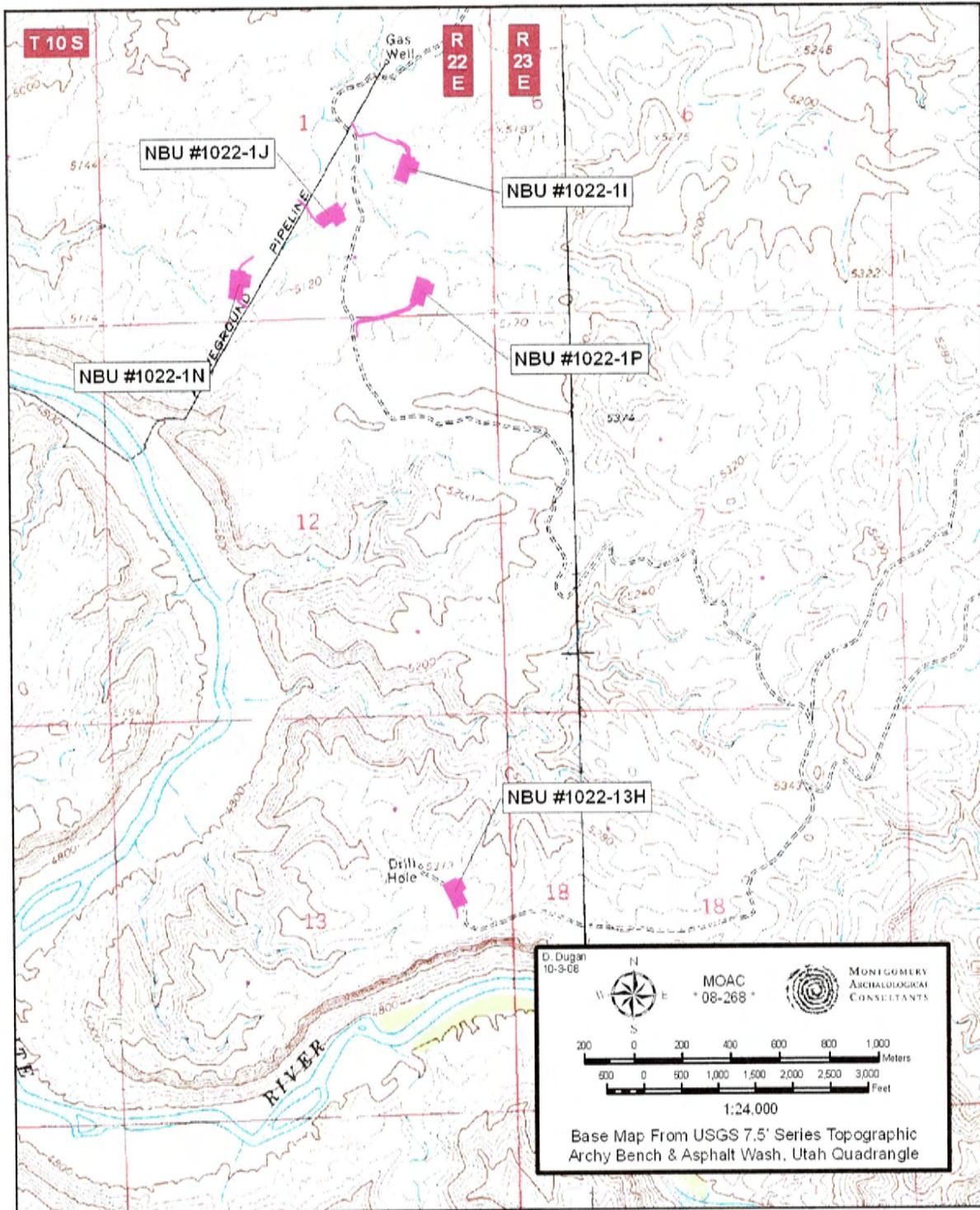
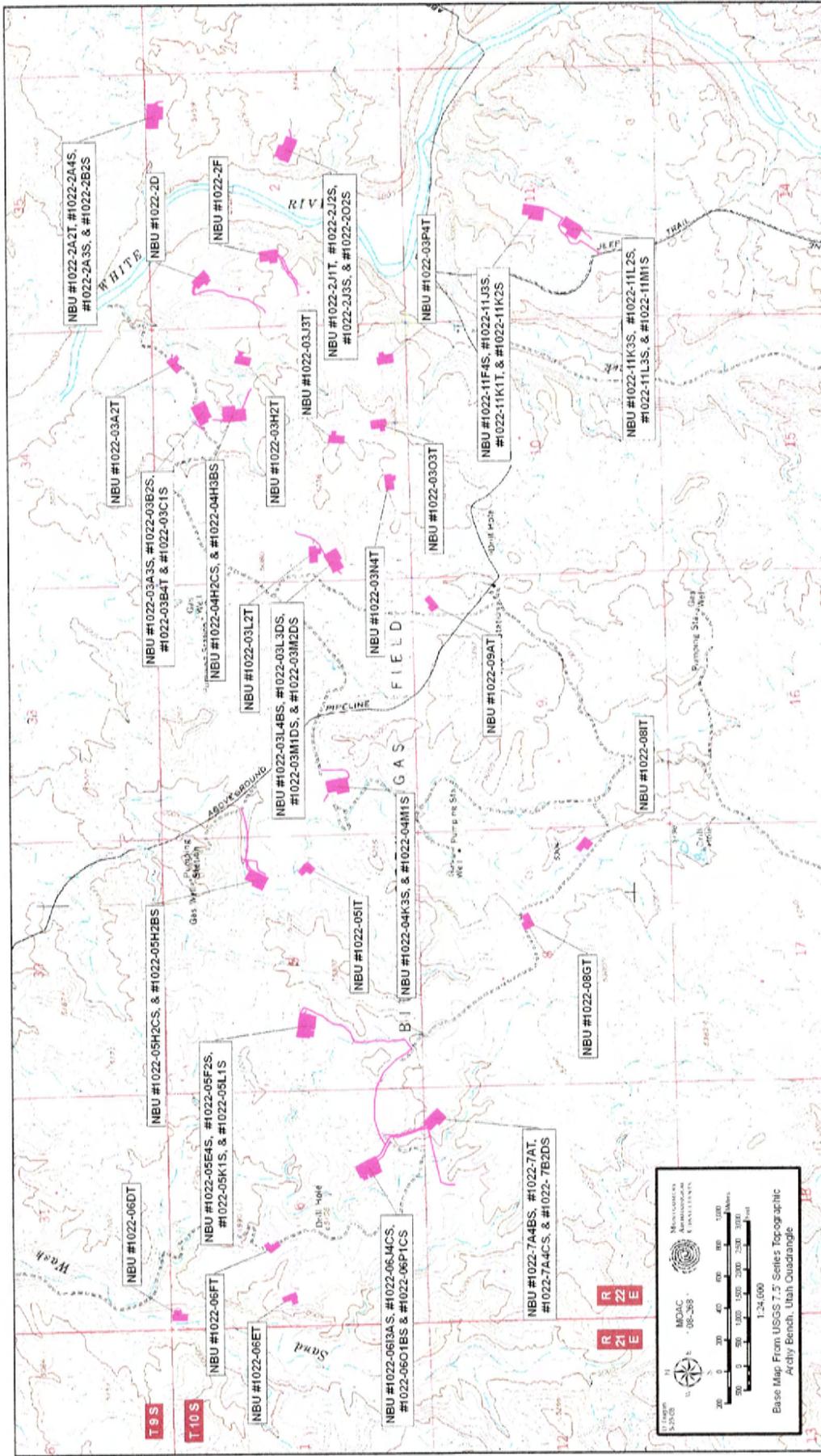


Figure 1. Location of Kerr-McGee Onshore's Well Pads in T10S, R22E.



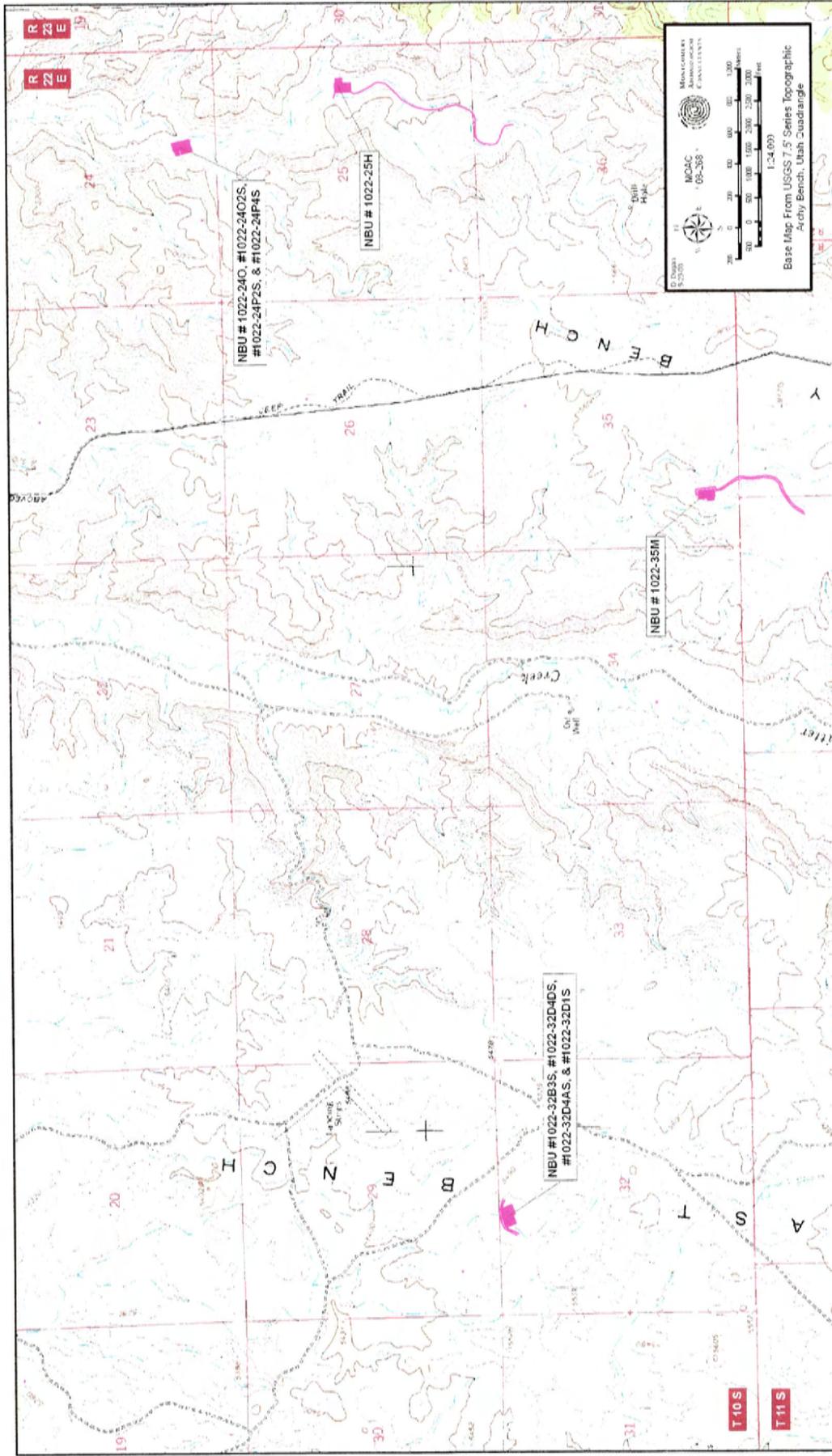


Table 1. Kerr-McGee Onshore's 73 NBU Well Locations.

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-1I	T10S, R22E, Sec. 1 NE/SE	Pipeline: 1000 ft Access: 200 ft	None
NBU 1022-1J	T10S, R22E, Sec. 1 NW/SE	Pipeline: 400 ft Access: 50 ft	None
NBU 1022-1N	T10S, R22E, Sec. 1 SE/SW	Pipeline: 150 ft Access: 200 ft	None
NBU 1022-1P	T10S, R22E, Sec. 1 SE/SE	Pipeline: 1050 ft Access: 1000 ft	None
NBU 1022-2A2T, 1022-2A4S 1022-243S, 1022-2B2S	T10S, R22E, Sec. 2 NE/NE	Access: 200 ft	None
NBU 1022-2D	T10S, R22E, Sec. 2 NW/NW	Pipeline: 1600 ft	None
NBU 1022-2F	T10S, R22E, Sec. 2 SE/NW	Pipeline: 800 ft Access: 1000 ft	None
NBU 1022-2J1T, 1022-2J2S, 1022-2J3S, 1022-2O2S	T10S, R22E, Sec. 2 NW/SE	Pipeline: 200 ft	None
NBU 1022-03A2T	T10S, R22E, Sec. 3 NE/NE	None	None
NBU1022-03A3S, 1022-03B2S 1022-03B4T, 1022-03C1S	T10S, R22E, Sec. 3 NW/NE	None	None
NBU 1022-04H2CS 1022-04H3BS	T10S, R22E, Sec. 3 SW/NE	Pipeline: 450 ft Access: 200 ft	None
NBU 1022-03H2T	T10S, R22E, Sec. 3 SE/NE	None	None
NBU 1022-03J3T	T10S, R22E, Sec. 3 NW/SE	None	None
NBU 1022-03L2T	T10S, R22E, Sec. 3 NW/SW	None	None
NBU 1022-03L4BS, 1022-03L3DS 1022-03M1DS, 1022-03M2DS	T10S, R22E, Sec. 3 NW/SW	Pipeline: 800 ft Access: 100 ft	None
NBU 1022-03N4T	T10S, R22E, Sec. 3 SE/SW	None	None
NBU 1022-03O3T	T10S, R22E, Sec. 3 SW/SE	None	None
NBU 1022-03P4T	T10S, R22E, Sec. 3 SE/SE	None	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-04K3S, 1022-04M1S	T10S, R22E, Sec. 4 NW/SW	Pipeline: 200 ft Access: 600 ft	None
NBU 1022-05H2CS, 1022-05H2BS	T10S, R22E, Sec. 5 SE/NE	Pipeline: 800 ft Access: 1200 ft	None
NBU 1022-05E4S, 1022-05F2S 1022-05K1S, 1022-05L1S	T10S, R22E Sec. 5 NE/SW	Pipeline: 4800 ft Access: 100 ft	None
NBU 1022-05IT	T10S, R22E, Sec. 5 NE/SE	None	None
NBU 1022-06DT	T10S, R22E, Sec. 6 NW/NW	None	None
NBU 1022-06ET	T10S, R22E, Sec. 6 SW/NW	None	None
NBU 1022-06FT	T10S, R22E, Sec. 6 SE/NW	None	None
NBU 1022-06I3AS, 1022-06J4CS 1022-06O1BS, 1022-06P1CS	T10S, R22E, Sec. 6 SW/SE	Pipeline: 1400 ft Access: 450 ft	None
NBU 1022-7A4BS, 1022-7AT 1022-7A4CS, 1022-7B2DS	T10S, R22E, Sec. 7 NE/NE	Pipeline: 1300 ft Access: 1000 ft	None
NBU 1022-08GT	T10SS, R22E, Sec. 8 SW/NE	None	None
NBU 1022-08IT	T10S, R22E, Sec. 8 NE/SE	None	None
NBU 1022-09AT	T10S, R22E, Sec. 9 NE/NE	None	None
NBU 1022-11F4S, 1022-11J3S, 1022-11K1T, 1022-11K2S	T10S, R22E, Sec. 11 NE/SW	Pipeline: 1600 ft	None
NBU 1022-11K3S, 1022-11L2S, 1022-11L3S, 1022-11M1S	T10S, R22E, Sec. 11 NE/SW	Pipeline: 500 ft Access: 250 ft	None
NBU 1022-13H	T10S, R22E, Sec. 13 SE/NE	Pipeline: 100 ft	
NBU 1022-24O, 1022-24O2S 1022-24P2S, 1022-24P4S	T10S, R22E, Sec. 24 SW/SE	None	None
NBU 1022-25H	T10S, R22E, Sec. 25 SE/NE	Pipeline: 4000 ft	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-32B3S, 1022-32D4DS 1022-3-2D4AS, 1022-32D1S	T10S, R22E, Sec. 32 NE/NW	Pipeline: 900 ft Access: 800 ft	None
NBU 1022-35M	T10S, R22E, Sec. 35 SW/SW	Pipeline: 2750 ft Access: 2200 ft	None

Environmental Setting

The study area lies within the Uinta Basin physiographic unit, a distinctly bowl-shaped geologic structure (Stokes 1986:231). The Uinta Basin ecosystem is within the Green River drainage, considered to be the northernmost extension of the Colorado Plateau. The geology is comprised of Tertiary age deposits, which include Paleocene age deposits and Eocene age fluvial and lacustrine sedimentary rocks. The Uinta Formation, which is predominate in the project area, occurs as eroded outcrops (formed by fluvial deposited, stream laid interbedded sandstone and mudstone), and is known for its prolific paleontological localities. Specifically, the inventory area is situated south of the White River and on both sides of Cottonwood Wash. Elevation ranges from 5080 to 5680 ft asl. The project occurs within the Upper Sonoran Desert Shrub Association which includes sagebrush, shadscale, greasewood, mat saltbush, snakeweed, rabbitbrush, and prickly pear cactus. Modern disturbances include livestock grazing, roads, and oil/gas development.

CLASS I RESULTS AND RECOMMENDATIONS

The Class I literature review of Kerr-McGee Onshore's 73 proposed NBU well locations and associated pipeline/access corridors in Township 10S, Range 22E resulted in the location of no cultural resources. Based on the findings, a determination of "no adverse impact" is recommended for the undertaking pursuant to Section 106, CFR 800.

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IPC #08-228

Paleontological Reconnaissance Survey Report

**Survey of Kerr McGee's Proposed Multi Well Pads and Pipeline
Upgrades for "NBU #1022-03M4DS, 03M1DS, 03L3DS & 03L4BS"
& "NBU #1022-11K1T" (Sec. 3 & 11, T 10 S, R 22 E)**

Archy Bench
Topographic Quadrangle
Uintah County, Utah

October 10, 2008

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

INTRODUCTION

At the request of Raleen White of Kerr McGee Onshore LP and authorized by the BLM Vernal Field Office and James Kirkland of the Office of the State Paleontologist, a paleontological reconnaissance survey of Kerr McGee's proposed multi-well pads and pipeline upgrades for "NBU #1022-03M4DS, 03M1DS, 03L3DS & 03L4BS" & "NBU #1022-11K1T" (Sec. 3 & 11, T 10 S, R 22 E) was conducted by Simon Masters and Jason Klimek on October 8, 2008. The reconnaissance survey was conducted under the Utah BLM Paleontological Resources Use Permit #UT08-006C and Utah Paleontological Investigations Permit #07-356. This survey to locate, identify and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

FEDERAL AND STATE REQUIREMENTS

As mandated by the Federal and State government, paleontologically sensitive geologic formations on State lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

- 1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321.et. Seq., P.L. 91-190);
- 2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579);
- 3) The National Historic Preservation Act. 16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320; and
- 4) The Utah Geological Survey. S. C. A.: 63-73-1. (1-21) and U.C.A.: 53B-17-603

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- **Class 1 – Very Low.** Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- **Class 2 – Low.** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial, and colluvial deposits etc...)
- **Class 3 – Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
 - **Class 3a – Moderate Potential.** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.
 - **Class 3b – Unknown Potential.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but

little information about the paleontological resources of the unit or the area is known.

- **Class 4 – High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
 - **Class 4a** – Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
 - **Class 4b** – Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- **Class 5 – Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
 - **Class 5a** - Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
 - **Class 5b** - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

LOCATION

Kerr McGee’s proposed multi-well pads and pipeline upgrades for “NBU #1022-03M4DS, 03M1DS, 03L3DS & 03L4BS” & “NBU #1022-11K1T” (Sec. 3 & 11, T 10 S, R 22 E) are on lands managed by the BLM and the State of Utah Trust Lands Administration (SITLA), above Bitter Creek just west of the White River, and about 44 miles southeast of Bonanza, UT. The project area can be found on the Archy Bench 7.5 minute U. S. Geological Survey Quadrangle Map, Uintah County, Utah.

PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleo-magnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipeline upgrades

NBU #1022-03M4DS, 03M1DS, 03L3DS & 03L4BS, pipeline upgrade from 4-inch to 6-inch

The proposed well site is situated in the SW/SW quarter-quarter section of Sec. 3, T 10 S, R 22 E, and is approached from the south by a proposed access road that diverges from an existing access (Figure 1). The pad is staked in a gentle saddle between two small hills to the east and west. The pit is staked in the southeast corner of the pad. The proposed well is also connected by a proposed pipeline that departs from the east side of the pad and travels northeast for approximately one hundred meters and connects to an existing pipeline. The proposed pipeline upgrade trends north-northwest for approximately eight hundred meters before terminating in the NE/NE corner of the section. The geology of the proposed area consists of thick paleo-channels of tan fluvial sandstone underlain by green mudstone that is typically obscured by a thick layer

of sandy colluvium. Ichnofossils (*Planolites*) consisting of vertical burrows were discovered within the sandstone along the southern edge of the proposed pad. No other fossils were found.

NBU #1022-11KIT, and pipeline re-route and upgrade to 8-inch

The project area is situated in the NE/SW quarter-quarter section of Sec. 11, T 10 S, R 22 E, and is staked on an existing pad (Figure 1). The proposed new well is connected from the southwest by an existing pipeline that will be moved to the northwest side of the road and upgraded in diameter. The geology of the proposed area consists of alternating beds of grey mudstone, grey siltstone, and maroon siltstone. No fossils were discovered on or surrounding the proposed location or pipeline re-route/upgrade.

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
<p>“NBU #1022-03M4DS, 03M1DS, 03L3DS & 03L4BS” (Sec. 3, T 10 S, R 22 E)</p>	<p>The pad is staked in a gentle saddle between two small hills to the east and west. The pit is staked in the southeast corner of the pad. The proposed well is also connected by a proposed pipeline that departs from the east side of the pad and travels northeast for approximately one hundred meters and connects to an existing pipeline. The proposed pipeline upgrade trends north-northwest for approximately eight hundred meters before terminating in the NE/NE corner of the section. The geology of the proposed area consists of thick paleo-channels of tan fluvial sandstone underlain by green mudstone that is typically obscured by a thick layer of sandy colluvium.</p>	<p>Ichnofossils (<i>Planolites</i>) consisting of vertical burrows were discovered within the sandstone along the southern edge of the proposed pad. No other fossils were found. Class 3a</p>
<p>“NBU #1022-11KIT” (Sec 11, T 10 S, R 22 E)</p>	<p>The geology of the proposed area consists of alternating beds of grey mudstone, grey siltstone, and maroon siltstone.</p>	<p>No fossils were discovered on or surrounding the proposed location or pipeline re-route/upgrade. Class 3a</p>

RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed well pads, access roads, and pipelines for "NBU #1022-03M4DS, 03M1DS, 03L3DS & 03L4BS" & "NBU #1022-11K1T" (Sec. 3 & 11, T 10 S, R 22 E). The multi-well pads and pipelines covered in this report showed no signs of vertebrate fossils. Therefore, we recommend that no paleontological restrictions should be placed on the development of the projects included in this report.

Buried pipeline will encounter Uinta formational sediments along most of the staked pipeline corridors yet indications from surface fossils predict that little if any vertebrate fossils will be disturbed.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, Operator (Lease Holder) will report all occurrences of paleontological resources discovered to a geologist with the Vernal Field Office of the BLM and the Office of the State Paleontologist. The operator is responsible for informing all persons in the areas who are associated with this project of the requirements for protecting paleontological resources. Paleontological resources found on the public lands are recognized by the BLM and State as constituting a fragile and nonrenewable scientific record of the history of life on earth, and so represent an important and critical component of America's natural heritage. These resources are afforded protection under 43 CFR 3802 and 3809, and penalties possible for the collection of vertebrate fossils are under 43 CFR 8365.1-5.

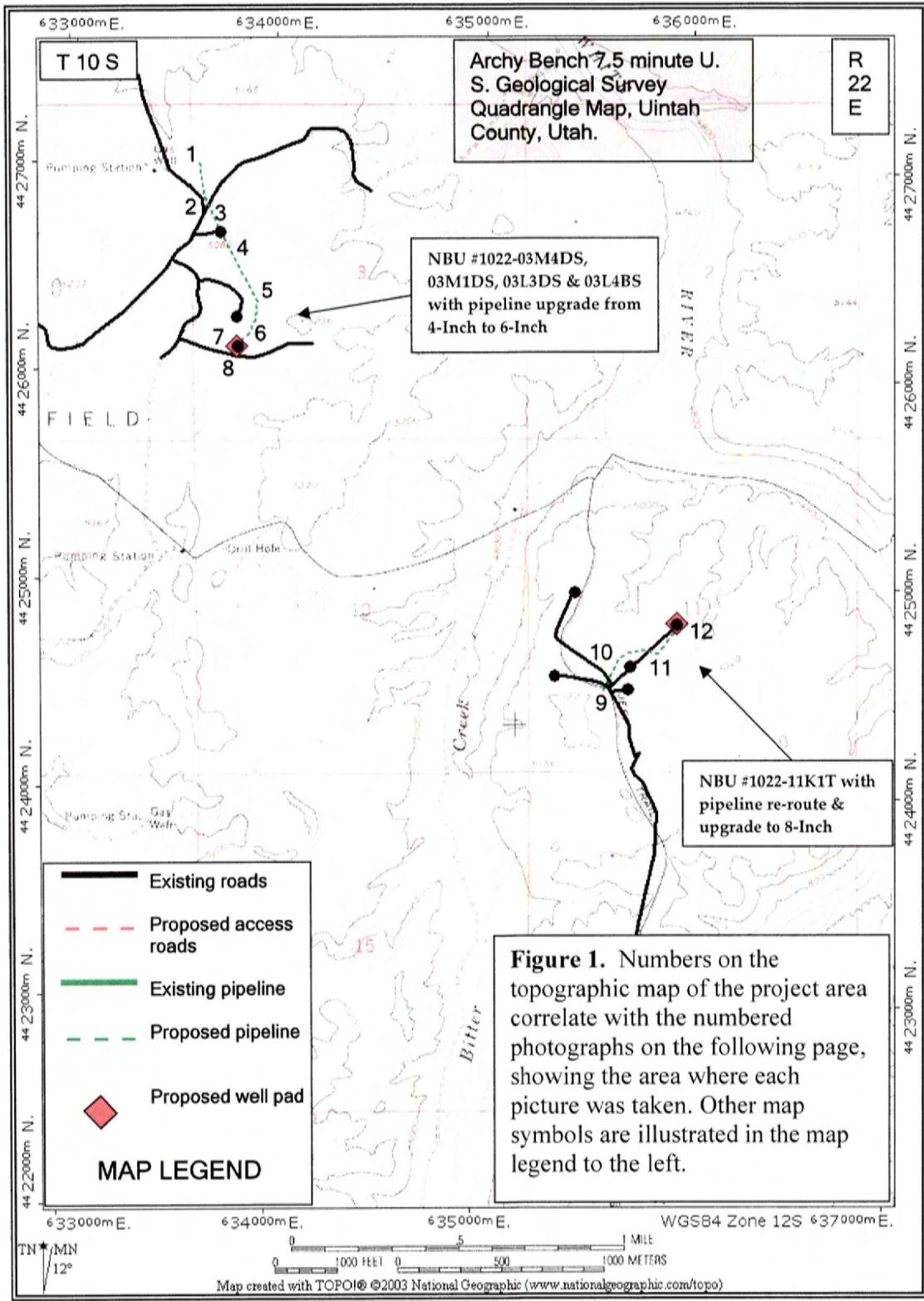
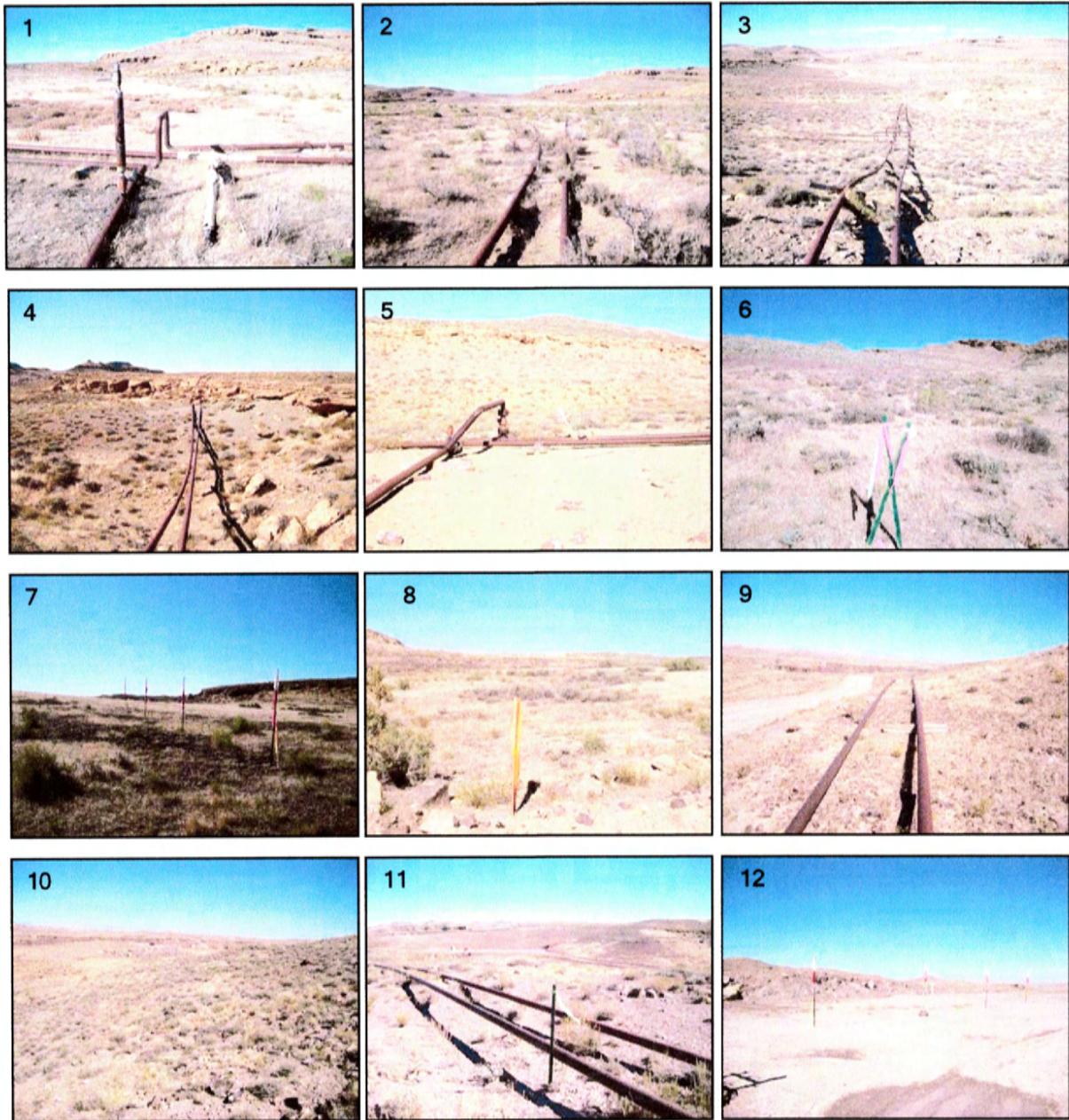


Figure 1. *continued...*



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Kerr-McGee Oil & Gas Onshore LP
1999 Broadway, Suite 3700
Denver, CO 80205

November 3, 2008

Mrs. 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 1022-11F4S
T10S R22E
Section 11: SENW
NWSW 2571' FSL, 2215' FWL (surface)
SEW 2615' FNL, 2540' FWL (bottom hole)
Uintah County, Utah

11/6/8

Dear Mrs. 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 1022-11F4S 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


Jason K. Rayburn
Landman

RECEIVED
NOV 10 2008
DIV. OF OIL, GAS & MINING

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

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

IN REPLY REFER TO:

**3160
(UT-922)**

November 12, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2008 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 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50212	NBU 1022-11F4S	Sec 11 T10S R22E 2571 FSL 2215 FWL BHL Sec 11 T10S R22E 2615 FNL 2540 FWL
43-047-50213	NBU 1022-11J3S	Sec 11 T10S R22E 2551 FSL 2212 FWL BHL Sec 11 T10S R22E 1600 FSL 2340 FEL
43-047-50214	NBU 1022-11K2S	Sec 11 T10S R22E 2512 FSL 2206 FWL BHL Sec 11 T10S R22E 2230 FSL 1690 FWL
43-047-50215	NBU 1022-11K1T	Sec 11 T10S R22E 2531 FSL 2209 FWL
43-047-50216	NBU 1022-2O2S	Sec 02 T10S R22E 2354 FSL 1593 FEL BHL Sec 02 T10S R22E 1010 FSL 2055 FEL
43-047-50217	NBU 1022-2J3S	Sec 02 T10S R22E 2362 FSL 1612 FEL BHL Sec 02 T10S R22E 1525 FSL 2050 FEL
43-047-50218	NBU 1022-2J2S	Sec 02 T10S R22E 2377 FSL 1648 FEL BHL Sec 02 T10S R22E 2035 FSL 2025 FEL
43-047-50219	NBU 1022-2J1T	Sec 02 T10S R22E 2370 FSL 1630 FEL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50220	NBU 1022-11M1S	Sec 11 T10S R22E 1750 FSL 1885 FWL BHL Sec 11 T10S R22E 1035 FSL 0850 FWL
43-047-50221	NBU 1022-11L2S	Sec 11 T10S R22E 1798 FSL 1921 FWL BHL Sec 11 T10S R22E 2495 FSL 0080 FWL
43-047-50222	NBU 1022-11K3S	Sec 11 T10S R22E 1766 FSL 1897 FWL BHL Sec 11 T10S R22E 1655 FSL 1735 FWL
43-047-50223	NBU 1022-11L3S	Sec 11 T10S R22E 1782 FSL 1909 FWL BHL Sec 11 T10S R22E 1850 FSL 0040 FWL

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

/s/ Michael L. Coulthard

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

MCoulthard:mc:11-12-08

From: Jim Davis
To: Bonner, Ed; Mason, Diana
Date: 3/16/2009 11:00 AM
Subject: Kerr McGee approvals (7)

CC: Garrison, LaVonne
The following wells have been approved by SITLA including arch and paleo clearance.

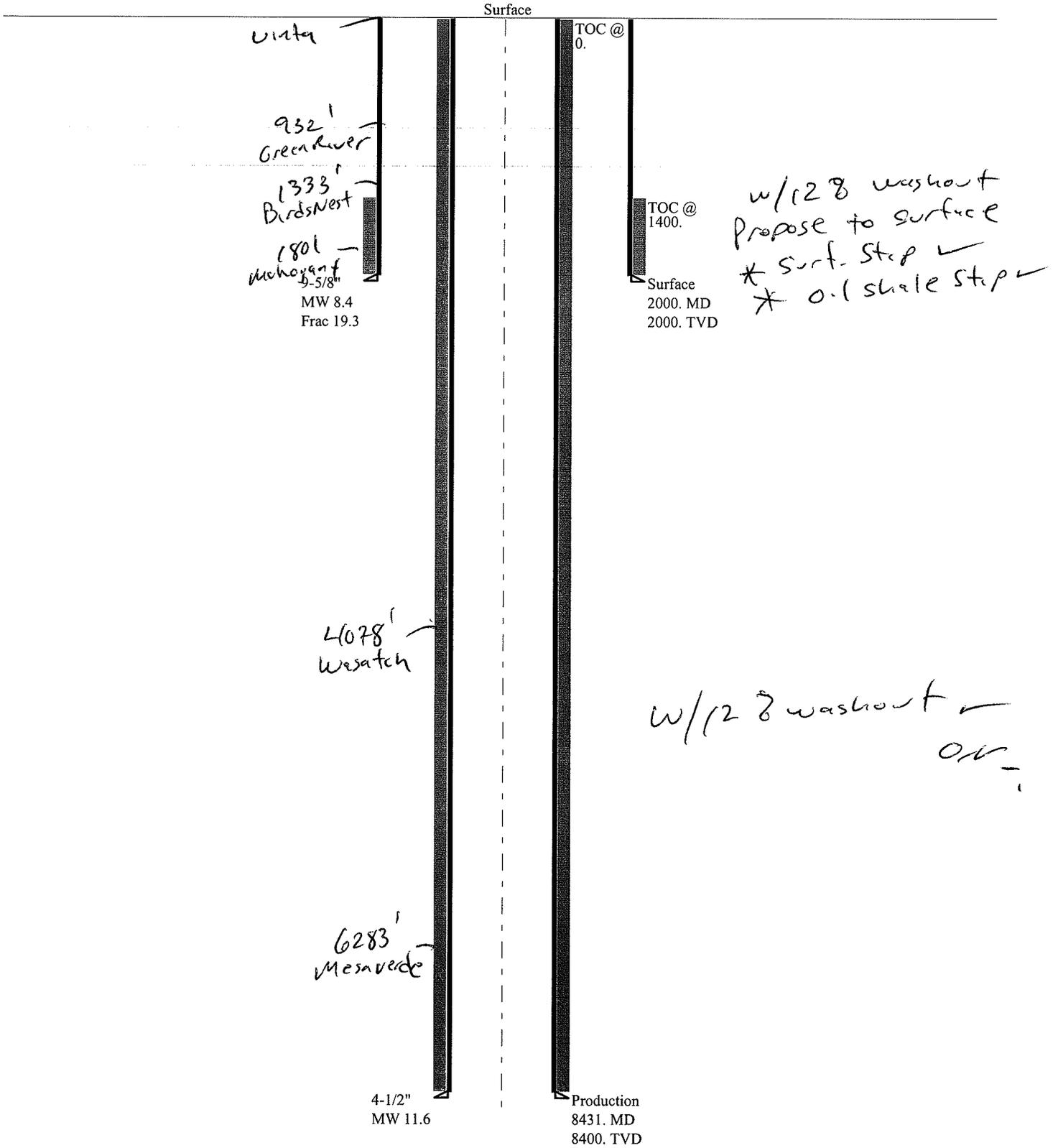
- NBU 1022-14A1S 43-047-50228
- NBU 1022-14A4S 43-047-50227
- NBU 1022-14H1S 43-047-50225
- NBU 1022-14H4S 43-047-50224
- NBU 1022-11F4S 43-047-50212
- NBU 1022-11K2S 43-047-50214
- NBU 1022-11J3S 43-047-50213

-Jim Davis

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

43047502120000 NBU 1022-11F4S

Casing Schematic



Well name:	43047502120000 NBU 1022-11F4S		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-50212
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: 75 °F
 Bottom hole temperature: 103 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 1,000 ft

Cement top: 1,400 ft

Burst

Max anticipated surface pressure: 965 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 1,205 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
 Neutral point: 1,751 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 2,000 ft
 Next mud weight: 11.600 ppg
 Next setting BHP: 1,205 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 2,000 ft
 Injection pressure: 2,000 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	2000	9.625	36.00	J-55	LT&C	2000	2000	8.796	16354
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	873	2020	2.315 ✓	1205	3520	2.92 ✓	72	453	6.29 J ✓

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

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

Date: May 26, 2009
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2000 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.

Well name:	43047502120000 NBU 1022-11F4S		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-50212
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 11.600 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: 75 °F
 Bottom hole temperature: 193 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 1,000 ft

Cement top: Surface

Burst

Max anticipated surface pressure: 3,214 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 5,062 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
 Neutral point: 6,974 ft

Directional Info - Build & Drop

Kick-off point 2000 ft
 Departure at shoe: 338 ft
 Maximum dogleg: 3 °/100ft
 Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8431	4.5	11.60	I-80	LT&C	8400	8431	3.875	111289
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	5062	6360	1.256 ✓	5062	7780	1.54 ✓	97.4	212	2.18 J ✓

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

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

Date: May 26, 2009
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8400 ft, a mud weight of 11.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

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

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-11F4S 4304750212		
String	Surf	Prod	
Casing Size(")	9.625	4.500	
Setting Depth (TVD)	2000	8431	
Previous Shoe Setting Depth (TVD)	40	2000	
Max Mud Weight (ppg)	8.4	11.6	
BOPE Proposed (psi)	500	5000	
Casing Internal Yield (psi)	3520	7780	
Operators Max Anticipated Pressure (psi)	4990	11.4	

Calculations	Surf String	9.625	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	874	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	634	NO OK
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	434	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	443	NO Reasonable depth in area
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

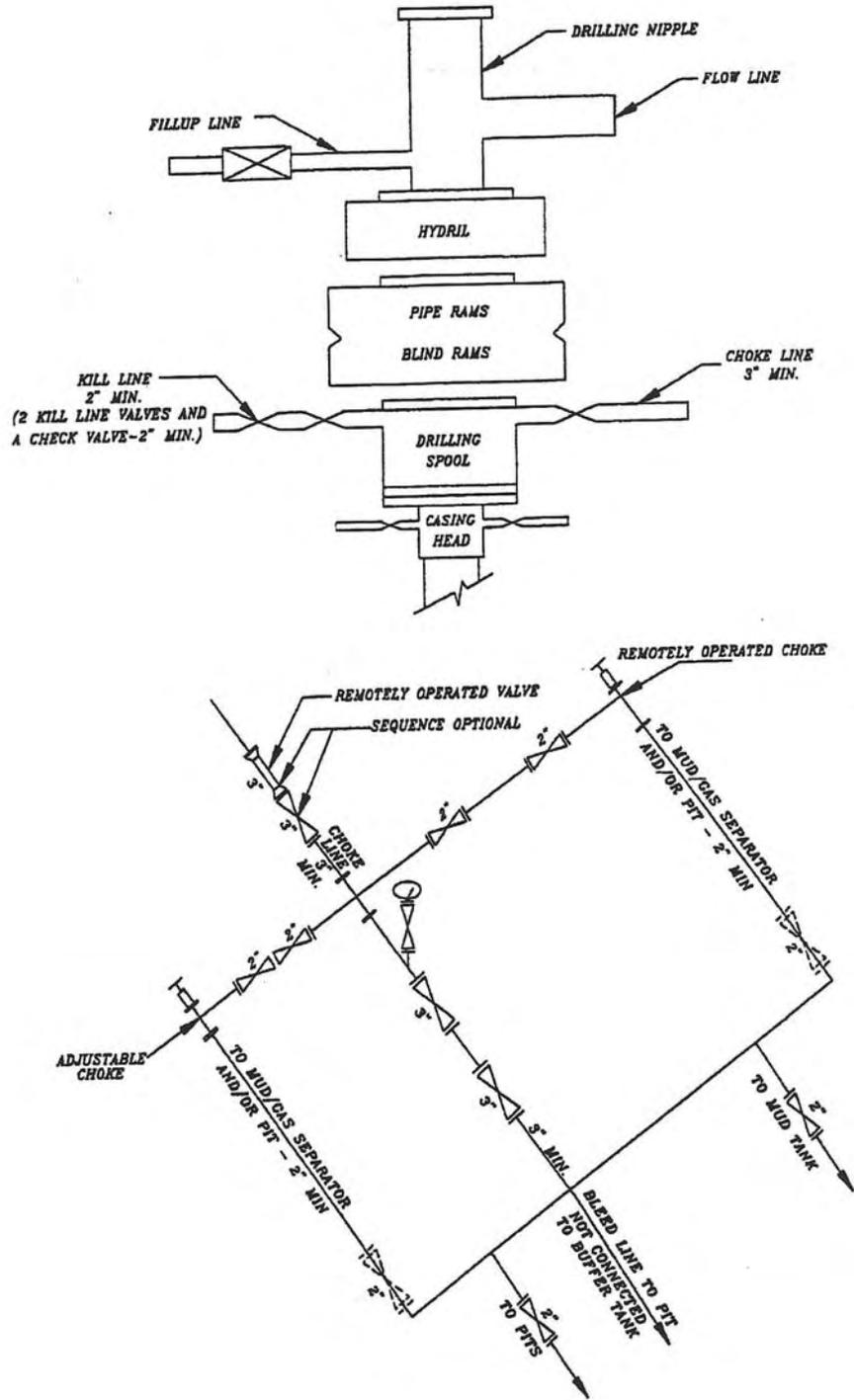
Calculations	Prod String	4.500	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	5086	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	4074	YES
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	3231	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	3671	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2000	psi *Assumes 1psi/ft frac gradient

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

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

NBU 1022-11F4S

EXHIBIT A



SCHMATIC DIAGRAM OF 5,000 PSI BOP STACK

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-11F4S
API Number 43047502120000 **APD No** 1168 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NESW **Sec** 11 **Tw** 10.0S **Rng** 22.0E 2571 **FSL** 2215 **FWL**
GPS Coord (UTM) **Surface Owner**

Participants

Floyd Bartlett (DOGM), Ed Bonner (SITLA), Ramie Hoopes, Clay Einerson, Griz Oleen, Tony Kzneck, Charles Chase (Kerr McGee), Ben Williams (UDWR) and Kolby Kay (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 ¼ 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 44 air miles to the northwest. Access from Vernal is approximately 59.4 road miles following Utah State, Uintah County and oilfield development roads to the location.

The location is proposed as a 4-well pad and encompasses the pad of the CIGE 367 gas well. The additional wells are the NBU 1022-11K1T, 11K2S, 11J3S and 11F4S. All except the 11K1T will be directionally drilled. Steep rough terrain limits the enlargement that is reasonable at the site. It is on the top of a narrow ridge that runs northerly toward an additional existing location and the White River. Bitter Creek, an ephemeral, drainage is about ½ mile to the west and the White River is about 1/2 mile to the northeast. The ridge is bordered on the northeast and the southwest by steep sided deep draws that become canyons with exposed bedrock cliffs. The location can be extended to the west and the rise in that area could be used to reduce the amount the existing pad will have to be lowered to obtain fill. Current plans are to lower the location about 1.5 feet. Location Corners 7 and 9 are planned to be rounded to reduce the fill along the north side of the pad. About 1.3 feet of fill will be required to construct the southeast corner, Pit Corner A, of the reserve pit. A 15' wide dike or bench and 2 feet of freeboard are provided. No drainage concerns exist. And no diversions will be needed. The existing pad shows no stability problems and the site has no apparent concerns for constructing an enlarged pad as modified 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
- Recreational
- Wildlife Habitat
- Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 290 Length 370	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 cheatgrass, halogeton, black sagebrush, broom snakeweed, Sitanion hystrix , Indian Ricegrass, shadscale 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?** **Cultural Survey Run?** Y **Cultural Resources?**

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	>200	0	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	High permeability	20	
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	45	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned primarily in an area of cut in the southwest corner of the location. Dimensions are 75' x 250' x 10' deep with 2' of freeboard. About 1.3 feet of fill will be required to construct the southeast corner, Pit Corner A, of the reserve pit. A 15' wide dike or bench and 2 feet of freeboard are provided. 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

On 5/13/2009 the following met and discussed possible changes to be made in this pad. It was agreed that none would be made. Floyd Bartlett (DOGM), Clay Einerson, Lovell Young (Kerr McGee), and Kolby Kay (Timberline Engineering and Land Surveying).

Floyd Bartlett
Evaluator

4/28/2009
Date / Time

Application for Permit to Drill Statement of Basis

6/9/2009

Utah Division of Oil, Gas and Mining

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APD No	API WellNo	Status	Well Type	Surf Owner	CBM
1168	43047502120000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 1022-11F4S		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	NESW 11 10S 22E S 2571 FSL 2215 FWL GPS Coord (UTM)			635971E	4424679N

Geologic Statement of Basis

Kerr McGee proposes to set 2,000' 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 4,000'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 11. 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. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill
APD Evaluator

5/19/2009
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 ¼ 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 44 air miles to the northwest. Access from Vernal is approximately 59.4 road miles following Utah State, Uintah County and oilfield development roads to the location.

The location is proposed as a 4-well pad and encompasses the pad of the CIGE 367 gas well. The additional wells are the NBU 1022-11K1T, 11K2S, 11J3S and 11F4S. All except the 11K1T will be directionally drilled. Steep rough terrain limits the enlargement that is reasonable at the site. It is on the top of a narrow ridge that runs northerly toward an additional existing location and the White River. Bitter Creek, an ephemeral, drainage is about ½ mile to the west and the White River is about 1/2 mile to the northeast. The ridge is bordered on the northeast and the southwest by steep sided deep draws that become canyons with exposed bedrock cliffs. The location can be extended to the west and the rise in that area could be used to reduce the amount the existing pad will have to be lowered to obtain fill. Current plans are to lower the location about 1.5 feet. Location Corners 7 and 9 are planned to be rounded to reduce the fill along the north side of the pad. About 1.3 feet of fill will be required to construct the southeast corner, Pit Corner A, of the reserve pit. A 15' wide dike or bench and 2 feet of freeboard are provided. No drainage concerns exist. And no diversions will be needed. The existing pad shows no stability problems and the site has no apparent concerns for constructing an enlarged pad as modified 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 of SITLA attended the pre-site and was agreeable to the modifications. He had no additional concerns regarding the proposal.

Ben Williams of the Utah Division of Wildlife Resources also attended the pre-site. Mr. Williams stated no wildlife values would be significantly affected by drilling and operating the wells at this location. He provided Ed Bonner of SITLA and Ramie Hoopes of Kerr McGee a written wildlife evaluation and a copy of a

Application for Permit to Drill Statement of Basis

6/9/2009

Utah Division of Oil, Gas and Mining

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recommended seed mix to be used for re-vegetating the disturbed area.

Floyd Bartlett
Onsite Evaluator

4/28/2009
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: 11/7/2008

API NO. ASSIGNED: 43047502120000

WELL NAME: NBU 1022-11F4S

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

PHONE NUMBER: 720 929-6007

CONTACT: Kathy Schneebeck-Dulnoan

PROPOSED LOCATION: NESW 11 100S 220E

Permit Tech Review:

SURFACE: 2571 FSL 2215 FWL

Engineering Review:

BOTTOM: 2615 FNL 2540 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 39.96322

LONGITUDE: -109.40802

UTM SURF EASTINGS: 635971.00

NORTHINGS: 4424679.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ST UO 01197A

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

Commingle Approved

LOCATION AND SITING:

- R649-2-3.
Unit: NATURAL BUTTES
 - R649-3-2. General
 - R649-3-3. Exception
 - Drilling Unit
Board Cause No: Cause 173-14
Effective Date: 12/2/1999
Siting: 460' fr u bdry & uncomm. tract
 - R649-3-11. Directional Drill
-

Comments: Presite Completed

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



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
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 1022-11F4S
API Well Number: 43047502120000
Lease Number: ST UO 01197A
Surface Owner: STATE
Approval Date: 6/9/2009

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

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 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.

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

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

Surface casing shall be cemented to the surface.

Notification Requirements:

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

- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to spudding the well - contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program - contact

Dustin Doucet

- Prior to commencing operations to plug and abandon the well - contact Dan Jarvis

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

- Plugging and abandonment or significant plug back of this well - contact Dustin Doucet
- Any changes to the approved drilling plan - contact Dustin Doucet

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

- Dan Jarvis at: (801) 538-5338 office
(801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office
(801) 733-0983 home

Reporting Requirements:

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Approved By:



For Gil Hunt
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: ST UO 01197A
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 1022-11F4S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047502120000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2571 FSL 2215 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESW Section: 11 Township: 10.0S 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: 3/4/2010 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" 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: _____

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Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) respectfully requests to change the surface casing size for this well from FROM: 9-5/8" TO: 8-5/8". Additionally, Kerr-McGee requests to change the cement program for this well due to a revised drilling procedure. The production casing will still be cemented it's entire length to the surface. Please see the attached drilling program for additional details. All other information remains the same. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: February 25, 2010

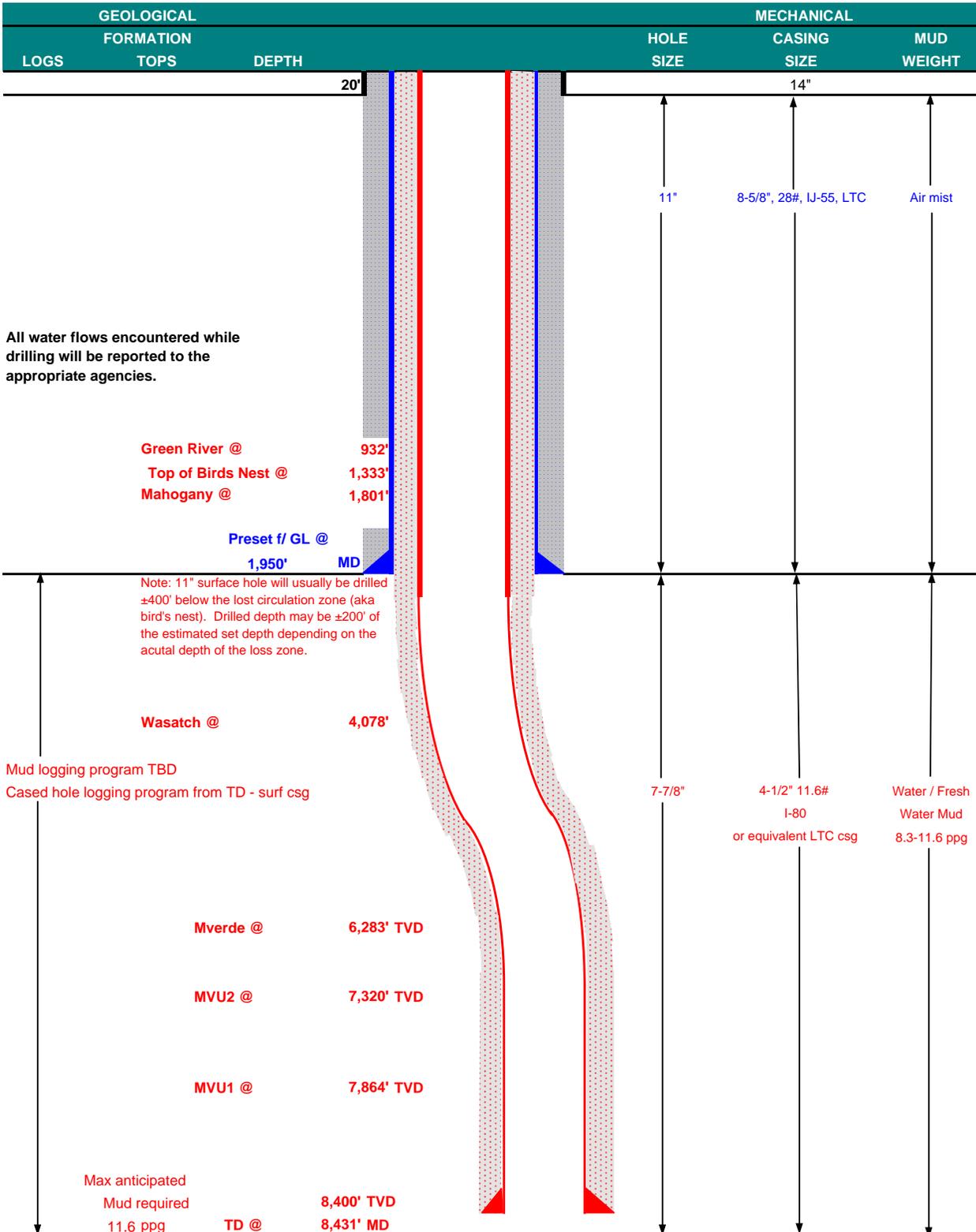
By: *Dark Duff*

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 2/24/2010	



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	February 24, 2010			
WELL NAME	NBU 1022-11F4S		TD	8,400'	TVD	8,431' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	5,115' GL KB 5,130'
SURFACE LOCATION	NE/4 SW/4 2,571' FSL 2,215' FWL		Sec 11	T 10S	R 22E		
	Latitude: 39.981933		Longitude: -109.291047		NAD 27		
BTM HOLE LOCATION	SE/4 NW/4 2,615' FNL 2,540' FWL		Sec 11	T 10S	R 22E		
	Latitude: 39.963561		Longitude: -109.406897		NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), Tri-County Health Dept.						



All water flows encountered while drilling will be reported to the appropriate agencies.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
SURFACE	8-5/8"	0 to 1,950'	28.00	IJ-55	LTC	3,390 1.05 7,780	1,880 2.06 6,350	348,000 6.31 201,000
PRODUCTION	4-1/2"	0 to 8,431'	11.60	I-80	LTC	2.41	1.25	2.36

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

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore

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

MASP 3,124 psi

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

(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient

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

MABHP 4,990 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
Option 1							
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	310	0%	15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	1500	65/35 Poz + 6% Gel + 10 pps gilsonite + .25 pps Flocele + 3% salt BWOW	140	35%	11.00	3.81
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	150	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,571'	Premium Lite II + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	290	40%	11.00	3.38
	TAIL	4,860'	50/50 Poz/G + 10% salt + 2% gel + 1% R-3	1190	40%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER: _____
John Huycke / Grant Schluender

DATE: _____

DRILLING SUPERINTENDENT: _____
John Merkel / Lovel Young

DATE: _____

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO 01197A
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 1022-11F4S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047502120000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2571 FSL 2215 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESW Section: 11 Township: 10.0S Range: 22.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 4/12/2010	<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"/> 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: _____

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

MIRU PROPETRO AIR RIG ON 4/10/2010. DRILLED 11" SURFACE HOLE TO 2080'. RAN 8-5/8" 28# J55 SURFACE CSG. PUMP 140 BBLS H2O, PUMP 20 BBLS GEL WATER. PUMP 225 SX CLASS G PREM LITE TAIL CMT @ 15.8 PPG 1.15. DROP PLUG ON FLY AND DISP W/145 BBLS FRESH WATER, 300 PSI LIFT, NO RETURNS. BUMP PLUG W/550 PSI. TOP OUT CMT W/125 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YLD. WAIT 2 HRS AND PUMP 100 SX SAME CMNT. NO CEMENT TO SURFACE WILL TOP OUT WITH REDIMIX. WORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 April 13, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 4/13/2010

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO 01197A
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: 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. There will be 2-400 bbl skim tanks placed on the location. The trucks will unload water in these tanks before the water is placed into the refurbished pit. The purpose of the skim 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: March 10, 2010

By:

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 3/2/2010	



The Utah Division of Oil, Gas, and Mining

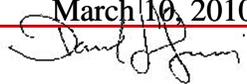
- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047502120000

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

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

Date: March 10, 2010
By: 

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<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 3/31/2010	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
 RAN 14" SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 3/31/2010 AT 11:00 HRS.

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

FOR RECORD ONLY

April 01, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/1/2010	

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NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 4/13/2010

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<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/27/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: _____

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

FINISHED DRILLING FROM 2080' TO 8570' ON JUNE 26, 2010. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ 775 SX CLASS G PREM LITE @ 12.4 PPG, 2.03 YD. TAILED CEMENT W/ 600 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.31 YD. DISPLACED W/ 132.4 BBLS WATER, BUMPED PLUG W/ 3144 PSI, LIFT PSI 2550. RECOVERED 40 BBLS WATER SPACER, LEAD CEMENT JUST TO SURFACE. RD CEMENTERS AND CLEANED PITS. RELEASED ENSIGN RIG #145 ON JUNE 27, 2010 @ 20:30 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 June 29, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 6/28/2010

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO 01197A
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 1022-11F4S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047502120000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2571 FSL 2215 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESW Section: 11 Township: 10.0S 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

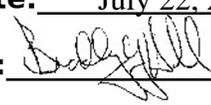
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 7/19/2010	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<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: Updated Water Source

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

Kerr-McGee Oil & Gas Onshore, LP respectfully requests to update the water source for this location to Permit Numbers 49-2306 and 49-2319, both obtained by R.N. Industries. Please contact the undersigned for with any questions.

Accepted by the Utah Division of Oil, Gas and Mining

Date: July 22, 2010

By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 7/19/2010	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO 01197A
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 1022-11F4S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047502120000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2571 FSL 2215 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESW Section: 11 Township: 10.0S 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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/20/2010	<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 SEPTEMBER 20, 2010
 AT 11:00 A.M. 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
 September 20, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 9/20/2010

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

AMENDED REPORT FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:
ST UO 01197A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME
UTU63047A

8. WELL NAME and NUMBER:
NBU 1022-11F4S

9. API NUMBER:
4304750212

10. FIELD AND POOL, OR WILDCAT
NATURAL BUTTES

11. QTR/QTR, SECTION, TOWNSHIP, RANGE,
MERIDIAN:
NESW 11 10S 22E S

12. COUNTY
UINTAH

13. STATE
UTAH

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER _____

b. TYPE OF WORK:
NEW WELL HORIZ. LATS. DEEP-EN RE-ENTRY DIFF. RESVR. OTHER _____

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) 929-6100

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: NESW 2571 FSL 2215 FWL S11,T10S,R22E
AT TOP PRODUCING INTERVAL REPORTED BELOW: SENW 2612 FNL 2527 FWL S11,T10S,R22E
AT TOTAL DEPTH: SENW 2607 FNL 2536 FWL S11,T10S,R22E

14. DATE SPURRED: 3/31/2010 15. DATE T.D. REACHED: 6/26/2010 16. DATE COMPLETED: 9/20/2010
ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
5115 GL

18. TOTAL DEPTH: MD 8,570 TVD 8,540

19. PLUG BACK T.D.: MD 8,519 TVD 8,489

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)
GR/CBL-BHV-SD/DSN/ACTR

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

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
11"	8 5/8" J-55	28#		2,064		450			
7 7/8"	4 1/2" I-80	11.6#		8,562		1,375			

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"	7,704							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) MESAVERDE	6,704	8,158		
(B) <i>wsmd</i>				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
6,704 8,158	0.36	94	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6704 - 8158	PUMP 5,433 BBLS SLICK H2O & 204,171 LBS 30/50 SAND

29. ENCLOSED ATTACHMENTS:

- ELECTRICAL/MECHANICAL LOGS GEOLOGIC REPORT DST REPORT DIRECTIONAL SURVEY
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION CORE ANALYSIS OTHER: _____

30. WELL STATUS:

PROD

RECEIVED

OCT 26 2010

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 9/20/2010		TEST DATE: 9/22/2010		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,420	WATER – BBL: 240	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,659	CSG. PRESS. 1,945	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,420	WATER – BBL: 240	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	943	8,570	TD		
BIRD'S NEST	1,288				
MAHOGANY	1,776				
WASATCH	4,120				
MESAVERDE	6,431				

35. ADDITIONAL REMARKS (Include plugging procedure)

Attached is the chronological well history and final survey. Completion chrono details individual frac stages. Surface cement job was topped out with redimix.

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

NAME (PLEASE PRINT) ANDREW LYTLE TITLE REGULATORY ANALYST
 SIGNATURE _____ DATE 10/19/2010

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 Phone: 801-538-5340
 1594 West North Temple, Suite 1210
 Box 145801 Fax: 801-359-3940
 Salt Lake City, Utah 84114-5801

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-11F4S GREEN		Spud Conductor: 3/31/2010	Spud Date: 4/11/2010
Project: UTAH-UINTAH		Site: NBU 1022-11K PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING		Start Date: 4/6/2010	End Date: 6/27/2010
Active Datum: RKB @5,128.00ft (above Mean Sea Level)		UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
4/10/2010	15:00 - 16:00	1.00	DRLSUR	02	C	P		SPUD WELL 4-10-2010 @ 1500 DRILL F/ 40' - 120'
	16:00 - 17:30	1.50	DRLSUR	06	A	P		PICK UP DIRECTIONAL TOOLS & ORIENT MUD MOTOR
	17:30 - 0:00	6.50	DRLSUR	02	C	P		DRILL F/ 120' - 760' 550 GPM 15-20K WOB 60-65 ROT 93.5 DHR AVERAGE ROP 101 BUILDING ANGLE TO 11.15 DEG AND 73.84 AZI
4/11/2010	0:00 - 4:00	4.00	DRLSUR	02	C	P		DRILL F/ 760' - 1240' 550 GPM 15-20K WOB 60-65 ROT 93.5 DHR AVERAGE ROP 101 BUILDING ANGLE TO 11.15 DEG AND 73.84
	4:00 - 5:00	1.00	DRLSUR	06	G	Z		TWIST OFF AT CROSS OVER SUB (2 7/8 IF X 4.5 XO SUB) TOOH
	5:00 - 8:00	3.00	DRLSUR	21	E	Z		WAIT ON FISHING TOOLS FROM VERNAL GRACO
	8:00 - 9:30	1.50	DRLSUR	19	A	Z		MAKE UP FISHING TOOLS (9 1/8 OVERSHOT WITH 6 3/8 GRAPPLE)
	9:30 - 10:00	0.50	DRLSUR	19	A	Z		TIH TO TOP OF FISH AND LATCH ON TO FISH
	10:00 - 11:00	1.00	DRLSUR	19	A	Z		WORK ON FISH USING MUD PUMPS AND AIR PACKAGE
	11:00 - 12:00	1.00	DRLSUR	06	G	Z		TOOH L/D OVERSHOT, BROKEN CROSS OVER SUB AND DRILL COLLAR.
	12:00 - 15:00	3.00	DRLSUR	06	G	Z		L/D BHA (PLUGGED MUD MOTOR)
	15:00 - 17:00	2.00	DRLSUR	08	B	Z		CHANGE OUT BLOWN KELLY HOSE
	17:00 - 21:00	4.00	DRLSUR	06	A	Z		PICK UP NEW MUD MOTOR AND DIRECTIONAL EQUIPMENT ORIENT MUD MOTOR AND TIH
4/12/2010	21:00 - 0:00	3.00	DRLSUR	02	C	P		DRILL F/ 1240' - 1500' 550 GPM 15-20K WOB 60-65 ROT 93.5 DHR AVERAGE ROP 101 BUILDING ANGLE TO 11.15 DEG AND 73.84
	0:00 - 7:30	7.50	DRLSUR	02	C	P		DRILL F/ 1500' - 2080' 550 GPM 15-20K WOB 60-65 ROT 93.5 DHR AVERAGE ROP 77 BUILDING ANGLE TO 11.15 DEG AND 73.84
	7:30 - 9:00	1.50	DRLSUR	05	C	P		CIRCULATE AND CONDITION MUD PRIOR TO LDDS
	9:00 - 13:00	4.00	DRLSUR	06	A	P		LDDS BREAK DOWN DIRECTIONAL TOOLS AND BIT / MUD MOTOR
	13:00 - 14:00	1.00	DRLSUR	12	A	P		RIG UP TO RUN CASING
	14:00 - 16:00	2.00	DRLSUR	12	C	P		RUN 46 JOINTS 8.625 28# J-556 CASING SHOE AT 2054'
	16:00 - 17:00	1.00	DRLSUR	12	A	P		RIG DOWN RELEASE RIG 4-12-2010 @ 1700
6/19/2010	17:00 - 17:00	0.00	DRLSUR	12	E	P		HELD SAFETY MTNG,PRESS TEST TO 2000 PSI,PUMP 140 BBLS H2O,PUMP 20 BBLS GEL WATER,PUMP 225 SX 15.8 # 1.15 YLD 5 GAL/SK TAIL CMNT DROP PLUG ON FLY DISP W/ 145 BBLS FRESH WATER 300 PSI LIFT NO RETURNS, BUMP PLUG W / 550 PSI, TOP OUT 125 SX OF 15.8# 1.15 YLD 5 GAL SK 4% CALC CMNT, WAIT 2 HRS PUMP 100 SX SAME CMNT. NO CEMENT TO SURFACE WILL TOP OUT WITH REDIMIX
	20:00 - 0:00	4.00	DRLPRO	01	E	P		RD & PREP TO MOVE
	0:00 - 15:00	15.00	DRLPRO	01	B	P		TRANSPORT RIG TO LOCATION, RU BACKYARD, FRONT YARD, SUB & DERRICK, LAST TRUCK LEFT LOCATION AT 15:00
6/20/2010	15:00 - 0:00	9.00	DRLPRO	01	B	P		RU DERRICK, PLUG IN, RAISE DOGHOUSE, SET GRASSHOPPER, PLUG IN GRASSHOPPER AND SUB, PREP TO RAISE DERRICK, RAISE DERRICK, RU FLOOR, FLOWLINES
	0:00 - 2:00	2.00	DRLPRO	01	B	P		RIG UP FLARE LINES, CHOKE LINE, KILL LINE

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-11F4S GREEN Spud Conductor: 3/31/2010 Spud Date: 4/11/2010
 Project: UTAH-UIINTAH Site: NBU 1022-11K PAD Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 4/6/2010 End Date: 6/27/2010
 Active Datum: RKB @5,128.00ft (above Mean Sea Level) UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	2:00 - 9:00	7.00	DRLPRO	08	B	Z		TROUBLE SHOOT IDM /HYDRAULICS CONTROL-REPAIR PLC.
	9:00 - 11:30	2.50	DRLPRO	01	B	P		RU LOWER RACKING BOARD, VISUALLY INSPECT RACKING BOARD, BECKET UP BLOCKS, CHANGE OIL IN TOP DRIVE
	11:30 - 19:00	7.50	DRLPRO	15	A	P		PRESSURE TEST PIPE RAMS, BLIND RAMS, IBOP, FLOOR VALVE, KILL LINE, & KILL LINE VALVES, BOP WING VALVES, HCR VALVE, CHOKE LINE INNER & OUTER CHOKE VALVES, & MANIFOLD 250 PSI LOW/ 5 MINUTES, 5K HIGH FOR 10 MINUTES, TEST ANNULAR 250 LOW/5 MINUTES, 2500 HIGH/10 MINUTES, TEST SUPER CHOKE & CSG TO 1500 PSI FOR 30 MINUTES. FUNCTION TEST CLOSING UNIT.
	19:00 - 19:30	0.50	DRLPRO	06	A	P		SET WEAR BUSHING
	19:30 - 0:00	4.50	DRLPRO	06	C	P		STRAP DIR TOOLS, PU & ORIENT TOOLS, TIH W/ BHA, TAG CMT AT 1920
6/22/2010	0:00 - 1:30	1.50	DRLPRO	02	F	P		TAG CMT AT 1920, DRILL OUT CMT & SHOE
	1:30 - 8:00	6.50	DRLPRO	02	D	P		DRILL(SLIDE&ROTATE) 2089 TO 2967 ,878 ' , ROP-135, MOTOR RPM-134, ROTARY RPM-65, WOB-2-12, SPP ON/OFF- 1424/1191, TQE ON/OFF- 12/5, HOOK LOAD-123/110/118, 480 GPM, DIF-450/550, #1-0 SPM, #2-107, MW-8.5, VIS-26, ROTATE 95%, SLIDE 5% NO MUD LOST. #1 PUMP DEVELOPED A CRACK IN THE MODULE AND WASHED OUT. CALL OUT CRANE AND REPLACE MODULE.
	8:00 - 11:00	3.00	DRLPRO	02	D	P		DRILL(SLIDE&ROTATE) 2967 TO 3264,297 ' , ROP-99, MOTOR RPM-134, ROTARY RPM-65, WOB-2-12, SPP ON/OFF- 1480/1240, TQE ON/OFF- 13/6, HOOK LOAD-129/113/121, 480 GPM, DIF-320/500, #1-0 SPM, #2-107, MW-8.5, VIS-26, ROTATE98 % , SLIDE2 % NO MUD LOST
	11:00 - 11:30	0.50	DRLPRO	07	A	P		LUBRICATE RIG
	11:30 - 0:00	12.50	DRLPRO	02	D	P		DRILL(SLIDE&ROTATE) 3264 TO 4830,1566 ' , ROP-125, MOTOR RPM-134, ROTARY RPM-65, WOB-2-12, SPP ON/OFF- 1545/1280, TQE ON/OFF- 14/7, HOOK LOAD-135/120/134, 480 GPM, DIF-300/450, #1-0 SPM, #2-107, MW-8.5, VIS-26, ROTATE 98%, SLIDE 2% NO MUD LOST
6/23/2010	0:00 - 8:00	8.00	DRLPRO	02	D	P		DRILL ROT/SLIDE 4830 TO 5562' (732/ 91'/HR), MOTOR RPM-134, ROTARY RPM-65, WOB-17-22, SPP ON/OFF- 1750/ 1400, TQE ON/OFF- 14/7, HOOK LOAD-156/136/146, 480 GPM, DIF-300/450, #1-0 SPM, #2-107, ROTATE 98%, SLIDE 2% ,MUD UP AT 5500 TO 9.0, VIS-33 MAKE NEW MUD.
	8:00 - 12:30	4.50	DRLPRO	02	D	P		DRILL ROT/ SLIDE 5562'- 5891' (329/ 73'/HR), MOTOR RPM-134, ROTARY RPM-65, WOB-17-22, SPP ON/OFF- 1750/ 1400, TQE ON/OFF- 20/14, HOOK LOAD-160/140/150, 480 GPM, DIF-300/450, #1-0 SPM, #2-107, ROTATE 100%, SLIDE 0% ,MUD IN 9.4 WT VIS-33., MUD OUT 9.3 WT VIS 33.
	12:30 - 13:00	0.50	DRLPRO	07	A	P		RIG SERVICE, FUNCTION BOP'S.

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-11F4S GREEN Spud Conductor: 3/31/2010 Spud Date: 4/11/2010
 Project: UTAH-UINTAH Site: NBU 1022-11K PAD Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 4/6/2010 End Date: 6/27/2010
 Active Datum: RKB @5,128.00ft (above Mean Sea Level) UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRILL ROT/SLIDE 5891'-6478' (587',53'/HR) MOTOR RPM-134, ROTARY RPM-65, WOB-17-22, SPP ON/OFF- 1950/ 1600, TQE ON/OFF- 18/12, HOOK LOAD UP/DOWN/ROT-180/150/163, 480 GPM, DIF-300/450, #1-0 SPM, #2-107, ROTATE 98% 2% SLIDE ,MUD IN 9.8 WT VIS-38., MUD OUT 9.8 WT VIS 36 (RAN PUMPS @ 550 GPM FROM 6072'- 6163' ROP FELL 5' /HR AVERAGE) SOME SHALE SPLINTERS COMING OVER SHAKER. NO GAS CUT. NO FLARES.
6/24/2010	0:00 - 12:00	12.00	DRLPRO	02	D	P		DRILL ROT/SLIDE 6478'- 7065 (587, 49'/HR) MOTOR RPM-134, ROTARY RPM-65, WOB-20-23K, SPP ON/OFF- 2000/ 1700, TQE ON/OFF- 22/13, HOOK LOAD UP/DOWN/ROT-195/153/179,DRAG-16K, 480 GPM, DIFF-250-450, #1-106 SPM, #2-0, ROTATE 97% SLIDE 3% ,MUD IN 9.8 WT VIS-38., MUD OUT 10 WT VIS 38 SOME SHALE SPLINTERS COMING OVER SHAKER. NO GAS CUT. NO FLARES. NO LOSSES
	12:00 - 12:30	0.50	DRLPRO	07	A	P		RIG SERVICE, FUNCTION BOP'S
	12:30 - 0:00	11.50	DRLPRO	02	D	P		DRILL 7065'-7601' (536, 47'/HR) MOTOR RPM-134, ROTARY RPM-65, WOB-20-24K, SPP ON/OFF- 2300/ 1950, DIFF-250-450, TQE ON/OFF- 20/12, HOOK LOAD UP/DOWN/ROT-198/168/183,DRAG-15K, 480 GPM, #1-106 SPM, #2-0, ROTATE 97% SLIDE 3% ,MUD IN 10.6 WT VIS-40., MUD OUT 10.4 WT 40VIS. SLIGHT GAS CUT. NO FLARES. (SLIGHT SEEPAGE AT 7150' PUMP 40 BBLs 10% LCM SWEEP TO CONTROL LOSSES. TOT. LOSS 16 BBLs.) NO MORE LOSSES @ REPORT TIME.
6/25/2010	0:00 - 12:30	12.50	DRLPRO	02	D	P		DRILL 7601'-8066' (465, 37'/HR) MOTOR RPM-134, ROTARY RPM-60, WOB-20-24K, SPP ON/OFF- 2500/ 2200, DIFF-250-450, TQE ON/OFF- 21/10, HOOK LOAD UP/DOWN/ROT-210/175/188,DRAG-20K, 480 GPM, #1-106 SPM, #2-0, ROTATE100% SLIDE 0% ,MUD IN 11.2 WT VIS 43., MUD OUT 11.2 WT 43 VIS. NO GAS GAS CUT. 1' CONNECTION FLARE BETWEEN 7700'-7800'. NO LOSSES AT THIS TIME.
	12:30 - 13:30	1.00	DRLPRO	07	A	P		RIG SERVICE, FUNCTION BOP'S. POOH 2 STD AND CHANGE SAVER SUB, TIH 2 STDs.
	13:30 - 0:00	10.50	DRLPRO	02	D	P		DRILL 8066'-8462' (396', 38'/HR) MOTOR RPM-134, ROTARY RPM-60, WOB-20-28K, SPP ON/OFF- 2600/ 2300, DIFF-250-350, TQE ON/OFF- 22/10, HOOK LOAD UP/DOWN/ROT-212/178/190,DRAG-22K, 480 GPM, #1-106 SPM, #2-0, ROTATE100% SLIDE 0% ,MUD IN 11.2 WT VIS 43., MUD OUT 11.2 WT 43 VIS. NO GAS CUT. NO FLARE. NO LOSSES OR GAINS.SOME SPLINTERS AND SILVER DOLLAR CUTTINGS OVER SHAKER.
6/26/2010	0:00 - 3:00	3.00	DRLPRO	02	D	P		DRILL ROT/SLIDE 8462'-8570 (108', 36'/HR) TD 6/26/2010 03:00 MOTOR RPM-134, ROTARY RPM 50-60, WOB-25-28K, SPP ON/OFF- 2600/ 2300, DIFF-200-300, TQE ON/OFF- 22/11, HOOK LOAD UP/DOWN/ROT-220/175/195,DRAG-25K, 480 GPM, #1-106 SPM, #2-0, ROTATE 100% SLIDE 0% ,MUD IN 11.6 WT VIS 45., MUD OUT 11.5 WT 44 VIS. 1" FLARE ON CONNECTIONS. NO LOSSES OR GAINS. SOME SPLINTERS AND SILVER DOLLAR CUTTINGS OVER SHAKER.

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-11F4S GREEN		Spud Conductor: 3/31/2010	Spud Date: 4/11/2010
Project: UTAH-UINTAH		Site: NBU 1022-11K PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING		Start Date: 4/6/2010	End Date: 6/27/2010
Active Datum: RKB @5,128.00ft (above Mean Sea Level)		UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	3:00 - 6:00	3.00	EVALPR	05	C	P		RAISE MUD WT TO 11.9 WT. AS 11.9 MUD WT CIRC RETURNED TO SUR. HOLE STARTED SEEPING. REDUCED PUMP SPM 80. HOLE CLEAN LIGHT CUTTING ON SHAKERS. BYPASSED SHAKERS AND INCREASED LCM TO 2% TO CONTROL LOSSES. (LOSS 30 BBLS) NO FLARES. MUD 11.9 WT 45 VIS IN, 11.9 WT 46 VIS OUT. 2% LCM. BUILD 13.5# 40 BBLS PILL FOR DRY JOB.
	6:00 - 9:30	3.50	EVALPR	06	E	P		WIPER TRIP TO SHOE. PULL 2 JTS WET. 50 K MAX. DRAG . PUMP DRY JOB. POOH TO SHOE. HOLE SLICK AND IN GOOD SHAPE. NO LOSSES AND NO GAINS.
	9:30 - 13:30	4.00	EVALPR	06	E	P		TRIP BACK TO BOTTOM. FILL PIPE 5500'. TRIP TO BOTTOM. 15" FILL ON BOTTOM. NO TIGHT HOLE IN OR OUT OF HOLE. WASH HOLE TO BOTTOM
	13:30 - 17:30	4.00	EVALPR	05	F	P		CIRC AND COND. HOLE. RAISING VIS. WHILE CIRC. WE HAD 30 BBLS GAS KICK ON SURFACE. W/ 20' FLARE. RAISE MUD WT. 12.4. VIS TO 48. CIRC GAS OUT. MIX AND PUMP 14.4# 40 BBLS PILL FOR DRY JOB.
	17:30 - 23:00	5.50	EVALPR	06	B	P		TRIP OUT OF HOLE. CHECK FLOW 7000' 2000', 1000' NO FLOW . PULL DIRECTIONAL TOOL. STAND BACK DIRECTIONAL COLLARS. LD IBS. LD BIT AND MOTOR. PULL WEAR BUSHING. HOLE USED 79 BBLS MUD TO KEEP FULL. NO FLOW.
	23:00 - 0:00	1.00	EVALPR	11	D	P		HOLD SAFETY MEETING W/ HALIBURTON LOGGERS. RIG UP LOGGERS. RUN TRIPLE COMBO.
6/27/2010	0:00 - 4:30	4.50	EVALPR	11	D	P		RUN TRIPLE COMBO W/ HALIBURTON. STICKY HOLE FROM 8300 TO 8350, LOGGERS TAG FILL @ 8552'. LOG OUT. DO REPEAT RUN ON BOTTOM AND LOG OUT. RIG DOWN LOGGERS.
	4:30 - 5:00	0.50	CSG	12	A	P		HOLD SAFETY MEETING W/ CREWS. RIG UP WEATHERFORD TRS.
	5:00 - 13:00	8.00	CSG	12	C	P		RUN 203 JTS OF 11.6#, 4.5", I-80 CSG W/ BTC THREADS. FILL CSG 500, 5500'. P/U LANDING JT W/ P-110 PUP JT AND LAND FLOAT SHOE @ 8562' KB W/ SLOTTED MANDREL. FLOAT COLLAR LANDED 8518' KB. MESA VERDE MARKER RAN BETWEEN JT 55 AND 56 LANDED TOP 6232' KB. RAN CENTRILIZERS FIRST 2 JTS AND EVERY 3RD JT FOR 15 TOTAL. WASH DOWN 10'. INSTALL ROT. HEAD RUBBER. RIG DOWN WEATHERFORD TRS.
	13:00 - 14:00	1.00	CSG	05	D	P		CIRC. AND CONDITION MUD. MUD WT 12.4# VIS 45. HOLD SAFETY MEETING W/ BJ CEMENTERS AND RIG UP CEMENTERS. CIRC. BOTTOMS UP GAS. 12.1 MUD UP W/ BOTTOM GAS. 1' -2' FLARE. CIRC OUT GAS. INSTALL CEMENT HEAD.
	14:00 - 16:30	2.50	CSG	12	E	P		PRESSURE TEST LINES 4000 PSI. PERFORM POP OFF TEST 4000 PSI. PUMP 40 BBLS OF GEL WATER. LEAD W/ 775 SKS PL2 MIXED @ 12.4 PPG, YIELD 2.03,10.81 GAL/SK, TAIL W/ 600 SKS 50:50 POZ MIXED @ 14.3PPG, YIELD 1.31, 5.9 GAL/SK. WASH LINES, DROP PLUG & DISPLACE W/132.4 BBLS WATER W/ CLAYTREAT & MAGNACIDE TO BUMP PLUG W/ 3144 PSI, LIFT PSI 2550. RECOVERED 40 OF 40 BBLS WATER SPACER, LEAD CEMENT JUST TO SURFACE.

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-11F4S GREEN	Spud Conductor: 3/31/2010	Spud Date: 4/11/2010
Project: UTAH-UINTAH	Site: NBU 1022-11K PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 4/6/2010	End Date: 6/27/2010
Active Datum: RKB @5,128.00ft (above Mean Sea Level)		UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	16:30 - 20:30	4.00	RDMO	14	B	P		<p>FLUSH OUT STACK AND MUD LINES W/ MUD, THEN WITH FRESH WATER. WELL HEAD PACK OFF W/ WEATHERFORD HAND. NIPPLE DOWN, HANG BOP'S. STORE 750 BBLS OF 12.4 MUD. CLEAN PITS. RELEASE RIG 6/27/2010 20:30.</p> <p>CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28</p> <p>SPUD DATE/TIME: 4/10/2010 15:00</p> <p>SURFACE HOLE: 11 Surface From depth: 9 Surface To depth: 2,009 Total SURFACE hours: 22.00 Surface Casing size: 8 5/8 # of casing joints ran: 46 Casing set MD: 2,054.0 # sx of cement: 450 Cement blend (ppg): 15.8 Cement yield (ft3/sk): 1.15 # of bbls to surface: 0 Describe cement issues: TOP OUT REQUIRED Describe hole issues:</p> <p>PRODUCTION: Rig Move/Skid start date/time: 6/18/2010 20:00 Rig Move/Skid finish date/time: 6/20/2010 15:00 Total MOVE hours: 43.0 Prod Rig Spud date/time: 6/22/2010 1:30 Rig Release date/time: 6/27/2010 20:30 Total SPUD to RR hours: 139.0 Planned depth MD 8,570 Planned depth TVD 8,541 Actual MD: 8,570 Actual TVD: 8,528 Open Wells \$: \$685,402 AFE \$: \$1,283,338 Open wells \$/ft: \$79.98</p> <p>PRODUCTION HOLE: Prod. From depth: 2,009 Prod. To depth: 8,570 Total PROD hours: 94.5 Log Depth: 8552 Production Casing size: 4 1/2 # of casing joints ran: 203 Casing set MD: 8,562.0 # sx of cement: 600 TAIL/ 775 LEAD Cement blend (ppg): 14.3# / 12.4# Cement yield (ft3/sk): 1.31YD / 2.03 YD Est. TOC (Lead & Tail) or 2 Stage : LEAD 13'-5492', TAIL 5492'-8562' Describe cement issues: LEAD WAS JUST AT SUR AT PLUG DOWN Describe hole issues: LOSS 46 BBLS TOTAL 2% LCM USED.</p> <p>DIRECTIONAL INFO: KOP: 146' Max angle: 11.69 Departure: 347.20 Max dogleg MD: 2.33</p>
	20:30 - 20:30	0.00	RDMO					

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-11F4S GREEN	Spud Conductor: 3/31/2010	Spud Date: 4/11/2010
Project: UTAH-UINTAH	Site: NBU 1022-11K PAD	Rig Name No: LEED 733/733
Event: COMPLETION	Start Date: 8/26/2010	End Date: 9/11/2010
Active Datum: RKB @5,128.00ft (above Mean Sea Level)	UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/27/2010	8:00 - 15:00	7.00	COMP	37	B	P		RU B&C QUICK TEST. PSI TEST CSG & BOTH FRAC VALVES T/ 7000#. GOOD TEST. BLEED OFF PSI. RDMO B&C QUICK TEST. PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH PERF F/ 8154'-58', 3 SPF, 12 HOLES. 8071'-73', 3 SPF, 6 HOLES. 8047'-49', 3 SPF, 6 HOLES. 24 HOLES. POOH, SWIFWE.
8/31/2010	9:00 - 18:00	9.00	COMP	36	B	P		FRAC STG 1)WHP 950 PSI, BRK 3026 PSI @ 4.7 BPM. ISIP 1651 PSI, FG .64. PUMP 100 BBLS @ 48.2 BPM @ 5615 PSI = 66% HOLES OPEN. ISIP 2586 PSI, FG .76, NPI 935 PSI. MP 6505 PSI, MR 48.7 BPM, AP 5019 PSI, AR 47.8 BPM, PMP 1594 BBLS SW & 54,432 LBS OF 30/50 SND & 5,000 LBS OF 20/40 SLC SND. TOTAL PROP 59,432 LBS, SWI, X-OVER FOR WL. PERF STG 2) PU 4 1/2 8K WEATHERFORD CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 7997' P/U PERF F/ 7912'-14', 3 SPF, 6 HOLES. 7826'-28', 3 SPF, 6 HOLES. 7762'-63', 4 SPF, 4 HOLES. 7738'-40', 4 SPF, 8 HOLES. 24 HOLES. POOH. SWIFN.
9/1/2010	6:45 - 7:00	0.25	COMP	48		P		HSM. HIGH PSI LINES & WL SAFETY.

**US ROCKIES REGION
Operation Summary Report**

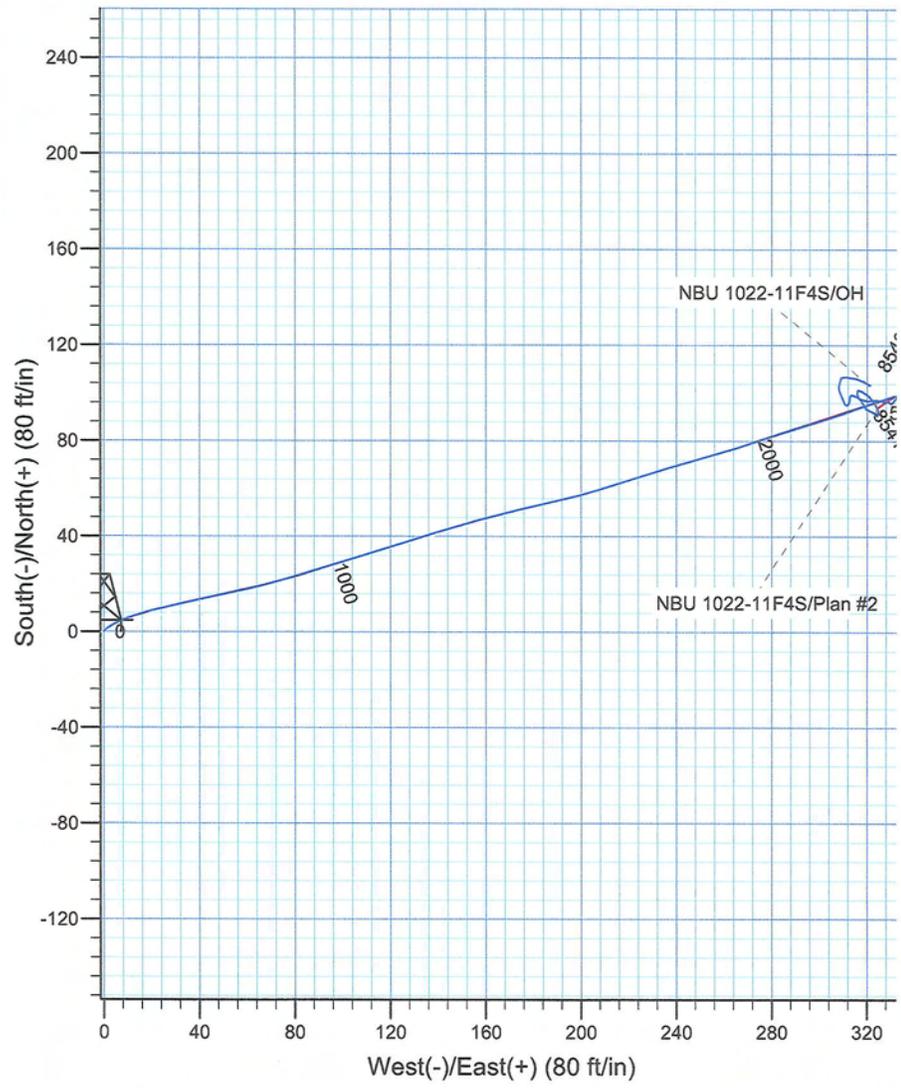
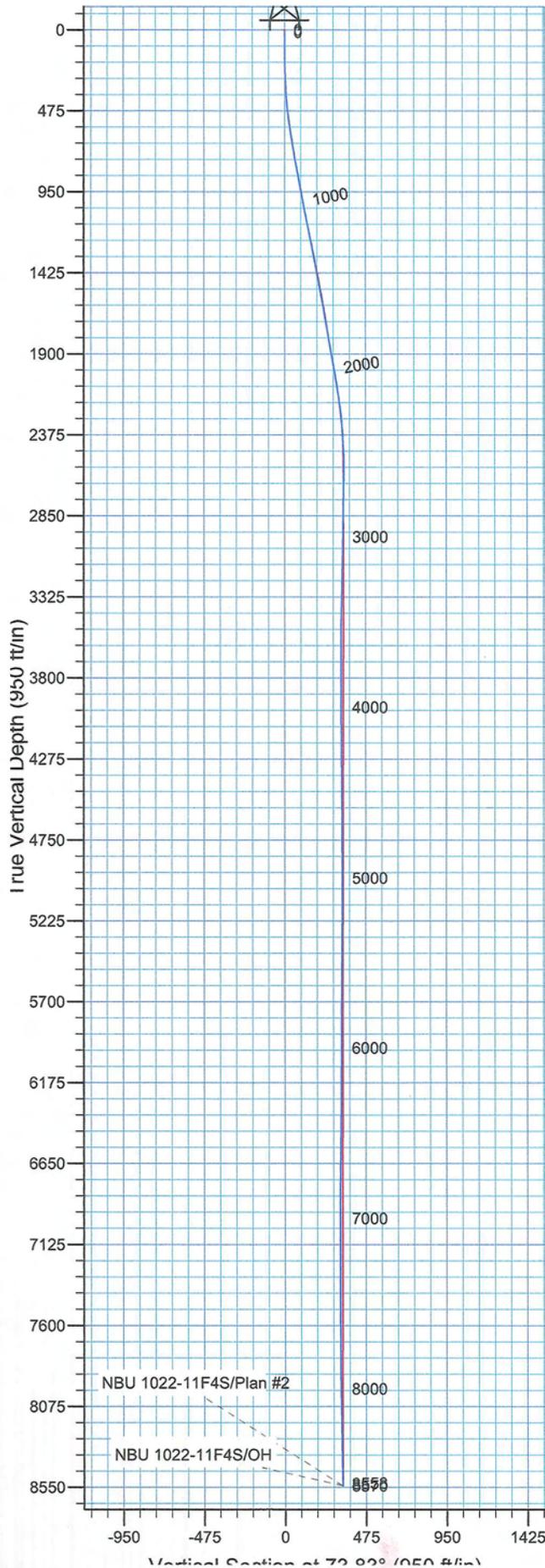
Well: NBU 1022-11F4S GREEN		Spud Conductor: 3/31/2010	Spud Date: 4/11/2010
Project: UTAH-UINTAH		Site: NBU 1022-11K PAD	Rig Name No: LEED 733/733
Event: COMPLETION		Start Date: 8/26/2010	End Date: 9/11/2010
Active Datum: RKB @5,128.00ft (above Mean Sea Level)		UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 18:00	11.00	COMP	36	B	P		<p>FRAC STG 2)WHP 950 PSI, BRK 3091 PSI @ 4.7 BPM. ISIP 1846 PSI, FG .67. PUMP 100 BBLs @ 46.2 BPM @ 5886 PSI = 65% HOLES OPEN. ISIP 2359 PSI, FG .74, NPI 513 PSI. MP 6703 PSI, MR 50.4 BPM, AP 5580 PSI, AR 47.2 BPM, PMP 2042 BBLs SW & 72,108 LBS OF 30/50 SND & 5,000 LBS OF 20/40 SLC SND. TOTAL PROP 77,108 LBS, SWI, X-OVER FOR WL.</p> <p>PERF STG 3)PU 4 1/2 8K WEATHERFORD CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 7124' P/U PERF F/ 7022'-24', 4 SPF, 8 HOLES. 6998'-00', 3 SPF, 6 HOLES. 6948'-49', 4 SPF, 4 HOLES. 6928'-30', 3 SPF, 6 HOLES. 24 HOLES. POOH. X-OVER FOR FRAC CREW.</p> <p>FRAC STG 3)WHP 745 PSI, BRK 2209 PSI @ 4.7 BPM. ISIP 1494 PSI, FG .65. PUMP 100 BBLs @ 48 BPM @ 5444 PSI = 67% HOLES OPEN. ISIP 2281 PSI, FG .77, NPI 787 PSI. MP 5912 PSI, MR 48.9 BPM, AP 5083 PSI, AR 47.6 BPM, PMP 670 BBLs SW & 18,262 LBS OF 30/50 SND & 5,000 LBS OF 20/40 SLC SND. TOTAL PROP 23,262 LBS, SWI, X-OVER FOR WL.</p> <p>PERF STG 4)PU 4 1/2 8K WEATHERFORD CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 6878' P/U PERF F/ 6803'-05', 4 SPF, 8 HOLES. 6723'-25', 3 SPF, 6 HOLES. 6704'-06', 4 SPF, 8 HOLES. 22 HOLES. POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 4)WHP 420 PSI, BRK 2299 PSI @ 4.7 BPM. ISIP 901 PSI, FG .57. PUMP 100 BBLs @ 49.9 BPM @ 5770 PSI = 65% HOLES OPEN. ISIP 2135 PSI, FG .75, NPI 1234 PSI. MP 6236 PSI, MR 50.5 BPM, AP 5131 PSI, AR 49.7 BPM, PMP 1127 BBLs SW & 39,369 LBS OF 30/50 SND & 5,000 LBS OF 20/40 SLC SND. TOTAL PROP 44,369 LBS, SWI, X-OVER FOR WL.</p> <p>PU 4 1/2 8K WEATHERFORD CBP. RIH SET CBP @ 6654'. POOH. SWI. DONE FRACING THIS WELL.</p> <p>TOTAL SAND = 204,171 LBS. TOTAL CLFL = 5433 BBLs.</p> <p>TOTAL SCALE = 432 GAL. TOTAL BIOCIDES = 88 GAL. JSA- RD / RU. PU TBG. D/O PLUGS. LAND TBG</p>
9/11/2010	7:00 - 7:15	0.25	COMP	48		P		

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-11F4S GREEN Spud Conductor: 3/31/2010 Spud Date: 4/11/2010
 Project: UTAH-UINTAH Site: NBU 1022-11K PAD Rig Name No: LEED 733/733
 Event: COMPLETION Start Date: 8/26/2010 End Date: 9/11/2010
 Active Datum: RKB @5,128.00ft (above Mean Sea Level) UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 12:30	5.25	COMP	31	I	P		RDSU FROM 11J3S. MOVE OVER AND RUSU. ND WH. NU BOP. RU FLOOR AND TBG EQUIP. SPOT TBG. MU 3-7/8" FE BIT, WCS POBS, WCS 1.87" XN AND RIH AS MEAS AND PU 209-JTS 2-3/8" L-80 TBG. TAGGED AT 6624'. RU DRLG EQUIP. FILL TBG AND P-TEST TO 3000#. GOOD. EST CIRC AND D/O WEATHERFORD PLUGS.
	12:30 - 16:30	4.00	COMP	44	C	P		#1- C/O 30' SAND TO CBP AT 6654'. D/O IN 5 MIN. 0# INC. RIH. #2- C/O 70' SAND TO CBP AT 6878'. D/O IN 7 MIN. 0# INC. RIH. #3- C/O 30' SAND TO CBP AT 7124'. D/O IN 12 MIN. 500# INC. RIH. #4- C/O 90' SAND TO CBP AT 7997'. D/O IN 5 MIN. 0# INC. RIH. PBTD- RIH TO 8261' (NO SAND) W/ 261-JTS IN (103' RATHOLE) RD PWR SWIVEL. POOH AS LD 18-JTS TBG. PU 7" 5K HANGER. LUB IN AND LAND 243-JTS 2-3/8" L-80 TBG W/ EOT AT 7704.41'. RD FLOOR. ND BOP. NU WH. POBS AT 2200#. SHUT WELL IN FOR 30 MIN. TURN OVER TO FBC. SDFWE. SICP 2450, SITP 400. TBG DETAIL KB 13.00 284-JTS DELIVERED 7" 5K HANGER 1.00 41-JTS RETURNED 243-JTS 2-3/8" L-80 TBG 7688.25 LOAD 5433 BBLs WCS POBS W/ 1.87" SN 2.16 RCVR 1700 BBLs EOT 7704.41 LTR 3733 BBLs
9/12/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2650#, TP 2050#, 20/64" CK, 37 BWPH, HVY SAND, LIGHT GAS TTL BBLs RECOVERED: 2388 BBLs LEFT TO RECOVER: 3045
9/13/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2450#, TP 1750#, 20/64" CK, 30 BWPH, MED SAND, MED GAS TTL BBLs RECOVERED: 3190 BBLs LEFT TO RECOVER: 2243
9/17/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 3100#, TP 1500#, 20/64" CK, 20 BWPH, LIGHT SAND, MED GAS TTL BBLs RECOVERED: 3728 BBLs LEFT TO RECOVER: 1705
9/18/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2375#, TP 1700#, 20/64" CK, 18 BWPH, LIGHT SAND, MED GAS TTL BBLs RECOVERED: 4124 BBLs LEFT TO RECOVER: 1309
9/19/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2175#, TP 1700#, 20/64" CK, 15 BWPH, TRACE SAND, HVY GAS TTL BBLs RECOVERED: 4523 BBLs LEFT TO RECOVER: 910
9/20/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 2025#, TP 1650#, 20/64" CK, 8 BWPH, TRACE SAND, HVY GAS TTL BBLs RECOVERED: 4773 BBLs LEFT TO RECOVER: 660
	11:00 -		PROD	50				WELL TURNED TO SALES @ 1100 HR ON 9/20/10 - 2200 MCFD, 192 BWPD, CP 2050#, FTP 1650#, CK 18/64"



WELL DETAILS: NBU 1022-11F4S

+N/-S	+E/-W	Ground Level	@ 5115' & RKB 14' @ 5129.00ft (Ensign 145)		
		Northing	Easting	Latitude	Longitude
0.00	0.00	600535.20	2586303.15	39° 57' 47.890 N	109° 24' 29.000 W

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well NBU 1022-11F4S, True North
 Vertical (TVD) Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 14
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 14
 Calculation Method: Minimum Curvature
 Local North: True
 Location: Sec 11 T10S R22E

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Utah Central 4302

Design: OH (NBU 1022-11F4S/OH)

Created By: Rex Hall Date: 2010-07-01



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 1022-11K2 Pad
NBU 1022-11F4S
OH

Design: OH

Standard Survey Report

01 July, 2010

Anadarko 
Petroleum Corporation

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-11F4S
TVD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
MD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 1022-11K2 Pad, Sec 11 T10S R22E				
Site Position:		Northing:	600,476.32 ft	Latitude:	39° 57' 47.310 N
From:	Lat/Long	Easting:	2,586,295.18 ft	Longitude:	109° 24' 29.120 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	1.34 °

Well	NBU 1022-11F4S, 2571' FSL 2215' FWL					
Well Position	+N/-S	0.00 ft	Northing:	600,535.20 ft	Latitude:	39° 57' 47.890 N
	+E/-W	0.00 ft	Easting:	2,586,303.15 ft	Longitude:	109° 24' 29.000 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,115.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2008/10/30	11.35	65.93	52,607

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	11.80
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		11.80	0.00	0.00	73.83

Survey Program	Date	2010/07/01			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
148.80	2,031.80	Survey #1 - Weatherford Surface MWD (O)	MWD	MWD - Standard	
2,076.00	8,570.00	Survey #2 - Production MWD (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)	
11.80	0.00	0.00	11.80	0.00	0.00	0.00	0.00	0.00	0.00	
148.80	0.44	39.84	148.80	0.40	0.34	0.44	0.32	0.32	0.00	
First Weatherford Surface MWD Survey										
236.80	1.50	51.84	236.78	1.38	1.46	1.78	1.22	1.20	13.64	
322.80	3.31	62.59	322.71	3.21	4.55	5.26	2.16	2.10	12.50	
410.80	5.19	68.46	410.46	5.84	10.51	11.72	2.19	2.14	6.67	
500.80	7.06	75.46	499.94	8.73	19.65	21.30	2.23	2.08	7.78	
590.80	8.56	77.21	589.11	11.60	31.53	33.52	1.69	1.67	1.94	
680.80	9.50	78.09	677.99	14.62	45.33	47.61	1.06	1.04	0.98	
770.80	9.88	77.46	766.71	17.82	60.14	62.72	0.44	0.42	-0.70	
860.80	10.75	73.21	855.25	21.93	75.71	78.82	1.28	0.97	-4.72	
950.80	10.94	72.96	943.64	26.85	91.91	95.75	0.22	0.21	-0.28	

Company: Kerr McGee Oil and Gas Onshore LP
 Project: Uintah County, UT NAD27
 Site: NBU 1022-11K2 Pad
 Well: NBU 1022-11F4S
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well NBU 1022-11F4S
 TVD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
 MD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,040.80	10.88	73.21	1,032.02	31.81	108.21	112.79	0.08	-0.07	0.28
1,130.80	11.06	72.59	1,120.37	36.85	124.58	129.91	0.24	0.20	-0.69
1,211.80	11.69	72.34	1,199.78	41.66	139.81	145.88	0.78	0.78	-0.31
1,301.80	11.38	74.46	1,287.96	46.80	157.05	163.88	0.58	-0.34	2.36
1,391.80	11.00	76.71	1,376.25	51.16	173.96	181.33	0.64	-0.42	2.50
1,481.80	11.25	77.21	1,464.56	55.07	190.88	198.67	0.30	0.28	0.56
1,571.80	10.19	72.46	1,552.99	59.42	207.04	215.39	1.53	-1.18	-5.28
1,661.80	10.06	72.09	1,641.59	64.23	222.11	231.21	0.16	-0.14	-0.41
1,751.80	9.44	73.71	1,730.29	68.72	236.67	246.45	0.75	-0.69	1.80
1,841.80	9.06	73.96	1,819.12	72.75	250.57	260.91	0.42	-0.42	0.28
1,931.80	9.75	72.71	1,907.91	76.97	264.65	275.62	0.80	0.77	-1.39
2,031.80	10.38	71.71	2,006.37	82.32	281.29	293.09	0.65	0.63	-1.00
Last Weatherford Surface MWD Survey									
2,076.00	10.64	72.51	2,049.83	84.79	288.96	301.15	0.67	0.59	1.81
First SDI Production MWD Survey									
2,167.00	8.62	72.68	2,139.54	89.35	303.49	316.36	2.22	-2.22	0.19
2,257.00	6.68	69.96	2,228.74	93.15	314.85	328.33	2.19	-2.16	-3.02
2,348.00	4.57	71.89	2,319.29	96.09	323.26	337.24	2.33	-2.32	2.12
2,439.00	3.25	71.98	2,410.08	98.02	329.16	343.44	1.45	-1.45	0.10
2,529.00	1.23	88.24	2,500.01	98.84	332.56	346.92	2.33	-2.24	18.07
2,620.00	0.88	238.27	2,591.00	98.50	332.94	347.20	2.24	-0.38	164.87
2,710.00	0.97	216.91	2,680.99	97.53	331.89	345.92	0.39	0.10	-23.73
2,801.00	1.23	220.95	2,771.97	96.17	330.79	344.49	0.30	0.29	4.44
2,892.00	0.88	312.01	2,862.96	95.90	329.63	343.30	1.68	-0.38	100.07
2,982.00	0.62	282.56	2,952.95	96.47	328.64	342.51	0.51	-0.29	-32.72
3,073.00	0.44	252.33	3,043.95	96.47	327.83	341.72	0.36	-0.20	-33.22
3,168.00	1.85	287.49	3,138.93	96.82	326.02	340.08	1.59	1.48	37.01
3,254.00	1.58	269.56	3,224.89	97.23	323.51	337.79	0.69	-0.31	-20.85
3,345.00	1.32	252.33	3,315.86	96.90	321.25	335.53	0.55	-0.29	-18.93
3,435.00	1.49	294.08	3,405.84	97.06	319.20	333.60	1.13	0.19	46.39
3,526.00	0.97	266.13	3,496.82	97.50	317.35	331.95	0.86	-0.57	-30.71
3,616.00	0.88	341.36	3,586.81	98.10	316.37	331.17	1.26	-0.10	83.59
3,707.00	0.35	331.34	3,677.80	99.00	316.01	331.08	0.59	-0.58	-11.01
3,798.00	0.00	226.75	3,768.80	99.25	315.88	331.02	0.38	-0.38	0.00
3,888.00	1.06	359.91	3,858.80	100.08	315.88	331.25	1.18	1.18	0.00
3,979.00	0.26	15.90	3,949.79	101.12	315.93	331.59	0.89	-0.88	17.57
4,069.00	0.35	81.03	4,039.79	101.36	316.26	331.98	0.37	0.10	72.37
4,160.00	0.62	113.46	4,130.79	101.21	316.99	332.63	0.41	0.30	35.64
4,251.00	0.62	122.43	4,221.78	100.75	317.85	333.34	0.11	0.00	9.86
4,341.00	0.79	123.75	4,311.77	100.14	318.78	334.06	0.19	0.19	1.47
4,432.00	0.62	116.01	4,402.77	99.58	319.74	334.83	0.21	-0.19	-8.51
4,522.00	0.53	141.24	4,492.76	99.04	320.44	335.35	0.30	-0.10	28.03
4,613.00	0.70	139.57	4,583.76	98.29	321.07	335.74	0.19	0.19	-1.84
4,704.00	0.97	132.53	4,674.75	97.34	321.99	336.37	0.32	0.30	-7.74
4,794.00	1.06	145.28	4,764.73	96.15	323.03	337.03	0.27	0.10	14.17
4,885.00	1.14	163.74	4,855.72	94.58	323.76	337.30	0.40	0.09	20.29
4,975.00	1.14	145.45	4,945.70	92.99	324.52	337.58	0.40	0.00	-20.32
5,066.00	0.44	254.79	5,036.69	92.15	324.70	337.52	1.48	-0.77	120.15
5,157.00	0.18	191.77	5,127.69	91.92	324.33	337.10	0.43	-0.29	-69.25
5,247.00	0.35	149.76	5,217.69	91.54	324.44	337.10	0.28	0.19	-46.68
5,338.00	0.62	197.84	5,308.69	90.83	324.43	336.89	0.51	0.30	52.84
5,428.00	1.14	312.89	5,398.68	90.98	323.62	336.16	1.68	0.58	127.83
5,519.00	0.79	307.00	5,489.67	91.97	322.46	335.32	0.40	-0.38	-6.47
5,610.00	0.53	281.51	5,580.66	92.43	321.55	334.57	0.42	-0.29	-28.01

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-11F4S
TVD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
MD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,700.00	0.53	310.69	5,670.66	92.79	320.82	333.97	0.30	0.00	32.42
5,791.00	0.26	282.21	5,761.66	93.11	320.30	333.56	0.36	-0.30	-31.30
5,881.00	0.26	286.43	5,851.66	93.21	319.91	333.21	0.02	0.00	4.69
5,972.00	0.09	272.28	5,942.66	93.27	319.64	332.97	0.19	-0.19	-15.55
6,063.00	1.49	333.63	6,033.65	94.33	319.04	332.69	1.59	1.54	67.42
6,153.00	1.14	327.65	6,123.62	96.14	318.04	332.23	0.42	-0.39	-6.64
6,244.00	0.97	323.26	6,214.61	97.52	317.10	331.71	0.21	-0.19	-4.82
6,334.00	0.70	293.20	6,304.60	98.35	316.14	331.02	0.56	-0.30	-33.40
6,425.00	0.62	299.00	6,395.59	98.80	315.19	330.24	0.11	-0.09	6.37
6,515.00	0.70	279.58	6,485.59	99.13	314.23	329.40	0.26	0.09	-21.58
6,606.00	0.44	264.20	6,576.58	99.19	313.33	328.56	0.33	-0.29	-16.90
6,697.00	0.53	212.08	6,667.58	98.80	312.76	327.90	0.48	0.10	-57.27
6,788.00	0.97	169.36	6,758.57	97.68	312.68	327.51	0.75	0.48	-46.95
6,878.00	1.23	203.55	6,848.56	96.05	312.43	326.82	0.77	0.29	37.99
6,969.00	0.97	265.87	6,939.54	95.10	311.27	325.44	1.27	-0.29	68.48
7,059.00	2.29	340.48	7,029.51	96.74	309.91	324.59	2.49	1.47	82.90
7,150.00	2.02	337.58	7,120.45	99.93	308.69	324.31	0.32	-0.30	-3.19
7,241.00	0.53	4.65	7,211.42	101.84	308.12	324.29	1.72	-1.64	29.75
7,331.00	0.79	6.06	7,301.42	102.87	308.22	324.67	0.29	0.29	1.57
7,422.00	0.70	17.57	7,392.41	104.02	308.45	325.22	0.19	-0.10	12.65
7,512.00	0.70	5.45	7,482.40	105.09	308.67	325.72	0.16	0.00	-13.47
7,603.00	0.53	33.48	7,573.40	106.00	308.95	326.25	0.37	-0.19	30.80
7,694.00	0.18	328.71	7,664.39	106.47	309.11	326.53	0.53	-0.38	-71.18
7,784.00	0.44	88.68	7,754.39	106.60	309.38	326.83	0.61	0.29	133.30
7,875.00	0.79	81.47	7,845.39	106.70	310.35	327.79	0.39	0.38	-7.92
7,965.00	0.62	100.72	7,935.38	106.70	311.44	328.84	0.32	-0.19	21.39
8,056.00	1.06	96.94	8,026.37	106.51	312.76	330.05	0.49	0.48	-4.15
8,147.00	0.79	100.19	8,117.36	106.30	314.22	331.39	0.30	-0.30	3.57
8,237.00	0.88	98.78	8,207.35	106.08	315.51	332.57	0.10	0.10	-1.57
8,328.00	1.06	114.61	8,298.34	105.62	316.97	333.84	0.35	0.20	17.40
8,418.00	1.06	118.56	8,388.32	104.88	318.45	335.06	0.08	0.00	4.39
8,509.00	1.23	122.08	8,479.30	103.96	320.02	336.31	0.20	0.19	3.87
8,515.00	1.23	119.53	8,485.30	103.89	320.13	336.40	0.91	0.00	-42.50
Last SDI Production MWD Survey									
8,570.00	1.23	119.53	8,540.29	103.31	321.16	337.22	0.00	0.00	0.00
Projection To TD									

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-11F4S
TVD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
MD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
NBU 1022-11F4S PBHL	0.00	0.00	8,541.00	94.11	324.67	600,636.87	2,586,625.53	39° 57' 48.820 N	109° 24' 24.830 W
- actual wellpath misses target center by 9.87ft at 8570.00ft MD (8540.29 TVD, 103.31 N, 321.16 E)									
- Circle (radius 25.00)									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
148.80	148.80	0.40	0.34	First Weatherford Surface MWD Survey
2,031.80	2,006.37	82.32	281.29	Last Weatherford Surface MWD Survey
2,076.00	2,049.83	84.79	288.96	First SDI Production MWD Survey
8,515.00	8,485.30	103.89	320.13	Last SDI Production MWD Survey
8,570.00	8,540.29	103.31	321.16	Projection To TD

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 1022-11K2 Pad
NBU 1022-11F4S
OH

Design: OH

Survey Report - Geographic

01 July, 2010



Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-11F4S
TVD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
MD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 1022-11K2 Pad, Sec 11 T10S R22E				
Site Position:		Northing:	600,476.32 ft	Latitude:	39° 57' 47.310 N
From:	Lat/Long	Easting:	2,586,295.18 ft	Longitude:	109° 24' 29.120 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	1.34 °

Well	NBU 1022-11F4S, 2571' FSL 2215' FWL					
Well Position	+N/-S	0.00 ft	Northing:	600,535.20 ft	Latitude:	39° 57' 47.890 N
	+E/-W	0.00 ft	Easting:	2,586,303.15 ft	Longitude:	109° 24' 29.000 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,115.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2008/10/30	11.35	65.93	52,607

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	11.80
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	11.80	0.00	0.00	73.83	

Survey Program	Date	2010/07/01			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
148.80	2,031.80	Survey #1 - Weatherford Surface MWD (O)	MWD	MWD - Standard	
2,076.00	8,570.00	Survey #2 - Production MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-11F4S
TVD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
MD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
11.80	0.00	0.00	11.80	0.00	0.00	600,535.20	2,586,303.15	39° 57' 47.890 N	109° 24' 29.000 W
148.80	0.44	39.84	148.80	0.40	0.34	600,535.61	2,586,303.47	39° 57' 47.894 N	109° 24' 28.996 W
First Weatherford Surface MWD Survey									
236.80	1.50	51.84	236.78	1.38	1.46	600,536.60	2,586,304.57	39° 57' 47.903 N	109° 24' 28.981 W
322.80	3.31	62.59	322.71	3.21	4.55	600,538.51	2,586,307.62	39° 57' 47.922 N	109° 24' 28.942 W
410.80	5.19	68.46	410.46	5.84	10.51	600,541.28	2,586,313.51	39° 57' 47.948 N	109° 24' 28.865 W
500.80	7.06	75.46	499.94	8.73	19.65	600,544.38	2,586,322.58	39° 57' 47.976 N	109° 24' 28.748 W
590.80	8.56	77.21	589.11	11.60	31.53	600,547.53	2,586,334.40	39° 57' 48.004 N	109° 24' 28.595 W
680.80	9.50	78.09	677.99	14.62	45.33	600,550.87	2,586,348.13	39° 57' 48.034 N	109° 24' 28.418 W
770.80	9.88	77.46	766.71	17.82	60.14	600,554.42	2,586,362.85	39° 57' 48.066 N	109° 24' 28.228 W
860.80	10.75	73.21	855.25	21.93	75.71	600,558.89	2,586,378.32	39° 57' 48.107 N	109° 24' 28.028 W
950.80	10.94	72.96	943.64	26.85	91.91	600,564.19	2,586,394.41	39° 57' 48.155 N	109° 24' 27.820 W
1,040.80	10.88	73.21	1,032.02	31.81	108.21	600,569.53	2,586,410.58	39° 57' 48.204 N	109° 24' 27.610 W
1,130.80	11.06	72.59	1,120.37	36.85	124.58	600,574.94	2,586,426.83	39° 57' 48.254 N	109° 24' 27.400 W
1,211.80	11.69	72.34	1,199.78	41.66	139.81	600,580.11	2,586,441.95	39° 57' 48.302 N	109° 24' 27.204 W
1,301.80	11.38	74.46	1,287.96	46.80	157.05	600,585.66	2,586,459.06	39° 57' 48.352 N	109° 24' 26.983 W
1,391.80	11.00	76.71	1,376.25	51.16	173.96	600,590.41	2,586,475.87	39° 57' 48.395 N	109° 24' 26.766 W
1,481.80	11.25	77.21	1,464.56	55.07	190.88	600,594.72	2,586,492.69	39° 57' 48.434 N	109° 24' 26.548 W
1,571.80	10.19	72.46	1,552.99	59.42	207.04	600,599.44	2,586,508.74	39° 57' 48.477 N	109° 24' 26.341 W
1,661.80	10.06	72.09	1,641.59	64.23	222.11	600,604.61	2,586,523.69	39° 57' 48.525 N	109° 24' 26.147 W
1,751.80	9.44	73.71	1,730.29	68.72	236.67	600,609.43	2,586,538.14	39° 57' 48.569 N	109° 24' 25.960 W
1,841.80	9.06	73.96	1,819.12	72.75	250.57	600,613.79	2,586,551.94	39° 57' 48.609 N	109° 24' 25.782 W
1,931.80	9.75	72.71	1,907.91	76.97	264.65	600,618.34	2,586,565.93	39° 57' 48.651 N	109° 24' 25.601 W
2,031.80	10.38	71.71	2,006.37	82.32	281.29	600,624.07	2,586,582.43	39° 57' 48.703 N	109° 24' 25.387 W
Last Weatherford Surface MWD Survey									
2,076.00	10.64	72.51	2,049.83	84.79	288.96	600,626.72	2,586,590.05	39° 57' 48.728 N	109° 24' 25.289 W
First SDI Production MWD Survey									
2,167.00	8.62	72.68	2,139.54	89.35	303.49	600,631.62	2,586,604.46	39° 57' 48.773 N	109° 24' 25.102 W
2,257.00	6.68	69.96	2,228.74	93.15	314.85	600,635.68	2,586,615.73	39° 57' 48.810 N	109° 24' 24.956 W
2,348.00	4.57	71.89	2,319.29	96.09	323.26	600,638.82	2,586,624.07	39° 57' 48.840 N	109° 24' 24.848 W
2,439.00	3.25	71.98	2,410.08	98.02	329.16	600,640.88	2,586,629.93	39° 57' 48.859 N	109° 24' 24.772 W
2,529.00	1.23	88.24	2,500.01	98.84	332.56	600,641.78	2,586,633.30	39° 57' 48.867 N	109° 24' 24.729 W
2,620.00	0.88	238.27	2,591.00	98.50	332.94	600,641.45	2,586,633.69	39° 57' 48.863 N	109° 24' 24.724 W
2,710.00	0.97	216.91	2,680.99	97.53	331.89	600,640.46	2,586,632.67	39° 57' 48.854 N	109° 24' 24.737 W
2,801.00	1.23	220.95	2,771.97	96.17	330.79	600,639.08	2,586,631.60	39° 57' 48.840 N	109° 24' 24.751 W
2,892.00	0.88	312.01	2,862.96	95.90	329.63	600,638.78	2,586,630.44	39° 57' 48.838 N	109° 24' 24.766 W
2,982.00	0.62	282.56	2,952.95	96.47	328.64	600,639.32	2,586,629.44	39° 57' 48.843 N	109° 24' 24.779 W
3,073.00	0.44	252.33	3,043.95	96.47	327.83	600,639.31	2,586,628.63	39° 57' 48.843 N	109° 24' 24.789 W
3,168.00	1.85	287.49	3,138.93	96.82	326.02	600,639.61	2,586,626.81	39° 57' 48.847 N	109° 24' 24.813 W
3,254.00	1.58	269.56	3,224.89	97.23	323.51	600,639.96	2,586,624.29	39° 57' 48.851 N	109° 24' 24.845 W
3,345.00	1.32	252.33	3,315.86	96.90	321.25	600,639.58	2,586,622.05	39° 57' 48.848 N	109° 24' 24.874 W
3,435.00	1.49	294.08	3,405.84	97.06	319.20	600,639.70	2,586,619.99	39° 57' 48.849 N	109° 24' 24.900 W
3,526.00	0.97	266.13	3,496.82	97.50	317.35	600,640.08	2,586,618.13	39° 57' 48.853 N	109° 24' 24.924 W
3,616.00	0.88	341.36	3,586.81	98.10	316.37	600,640.67	2,586,617.13	39° 57' 48.859 N	109° 24' 24.937 W
3,707.00	0.35	331.34	3,677.80	99.00	316.01	600,641.56	2,586,616.76	39° 57' 48.868 N	109° 24' 24.941 W
3,798.00	0.00	226.75	3,768.80	99.25	315.88	600,641.80	2,586,616.62	39° 57' 48.871 N	109° 24' 24.943 W
3,888.00	1.06	359.91	3,858.80	100.08	315.88	600,642.64	2,586,616.60	39° 57' 48.879 N	109° 24' 24.943 W
3,979.00	0.26	15.90	3,949.79	101.12	315.93	600,643.68	2,586,616.63	39° 57' 48.889 N	109° 24' 24.942 W
4,069.00	0.35	81.03	4,039.79	101.36	316.26	600,643.92	2,586,616.95	39° 57' 48.892 N	109° 24' 24.938 W
4,160.00	0.62	113.46	4,130.79	101.21	316.99	600,643.79	2,586,617.68	39° 57' 48.890 N	109° 24' 24.929 W
4,251.00	0.62	122.43	4,221.78	100.75	317.85	600,643.35	2,586,618.56	39° 57' 48.886 N	109° 24' 24.918 W
4,341.00	0.79	123.75	4,311.77	100.14	318.78	600,642.76	2,586,619.50	39° 57' 48.880 N	109° 24' 24.906 W
4,432.00	0.62	116.01	4,402.77	99.58	319.74	600,642.22	2,586,620.47	39° 57' 48.874 N	109° 24' 24.893 W
4,522.00	0.53	141.24	4,492.76	99.04	320.44	600,641.70	2,586,621.18	39° 57' 48.869 N	109° 24' 24.884 W
4,613.00	0.70	139.57	4,583.76	98.29	321.07	600,640.96	2,586,621.83	39° 57' 48.861 N	109° 24' 24.876 W

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-11F4S
TVD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
MD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,704.00	0.97	132.53	4,674.75	97.34	321.99	600,640.04	2,586,622.78	39° 57' 48.852 N	109° 24' 24.864 W
4,794.00	1.06	145.28	4,764.73	96.15	323.03	600,638.87	2,586,623.84	39° 57' 48.840 N	109° 24' 24.851 W
4,885.00	1.14	163.74	4,855.72	94.58	323.76	600,637.32	2,586,624.61	39° 57' 48.825 N	109° 24' 24.842 W
4,975.00	1.14	145.45	4,945.70	92.99	324.52	600,635.75	2,586,625.40	39° 57' 48.809 N	109° 24' 24.832 W
5,066.00	0.44	254.79	5,036.69	92.15	324.70	600,634.91	2,586,625.60	39° 57' 48.801 N	109° 24' 24.830 W
5,157.00	0.18	191.77	5,127.69	91.92	324.33	600,634.67	2,586,625.24	39° 57' 48.798 N	109° 24' 24.834 W
5,247.00	0.35	149.76	5,217.69	91.54	324.44	600,634.30	2,586,625.36	39° 57' 48.795 N	109° 24' 24.833 W
5,338.00	0.62	197.84	5,308.69	90.83	324.43	600,633.59	2,586,625.36	39° 57' 48.788 N	109° 24' 24.833 W
5,428.00	1.14	312.89	5,398.68	90.98	323.62	600,633.72	2,586,624.55	39° 57' 48.789 N	109° 24' 24.843 W
5,519.00	0.79	307.00	5,489.67	91.97	322.46	600,634.68	2,586,623.37	39° 57' 48.799 N	109° 24' 24.858 W
5,610.00	0.53	281.51	5,580.66	92.43	321.55	600,635.12	2,586,622.44	39° 57' 48.803 N	109° 24' 24.870 W
5,700.00	0.53	310.69	5,670.66	92.79	320.82	600,635.46	2,586,621.71	39° 57' 48.807 N	109° 24' 24.879 W
5,791.00	0.26	282.21	5,761.66	93.11	320.30	600,635.77	2,586,621.18	39° 57' 48.810 N	109° 24' 24.886 W
5,881.00	0.26	286.43	5,851.66	93.21	319.91	600,635.86	2,586,620.79	39° 57' 48.811 N	109° 24' 24.891 W
5,972.00	0.09	272.28	5,942.66	93.27	319.64	600,635.91	2,586,620.52	39° 57' 48.812 N	109° 24' 24.895 W
6,063.00	1.49	333.63	6,033.65	94.33	319.04	600,636.96	2,586,619.89	39° 57' 48.822 N	109° 24' 24.902 W
6,153.00	1.14	327.65	6,123.62	96.14	318.04	600,638.74	2,586,618.85	39° 57' 48.840 N	109° 24' 24.915 W
6,244.00	0.97	323.26	6,214.61	97.52	317.10	600,640.10	2,586,617.88	39° 57' 48.854 N	109° 24' 24.927 W
6,334.00	0.70	293.20	6,304.60	98.35	316.14	600,640.91	2,586,616.90	39° 57' 48.862 N	109° 24' 24.940 W
6,425.00	0.62	299.00	6,395.59	98.80	315.19	600,641.34	2,586,615.94	39° 57' 48.866 N	109° 24' 24.952 W
6,515.00	0.70	279.58	6,485.59	99.13	314.23	600,641.65	2,586,614.97	39° 57' 48.870 N	109° 24' 24.964 W
6,606.00	0.44	264.20	6,576.58	99.19	313.33	600,641.68	2,586,614.07	39° 57' 48.870 N	109° 24' 24.976 W
6,697.00	0.53	212.08	6,667.58	98.80	312.76	600,641.28	2,586,613.51	39° 57' 48.866 N	109° 24' 24.983 W
6,788.00	0.97	169.36	6,758.57	97.68	312.68	600,640.16	2,586,613.45	39° 57' 48.855 N	109° 24' 24.984 W
6,878.00	1.23	203.55	6,848.56	96.05	312.43	600,638.52	2,586,613.25	39° 57' 48.839 N	109° 24' 24.987 W
6,969.00	0.97	265.87	6,939.54	95.10	311.27	600,637.55	2,586,612.11	39° 57' 48.830 N	109° 24' 25.002 W
7,059.00	2.29	340.48	7,029.51	96.74	309.91	600,639.15	2,586,610.71	39° 57' 48.846 N	109° 24' 25.020 W
7,150.00	2.02	337.58	7,120.45	99.93	308.69	600,642.32	2,586,609.42	39° 57' 48.878 N	109° 24' 25.035 W
7,241.00	0.53	4.65	7,211.42	101.84	308.12	600,644.21	2,586,608.80	39° 57' 48.896 N	109° 24' 25.043 W
7,331.00	0.79	6.06	7,301.42	102.87	308.22	600,645.24	2,586,608.87	39° 57' 48.907 N	109° 24' 25.041 W
7,422.00	0.70	17.57	7,392.41	104.02	308.45	600,646.40	2,586,609.08	39° 57' 48.918 N	109° 24' 25.038 W
7,512.00	0.70	5.45	7,482.40	105.09	308.67	600,647.48	2,586,609.27	39° 57' 48.928 N	109° 24' 25.036 W
7,603.00	0.53	33.48	7,573.40	106.00	308.95	600,648.39	2,586,609.54	39° 57' 48.937 N	109° 24' 25.032 W
7,694.00	0.18	328.71	7,664.39	106.47	309.11	600,648.87	2,586,609.68	39° 57' 48.942 N	109° 24' 25.030 W
7,784.00	0.44	88.68	7,754.39	106.60	309.38	600,649.00	2,586,609.95	39° 57' 48.943 N	109° 24' 25.026 W
7,875.00	0.79	81.47	7,845.39	106.70	310.35	600,649.12	2,586,610.92	39° 57' 48.944 N	109° 24' 25.014 W
7,965.00	0.62	100.72	7,935.38	106.70	311.44	600,649.15	2,586,612.01	39° 57' 48.944 N	109° 24' 25.000 W
8,056.00	1.06	96.94	8,026.37	106.51	312.76	600,648.99	2,586,613.33	39° 57' 48.942 N	109° 24' 24.983 W
8,147.00	0.79	100.19	8,117.36	106.30	314.22	600,648.81	2,586,614.79	39° 57' 48.940 N	109° 24' 24.964 W
8,237.00	0.88	98.78	8,207.35	106.08	315.51	600,648.63	2,586,616.09	39° 57' 48.938 N	109° 24' 24.948 W
8,328.00	1.06	114.61	8,298.34	105.62	316.97	600,648.20	2,586,617.56	39° 57' 48.934 N	109° 24' 24.929 W
8,418.00	1.06	118.56	8,388.32	104.88	318.45	600,647.49	2,586,619.06	39° 57' 48.926 N	109° 24' 24.910 W
8,509.00	1.23	122.08	8,479.30	103.96	320.02	600,646.61	2,586,620.65	39° 57' 48.917 N	109° 24' 24.890 W
8,515.00	1.23	119.53	8,485.30	103.89	320.13	600,646.55	2,586,620.76	39° 57' 48.917 N	109° 24' 24.888 W
Last SDI Production MWD Survey									
8,570.00	1.23	119.53	8,540.29	103.31	321.16	600,645.99	2,586,621.80	39° 57' 48.911 N	109° 24' 24.875 W
Projection To TD									

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 1022-11K2 Pad
Well: NBU 1022-11F4S
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-11F4S
TVD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
MD Reference: GL 5115' & RKB 14' @ 5129.00ft (Ensign 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
NBU 1022-11F4S PBHL	0.00	0.00	8,541.00	94.11	324.67	600,636.87	2,586,625.53	39° 57' 48.820 N	109° 24' 24.830 W
- actual wellpath misses target center by 9.87ft at 8570.00ft MD (8540.29 TVD, 103.31 N, 321.16 E)									
- Circle (radius 25.00)									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
148.80	148.80	0.40	0.34	First Weatherford Surface MWD Survey
2,031.80	2,006.37	82.32	281.29	Last Weatherford Surface MWD Survey
2,076.00	2,049.83	84.79	288.96	First SDI Production MWD Survey
8,515.00	8,485.30	103.89	320.13	Last SDI Production MWD Survey
8,570.00	8,540.29	103.31	321.16	Projection To TD

Checked By: _____ Approved By: _____ Date: _____

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO 01197A
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 1022-11F4S
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047502120000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2571 FSL 2215 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESW Section: 11 Township: 10.0S 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: 11/17/2010 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input checked="" type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Wellhead"/>

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

The operator requests approval to conduct wellhead/casing repair operations on the subject well location. This well was completed in the past and has been on production. Please find the attached procedure for the proposed repair work on the subject well location.

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

Date: 11/18/2010
 By: *Derek Duff*

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 11/17/2010

WORKORDER #: 88104325

Name: NBU 1022-11F4S
Location: SE SE NW Sec 11 T10S R22E
Uintah County, UT

11/15/10

ELEVATIONS: 511'5 GL 5128' KB

TOTAL DEPTH: 8570' **PBTD:** 8261'

SURFACE CASING: 8 5/8", 28# IJ-55 LT&C @ 2064', TOC @ surface

PRODUCTION CASING: 4 1/2", 11.6#, I-80 LT&C @ 8562'
Marker Joint 6236-6256'
T.O.C.@ 100'

PERFORATIONS: Mesaverde 6704' - 8158'

	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

GEOLOGICAL TOPS:

- 943' Green River
- 1288' Bird's Nest
- 1776' Mahogany
- 4120' Wasatch
- 6431' Mesaverde
- 8570' Bottom of Mesaverde (TD)

Completion Information:

- 8/31/10 - Perf and frac gross MV interval f/ 6704' - 8158' in 4 stages using 5433 bbls slickwater fluid and 204,171# sand.
- Well IP'd on 9/22/10 -2420 MCFD, 0 BOPD, 240 BWPD, CP 1945#, FTP 1659#, CK 20/64", LP 82#, 24 HRS

NBU 1022-11F4S – WELLHEAD REPLACEMENT PROCEDURE

PREP-WORK PRIOR TO MIRU:

1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
3. Open casing valve and record pressures.
4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.
5. Open the relief valve and blow well down to the atmosphere.
6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

WORKOVER PROCEDURE: Prior to initiating activities, UDOGM will be notified. Specifically, Mr. Dave Hackford (435-722-7589) will be called, and if not available, Dan Jarvis (801-538-5338) and or Dustin Doucet (801-538-5281) will be notified. No work will be accomplished prior to notifying the appropriate UDOGM representative.

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure).
3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. Pooh w/ tubing.
5. Rig up wireline service. RIH and set CBP @ ~6654'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service.
6. Remove BOP and ND WH.
7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

CUT/PATCH PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.

2. Pooh, LD cutters and casing.
3. PU & RIH w/ 4 ½" 10k external casing patch on 4 ½" I-80 or P-110 casing.
4. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 7,000# / 9,000# psi.
5. Install C-22 slips. Land casing w/ 80,000# tension.
6. Cut-off and dress 4 ½" casing stub.
7. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6654'. Clean out to PBSD (8261').
8. POOH, land tbg and pump off POBS.
9. NUWH, RDMO. Turn well over to production ops.

BACK-OFF PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
2. POOH, LD cutters and casing.
3. PU 4 ½" overshot. RIH, latch fish. Pick string weight to neutral.
4. MIRU wireline services. RIH and shoot string shot at casing collar @ 46'.
5. MIRU casing crew.
6. Back-off casing, Pooh.
7. PU new casing joint w/ entry guide and RIH. Tag casing top. Thread into casing and torque up to +/- 6000#.
8. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 7,000# / 9,000# psi.
9. Install C-22 slips. Land casing w/ 80,000# tension.
10. Cut-off and dress 4 ½" casing stub.
11. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug @ ~6654'. Clean out to PBSD (8261').
12. POOH, land tbg and pump off POBS.
13. NUWH, RDMO. Turn well over to production ops.



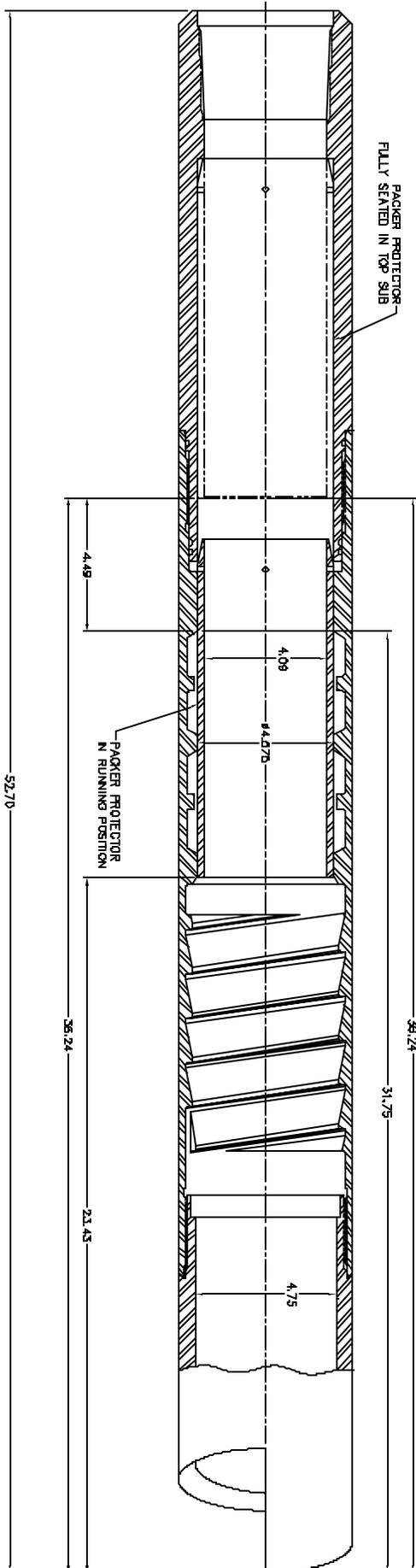
Logan High Pressure Casing Patches Assembly Procedure

All parts should be thoroughly greased before being assembled.

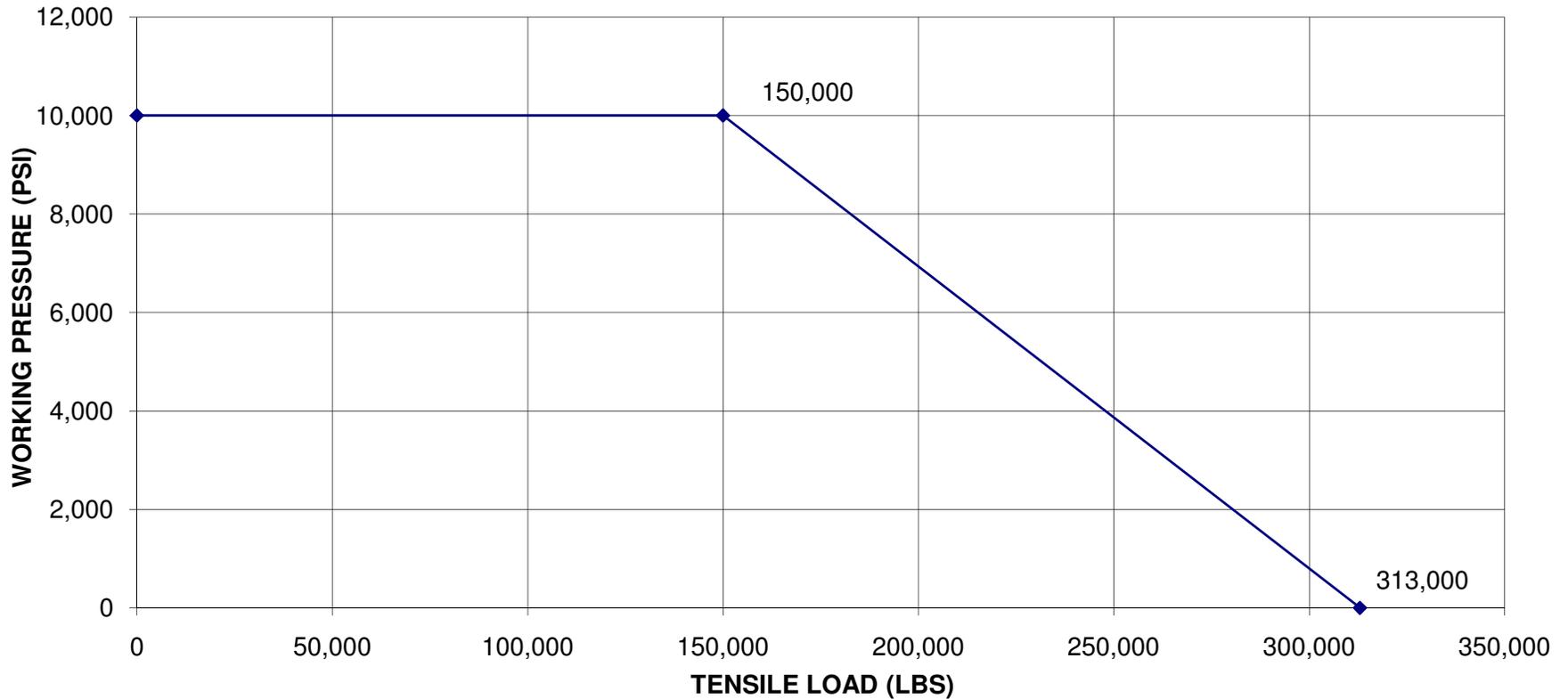
1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type "L" Packers.
3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.
4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.
5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.
6. Install the Cutlipped Guide into the lower end of the Bowl.
7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.
8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.

510L-005-001 4-1/2" LOGAN HP CASING PATCH



**STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH
4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L
LOGAN ASSEMBLY NO. 510L-005 -000**



COLLAPSE PRESSURE:
11,222 PSI @ 0 TENSILE
8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield:
Tensile Strength w/ 0 Int. Press.= 472,791lbs.
Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

RECEIVED November 17, 2010

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: ST UO 01197A
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 1022-11F4S	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047502120000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2571 FSL 2215 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESW Section: 11 Township: 10.0S 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 checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 6/7/2011 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	
	<input checked="" type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Wellhead Repair"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
THE OPERATOR HAS CONCLUDED WELLHEAD/CASING REPAIRS ON THE SUBJECT WELL LOCATION. PLEASE SEE THE ATTACHED CHRONOLOGICAL HISTORY FOR DETAILS OF THE OPERATIONS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 6/7/2011	

US ROCKIES REGION
Operation Summary Report

US ROCKIES REGION								
Operation Summary Report								
Well: NBU 1022-11F4S GREEN			Spud Conductor: 3/31/2010			Spud Date: 4/11/2010		
Project: UTAH-UINTAH			Site: NBU 1022-11K PAD			Rig Name No: MILES-GRAY 1/1, SWABBCO 6/6		
Event: WELL WORK EXPENSE			Start Date: 2/14/2011			End Date: 4/19/2011		
Active Datum: RKB @5,128.00ft (above Mean Sea Leve			UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
2/14/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA-SAFETY MEETING, DRIVE ON SLICK ROADS
	7:15 - 16:00	8.75	WO/REP	30	A	P		ROAD RIG FROM NBU 920 14M4BS TO LOC, SPOT EQUIP AND RIG ON LOC PREPARE TO RIG UP, COULD NOT FIND ONE ANCHORS, SHUT DN TILL AM,
2/15/2011	8:00 - 8:15	0.25	WO/REP	48		P		JSA-SAFETY MEETING, RIG UP TRIP TBG
	8:15 - 10:30	2.25	WO/REP	46		P		WAIT ON ONE ANCHOR
	10:30 - 12:30	2.00	WO/REP	30	A	P		R/U SERVICE UNIT
	12:30 - 13:30	1.00	WO/REP	30	E	P		PUMP 40 BBLS WTR DN TBG, N/D WH, N/U BOPS, TEST BOPS, R/U TBG EQUIPT,
	13:30 - 16:30	3.00	WO/REP	31	I	P		TOOH W/ 2 3/8" TBG, STAND BACK 192 JTS IN DERRICK, LAY DN 49 JTS ON TRAILER, LAST JT AND XN-NIPPLE WAS SCALE UP ON INSIDE, DRAIN UP PUMP AND LINES, SWI, SDFN,
2/16/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA-SAFETY MEETING, WIRELINE
	7:15 - 7:30	0.25	WO/REP	30		P		ZERO PRESS # ON WELL, BLOW DN TO TK, PUMP 50 BBLS WTR DN CSG,
	7:30 - 9:45	2.25	WO/REP	34	I	P		R/U CUTTER WIRELINE, RIH W/ GAUGE RING TO @ 6700', RIH W/ BAKER 10K CBP, SET CBP @ 6654', RIH DUMP BAIL 4 SACKS CEMENT ON TOP OF CBP,
	9:45 - 11:30	1.75	WO/REP	31	I	P		P/U XN-NIPPLE / NOTCH END, TIH W/ 2 3/8" TBG 194 JTS TO @ 6120', PUMP DN CSG W/ GETTING RETURN ON SURFACE CSG, P/O LAY DN 4 JTS, LAND TBG W 190 JTS @ 6000',
	11:30 - 12:15	0.75	WO/REP	30		P		N/D BOPS AND TBG EQUIPT, N/U WELL HEAD, HOOK UP MONITORING GAUGE TO CSG AND SURFACE CSG TO MONITOR PRESSURE,
4/15/2011	12:15 - 13:00	0.75	WO/REP	30	C	P		R/D SERVICE UNIT
	7:00 - 7:15	0.25	WO/REP	48		P		JSA= ROADING EQUIP
	7:15 - 15:00	7.75	WO/REP	30		P		RIG DOWN ON 10B PAD MOVE RIG & EQUIP TO 11K PAD SPOT IN RIG & EQUIP RIG UP RIG ND WELLHEAD NU BOPS RU FLOOR & TUBING EQUIP UNLAND WELL LD HANGER POOH W/ 190 JNTS RD FLOOR SPOT IN EQUIP F/ WELLHEAD REPAIR SIW SDFW
4/18/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= PU FISHING TOOLS SAFELY
	7:15 - 17:30	10.25	WO/REP	30		P		0 PSI ON WELL ND BOPS ND WELLHEAD PU PWR SWVL PU INTERNAL CUTTER RIH CUT CSG @ 8' LD HNGR & PUP PU OVERSHOT RIH CATCH FISH APPLY LH TORQUE RIH W/ STRING SHOT SHOT SHOT IN COLLAR BACK OFF 20' JNT RD W/L POOH W/ 20' JNT, PU SKIRTED JNT RIH THREAD ON TO CSG STRING APPLY 15 RND @ 7000FT/# TORQUE WORK CSG & TORQUE NU TESTERS TEST CSG TO 1000# GOOD TEST 3500# GOOD TEST PULL 90000# SET SLIPS CUT JNT NU WELLHEAD NU BOPS RU FLOOR & TUBING EQUIP PU 3-7/8" BIT & BIT SUB RIH W/ 190 JNTS PU 20 JNTS TAG TOC @ 6624' SIW SDFN
4/19/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= FOAMING

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-11F4S GREEN	Spud Conductor: 3/31/2010	Spud Date: 4/11/2010
Project: UTAH-UINTAH	Site: NBU 1022-11K PAD	Rig Name No: MILES-GRAY 1/1, SWABBCO 6/6
Event: WELL WORK EXPENSE	Start Date: 2/14/2011	End Date: 4/19/2011
Active Datum: RKB @5,128.00ft (above Mean Sea Leve		
UWI: NE/SW/0/10/S/22/E/11/0/0/6/PM/S/2,571.00/W/0/2,215.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 17:00	9.75	WO/REP	30		P		0# PSI ON WELL PU PWR SWVL EST CIRC W/ FOAMER EOT @ 6630 C/O & DRILL THRU 35' CEM & CBP 800# INCREASE ON WELL CIRC CLEAN CONTINUE TO RIH PLUG HUNG UP @ 7172' RU PWR SWVL DRILL 2 MIN PLUG FELL FREE RD PWR SWVL CONTINUE TO RIH TAG @ 8258' POOH LD 19 JNTS CONTINUE TO POOH LD BHA PU NOTCHED 1.87XN NPL RIH W/ 243 JNTS LAND TUBING ON HNGR EOT @ 7690.48' RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD PREP TO RD MOVE IN AM SWI SDFN K.B.= 13.00 HNGR= 1.00 243 JNTS 2-3/8" L-80= 7675.43 NOTCHED 1.87XN= 1.05 EOT= 7690.48

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: KERR-McGEE OIL & GAS ONSHORE, L.P.

Well Name: NBU 1022-11F4S

Api No: 43-047-50212 Lease Type: STATE

Section 11 Township 10S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

SPUDDED:

Date 03/31/2010

Time 11:00 AM

How DRY

Drilling will Commence: _____

Reported by ARDEN SULLIVAN

Telephone # (435) 823-3629

Date 03/31/2010 Signed CHD

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
Address: P.O. Box 173779
city DENVER
state CO zip 80217

Operator Account Number: N 2995

Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750215	NBU 1022-11K1T		NESW	11	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<i>B</i>	99999	<i>2900</i>	3/30/2010			<i>4/1/10</i>	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 3/30/2010 AT 16:00 HRS.							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750213	NBU 1022-11J3S		NESW	11	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<i>B</i>	99999	<i>2900</i>	3/31/2010			<i>4/1/10</i>	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 3/31/2010 AT 9:00 HRS. <i>BAL = NWSE</i>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
<i>4304750212</i> 4304750244	NBU 1022-11F4S		NESW	11	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<i>B</i>	99999	<i>2900</i>	3/31/2010			<i>4/1/10</i>	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 3/31/2010 AT 11:00 HRS. <i>BAL = SENW</i>							

ACTION CODES:

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

ANDY LYTLE

Name (Please Print)

Signature

REGULATORY ANALYST

Title

4/1/2010

Date

RECEIVED

APR 01 2010

DIV. OF OIL, GAS & MINING