API Well Number: 43047537300000

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 1022-13D4CS

2. TYPE OF WORK
DRILL NEW WELL ■ REENTER P&A WELL ☐ DEEPEN WELL ☐

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)
UT ST UO 8512 ST

11. MINERAL OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ■ FEE ☐

12. SURFACE OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ■ FEE ☐

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 ■ (Submit Commingling Application) NO ☐

19. SLANT
VERTICAL ☐ DIRECTIONAL ■ HORIZONTAL ☐

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1974 FNL 2544 FWL	SENW	13	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	1016 FNL 814 FWL	NWNW	13	10.0 S	22.0 E	S
At Total Depth	1016 FNL 814 FWL	NWNW	13	10.0 S	22.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
814

23. NUMBER OF ACRES IN DRILLING UNIT
600

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
1435

26. PROPOSED DEPTH
MD: 8816 TVD: 8411

27. ELEVATION - GROUND LEVEL
5259

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 - 2220	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 - 8816	11.6	HCP-110 LT&C	12.0	Premium Lite High Strength	280	3.38	12.0
							50/50 Poz	1240	1.31	14.3

ATTACHMENTS

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

- ✔ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ✔ COMPLETE DRILLING PLAN
- ☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)
- ☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
- ✔ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)
- ✔ TOPOGRAPHICAL MAP

NAME Cara Mahler | **TITLE** Regulatory Analyst I | **PHONE** 720 929-6029

SIGNATURE | **DATE** 05/03/2013 | **EMAIL** cara.mahler@anadarko.com

API NUMBER ASSIGNED
43047537300000

APPROVAL
Permit Manager

RECEIVED: June 13, 2013

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

NBU 1022-13D4CS

Surface: 1974 FNL / 2544 FWL SENW
BHL: 1016 FNL / 814 FWL NWNW

Section 13 T10S R22E

Uintah County, Utah
Mineral Lease: UT ST UO 8512 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:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1,000'	
Birds Nest	1,252'	Water
Mahogany	1,770'	Water
Wasatch	4,061'	Gas
Mesaverde	6,277'	Gas
Sego	8,411'	Gas
TVD	8,411'	
TD	8,816'	

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

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8411' TVD, approximately equals 5,131 psi 0.61 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,302 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.

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

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

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch 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.

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

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

Variance for FIT Requirements

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

Conclusion

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

10. Other Information:

Please refer to the attached Drilling Program.

RECEIVED: April 29, 2013

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	April 22, 2013
WELL NAME	**NBU 1022-13D4CS**	TD	8,411' TVD 8,816' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	FINISHED ELEVATION 5258.5
SURFACE LOCATION	SENW 1974 FNL 2544 FWL Sec 13 T 10S R 22E		
	Latitude: 39.950812 Longitude: -109.387823		NAD 27
BTM HOLE LOCATION	NWNW 1016 FNL 814 FWL Sec 13 T 10S R 22E		
	Latitude: 39.953456 Longitude: -109.394115		NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
		200'	12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
			11'	8-5/8", 28#, IJ-55, LTC	Air mist
	Green River @	1,000'			
	Top of Birds Nest @	1,252'			
	Mahogany @	1,770'			
	Preset f/ GL @	2,220' TVD			
	Wasatch @	4,061'			
	Mverde @	6,277' TVD			
	Sego @	8,411' TVD			
		8,411' TVD	7-7/8"	4-1/2" 11.6# I-80 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-12.5 ppg
	TD @	8,816' MD			

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

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Mud logging program TBD
Cased hole logging program from TD - surf csg

Max anticipated Mud required 12.0 ppg

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	LTC	DQX TENSION
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,220	28.00	IJ-55	LTC	2.44	1.81	6.39	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.21		3.20
								7,780	6,350	223,000	267,035
	4-1/2"	5,000	to	8,816'	11.60	I-80	LTC	1.11	1.21	6.17	

Surface Casing:

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

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

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

Production casing:

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

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

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1,720'	65/35 Poz + 6% Gel + 10 pps gilsonite	160	35%	11.00		3.82
			+ 0.25 pps Flocele + 3% salt BWOW					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	3,556'	Premium Lite II +0.25 pps celloflake + .4% FL-52	280	35%	12.00		3.38
			+ .3% R-3 + .5 lbs/sk Kol-Seal + 6%Bentonite II +					
			1.2% Sodium Metasilicate + .05 lbs/sk Static Free					
	TAIL	5,260'	50/50 Poz/G + 10% salt + .05 lbs/sk Static Free	1,240	35%	14.30		1.31
			+ 1.2% Sodium Metasilicate + .5 % EC-1					
			+.002 gps FP-6L + 2% Bentonite II					

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

DRILLING ENGINEER: _____ **DATE:** _____

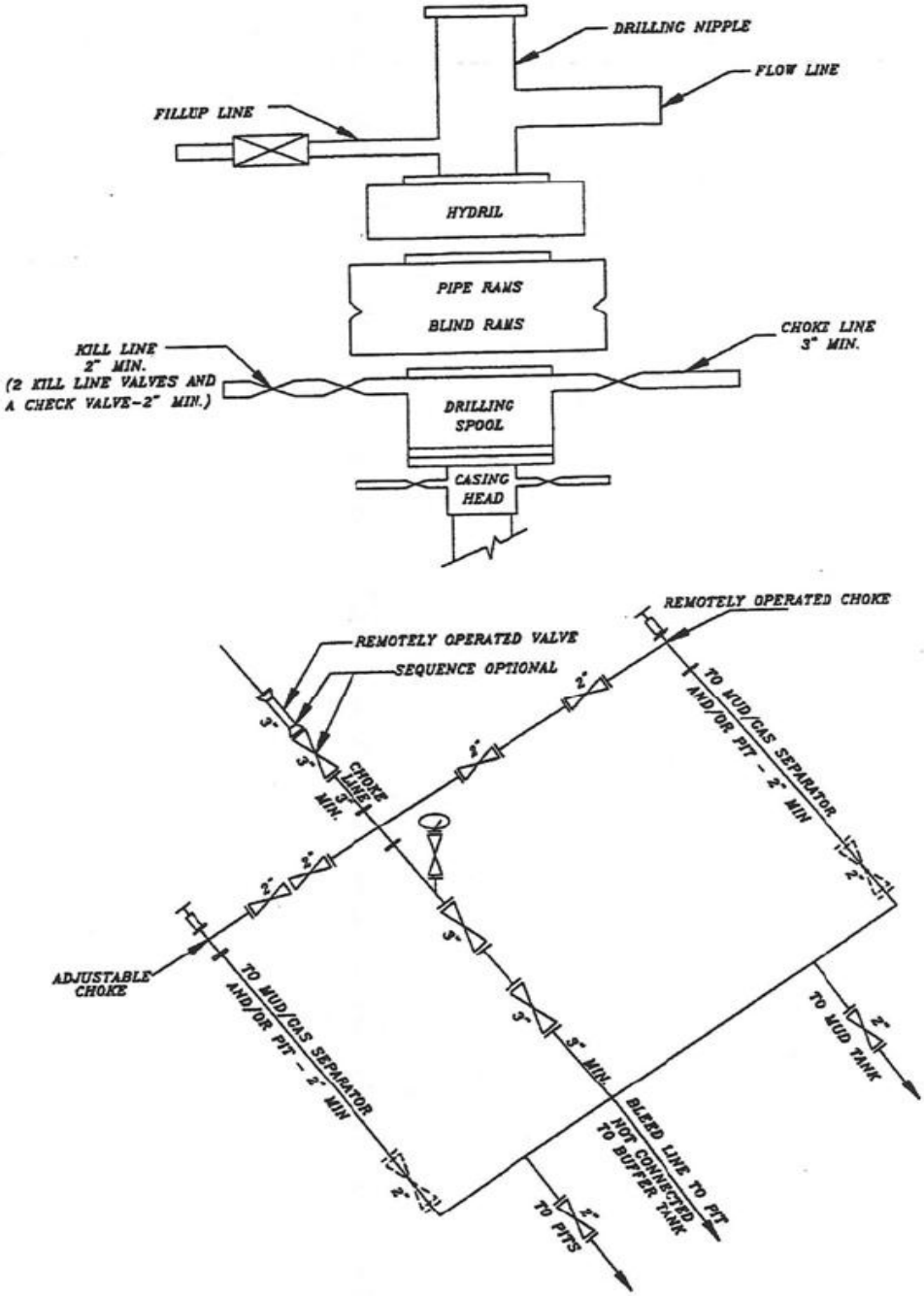
Nick Spence / John Tuckwiller / Brian Cocchiere / Tyler Elliott

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

RECEIVED: April 29, 2013

EXHIBIT A
NBU 1022-13D4CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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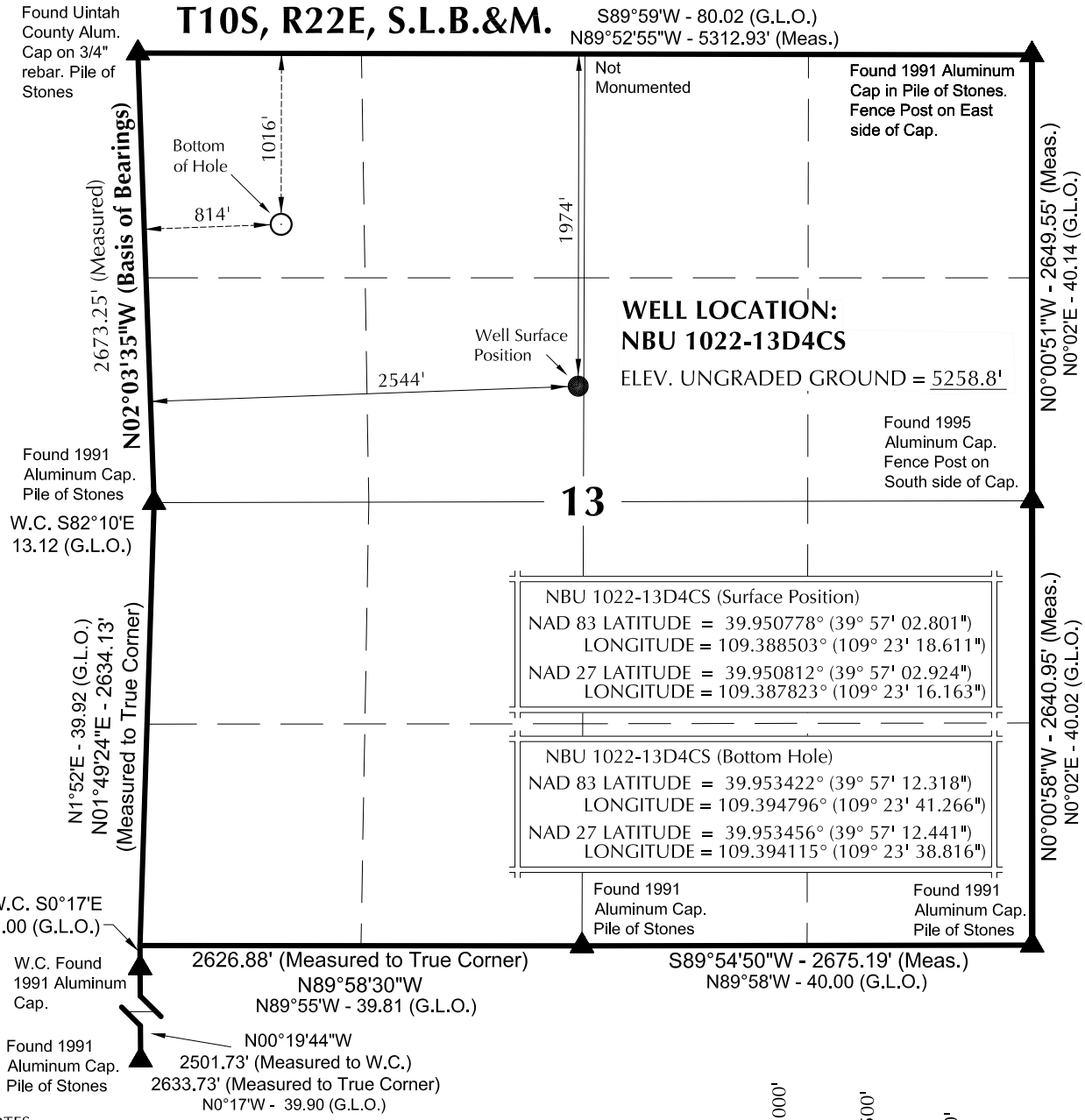
T10S, R22E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines. G.L.O. distances are shown in feet or chains.
2. 1 chain = 66 feet.
3. The Bottom of hole bears N61°25'09"W 2010.46' from the Surface Position.
4. NAD 83 Latitude & Longitude are (CORS 96)(EPOCH:2002).
5. Bearings and Distances are based upon a Local Cartesian Grid, oriented to Geodetic North at the North 1/4 Corner of Section 8, T10S, R22E, S.L.B.&M. The Grid having a mean project height of 5300'. Lineal units used are U.S. Survey Foot.
6. Basis of elevation is Tri-Sta "Two Water" located in Lot 4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

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.

2-21-13

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R LAUGHE STATE OF UTAH

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

WELL PAD: NBU 1022-13F

NBU 1022-13D4CS
WELL PLAT
1016' FNL, 814' FWL (Bottom Hole)
NW ¼ NW ¼ OF SECTION 13, 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

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

DATE SURVEYED: 2-11-13	SURVEYED BY: W.W.	SHEET NO: 3
DATE DRAWN: 2-14-13	DRAWN BY: T.J.R.	3 OF 20
SCALE: 1" = 1000'	Date Last Revised:	

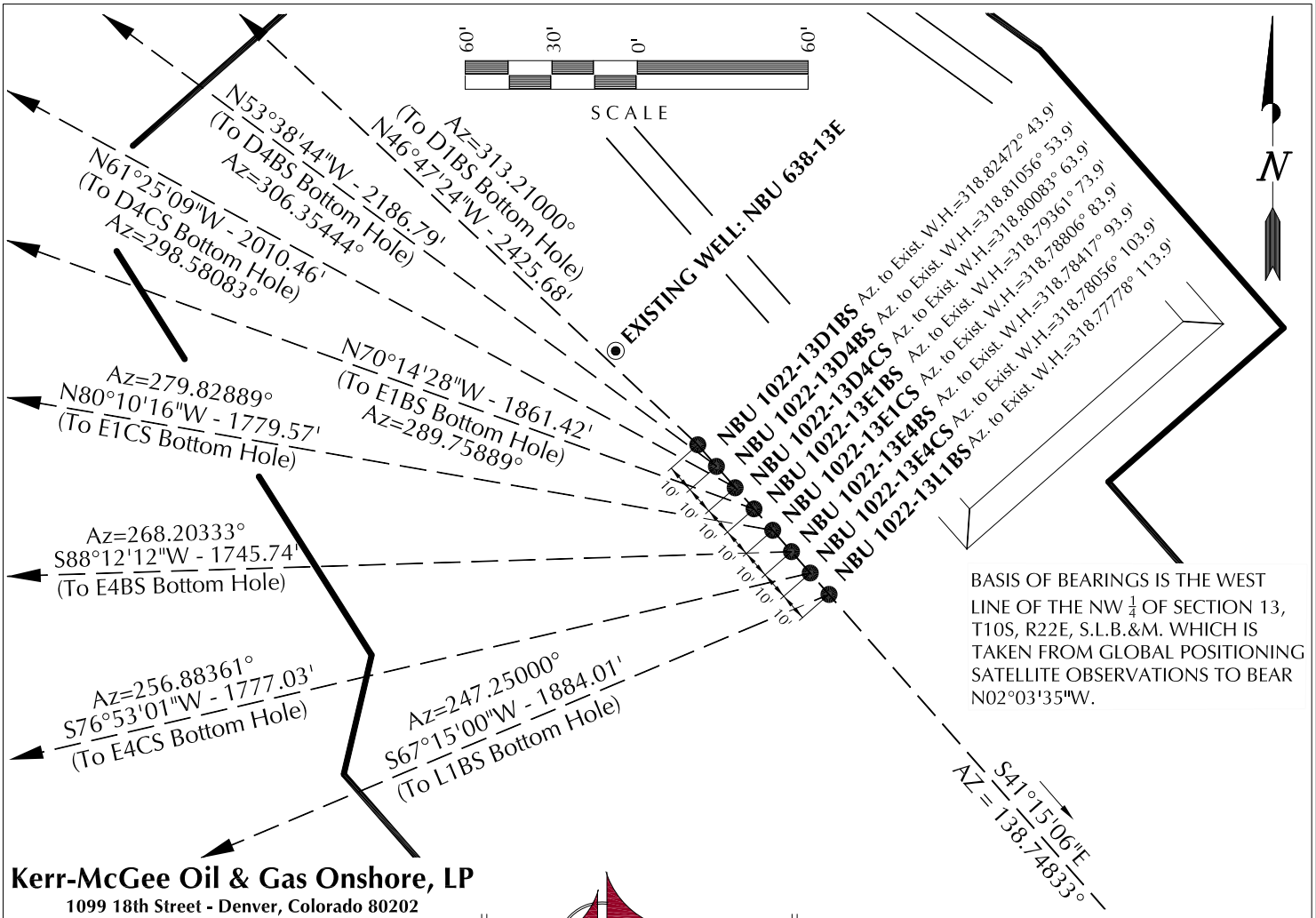
RECEIVED: April 29, 2013

API Well Number: 43047537300000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 1022-13D1BS	39°57'02.950" 39.950819°	109°23'18.781" 109.388550°	39°57'03.073" 39.950854°	109°23'16.332" 109.387870°	1959' FNL 2531' FWL	39°57'19.373" 39.955381°	109°23'41.460" 109.394850°	39°57'19.496" 39.955415°	109°23'39.010" 109.394169°	302' FNL 824' FWL
NBU 1022-13D4BS	39°57'02.876" 39.950799°	109°23'18.696" 109.388527°	39°57'02.998" 39.950833°	109°23'16.247" 109.387846°	1967' FNL 2537' FWL	39°57'15.697" 39.954360°	109°23'41.292" 109.394803°	39°57'15.820" 39.954394°	109°23'38.842" 109.394123°	674' FNL 824' FWL
NBU 1022-13D4CS	39°57'02.801" 39.950778°	109°23'18.611" 109.388503°	39°57'02.924" 39.950812°	109°23'16.163" 109.387823°	1974' FNL 2544' FWL	39°57'12.318" 39.953422°	109°23'41.266" 109.394796°	39°57'12.441" 39.953456°	109°23'38.816" 109.394115°	1016' FNL 814' FWL
NBU 1022-13E1BS	39°57'02.727" 39.950758°	109°23'18.527" 109.388480°	39°57'02.850" 39.950792°	109°23'16.078" 109.387800°	1982' FNL 2550' FWL	39°57'08.958" 39.952488°	109°23'41.009" 109.394725°	39°57'09.081" 39.952523°	109°23'38.559" 109.394044°	1356' FNL 822' FWL
NBU 1022-13E1CS	39°57'02.653" 39.950737°	109°23'18.442" 109.388456°	39°57'02.775" 39.950771°	109°23'15.994" 109.387776°	1989' FNL 2556' FWL	39°57'05.668" 39.951574°	109°23'40.949" 109.394708°	39°57'05.791" 39.951609°	109°23'38.499" 109.394027°	1689' FNL 815' FWL
NBU 1022-13E4BS	39°57'02.578" 39.950716°	109°23'18.358" 109.388433°	39°57'02.701" 39.950750°	109°23'15.909" 109.387753°	1997' FNL 2563' FWL	39°57'02.052" 39.950570°	109°23'40.758" 109.394655°	39°57'02.174" 39.950604°	109°23'38.308" 109.393974°	2055' FNL 817' FWL
NBU 1022-13E4CS	39°57'02.504" 39.950696°	109°23'18.273" 109.388409°	39°57'02.627" 39.950730°	109°23'15.825" 109.387729°	2004' FNL 2569' FWL	39°56'58.534" 39.949593°	109°23'40.494" 109.394582°	39°56'58.656" 39.949627°	109°23'38.044" 109.393901°	2411' FNL 825' FWL
NBU 1022-13L1BS	39°57'02.430" 39.950675°	109°23'18.189" 109.388386°	39°57'02.552" 39.950709°	109°23'15.740" 109.387706°	2012' FNL 2575' FWL	39°56'55.245" 39.948679°	109°23'40.500" 109.394583°	39°56'55.368" 39.948713°	109°23'38.050" 109.393903°	2559' FSL 818' FWL
NBU 638-13E	39°57'03.276" 39.950910°	109°23'19.151" 109.388653°	39°57'03.399" 39.950944°	109°23'16.702" 109.387973°	1926' FNL 2503' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-13D1BS	1660.8'	-1768.0'	NBU 1022-13D4BS	1296.3'	-1761.2'	NBU 1022-13D4CS	961.8'	-1765.5'	NBU 1022-13E1BS	629.3'	-1751.8'
WELL NAME	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**
NBU 1022-13E1CS	303.8'	-1753.4'	NBU 1022-13E4BS	-54.7'	-1744.9'	NBU 1022-13E4CS	-403.3'	-1730.7'	NBU 1022-13L1BS	-728.6'	-1737.4'



BASIS OF BEARINGS IS THE WEST LINE OF THE NW $\frac{1}{4}$ OF SECTION 13, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N02°03'35"W.

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

WELL PAD - NBU 1022-13F

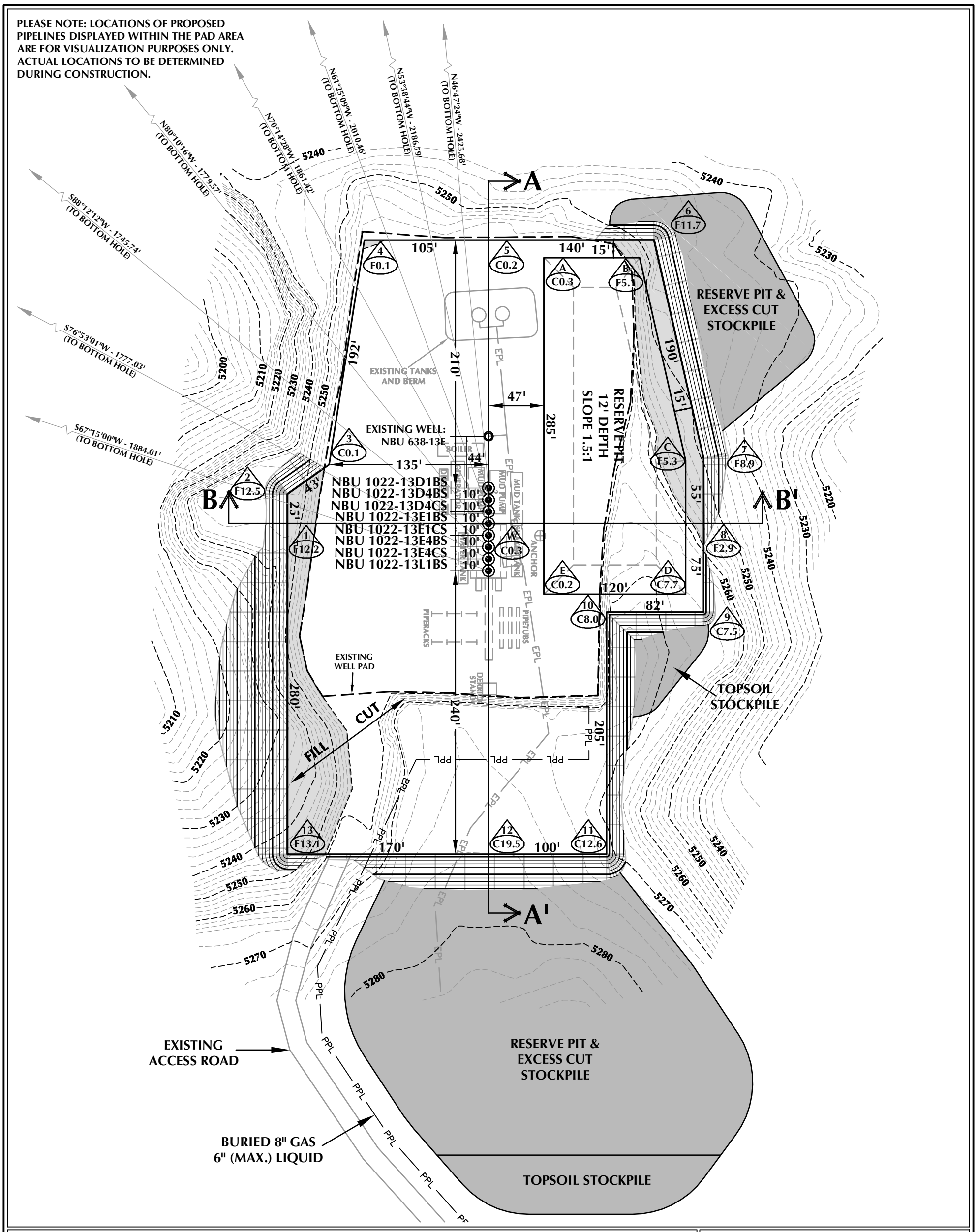
WELL PAD INTERFERENCE PLAT
WELLS - NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE SURVEYED: 2-11-13	SURVEYED BY: W.W.	SHEET NO:
DATE DRAWN: 2-14-13	DRAWN BY: T.J.R.	9
SCALE: 1" = 60'	Date Last Revised:	9 OF 20

RECEIVED: April 29, 2013



WELL PAD - NBU 1022-13F DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5258.8'
FINISHED GRADE ELEVATION = 5258.5'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 4.23 ACRES
TOTAL DISTURBANCE AREA = 6.38 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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

WELL PAD - NBU 1022-13F

WELL PAD - LOCATION LAYOUT
NBU 1022-13D1BS, NBU 1022-13D4BS,
NBU 1022-13D4CS, NBU 1022-13E1BS,
NBU 1022-13E1CS, NBU 1022-13E4BS,
NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, 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

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 20,087 C.Y.
TOTAL FILL FOR WELL PAD = 13,191 C.Y.
TOPSOIL @ 6" DEPTH = 1,684 C.Y.
EXCESS MATERIAL = 6,896 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 10,800 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 41,360 BARRELS

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

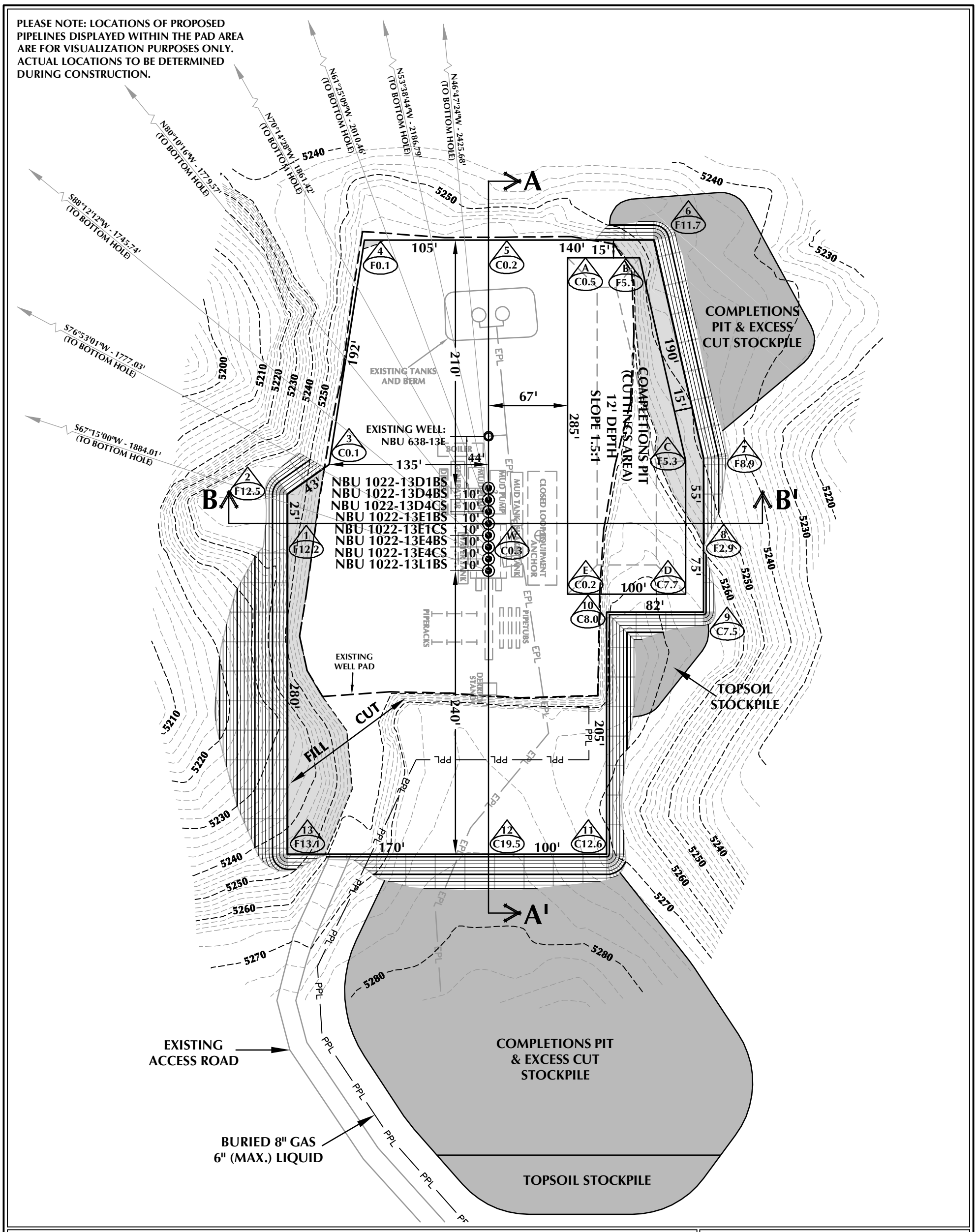
HORIZONTAL 0 40' 80' 1" = 80'
2' CONTOURS

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

SCALE: 1"=80' | DATE: 2/22/13 | SHEET NO: 10 10 OF 20
REVISED:

K:\ANADARKO\2013\2013_11_NBU_1022-13_FOCUS\DWGS\NBU 1022-13F.dwg, 2/25/2013 3:17:40 PM, jacob

RECEIVED: April 29, 2013



WELL PAD - NBU 1022-13F (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5258.8'
FINISHED GRADE ELEVATION = 5258.5'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 4.23 ACRES
TOTAL DISTURBANCE AREA = 6.38 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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

WELL PAD - NBU 1022-13F

WELL PAD - LOCATION LAYOUT
NBU 1022-13D1BS, NBU 1022-13D4BS,
NBU 1022-13D4CS, NBU 1022-13E1BS,
NBU 1022-13E1CS, NBU 1022-13E4BS,
NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 20,087 C.Y.
TOTAL FILL FOR WELL PAD = 13,191 C.Y.
TOPSOIL @ 6" DEPTH = 1,684 C.Y.
EXCESS MATERIAL = 6,896 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
+/- 8,430 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 31,960 BARRELS

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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 40' 80' 1" = 80'
2' CONTOURS

SCALE: 1"=80'	DATE: 2/22/13	SHEET NO:
REVISED:		10B 10B OF 20

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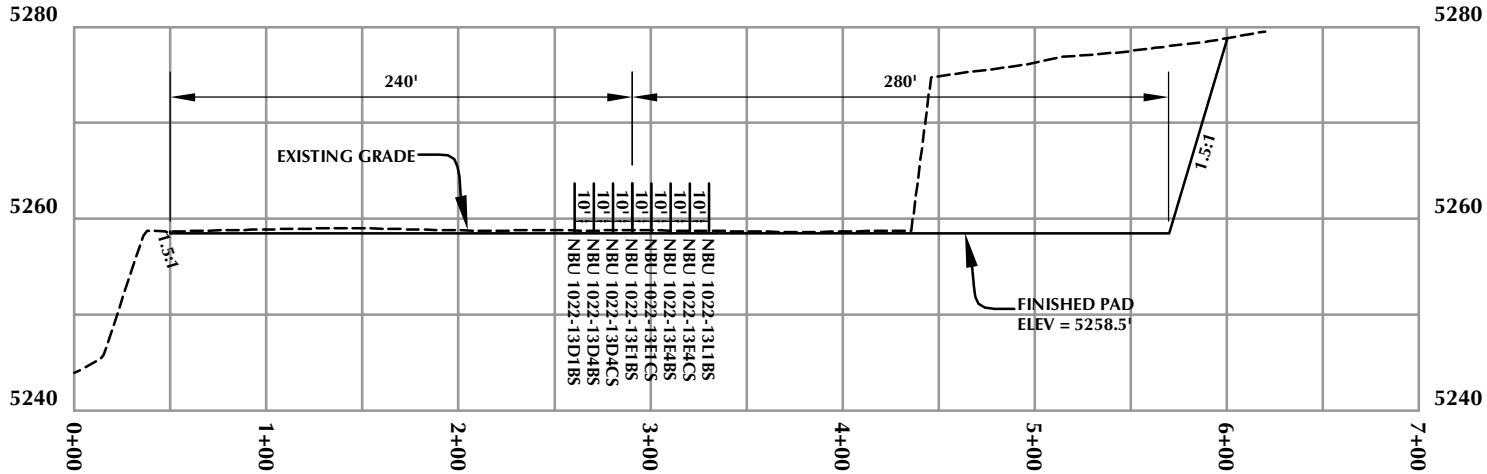
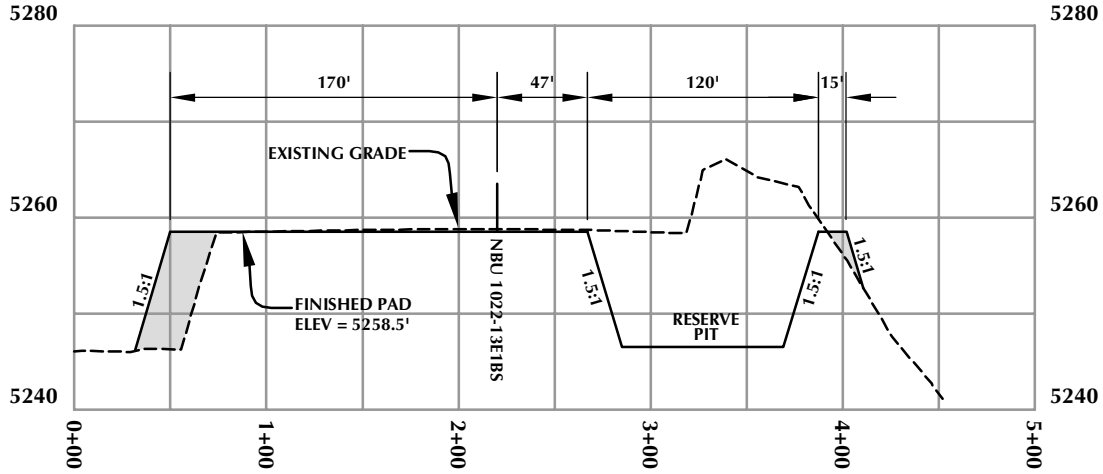
RECEIVED: April 29, 2013



CROSS SECTION A-A'



CROSS SECTION B-B'

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1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-13F

WELL PAD - CROSS SECTIONS
NBU 1022-13D1BS, NBU 1022-13D4BS,
NBU 1022-13D4CS, NBU 1022-13E1BS,
NBU 1022-13E1CS, NBU 1022-13E4BS,
NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

HORIZONTAL 0 50' 100' 1" = 100'
VERTICAL 0 10' 20' 1" = 20'

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

Scale: 1"=100' | Date: 2/22/13 | SHEET NO: 11
REVISED:
11 OF 20

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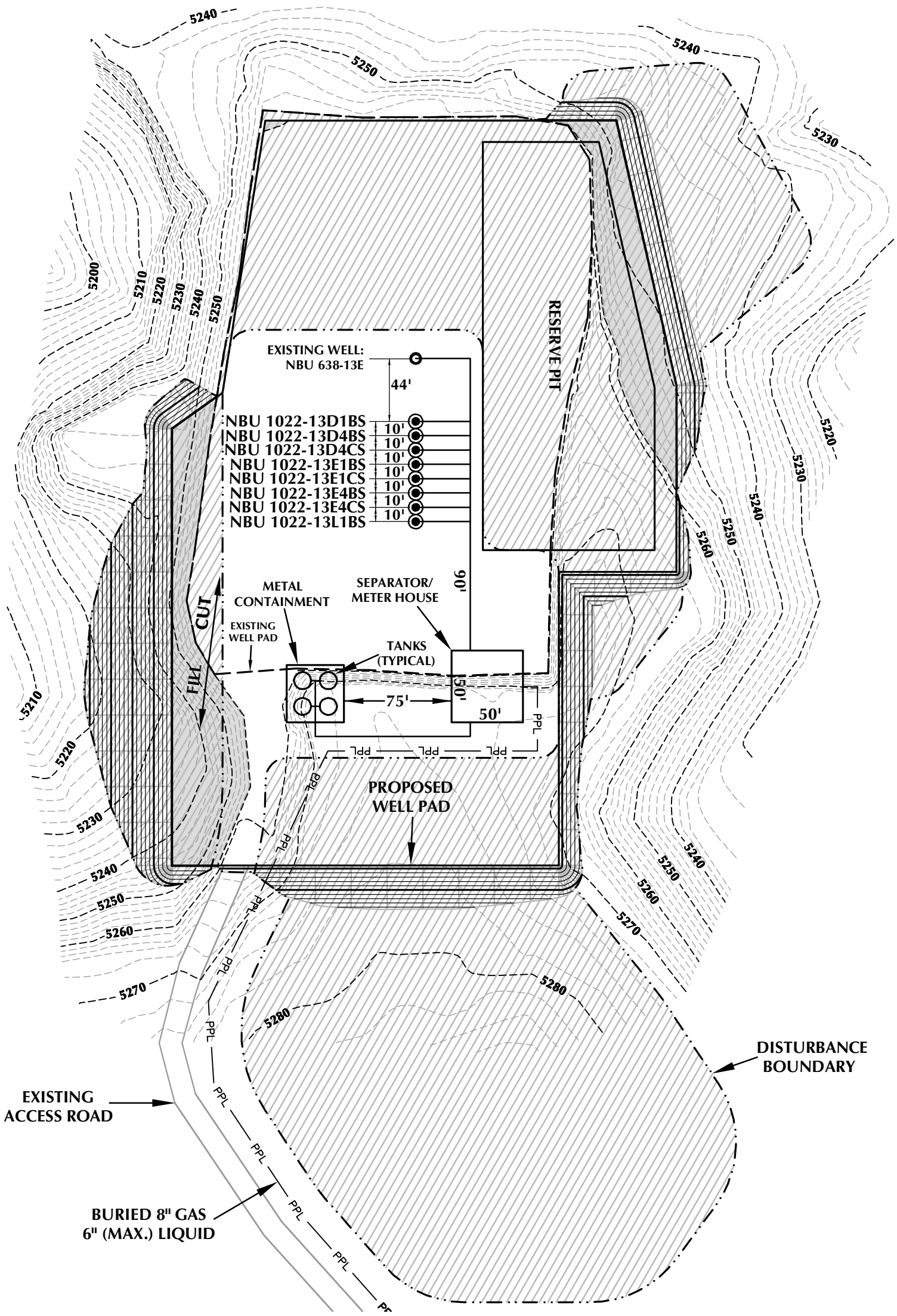
PLEASE NOTE:
1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.



WELL PAD - NBU 1022-13F RECLAMATION DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 6.40 ACRES (INCLUDING EXISTING)
RECLAMATION AREA = 1.47 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 4.93 ACRES

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE
- RECLAMATION AREA

HORIZONTAL 0 40' 80' 1" = 80'
2' CONTOURS

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

WELL PAD - NBU 1022-13F

WELL PAD - RECLAMATION LAYOUT
NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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Sheridan, WY 82801
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TIMBERLINE (435) 789-1365
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209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=80' | DATE: 2/22/13 | SHEET NO: 12 12 OF 20
REVISED:

RECEIVED: April 29, 2013

API Well Number: 43047537300000

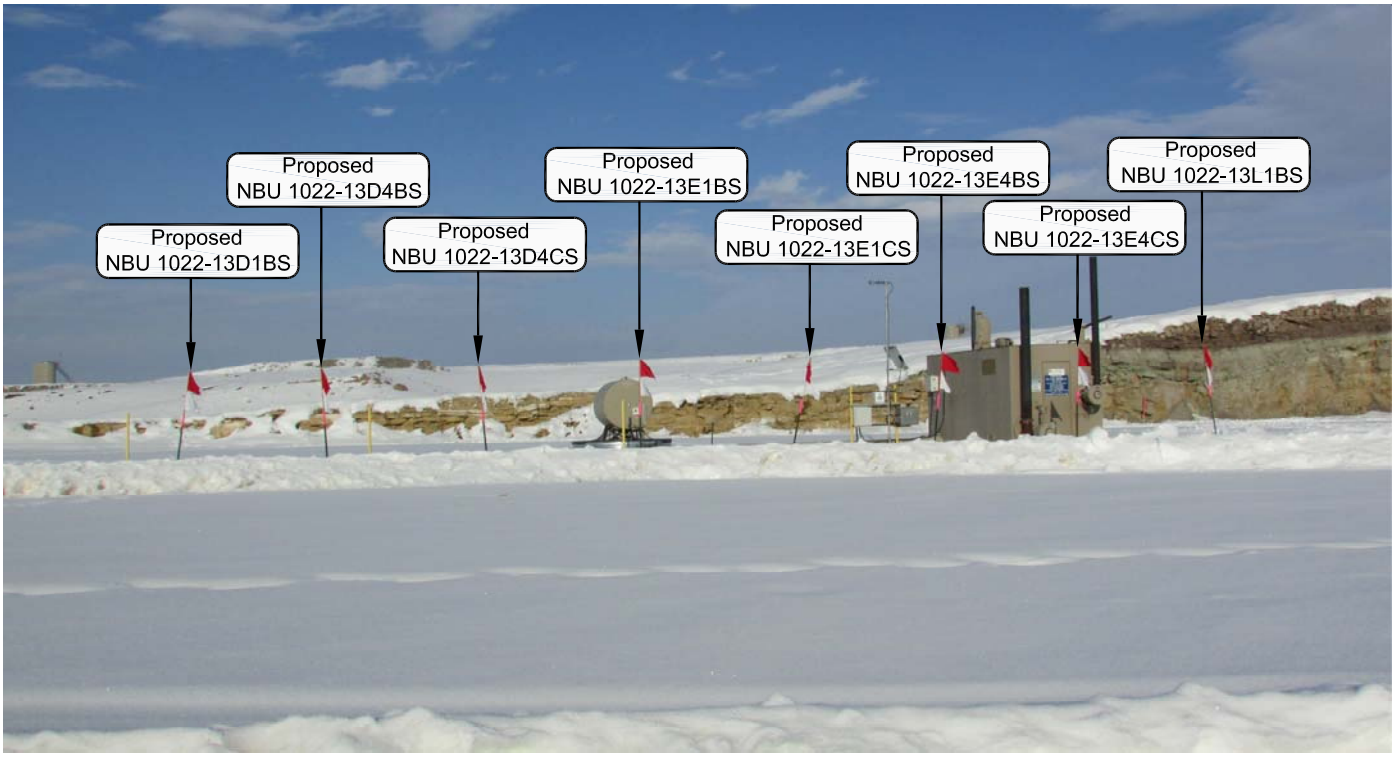

PHOTO VIEW: FROM CORNER #2 TO LOCATION STAKE **CAMERA ANGLE: NORTHEASTERLY**

PHOTO VIEW: FROM EXISTING ACCESS ROAD **CAMERA ANGLE: NORTHERLY**

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

WELL PAD - NBU 1022-13F

LOCATION PHOTOS
NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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CONSULTING, LLC
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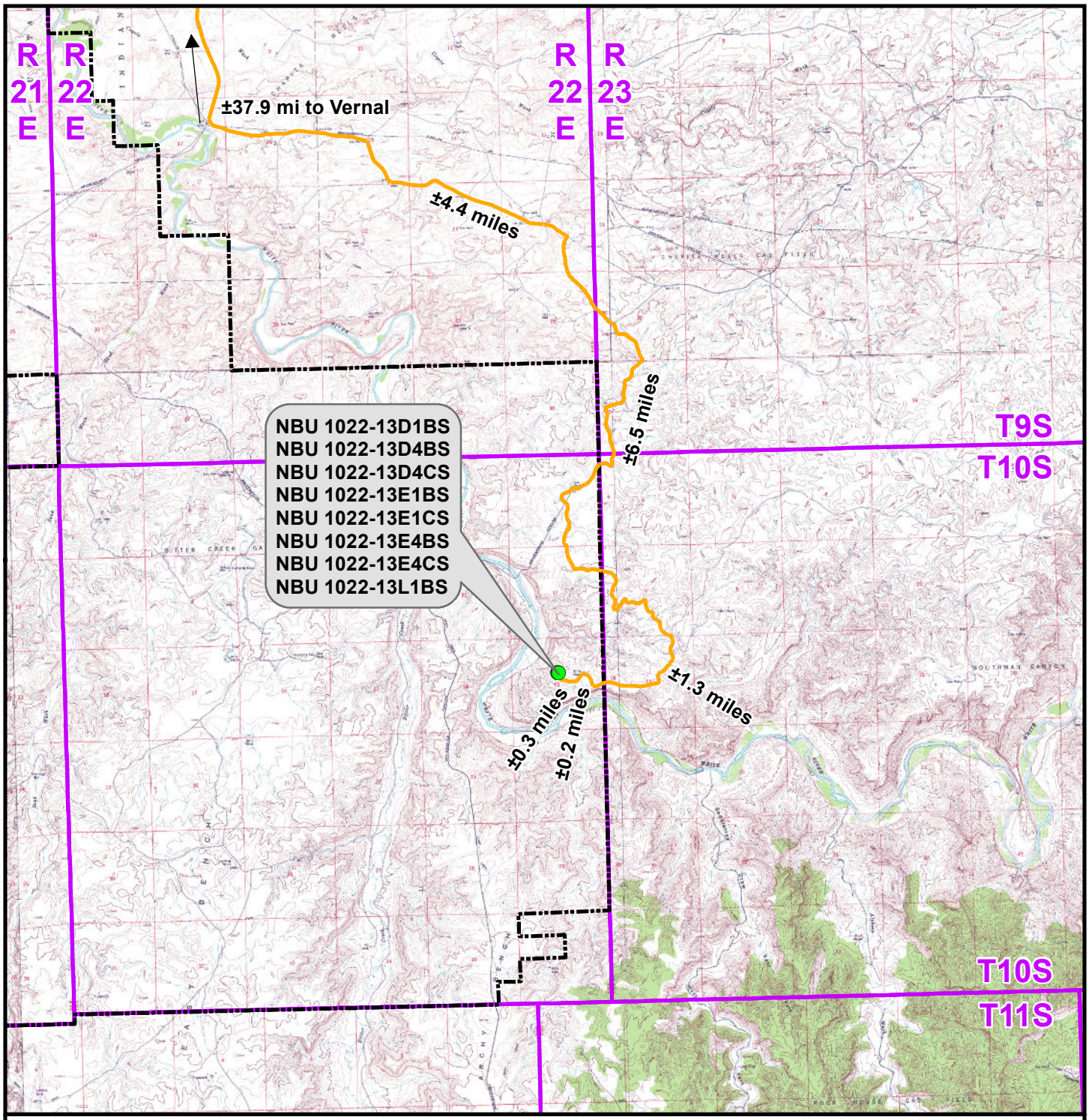
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

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

DATE PHOTOS TAKEN: 2-14-13	PHOTOS TAKEN BY: W.W.	SHEET NO: 13
DATE DRAWN: 2-14-13	DRAWN BY: T.J.R.	
Date Last Revised:		13 OF 20

RECEIVED: April 29, 2013

API Well Number: 43047537300000



Legend

Distance From Well Pad - NBU 1022-13F To Unit Boundary: ±2,664ft

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

WELL PAD - NBU 1022-13F

TOPO A
NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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1099 18th Street
Denver, Colorado 80202

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Sheridan, Wyoming 82801
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N

SCALE: 1:100,000	NAD83 USP Central	SHEET NO: 14
DRAWN: TL	DATE: 22 Feb 2013	14 OF 20
REVISED:	DATE:	

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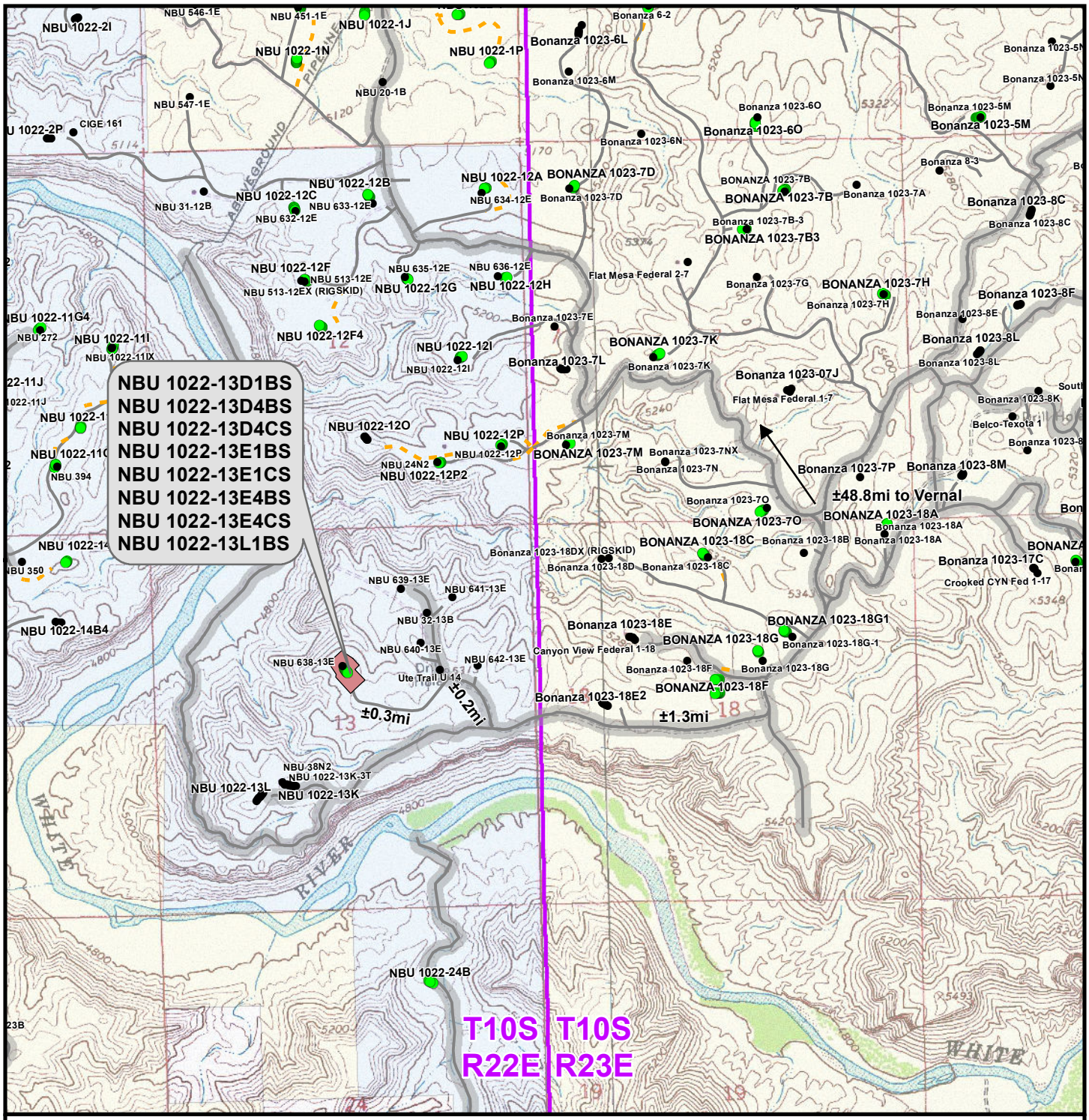
RECEIVED: April 29, 2013

API Well Number: 43047537300000



Legend

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

Total Proposed Road Length: ±0ft

WELL PAD - NBU 1022-13F

TOPO B
NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
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Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 15
DRAWN: TL	DATE: 22 Feb 2013	15 OF 20
REVISED:	DATE:	

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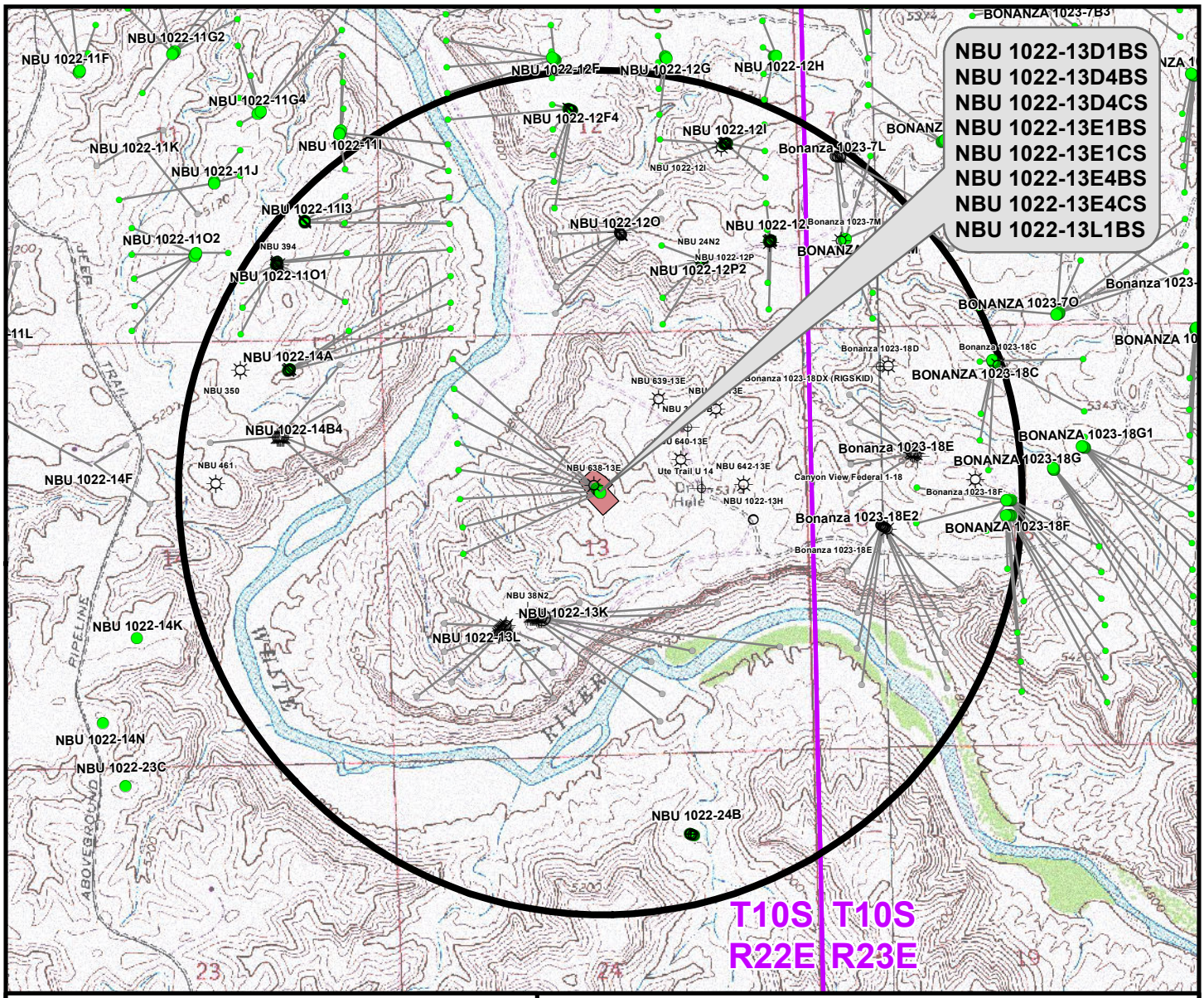
RECEIVED: April 29, 2013

API Well Number: 43047537300000



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 1022-13D1BS	NBU 1022-12N4CS BH	1,418ft
NBU 1022-13D4BS	NBU 1022-14A4S BH	1,427ft
NBU 1022-13D4CS	NBU 1022-14A4S BH	1,435ft
NBU 1022-13E1BS	NBU 1022-14H1S BH	1,429ft
NBU 1022-13E1CS	NBU 1022-14H1S BH	1,426ft
NBU 1022-13E4BS	NBU 1022-13L4S BH	1,278ft
NBU 1022-13E4CS	NBU 1022-13L4S BH	927ft
NBU 1022-13L1BS	NBU 1022-13L4S BH	600ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 1022-13F

TOPO C
NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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1099 18th Street
Denver, Colorado 80202

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Sheridan, Wyoming 82801
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Fax 307-674-0182

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SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 16
DRAWN: TL	DATE: 22 Feb 2013	16 OF 20
REVISED:	DATE:	

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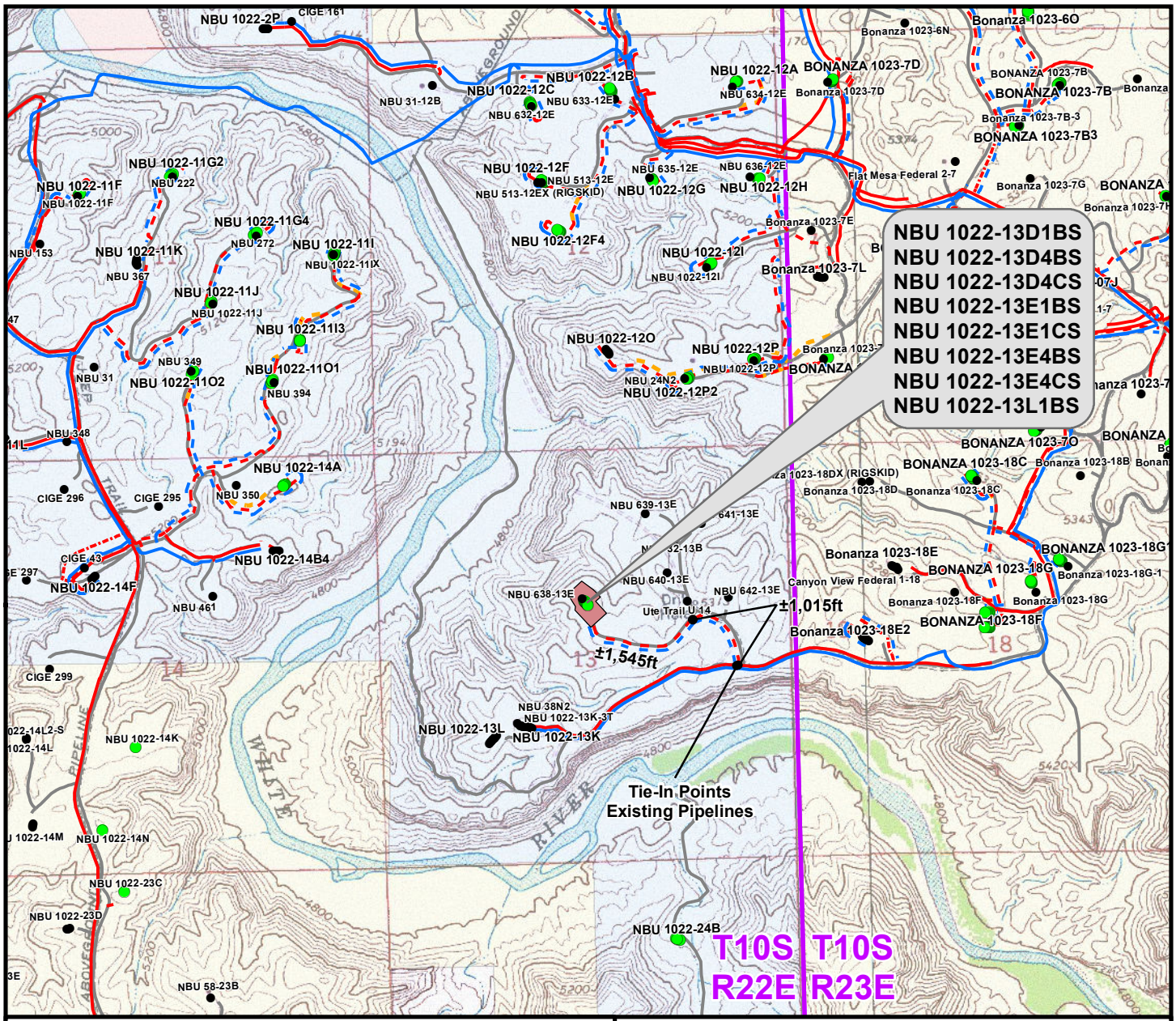
RECEIVED: April 29, 2013

API Well Number: 43047537300000



Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Separator to Edge of Pad)	±290ft
Buried 6" (Max.) (Edge of Pad to Road Intersection)	±1,545ft
Buried 6" (Max.) (Road Intersection to Existing 6" Liquid Pipeline)	±1,015ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±2,850ft

Proposed Gas Pipeline	Length
Buried 8" (Meter House to Edge of Pad)	±290ft
Buried 8" (Edge of Pad to Road intersection)	±1,545ft
Buried 10" (Road Intersection to Existing 16" Gas pipeline)	±1,015ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±2,850ft

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

WELL PAD - NBU 1022-13F

TOPO D
NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
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Fax 307-674-0182

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SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 17
DRAWN: TL	DATE: 22 Feb 2013	17 OF 20
REVISED:	DATE:	

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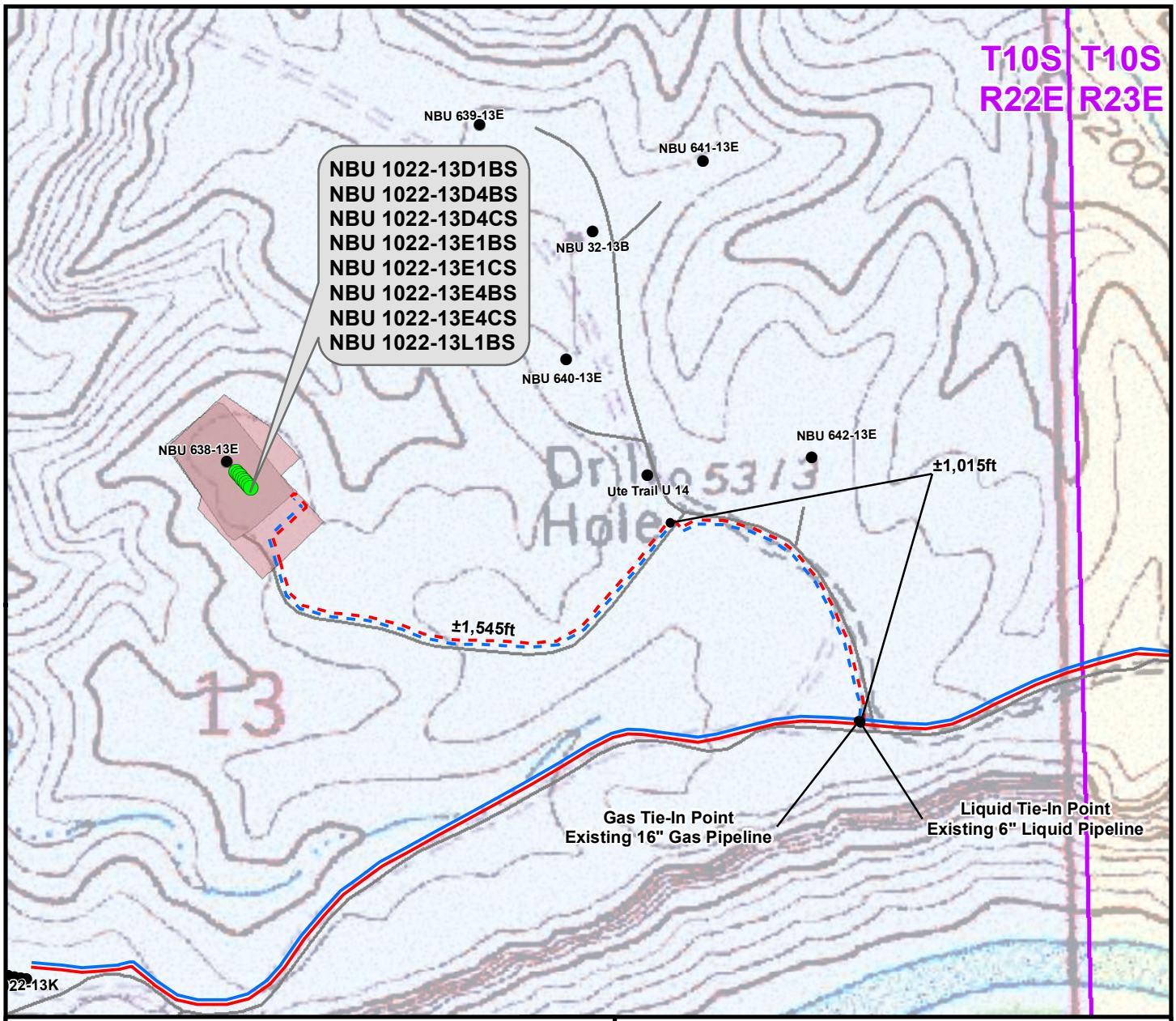
RECEIVED: April 29, 2013

API Well Number: 43047537300000



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Separator to Edge of Pad)	±290ft
Buried 6"(Max.) (Edge of Pad to Road Intersection)	±1,545ft
Buried 6"(Max.) (Road Intersection to Existing 6" Liquid Pipeline)	±1,015ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±2,850ft

Proposed Gas Pipeline	Length
Buried 8" (Meter House to Edge of Pad)	±290ft
Buried 8" (Edge of Pad to Road intersection)	±1,545ft
Buried 10" (Road Intersection to Existing 16" Gas pipeline)	±1,015ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±2,850ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad - Proposed
- Well Pad - Existing
- 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

WELL PAD - NBU 1022-13F

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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

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SCALE: 1" = 500ft	NAD83 USP Central	SHEET NO: 18
DRAWN: TL	DATE: 22 Feb 2013	18 OF 20
REVISED:	DATE:	

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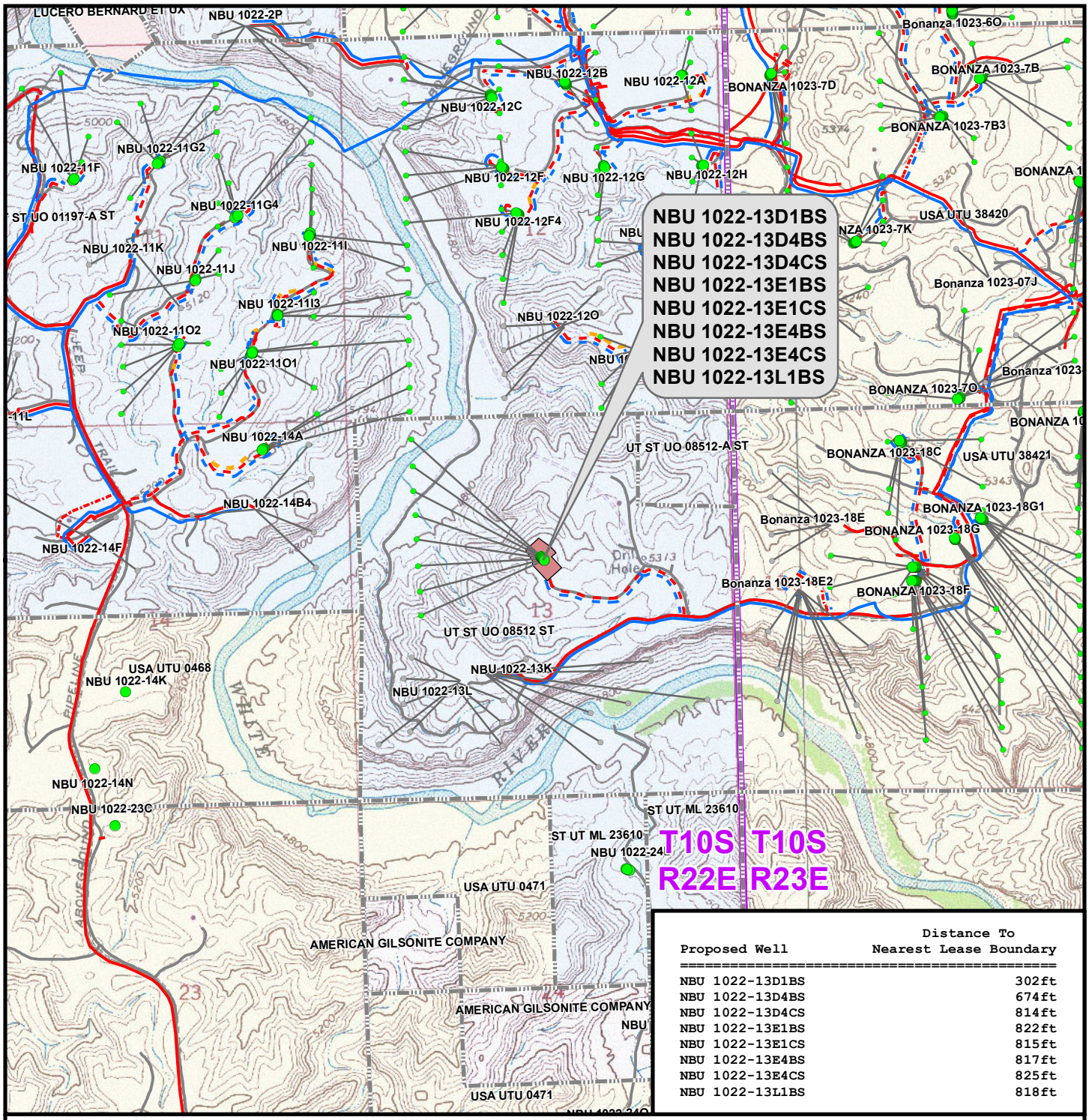
RECEIVED: April 29, 2013

API Well Number: 43047537300000



Proposed Well	Distance To Nearest Lease Boundary
NBU 1022-13D1BS	302ft
NBU 1022-13D4BS	674ft
NBU 1022-13D4CS	814ft
NBU 1022-13E1BS	822ft
NBU 1022-13E1CS	815ft
NBU 1022-13E4BS	817ft
NBU 1022-13E4CS	825ft
NBU 1022-13L1BS	818ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- 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

WELL PAD - NBU 1022-13F

TOPO E
NBU 1022-13D1BS, NBU 1022-13D4BS, NBU 1022-13D4CS, NBU 1022-13E1BS, NBU 1022-13E1CS, NBU 1022-13E4BS, NBU 1022-13E4CS & NBU 1022-13L1BS
LOCATED IN SECTION 13, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 19
DRAWN: TL	DATE: 22 Feb 2013	19 OF 20
REVISED:	DATE:	

K:\ANADARKO\2013\2013_11_NBU_1022-13_FOCUS\GIS\Maps_ABCDE\NBU 1022-13F_E.mxd2/25/2013 4:01:00 PM

RECEIVED: April 29, 2013

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 1022-13F
WELLS – NBU 1022-13D1BS, NBU 1022-13D4BS,
NBU 1022-13D4CS, NBU 1022-13E1BS,
NBU 1022-13E1CS, NBU 1022-13E4BS,
NBU 1022-13E4CS & NBU 1022-13L1BS
Section 13, 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 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southeasterly, then southerly direction along the Seven Sisters Road approximately 6.5 miles to a Class D County Road to the south. Exit right and proceed in a southerly, then southwesterly, then westerly direction along the Class D County Road approximately 1.3 miles to a second Class D County Road to the northwest. Exit right and proceed in a northwesterly direction along the second Class D County Road approximately 0.2 miles to a service to the southwest. Exit left and proceed in a southwesterly, then northerly direction along the service road approximately 0.3 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 50.6 miles in a southerly direction.

RECEIVED: April 29, 2013

API Well Number: 43047537200000

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-13F PAD
Well: NBU 1022-13D4CS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

T M

Azimuths to True North
Magnetic North: 10.79°

Magnetic Field
Strength: 52138.6snT
Dip Angle: 65.80°
Date: 2013/03/26
Model: IGRF2010

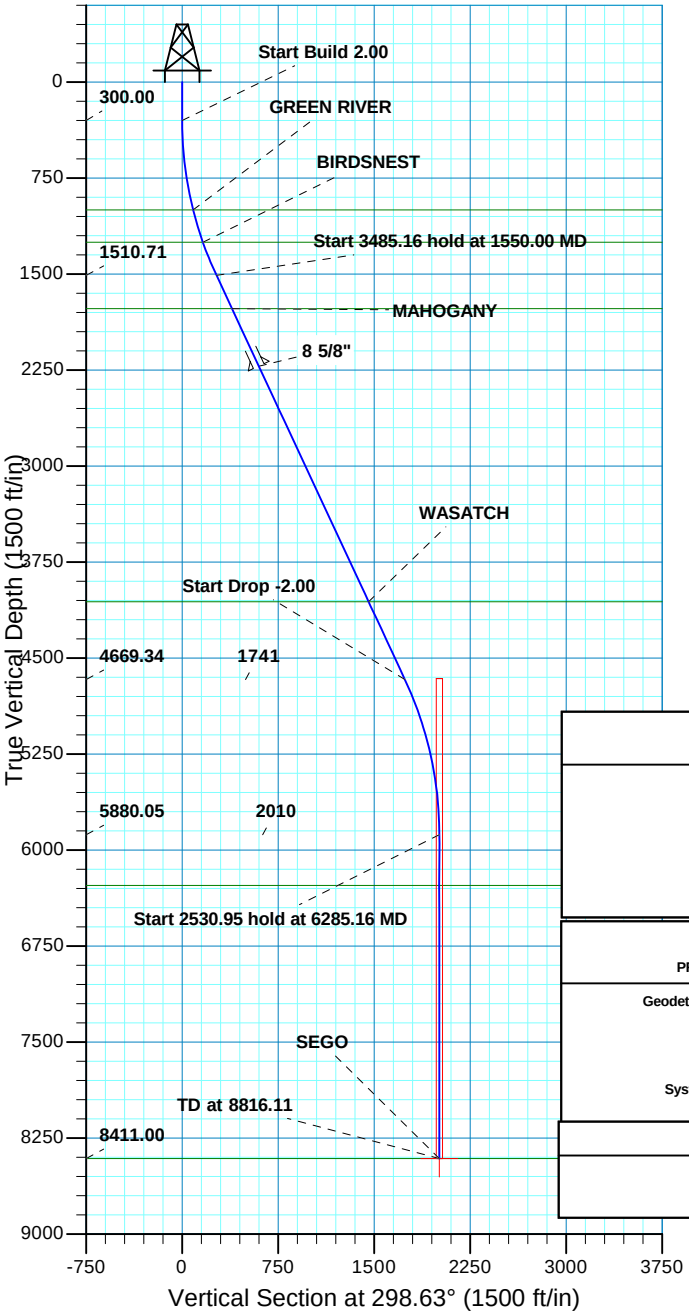
WELL DETAILS: NBU 1022-13D4CS

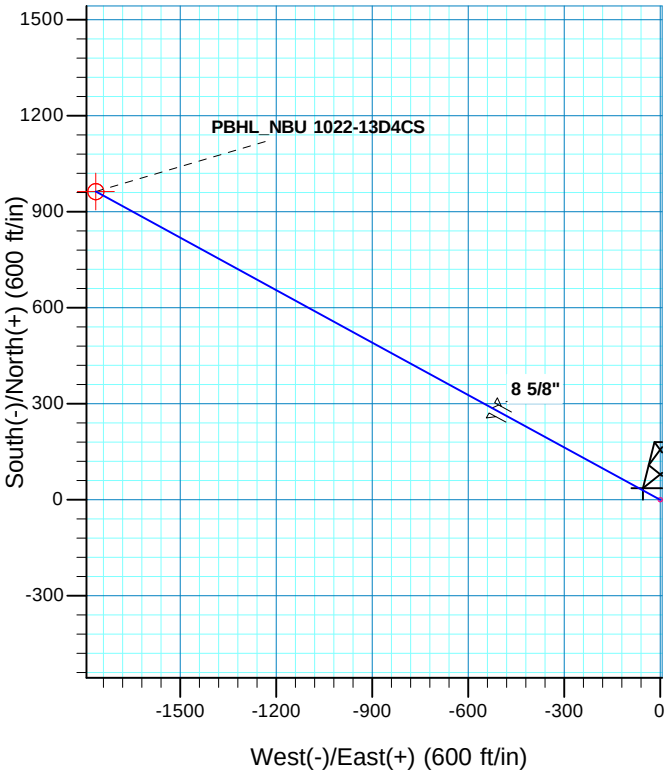
GL 5259 & KB 4 @ 5263.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14512215.99	2092254.65	39.9508121	-109.3878228

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8411.00	963.05	-1763.93	14513147.00	2090473.61	39.9534561	-109.3941155	Circle (Radius: 25.00)
- plan hits target center								





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1550.00	25.00	298.63	1510.71	128.62	-235.58	2.00	298.63	268.41	
5035.16	25.00	298.63	4669.34	834.43	-1528.35	0.00	0.00	1741.30	
6285.16	0.00	0.00	5880.05	963.05	-1763.93	2.00	180.00	2009.71	
8816.11	0.00	0.00	8411.00	963.05	-1763.93	0.00	0.00	2009.71	PBHL_NBU 1022-13D4CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 13 T10N R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1000.00	1007.16	GREEN RIVER
1252.00	1270.45	BIRDSNEST
1770.00	1836.09	MAHOGANY
4061.00	4363.93	WASATCH
6277.00	6682.11	MESAVERDE
8410.99	8816.10	SEGO

CASING DETAILS

TVD	MD	Name	Size
2220.00	2332.61	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 1022-13D4CS/OH)

Created By: RobertScott Date: 14:24, March 26 2013

RECEIVE

API Well Number: 43047537300000

Scientific Drilling

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 1022-13F PAD
NBU 1022-13D4CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

26 March, 2013

Anadarko Petroleum Corporation

RECEIVED: April 29, 2013

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-13D4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5259 & KB 4 @ 5263.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5259 & KB 4 @ 5263.00ft (ASSUMED)
Site:	NBU 1022-13F PAD	**North Reference:**	True
Well:	NBU 1022-13D4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

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 1022-13F PAD, SECTION 13 T10N R22E

Site Position:		**Northing:**	14,512,230.69 usft	**Latitude:**	39.9508531
From:	Lat/Long	**Easting:**	2,092,241.20 usft	**Longitude:**	-109.3878698
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.04 °

Well NBU 1022-13D4CS, 1974 FNL 2544 FWL

Well Position	**+N/-S**	-14.93 ft	**Northing:**	14,512,215.99 usft	**Latitude:**	39.9508121
	+E/-W	13.18 ft	**Easting:**	2,092,254.65 usft	**Longitude:**	-109.3878228
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,259.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2013/03/26	10.79	65.80	52,139

Design PLAN #1 PRELIMINARY

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	298.63

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	
1,550.00	25.00	298.63	1,510.71	128.62	-235.58	2.00	2.00	0.00	298.63	
5,035.16	25.00	298.63	4,669.34	834.43	-1,528.35	0.00	0.00	0.00	0.00	
6,285.16	0.00	0.00	5,880.05	963.05	-1,763.93	2.00	-2.00	0.00	180.00	
8,816.11	0.00	0.00	8,411.00	963.05	-1,763.93	0.00	0.00	0.00	0.00	PBHL_NBU 1022-13I

RECEIVED: April 29, 2013

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-13D4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5259 & KB 4 @ 5263.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5259 & KB 4 @ 5263.00ft (ASSUMED)
Site:	NBU 1022-13F PAD	**North Reference:**	True
Well:	NBU 1022-13D4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	298.63	399.98	0.84	-1.53	1.75	2.00	2.00	0.00
500.00	4.00	298.63	499.84	3.34	-6.13	6.98	2.00	2.00	0.00
600.00	6.00	298.63	599.45	7.52	-13.77	15.69	2.00	2.00	0.00
700.00	8.00	298.63	698.70	13.36	-24.47	27.88	2.00	2.00	0.00
800.00	10.00	298.63	797.47	20.86	-38.20	43.52	2.00	2.00	0.00
900.00	12.00	298.63	895.62	30.00	-54.95	62.60	2.00	2.00	0.00
1,000.00	14.00	298.63	993.06	40.78	-74.69	85.10	2.00	2.00	0.00
1,007.16	14.14	298.63	1,000.00	41.61	-76.22	86.84	2.00	2.00	0.00
GREEN RIVER									
1,100.00	16.00	298.63	1,089.64	53.18	-97.41	110.98	2.00	2.00	0.00
1,200.00	18.00	298.63	1,185.27	67.19	-123.07	140.21	2.00	2.00	0.00
1,270.45	19.41	298.63	1,252.00	78.02	-142.90	162.81	2.00	2.00	0.00
BIRDSNEST									
1,300.00	20.00	298.63	1,279.82	82.79	-151.64	172.77	2.00	2.00	0.00
1,400.00	22.00	298.63	1,373.17	99.96	-183.09	208.60	2.00	2.00	0.00
1,500.00	24.00	298.63	1,465.21	118.69	-217.38	247.67	2.00	2.00	0.00
1,550.00	25.00	298.63	1,510.71	128.62	-235.58	268.41	2.00	2.00	0.00
Start 3485.16 hold at 1550.00 MD									
1,600.00	25.00	298.63	1,556.03	138.75	-254.13	289.54	0.00	0.00	0.00
1,700.00	25.00	298.63	1,646.66	159.00	-291.22	331.80	0.00	0.00	0.00
1,800.00	25.00	298.63	1,737.29	179.25	-328.32	374.06	0.00	0.00	0.00
1,836.09	25.00	298.63	1,770.00	186.56	-341.71	389.32	0.00	0.00	0.00
MAHOGANY									
1,900.00	25.00	298.63	1,827.92	199.50	-365.41	416.32	0.00	0.00	0.00
2,000.00	25.00	298.63	1,918.55	219.75	-402.50	458.59	0.00	0.00	0.00
2,100.00	25.00	298.63	2,009.18	240.01	-439.60	500.85	0.00	0.00	0.00
2,200.00	25.00	298.63	2,099.81	260.26	-476.69	543.11	0.00	0.00	0.00
2,300.00	25.00	298.63	2,190.44	280.51	-513.78	585.37	0.00	0.00	0.00
2,332.61	25.00	298.63	2,220.00	287.11	-525.88	599.15	0.00	0.00	0.00
8 5/8"									
2,400.00	25.00	298.63	2,281.07	300.76	-550.88	627.63	0.00	0.00	0.00
2,500.00	25.00	298.63	2,371.70	321.01	-587.97	669.90	0.00	0.00	0.00
2,600.00	25.00	298.63	2,462.34	341.27	-625.06	712.16	0.00	0.00	0.00
2,700.00	25.00	298.63	2,552.97	361.52	-662.16	754.42	0.00	0.00	0.00
2,800.00	25.00	298.63	2,643.60	381.77	-699.25	796.68	0.00	0.00	0.00
2,900.00	25.00	298.63	2,734.23	402.02	-736.35	838.94	0.00	0.00	0.00
3,000.00	25.00	298.63	2,824.86	422.27	-773.44	881.20	0.00	0.00	0.00
3,100.00	25.00	298.63	2,915.49	442.53	-810.53	923.47	0.00	0.00	0.00
3,200.00	25.00	298.63	3,006.12	462.78	-847.63	965.73	0.00	0.00	0.00
3,300.00	25.00	298.63	3,096.75	483.03	-884.72	1,007.99	0.00	0.00	0.00
3,400.00	25.00	298.63	3,187.38	503.28	-921.81	1,050.25	0.00	0.00	0.00
3,500.00	25.00	298.63	3,278.01	523.53	-958.91	1,092.51	0.00	0.00	0.00
3,600.00	25.00	298.63	3,368.64	543.78	-996.00	1,134.78	0.00	0.00	0.00
3,700.00	25.00	298.63	3,459.27	564.04	-1,033.09	1,177.04	0.00	0.00	0.00
3,800.00	25.00	298.63	3,549.90	584.29	-1,070.19	1,219.30	0.00	0.00	0.00
3,900.00	25.00	298.63	3,640.54	604.54	-1,107.28	1,261.56	0.00	0.00	0.00
4,000.00	25.00	298.63	3,731.17	624.79	-1,144.37	1,303.82	0.00	0.00	0.00
4,100.00	25.00	298.63	3,821.80	645.04	-1,181.47	1,346.09	0.00	0.00	0.00

RECEIVED: April 29, 2013

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-13D4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5259 & KB 4 @ 5263.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5259 & KB 4 @ 5263.00ft (ASSUMED)
Site:	NBU 1022-13F PAD	**North Reference:**	True
Well:	NBU 1022-13D4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	25.00	298.63	3,912.43	665.30	-1,218.56	1,388.35	0.00	0.00	0.00
4,300.00	25.00	298.63	4,003.06	685.55	-1,255.65	1,430.61	0.00	0.00	0.00
4,363.93	25.00	298.63	4,061.00	698.49	-1,279.37	1,457.63	0.00	0.00	0.00
WASATCH									
4,400.00	25.00	298.63	4,093.69	705.80	-1,292.75	1,472.87	0.00	0.00	0.00
4,500.00	25.00	298.63	4,184.32	726.05	-1,329.84	1,515.13	0.00	0.00	0.00
4,600.00	25.00	298.63	4,274.95	746.30	-1,366.93	1,557.39	0.00	0.00	0.00
4,700.00	25.00	298.63	4,365.58	766.55	-1,404.03	1,599.66	0.00	0.00	0.00
4,800.00	25.00	298.63	4,456.21	786.81	-1,441.12	1,641.92	0.00	0.00	0.00
4,900.00	25.00	298.63	4,546.84	807.06	-1,478.21	1,684.18	0.00	0.00	0.00
5,000.00	25.00	298.63	4,637.47	827.31	-1,515.31	1,726.44	0.00	0.00	0.00
5,035.16	25.00	298.63	4,669.34	834.43	-1,528.35	1,741.30	0.00	0.00	0.00
Start Drop -2.00									
5,100.00	23.70	298.63	4,728.41	847.24	-1,551.82	1,768.04	2.00	-2.00	0.00
5,200.00	21.70	298.63	4,820.66	865.74	-1,585.69	1,806.63	2.00	-2.00	0.00
5,300.00	19.70	298.63	4,914.19	882.68	-1,616.72	1,841.98	2.00	-2.00	0.00
5,400.00	17.70	298.63	5,008.91	898.04	-1,644.86	1,874.05	2.00	-2.00	0.00
5,500.00	15.70	298.63	5,104.69	911.81	-1,670.09	1,902.78	2.00	-2.00	0.00
5,600.00	13.70	298.63	5,201.41	923.98	-1,692.36	1,928.16	2.00	-2.00	0.00
5,700.00	11.70	298.63	5,298.95	934.51	-1,711.66	1,950.15	2.00	-2.00	0.00
5,800.00	9.70	298.63	5,397.21	943.41	-1,727.96	1,968.72	2.00	-2.00	0.00
5,900.00	7.70	298.63	5,496.05	950.66	-1,741.24	1,983.86	2.00	-2.00	0.00
6,000.00	5.70	298.63	5,595.36	956.26	-1,751.49	1,995.53	2.00	-2.00	0.00
6,100.00	3.70	298.63	5,695.02	960.19	-1,758.68	2,003.73	2.00	-2.00	0.00
6,200.00	1.70	298.63	5,794.90	962.44	-1,762.82	2,008.44	2.00	-2.00	0.00
6,285.16	0.00	0.00	5,880.05	963.05	-1,763.93	2,009.71	2.00	-2.00	0.00
Start 2530.95 hold at 6285.16 MD									
6,300.00	0.00	0.00	5,894.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
6,400.00	0.00	0.00	5,994.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
6,500.00	0.00	0.00	6,094.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
6,600.00	0.00	0.00	6,194.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
6,682.11	0.00	0.00	6,277.00	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
MESAVERDE									
6,700.00	0.00	0.00	6,294.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
6,800.00	0.00	0.00	6,394.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
6,900.00	0.00	0.00	6,494.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,000.00	0.00	0.00	6,594.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,100.00	0.00	0.00	6,694.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,200.00	0.00	0.00	6,794.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,300.00	0.00	0.00	6,894.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,400.00	0.00	0.00	6,994.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,500.00	0.00	0.00	7,094.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,600.00	0.00	0.00	7,194.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,700.00	0.00	0.00	7,294.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,800.00	0.00	0.00	7,394.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
7,900.00	0.00	0.00	7,494.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,000.00	0.00	0.00	7,594.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,100.00	0.00	0.00	7,694.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,200.00	0.00	0.00	7,794.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,300.00	0.00	0.00	7,894.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,400.00	0.00	0.00	7,994.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,500.00	0.00	0.00	8,094.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,600.00	0.00	0.00	8,194.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00

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Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 1022-13D4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5259 & KB 4 @ 5263.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5259 & KB 4 @ 5263.00ft (ASSUMED)
Site:	NBU 1022-13F PAD	**North Reference:**	True
Well:	NBU 1022-13D4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,700.00	0.00	0.00	8,294.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,800.00	0.00	0.00	8,394.89	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
8,816.10	0.00	0.00	8,410.99	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
SEGO									
8,816.11	0.00	0.00	8,411.00	963.05	-1,763.93	2,009.71	0.00	0.00	0.00
TD at 8816.11 - PBHL_NBU 1022-13D4CS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-13D4(- plan hits target center - Circle (radius 25.00)	0.00	0.00	8,411.00	963.05	-1,763.93	14,513,147.01	2,090,473.60	39.9534561	-109.3941155

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,332.61	2,220.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,007.16	1,000.00	GREEN RIVER			
1,270.45	1,252.00	BIRDSNEST			
1,836.09	1,770.00	MAHOGANY			
4,363.93	4,061.00	WASATCH			
6,682.11	6,277.00	MESAVERDE			
8,816.10	8,410.99	SEGO		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,550.00	1,510.71	128.62	-235.58	Start 3485.16 hold at 1550.00 MD
5,035.16	4,669.34	834.43	-1,528.35	Start Drop -2.00
6,285.16	5,880.05	963.05	-1,763.93	Start 2530.95 hold at 6285.16 MD
8,816.11	8,411.00	963.05	-1,763.93	TD at 8816.11

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NBU 1022-13D1BS

Surface:	1959 FNL / 2531 FWL	SENW	Lot
BHL:	302 FNL / 824 FWL	NWNW	Lot

NBU 1022-13D4BS

Surface:	1967 FNL / 2537 FWL	SENW	Lot
BHL:	674 FNL / 824 FWL	NWNW	Lot

NBU 1022-13D4CS

Surface:	1974 FNL / 2544 FWL	SENW	Lot
BHL:	1016 FNL / 814 FWL	NWNW	Lot

NBU 1022-13E1BS

Surface:	1982 FNL / 2550 FWL	SENW	Lot
BHL:	1356 FNL / 822 FWL	SWNW	Lot

NBU 1022-13E1CS

Surface:	1989 FNL / 2556 FWL	SENW	Lot
BHL:	1689 FNL / 815 FWL	SWNW	Lot

NBU 1022-13E4BS

Surface:	1997 FNL / 2563 FWL	SENW	Lot
BHL:	2055 FNL / 817 FWL	SWNW	Lot

NBU 1022-13E4CS

Surface:	2004 FNL / 2569 FWL	SENW	Lot
BHL:	2411 FNL / 825 FWL	SWNW	Lot

NBU 1022-13L1BS

Surface:	2012 FNL / 2575 FWL	SENW	Lot
BHL:	2559 FSL / 818 FWL	NWSW	Lot

Pad: NBU 1022-13F PAD

Section 13 T10S R22E

Mineral Lease: UT ST UO 8512 ST

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

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

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

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

A. Existing Roads:

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

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

B. Planned Access Roads:

No new access road is proposed (see Topo Map B).

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

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

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the NBU 638-13E, which is a producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of April 22, 2013.

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).

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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 ±2850' and the individual segments are broken up as follows:

±290' (0.05 miles) –Proposed 8" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
±1545' (0.29 miles) –Proposed 8" buried gas pipeline from the edge of the pad to the road intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
±1015' (0.19 miles) –Proposed 10" buried gas pipeline from the road intersection to the existing 16" Gas Pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is ±2,850'and the individual segments are broken up as follows:

±290' (0.05 miles) –Proposed 6" buried liquid pipeline from the seperator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
±1545' (0.29 miles) –Proposed 6" buried liquid pipeline from the edge of the pad to the road intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
±1015' (0.19 miles) –Proposed 6" buried liquid pipeline from the road intersection to the existing 16" Gas Pipeline. 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.

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.

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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:

JD Field Services:
Green River: 1087' FSL & 1020' FEL, Sec. 15 – T2N – R22E

RN Industries:
High Pressure: 705' FNL & 675' FWL, Sec. 1 – T6S – R22E
1057' FNL & 390' FWL, Sec. 1 – T6S – R22E
1239' FNL & 52' FEL, Sec. 6 – T6S – R23E

White River: 501' FNL & 1676' FEL, Sec. 9 – T8S – R20E
471' FNL & 1676' FEL, Sec. 9 – T8S – R20E
900' FNL & 550' FEL, Sec. 35 – T9S – R22E
200' FNL & 950' FEL, Sec. 2 – T10S – R22E
275' FSL & 2275' FEL, Sec. 2 – T10S – R22E
122' FSL & 1350' FEL, Sec. 11 – T10S – R22E
1670' FSL & 500' FEL, Sec. 12 – T10S – R22E
959' FNL & 705' FEL, Sec. 13 – T10S – R22E
600' FSL & 900' FEL, Sec. 13 – T10S – R22E

Water Plant: 481' FNL & 2176' FEL, Sec. 9 – T8S – R20E
471' FNL & 2176' FEL, Sec. 9 – T8S – R20E

Frog Pond: 4820' FNL & 1200' FWL, Sec. 33 – T8S – R20E
4850' FNL & 700' FWL, Sec. 33 – T8S – R20E

Blue Tanks: 200' FNL & 405' FEL, Sec. 32 – T4S – R3E

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

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.

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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
NBU #159 in Sec. 35 T9S R21E
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
Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:
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. 34 T9S R21E

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

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

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

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

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

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within 180 days of completion of the work.

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

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after 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):

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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 NAD 83 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

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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:

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

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

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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.

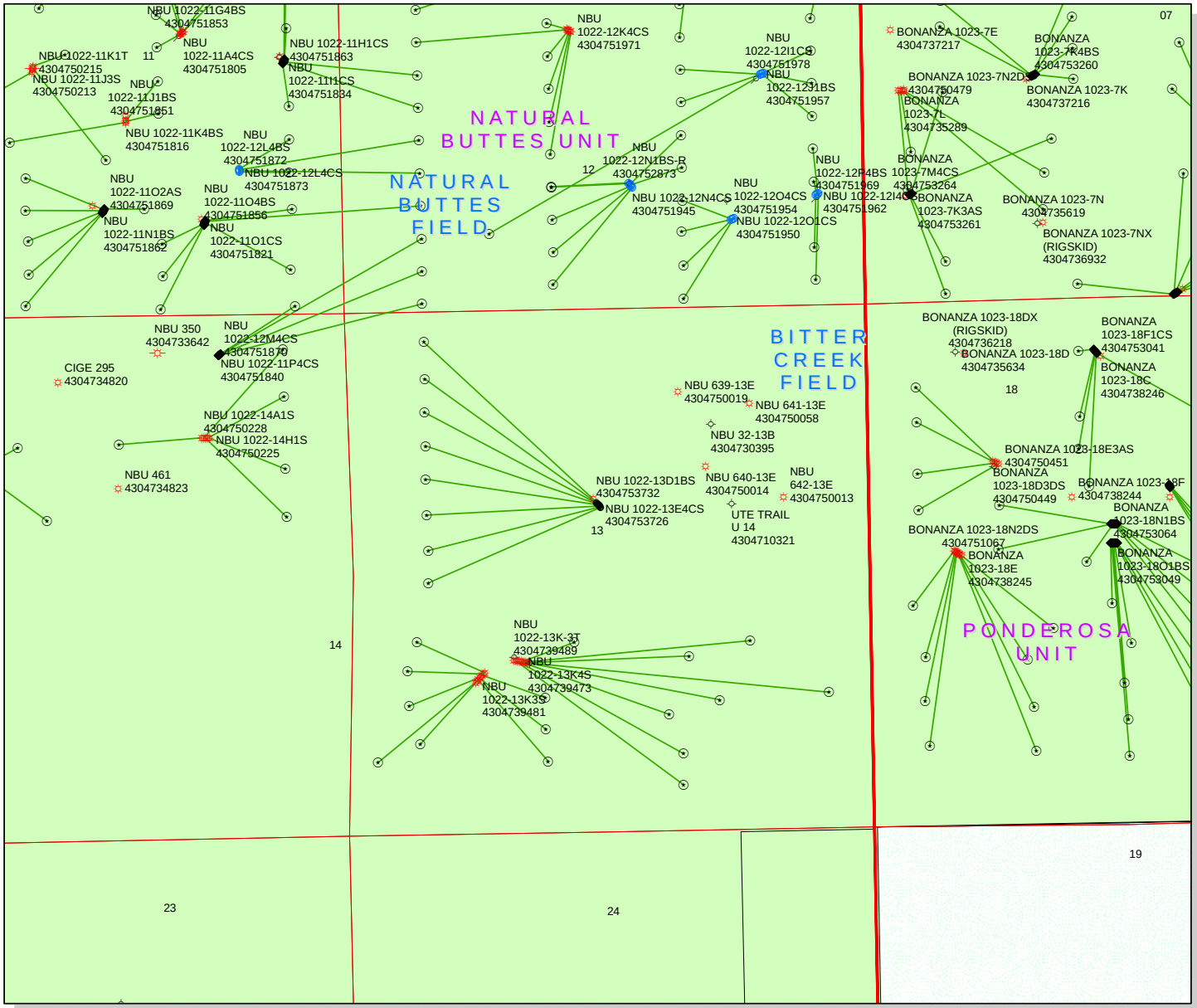
Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

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.

Cara Mahler

May 2, 2013
Date

API Well Number: 43047537300000



API Number: 4304753730

Well Name: NBU 1022-13D4CS

Township T10.0S Range R22.0E Section 13

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units

STATUS

- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS

- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED

1,300 650 0 1,300 Feet

1:12,500

RECEIVED: May 07, 2013

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

May 7, 2013

Memorandum

To: Assistant Field Office Manager Minerals, Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2013 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 2013 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
WELL PAD - NBU 1022-13F		
43-047-53725	NBU 1022-13L1BS	Sec 13 T10S R22E 2012 FNL 2575 FWL
		BHL Sec 13 T10S R22E 2559 FSL 0818 FWL
43-047-53726	NBU 1022-13E4CS	Sec 13 T10S R22E 2004 FNL 2569 FWL
		BHL Sec 13 T10S R22E 2411 FNL 0825 FWL
43-047-53727	NBU 1022-13E4BS	Sec 13 T10S R22E 1997 FNL 2563 FWL
		BHL Sec 13 T10S R22E 2055 FNL 0817 FWL
43-047-53728	NBU 1022-13E1BS	Sec 13 T10S R22E 1982 FNL 2550 FWL
		BHL Sec 13 T10S R22E 1356 FNL 0822 FWL
43-047-53729	NBU 1022-13E1CS	Sec 13 T10S R22E 1989 FNL 2556 FWL
		BHL Sec 13 T10S R22E 1689 FNL 0815 FWL
43-047-53730	NBU 1022-13D4CS	Sec 13 T10S R22E 1974 FNL 2544 FWL
		BHL Sec 13 T10S R22E 1016 FNL 0814 FWL
43-047-53731	NBU 1022-13D4BS	Sec 13 T10S R22E 1967 FNL 2537 FWL
		BHL Sec 13 T10S R22E 0674 FNL 0824 FWL
43-047-53732	NBU 1022-13D1BS	Sec 13 T10S R22E 1959 FNL 2531 FWL
		BHL Sec 13 T10S R22E 0302 FNL 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: 2013.05.07 14:19:58 -06'00'

RECEIVED: May 07, 2013

API Well Number: 43047537300000

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

MCoulthard:mc:5-7-13

RECEIVED: May 07, 2013

API Well Number: 43047537300000

Diana Mason <dianawhitney@utah.gov>

Anadarko Well Approval

Jeff Conley <jconley@utah.gov> Fri, May 17, 2013 at 12:59 PM
To: Jim Davis <jimdavis1@utah.gov>, Diana Mason <dianawhitney@utah.gov>, Brad Hill <bradhill@utah.gov>, "Mahler, Cara" <cara.mahler@anadarko.com>, julie.jacobson@anadarko.com

Hello,

The following wells have been approved by SITLA for both arch and paleo:

(4304753725) NBU 1022-13L1BS
(4304753726) NBU 1022-13E4CS
(4304753727) NBU 1022-13E4BS
(4304753728) NBU 1022-13E1BS
(4304753729) NBU 1022-13E1CS
(4304753730) NBU 1022-13D4CS
(4304753731) NBU 1022-13D4BS
(4304753732) NBU 1022-13D1BS

Thanks,

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

API Well Number: 43047537300000

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-13D4CS 43047537300000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-13D4CS 4304753			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2118	8411		
Previous Shoe Setting Depth (TVD)	0	2118		
Max Mud Weight (ppg)	8.3	12.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5131	11.7		

Calculations	**Surf String**	**8.625**	"	
Max BHP (psi)	.052*Setting Depth*MW=	917		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	663	NO	air bowl
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	451	YES	OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	451	NO	OK
Required Casing/BOPE Test Pressure=		2118	psi	
***Max Pressure Allowed @ Previous Casing Shoe=**		0	psi	*Assumes 1psi/ft frac gradient

Calculations	**Prod String**	**4.500**	"	
Max BHP (psi)	.052*Setting Depth*MW=	5248		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4239	YES	5M BOPE, pipe and blind rams, kill lines
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3398	YES	OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3864	NO	OK
Required Casing/BOPE Test Pressure=		5000	psi	
***Max Pressure Allowed @ Previous Casing Shoe=**		2118	psi	*Assumes 1psi/ft frac gradient

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

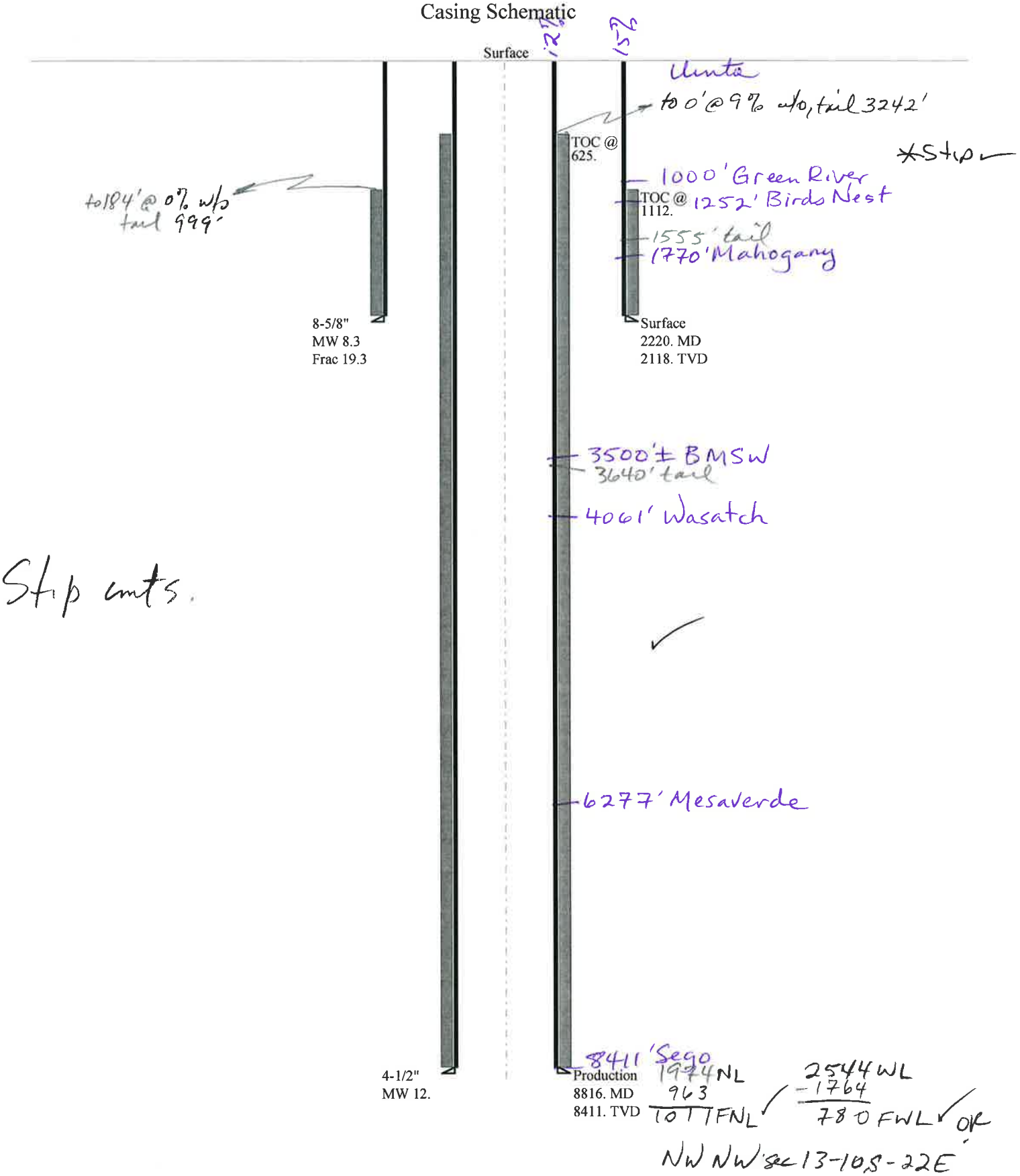
Calculations	**String**		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure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

RECEIVED: June 12, 2013

API Well Number: 43047537300000

43047537300000 NBU 1022-13D4CS

Casing Schematic



API Well Number: 43047537300000

Well name:	**43047537300000 NBU 1022-13D4CS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Surface
Project ID:	43-047-53730
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight: 8.330 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,864 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 2,118 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.70 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 1,933 ft

Environment:

H2S considered? No

Surface temperature: 74 °F

Bottom hole temperature: 104 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 100 ft

Cement top: 1,112 ft

Directional Info - Build & Drop

Kick-off point 300 ft

Departure at shoe: 552 ft

Maximum dogleg: 2 °/100ft

Inclination at shoe: 25 °

Re subsequent strings:

Next setting depth: 8,411 ft

Next mud weight: 12.000 ppg

Next setting BHP: 5,243 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 2,118 ft

Injection pressure: 2,118 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	2220	8.625	28.00	I-55	LT&C	2118	2220	7.892	87912

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	916	1880	2.051	2118	3390	1.60	52	348	6.69 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940

Date: June 4,2013
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2118 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

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

Well name:	**43047537300000 NBU 1022-13D4CS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-53730
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight: 12.000 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 3,393 psi

Internal gradient: 0.220 psi/ft

Calculated BHP 5,243 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

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

Tension is based on buoyed weight.

Neutral point: 7,307 ft

Estimated cost: 182,371 ($)

Environment:

H2S considered?	No
Surface temperature:	74 °F
Bottom hole temperature:	192 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	1,000 ft
Cement top:	625 ft

Directional Info - Build & Drop

Kick-off point	300 ft
Departure at shoe:	2010 ft
Maximum dogleg:	2 °/100ft
Inclination at shoe:	0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
2	5000	4.5	11.60	I-80	DQX	4637	5000	3.875	132000
1	3816	4.5	11.60	I-80	LT&C	8411	8816	3.875	50371

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	2891	6160	2.131	4413	7780	1.76	80.1	267	3.33 J
1	5243	6360	1.213	5243	7780	1.48	26.3	212	8.07 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940

Date: June 4,2013
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8411 ft, a mud weight of 12 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-13D4CS
API Number 43047537300000 **APD No** 7905 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SENW **Sec** 13 **Tw** 10.0S **Rng** 22.0E 1974 FNL 2544 FWL
GPS Coord (UTM) 637650 4423540 **Surface Owner**

Participants

Cara Mahler, Chantill Recker, Howdy Brown, Hal Blanchard, Doreen Green, Brad Burman, Denise Kirsch, Doyle Holmes, (Anadarko). Mitch Batty (Timberline). Jim Davis (SITLA). David Hackford (DOGM).

Regional/Local Setting & Topography

The general area is in the southeast end of the Natural Buttes Unit, and contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 2500 feet. 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 35 air miles and 59 road miles to the northwest. The area is accessed by Utah State, Uintah County and oilfield development Roads.

This site is on an existing location which has an existing gas well (The NBU 638-13E) Very little new construction will be necessary. This location runs in a northwest-southeast direction along the top of a narrow flat topped ridge which is restricted along the north and south edge by a steep break-off. Due to the formations in the area and the short distance to the White River, a closed loop mud system shall be used to drill this well.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA was invited to the pre-site evaluation. He was present. Because this site is on an existing location, DWR's representative chose not to attend.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	**Width** 352 **Length** 450	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

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Flora / Fauna

Identifiable vegetation consists of black sagebrush, Gardner saltbrush, greasewood, horsebrush, and broom snakeweed.

Antelope, coyote, small mammals and birds. Winter domestic sheep grazing.
.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental 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

A closed loop mud system will be used while drilling this well. After the well is drilled. A fresh water pit will be constructed to hold frack fluid. This pit will have a felt subliner and a 30 mil plastic liner, and will be padded with drilled cuttings.

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

Other Observations / Comments

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This well will be one of eight new wells which will be drilled on this pad. There is also an existing gas well on this pad. It is the NBU 638-13E.

David Hackford	5/14/2013
Evaluator	**Date / Time**

RECEIVED: June 13, 2013

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

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
7905	43047537300000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		**Surface Owner-APD**		
Well Name	NBU 1022-13D4CS		**Unit**	NATURAL BUTTES	
Field	NATURAL BUTTES		**Type of Work**	DRILL	
Location	SENW 13 10S 22E S 1974 FNL 2544 FWL GPS Coord (UTM) 637646E 4423535N				

Geologic Statement of Basis

Kerr McGee proposes to set 2,220’ of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,500'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 13. 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	5/20/2013
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is in the southeast end of the Natural Buttes Unit, and contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 2500 feet. 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 35 air miles and 59 road miles to the northwest. The area is accessed by Utah State, Uintah County and oilfield development Roads.

A closed loop mud system will be used to drill this well. Drilled cuttings will be stored on 30 mil liners located on the north and southeast sides of the location. After all eight proposed wells are drilled, the cuttings will be used to pad a fresh water frack pit. This pit will also be lined with a felt sub-liner and a 30 mill plastic liner. Jim Davis with SITLA approved this plan.

Daniel Emmet represented the Utah Division of Wildlife Resources, but did not attend the presite because very little new construction will be necessary to build this pad location.

David Hackford	5/14/2013
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A closed loop mud circulation system is required for this location.

RECEIVED: June 13, 2013

Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in a fresh water pit that shall be constructed after all wells on this pad are drilled. This pit shall be padded with drilled cuttings, and will be used to store frack fluid..

RECEIVED: June 13, 2013

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/3/2013
API NO. ASSIGNED: 43047537300000
WELL NAME: NBU 1022-13D4CS
OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)
PHONE NUMBER: 720 929-6029
CONTACT: Cara Mahler

PROPOSED LOCATION: SENW 13 100S 220E
Permit Tech Review: ✔

SURFACE: 1974 FNL 2544 FWL
Engineering Review: ✔

BOTTOM: 1016 FNL 0814 FWL
Geology Review: ✔

COUNTY: UINTAH
LATITUDE: 39.95076
LONGITUDE: -109.38865
UTM SURF EASTINGS: 637646.00
NORTHINGS: 4423535.00
FIELD NAME: NATURAL BUTTES
LEASE TYPE: 3 - State
LEASE NUMBER: UT ST UO 8512 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: Suspends General Siting

- ✔ **R649-3-11. Directional Drill**

Comments: Presite Completed

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

RECEIVED: June 13, 2013

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 1022-13D4CS
API Well Number: 43047537300000
Lease Number: UT ST UO 8512 ST
Surface Owner: STATE
Approval Date: 6/13/2013

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).

Cement volume for the 4 1/2 production string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to surface as indicated in the submitted drilling plan.

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

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 8512 S

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 1022-13D4CS

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

9. API NUMBER: 43047537300000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6100 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1974 FNL 2544 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 13 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		
✓ NOTICE OF INTENT Approximate date work will start: 6/13/2014	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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: April 16, 2014

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 4/14/2014

RECEIVED: Apr. 14, 2014

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 43047537300000

API: 43047537300000
Well Name: NBU 1022-13D4CS
Location: 1974 FNL 2544 FWL QTR SENW SEC 13 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 6/13/2013

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: Teena Paulo **Date:** 4/14/2014
Title: Staff Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Apr. 14, 2014

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 8512 S

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-13D4CS

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

9. API NUMBER: 43047537300000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779
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COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 5/7/2015	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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: May 07, 2015
By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jennifer Thomas	720 929-6808	Regulatory Specialist
SIGNATURE		**DATE**
N/A		5/7/2015

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 43047537300000

API: 43047537300000
Well Name: NBU 1022-13D4CS
Location: 1974 FNL 2544 FWL QTR SENW SEC 13 TWNP 100S RNG 220E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 6/13/2013

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- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Jennifer Thomas **Date:** 5/7/2015
Title: Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: May. 07, 2015

GARY R. HERBERT
Governor

SPENCER J. COX
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

June 14, 2016

Kerr-McGee Oil & Gas Onshore, LP.
1099 18th Street, Suite 600
Denver, CO 80217

Re: APDs Rescinded for Kerr-McGee Oil & Gas Onshore, LP.,Uintah County

Ladies and Gentlemen:

Enclosed find the list of APDs that is being rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded as of June 14, 2016.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason
Environmental Scientist

cc: Well File
Bureau of Land Management, Vernal

1594 West North Temple, Suite 1210, Salt Lake City, UT 84116
PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

NBU 1022-13L1BS	43-047-53725
NBU 1022-13E4CS	43-047-53726
NBU 1022-13E4BS	43-047-53727
NBU 1022-13E1BS	43-047-53728
NBU 1022-13E1CS	43-047-53729
NBU 1022-13D4CS	43-047-53730
NBU 1022-13D4BS	43-047-53731
NBU 1022-13D1BS	43-047-53732