

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 1022-12L4CS
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		3. FIELD OR WILDCAT NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. OPERATOR PHONE 720 929-6515
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217		9. OPERATOR E-MAIL julie.jacobson@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UO1197A-ST	11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
13. NAME OF SURFACE OWNER (if box 12 = 'fee')		14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>	19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1469 FSL 996 FEL	NESE	11	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	1408 FSL 824 FWL	NWSW	12	10.0 S	22.0 E	S
At Total Depth	1408 FSL 824 FWL	NWSW	12	10.0 S	22.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 1408	23. NUMBER OF ACRES IN DRILLING UNIT 1674
25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 1789	26. PROPOSED DEPTH MD: 8718 TVD: 8414	
27. ELEVATION - GROUND LEVEL 5174	28. BOND NUMBER 22013542	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 2120	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 8718	11.6	I-80 LT&C	12.5	Premium Lite High Strength	270	3.38	11.0
							50/50 Poz	1220	1.31	14.3

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP

NAME Andy Lytle	TITLE Regulatory Analyst	PHONE 720 929-6100
SIGNATURE	DATE 08/11/2011	EMAIL andrew.lytle@anadarko.com
API NUMBER ASSIGNED 43047518730000	APPROVAL  Permit Manager	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-12L4CS**

Surface: 1469 FSL / 996 FEL NESE
 BHL: 1408 FSL / 824 FWL NWSW

Section 11 T10S R22E

Uintah County, Utah
 Mineral Lease: UO1197A-ST

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	990	
Birds Nest	1298	Water
Mahogany	1669	Water
Wasatch	4054	Gas
Mesaverde	6259	Gas
MVU2	7189	Gas
MVL1	7728	Gas
TVD	8414	Gas
TD	8718	Gas

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

Please refer to the attached Drilling Program

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

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8414' TVD, approximately equals
5,385 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,522 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. Anticipated Starting Dates:

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

9. Variances:

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

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

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

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

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

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

Background

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

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

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

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

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

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

Conclusion

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

10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,120	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						2.55	1.89	6.69	N/A
PRODUCTION	4-1/2"	0 to 8,718	11.60	I-80	LTC/BTC	7,780	6,350	279,000	367,000
						1.11	1.16	3.41	4.49

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe
Fracture at surface shoe with 0.1 psi/ft gas gradient above

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

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

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

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD 500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	TOP OUT CMT (6 jobs) 1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized						
SURFACE Option 2	LEAD 1,620'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	150	35%	11.00	3.82
	TAIL 500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD 3,548'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	270	20%	11.00	3.38
	TAIL 5,170'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,220	35%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Danny Showers

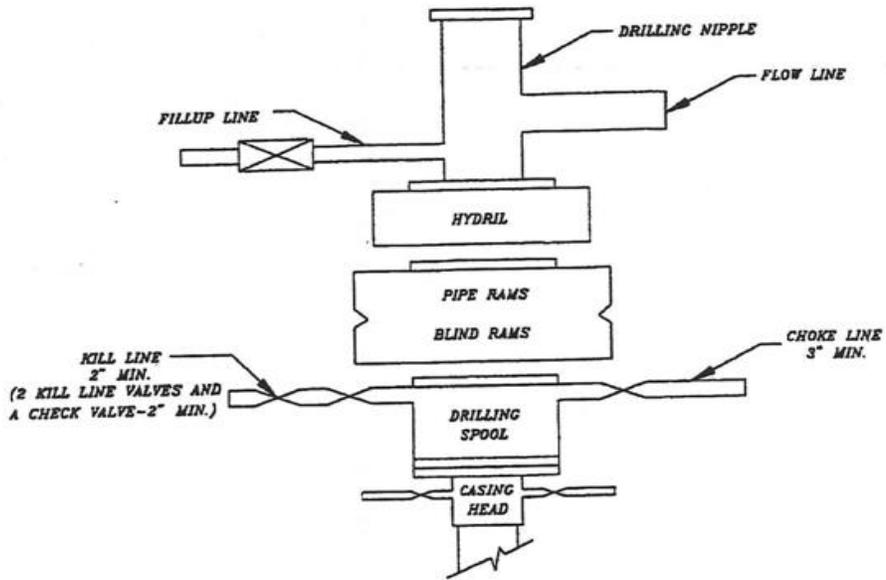
DATE: _____

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

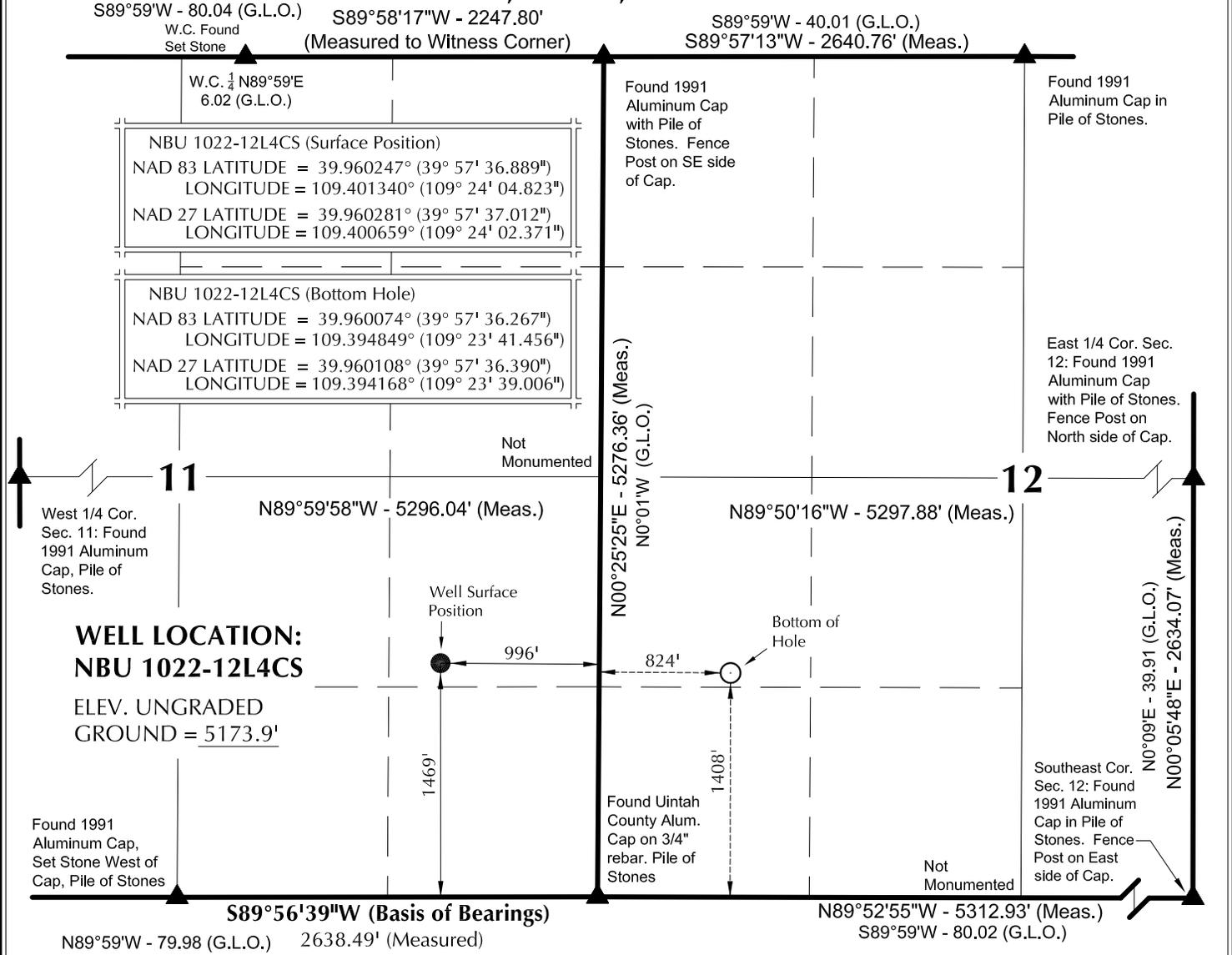
DATE: _____

EXHIBIT A
NBU 1022-12L4CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

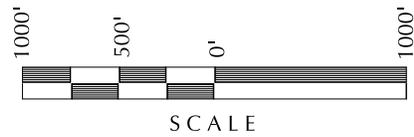
T10S, R22E, S.L.B.&M.



WELL LOCATION:
NBU 1022-12L4CS
 ELEV. UNGRADED
 GROUND = 5173.9'

NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- 3. The Bottom of hole bears S88°03'41"E 1821.06' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

John R. Slough
 No. 6028691
 JOHN R. SLOUGH
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH
 1-17-11

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

WELL PAD: NBU 1022-1113

NBU 1022-12L4CS
WELL PLAT
1408' FSL, 824' FWL (Bottom Hole)
NW ¼ SW ¼ OF SECTION 12, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH.

609

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

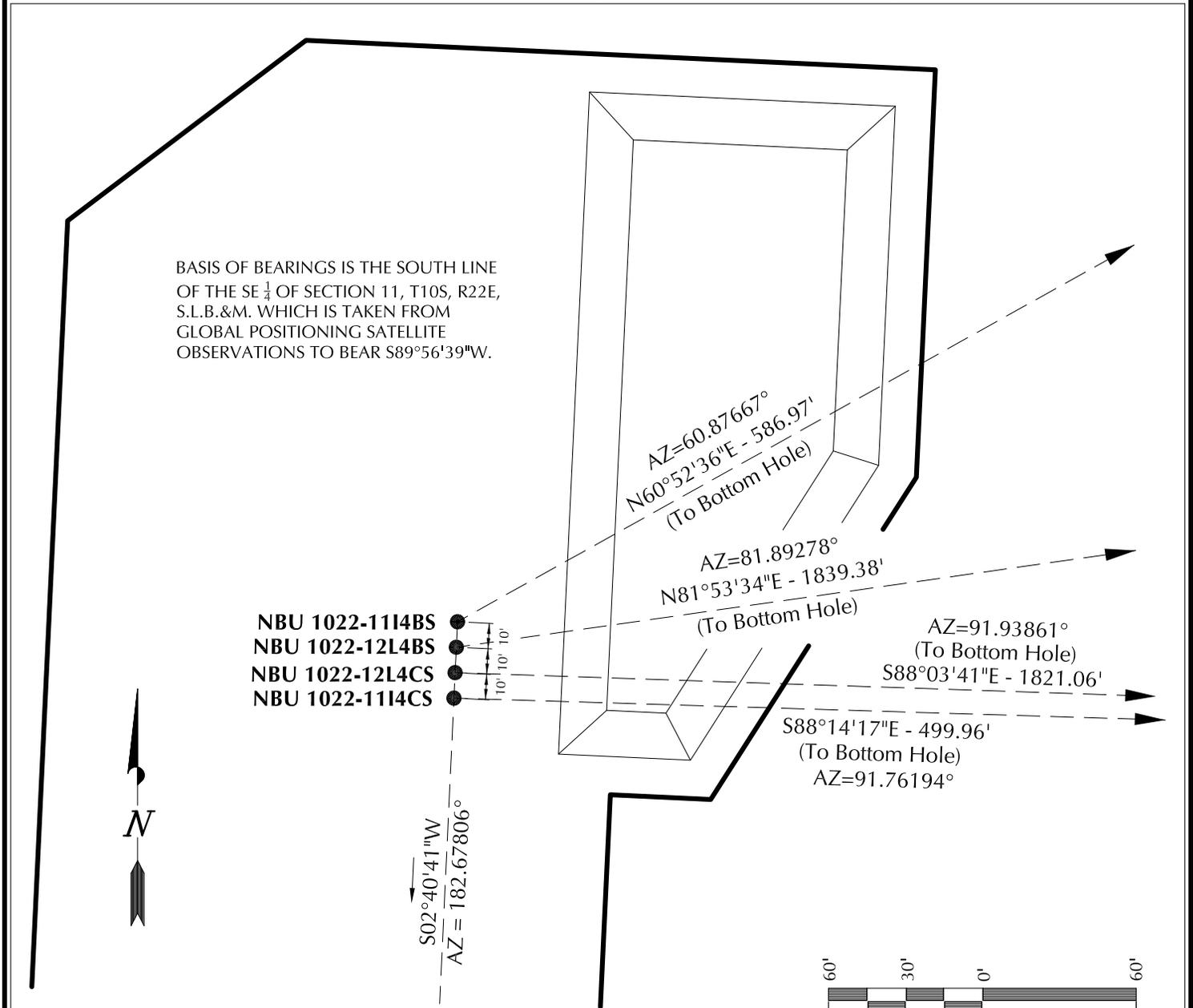
TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 12-07-10	SURVEYED BY: R.Y.	SHEET NO: 3
DATE DRAWN: 01-10-11	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'		3 OF 16

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 1022-1114BS	39°57'37.087"	109°24'04.810"	39°57'37.210"	109°24'02.359"	1489' FSL 996' FEL	39°57'39.905"	109°23'58.224"	39°57'40.029"	109°23'55.773"	1774' FSL 485' FEL
NBU 1022-12L4BS	39°57'36.988"	109°24'04.817"	39°57'37.111"	109°24'02.365"	1479' FSL 996' FEL	39°57'39.538"	109°23'41.434"	39°57'39.661"	109°23'38.984"	1739' FSL 823' FWL
NBU 1022-12L4CS	39°57'36.889"	109°24'04.823"	39°57'37.012"	109°24'02.371"	1469' FSL 996' FEL	39°57'36.267"	109°23'41.456"	39°57'36.390"	109°23'39.006"	1408' FSL 824' FWL
NBU 1022-1114CS	39°57'36.790"	109°24'04.829"	39°57'36.914"	109°24'02.377"	1459' FSL 997' FEL	39°57'36.635"	109°23'58.413"	39°57'36.758"	109°23'55.962"	1443' FSL 497' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-1114BS	285.7'	512.8'	NBU 1022-12L4BS	259.4'	1,821.0'	NBU 1022-12L4CS	-61.6'	1,820.0'	NBU 1022-1114CS	-15.4'	499.7'



BASIS OF BEARINGS IS THE SOUTH LINE OF THE SE 1/4 OF SECTION 11, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR S89°56'39\"/>

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

WELL PAD - NBU 1022-1113

WELL PAD INTERFERENCE PLAT
WELLS - NBU 1022-1114BS, NBU 1022-12L4BS,
NBU 1022-12L4CS & NBU 1022-1114CS
LOCATED IN SECTION 11, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



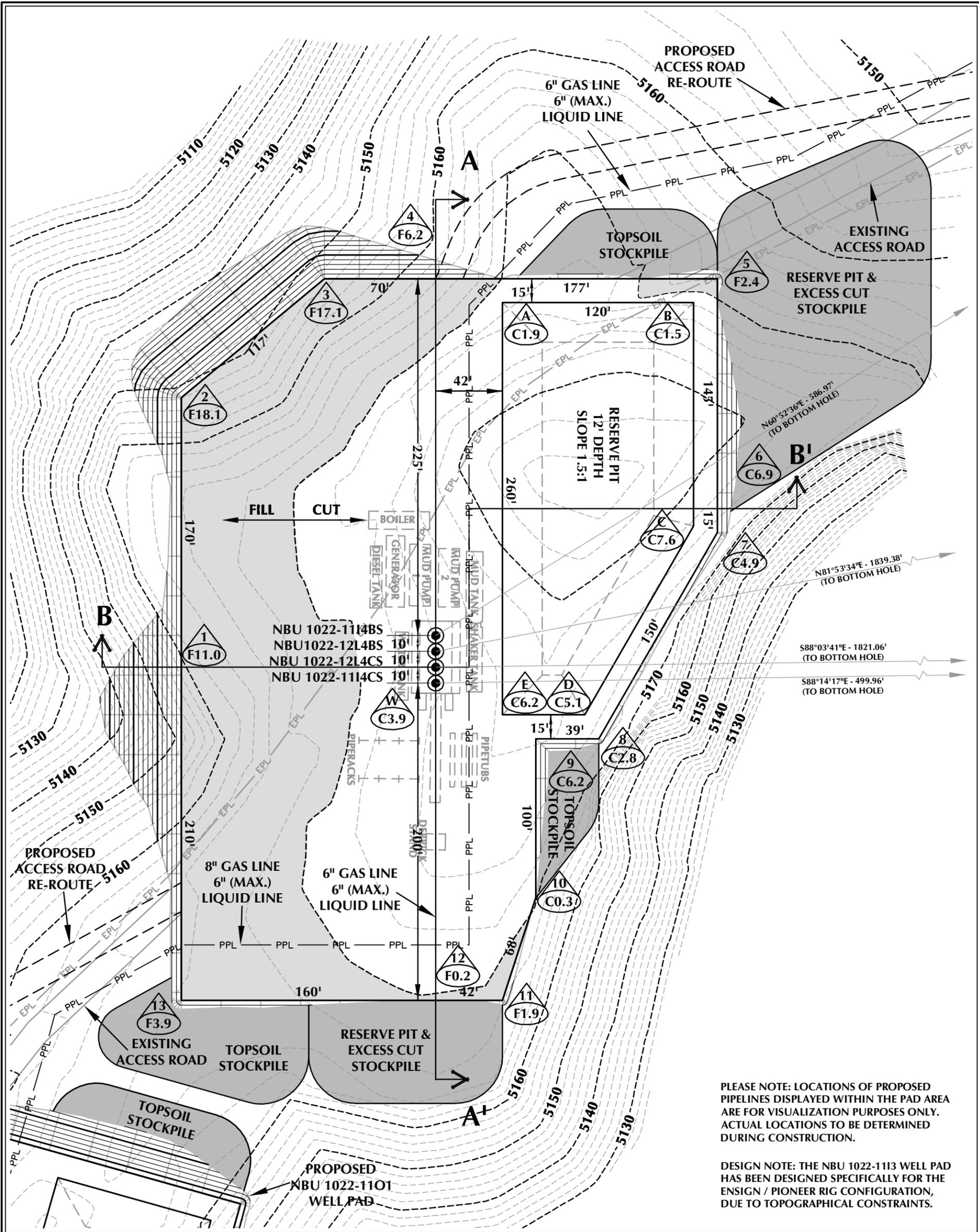
CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE

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

(435) 789-1365

DATE SURVEYED: 12-07-10	SURVEYED BY: R.Y.	SHEET NO: 5
DATE DRAWN: 01-10-11	DRAWN BY: E.M.S.	
SCALE: 1" = 60'		5 OF 16



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

DESIGN NOTE: THE NBU 1022-1113 WELL PAD HAS BEEN DESIGNED SPECIFICALLY FOR THE ENSIGN / PIONEER RIG CONFIGURATION, DUE TO TOPOGRAPHICAL CONSTRAINTS.

WELL PAD - NBU 1022-1113 DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5173.9'
 FINISHED GRADE ELEVATION = 5170.0'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.31 ACRES
 TOTAL DAMAGE AREA = 6.07 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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

WELL PAD - NBU 1022-1113

WELL PAD - LOCATION LAYOUT
 NBU 1022-1114BS, NBU 1022-1214BS,
 NBU 1022-1214CS & NBU 1022-1114CS
 LOCATED IN SECTION 11, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

WELL PAD QUANTITIES
 TOTAL CUT FOR WELL PAD = 15,714 C.Y.
 TOTAL FILL FOR WELL PAD = 14,364 C.Y.
 TOPSOIL @ 6" DEPTH = 2,673 C.Y.
 EXCESS MATERIAL = 1,350 C.Y.

RESERVE PIT QUANTITIES
 TOTAL CUT FOR RESERVE PIT
 +/- 9,410 C.Y.
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 35,950 BARRELS



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

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

WELL PAD LEGEND

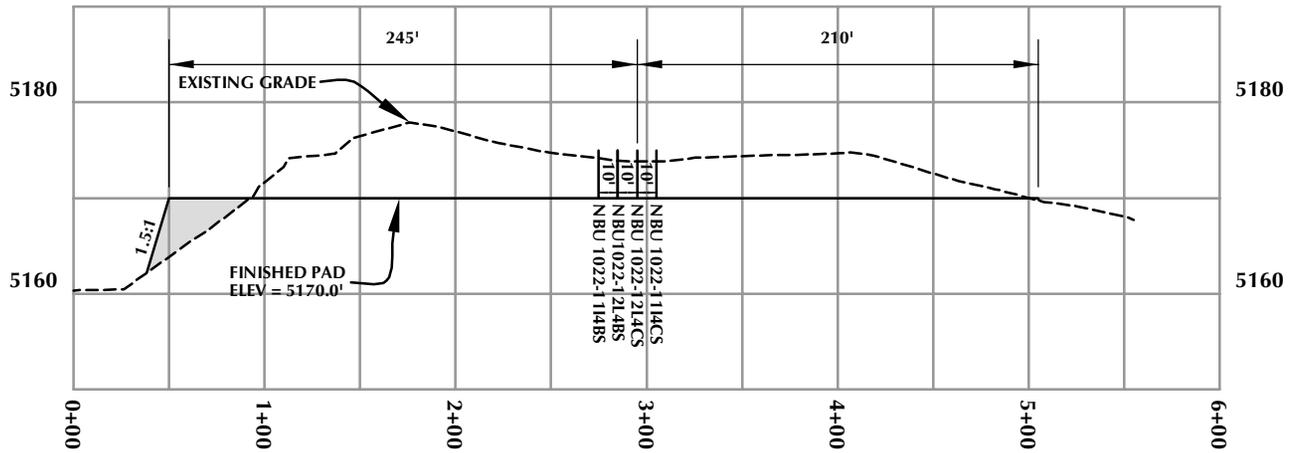
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE



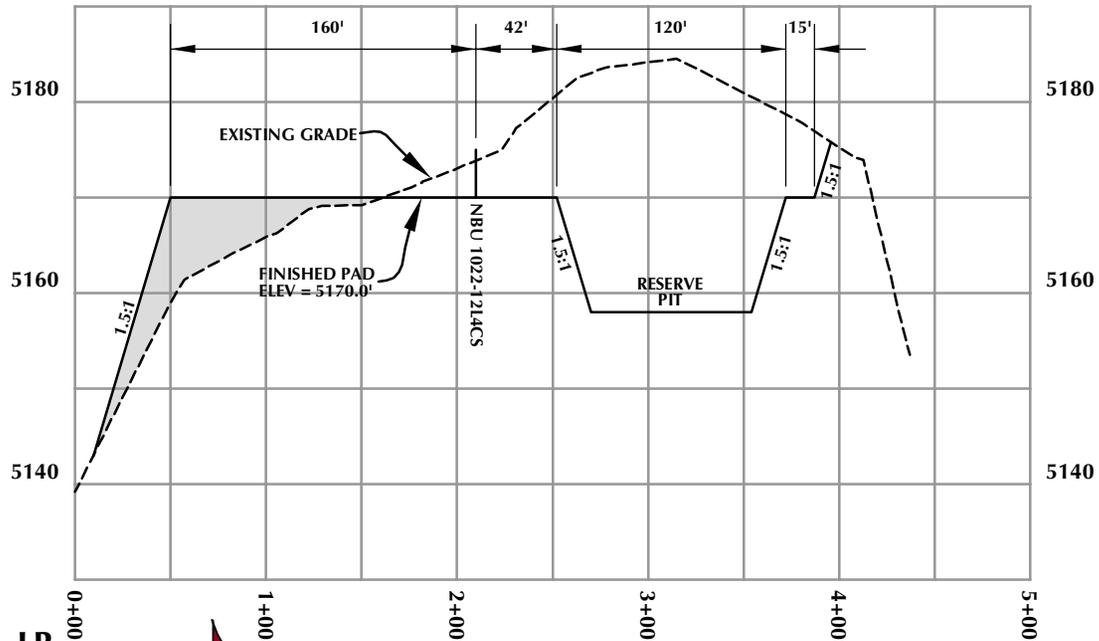
HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

SCALE: 1"=60' DATE: 2/8/11 SHEET NO:
 REVISID: **6** 6 OF 16

C:\ANADARKO\2010_62_NBU_FOCUS_1022-11_14\DWG\NBU_1022-1113_PAD_20110106.dwg, 3/3/2011 5:56:49 PM



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 1022-1113

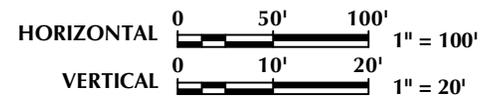
WELL PAD - CROSS SECTIONS
NBU 1022-1114BS, NBU 1022-12L4BS,
NBU 1022-12L4CS & NBU 1022-1114CS
LOCATED IN SECTION 11, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



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

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

(435) 789-1365



Scale: 1"=100'

Date: 2/8/11

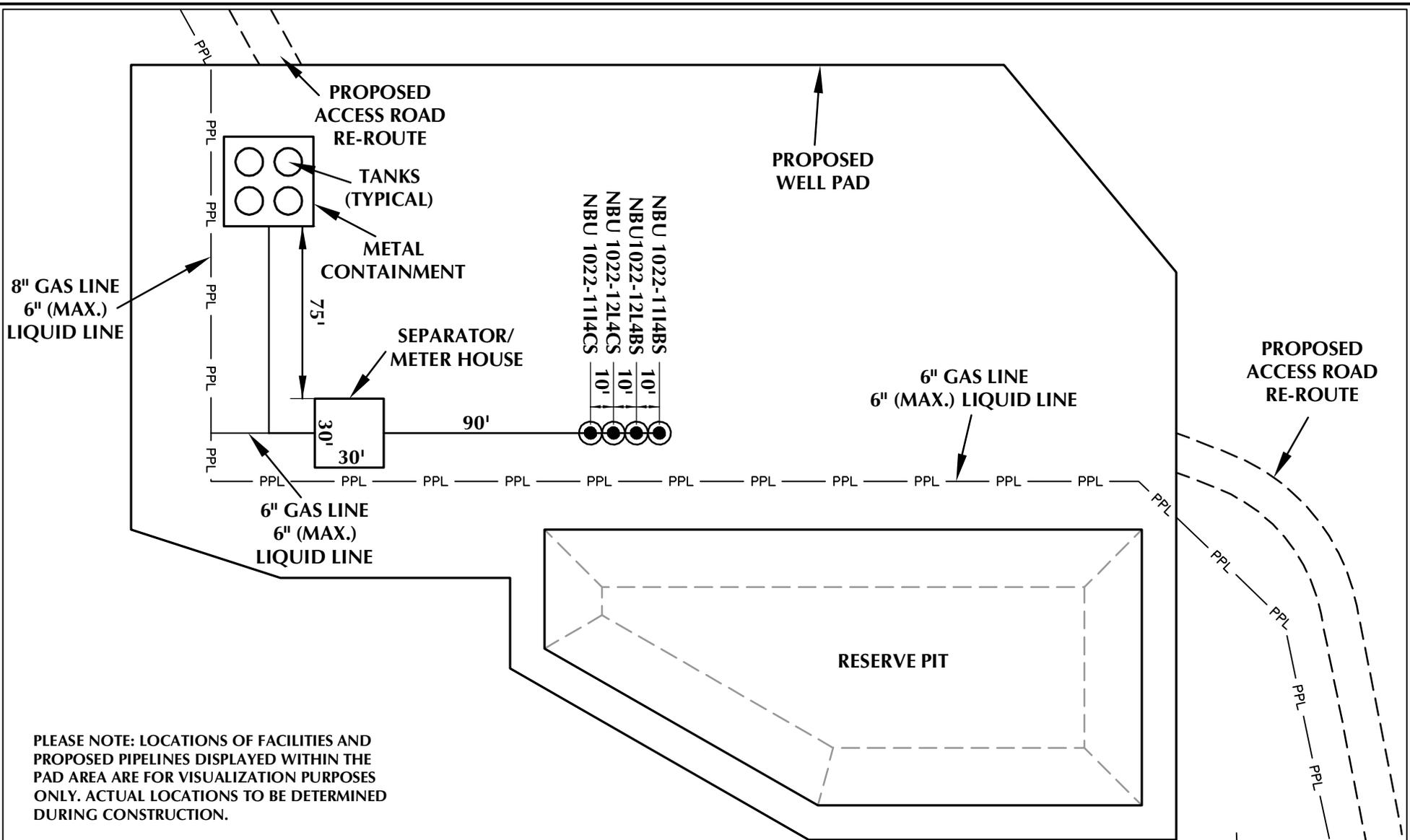
SHEET NO:

REVISED:

7

7 OF 16

RECEIVED: August 11, 2011



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

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

WELL PAD - NBU 1022-1113

WELL PAD - FACILITIES DIAGRAM
NBU 1022-1114BS, NBU 1022-12L4BS,
NBU 1022-12L4CS & NBU 1022-1114CS
LOCATED IN SECTION 11, T10S, R22E,
S.L.B.&M., Uintah County, Utah



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

WELL PAD LEGEND

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



HORIZONTAL 0 30' 60' 1" = 60'

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

Scale: 1"=60'

Date: 2/8/11

SHEET NO:

REVISED:

8

8 OF 16

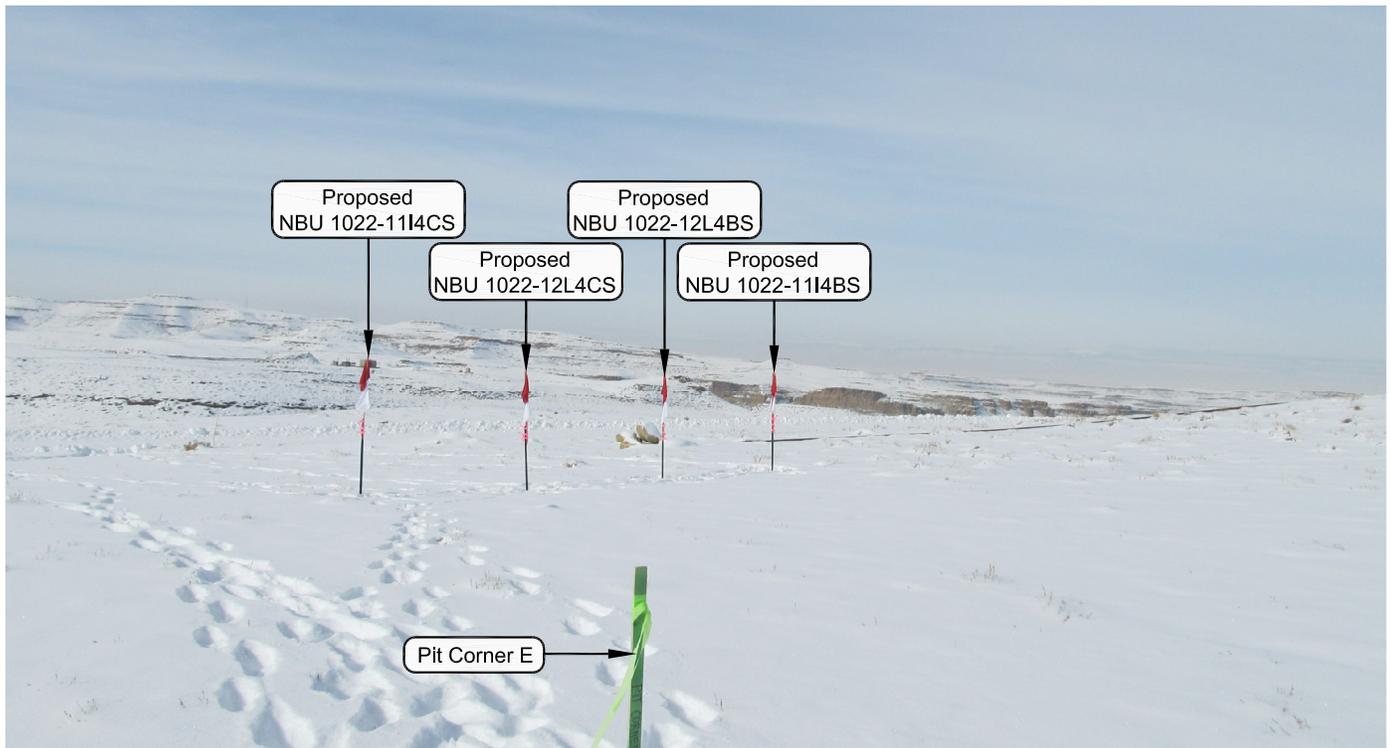


PHOTO VIEW: FROM PIT CORNER E TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHEASTERLY

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

WELL PAD - NBU 1022-1113

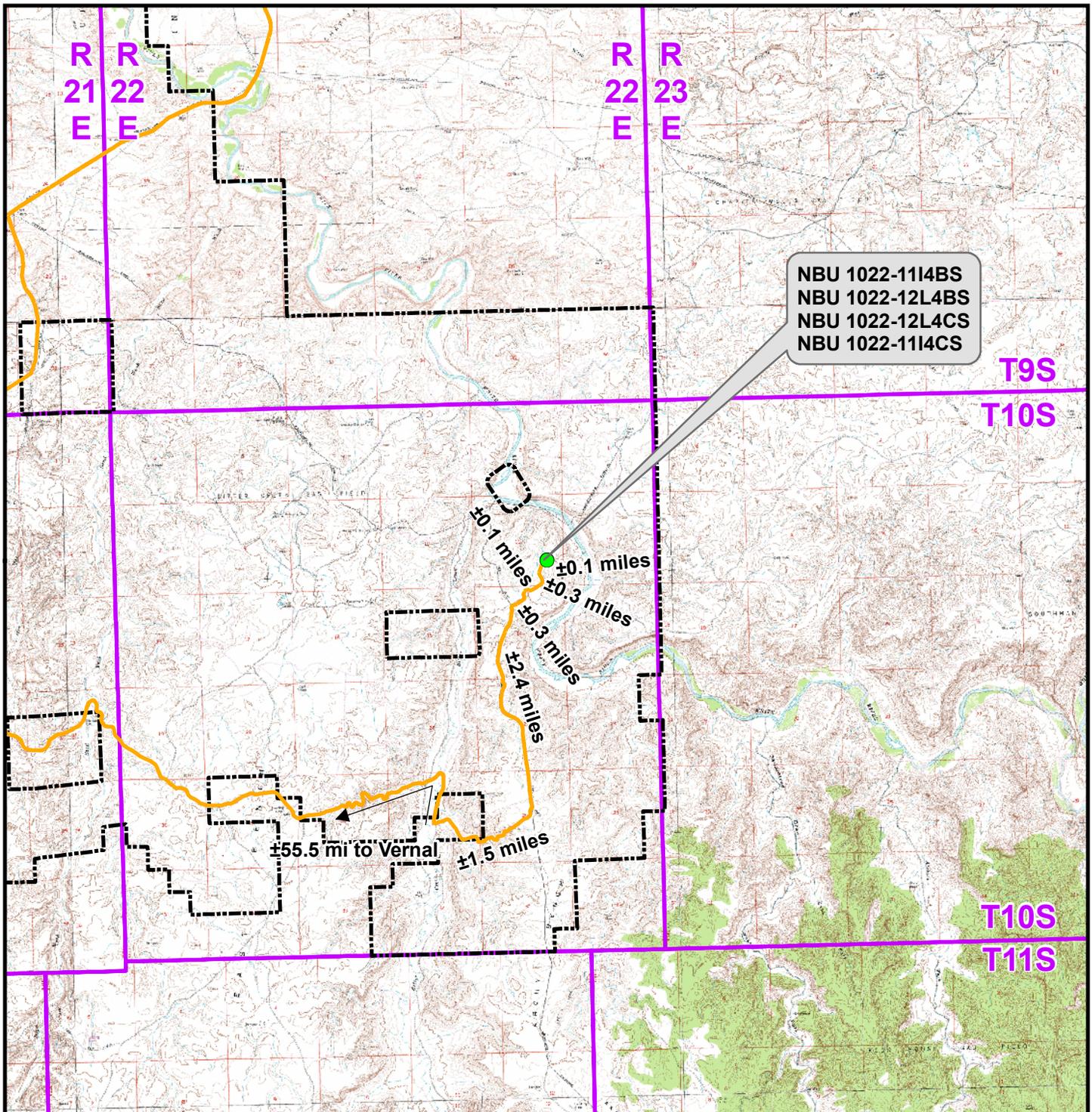
LOCATION PHOTOS
 NBU 1022-1114BS, NBU 1022-12L4BS,
 NBU 1022-12L4CS & NBU 1022-1114CS
 LOCATED IN SECTION 11, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH.



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

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

DATE PHOTOS TAKEN: 01-12-11	PHOTOS TAKEN BY: M.S.B.	SHEET NO: 9 9 OF 16
DATE DRAWN: 01-13-11	DRAWN BY: E.M.S.	
Date Last Revised:		



Legend

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

Distance From Well Pad - NBU 1022-11I3 To Unit Boundary: ±4,036ft

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

WELL PAD - NBU 1022-11I3

TOPO A

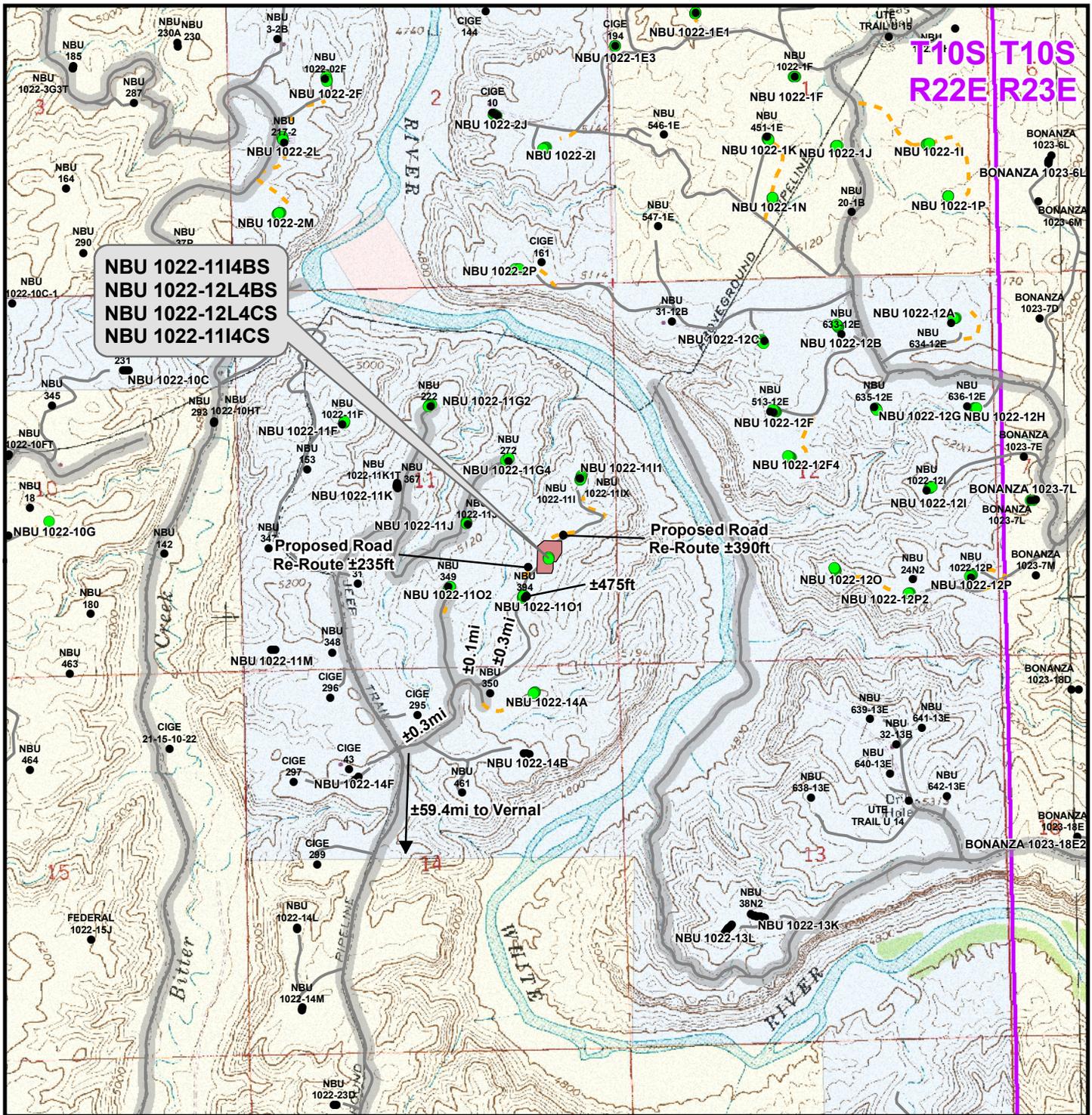
**NBU 1022-11I4BS, NBU 1022-12L4BS,
 NBU 1022-12L4CS & NBU 1022-11I4CS
 LOCATED IN SECTION 11, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH**



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



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: KGS	Date: 8 Feb 2011	10
Revised:	Date:	



Legend

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

Total Proposed Road Re-Route Length: ±625ft

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

WELL PAD - NBU 1022-1113

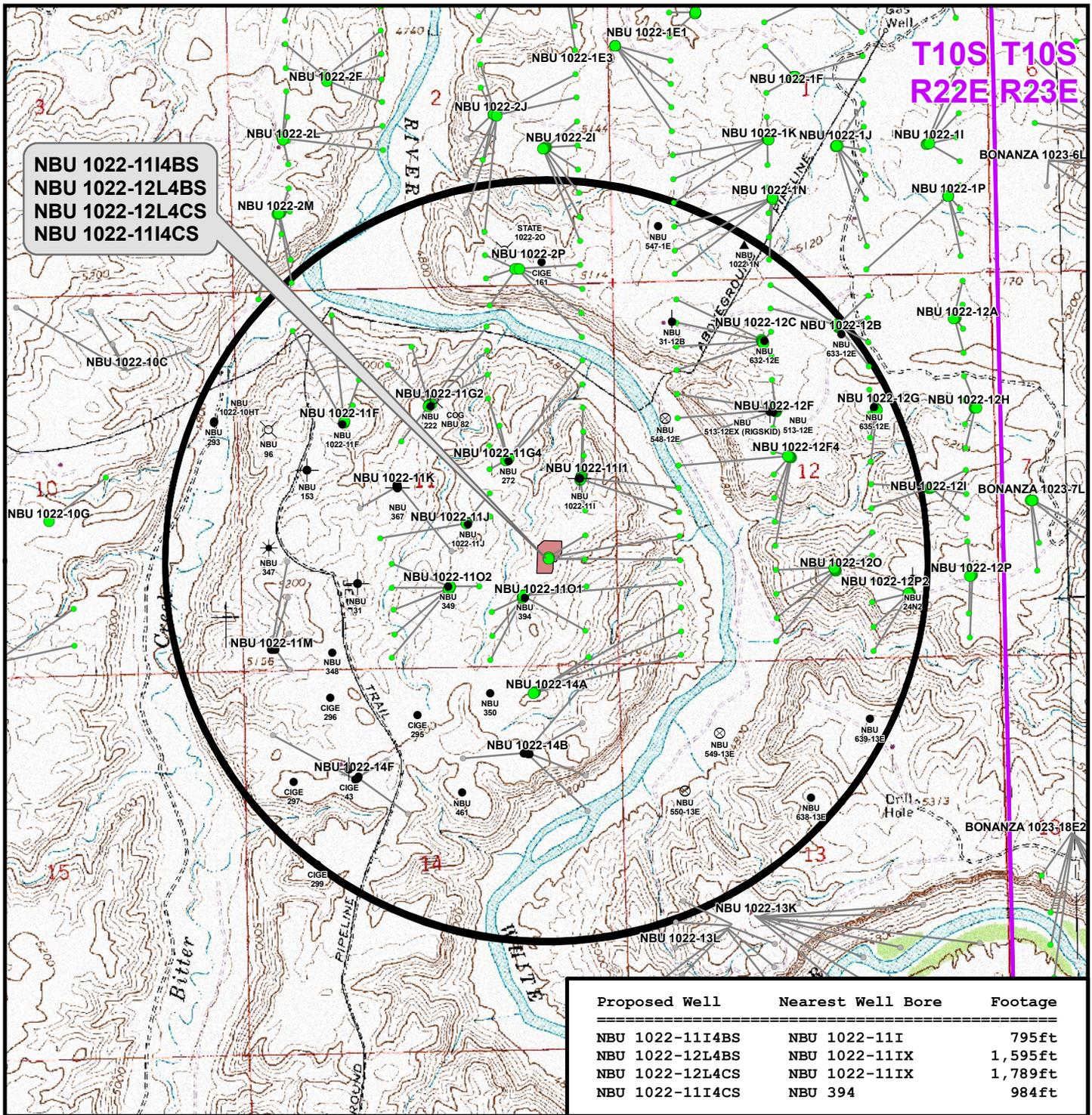
TOPO B
NBU 1022-1114BS, NBU 1022-12L4BS,
NBU 1022-12L4CS & NBU 1022-1114CS
LOCATED IN SECTION 11, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH

609

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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:	11
Drawn: KGS	Date: 8 Feb 2011	11 of 16	
Revised:	Date:		



T10S T10S
R22E R23E

NBU 1022-11I4BS
NBU 1022-12L4BS
NBU 1022-12L4CS
NBU 1022-11I4CS

Proposed Well	Nearest Well Bore	Footage
NBU 1022-11I4BS	NBU 1022-11I	795ft
NBU 1022-12L4BS	NBU 1022-11IX	1,595ft
NBU 1022-12L4CS	NBU 1022-11IX	1,789ft
NBU 1022-11I4CS	NBU 394	984ft

Legend
 Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

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

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

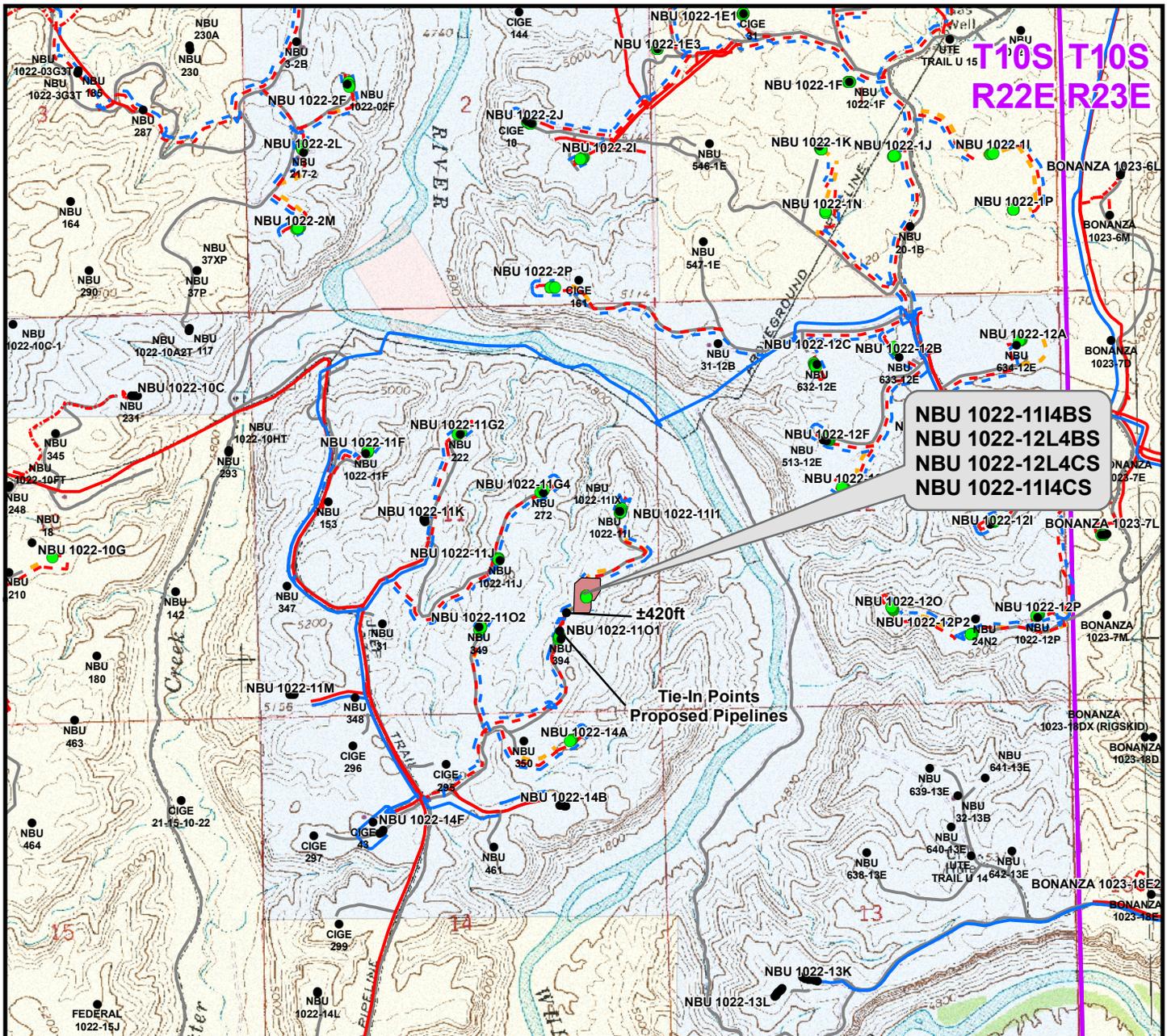
WELL PAD - NBU 1022-11I3

TOPO C
 NBU 1022-11I4BS, NBU 1022-12L4BS,
 NBU 1022-12L4CS & NBU 1022-11I4CS
 LOCATED IN SECTION 11, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: KGS	Date: 8 Feb 2011	12 12 of 16
Revised:	Date:	



**NBU 1022-114BS
NBU 1022-12L4BS
NBU 1022-12L4CS
NBU 1022-114CS**

Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Proposed 6" (Max.) (Meter House to 11I1 Intersection)	±60ft	Proposed 6" (Meter House to 11I1 Intersection)	±60ft
Proposed 6" (Max.) (11I1 Intersection to 11O1 Intersection)	±420ft	Proposed 8" (11I1 Intersection to 11O1 Intersection)	±420ft
TOTAL PROPOSED LIQUID PIPELINE =	±480ft	TOTAL PROPOSED GAS PIPELINE =	±480ft

Legend

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

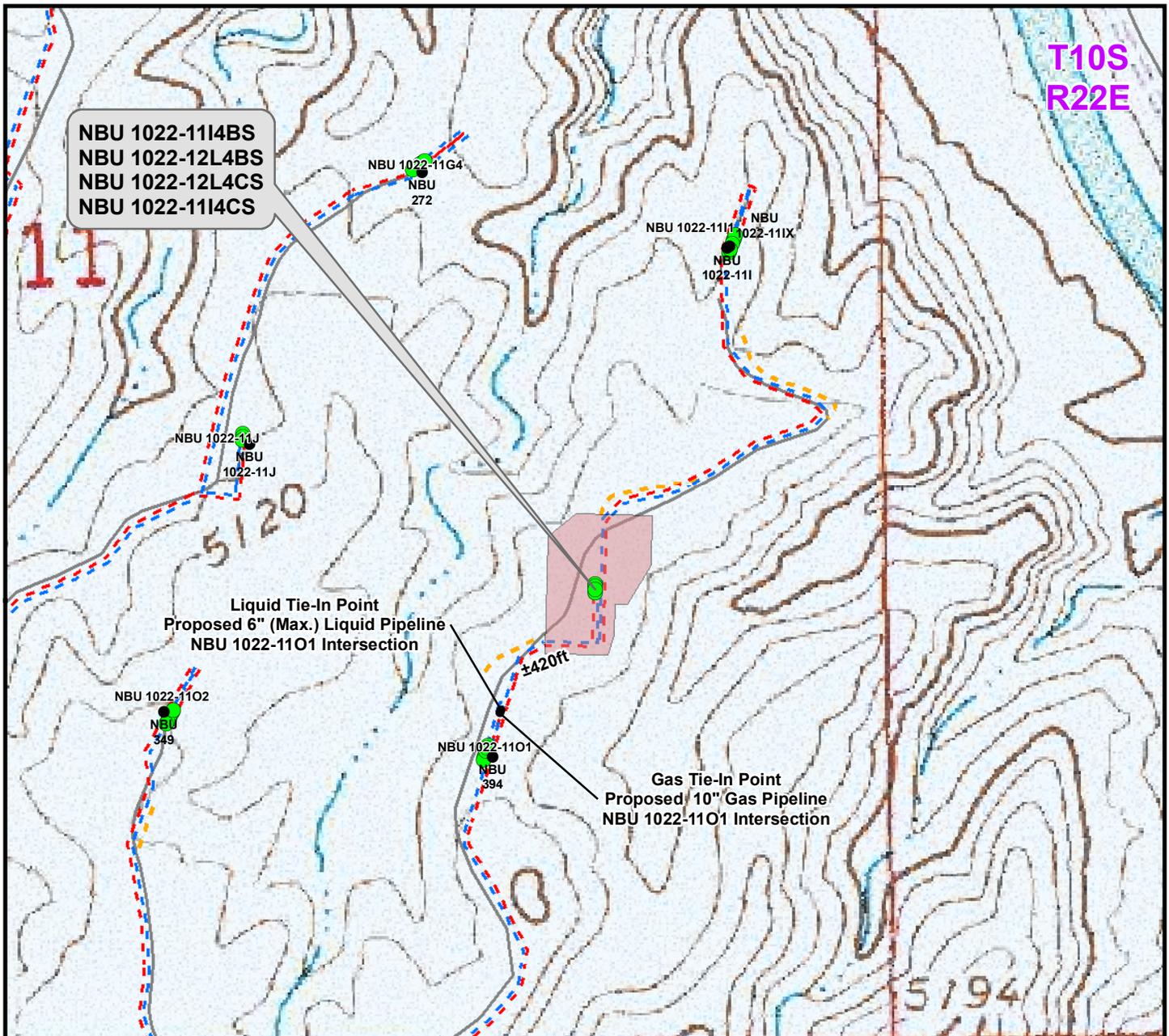
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-1113

TOPO D
NBU 1022-1114BS, NBU 1022-12L4BS,
NBU 1022-12L4CS & NBU 1022-1114CS
LOCATED IN SECTION 11, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH

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

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: JFE	Date: 8 Feb 2011	13 13 of 16
Revised:	Date:	



T10S
R22E

NBU 1022-1114BS
NBU 1022-12L4BS
NBU 1022-12L4CS
NBU 1022-1114CS

Liquid Tie-In Point
Proposed 6" (Max.) Liquid Pipeline
NBU 1022-1101 Intersection

Gas Tie-In Point
Proposed 10" Gas Pipeline
NBU 1022-1101 Intersection

Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Proposed 6" (Max.) (Meter House to 1111 Intersection)	±60ft	Proposed 6" (Meter House to 1111 Intersection)	±60ft
Proposed 6" (Max.) (1111 Intersection to 1101 Intersection)	±420ft	Proposed 8" (1111 Intersection to 1101 Intersection)	±420ft
TOTAL PROPOSED LIQUID PIPELINE =	±480ft	TOTAL PROPOSED GAS PIPELINE =	±480ft

Legend

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

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

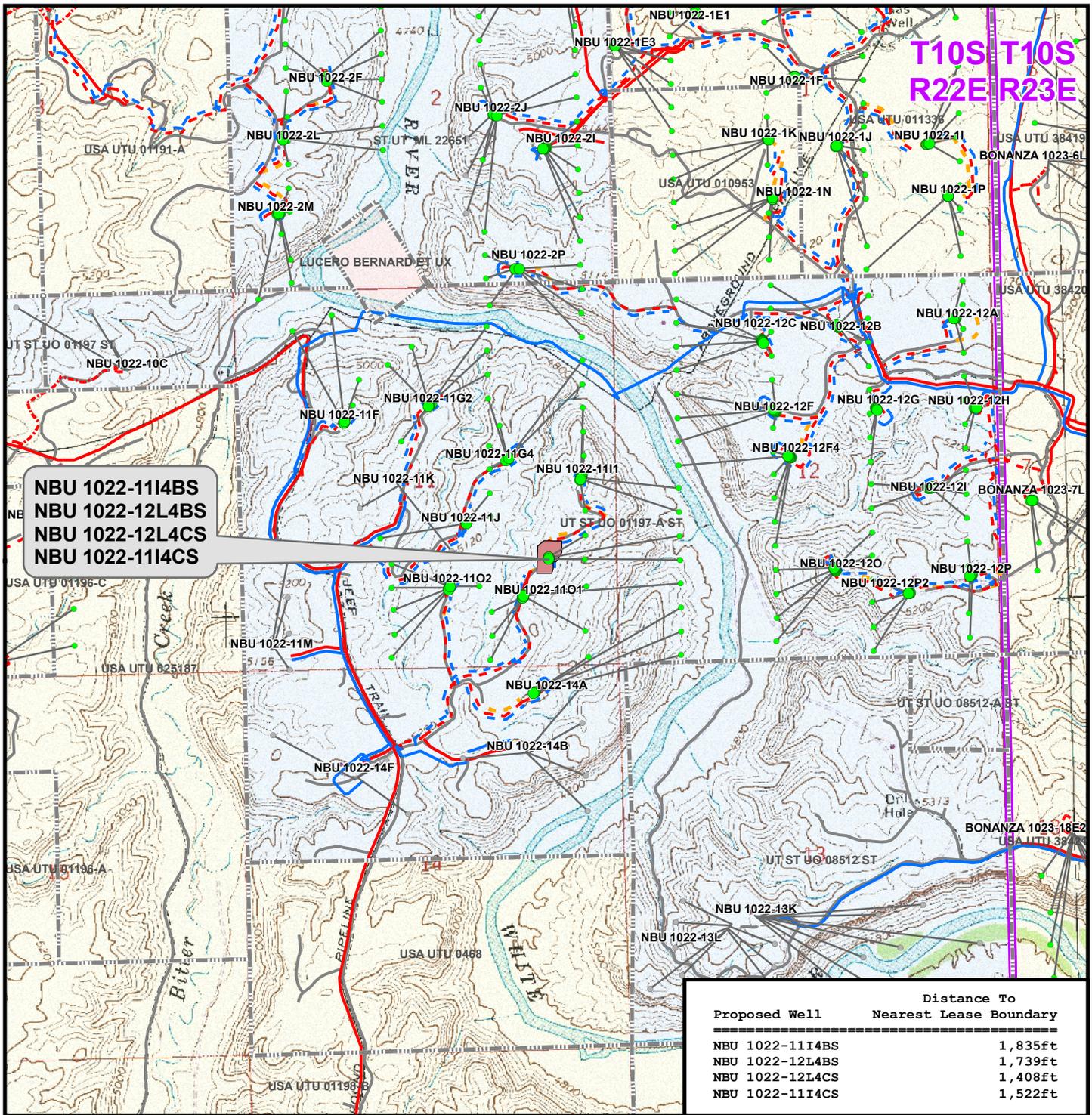
WELL PAD - NBU 1022-1113

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-1114BS, NBU 1022-12L4BS,
NBU 1022-12L4CS & NBU 1022-1114CS
LOCATED IN SECTION 11, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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



Scale: 1" = 500ft	NAD83 USP Central	Sheet No:
Drawn: JFE	Date: 8 Feb 2011	14 14 of 16
Revised:	Date:	



**NBU 1022-114BS
NBU 1022-12L4BS
NBU 1022-12L4CS
NBU 1022-114CS**

Proposed Well	Distance To Nearest Lease Boundary
NBU 1022-114BS	1,835ft
NBU 1022-12L4BS	1,739ft
NBU 1022-12L4CS	1,408ft
NBU 1022-114CS	1,522ft

Legend

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

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

WELL PAD - NBU 1022-1113

TOPO E
NBU 1022-1114BS, NBU 1022-12L4BS,
NBU 1022-12L4CS & NBU 1022-1114CS
LOCATED IN SECTION 11, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH

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

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 15
Drawn: KGS	Date: 8 Feb 2011	15 15 of 16
Revised:	Date:	

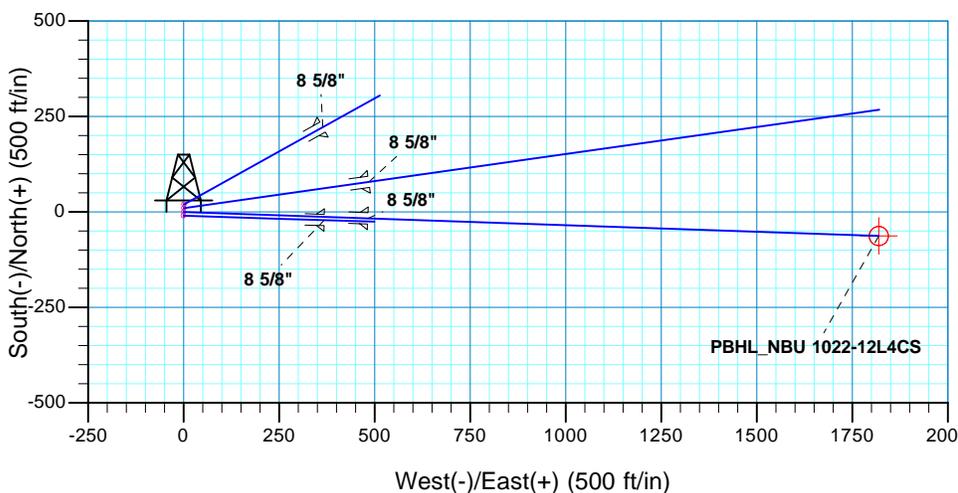
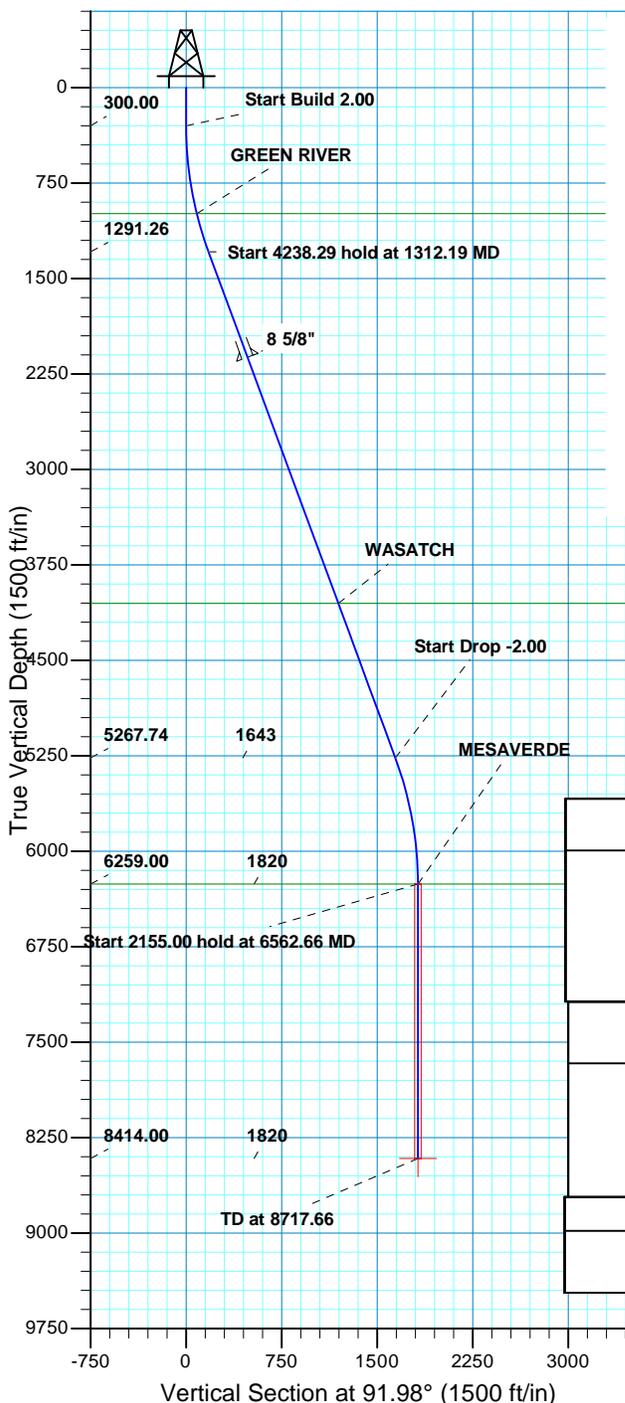
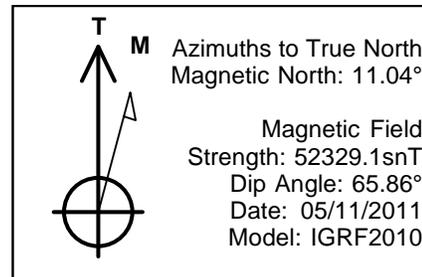
Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 1022-11I3
WELLS – NBU 1022-11I4BS, NBU 1022-12L4BS,
NBU 1022-12L4CS & NBU 1022-11I4CS
Section 11, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 8.2 miles to the junction of the Bitter Creek Cut Off Road (County B Road 4140). Exit left and proceed in an easterly direction along the Bitter Creek Cut Off Road approximately 1.5 miles to the junction of the Archy Bench Road (County D Road 4150). Exit left and proceed in a northerly direction along the Archy Bench Road approximately 2.4 miles to a Class D County Road to the northeast. Exit right and proceed in a northeasterly direction along the Class D County Road approximately 0.3 miles to a second Class D County Road to the northeast. Exit right and proceed in a northeasterly, then southeasterly direction along the second Class D County Road approximately 0.1 miles to a service road to the northeast. Exit left and proceed in a northeasterly direction along the service road approximately 0.3 miles to the proposed NBU 1022-11O1 well pad. Continue through the proposed NBU 1022-11O1 well pad approximately 475 feet in a northeasterly direction to the proposed access road. Follow the road flags in a northeasterly direction approximately 235 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 60.2 miles in a southerly direction.



WELL DETAILS: NBU 1022-12L4CS						
GL 5170 & KB 14' @ 5184.00ft (ASSUMED)						
+N/-S 0.00	+E/-W 0.00	Northing 14515599.39	Easting 2088595.11	Latitude 39° 57' 37.012 N	Longitude 109° 24' 2.372 W	
DESIGN TARGET DETAILS						
Name PBHL	TVD 8414.00 - plan hits target center	+N/-S -62.95	+E/-W 1819.34	Northing 14515569.07	Easting 2090415.28	Latitude 39° 57' 36.389 N Longitude 109° 23' 39.005 W Shape Circle (Radius: 25.00)



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1312.19	20.24	91.98	1291.26	-6.12	176.85	2.00	91.98	176.96	
5550.47	20.24	91.98	5267.74	-56.83	1642.48	0.00	0.00	1643.47	
6562.66	0.00	0.00	6259.00	-62.95	1819.34	2.00	180.00	1820.43	
8717.66	0.00	0.00	8414.00	-62.95	1819.34	0.00	0.00	1820.43	PBHL_NBU 1022-12L4CS

PROJECT DETAILS: Uintah County, UT UTM12			
Geodetic System: Universal Transverse Mercator (US Survey Feet)			
Datum: NAD 1927 - Western US			
Ellipsoid: Clarke 1866			
Zone: Zone 12N (114 W to 108 W)			
Location: SECTION 11 T10S R22E			
System Datum: Mean Sea Level			

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
990.00	996.85	GREEN RIVER	
4054.00	4256.82	WASATCH	
6259.00	6562.66	MESAVERDE	

CASING DETAILS			
TVD	MD	Name	Size
2120.00	2195.49	8 5/8"	8.625

RECE



Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 1022-11I3 PAD
NBU 1022-12L4CS**

OH

Plan: PLAN #1 5-11-11 RHS

Standard Planning Report

11 May, 2011





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Site:	NBU 1022-1113 PAD	North Reference:	True
Well:	NBU 1022-12L4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 5-11-11 RHS		

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

Site	NBU 1022-1113 PAD, SECTION 11 T10S R22E				
Site Position:		Northing:	14,515,619.44 usft	Latitude:	39° 57' 37.210 N
From:	Lat/Long	Easting:	2,088,595.87 usft	Longitude:	109° 24' 2.358 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.03 °

Well	NBU 1022-12L4CS, 1469 FSL 996 FEL					
Well Position	+N/-S	-20.03 ft	Northing:	14,515,599.39 usft	Latitude:	39° 57' 37.012 N
	+E/-W	-1.12 ft	Easting:	2,088,595.10 usft	Longitude:	109° 24' 2.372 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,170.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/11/2011	11.04	65.86	52,329

Design	PLAN #1 5-11-11 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	91.98

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,312.19	20.24	91.98	1,291.26	-6.12	176.85	2.00	2.00	0.00	91.98	
5,550.47	20.24	91.98	5,267.74	-56.83	1,642.48	0.00	0.00	0.00	0.00	
6,562.66	0.00	0.00	6,259.00	-62.95	1,819.34	2.00	-2.00	0.00	180.00	
8,717.66	0.00	0.00	8,414.00	-62.95	1,819.34	0.00	0.00	0.00	0.00	PBHL_NBU 1022-12L



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Site:	NBU 1022-11I3 PAD	North Reference:	True
Well:	NBU 1022-12L4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 5-11-11 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
400.00	2.00	91.98	399.98	-0.06	1.74	1.75	2.00	2.00	0.00	
500.00	4.00	91.98	499.84	-0.24	6.97	6.98	2.00	2.00	0.00	
600.00	6.00	91.98	599.45	-0.54	15.68	15.69	2.00	2.00	0.00	
700.00	8.00	91.98	698.70	-0.96	27.86	27.88	2.00	2.00	0.00	
800.00	10.00	91.98	797.47	-1.50	43.50	43.52	2.00	2.00	0.00	
900.00	12.00	91.98	895.62	-2.16	62.57	62.60	2.00	2.00	0.00	
996.85	13.94	91.98	990.00	-2.92	84.29	84.34	2.00	2.00	0.00	
GREEN RIVER										
1,000.00	14.00	91.98	993.06	-2.94	85.05	85.10	2.00	2.00	0.00	
1,100.00	16.00	91.98	1,089.64	-3.84	110.91	110.98	2.00	2.00	0.00	
1,200.00	18.00	91.98	1,185.27	-4.85	140.13	140.21	2.00	2.00	0.00	
1,300.00	20.00	91.98	1,279.82	-5.97	172.66	172.77	2.00	2.00	0.00	
1,312.19	20.24	91.98	1,291.26	-6.12	176.85	176.96	2.00	2.00	0.00	
Start 4238.29 hold at 1312.19 MD										
1,400.00	20.24	91.98	1,373.65	-7.17	207.22	207.35	0.00	0.00	0.00	
1,500.00	20.24	91.98	1,467.47	-8.37	241.80	241.95	0.00	0.00	0.00	
1,600.00	20.24	91.98	1,561.29	-9.56	276.38	276.55	0.00	0.00	0.00	
1,700.00	20.24	91.98	1,655.12	-10.76	310.96	311.15	0.00	0.00	0.00	
1,800.00	20.24	91.98	1,748.94	-11.96	345.54	345.75	0.00	0.00	0.00	
1,900.00	20.24	91.98	1,842.76	-13.15	380.12	380.35	0.00	0.00	0.00	
2,000.00	20.24	91.98	1,936.59	-14.35	414.71	414.95	0.00	0.00	0.00	
2,100.00	20.24	91.98	2,030.41	-15.54	449.29	449.55	0.00	0.00	0.00	
2,195.49	20.24	91.98	2,120.00	-16.69	482.31	482.60	0.00	0.00	0.00	
8 5/8"										
2,200.00	20.24	91.98	2,124.23	-16.74	483.87	484.16	0.00	0.00	0.00	
2,300.00	20.24	91.98	2,218.05	-17.94	518.45	518.76	0.00	0.00	0.00	
2,400.00	20.24	91.98	2,311.88	-19.13	553.03	553.36	0.00	0.00	0.00	
2,500.00	20.24	91.98	2,405.70	-20.33	587.61	587.96	0.00	0.00	0.00	
2,600.00	20.24	91.98	2,499.52	-21.53	622.19	622.56	0.00	0.00	0.00	
2,700.00	20.24	91.98	2,593.35	-22.72	656.77	657.16	0.00	0.00	0.00	
2,800.00	20.24	91.98	2,687.17	-23.92	691.35	691.76	0.00	0.00	0.00	
2,900.00	20.24	91.98	2,780.99	-25.12	725.93	726.37	0.00	0.00	0.00	
3,000.00	20.24	91.98	2,874.81	-26.31	760.51	760.97	0.00	0.00	0.00	
3,100.00	20.24	91.98	2,968.64	-27.51	795.09	795.57	0.00	0.00	0.00	
3,200.00	20.24	91.98	3,062.46	-28.70	829.67	830.17	0.00	0.00	0.00	
3,300.00	20.24	91.98	3,156.28	-29.90	864.25	864.77	0.00	0.00	0.00	
3,400.00	20.24	91.98	3,250.11	-31.10	898.84	899.37	0.00	0.00	0.00	
3,500.00	20.24	91.98	3,343.93	-32.29	933.42	933.97	0.00	0.00	0.00	
3,600.00	20.24	91.98	3,437.75	-33.49	968.00	968.58	0.00	0.00	0.00	
3,700.00	20.24	91.98	3,531.57	-34.69	1,002.58	1,003.18	0.00	0.00	0.00	
3,800.00	20.24	91.98	3,625.40	-35.88	1,037.16	1,037.78	0.00	0.00	0.00	
3,900.00	20.24	91.98	3,719.22	-37.08	1,071.74	1,072.38	0.00	0.00	0.00	
4,000.00	20.24	91.98	3,813.04	-38.28	1,106.32	1,106.98	0.00	0.00	0.00	
4,100.00	20.24	91.98	3,906.87	-39.47	1,140.90	1,141.58	0.00	0.00	0.00	
4,200.00	20.24	91.98	4,000.69	-40.67	1,175.48	1,176.18	0.00	0.00	0.00	
4,256.82	20.24	91.98	4,054.00	-41.35	1,195.13	1,195.85	0.00	0.00	0.00	



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Site:	NBU 1022-11I3 PAD	North Reference:	True
Well:	NBU 1022-12L4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 5-11-11 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
WASATCH										
4,300.00	20.24	91.98	4,094.51	-41.87	1,210.06	1,210.79	0.00	0.00	0.00	
4,400.00	20.24	91.98	4,188.34	-43.06	1,244.64	1,245.39	0.00	0.00	0.00	
4,500.00	20.24	91.98	4,282.16	-44.26	1,279.22	1,279.99	0.00	0.00	0.00	
4,600.00	20.24	91.98	4,375.98	-45.45	1,313.80	1,314.59	0.00	0.00	0.00	
4,700.00	20.24	91.98	4,469.80	-46.65	1,348.39	1,349.19	0.00	0.00	0.00	
4,800.00	20.24	91.98	4,563.63	-47.85	1,382.97	1,383.79	0.00	0.00	0.00	
4,900.00	20.24	91.98	4,657.45	-49.04	1,417.55	1,418.39	0.00	0.00	0.00	
5,000.00	20.24	91.98	4,751.27	-50.24	1,452.13	1,453.00	0.00	0.00	0.00	
5,100.00	20.24	91.98	4,845.10	-51.44	1,486.71	1,487.60	0.00	0.00	0.00	
5,200.00	20.24	91.98	4,938.92	-52.63	1,521.29	1,522.20	0.00	0.00	0.00	
5,300.00	20.24	91.98	5,032.74	-53.83	1,555.87	1,556.80	0.00	0.00	0.00	
5,400.00	20.24	91.98	5,126.56	-55.03	1,590.45	1,591.40	0.00	0.00	0.00	
5,500.00	20.24	91.98	5,220.39	-56.22	1,625.03	1,626.00	0.00	0.00	0.00	
5,550.47	20.24	91.98	5,267.74	-56.83	1,642.48	1,643.47	0.00	0.00	0.00	
Start Drop -2.00										
5,600.00	19.25	91.98	5,314.36	-57.41	1,659.21	1,660.20	2.00	-2.00	0.00	
5,700.00	17.25	91.98	5,409.32	-58.49	1,690.51	1,691.52	2.00	-2.00	0.00	
5,800.00	15.25	91.98	5,505.32	-59.46	1,718.48	1,719.51	2.00	-2.00	0.00	
5,900.00	13.25	91.98	5,602.23	-60.31	1,743.09	1,744.13	2.00	-2.00	0.00	
6,000.00	11.25	91.98	5,699.95	-61.04	1,764.30	1,765.35	2.00	-2.00	0.00	
6,100.00	9.25	91.98	5,798.35	-61.66	1,782.08	1,783.15	2.00	-2.00	0.00	
6,200.00	7.25	91.98	5,897.31	-62.15	1,796.43	1,797.50	2.00	-2.00	0.00	
6,300.00	5.25	91.98	5,996.71	-62.53	1,807.31	1,808.40	2.00	-2.00	0.00	
6,400.00	3.25	91.98	6,096.43	-62.79	1,814.73	1,815.81	2.00	-2.00	0.00	
6,500.00	1.25	91.98	6,196.35	-62.92	1,818.65	1,819.74	2.00	-2.00	0.00	
6,562.66	0.00	0.00	6,259.00	-62.95	1,819.34	1,820.43	2.00	-2.00	0.00	
Start 2155.00 hold at 6562.66 MD - MESAVERDE										
6,600.00	0.00	0.00	6,296.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,396.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,496.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,596.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,696.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,796.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,200.00	0.00	0.00	6,896.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,300.00	0.00	0.00	6,996.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,096.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,196.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,296.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,396.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,496.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,596.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,696.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,796.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,896.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,996.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,096.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,196.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,296.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,396.34	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
8,717.66	0.00	0.00	8,414.00	-62.95	1,819.34	1,820.43	0.00	0.00	0.00	
PBHL_NBU 1022-12L4CS										



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Site:	NBU 1022-11I3 PAD	North Reference:	True
Well:	NBU 1022-12L4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 5-11-11 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-12L4C - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	8,414.00	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,195.49	2,120.00	8 5/8"	8.625	11.000	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
996.85	990.00	GREEN RIVER			
4,256.82	4,054.00	WASATCH			
6,562.66	6,259.00	MESAVERDE			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,312.19	1,291.26	-6.12	176.85	Start 4238.29 hold at 1312.19 MD
5,550.47	5,267.74	-56.83	1,642.48	Start Drop -2.00
6,562.66	6,259.00	-62.95	1,819.34	Start 2155.00 hold at 6562.66 MD
8,717.66	8,414.00	-62.95	1,819.34	TD at 8717.66



Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 1022-11I3 PAD
NBU 1022-12L4CS**

OH

Plan: PLAN #1 5-11-11 RHS

Standard Planning Report - Geographic

11 May, 2011





SDI
Planning Report - Geographic



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Site:	NBU 1022-1113 PAD	North Reference:	True
Well:	NBU 1022-12L4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 5-11-11 RHS		

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

Site	NBU 1022-1113 PAD, SECTION 11 T10S R22E				
Site Position:		Northing:	14,515,619.44 usft	Latitude:	39° 57' 37.210 N
From:	Lat/Long	Easting:	2,088,595.87 usft	Longitude:	109° 24' 2.358 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.03 °

Well	NBU 1022-12L4CS, 1469 FSL 996 FEL					
Well Position	+N/-S	0.00 ft	Northing:	14,515,599.39 usft	Latitude:	39° 57' 37.012 N
	+E/-W	0.00 ft	Easting:	2,088,595.10 usft	Longitude:	109° 24' 2.372 W
Position Uncertainty	0.00 ft		Wellhead Elevation:		Ground Level:	5,170.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/11/2011	11.04	65.86	52,329

Design	PLAN #1 5-11-11 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	91.98

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,312.19	20.24	91.98	1,291.26	-6.12	176.85	2.00	2.00	0.00	91.98	
5,550.47	20.24	91.98	5,267.74	-56.83	1,642.48	0.00	0.00	0.00	0.00	
6,562.66	0.00	0.00	6,259.00	-62.95	1,819.34	2.00	-2.00	0.00	180.00	
8,717.66	0.00	0.00	8,414.00	-62.95	1,819.34	0.00	0.00	0.00	0.00	PBHL_NBU 1022-12L



SDI
Planning Report - Geographic



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Site:	NBU 1022-11I3 PAD	North Reference:	True
Well:	NBU 1022-12L4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 5-11-11 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,515,599.39	2,088,595.10	39° 57' 37.012 N	109° 24' 2.372 W	
100.00	0.00	0.00	100.00	0.00	0.00	14,515,599.39	2,088,595.10	39° 57' 37.012 N	109° 24' 2.372 W	
200.00	0.00	0.00	200.00	0.00	0.00	14,515,599.39	2,088,595.10	39° 57' 37.012 N	109° 24' 2.372 W	
300.00	0.00	0.00	300.00	0.00	0.00	14,515,599.39	2,088,595.10	39° 57' 37.012 N	109° 24' 2.372 W	
Start Build 2.00										
400.00	2.00	91.98	399.98	-0.06	1.74	14,515,599.36	2,088,596.85	39° 57' 37.011 N	109° 24' 2.350 W	
500.00	4.00	91.98	499.84	-0.24	6.97	14,515,599.27	2,088,602.08	39° 57' 37.009 N	109° 24' 2.283 W	
600.00	6.00	91.98	599.45	-0.54	15.68	14,515,599.13	2,088,610.80	39° 57' 37.006 N	109° 24' 2.171 W	
700.00	8.00	91.98	698.70	-0.96	27.86	14,515,598.93	2,088,622.98	39° 57' 37.002 N	109° 24' 2.015 W	
800.00	10.00	91.98	797.47	-1.50	43.50	14,515,598.67	2,088,638.62	39° 57' 36.997 N	109° 24' 1.814 W	
900.00	12.00	91.98	895.62	-2.16	62.57	14,515,598.35	2,088,657.70	39° 57' 36.990 N	109° 24' 1.569 W	
996.85	13.94	91.98	990.00	-2.92	84.29	14,515,597.99	2,088,679.43	39° 57' 36.983 N	109° 24' 1.290 W	
GREEN RIVER										
1,000.00	14.00	91.98	993.06	-2.94	85.05	14,515,597.97	2,088,680.19	39° 57' 36.983 N	109° 24' 1.280 W	
1,100.00	16.00	91.98	1,089.64	-3.84	110.91	14,515,597.54	2,088,706.07	39° 57' 36.974 N	109° 24' 0.948 W	
1,200.00	18.00	91.98	1,185.27	-4.85	140.13	14,515,597.06	2,088,735.30	39° 57' 36.964 N	109° 24' 0.573 W	
1,300.00	20.00	91.98	1,279.82	-5.97	172.66	14,515,596.51	2,088,767.85	39° 57' 36.953 N	109° 24' 0.155 W	
1,312.19	20.24	91.98	1,291.26	-6.12	176.85	14,515,596.44	2,088,772.04	39° 57' 36.951 N	109° 24' 0.101 W	
Start 4238.29 hold at 1312.19 MD										
1,400.00	20.24	91.98	1,373.65	-7.17	207.22	14,515,595.94	2,088,802.42	39° 57' 36.941 N	109° 23' 59.711 W	
1,500.00	20.24	91.98	1,467.47	-8.37	241.80	14,515,595.36	2,088,837.02	39° 57' 36.929 N	109° 23' 59.267 W	
1,600.00	20.24	91.98	1,561.29	-9.56	276.38	14,515,594.79	2,088,871.61	39° 57' 36.917 N	109° 23' 58.823 W	
1,700.00	20.24	91.98	1,655.12	-10.76	310.96	14,515,594.21	2,088,906.21	39° 57' 36.905 N	109° 23' 58.378 W	
1,800.00	20.24	91.98	1,748.94	-11.96	345.54	14,515,593.63	2,088,940.81	39° 57' 36.893 N	109° 23' 57.934 W	
1,900.00	20.24	91.98	1,842.76	-13.15	380.12	14,515,593.06	2,088,975.40	39° 57' 36.882 N	109° 23' 57.490 W	
2,000.00	20.24	91.98	1,936.59	-14.35	414.71	14,515,592.48	2,089,010.00	39° 57' 36.870 N	109° 23' 57.046 W	
2,100.00	20.24	91.98	2,030.41	-15.54	449.29	14,515,591.90	2,089,044.60	39° 57' 36.858 N	109° 23' 56.602 W	
2,195.49	20.24	91.98	2,120.00	-16.69	482.31	14,515,591.35	2,089,077.63	39° 57' 36.847 N	109° 23' 56.178 W	
8 5/8"										
2,200.00	20.24	91.98	2,124.23	-16.74	483.87	14,515,591.33	2,089,079.19	39° 57' 36.846 N	109° 23' 56.158 W	
2,300.00	20.24	91.98	2,218.05	-17.94	518.45	14,515,590.75	2,089,113.79	39° 57' 36.834 N	109° 23' 55.713 W	
2,400.00	20.24	91.98	2,311.88	-19.13	553.03	14,515,590.18	2,089,148.39	39° 57' 36.822 N	109° 23' 55.269 W	
2,500.00	20.24	91.98	2,405.70	-20.33	587.61	14,515,589.60	2,089,182.98	39° 57' 36.811 N	109° 23' 54.825 W	
2,600.00	20.24	91.98	2,499.52	-21.53	622.19	14,515,589.02	2,089,217.58	39° 57' 36.799 N	109° 23' 54.381 W	
2,700.00	20.24	91.98	2,593.35	-22.72	656.77	14,515,588.45	2,089,252.18	39° 57' 36.787 N	109° 23' 53.937 W	
2,800.00	20.24	91.98	2,687.17	-23.92	691.35	14,515,587.87	2,089,286.77	39° 57' 36.775 N	109° 23' 53.493 W	
2,900.00	20.24	91.98	2,780.99	-25.12	725.93	14,515,587.29	2,089,321.37	39° 57' 36.763 N	109° 23' 53.049 W	
3,000.00	20.24	91.98	2,874.81	-26.31	760.51	14,515,586.72	2,089,355.97	39° 57' 36.751 N	109° 23' 52.604 W	
3,100.00	20.24	91.98	2,968.64	-27.51	795.09	14,515,586.14	2,089,390.56	39° 57' 36.740 N	109° 23' 52.160 W	
3,200.00	20.24	91.98	3,062.46	-28.70	829.67	14,515,585.57	2,089,425.16	39° 57' 36.728 N	109° 23' 51.716 W	
3,300.00	20.24	91.98	3,156.28	-29.90	864.25	14,515,584.99	2,089,459.76	39° 57' 36.716 N	109° 23' 51.272 W	
3,400.00	20.24	91.98	3,250.11	-31.10	898.84	14,515,584.41	2,089,494.35	39° 57' 36.704 N	109° 23' 50.828 W	
3,500.00	20.24	91.98	3,343.93	-32.29	933.42	14,515,583.84	2,089,528.95	39° 57' 36.692 N	109° 23' 50.384 W	
3,600.00	20.24	91.98	3,437.75	-33.49	968.00	14,515,583.26	2,089,563.54	39° 57' 36.680 N	109° 23' 49.939 W	
3,700.00	20.24	91.98	3,531.57	-34.69	1,002.58	14,515,582.69	2,089,598.14	39° 57' 36.669 N	109° 23' 49.495 W	
3,800.00	20.24	91.98	3,625.40	-35.88	1,037.16	14,515,582.11	2,089,632.74	39° 57' 36.657 N	109° 23' 49.051 W	
3,900.00	20.24	91.98	3,719.22	-37.08	1,071.74	14,515,581.53	2,089,667.33	39° 57' 36.645 N	109° 23' 48.607 W	
4,000.00	20.24	91.98	3,813.04	-38.28	1,106.32	14,515,580.96	2,089,701.93	39° 57' 36.633 N	109° 23' 48.163 W	
4,100.00	20.24	91.98	3,906.87	-39.47	1,140.90	14,515,580.38	2,089,736.53	39° 57' 36.621 N	109° 23' 47.719 W	
4,200.00	20.24	91.98	4,000.69	-40.67	1,175.48	14,515,579.80	2,089,771.12	39° 57' 36.609 N	109° 23' 47.274 W	
4,256.82	20.24	91.98	4,054.00	-41.35	1,195.13	14,515,579.48	2,089,790.78	39° 57' 36.603 N	109° 23' 47.022 W	
WASATCH										



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Site:	NBU 1022-11I3 PAD	North Reference:	True
Well:	NBU 1022-12L4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 5-11-11 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,300.00	20.24	91.98	4,094.51	-41.87	1,210.06	14,515,579.23	2,089,805.72	39° 57' 36.598 N	109° 23' 46.830 W	
4,400.00	20.24	91.98	4,188.34	-43.06	1,244.64	14,515,578.65	2,089,840.32	39° 57' 36.586 N	109° 23' 46.386 W	
4,500.00	20.24	91.98	4,282.16	-44.26	1,279.22	14,515,578.08	2,089,874.91	39° 57' 36.574 N	109° 23' 45.942 W	
4,600.00	20.24	91.98	4,375.98	-45.45	1,313.80	14,515,577.50	2,089,909.51	39° 57' 36.562 N	109° 23' 45.498 W	
4,700.00	20.24	91.98	4,469.80	-46.65	1,348.39	14,515,576.92	2,089,944.11	39° 57' 36.550 N	109° 23' 45.054 W	
4,800.00	20.24	91.98	4,563.63	-47.85	1,382.97	14,515,576.35	2,089,978.70	39° 57' 36.538 N	109° 23' 44.610 W	
4,900.00	20.24	91.98	4,657.45	-49.04	1,417.55	14,515,575.77	2,090,013.30	39° 57' 36.526 N	109° 23' 44.165 W	
5,000.00	20.24	91.98	4,751.27	-50.24	1,452.13	14,515,575.20	2,090,047.90	39° 57' 36.515 N	109° 23' 43.721 W	
5,100.00	20.24	91.98	4,845.10	-51.44	1,486.71	14,515,574.62	2,090,082.49	39° 57' 36.503 N	109° 23' 43.277 W	
5,200.00	20.24	91.98	4,938.92	-52.63	1,521.29	14,515,574.04	2,090,117.09	39° 57' 36.491 N	109° 23' 42.833 W	
5,300.00	20.24	91.98	5,032.74	-53.83	1,555.87	14,515,573.47	2,090,151.69	39° 57' 36.479 N	109° 23' 42.389 W	
5,400.00	20.24	91.98	5,126.56	-55.03	1,590.45	14,515,572.89	2,090,186.28	39° 57' 36.467 N	109° 23' 41.945 W	
5,500.00	20.24	91.98	5,220.39	-56.22	1,625.03	14,515,572.31	2,090,220.88	39° 57' 36.455 N	109° 23' 41.500 W	
5,550.47	20.24	91.98	5,267.74	-56.83	1,642.48	14,515,572.02	2,090,238.34	39° 57' 36.449 N	109° 23' 41.276 W	
Start Drop -2.00										
5,600.00	19.25	91.98	5,314.36	-57.41	1,659.21	14,515,571.75	2,090,255.07	39° 57' 36.444 N	109° 23' 41.061 W	
5,700.00	17.25	91.98	5,409.32	-58.49	1,690.51	14,515,571.22	2,090,286.39	39° 57' 36.433 N	109° 23' 40.659 W	
5,800.00	15.25	91.98	5,505.32	-59.46	1,718.48	14,515,570.76	2,090,314.37	39° 57' 36.423 N	109° 23' 40.300 W	
5,900.00	13.25	91.98	5,602.23	-60.31	1,743.09	14,515,570.35	2,090,338.99	39° 57' 36.415 N	109° 23' 39.984 W	
6,000.00	11.25	91.98	5,699.95	-61.04	1,764.30	14,515,569.99	2,090,360.21	39° 57' 36.408 N	109° 23' 39.712 W	
6,100.00	9.25	91.98	5,798.35	-61.66	1,782.08	14,515,569.70	2,090,378.00	39° 57' 36.402 N	109° 23' 39.483 W	
6,200.00	7.25	91.98	5,897.31	-62.15	1,796.43	14,515,569.46	2,090,392.36	39° 57' 36.397 N	109° 23' 39.299 W	
6,300.00	5.25	91.98	5,996.71	-62.53	1,807.31	14,515,569.28	2,090,403.25	39° 57' 36.393 N	109° 23' 39.159 W	
6,400.00	3.25	91.98	6,096.43	-62.79	1,814.73	14,515,569.15	2,090,410.66	39° 57' 36.390 N	109° 23' 39.064 W	
6,500.00	1.25	91.98	6,196.35	-62.92	1,818.65	14,515,569.09	2,090,414.59	39° 57' 36.389 N	109° 23' 39.014 W	
6,562.66	0.00	0.00	6,259.00	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
Start 2155.00 hold at 6562.66 MD - MESAVERDE										
6,600.00	0.00	0.00	6,296.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
6,700.00	0.00	0.00	6,396.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
6,800.00	0.00	0.00	6,496.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
6,900.00	0.00	0.00	6,596.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,000.00	0.00	0.00	6,696.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,100.00	0.00	0.00	6,796.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,200.00	0.00	0.00	6,896.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,300.00	0.00	0.00	6,996.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,400.00	0.00	0.00	7,096.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,500.00	0.00	0.00	7,196.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,600.00	0.00	0.00	7,296.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,700.00	0.00	0.00	7,396.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,800.00	0.00	0.00	7,496.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
7,900.00	0.00	0.00	7,596.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,000.00	0.00	0.00	7,696.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,100.00	0.00	0.00	7,796.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,200.00	0.00	0.00	7,896.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,300.00	0.00	0.00	7,996.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,400.00	0.00	0.00	8,096.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,500.00	0.00	0.00	8,196.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,600.00	0.00	0.00	8,296.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,700.00	0.00	0.00	8,396.34	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
8,717.66	0.00	0.00	8,414.00	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W	
PBHL_NBU 1022-12L4CS										



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5170 & KB 14' @ 5184.00ft (ASSUMED)
Site:	NBU 1022-11I3 PAD	North Reference:	True
Well:	NBU 1022-12L4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 5-11-11 RHS		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
PBHL_NBU 1022-12L4C - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,414.00	-62.95	1,819.34	14,515,569.08	2,090,415.28	39° 57' 36.389 N	109° 23' 39.005 W

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(ft)	(ft)		(in)	(in)	
2,195.49	2,120.00	8 5/8"	8.625	11.000	

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
996.85	990.00	GREEN RIVER			
4,256.82	4,054.00	WASATCH			
6,562.66	6,259.00	MESAVERDE			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
1,312.19	1,291.26	-6.12	176.85	Start 4238.29 hold at 1312.19 MD	
5,550.47	5,267.74	-56.83	1,642.48	Start Drop -2.00	
6,562.66	6,259.00	-62.95	1,819.34	Start 2155.00 hold at 6562.66 MD	
8,717.66	8,414.00	-62.95	1,819.34	TD at 8717.66	

NBU 1022-1114BS			
Surface:	1489 FSL / 996 FEL	NESE	Lot
BHL:	1774 FSL / 485 FEL	NESE	Lot

NBU 1022-1114CS			
Surface:	1459 FSL / 997 FEL	NESE	Lot
BHL:	1443 FSL / 497 FEL	NESE	Lot

NBU 1022-12L4BS			
Surface:	1479 FSL / 996 FEL	NESE	Lot
BHL:	1739 FSL / 823 FWL	NWSW	Lot

NBU 1022-12L4CS			
Surface:	1469 FSL / 996 FEL	NESE	Lot
BHL:	1408 FSL / 824 FWL	NWSW	Lot

Pad: 1022-1113 PAD
Section 11 T10S R22E
Mineral Lease: UO1197A-ST

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

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

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

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

A. Existing Roads:

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

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

B. Planned Access Roads:

Modifications to the current access road are proposed (see Topo Map B). The \pm 625' reroute will closely follow the existing road; but more accurately follow the proposed gas and liquid pipelines. Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

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

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

C. Location of Existing and Proposed Facilities:

There are no existing wells on the proposed NBU 1022-1113 well pad.

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

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

Gathering Facilities:

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

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 480'$ and the individual segments are broken up as follows:

$\pm 60'$ (0.01 miles) –New 6" buried gas pipeline from the meter to the tie-in at the proposed NBU 1022-1111 Intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

$\pm 420'$ (0.08 miles) –New 8" buried gas pipeline from the tie-in at the proposed NBU 1022-1111 Intersection to the tie-in at the proposed 1022-1101 Intersection 10" gas pipeline. Please refer refer to Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 480'$ and the individual segments are broken up as follows:

$\pm 60'$ (0.01 miles) –New 6" (max) buried liquid pipeline from the separator to the tie-in at the proposed NBU 1022-1111 Intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

$\pm 420'$ (0.08 miles) –New 6" (max) buried liquid pipeline from the tie-in at the proposed NBU 1022-1111 Intersection to the tie-in at the proposed 1022-1101 Intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

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

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

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

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

D. Location and Type of Water Supply:

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

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

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

No water well is to be drilled on this lease.

E. Source of Construction Materials:

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

F. Methods for Handling Waste Materials:

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

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

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

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

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20 mil or thicker. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

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

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

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

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

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

Materials Management

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

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

G. Ancillary Facilities:

None are anticipated.

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

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

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

I. Plans for Reclamation of the Surface :

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

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

Interim Reclamation

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

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

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

Final Reclamation

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

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

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

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

Seeding and Measures Common to Interim and Final Reclamation

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

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

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

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

L. Other Information:

None

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

Andy Lytle
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6100

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

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

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

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

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

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



Andy Lytle

August 5, 2011

Date



JOSEPH D. JOHNSON
LANDMAN

Joseph D. Johnson
1099 18TH STREET STE. 1800 • DENVER, CO 80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

August 5, 2011

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

Re: Directional Drilling R649-3-11
NBU 1022-12L4CS
T10S-R22E
Section 11: NESE
Surface: 1469' FSL, 996' FEL
T10S-R22E
Section 12: NWSW
Bottom Hole: 1408' FSL, 824' FWL
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee's NBU 1022-12L4CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

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

Joseph D. Johnson
Landman

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)

August 19, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
-------	-----------	----------

(Proposed PZ WASATCH-MESA VERDE)

NBU 1022-11F PAD

43-047-51797	NBU 1022-11C2CS	Sec 11 T10S R22E 1860 FNL 1499 FWL
	BHL	Sec 11 T10S R22E 0370 FNL 1365 FWL

43-047-51799	NBU 1022-11C3DS	Sec 11 T10S R22E 1852 FNL 1505 FWL
	BHL	Sec 11 T10S R22E 1268 FNL 1726 FWL

43-047-51800	NBU 1022-11D1CS	Sec 11 T10S R22E 1868 FNL 1493 FWL
	BHL	Sec 11 T10S R22E 0576 FNL 0818 FWL

43-047-51801	NBU 1022-11F2DS	Sec 11 T10S R22E 1844 FNL 1512 FWL
	BHL	Sec 11 T10S R22E 1622 FNL 1625 FWL

NBU 1022-11G2 PAD

43-047-51802	NBU 1022-11B4CS	Sec 11 T10S R22E 1627 FNL 2594 FEL
	BHL	Sec 11 T10S R22E 1238 FNL 1803 FEL

43-047-51813	NBU 1022-11B4BS	Sec 11 T10S R22E 1633 FNL 2601 FEL
	BHL	Sec 11 T10S R22E 0908 FNL 1804 FEL

43-047-51815	NBU 1022-11B1CS	Sec 11 T10S R22E 1639 FNL 2609 FEL
	BHL	Sec 11 T10S R22E 0577 FNL 1805 FEL

43-047-51817	NBU 1022-C4AS	Sec 11 T10S R22E 1645 FNL 2617 FEL
	BHL	Sec 11 T10S R22E 0825 FNL 2462 FWL

43-047-51818	NBU 1022-11C4CS	Sec 11 T10S R22E 1651 FNL 2625 FEL
	BHL	Sec 11 T10S R22E 1071 FNL 2131 FWL

RECEIVED: August 22, 2011

API #	WELL NAME	LOCATION						
(Proposed PZ WASATCH-MESA VERDE)								
43-047-51855	NBU 1022-11F4AS	Sec 11	T10S	R22E	1657	FNL	2633	FEL
	BHL	Sec 11	T10S	R22E	2138	FNL	2288	FWL
NBU 1022-2A PAD								
43-047-51803	NBU 1022-2G1CS	Sec 02	T10S	R22E	0165	FNL	0760	FEL
	BHL	Sec 02	T10S	R22E	1905	FNL	1814	FEL
43-047-51807	NBU 1022-2G1BS	Sec 02	T10S	R22E	0164	FNL	0770	FEL
	BHL	Sec 02	T10S	R22E	1573	FNL	1815	FEL
43-047-51808	NBU 1022-2H1BS	Sec 02	T10S	R22E	0167	FNL	0730	FEL
	BHL	Sec 02	T10S	R22E	1410	FNL	0494	FEL
43-047-51812	NBU 1022-2H1CS	Sec 02	T10S	R22E	0166	FNL	0740	FEL
	BHL	Sec 02	T10S	R22E	1743	FNL	0494	FEL
43-047-51825	NBU 1022-2H4BS	Sec 02	T10S	R22E	0165	FNL	0750	FEL
	BHL	Sec 02	T10S	R22E	2074	FNL	0493	FEL
NBU 1022-11G4 PAD								
43-047-51805	NBU 1022-11A4CS	Sec 11	T10S	R22E	2411	FNL	1535	FEL
	BHL	Sec 11	T10S	R22E	1075	FNL	0490	FEL
43-047-51814	NBU 1022-11H1BS	Sec 11	T10S	R22E	2405	FNL	1526	FEL
	BHL	Sec 11	T10S	R22E	1406	FNL	0490	FEL
43-047-51822	NBU 1022-11G4CS	Sec 11	T10S	R22E	2435	FNL	1566	FEL
	BHL	Sec 11	T10S	R22E	2559	FNL	1799	FEL
43-047-51823	NBU 1022-11G1BS	Sec 11	T10S	R22E	2423	FNL	1550	FEL
	BHL	Sec 11	T10S	R22E	1568	FNL	1802	FEL
43-047-51837	NBU 1022-11G1CS	Sec 11	T10S	R22E	2417	FNL	1542	FEL
	BHL	Sec 11	T10S	R22E	1954	FNL	1646	FEL
43-047-51853	NBU 1022-11G4BS	Sec 11	T10S	R22E	2429	FNL	1558	FEL
	BHL	Sec 11	T10S	R22E	2229	FNL	1800	FEL
NBU 1022-2I PAD								
43-047-51809	NBU 1022-2I4CS	Sec 02	T10S	R22E	1886	FSL	0949	FEL
	BHL	Sec 02	T10S	R22E	1576	FSL	0492	FEL
43-047-51810	NBU 1022-2P1BS	Sec 02	T10S	R22E	1881	FSL	0957	FEL
	BHL	Sec 02	T10S	R22E	1245	FSL	0492	FEL
43-047-51824	NBU 1022-2I1CS	Sec 02	T10S	R22E	1895	FSL	0931	FEL
	BHL	Sec 02	T10S	R22E	2240	FSL	0493	FEL
43-047-51829	NBU 1022-2I4BS	Sec 02	T10S	R22E	1890	FSL	0940	FEL
	BHL	Sec 02	T10S	R22E	1909	FSL	0492	FEL
43-047-51838	NBU 1022-2P4BS	Sec 02	T10S	R22E	1872	FSL	0975	FEL
	BHL	Sec 02	T10S	R22E	0581	FSL	0492	FEL
43-047-51852	NBU 1022-2P1CS	Sec 02	T10S	R22E	1877	FSL	0966	FEL
	BHL	Sec 02	T10S	R22E	0913	FSL	0492	FEL
NBU 1022-2B PAD								
43-047-51811	NBU 1022-2B1CS	Sec 02	T10S	R22E	0544	FNL	1813	FEL
	BHL	Sec 02	T10S	R22E	0579	FNL	1818	FEL

API #	WELL NAME	LOCATION						
(Proposed PZ WASATCH-MESA VERDE)								
43-047-51827	NBU 1022-2B4CS	Sec 02	T10S	R22E	0543	FNL	1793	FEL
		BHL Sec 02	T10S	R22E	1242	FNL	1816	FEL
43-047-51828	NBU 1022-2B4BS	Sec 02	T10S	R22E	0543	FNL	1803	FEL
		BHL Sec 02	T10S	R22E	0910	FNL	1817	FEL
43-047-51830	NBU 1022-2C1BS	Sec 02	T10S	R22E	0544	FNL	1823	FEL
		BHL Sec 02	T10S	R22E	0090	FNL	2158	FWL
NBU 1022-11J PAD								
43-047-51816	NBU 1022-11K4BS	Sec 11	T10S	R22E	1980	FSL	2131	FEL
		BHL Sec 11	T10S	R22E	1804	FSL	1963	FWL
43-047-51843	NBU 1022-11J1CS	Sec 11	T10S	R22E	1990	FSL	2130	FEL
		BHL Sec 11	T10S	R22E	2065	FSL	1797	FEL
43-047-51851	NBU 1022-11J1BS	Sec 11	T10S	R22E	2000	FSL	2129	FEL
		BHL Sec 11	T10S	R22E	2395	FSL	1798	FEL
NBU 1022-2J PAD								
43-047-51819	NBU 1022-2G4CS	Sec 02	T10S	R22E	2375	FSL	1639	FEL
		BHL Sec 02	T10S	R22E	2568	FNL	1813	FEL
43-047-51820	NBU 1022-2H4CS	Sec 02	T10S	R22E	2351	FSL	1584	FEL
		BHL Sec 02	T10S	R22E	2406	FNL	0493	FEL
43-047-51844	NBU 1022-2J4BS	Sec 02	T10S	R22E	2367	FSL	1621	FEL
		BHL Sec 02	T10S	R22E	1741	FSL	1811	FEL
43-047-51845	NBU 1022-2O1CS	Sec 02	T10S	R22E	2343	FSL	1566	FEL
		BHL Sec 02	T10S	R22E	0747	FSL	1808	FEL
43-047-51847	NBU 1022-2I1BS	Sec 02	T10S	R22E	2347	FSL	1575	FEL
		BHL Sec 02	T10S	R22E	2572	FSL	0493	FEL
43-047-51854	NBU 1022-2G4BS	Sec 02	T10S	R22E	2359	FSL	1602	FEL
		BHL Sec 02	T10S	R22E	2237	FNL	1814	FEL
NBU 1022-O1 PAD								
43-047-51821	NBU 1022-11O1CS	Sec 11	T10S	R22E	0944	FSL	1360	FEL
		BHL Sec 11	T10S	R22E	0744	FSL	1793	FEL
43-047-51831	NBU 1022-11O4CS	Sec 11	T10S	R22E	0925	FSL	1366	FEL
		BHL Sec 11	T10S	R22E	0079	FSL	1824	FEL
43-047-51832	NBU 1022-11P1BS	Sec 11	T10S	R22E	0973	FSL	1351	FEL
		BHL Sec 11	T10S	R22E	1068	FSL	0474	FEL
43-047-51833	NBU 1022-11P4BS	Sec 11	T10S	R22E	0954	FSL	1357	FEL
		BHL Sec 11	T10S	R22E	0456	FSL	0504	FEL
43-047-51836	NBU 1022-12M1BS	Sec 11	T10S	R22E	0963	FSL	1354	FEL
		BHL Sec 12	T10S	R22E	1077	FSL	0824	FWL
43-047-51856	NBU 1022-11O4BS	Sec 11	T10S	R22E	0935	FSL	1363	FEL
		BHL Sec 11	T10S	R22E	0413	FSL	1792	FEL

API #	WELL NAME			LOCATION						
(Proposed PZ WASATCH-MESA VERDE)										
NBU 1022-11I1 PAD										
43-047-51834	NBU 1022-11I1CS	Sec	11	T10S	R22E	2545	FSL	0532	FEL	
	BHL	Sec	11	T10S	R22E	2112	FSL	0481	FEL	
43-047-51835	NBU 1022-12L1CS	Sec	11	T10S	R22E	2554	FSL	0528	FEL	
	BHL	Sec	12	T10S	R22E	2070	0FSL	823	FWL	
43-047-51857	NBU 1022-11H4BS	Sec	11	T10S	R22E	2582	FSL	0518	FEL	
	BHL	Sec	11	T10S	R22E	2067	FNL	0489	FEL	
43-047-51858	NBU 1022-11H4CS	Sec	11	T10S	R22E	2592	FSL	0514	FEL	
	BHL	Sec	11	T10S	R22E	2398	FNL	0489	FEL	
43-047-51861	NBU 1022-12L1BS	Sec	11	T10S	R22E	2564	FSL	0525	FEL	
	BHL	Sec	12	T10S	R22E	2401	FSL	0822	FWL	
43-047-51863	NBU 1022-11H1CS	Sec	11	T10S	R22E	2573	FSL	0521	FEL	
	BHL	Sec	11	T10S	R22E	1737	FNL	0490	FEL	
NBU 1022-2P PAD										
43-047-51839	NBU 1022-2P4CS	Sec	02	T10S	R22E	0221	FSL	1342	FEL	
	BHL	Sec	02	T10S	R22E	0255	FSL	0496	FEL	
43-047-51841	NBU 1022-11B1BS	Sec	02	T10S	R22E	0221	FSL	1382	FEL	
	BHL	Sec	11	T10S	R22E	0280	FNL	1755	FEL	
43-047-51842	NBU 1022-11A1BS	Sec	02	T10S	R22E	0221	FSL	1352	FEL	
	BHL	Sec	11	T10S	R22E	0080	FNL	0473	FEL	
43-047-51846	NBU 1022-2O4CS	Sec	02	T10S	R22E	0220	FSL	1402	FEL	
	BHL	Sec	02	T10S	R22E	0095	FSL	1804	FEL	
43-047-51848	NBU 1022-11A4BS	Sec	02	T10S	R22E	0221	FSL	1372	FEL	
	BHL	Sec	11	T10S	R22E	0744	FNL	0490	FEL	
43-047-51849	NBU 1022-2O4BS	Sec	02	T10S	R22E	0221	FSL	1392	FEL	
	BHL	Sec	02	T10S	R22E	0415	FSL	1807	FEL	
43-047-51850	NBU 1022-11A1CS	Sec	02	T10S	R22E	0221	FSL	1362	FEL	
	BHL	Sec	11	T10S	R22E	0413	FNL	0491	FEL	
NBU 1022-14A PAD										
43-047-51840	NBU 1022-11P4CS	Sec	14	T10S	R22E	0379	FNL	1228	FEL	
	BHL	Sec	11	T10S	R22E	0088	FSL	0466	FEL	
43-047-51860	NBU 1022-12M1CS	Sec	14	T10S	R22E	0385	FNL	1236	FEL	
	BHL	Sec	12	T10S	R22E	0746	FSL	0825	FWL	
43-047-51868	NBU 1022-12M4BS	Sec	14	T10S	R22E	0391	FNL	1244	FEL	
	BHL	Sec	12	T10S	R22E	0415	FSL	0825	FWL	
43-047-51870	NBU 1022-12M4CS	Sec	14	T10S	R22E	0397	FNL	1252	FEL	
	BHL	Sec	12	T10S	R22E	0086	FSL	0819	FWL	
NBU 1022-11O2 PAD										
43-047-51859	NBU 1022-11K4CS	Sec	11	T10S	R22E	1103	FSL	2372	FEL	
	BHL	Sec	11	T10S	R22E	1442	FSL	2113	FWL	

API #	WELL NAME	LOCATION					
(Proposed PZ WASATCH-MESA VERDE)							
43-047-51862	NBU 1022-11N1BS	Sec 11	T10S	R22E	1094	FSL 2377	FEL
		BHL Sec 11	T10S	R22E	1111	FSL 2105	FWL
43-047-51864	NBU 1022-11N1CS	Sec 11	T10S	R22E	1085	FSL 2382	FEL
		BHL Sec 11	T10S	R22E	0801	FSL 2127	FWL
43-047-51865	NBU 1022-11N4BS	Sec 11	T10S	R22E	1077	FSL 2387	FEL
		BHL Sec 11	T10S	R22E	0462	FSL 2127	FWL
43-047-51867	NBU 1022-11N4CS	Sec 11	T10S	R22E	1068	FSL 2392	FEL
		BHL Sec 11	T10S	R22E	0146	FSL 2084	FWL
43-047-51869	NBU 1022-11O2AS	Sec 11	T10S	R22E	1111	FSL 2367	FEL
		BHL Sec 11	T10S	R22E	1102	FSL 1964	FEL
NBU 1022-11I3 PAD							
43-047-51866	NBU 1022-11I4BS	Sec 11	T10S	R22E	1489	FSL 0996	FEL
		BHL Sec 11	T10S	R22E	1774	FSL 0485	FEL
43-047-51871	NBU 1022-11I4CS	Sec 11	T10S	R22E	1459	FSL 0997	FEL
		BHL Sec 11	T10S	R22E	1443	FSL 0497	FEL
43-047-51872	NBU 1022-12L4BS	Sec 11	T10S	R22E	1479	FSL 0996	FEL
		BHL Sec 12	T10S	R22E	1739	FSL 0823	FWL
43-047-51873	NBU 1022-12L4CS	Sec 11	T10S	R22E	1469	FSL 0996	FEL
		BHL Sec 12	T10S	R22E	1408	FSL 0824	FWL

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

Michael L. Coulthard  Digitally signed by Michael L. Coulthard
 DN: cn=Michael L. Coulthard, o=Bureau of Land Management,
 ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
 Date: 2011.08.19 08:43:17 -06'00'

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

MCoulthard:mc:8-19-11

From: Jim Davis
To: Hill, Brad; Mason, Diana
CC: Bonner, Ed; Garrison, LaVonne; Lytle, Andy
Date: 9/26/2011 5:08 PM
Subject: Anadarko APD approvals 10S 22E Sec 2, 11 and 14
Attachments: Anadarko Approvals from SITLA 9.26.11.xls

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

4304751840 NBU 1022-11P4CS
4304751860 NBU 1022-12M1CS
4304751868 NBU 1022-12M4BS
4304751870 NBU 1022-12M4CS
4304751803 NBU 1022-2G1CS
4304751807 NBU 1022-2G1BS
4304751808 NBU 1022-2H1BS
4304751812 NBU 1022-2H1CS
4304751825 NBU 1022-2H4BS
4304751811 NBU 1022-2B1CS
4304751827 NBU 1022-2B4CS
4304751828 NBU 1022-2B4BS
4304751830 NBU 1022-2C1BS
4304751809 NBU 1022-2I4CS
4304751810 NBU 1022-2P1BS
4304751824 NBU 1022-2I1CS
4304751829 NBU 1022-2I4BS
4304751838 NBU 1022-2P4BS
4304751852 NBU 1022-2P1CS
4304751839 NBU 1022-2P4CS
4304751841 NBU 1022-11B1BS
4304751842 NBU 1022-11A1BS
4304751846 NBU 1022-2O4CS
4304751848 NBU 1022-11A4BS
4304751849 NBU 1022-2O4BS
4304751850 NBU 1022-11A1CS

These APDS are approved including arch clearance but will require **spot paleo monitoring** as recommended in the applicable paleo reports:

4304751758 NBU 1022-2C1CS
4304751767 NBU 1022-2C4BS
4304751768 NBU 1022-2C4CS
4304751779 NBU 1022-2D1BS
4304751780 NBU 1022-2D4BS
4304751782 NBU 1022-2E1BS
4304751783 NBU 1022-2F1BS
4304751760 NBU 1022-2E4BS
4304751761 NBU 1022-2F1CS
4304751764 NBU 1022-2F4BS
4304751765 NBU 1022-2F4CS
4304751766 NBU 1022-2K1BS
4304751785 NBU 1022-2E1CS
4304751775 NBU 1022-2L4CS
4304751778 NBU 1022-2M1BS
4304751781 NBU 1022-2M1CS
4304751784 NBU 1022-2M4BS
4304751786 NBU 1022-2M4CS
4304751789 NBU 1022-11D2AS

4304751802 NBU 1022-11B4CS
4304751813 NBU 1022-11B4BS
4304751815 NBU 1022-11B1CS
4304751817 NBU 1022-11C4AS
4304751818 NBU 1022-11C4CS
4304751855 NBU 1022-11F4AS
4304751805 NBU 1022-11A4CS
4304751814 NBU 1022-11H1BS
4304751822 NBU 1022-11G4CS
4304751823 NBU 1022-11G1BS
4304751837 NBU 1022-11G1CS
4304751853 NBU 1022-11G4BS
4304751834 NBU 1022-11I1CS
4304751835 NBU 1022-12L1CS
4304751857 NBU 1022-11H4BS
4304751858 NBU 1022-11H4CS
4304751861 NBU 1022-12L1BS
4304751863 NBU 1022-11H1CS
4304751866 NBU 1022-11I4BS
4304751871 NBU 1022-11I4CS
4304751872 NBU 1022-12L4BS
4304751873 NBU 1022-12L4CS
4304751816 NBU 1022-11K4BS
4304751843 NBU 1022-11J1CS
4304751851 NBU 1022-11J1BS
4304751859 NBU 1022-11K4CS
4304751862 NBU 1022-11N1BS
4304751864 NBU 1022-11N1CS
4304751865 NBU 1022-11N4BS
4304751867 NBU 1022-11N4CS
4304751869 NBU 1022-11O2AS

These APDS are approved including arch clearance but will require **full paleo monitoring** as recommended in the applicable paleo reports:

4304751771 NBU 1022-2E4CS
4304751772 NBU 1022-2L1CS
4304751773 NBU 1022-2L1BS
4304751774 NBU 1022-2L4BS
4304751776 NBU 1022-2K1CS
4304751777 NBU 1022-2K4BS
4304751819 NBU 1022-2G4CS
4304751820 NBU 1022-2H4CS
4304751844 NBU 1022-2J4BS
4304751845 NBU 1022-2O1CS
4304751847 NBU 1022-2I1BS
4304751854 NBU 1022-2G4BS
4304751797 NBU 1022-11C2CS
4304751799 NBU 1022-11C3DS
4304751800 NBU 1022-11D1CS
4304751801 NBU 1022-11F2DS
4304751821 NBU 1022-11O1CS
4304751831 NBU 1022-11O4CS
4304751832 NBU 1022-11P1BS
4304751833 NBU 1022-11P4BS
4304751836 NBU 1022-12M1BS
4304751856 NBU 1022-11O4BS

That's a big enough list that I'm including a simple spreadsheet that has this same information, but organized in such a way as may be more useful to some of you.

Thanks.

-Jim

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

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-12L4C			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2049	8414		
Previous Shoe Setting Depth (TVD)	40	2049		
Max Mud Weight (ppg)	8.3	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5385	12.3		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	884	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	638	NO <input type="text" value="air drill"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	433	YES <input type="text" value="OK"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	442	NO <input type="text" value="Reasonable depth in area"/>
Required Casing/BOPE Test Pressure=		2049	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	5469	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4459	YES <input type="text"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3618	YES <input type="text" value="OK"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4069	NO <input type="text" value="Reasonable"/>
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2049	psi *Assumes 1psi/ft frac gradient

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

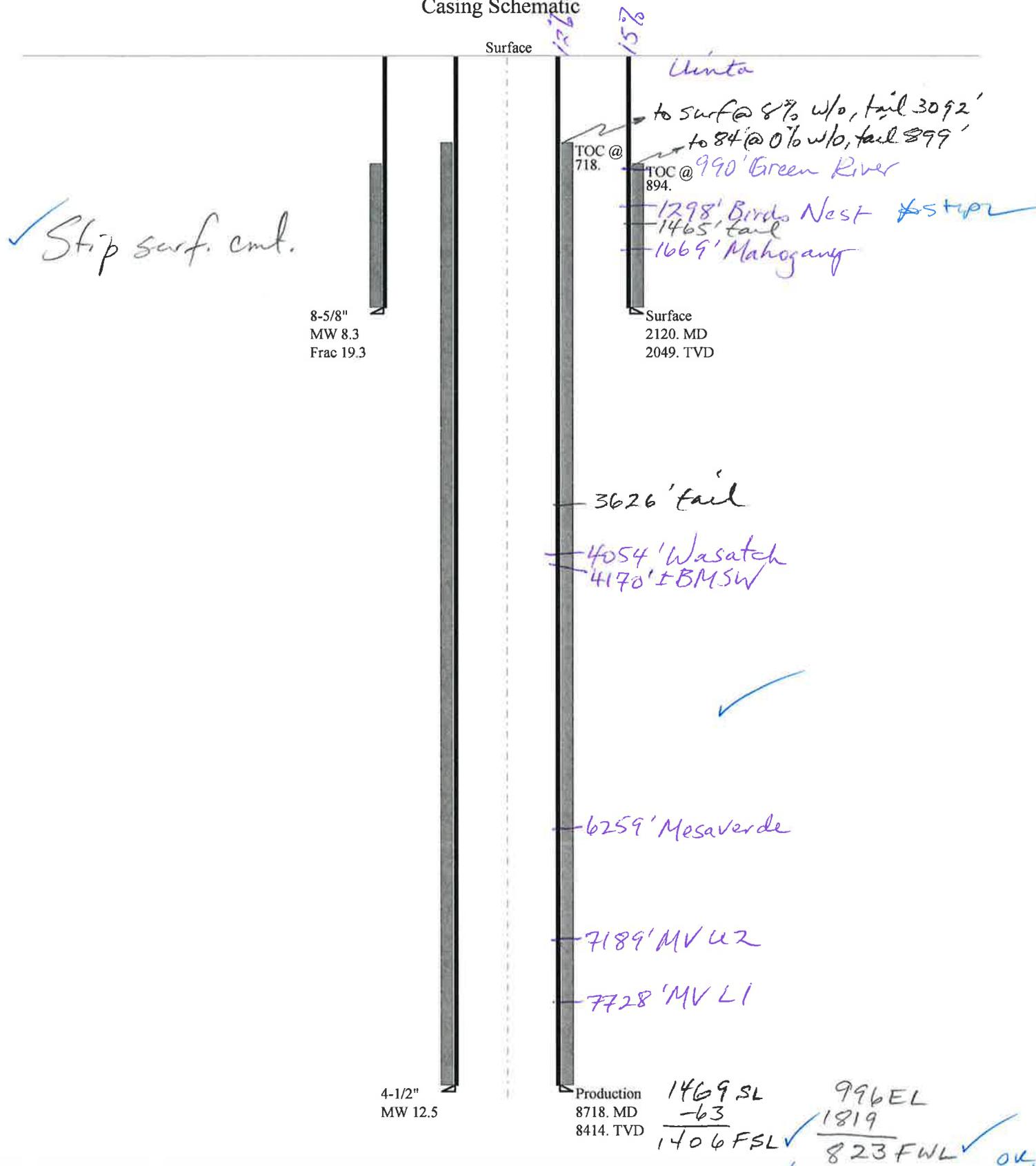
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="text"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="text"/>
			*Can Full Expected Pressure Be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

API Well Number: 43047518730000

*Max Pressure Allowed @ Previous Casing Shoe=	<input type="text"/>	psi *Assumes 1psi/ft frac gradient
---	----------------------	------------------------------------

43047518730000 NBU 1022-12L4CS

Casing Schematic



✓ Stip surf. cmt.

8-5/8"
MW 8.3
Frac 19.3

4-1/2"
MW 12.5

Production
8718. MD
8414. TVD

1469 SL	996 EL
-63	-1819
1406 FSL ✓	823 FWL ✓

OK.

NW SW Sec 12-10S-22E

Well name:	43047518730000 NBU 1022-12L4CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-51873
Location:	UINTAH	COUNTY	

Design parameters:

Collapse

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

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 103 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

Cement top: 894 ft

Burst

Max anticipated surface pressure: 1,866 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 2,112 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.70 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.50 (B)

Tension is based on air weight.
 Neutral point: 1,852 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 456 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 20.24 °

Re subsequent strings:

Next setting depth: 8,414 ft
 Next mud weight: 12.500 ppg
 Next setting BHP: 5,464 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 2,120 ft
 Injection pressure: 2,120 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	2120	8.625	28.00	I-55	LT&C	2049	2120	7.892	83952
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	887	1880	2.120	2112	3390	1.61	57.4	348	6.07 J

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

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

Date: October 26, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2049 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name:	43047518730000 NBU 1022-12L4CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-51873
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 12.500 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 192 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

Cement top: 718 ft

Burst

Max anticipated surface pressure: 3,613 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 5,464 psi

No backup mud specified.

Tension:

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

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 1820 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 0 °

Tension is based on air weight.
 Neutral point: 7,146 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8718	4.5	11.60	I-80	LT&C	8414	8718	3.875	115078
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	5464	6360	1.164	5464	7780	1.42	97.6	212	2.17 J

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

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

Date: October 26, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8414 ft, a mud weight of 12.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-12L4CS
API Number 43047518730000 **APD No** 4429 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NESE **Sec** 11 **Tw** 10.0S **Rng** 22.0E 1469 FSL 996 FEL
GPS Coord (UTM) 636606 4424367 **Surface Owner**

Participants

Andy Lytle, Sheila Wopsock, Charles Chase, Grizz Oleen, Mark Kuehn, Doyle Holmes, (Kerr McGee). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). David Hackford, (DOGM).

Regional/Local Setting & Topography

The general area is in the southeast portion of the Natural Buttes Unit on the northeast end of a major drainage divide called Archy Bench. Within this area is the White River and rugged drainages that drain into it. 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 is approx. 0.4 miles to the east. 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 41 air miles to the northwest. Access from Vernal is approximately 60.2 road miles following Utah State, Uintah County and oilfield development roads. Three wells, in addition to this one (for a total of four) will be directionally drilled from this pad. This proposed location will be a new pad. A 235 foot access road will be constructed. The proposed location will run in a north-south direction along the top of a sharp, steep ridge. This ridge breaks off sharply into rugged secondary canyons especially on the west and east sides. The reserve pit will be on the east side of the location and the excess cut stockpile will be on the east and south sides of the location. The west side of the location will be compacted fill. The pad should be stable and should be a suitable location for four wells, and is on the best site available in the immediate area.

Surface Use Plan

Current Surface Use

Grazing
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.04	Width 337 Length 425	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass, annuals and curly Vegetation is a salt desert shrub type. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, raptors, small mammals and birds.

Soil Type and Characteristics

Shallow rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues Y

West side of location will be fill and shall be compacted during construction.

Drainage Diversion Required? N

Berm Required?

Erosion Sedimentation Control Required? N

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

Reserve Pit

Site-Specific Factors	Site Ranking	
Distance to Groundwater (feet)	100 to 200	5
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)		20
Native Soil Type	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	50
		1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the east side of the location. Dimensions are 120' x 260' x 12' deep with 2' of freeboard. SITLA requested that because of the extremely rocky nature of the area of the reserve pit, and the steepness of the slope to the east of the proposed pit, two liners as well as two sub-liners be used in the reserve pit. Kerr McGee agreed to this.

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

Other Observations / Comments

This location will be in section 11 and two of the four proposed wells will have well bores that leave section 11 and produce from section 12. They are the NBU 1022-12L4BS and the NBU 1022-12L4CS.

David Hackford
Evaluator

8/18/2011
Date / Time

Application for Permit to Drill Statement of Basis

11/3/2011

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
4429	43047518730000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 1022-12L4CS	Unit		NATURAL BUTTES	
Field	NATURAL BUTTES	Type of Work		DRILL	
Location	NESE 11 10S 22E S 1469 FSL 996 FEL GPS Coord (UTM)			636544E	4424561N

Geologic Statement of Basis

Kerr McGee proposes to set 2,120' 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 4,170'. 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

9/21/2011
Date / Time

Surface Statement of Basis

The general area is in the southeast portion of the Natural Buttes Unit on the northeast end of a major drainage divide called Archy Bench. Within this area is the White River and rugged drainages that drain into it. 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 is 0.4 miles to the east. 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 41 air miles to the northwest. Access from Vernal is approximately 60.2 road miles following Utah State, Uintah County and oilfield development roads. A 235' access road will be constructed.

Four wells will be directionally drilled from this location. They are the NBU 1022-1114BS, NBU 1022-12L4BS, NBU 1022-12L4CS and the NBU 1022-1114CS. The proposed location is on a sharp, steep ridge that runs in a north-south direction. This ridge breaks off sharply into rugged secondary canyons especially to the west and east sides. The pad as constructed should be stable and sufficient for four wells, and is the best site in the immediate area.

Excess material will be stockpiled on the east and south sides of the location. The west side of the location will be fill and will be compacted during construction.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Ben Williams with DWR were invited by email to the pre-site evaluation. Jim Davis was present. Kerr McGee was told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford
Onsite Evaluator

8/18/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	Two synthetic liners with a minimum thickness of 30 mils with two felt subliners shall be properly installed and maintained in the reserve pit.

RECEIVED: November 03, 2011

**Application for Permit to Drill
Statement of Basis**

11/3/2011

Utah Division of Oil, Gas and Mining

Page 2

Pits

The reserve pit should be located on the east side of the location.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/11/2011**API NO. ASSIGNED:** 43047518730000**WELL NAME:** NBU 1022-12L4CS**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)**PHONE NUMBER:** 720 929-6100**CONTACT:** Andy Lytle**PROPOSED LOCATION:** NESE 11 100S 220E**Permit Tech Review:** **SURFACE:** 1469 FSL 0996 FEL**Engineering Review:** **BOTTOM:** 1408 FSL 0824 FWL**Geology Review:** **COUNTY:** UINTAH**LATITUDE:** 39.96018**LONGITUDE:** -109.40133**UTM SURF EASTINGS:** 636544.00**NORTHINGS:** 4424561.00**FIELD NAME:** NATURAL BUTTES**LEASE TYPE:** 3 - State**LEASE NUMBER:** UO1197A-ST**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:** 43-8496
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

Commingling Approved**LOCATION AND SITING:**

- R649-2-3.**
- Unit:** NATURAL BUTTES
- R649-3-2. General**
- R649-3-3. Exception**
- Drilling Unit**
- Board Cause No:** Cause 173-14
- Effective Date:** 12/2/1999
- Siting:** 460' Fr U Bdry & Uncommitted Tracts
- R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:

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



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-12L4CS
API Well Number: 43047518730000
Lease Number: UO1197A-ST
Surface Owner: STATE
Approval Date: 11/3/2011

Issued to:

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

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

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

General:

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

Conditions of Approval:

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

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

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

Surface casing shall be cemented to the surface.

Additional Approvals:

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

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

Notification Requirements:

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

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

Contact Information:

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

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

Reporting Requirements:

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

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

Approved By:



For John Rogers
Associate Director, Oil & Gas

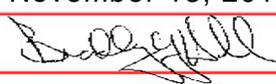
STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 11 Township: 10.0S Range: 22.0E Meridian: S	8. WELL NAME and NUMBER: NBU 1022-12L4CS
PHONE NUMBER: 720 929-6511	9. API NUMBER: 43047518730000
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: 11/3/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining
Date: November 13, 2012
By: 

NAME (PLEASE PRINT) Luke Urban	PHONE NUMBER 720 929-6501	TITLE Regulatory Specialist
SIGNATURE N/A	DATE 11/1/2012	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047518730000

API: 43047518730000

Well Name: NBU 1022-12L4CS

Location: 1469 FSL 0996 FEL QTR NESE SEC 11 TWNP 100S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 11/3/2011

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No
- Has the approved source of water for drilling changed? Yes No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No
- Is bonding still in place, which covers this proposed well? Yes No

Signature: Luke Urban

Date: 11/1/2012

Title: Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST
		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 1022-12L4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047518730000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE 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 type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 4/2/2013	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<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"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
Spud well 04/02/2013 @ 12:00. MIRU Triple A Bucket Rig, drill 20" conductor hole to 40', run 14", 36.7# schedule 10 conductor pipe, cement with 28 sacks ready mix. Anticipated surface spud date and surface casing cement 05/05/2013-05/06/2013.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 04, 2013		
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Doreen Green	435 781-9758	Regulatory Analyst II
SIGNATURE	DATE	
N/A	4/4/2013	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-12L4CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 11 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047518730000
PHONE NUMBER: 720 929-6511		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/3/2013	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> APD EXTENSION	
	OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. No activity for the month of May 2013. Well TD at 40 ft.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 10, 2013		
NAME (PLEASE PRINT) Matthew P Wold	PHONE NUMBER 720 929-6993	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 6/3/2013	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
8. WELL NAME and NUMBER: NBU 1022-12L4CS	
9. API NUMBER: 43047518730000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
COUNTY: UINTAH	
STATE: UTAH	

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. TYPE OF WELL Gas Well	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 11 Township: 10.0S Range: 22.0E Meridian: S	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/1/2013	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 July 10, 2013**

NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A	DATE 7/1/2013	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
8. WELL NAME and NUMBER: NBU 1022-12L4CS	
9. API NUMBER: 43047518730000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
COUNTY: UINTAH	
STATE: UTAH	

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. TYPE OF WELL Gas Well	11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 11 Township: 10.0S Range: 22.0E Meridian: S	

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/5/2013	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

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

FOR RECORD ONLY

August 05, 2013

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST	
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: NBU 1022-12L4CS
PHONE NUMBER: 720 929-6511	9. API NUMBER: 43047518730000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE 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: 9/4/2013	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 September 04, 2013

NAME (PLEASE PRINT) Matthew P Wold	PHONE NUMBER 720 929-6993	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 9/4/2013	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-12L4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047518730000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE 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 type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/4/2013	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No new activity since last report. Well TD at 40 ft.

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

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST	
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: NBU 1022-12L4CS
PHONE NUMBER: 720 929-6511	9. API NUMBER: 43047518730000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE 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: 10/17/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The Operator requests approval for changes in the drilling plan. Specifically, the Operator requests approval for a FIT wavier, closed loop drilling option and a production casing change. The production casing change includes a switch from 4-1/2 inch I-80 11.6 LB BTC/LTC casing to 4-1/2 inch I-80 11.6 LB Ultra DQX/LTC casing. All other aspects of the previously approved drilling plan will not change. Thank you.

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

Date: October 22, 2013

By: *Derek Duff*

NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A	DATE 10/17/2013	

Requested Drilling Options:

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

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 11 Township: 10.0S Range: 22.0E Meridian: S	8. WELL NAME and NUMBER: NBU 1022-12L4CS
PHONE NUMBER: 720 929-6511	9. API NUMBER: 43047518730000
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: 1/2/2014	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Drilled to 8,805 ft. TD in Quarter 4 of 2013.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 January 03, 2014**

NAME (PLEASE PRINT) Kay E. Kelly	PHONE NUMBER 720 929 6582	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 1/2/2014	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: UO1197A-ST
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-12L4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047518730000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6100 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE 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 type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 2/21/2014	<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 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 NBU 1022-12L4CS was placed on production 02/21/2014 after a new well completion. Producing from the WASATCH/MESAVERDE.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 February 27, 2014

NAME (PLEASE PRINT) Doreen Green	PHONE NUMBER 435 781-9758	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 2/27/2014	

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

AMENDED REPORT FORM 8
 (highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER:
UTSTUO01197ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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 _____

7. UNIT or CA AGREEMENT NAME
UTU63047A

8. WELL NAME and NUMBER:
NBU 1022-12L4CS

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

9. API NUMBER:
43-047-51873

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

10. FIELD AND POOL, OR WILDCAT
Natural Buttes

4. LOCATION OF WELL (FOOTAGES)
 AT SURFACE: **NESE 1469 FSL 996 FEL SEC 11**
 AT TOP PRODUCING INTERVAL REPORTED BELOW: **NWSW 1444 FSL 467 FWL SEC 12**
 AT TOTAL DEPTH: **NWSW 1409 FSL 838 FWL SEC 12**

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

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

14. DATE SPUDDED: **4/2/2013** 15. DATE T. D. REACHED: **12/2/2013** 16. DATE COMPLETED: **2/21/2014**
 ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
5194 RKB

18. TOTAL DEPTH: MD **8805** 19. PLUG BACK T.D.: MD **8736** 20. IF MULTIPLE COMPLETIONS, HOW MANY? *
 TVD **8457** TVD **8390**

21. DEPTH BRIDGE MD _____ PLUG SET: TVD _____

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
RADIAL CBL/GR/CCL/TEMP

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

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20	14 STL	36.7	0	40		28			
11	8.63 J55	28	24	2374		850		0	
7.875	4.5 I-80	11.6	19	8783		500		1352	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2.375	8218							

26. PRODUCING INTERVALS

27. PERFORATION RECORD

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A) WASATCH	4520	6620			4,520 6,620	0.41	96	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(B) MESAVERDE	6794	8652			6,794 8,652	0.41	192	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
4520-8652	PUMP 14,353 BBLs SLICKWATER AND 328,108 LBS 30/50 MESH SAND
	12 STAGES

29. ENCLOSED ATTACHMENTS:

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

30. WELL STATUS:
PRODUCING

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 2/21/2014		TEST DATE: 3/1/2014		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 2445	WATER - BBL: 0	PROD. METHOD: Flowing
CHOKE SIZE: 20/64	TBG. PRESS. 1378	CSG. PRESS. 2064	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR RATES: →	OIL - BBL: 0	GAS - MCF: 2445	WATER - BBL: 0	INTERVAL STATUS Producing

INTERVAL B (As shown in Item #26)

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

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

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	947
				BIRD'S NEST	1378
				MAHOGANY	1875
				WASATCH	4353
				MESAVERDE	6558

35. ADDITIONAL REMARKS (Include plugging procedures)

The first 210 ft. of the surface hole was drilled with a 12 1/4 in. bit. The remainder of surface hole was drilled with an 11 in. bit. DQX csg was run from surface to 4938 ft.; LTC csg was run from 4938 ft. to 8783 ft. Attached is the chronological well history, perforation report & final survey.

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

NAME (PLEASE PRINT) Kay Kelly

TITLE Sr Staff Regulatory Specialist

SIGNATURE *Kay Kelly*

DATE 3-20-2014

This report must be submitted within 30 days of

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

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

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

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

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

US ROCKIES REGION

Operation Summary Report

US ROCKIES REGION									
Operation Summary Report									
Well: NBU 1022-12L4CS YELLOW					Spud Date: 11/1/2013				
Project: UTAH-UINTAH			Site: NBU 1022-1113 PAD			Rig Name No: PROPETRO 12/12, SST 54/54			
Event: DRILLING			Start Date: 11/1/2013			End Date:			
Active Datum: RKB @5,194.00usft (above Mean Sea Level)			UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
11/1/2013	16:30 - 19:30	3.00	PRSPD	01	C	P	64	<p>PRE SPUD JOB SAFETY MEETING SKID RIG, RIG UP SET MATTING BOARD, SET RIG IN PLACE, CATWALK, PIPE RACKS, PLACE BOTTOM HOLE ASSEMBLY.</p> <p>PRE SPUD JOB SAFETY MEETING REVIEW DIRECTIONAL PLANS AND PLATS AND VERIFY LAT/LONGS AND WELL ORDER VERIFY DIRECTIONAL DRILLERS PLAN IS THE MOST RECENT AND APPROVED VERSION REFERENCE WELLBORE DIAGRAMS FOR EXACT CASING DESIGN AND GENERAL OVERVIEW OF WELLBORE, PRIOR TO SPUD. FINISH PICKING UP BHA.</p>	
	19:30 - 21:00	1.50	DRLSUR	02	A	P	64	<p>PICK UP NOV 1.83 DEGREE BENT MOTOR (RUN # 1) .17 REV/GAL PICK UP 12 1/4 DRILL BIT . SPUD @ 11/01/2013 19:30. DRILL 12.25" HOLE 44' TO 210' (144' @ 96 FPH). WEIGHT ON BIT 5-15 K. STROKES PER MINUTE=120, GALLONS PER MINUTE=491. PRESSURE ON/OFF (BOTTOM) 800/600. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROTATE 25/25/25 K. DRAG 0 K. CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 1 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS.</p>	
	21:00 - 22:30	1.50	DRLSUR	06	A	P	230	<p>PRE JOB SAFETY MEETING, CIRC 15 MINUTES AND, TRIP OUT TO CHANGE ASSEMBLY. BREAK 12 1/4" BIT. MAKE UP BAKER HUGHES 11" BIT. PICK UP 8" DIRECTIONAL ASSEMBLY SCIBE MOTOR. INSTALL EM TOOL, TRIP IN HOLE.</p>	

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-1113 PAD

Rig Name No: PROPETRO 12/12, SST 54/54

Event: DRILLING

Start Date: 11/1/2013

End Date:

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	22:30 - 0:00	1.50	DRLSUR	02	B	P	230	DRILL 11" SURFACE HOLE FROM 210' TO 420' (210' @ 140 FPH). WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 650/450. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 47/45/47 K. DRAG 0 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 2.2' HIGH & 3.2' RIGHT OF THE LINE WITH 112' OF SLIDE @ 20.7%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.
11/2/2013	0:00 - 5:30	5.50	DRLSUR	02	B	P	440	DRILL 11" SURFACE HOLE FROM 420' TO 1,080' (660' @ 110 FPH). WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 650/450. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 58/49/53 K. DRAG 5 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY .6' HIGH & 2.6' RIGHT OF THE LINE WITH 202' OF SLIDE @ 31.3%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.
	5:30 - 6:00	0.50	DRLSUR	23		P	1100	CONDUCTED PRE-TOUR SAFETY MEETING. TOPIC: HIGH PRESSURE LINES.
	6:00 - 17:30	11.50	DRLSUR	02	B	P	1100	DRILL 11" SURFACE HOLE FROM 1,080' TO 2,130' (1,050' @ 91 FPH). WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 1000/800. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 81/58/68 K. DRAG 13 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 16' HIGH & 0' RIGHT OF THE LINE WITH 53' OF SLIDE @ 10.3%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.
	17:30 - 18:00	0.50	DRLSUR	23		P	2150	CONDUCTED PRE-TOUR SAFETY MEETING. TOPIC: LAYING DOWN DRILL PIPE.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-1113 PAD

Rig Name No: PROPETRO 12/12, SST 54/54

Event: DRILLING

Start Date: 11/1/2013

End Date:

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 21:00	3.00	DRLSUR	02	B	P	2150	DRILL 11" SURFACE HOLE FROM 2,130' TO 2,380' (1,050' @ 91 FPH). WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=120. GALLONS PER MINUTE=491. PRESSURE ON/OFF(BOTTOM) 1000/800. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 81/58/68 K. DRAG 13 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 7' HIGH & 0' RIGHT OF THE LINE WITH 53' OF SLIDE @ 10.3%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES
	21:00 - 23:00	2.00	DRLSUR	05	C	P	2400	CIRCULATE AND CONDITION HOLE, VOLUME IS CLEAN COMING OVER SHAKERS, 2-400 BBL UPRIGHT'S FULL AND 4-400 BBL UPRIGHTS EMPTY, 1,000 BBL OF FRESH WATER ON LOCATION FOR CEMENT JOB.
	23:00 - 0:00	1.00	DRLSUR	06	A	P	2400	PRE JOB SAFETY MEETING, TRIP OUT OF HOLE, BEGIN LAYING DOWN DRILL STRING.
11/3/2013	0:00 - 1:00	2.00	DRLSUR	06	A	P	2400	TRIP OUT OF HOLE, LAY DOWN DRILL STRING, BOTTOM HOLE ASSEMBLY, LAY DOWN DIRECTIONAL TOOLS, MOTOR AND, BIT. CLEAR TOOL AREA. SPOT SURFACE CASING FOR 8 5/8" CASING RUN.
	1:00 - 4:30	3.50	CSGSUR	12	C	P	2400	RUN 53 JOINTS OF 8-5/8". 28# J-55 LTC CASING. RAN 1 CENTRALIZER ON FIRST THREE JOINTS, AND EVERY OTHER JOINT FOR 2 JOINTS FOR A TOTAL OF 5 CENTRALIZERS. RUN A TOTAL OF 53 JOINTS. RUN CASING TO BOTTOM WITH NO PROBLEMS. SET FLOAT SHOE @ 2,350' KB. SET TOP OF BAFFLE PLATE @ 2,304'.
	4:30 - 5:30	1.00	CSGSUR	12	B	P	2400	RIG UP TO PUMP PRIMARY SURFACE CEMENT JOB. CONDUCT JSA WITH CEMENTERS AND RIG CREW.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-1113 PAD

Rig Name No: PROPETRO 12/12, SST 54/54

Event: DRILLING

Start Date: 11/1/2013

End Date:

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	5:30 - 12:00	6.50	CSGSUR	12	E	P	2400	<p>PRE JOB SAFETY MEETING WITH PRO PETRO CEMENTERS.</p> <p>RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING.</p> <p>PRESSURE TEST LINES TO 2,000 PSI.</p> <p>PUMP 130 BBLs OF WATER AHEAD CLEARING SHOE.</p> <p>MIX AND PUMP 20 BBLs OF GEL WATER FLUSH AHEAD OF CEMENT.</p> <p>MIX & PUMP 300 SX OF PREMIUM CEMENT WITH 2% CACL2 & 0.25 LB/SX FLOCELE. 61.4 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX.</p> <p>DROP PLUG ON FLY.</p> <p>DISPLACE WITH 143.7 BBLs OF FRESH WATER. NO RETURNS THROUGH OUT JOB. FINAL LIFT OF 190 PSI AT 3.5 BBL/MINUTE.</p> <p>BUMPED PLUG @ 350 PSI. HELD @ 650 PSI FOR 5 MINUTES WITHOUT BLEED OFF.</p> <p>TESTED FLOAT AND FLOAT HELD.</p> <p>RELEASE RIG @ 11/03/2013 12:00 SHUT DOWN AND WASH UP</p> <p>TOP JOB # 1: PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2 & .25 LB/SX FLOCELE. 30.7 BBLs OF SLURRY MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS TO SURFACE.</p> <p>WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W/ 200 SX (40.9 BBLs.) SAME CEMENT, NO CEMENT RETURNS TO SURFACE.</p> <p>WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W/ 200 SX (40.9 BBLs.) SAME CEMENT, 1 BBL CEMENT RETURNS TO SURFACE.</p> <p>RIG DOWN CEMENTERS. (CEMENT JOB FINISHED @ 11/03/2013 13:20)</p>
11/28/2013	18:00 - 21:00	3.00	MIRU3	01	C	P	2354	CLEAN UP AFTER CEMENT AND GET READY TO SKID THE RIG.
	21:00 - 0:00	3.00	MIRU3	01	C	P	2354	NIPPLE DOWN AND SKID RIG ONTO NBU 1022-12L4CS
11/29/2013	0:00 - 4:00	4.00	MIRU3	15	A	P	2250	HOLD SAFETY MEETING, RUN TEST ASSY, TEST BOP WITH A-1 TESTERS - TEST ANNULAR TO 250 PSI LOW/ 5 MIN 2500 PSI HIGH 10 MIN, PIPE & BLIND RAMS, FLOOR VALVES, IBOP, HCR VALVE, KILL LINE VALVES, TEST BOP'S, CHOKE MANIFOLD TO 250 PSI LOW/ 5 MIN - 5000 PSI HIGH 10 MIN, HOLD ACCUMULATOR FUNCTION TEST, TEST CSG 1500 PSI - 30 MIN, RIG DOWN
	4:00 - 4:30	0.50	MIRU3	01	B	P	2250	PICK UP BIT, MOTOR AND DIRECTIONAL TOOLS.
	4:30 - 6:00	1.50	MIRU3	06	A	P	2250	TRIP IN HOLE AND TAG CEMENT AT 2,248'
	6:00 - 7:30	1.50	MIRU3	09	A	P	2250	CUT AND SLIP DRILL LINE 101' 19 WRAPS.
	7:30 - 10:00	2.50	DRLPRC	02	B	P	2250	DRILL CEMENT BAFFLE AND FLOAT SHOE.
	10:00 - 12:00	2.00	DRLPRC	06	I	S	2380	***TRIP OUT OF HOLE TO INSTALL WEAR BUSHING.
	12:00 - 12:30	0.50	MIRU3	14	B	P	2380	***INSTALL WEAR BUSHING.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-1113 PAD

Rig Name No: PROPETRO 12/12, SST 54/54

Event: DRILLING

Start Date: 11/1/2013

End Date:

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:30 - 14:00	1.50	DRLPRC	06	I	S	2380	***TRIP BACK TO BOTTOM.
	14:00 - 18:00	4.00	DRLPRC	02	B	P	2380	DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 2,380' TO 2,931' (551' @ 137.7 FPH) WEIGHT ON BIT 18-21 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.5 PPG / VIS 27 PRESSURE ON/OFF(BOTTOM) 1,580/1,260. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 90/80/85 K. DRAG 5 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 6' BELOW /3' LEFT OF THE LINE WITH 60' OF SLIDE @ 17.0%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.
	18:00 - 0:00	6.00	DRLPRC	02	B	P	2931	DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 2,931' TO 3,698' (767' @ 127 FPH) WEIGHT ON BIT 18-22 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.5 PPG / VIS 27 PRESSURE ON/OFF(BOTTOM) 1,876/1,741. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 110/90/100 K. DRAG 10 K. FROM DIRECTIONAL PLAN WE ARE CURRENTLY 4' LEFT OF PLAN /6' BELOW PLAN WITH 182' OF SLIDE @ 32.0%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-1113 PAD

Rig Name No: PROPETRO 12/12, SST 54/54

Event: DRILLING

Start Date: 11/1/2013

End Date:

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/30/2013	0:00 - 6:00	6.00	DRLPRC	02	B	P	3698	<p>DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 3,698' TO 4,400' (767' @ 127 FPH) WEIGHT ON BIT 18-22 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.5 PPG / VIS 27 PRESSURE ON/OFF(BOTTOM) 1,876/1,741. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 110/90/100 K. DRAG 10 K. TORQUE = ON/OFF (BOTTOM) 12K / 4K FROM DIRECTIONAL PLAN WE ARE CURRENTLY) .03' LEFT OF PLAN / 13' BELOW PLAN WITH 166' OF SLIDE @ 43.0%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.</p>
	6:00 - 12:00	6.00	DRLPRC	02	B	P	4400	<p>DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 4,400' TO 5,370' (970' @ 161 FPH) WEIGHT ON BIT 18-22 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.5 PPG / VIS 28 PRESSURE ON/OFF(BOTTOM) 2,350/1,920. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 130/80/112 K. DRAG 18 K. TORQUE = ON/OFF (BOTTOM) 13K / 8K FROM DIRECTIONAL PLAN WE ARE CURRENTLY) 12.2' RIGHT/ 16.52' BELOW PLAN WITH 136' OF SLIDE @ 12.0%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.</p>

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW		Spud Date: 11/1/2013	
Project: UTAH-UINTAH		Site: NBU 1022-1113 PAD	Rig Name No: PROPETRO 12/12, SST 54/54
Event: DRILLING		Start Date: 11/1/2013	End Date:
Active Datum: RKB @5,194.00usft (above Mean Sea Level)		UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:00 - 17:30	5.50	DRLPRV	02	B	P	5370	<p>DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 5,370' TO 6,170' (800' @ 145 FPH) WEIGHT ON BIT 18-22 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.5 PPG / VIS 28 PRESSURE ON/OFF(BOTTOM) 2,350/1,920. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 130/80/112 K. DRAG 18 K. TORQUE = ON/OFF (BOTTOM) 13K /9K FROM DIRECTIONAL PLAN WE ARE CURRENTLY) 18' WEST/ 10' NORTH OF CENTER TARGET WITH 44' OF SLIDE @ 16.0%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.</p>
	17:30 - 18:00	0.50	DRLPRV	07	A	P	6170	RIG SERVICE
	18:00 - 0:00	6.00	DRLPRV	02	B	P	6170	<p>DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 6,170' TO 6,810' (640' @ 106 FPH) WEIGHT ON BIT 18-22 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.6 PPG / VIS 28 PRESSURE ON/OFF(BOTTOM) 2,350/2,070. ROTARY RPM 65, MOTOR RPM 167, TOTAL RPM 232. UP/DOWN/ ROT 185/120/150 K. DRAG 25 K. TORQUE = ON/OFF (BOTTOM) 14K /9K FROM DIRECTIONAL PLAN WE ARE CURRENTLY) 18' WEST/ 10' NORTH OF CENTER TARGET WITH 44' OF SLIDE @ 16.0%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.</p>

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW		Spud Date: 11/1/2013	
Project: UTAH-UINTAH		Site: NBU 1022-1113 PAD	Rig Name No: PROPETRO 12/12, SST 54/54
Event: DRILLING		Start Date: 11/1/2013	End Date:
Active Datum: RKB @5,194.00usft (above Mean Sea Level)		UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/1/2013	0:00 - 6:00	6.00	DRLPRV	02	B	P	6810	<p>DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 6,810' TO 7,222' (412' @ 68 FPH) WEIGHT ON BIT 18-23 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.6 PPG / VIS 28. PRESSURE ON/OFF(BOTTOM) 2,400/2,170. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 185/120/150 K. DRAG 25 K. TORQUE = ON/OFF (BOTTOM) 14K /9K FROM DIRECTIONAL PLAN WE ARE CURRENTLY) 18' WEST/ 10' NORTH OF CENTER TARGET WITH 44' OF SLIDE @ 16.0%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.5# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.</p>
	6:00 - 12:00	6.00	DRLPRV	02	B	P	7222	<p>DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 7,222' TO 7,696' (474' @ 79 FPH) WEIGHT ON BIT 18-23 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.6 PPG / VIS 28. PRESSURE ON/OFF(BOTTOM) 2,580/2,230. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 205/125/160 K. DRAG 45 K. TORQUE = ON/OFF (BOTTOM) 17K 15K FROM DIRECTIONAL PLAN WE ARE (CURRENTLY) 4' WEST/ 11' NORTH OF CENTER TARGET WITH 83' OF SLIDE @ 38.0%. CIRCULATE CLOSED LOOP SYSTEM WITH 8.6# WATER. RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.</p>

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-1113 PAD

Rig Name No: PROPETRO 12/12, SST 54/54

Event: DRILLING

Start Date: 11/1/2013

End Date:

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:00 - 17:30	5.50	DRLPRV	02	B	P	7696	DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 7,696' TO 8,170' (474' @ 86 FPH) WEIGHT ON BIT 18-23 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.8 PPG / VIS 30 PRESSURE ON/OFF(BOTTOM) 2,670/2,514. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 220/130/175 K. DRAG 45 K. TORQUE = ON/OFF (BOTTOM) 21K 19K FROM DIRECTIONAL PLAN WE ARE (CURRENTLY) @ .05' WEST/ 8.8' NORTH OF CENTER TARGET WITH 83' OF SLIDE @ 38.0%. CIRCULATE CLOSED LOOP SYSTEM WITH, RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.
	17:30 - 18:00	0.50	DRLPRV	07	A	P	8170	RIG SERVICE.
	18:00 - 0:00	6.00	DRLPRV	02	B	P	8170	DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 8,170' TO 8,630' (460' @ 76 FPH) WEIGHT ON BIT 18-23 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 8.8 PPG / VIS 30 / DISPLACE TO 11.3 PPG / 38 VIS PRESSURE ON/OFF(BOTTOM) 3,225/2,980. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 220/120/165 K. DRAG 55 K. TORQUE = ON/OFF (BOTTOM) 21K 19K FROM DIRECTIONAL PLAN WE ARE (CURRENTLY) @ 7' EAST / 6' NORTH OF CENTER TARGET WITH 0' OF SLIDE @ 0.0%. CIRCULATE CLOSED LOOP SYSTEM WITH, RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-1113 PAD

Rig Name No: PROPETRO 12/12, SST 54/54

Event: DRILLING

Start Date: 11/1/2013

End Date:

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/2/2013	0:00 - 2:30	2.50	DRLPRV	02	B	P	8630	DRILLING AND SLIDING 7 7/8" PRODUCTION HOLE FROM 8,630' TO 8,805' (175' @ 70 FPH) WEIGHT ON BIT 18-23 K. STROKES PER MINUTE=170. GALLONS PER MINUTE=598. MUD WEIGHT = 11.3 PPG / VIS 38 PRESSURE ON/OFF(BOTTOM) 3,246/3,078. ROTARY RPM 60, MOTOR RPM 167, TOTAL RPM 227. UP/DOWN/ ROT 220/130/175 K. DRAG 45 K. TORQUE = ON/OFF (BOTTOM) 21K 19K FROM DIRECTIONAL PLAN WE ARE (CURRENTLY) @ 15' EAST / 3' NORTH AT TD OF CENTER TARGET WITH 0' OF SLIDE @ 0.0%. CIRCULATE CLOSED LOOP SYSTEM WITH, RUNNING VOLUME THROUGH 2 CENTRIFUGE DE WATERING AND, RUNNING VOLUME OVER BOTH SHAKERS. NO HOLE ISSUES.
	2:30 - 3:30	1.00	DRLPRV	05	C	P	8805	CONDITION MUD & CIRCULATE, WORKING DRILL STRING UP AND DOWN, MUD IN 11.5 PPG VISCOSITY=38, MUD OUT 11.5 PPG VISCOSITY=38, MUD COMING OVER SHAKERS IS CLEAN, CIRCULATE WITH NO GAINS AND NO LOSSES
	3:30 - 5:30	2.00	DRLPRV	06	E	P	8805	10 STAND WIPER TRIP, NO TIGHT HOLE, HOLE TOOK PROPER FILL WITH NO GAINS AND NO LOSSES NO FLOW ON FLOW CHECKS
	5:30 - 7:00	1.50	DRLPRV	05	C	P	8805	CONDITION MUD & CIRCULATE, WORKING DRILL STRING UP AND DOWN, MUD IN 11.6 PPG VISCOSITY=39, MUD OUT 11.6 PPG VISCOSITY=39, MUD COMING OVER SHAKERS IS CLEAN, BUILD 40 BBL 13.5# DRY JOB CIRCULATE WITH NO GAINS AND NO LOSSES PUMPED 40 BBL CAL CARB SWEEPS WITH WALL NUT AND, MULTI SEAL, NO FLOW ON FLOW CHECKS
	7:00 - 13:00	6.00	DRLPRV	06	D	P	8805	PUMP 40 BBL DRY JOB, BLOW DOWN TOP DRIVE, TRIP OUT OF HOLE FOR CASING RUN, PUMP FIRST 8 STANS OFF BOTTOM, HOLE TOOK PROPER FILL WITH NO GAINS NO LOSSES NO FLOW ON FLOW CHECKS.
	13:00 - 13:30	0.50	DRLPRV	14	B	P	8805	PULL WEAR BUSHING.
	13:30 - 15:00	1.50	CSGPRO	12	A	P	8805	HOLD SAFETY MEETING / RIG UP KIMZEY CASING SERVICE CASING EQUIPMENT.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW		Spud Date: 11/1/2013	
Project: UTAH-UINTAH		Site: NBU 1022-1113 PAD	Rig Name No: PROPETRO 12/12, SST 54/54
Event: DRILLING		Start Date: 11/1/2013	End Date:
Active Datum: RKB @5,194.00usft (above Mean Sea Level)		UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:00 - 22:00	7.00	CSGPRO	12	C	P	8805	KIMZY CASING SERVICE, (INSPECT FLOAT EQUIPMENT) RIG UP TORQUE TURN, PERFORM DUMP TEST. MAKE UP 4.5" K-55 LTC DRILLING & COMPLETION TECH. FLOAT SHOE ON SHOE JOINT WITH THREAD LOCK. MAKE UP 4.5" K-55 FLOAT COLLAR WITH THREAD LOCK ON TOP OF SHOE JOINT. RUN CENTRALIZERS ON FIRST 3 JOINTS AND EVERY THIRD JOINT FOR TOTAL OF 15 CENTRALIZERS. BREAK CIRCULATION @ 50', 968', 5000'. NO PROBLEMS WITH FLOAT SHOE OR COLLAR. RUN A TOTAL OF 86 JOINTS OF 4 1/2", 11.6# I-80, LT&C CASING + 1 MARKER JOINT MAKE UP DQX CROSS OVER JOINT AND, RUN A TOTAL OF 113 JOINTS OF 4 1/2", 11.6# I-80/ DQX, CASING, + 1 CROSSOVER + 1 PUP JOINT RUN A TOTAL OF 199 JOINTS OF CASING TO BOTTOM WITH NO PROBLEMS SET FLOAT SHOE @ 8,787.69', SET TOP FLOAT COLLAR @ 8,740.50', SET TOP OF MESAVERDE MARKER JOINT @ 6,599.23'
	22:00 - 23:30	1.50	CSGPRO	05	D	P	8805	CIRCULATE TWO BOTTOMS UP CLEAN COMING OVER SHAKERS WITH NO GAS LEFT IN HOLE.
	23:30 - 0:00	0.50	CSGPRO	12	B	P	8805	PRE JOB SAFETY MEETING, RIG UP CEMENTERS
12/3/2013	0:00 - 3:30	3.50	CSGPRO	12	E	P	8805	HOLD SAFETY MEETING WITH BAKER HUGHES TEST LINES TO 5,200 PSI, DROP BOTTOM PLUG, PUMP 25 BBLs H2O 8.3 PPG SPACER, MIX & PUMP 173 BBLs LEAD CEMENT 430 SACKS WITH CLASS G CEMENT, WITH PLII +6%GELL +5#skKS +.4%FL52 +.2%SMS +.4% R-3+5#/skSF + 1/4#skCF @ 12 PPG WITH 2.26 YIELD, MIX & PUMP 251.39 BBLs TAIL CEMENT 1,055 SACKS, WITH CLASS G CEMENT, WITH 50/50 poz+2%gell+0.55% R-3 + 10%salt+5#blnd S.F. +.75%SMS @ 14.3 PPG WITH 1.34 YIELD, WASH UP LINES & DROP THE TOP PLUG DISPLACE WITH 136 BBLs H2O @ 8.34 PPG, WITH 6 GALLONS CLAY CARE, CLAY TREAT-2C FINAL LIFT PRESSURE PRIOR TO BUMPING PLUG 2,700 PSI BUMP PLUG WITH 3,450 PSI GOOD RETURNS THROUGHOUT JOB - 22 BBLs GOOD CEMENT BACK TO SURFACE RIG DOWN CEMENTING EQUIPMENT
	3:30 - 4:00	0.50	CSGSUR	17	A	P	8805	PJSM, PULL LANDING JOINT AND PACK OFF WELL HEAD.
	4:00 - 6:00	2.00	RDMO	14	A	P	8805	NIPPLE DOWN BOPE, RELEASE RIG @ 06:00, 12/03/2013.

US ROCKIES REGION

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-12L4CS YELLOW	Wellbore No.	OH
Well Name	NBU 1022-12L4CS	Wellbore Name	NBU 1022-12L4CS
Report No.	1	Report Date	2/10/2014
Project	UTAH-UJINTAH	Site	NBU 1022-11I3 PAD
Rig Name/No.		Event	COMPLETION
Start Date	1/6/2014	End Date	2/21/2014
Spud Date	11/1/2013	Active Datum	RKB @5,194.00usft (above Mean Sea Level)
UWI	NE/SE/010/S/22/E/11.0/0.0/26/PM/S/1469/E/0/996/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	4,520.0 (usft)-8,652.0 (usft)	Start Date/Time	2/10/2014 12:00AM
No. of Intervals	72	End Date/Time	2/10/2014 12:00AM
Total Shots	288	Net Perforation Interval	96.00 (usft)
Avg Shot Density	3.00 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

--	--	--	--

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc./Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/10/2014 12:00AM	WASATCH/			4,520.0	4,524.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			4,536.0	4,540.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			5,052.0	5,054.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			5,080.0	5,083.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			5,093.0	5,096.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,056.0	6,058.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,069.0	6,072.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,300.0	6,303.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,403.0	6,404.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,541.0	6,542.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,562.0	6,564.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,584.0	6,585.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,597.0	6,598.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	WASATCH/			6,618.0	6,620.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			6,794.0	6,795.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			6,810.0	6,811.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			6,835.0	6,836.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			6,882.0	6,883.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			6,911.0	6,913.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/10/2014 12:00AM	MESAVEERDE/			6,940.0	6,942.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			6,994.0	6,995.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,025.0	7,026.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,055.0	7,056.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,071.0	7,072.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,168.0	7,169.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,200.0	7,201.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,270.0	7,272.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,310.0	7,311.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,324.0	7,325.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,456.0	7,458.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,508.0	7,509.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,520.0	7,521.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,564.0	7,565.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,579.0	7,580.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,606.0	7,607.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,620.0	7,621.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,633.0	7,634.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVEERDE/			7,652.0	7,653.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/10/2014 12:00AM	MESAVERDE/			7,662.0	7,663.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,672.0	7,673.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,709.0	7,710.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,765.0	7,766.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,804.0	7,805.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,823.0	7,824.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,855.0	7,856.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,878.0	7,879.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,891.0	7,892.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,928.0	7,929.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			7,986.0	7,987.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,020.0	8,021.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,054.0	8,055.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,074.0	8,075.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,095.0	8,096.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,106.0	8,107.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,127.0	8,128.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,158.0	8,159.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,181.0	8,182.0	3.00		0.410	EXP/	3.125	120.00		19.00	PRODUCTION	

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Weight (gram)	Reason	Misrun
2/10/2014 12:00AM	MESAVERDE/			8,199.0	8,200.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,234.0	8,235.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,252.0	8,253.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,290.0	8,291.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,312.0	8,313.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,346.0	8,347.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,358.0	8,359.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,379.0	8,380.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,389.0	8,390.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,424.0	8,425.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,440.0	8,441.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,476.0	8,477.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,617.0	8,618.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,624.0	8,626.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	
2/10/2014 12:00AM	MESAVERDE/			8,650.0	8,652.0	3.00		0.410	EXP/	3.125	120.00	19.00	PRODUCTION	

3 Plots

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-11I3 PAD

Rig Name No:

Event: COMPLETION

Start Date: 1/6/2014

End Date: 2/21/2014

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
1/6/2014	-							
2/5/2014	10:00 - 11:00	1.00	SUBSPR	52	B	P		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST -92 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI.
								PRESSURE TEST 8 5/8 X 4 1/2 TO 500 PSI HELD FOR 5 MIN LOST -390 PSI, BLED PSI OFF, REINSTALLED POP OFF SWIFN 50# PRESSURE ON SURFACE CASING FILLED SURFACE WITH 2 BBLS H2O
2/7/2014	8:00 - 9:00	1.00	SUBSPR	37		P		PERF STG 1)PU 3 1/8 EXP GUN, 19 GM, .40 HOLE SIZE. RIH PERFWELL, AS PER PERF DESIGN. POOH. SWIFW
2/10/2014	6:30 - 6:45	0.25	FRAC	48		P		HSM,JSA
	7:00 - 18:00	11.00	FRAC	36	H	P		REFER TO STIMULATION PJR FOR FLUID, SAND AND CHEMICAL VOLUMES, ALL STAGES WERE PERFORATED ACCORDING TO PERF RECORD IN OPEN WELLS, ALL STAGES WERE STIMULATED TO VENDOR POST JOB REPORT. ALL PLUGS ARE HALIBURTON 8K CBPS PRESSURE TEST TO 9585 PSI HELD 15 MINUTES LOST 1085 PSI FRAC STG #1] WHP=1713#, BRK DN PERFS=4498#, @=4.8 BPM, INTIAL ISIP=2549#, FG=.74, FINAL ISIP=2456#, FG=.73, SET PLUG & PERFORATE STG #2 FRAC STG #2] WHP=2223#, BRK DN PERFS=2517#, @=3.7 BPM, INTIAL ISIP=2225#, FG=.71, FINAL ISIP=2508#, FG=.74, SET PLUG & PERFORATE STG #3 FRAC STG #3] WHP=2192#, BRK DN PERFS=2818#, @=4.0 BPM, INTIAL ISIP=2240#, FG=.71, FINAL ISIP=2729#, FG=.77, SET PLUG & PERFORATE STG #4 FRAC STG #4] WHP=1943#, BRK DN PERFS=3329#, @=6.1 BPM, INTIAL ISIP=2028#, FG=.70, FINAL ISIP=2567#, FG=.76, SWIFN W/O WIRELINE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW

Spud Date: 11/1/2013

Project: UTAH-UINTAH

Site: NBU 1022-1113 PAD

Rig Name No:

Event: COMPLETION

Start Date: 1/6/2014

End Date: 2/21/2014

Active Datum: RKB @5,194.00usft (above Mean Sea Level)

UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
2/11/2014	6:15 - 6:30	0.25	FRAC	48		P		HSM,JSA
	6:40 - 17:00	10.33	FRAC	36	H	P		SET PLUG PERFORATE STG #5 FRAC STG #5] WHP=1383#, BRK DN PERFS=2349#, @=5.0 BPM, INTIAL ISIP=1566#, FG=.64, FINAL ISIP=2269#, FG=.73, SET PLUG AND PERFORATE STG #6 FRAC STG #6] WHP=1484#, BRK DN PERFS=1645#, @=1.9 BPM, INTIAL ISIP=1487#, FG=.64, FINAL ISIP=2358#, FG=.76, SET PLUG AND PERFORATE STG #7
2/12/2014	6:10 - 6:25	0.25	FRAC	48		P		HSM,JSA
	6:34 - 17:00	10.43	FRAC	36	H	P		FRAC STG #7] WHP=1206#, BRK DN PERFS=1891#, @=4.8 BPM, INTIAL ISIP=1474#, FG=.65, FINAL ISIP=2359#, FG=.77, SET PLUG AND PERFORATE STG #8 FRAC STG #8] WHP=1130#, BRK DN PERFS=1721#, @=4.2 BPM, INTIAL ISIP=1435#, FG=.65, FINAL ISIP=2021#, FG=.73, SET PLUG AND PERFORATE STG #9 FRAC STG #9] WHP=561#, BRK DN PERFS=1848#, @=2.9 BPM, INTIAL ISIP=1154#, FG=.62, FINAL ISIP=2041#, FG=.75, SET PLUG AND PERFORATE STG #10 FRAC STG #10] WHP=509#, BRK DN PERFS=3253#, @=5.3 BPM, INTIAL ISIP=1639#, FG=.70, FINAL ISIP=1820#, FG=.73, SWIFN W/O WIRELINE
2/13/2014	6:45 - 7:00	0.25	FRAC	48		P		HSM,JSA
	7:30 - 12:00	4.50	FRAC	36	H	P		SET PLUG AND PERFORATE STG #11 FRAC STG #11] WHP=150#, BRK DN PERFS=1691#, @=2.6 BPM, INTIAL ISIP=841#, FG=.60, FINAL ISIP=1852#, FG=.80, SET PLUG AND PERFORATE STG #12 FRAC STG #12] WHP=608#, BRK DN PERFS=1978#, @=2.6 BPM, INTIAL ISIP=916#, FG=.64, FINAL ISIP=2423#, FG=.97, SET TOP KILL TOTAL BBLs=14,424 TOTAL SAND=328,108

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12L4CS YELLOW				Spud Date: 11/1/2013				
Project: UTAH-UINTAH			Site: NBU 1022-1113 PAD			Rig Name No:		
Event: COMPLETION			Start Date: 1/6/2014		End Date: 2/21/2014			
Active Datum: RKB @5,194.00usft (above Mean Sea Level)				UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
2/20/2014	7:00 - 7:15	0.25	DRLOUT	48		P		HSM, SLIPS, TRIPS & FALLS, RIGGING UP, WORKING W/ P/S
	7:15 - 17:00	9.75	DRLOUT	31	I	P		3 OF 4, MIRU, ND WH, NU BOP & C/O UPPER PIPE RAMS, RU FLOOR, PU 3 7/8" BIT, POBS, 1.875" XN SN, TALLY & PU TBG TO KILL PLUG, RU P/S, FILL TBG & BREAK CIRC, P/T BOP TO 3,000 PSI GOOD, SURFACE CSG VALVE OPEN & LOCKED, D/O 6 CBP'S C/O 10' SAND, TAG 1ST PLUG @ 4470', KICK 200 PSI, CSG PRESS 0 PSI WELL FLOWING, RIH C/O 30' SAND, TAG 2ND PLUG @ 4570', KICK 100 PSI, CSG PRESS 50 PSI, RIH C/O 20' SAND, TAG 3RD PLUG @ 5126', KICK 100 PSI, CSG PRESS 0 PSI, RIH C/O 60' SAND, TAG 4TH PLUG @ 6333', KICK 200 PSI, CSG PRESS 0 PSI, RIH C/O 30' SAND, TAG 5TH PLUG @ 6650', KICK 300 PSI, CSG PRESS 200 PSI, RIH C/O 30' SAND, TAG 6TH PLUG @ 6972', KICK 400 PSI, CSG PRESS 400 PSI, LET WELL CLEAN UP, SWI, WINTERIZE, SDFN.
2/21/2014	7:00 - 7:15	0.25	DRLOUT	48		P		HSM, SLIPS, TRIPS & FALLS, BLEEDING OFF PRESS, D/O CBP'S, LANDING TBG, RIGGING DOWN

US ROCKIES REGION

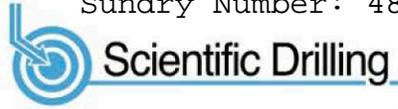
Operation Summary Report

Well: NBU 1022-12L4CS YELLOW		Spud Date: 11/1/2013	
Project: UTAH-UINTAH		Site: NBU 1022-1113 PAD	Rig Name No:
Event: COMPLETION		Start Date: 1/6/2014	End Date: 2/21/2014
Active Datum: RKB @5,194.00usft (above Mean Sea Level)		UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0	

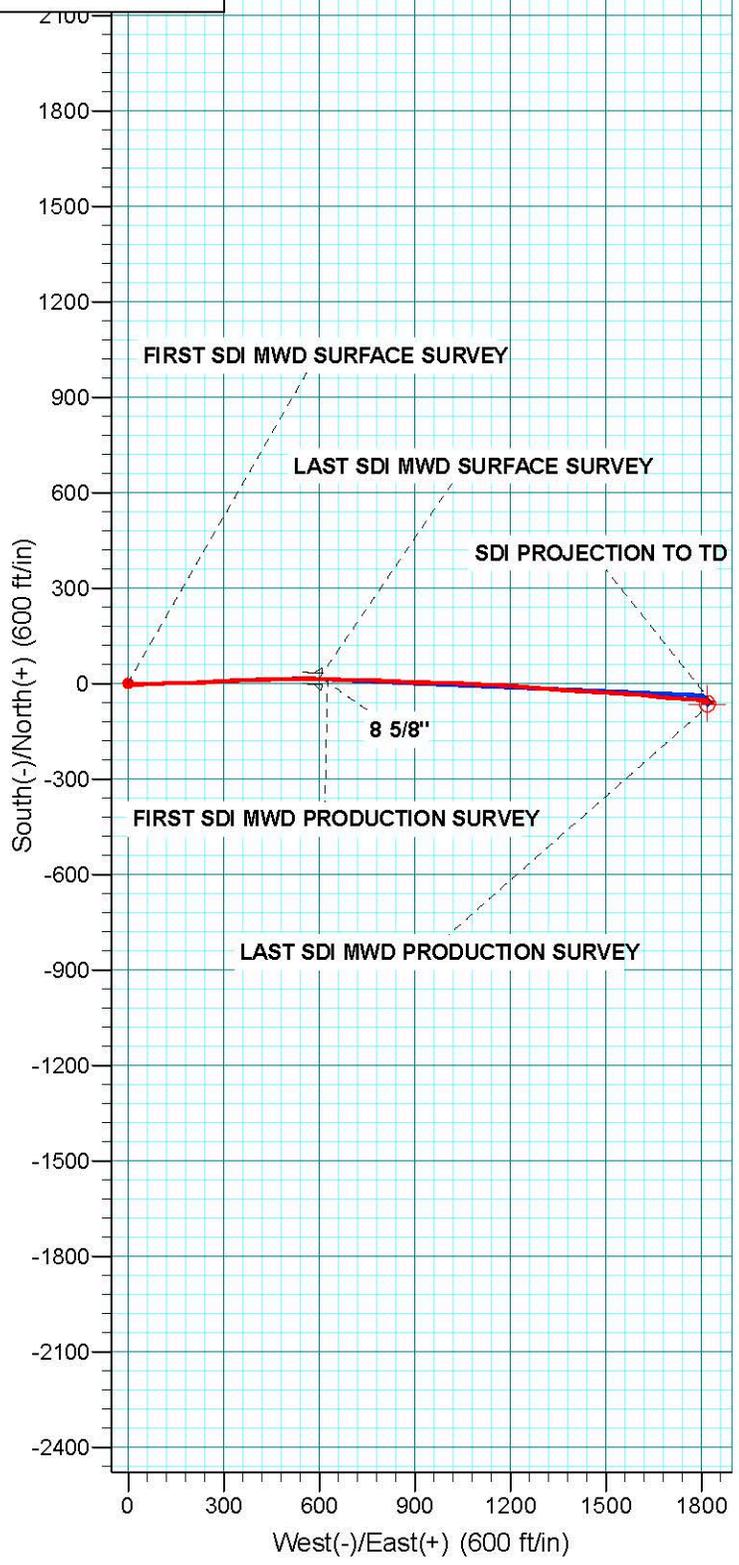
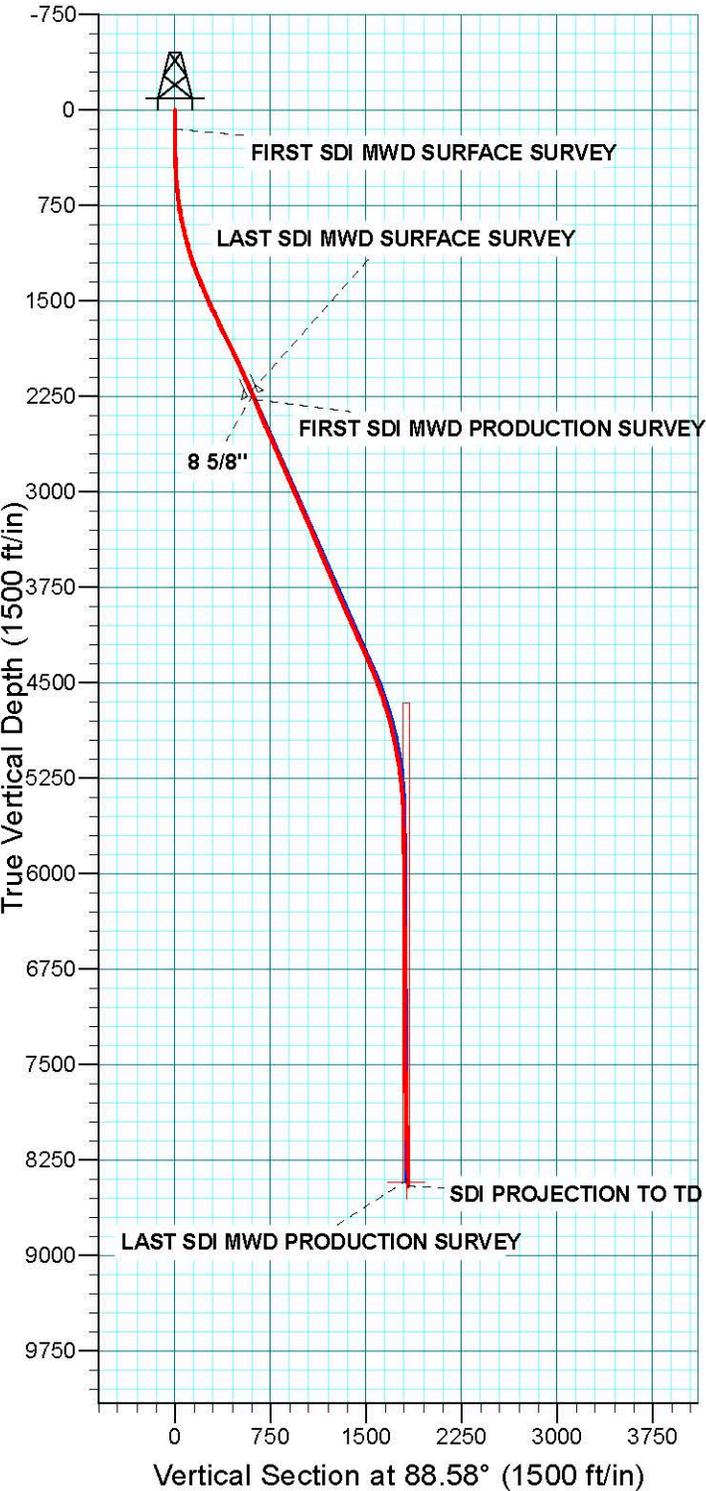
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 14:00	6.75	DRLOUT	44	C	P		<p>3 OF 4, SICP 2300 PSI, OPEN & BLEED OFF, SURFACE CSG VALVE OPEN & LOCKED, D/O 6 CBP'S THRU BJD & HAL 9000</p> <p>C/O 30' SAND, TAG 7TH PLUG @ 7297', KICK 400 PSI, CSG PRESS 500 PSI, RIH</p> <p>C/O 20' SAND, TAG 8TH PLUG @ 7596', KICK 200 PSI, CSG PRESS 500 PSI, RIH</p> <p>C/O 20' SAND, TAG 9TH PLUG @ 7791', KICK 100 PSI, CSG PRESS 700 PSI, RIH</p> <p>C/O 70' SAND, TAG 10TH PLUG @ 8041', KICK 500 PSI, CSG PRESS 700 PSI, RIH</p> <p>C/O 10' SAND, TAG 11TH PLUG @ 8220', KICK 800 PSI, CSG PRESS 700 PSI, RIH</p> <p>C/O 10' SAND, TAG 12TH PLUG @ 8410', KICK 400 PSI, CSG PRESS 600 PSI, RIH</p> <p>PBTD @ 8736', BTM PERF @ 8652', RIH TAGGED @ 8650', C/O TO 8736' PBTD, 84' PAST BTM PERF W/ 279 JTS 2 3/8" J-55 & L-80 TBG, LD 17 JTS ((WET)), PU & STRIP IN TBG HANGER & LAND TBG W/ 262 JTS 2 3/8" TBG, EOT 8217.77'.</p> <p>NOTE: D/O THRU BJD & (1) HAL 9000, SOLD THRU 2 SEPERATORS NBU 1022-12L4CS SOLD 162 MCF (???) NBU 1022-1114CS SOLD 414 MCF, TOTAL GAS SOLD 576 MCF, LINE PRESS 400 PSI.</p> <p>RD P/S, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL & SHEAR OFF BIT, P/T LINE FROM WH TO HAL 9000 TO 3,000 PSI, NO VISIBLE LEAKS.</p> <p>TURN OVER TO FLOW BACK CREW & SALES, WINTERIZE EQUIP, RD & MOVE TO NEXT WELL ON PAD.</p> <p>KB= 24' 4 1/16" CAMERON HANGER= .83' TBG DELIVERED 167 JTS L-80 112 JTS 2 3/8" L-80= 3,551.71' TBG DELIVERED 150 JTS J-55 1 - 6' PUP JT L-80= 6.10' TOTAL TBG= 317 JTS J-55 & L-80 150 JTS 2 3/8" J-55 = 4,632.93' TBG USED 262 JTS POBS= 2.20' TBG RETURNED 55 JTS L-80 EOT @ 8,217.77'</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12L4CS YELLOW				Spud Date: 11/1/2013				
Project: UTAH-UINTAH			Site: NBU 1022-1113 PAD			Rig Name No:		
Event: COMPLETION			Start Date: 1/6/2014		End Date: 2/21/2014			
Active Datum: RKB @5,194.00usft (above Mean Sea Level)				UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								TWTR= 14,424 BBLS TWR= 3000 BBLS TWLTR= 11,424 BBLS



WELL DETAILS: NBU 1022-12L4CS					
GL 5170 & KB 19 @ 5189.00ft (SST 54)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14515599.39	2088595.11	39.9602810	-109.4006590





Scientific Drilling

US ROCKIES REGION PLANNING

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

NBU 1022-11I3 PAD

NBU 1022-12L4CS

OH

Design: OH

Standard Survey Report

04 December, 2013



Scientific Drilling

Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5170 & KB 19 @ 5189.00ft (SST 54)
Site:	NBU 1022-1113 PAD	MD Reference:	GL 5170 & KB 19 @ 5189.00ft (SST 54)
Well:	NBU 1022-12L4CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

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

Site	NBU 1022-1113 PAD, SECTION 11 T10S R22E				
Site Position:		Northing:	14,515,619.44 usft	Latitude:	39.9603360
From:	Lat/Long	Easting:	2,088,595.87 usft	Longitude:	-109.4006550
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.03 °

Well	NBU 1022-12L4CS, 1469 FSL 996 FEL					
Well Position	+N/-S	0.00 ft	Northing:	14,515,599.39 usft	Latitude:	39.9602810
	+E/-W	0.00 ft	Easting:	2,088,595.10 usft	Longitude:	-109.4006590
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,170.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	11/28/2013	10.79	65.78	51,993

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	88.58	

Survey Program	Date	12/4/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
15.00	2,327.00	Survey #1 SDI MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
2,397.00	8,805.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	
154.00	0.79	200.92	154.00	-0.90	-0.34	-0.36	0.57	0.57	0.00	
FIRST SDI MWD SURFACE SURVEY										
210.00	1.06	149.41	209.99	-1.70	-0.22	-0.26	1.50	0.48	-91.98	
291.00	1.41	114.70	290.97	-2.76	1.07	1.00	1.00	0.43	-42.85	
377.00	1.76	89.56	376.94	-3.20	3.35	3.27	0.90	0.41	-29.23	
467.00	2.92	89.00	466.86	-3.14	7.03	6.95	1.29	1.29	-0.62	
557.00	4.31	88.86	556.68	-3.04	12.70	12.62	1.54	1.54	-0.16	
647.00	6.16	87.63	646.30	-2.77	20.91	20.83	2.06	2.06	-1.37	



Scientific Drilling

Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5170 & KB 19 @ 5189.00ft (SST 54)
Site:	NBU 1022-1113 PAD	MD Reference:	GL 5170 & KB 19 @ 5189.00ft (SST 54)
Well:	NBU 1022-12L4CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
737.00	7.83	87.71	735.63	-2.33	31.86	31.79	1.86	1.86	0.09	
827.00	10.18	87.42	824.51	-1.72	45.93	45.87	2.61	2.61	-0.32	
917.00	12.31	87.45	912.78	-0.94	63.46	63.42	2.37	2.37	0.03	
1,007.00	14.08	87.91	1,000.40	-0.11	83.99	83.96	1.97	1.97	0.51	
1,097.00	15.83	88.42	1,087.35	0.63	107.20	107.18	1.95	1.94	0.57	
1,187.00	17.94	88.15	1,173.46	1.41	133.33	133.32	2.35	2.34	-0.30	
1,277.00	20.84	88.42	1,258.35	2.30	163.19	163.20	3.22	3.22	0.30	
1,367.00	22.60	88.86	1,341.96	3.09	196.49	196.50	1.96	1.96	0.49	
1,457.00	22.42	87.63	1,425.10	4.14	230.93	230.96	0.56	-0.20	-1.37	
1,547.00	24.01	87.27	1,507.81	5.72	266.37	266.43	1.77	1.77	-0.40	
1,637.00	26.47	86.39	1,589.21	7.86	304.68	304.78	2.76	2.73	-0.98	
1,727.00	25.56	86.88	1,670.09	10.18	344.08	344.23	1.04	-1.01	0.54	
1,817.00	25.68	88.50	1,751.25	11.75	382.97	383.14	0.79	0.13	1.80	
1,907.00	26.35	88.65	1,832.13	12.73	422.43	422.61	0.75	0.74	0.17	
1,997.00	25.41	89.12	1,913.10	13.49	461.70	461.90	1.07	-1.04	0.52	
2,087.00	25.50	87.80	1,994.36	14.53	500.37	500.58	0.64	0.10	-1.47	
2,177.00	24.01	89.03	2,076.09	15.59	538.04	538.26	1.75	-1.66	1.37	
2,267.00	23.83	90.70	2,158.36	15.68	574.53	574.74	0.78	-0.20	1.86	
2,327.00	23.83	93.16	2,213.25	14.86	598.75	598.93	1.66	0.00	4.10	
LAST SDI MWD SURFACE SURVEY										
2,354.00	23.56	93.15	2,237.97	14.26	609.58	609.75	1.00	-1.00	-0.03	
8 5/8"										
2,397.00	23.13	93.14	2,277.45	13.33	626.60	626.73	1.00	-1.00	-0.03	
FIRST SDI MWD PRODUCTION SURVEY										
2,492.00	21.54	91.12	2,365.32	11.96	662.67	662.76	1.86	-1.67	-2.13	
2,588.00	22.51	89.80	2,454.32	11.68	698.66	698.74	1.13	1.01	-1.38	
2,683.00	23.57	90.33	2,541.74	11.64	735.84	735.91	1.14	1.12	0.56	
2,779.00	24.71	93.50	2,629.35	10.30	775.07	775.08	1.80	1.19	3.30	
2,874.00	24.27	93.41	2,715.80	7.93	814.38	814.32	0.46	-0.46	-0.09	
2,970.00	24.71	92.88	2,803.16	5.75	854.11	853.99	0.51	0.46	-0.55	
3,065.00	23.04	91.83	2,890.03	4.15	892.53	892.35	1.81	-1.76	-1.11	
3,161.00	23.04	90.33	2,978.37	3.45	930.09	929.89	0.61	0.00	-1.56	
3,256.00	24.62	90.77	3,065.27	3.07	968.47	968.25	1.67	1.66	0.46	
3,352.00	24.18	92.18	3,152.70	2.06	1,008.11	1,007.85	0.76	-0.46	1.47	
3,447.00	23.39	92.88	3,239.63	0.37	1,046.39	1,046.07	0.88	-0.83	0.74	
3,542.00	22.16	93.06	3,327.22	-1.53	1,083.11	1,082.74	1.30	-1.29	0.19	
3,638.00	21.90	92.62	3,416.21	-3.32	1,119.08	1,118.65	0.32	-0.27	-0.46	
3,733.00	23.04	93.32	3,504.00	-5.21	1,155.33	1,154.85	1.23	1.20	0.74	
3,829.00	23.13	92.79	3,592.31	-7.21	1,192.92	1,192.38	0.24	0.09	-0.55	
3,924.00	23.21	94.99	3,679.65	-9.75	1,230.21	1,229.59	0.92	0.08	2.32	
4,018.00	24.45	94.55	3,765.63	-12.90	1,268.05	1,267.34	1.33	1.32	-0.47	
4,114.00	23.65	94.02	3,853.30	-15.83	1,307.07	1,306.27	0.86	-0.83	-0.55	
4,209.00	23.30	94.64	3,940.44	-18.68	1,344.80	1,343.92	0.45	-0.37	0.65	
4,304.00	24.09	93.76	4,027.43	-21.48	1,382.88	1,381.92	0.91	0.83	-0.93	



Scientific Drilling

Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5170 & KB 19 @ 5189.00ft (SST 54)
Site:	NBU 1022-1113 PAD	MD Reference:	GL 5170 & KB 19 @ 5189.00ft (SST 54)
Well:	NBU 1022-12L4CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	25.15	91.74	4,114.70	-23.38	1,422.82	1,421.80	1.41	1.10	-2.10
4,495.00	24.89	94.02	4,200.79	-25.39	1,462.94	1,461.86	1.05	-0.27	2.40
4,590.00	24.36	93.58	4,287.15	-28.02	1,502.44	1,501.28	0.59	-0.56	-0.46
4,686.00	23.04	94.20	4,375.05	-30.63	1,540.93	1,539.70	1.40	-1.38	0.65
4,781.00	21.72	92.44	4,462.89	-32.74	1,577.04	1,575.74	1.56	-1.39	-1.85
4,876.00	19.72	96.11	4,551.75	-35.20	1,610.54	1,609.17	2.51	-2.11	3.86
4,971.00	17.85	97.27	4,641.68	-38.75	1,640.92	1,639.46	2.01	-1.97	1.22
5,066.00	16.36	96.13	4,732.48	-42.02	1,668.67	1,667.12	1.61	-1.57	-1.20
5,162.00	14.51	94.81	4,825.01	-44.47	1,694.10	1,692.48	1.96	-1.93	-1.38
5,257.00	12.93	92.79	4,917.30	-45.98	1,716.58	1,714.91	1.74	-1.66	-2.13
5,353.00	11.03	93.11	5,011.20	-47.01	1,736.48	1,734.78	1.98	-1.98	0.33
5,448.00	9.46	92.23	5,104.69	-47.80	1,753.35	1,751.63	1.66	-1.65	-0.93
5,543.00	7.65	92.62	5,198.63	-48.40	1,767.47	1,765.73	1.91	-1.91	0.41
5,639.00	6.07	91.03	5,293.94	-48.78	1,778.93	1,777.17	1.66	-1.65	-1.66
5,733.00	4.57	93.93	5,387.53	-49.12	1,787.64	1,785.87	1.62	-1.60	3.09
5,828.00	3.17	93.67	5,482.31	-49.55	1,794.03	1,792.25	1.47	-1.47	-0.27
5,924.00	1.41	99.67	5,578.23	-49.92	1,797.85	1,796.06	1.85	-1.83	6.25
6,019.00	0.97	125.93	5,673.21	-50.59	1,799.65	1,797.84	0.73	-0.46	27.64
6,114.00	1.23	133.75	5,768.19	-51.77	1,801.04	1,799.20	0.32	0.27	8.23
6,210.00	0.09	18.00	5,864.18	-52.41	1,801.81	1,799.95	1.32	-1.19	-120.57
6,305.00	0.44	116.08	5,959.18	-52.50	1,802.16	1,800.30	0.49	0.37	103.24
6,400.00	0.62	108.44	6,054.18	-52.82	1,802.97	1,801.11	0.20	0.19	-8.04
6,495.00	0.70	137.70	6,149.17	-53.41	1,803.85	1,801.97	0.36	0.08	30.80
6,590.00	1.06	139.73	6,244.16	-54.51	1,804.81	1,802.90	0.38	0.38	2.14
6,686.00	0.97	157.04	6,340.15	-55.94	1,805.70	1,803.76	0.33	-0.09	18.03
6,781.00	0.70	140.25	6,435.14	-57.12	1,806.39	1,804.41	0.38	-0.28	-17.67
6,876.00	0.79	140.08	6,530.13	-58.07	1,807.18	1,805.18	0.09	0.09	-0.18
6,972.00	1.14	122.24	6,626.12	-59.09	1,808.41	1,806.39	0.48	0.36	-18.58
7,067.00	1.23	133.66	6,721.09	-60.30	1,809.95	1,807.89	0.27	0.09	12.02
7,162.00	1.14	137.18	6,816.07	-61.69	1,811.33	1,809.24	0.12	-0.09	3.71
7,256.00	0.79	334.05	6,910.07	-61.80	1,811.68	1,809.59	2.03	-0.37	-173.54
7,351.00	1.85	336.95	7,005.04	-59.80	1,810.79	1,808.75	1.12	1.12	3.05
7,447.00	1.41	327.72	7,101.00	-57.37	1,809.55	1,807.57	0.53	-0.46	-9.61
7,542.00	1.76	22.30	7,195.97	-55.03	1,809.48	1,807.56	1.56	0.37	57.45
7,637.00	1.32	45.51	7,290.94	-52.92	1,810.82	1,808.95	0.79	-0.46	24.43
7,731.00	1.23	68.53	7,384.92	-51.79	1,812.53	1,810.69	0.55	-0.10	24.49
7,827.00	1.14	96.04	7,480.90	-51.51	1,814.44	1,812.60	0.59	-0.09	28.66
7,922.00	1.06	120.39	7,575.88	-52.06	1,816.13	1,814.28	0.50	-0.08	25.63
8,017.00	1.06	137.44	7,670.86	-53.15	1,817.49	1,815.61	0.33	0.00	17.95
8,112.00	1.06	127.77	7,765.85	-54.33	1,818.78	1,816.87	0.19	0.00	-10.18
8,207.00	1.08	123.09	7,860.83	-55.36	1,820.22	1,818.29	0.09	0.02	-4.93
8,303.00	0.97	113.62	7,956.82	-56.18	1,821.72	1,819.77	0.21	-0.11	-9.86
8,398.00	1.23	97.71	8,051.80	-56.64	1,823.47	1,821.50	0.42	0.27	-16.75



Scientific Drilling

Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-12L4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5170 & KB 19 @ 5189.00ft (SST 54)
Site:	NBU 1022-1113 PAD	MD Reference:	GL 5170 & KB 19 @ 5189.00ft (SST 54)
Well:	NBU 1022-12L4CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales Office

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,493.00	1.41	97.27	8,146.77	-56.92	1,825.64	1,823.67	0.19	0.19	-0.46
8,588.00	1.67	100.97	8,241.74	-57.34	1,828.16	1,826.17	0.29	0.27	3.89
8,683.00	1.85	113.09	8,336.69	-58.20	1,830.93	1,828.92	0.43	0.19	12.76
8,748.00	1.85	116.70	8,401.66	-59.08	1,832.83	1,830.80	0.18	0.00	5.55
LAST SDI MWD PRODUCTION SURVEY									
8,805.00	1.85	116.70	8,458.63	-59.91	1,834.47	1,832.42	0.00	0.00	0.00
SDI PROJECTION TO TD									

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-12L4C	0.00	0.00	8,420.00	-62.95	1,819.34	14,515,569.08	2,090,415.28	39.9601080	-109.3941680
- hit/miss target									
- Shape									
- actual wellpath misses target center by 23.09ft at 8748.00ft MD (8401.66 TVD, -59.08 N, 1832.83 E)									
- Circle (radius 25.00)									

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,354.00	2,237.97	8 5/8"	8.625	11.000

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
154.00	154.00	-0.90	-0.34	FIRST SDI MWD SURFACE SURVEY
2,327.00	2,213.25	14.86	598.75	LAST SDI MWD SURFACE SURVEY
2,397.00	2,277.45	13.33	626.60	FIRST SDI MWD PRODUCTION SURVEY
8,748.00	8,401.66	-59.08	1,832.83	LAST SDI MWD PRODUCTION SURVEY
8,805.00	8,458.63	-59.91	1,834.47	SDI 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: UO1197A-ST	
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
8. WELL NAME and NUMBER: NBU 1022-12L4CS	
9. API NUMBER: 43047518730000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6100	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1469 FSL 0996 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE 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 type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 9/15/2014	<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: WELLBORE CLEANOUT

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

A WORKOVER/WELLBORE CLEANOUT-SCALE REMOVAL HAS BEEN COMPLETED ON THE NBU 1022-12L4CS, SEE THE ATTACHED OPERATIONS SUMMARY REPORT.

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
October 21, 2014**

NAME (PLEASE PRINT) Doreen Green	PHONE NUMBER 435 781-9758	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 10/15/2014	

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-12L4CS YELLOW		Spud Date: 11/1/2013	
Project: UTAH-UINTAH		Site: NBU 1022-1113 PAD	Rig Name No: MILES 3/3
Event: WELL WORK EXPENSE		Start Date: 9/3/2014	End Date: 9/15/2014
Active Datum: RKB @5,194.00usft (above Mean Sea Level)		UWI: NE/SE/0/10/S/22/E/11/0/0/26/PM/S/1469/E/0/996/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/10/2014	7:00 - 7:30	0.50	WO/REP	48		P		HSM, RIGGING DOWN RIG & EQUIP.
	7:30 - 10:00	2.50	WO/REP	30	C	P		RIG DWN OFF NBU 1021-21J, PUT ON TIRE CHAINS.
	10:00 - 13:30	3.50	WO/REP	30	A	P		MIRU RIG & PUMP & LINES.
	13:30 - 14:30	1.00	WO/REP	30	E	P		SICP 500 SITP 500, PUMP 50 BBLS DWN CSG, 20 DWN TBG, TBG IS PLUGGED.
	14:30 - 15:00	0.50	WO/REP	30	F	P		ND WH NU BOPS UNLAND TBG NOT STUCK, RELAND, NU BOPS RU FLOOR.
	15:00 - 17:00	2.00	WO/REP	34	H	P		RU WL RIH TAG @ 8110' PU SHOT 4 HOLES @ 8107'- 8108' POOH RD WL. SWI SDFN.
9/11/2014	7:00 - 7:30	0.50	WO/REP	48		P		HSM, CHECKING BOPS & FUNTION TESTING.
	7:30 - 8:30	1.00	WO/REP	30	F	P		SWAPPED OUT BOP ACCUMULATOR.
	8:30 - 14:30	6.00	WO/REP	31	I	P		SICP & SITP 1500 PSI, CONTROL TBG W/ 20 BBLS WTR, CSG W/ 70 BBLS WTR, UNLAND TBG, L/D AHNGER, PU 17 JTS TAG @ 8715' BTM PERF @ 8652' 63' RAT HOLE, L/D 17 JTS. RU SCAN TECH SCAN OUT W/ 263 JTS HAD 1 EXTRA JT L-80, 256 YELLOW BAND, 7 JTS J-55, ON BTM PLUGGED W/ SCALE PERF HOLES IN 260 & 261. THERE WAS INNER PITTING ON 10-258, PIPE WAS CLEAN ON OUTSIDE, NO C/O NEEDED.
	14:30 - 17:30	3.00	WO/REP	31	I	P		RIH W/ 1.875 X/N 143 JTS 23/8 J-55, 6' L-80, PUP JT, 1 JTS 23/8 L-80 BROACHING, SWI LOCKED RAMS SDFWE CUM COST, \$ 27,884.00
9/15/2014	7:00 - 7:15	0.25	MAINT	48		P		JSA-SAFETY MEETING
	7:15 - 15:00	7.75	MAINT	31	I	P		1700# ON WELL, BLOW DN TO PIT, TIH W/ 2 3/8" TBG, BROACH TBG IN, LAND TBG W/ HANGER @ 8182.40', N/D BOP N/U WH, SHUT WELL IN, R/D UNIT MOVE OFF LOC,
								KB = 24.00' HANGER = .83' 118 JTS 2 3/8" L-80 TBG = 3738.66' 2 3/8" L-80 PUP JT = 6.10' 143 JTS 2 3/8" J-55 TBG = 4411.71' XN-NIPPLE = 1.10'
								EOT = 8182.40'
	15:00 - 17:00	2.00	MAINT	30		P		ROAD RIG TO VERNAL