

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 MU 921-19B1B-CMHZ
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		3. FIELD OR WILDCAT NATURAL BUTTES
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME MAVERICK
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) UTU0581	11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>	12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>
13. NAME OF SURFACE OWNER (if box 12 = 'fee')		14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>	19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input checked="" type="checkbox"/>

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	395 FNL 1713 FEL	NWNE	30	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	395 FNL 1713 FEL	NWNE	30	9.0 S	21.0 E	S
At Total Depth	2 FNL 1756 FEL	NWNE	19	9.0 S	21.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 2	23. NUMBER OF ACRES IN DRILLING UNIT 2399
27. ELEVATION - GROUND LEVEL 4853	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 614	26. PROPOSED DEPTH MD: 9827 TVD: 4367
	28. BOND NUMBER WYB000291	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	12.25	9.625	0 - 2818	36.0	J-55 LT&C	0.2	Type III	420	2.1	12.5
							Type III	420	1.46	14.3
I1	8.75	7	0 - 4694	26.0	HCP-110 LT&C	10.2	Premium Lite High Strength	450	1.92	12.5
							Class G	90	1.16	15.8
L1	6.125	4.5	3794 - 9827	11.6	HCP-110 LT&C	9.5	No Used	0	0.0	0.0
							No Used	0	0.0	0.0

ATTACHMENTS

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

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

NAME Danielle Piernot	TITLE Regulatory Analyst	PHONE 720 929-6156
SIGNATURE	DATE 02/28/2013	EMAIL danielle.piernot@anadarko.com
API NUMBER ASSIGNED 43047536570000	APPROVAL  Permit Manager	

Kerr-McGee Oil & Gas Onshore. L.P.**MU 921-19B1B-CMHZ**

Surface: 395 FNL / 1713 FEL NWNE Sec. 30
 BHL: 2 FNL / 1756 FEL NWNE Sec. 19

T9S R21E

Unitah County, Utah
 Mineral Lease: UTU-0581

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,594'	Water
Birds Nest	1,866'	Water
Mahogany	2,368'	Water
Lower Green River	4,357'	Oil/Gas
TVD	4,367'	
MD	9,827'	

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

Please refer to the attached Drilling Program

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

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. **Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 4367' TVD, approximately equals
2,184 psi

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

Maximum anticipated surface pressure equals approximately 1,223 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. **Anticipated Starting Dates:**

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

9. **Variances:**

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

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

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

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

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

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

Background

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

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

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

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

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

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

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

Variance for FIT Requirements

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

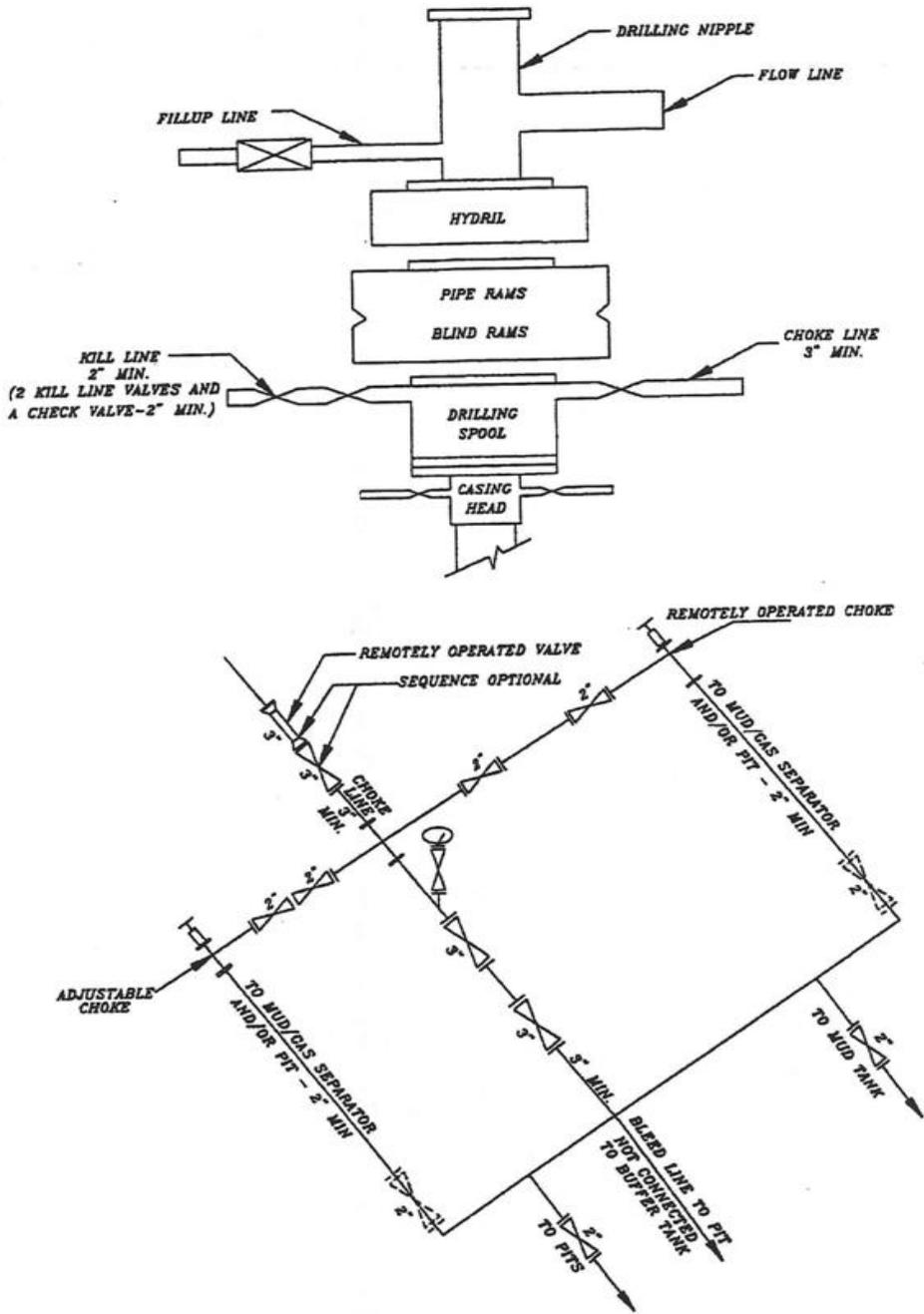
Conclusion

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

10. **Other Information:**

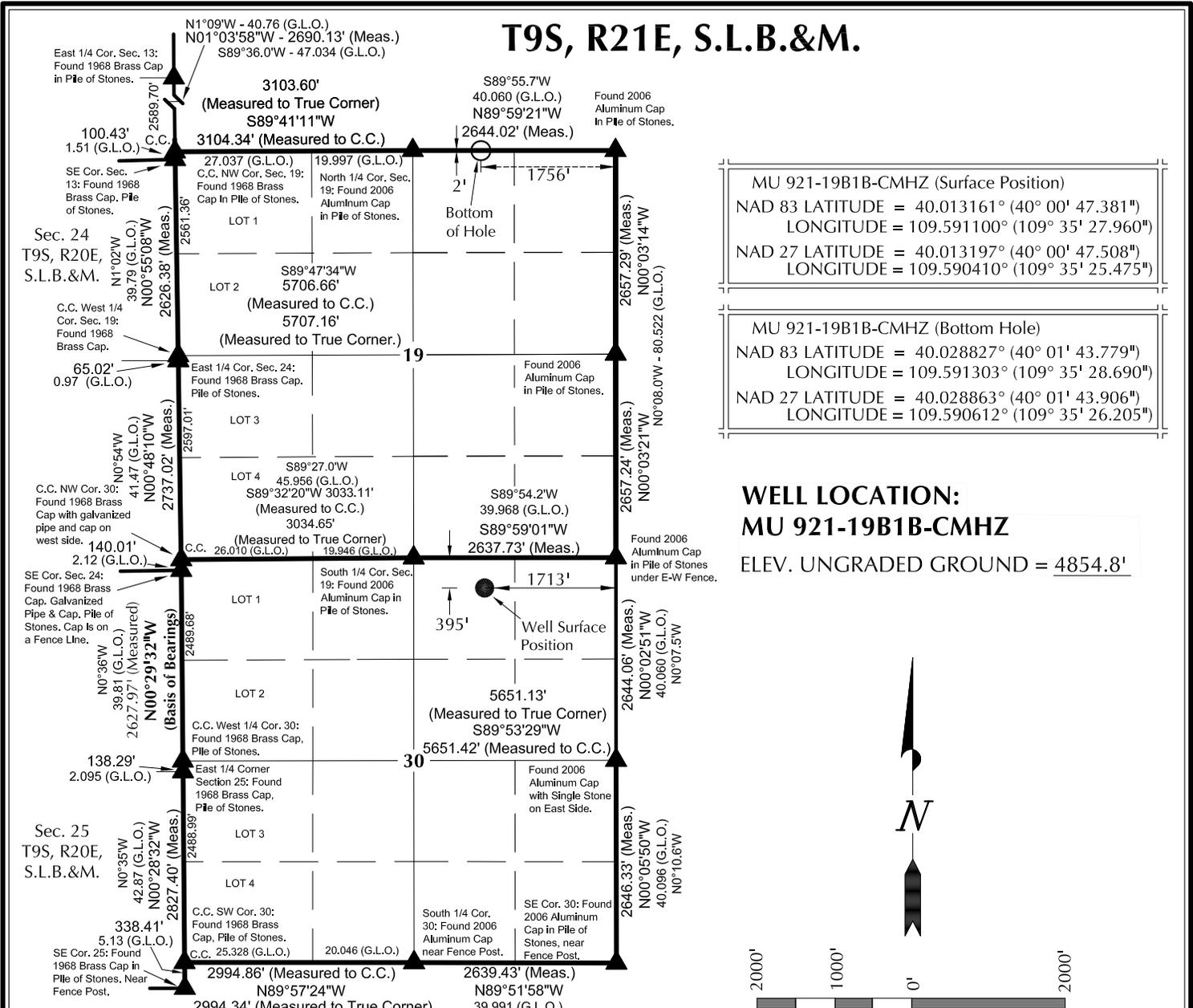
Please refer to the attached Drilling Program.

EXHIBIT A MU 921-19B1B-CMHZ



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

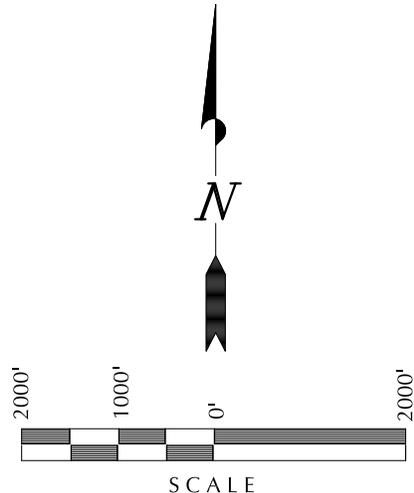
T9S, R21E, S.L.B.&M.



MU 921-19B1B-CMHZ (Surface Position)
 NAD 83 LATITUDE = 40.013161° (40° 00' 47.381")
 LONGITUDE = 109.591100° (109° 35' 27.960")
 NAD 27 LATITUDE = 40.013197° (40° 00' 47.508")
 LONGITUDE = 109.590410° (109° 35' 25.475")

MU 921-19B1B-CMHZ (Bottom Hole)
 NAD 83 LATITUDE = 40.028827° (40° 01' 43.779")
 LONGITUDE = 109.591303° (109° 35' 28.690")
 NAD 27 LATITUDE = 40.028863° (40° 01' 43.906")
 LONGITUDE = 109.590612° (109° 35' 26.205")

WELL LOCATION:
MU 921-19B1B-CMHZ
 ELEV. UNGRADED GROUND = 4854.8'



- 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 N00°29'18"W 5708.73' 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'.

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

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.

9-28-12
 No. 6028691
JOHN R. LAUGH
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH

WELL PAD: MU 921-30B

MU 921-19B1B-CMHZ
WELL PLAT
2' FNL, 1756' FEL (Bottom Hole)
NW 1/4 NE 1/4 OF SECTION 19, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

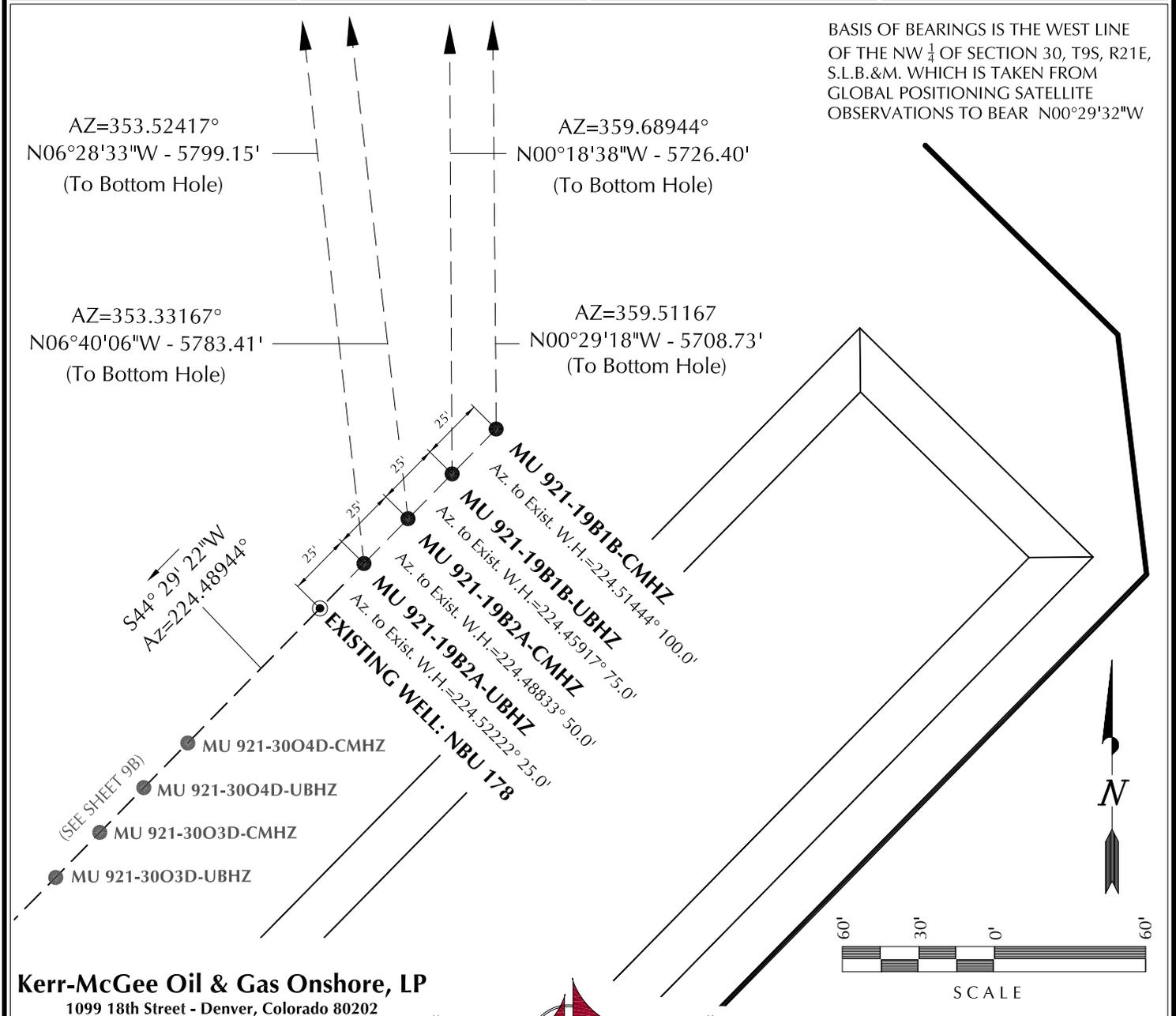
CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

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

DATE SURVEYED: 9-6-12	SURVEYED BY: A.F.	SHEET NO: 1 1 OF 20
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
SCALE: 1" = 2000'		

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
MU 921-19B1B-CMHZ	40°00'47.381"	109°35'27.960"	40°00'47.508"	109°35'25.475"	395' FNL 1713' FEL	40°01'43.779"	109°35'28.690"	40°01'43.906"	109°35'26.205"	2' FNL 1756' FEL
MU 921-19B1B-UBHZ	40°00'47.205"	109°35'28.185"	40°00'47.332"	109°35'25.701"	413' FNL 1730' FEL	40°01'43.779"	109°35'28.690"	40°01'43.906"	109°35'26.205"	2' FNL 1756' FEL
MU 921-19B2A-CMHZ	40°00'47.028"	109°35'28.410"	40°00'47.155"	109°35'25.925"	431' FNL 1748' FEL	40°01'43.771"	109°35'37.146"	40°01'43.898"	109°35'34.661"	2' FNL 2414' FEL
MU 921-19B2A-UBHZ	40°00'46.851"	109°35'28.634"	40°00'46.978"	109°35'26.150"	449' FNL 1765' FEL	40°01'43.771"	109°35'37.146"	40°01'43.898"	109°35'34.661"	2' FNL 2414' FEL
NBU 178	40°00'46.675"	109°35'28.859"	40°00'46.802"	109°35'26.375"	466' FNL 1783' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole											
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
MU 921-19B1B-CMHZ	5708.5'	-48.7'	MU 921-19B1B-UBHZ	5726.3'	-31.0'	MU 921-19B2A-CMHZ	5744.3'	-671.6'	MU 921-19B2A-UBHZ	5762.1'	-654.1'



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

WELL PAD - MU 921-30B

WELL PAD INTERFERENCE PLAT
MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
MU 921-3004D-CMHZ, MU 921-3004D-UBHZ,
MU 921-3003D-CMHZ & MU 921-3003D-UBHZ
LOCATED IN SECTION 30, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



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

TIMBERLINE

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

(435) 789-1365

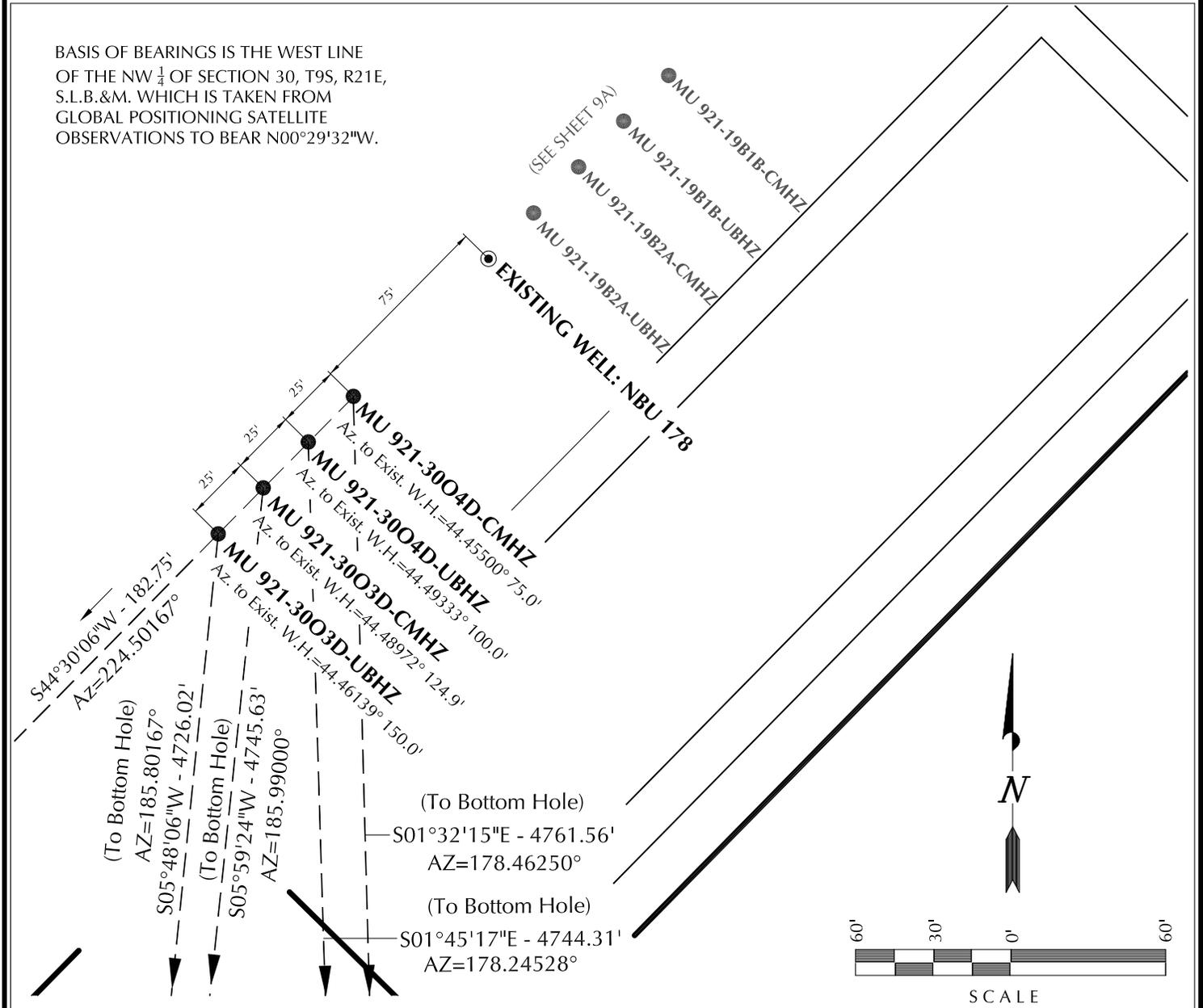
DATE SURVEYED: 9-6-12	SURVEYED BY: A.F.	SHEET NO: 9A
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
SCALE: 1" = 60'		9A OF 20

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
MU 921-3004D-CMHZ	40°00'46.145"	109°35'29.533"	40°00'46.272"	109°35'27.049"	520' FNL 1836' FEL	39°59'59.121"	109°35'27.804"	39°59'59.247"	109°35'25.321"	6' FSL 1714' FEL
MU 921-3004D-UBHZ	40°00'45.969"	109°35'29.758"	40°00'46.096"	109°35'27.274"	538' FNL 1853' FEL	39°59'59.121"	109°35'27.804"	39°59'59.247"	109°35'25.321"	6' FSL 1714' FEL
MU 921-3003D-CMHZ	40°00'45.793"	109°35'29.983"	40°00'45.920"	109°35'27.498"	556' FNL 1871' FEL	39°59'59.156"	109°35'36.257"	39°59'59.283"	109°35'33.773"	9' FSL 2372' FEL
MU 921-3003D-UBHZ	40°00'45.616"	109°35'30.207"	40°00'45.743"	109°35'27.723"	573' FNL 1888' FEL	39°59'59.156"	109°35'36.257"	39°59'59.283"	109°35'33.773"	9' FSL 2372' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
MU 921-3004D-CMHZ	-4759.8'	127.8'	MU 921-3004D-UBHZ	-4742.1'	145.3'	MU 921-3003D-CMHZ	-4719.7'	-495.2'	MU 921-3003D-UBHZ	-4701.8'	-477.7'

BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 30, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°29'32"W.



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

WELL PAD - MU 921-30B

WELL PAD INTERFERENCE PLAT
MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
MU 921-3004D-CMHZ, MU 921-3004D-UBHZ,
MU 921-3003D-CMHZ & MU 921-3003D-UBHZ
LOCATED IN SECTION 30, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



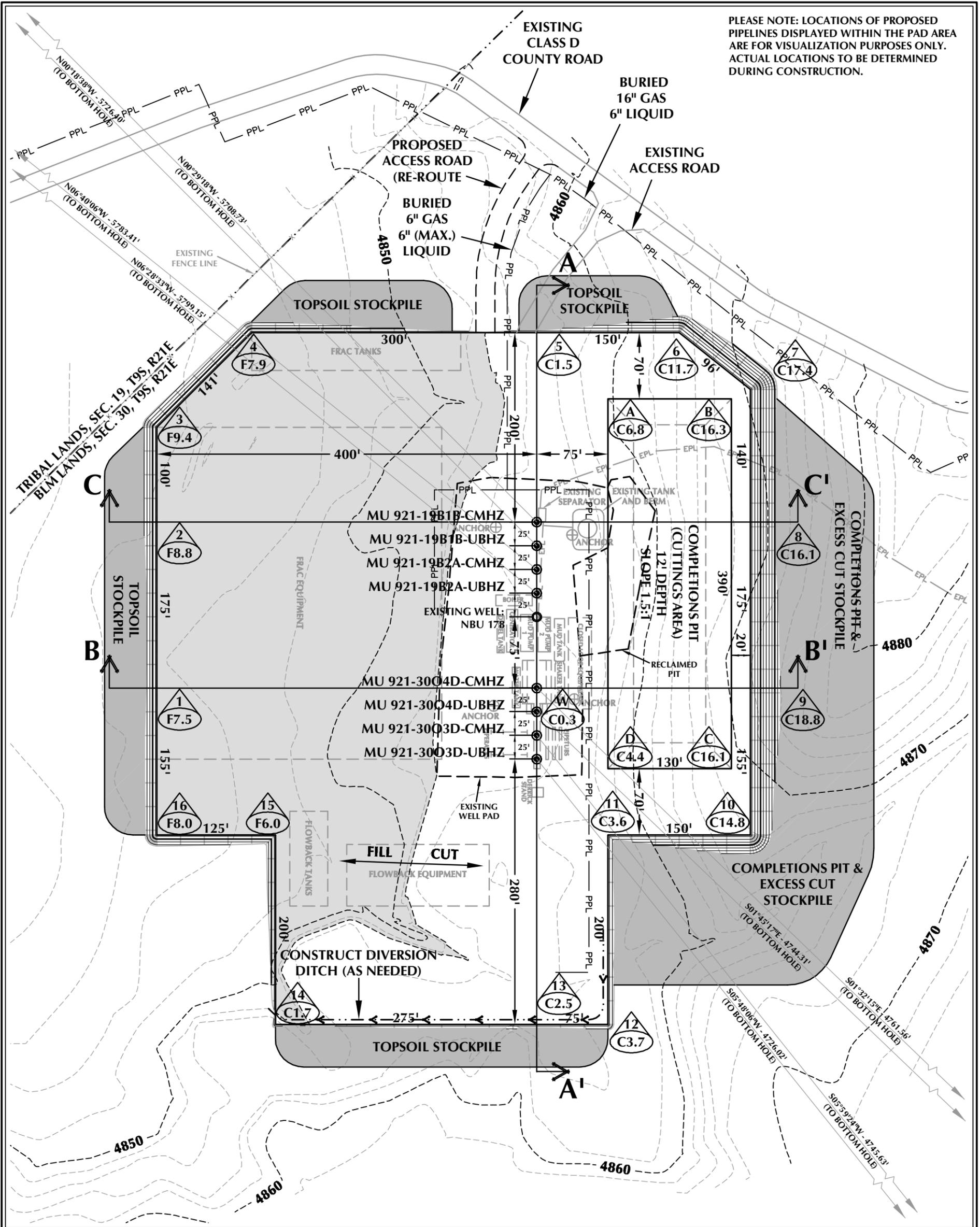
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DATE SURVEYED: 9-6-12	SURVEYED BY: A.F.	SHEET NO: 9B
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
SCALE: 1" = 60'		9B OF 20



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

WELL PAD - MU 921-30B DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4853.2'
 FINISHED GRADE ELEVATION = 4852.9'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 9.83 ACRES
 TOTAL DISTURBANCE AREA = 12.75 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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

WELL PAD - MU 921-30B
 WELL PAD - LOCATION LAYOUT
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., UTAH COUNTY, UTAH



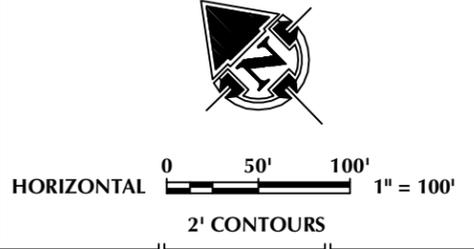
CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

WELL PAD QUANTITIES
 TOTAL CUT FOR WELL PAD = 42,896 C.Y.
 TOTAL FILL FOR WELL PAD = 41,207 C.Y.
 TOPSOIL @ 6" DEPTH = 7,064 C.Y.
 EXCESS MATERIAL = 1,689 C.Y.

COMPLETIONS PIT QUANTITIES
 TOTAL CUT FOR COMPLETIONS PIT
 +/- 18,570 C.Y.
 COMPLETIONS PIT CAPACITY
 (2' OF FREEBOARD)
 +/- 71,050 BARRELS

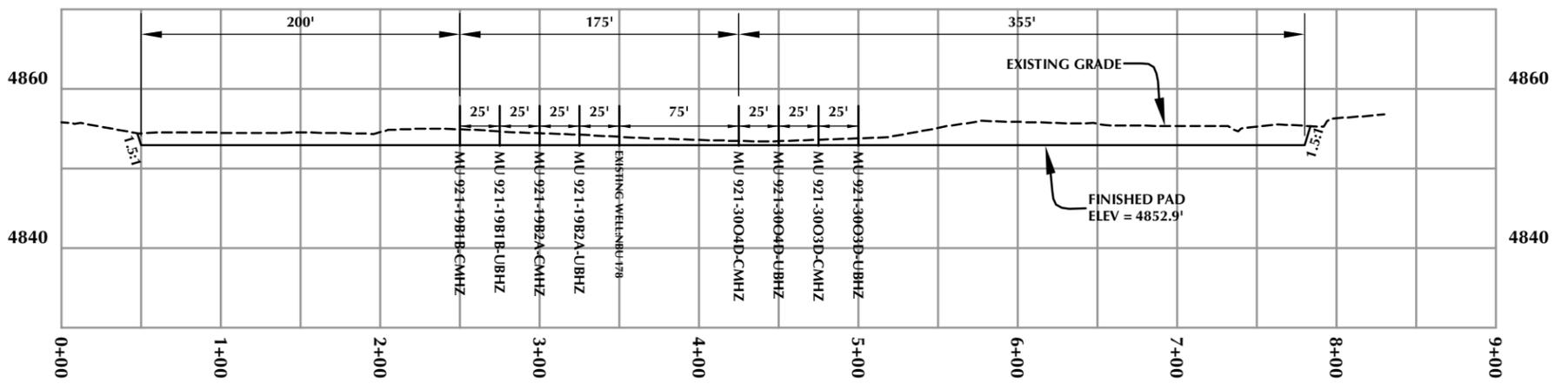
WELL PAD LEGEND

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

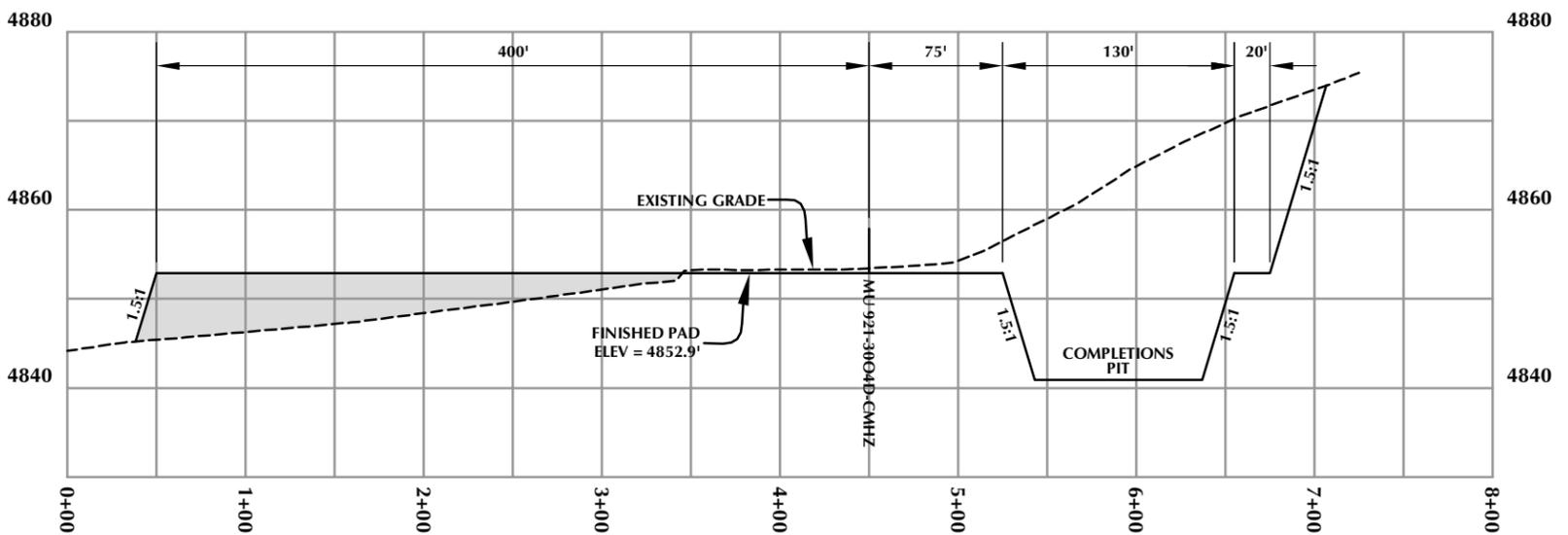


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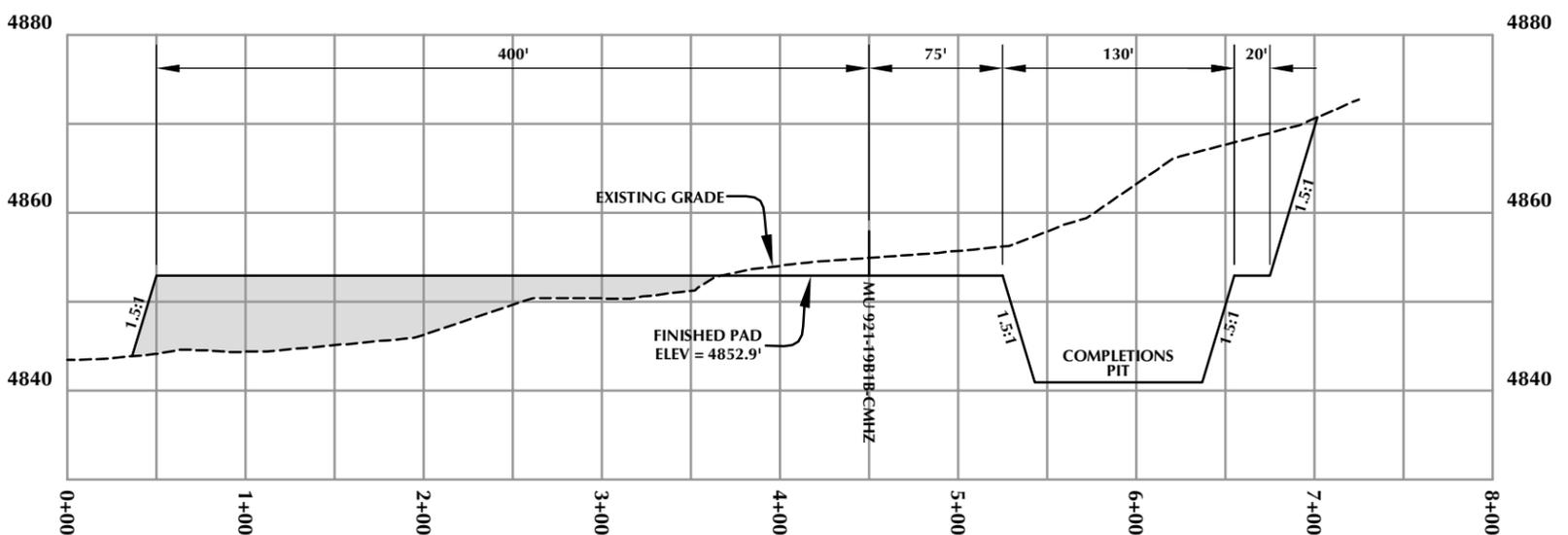
SCALE: 1"=100' DATE: 9/28/12 SHEET NO:
 REVISED: **10** 10 OF 20



CROSS SECTION A-A'



CROSS SECTION B-B'



CROSS SECTION C-C'

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

WELL PAD - MU 921-30B

WELL PAD - CROSS SECTIONS
MU 921-1981B-CMHZ, MU 921-1981B-UBHZ,
MU 921-1982A-CMHZ, MU 921-1982A-UBHZ,
MU 921-3004D-CMHZ, MU 921-3004D-UBHZ,
MU 921-3003D-CMHZ & MU 921-3003D-UBHZ
LOCATED IN SECTION 30, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH



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

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

(435) 789-1365

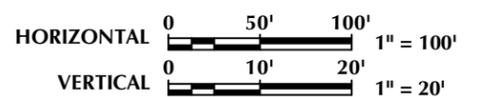
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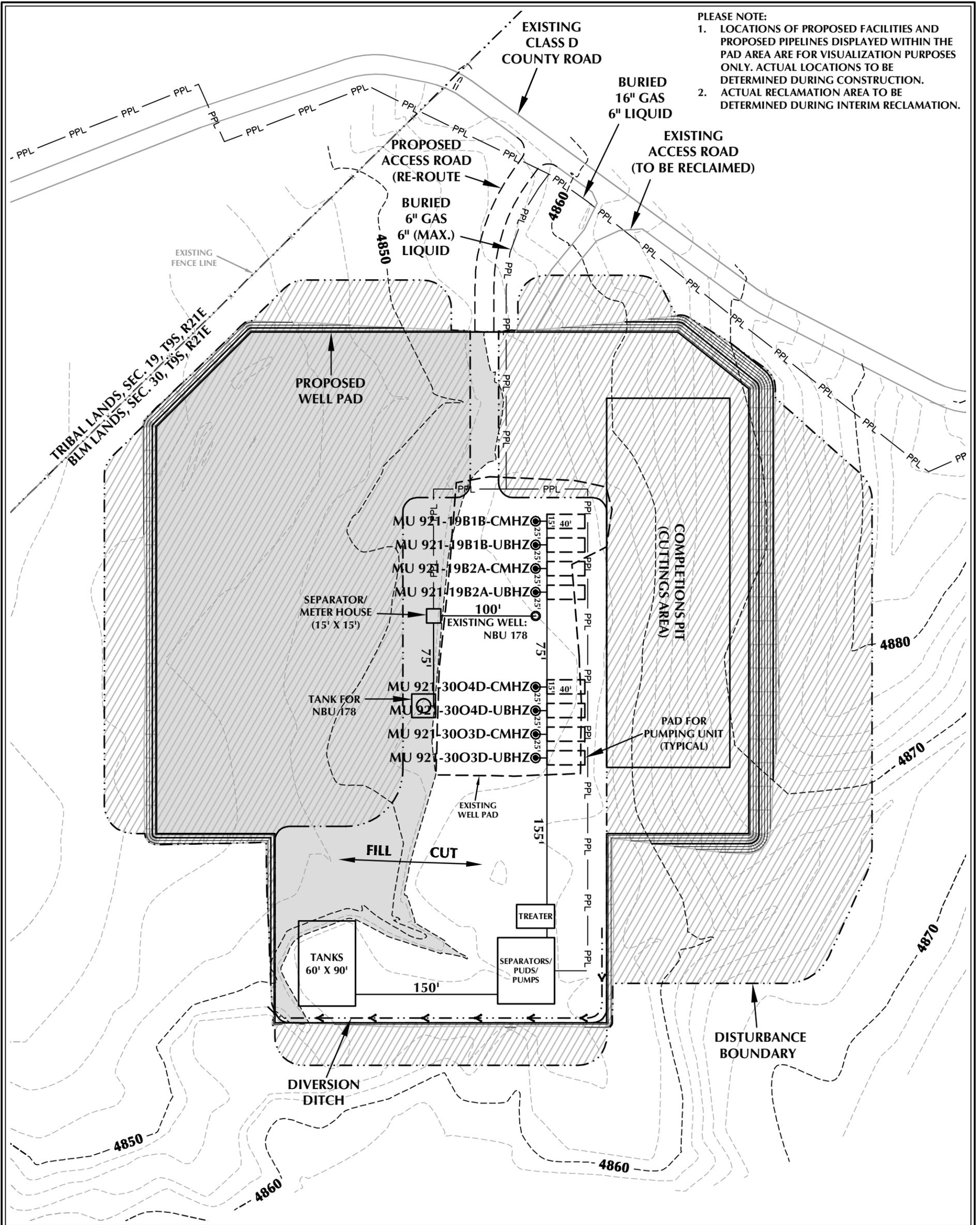
Date: 9/28/12

SHEET NO:

REVISED:

11 11 OF 20





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 - MU 921-30B RECLAMATION DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 12.75 ACRES (INCLUDING EXISTING)
 RECLAMATION AREA = 9.23 ACRES
 TOTAL WELL PAD AREA AFTER RECLAMATION = 3.52 ACRES

WELL PAD LEGEND

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

0 50' 100' 1" = 100'

HORIZONTAL

2' CONTOURS

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 1099 18th Street - Denver, Colorado 80202

WELL PAD - MU 921-30B
 WELL PAD - RECLAMATION LAYOUT
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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SCALE: 1"=100' DATE: 9/28/12 SHEET NO: 12 OF 20

REVISED:



PHOTO VIEW: FROM LOCATION STAKES TO CORNER #2

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM LOCATION STAKES TO CORNER #1

CAMERA ANGLE: NORTHWESTERLY

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

WELL PAD - MU 921-30B

LOCATION PHOTOS
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., Uintah County, Utah.



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 2155 North Main Street
 Sheridan WY 82801
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TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 9-6-12	PHOTOS TAKEN BY: A.F.	SHEET NO: 13A 13A OF 20
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
Date Last Revised:		



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHWESTERLY

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WELL PAD - MU 921-30B

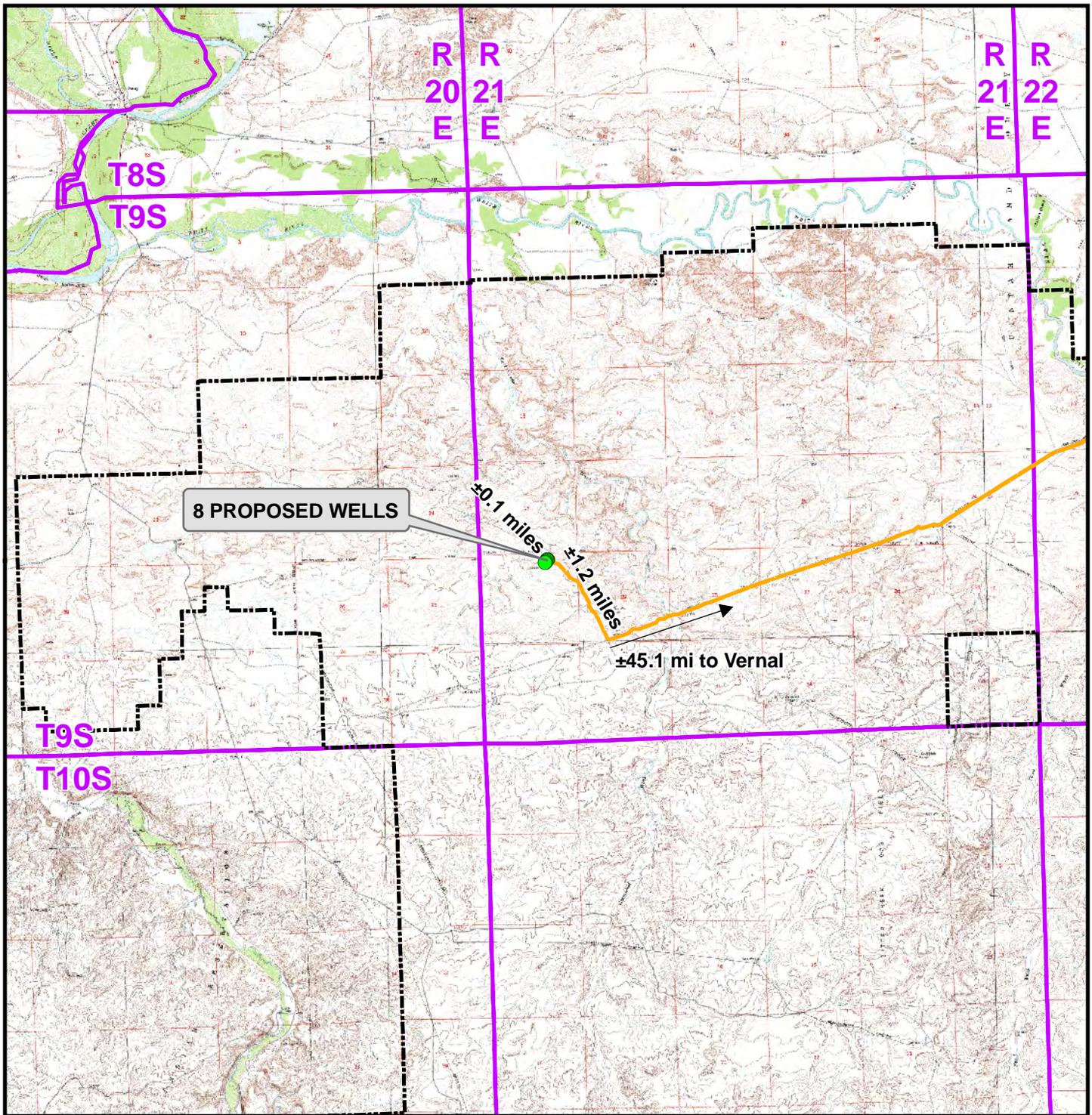
LOCATION PHOTOS
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 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., Uintah County, Utah.



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 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 9-6-12	PHOTOS TAKEN BY: A.F.	13B 13B OF 20
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
Date Last Revised:		



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Legend

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

Distance From Well Pad - MU 921-30B To Unit Boundary: ±13,639ft

WELL PAD - MU 921-30B

TOPO A
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., Uintah County, Utah

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

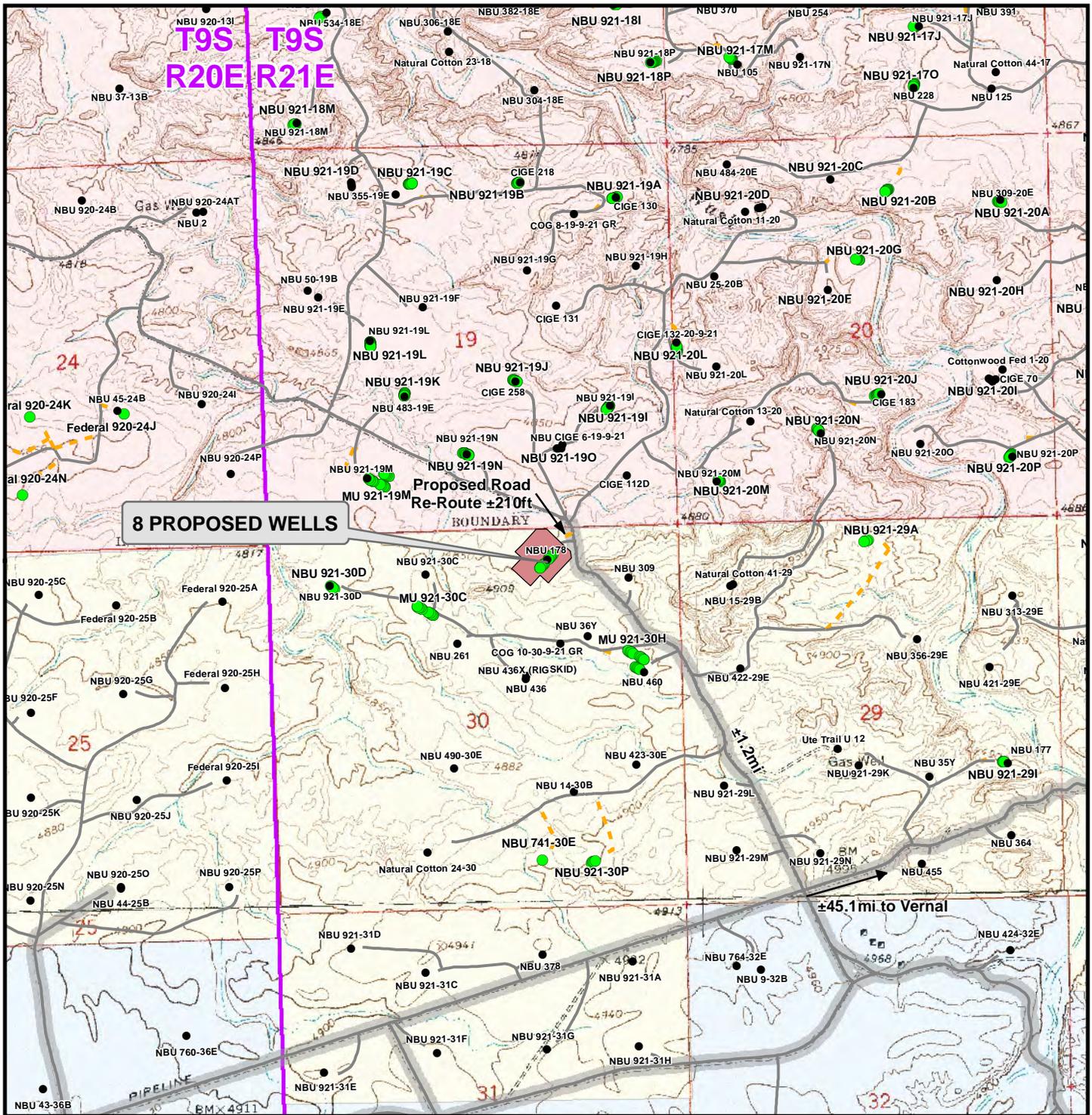
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 2155 North Main Street
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182



SCALE: 1:100,000	NAD83 USP Central	14 14 OF 20
DRAWN: TL	DATE: 28 Sep 2012	
REVISED:	DATE:	



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Legend

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

Total Proposed Road Re-Route Length: ±210ft

WELL PAD - MU 921-30B

TOPO B
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., UINTAH COUNTY, UTAH

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

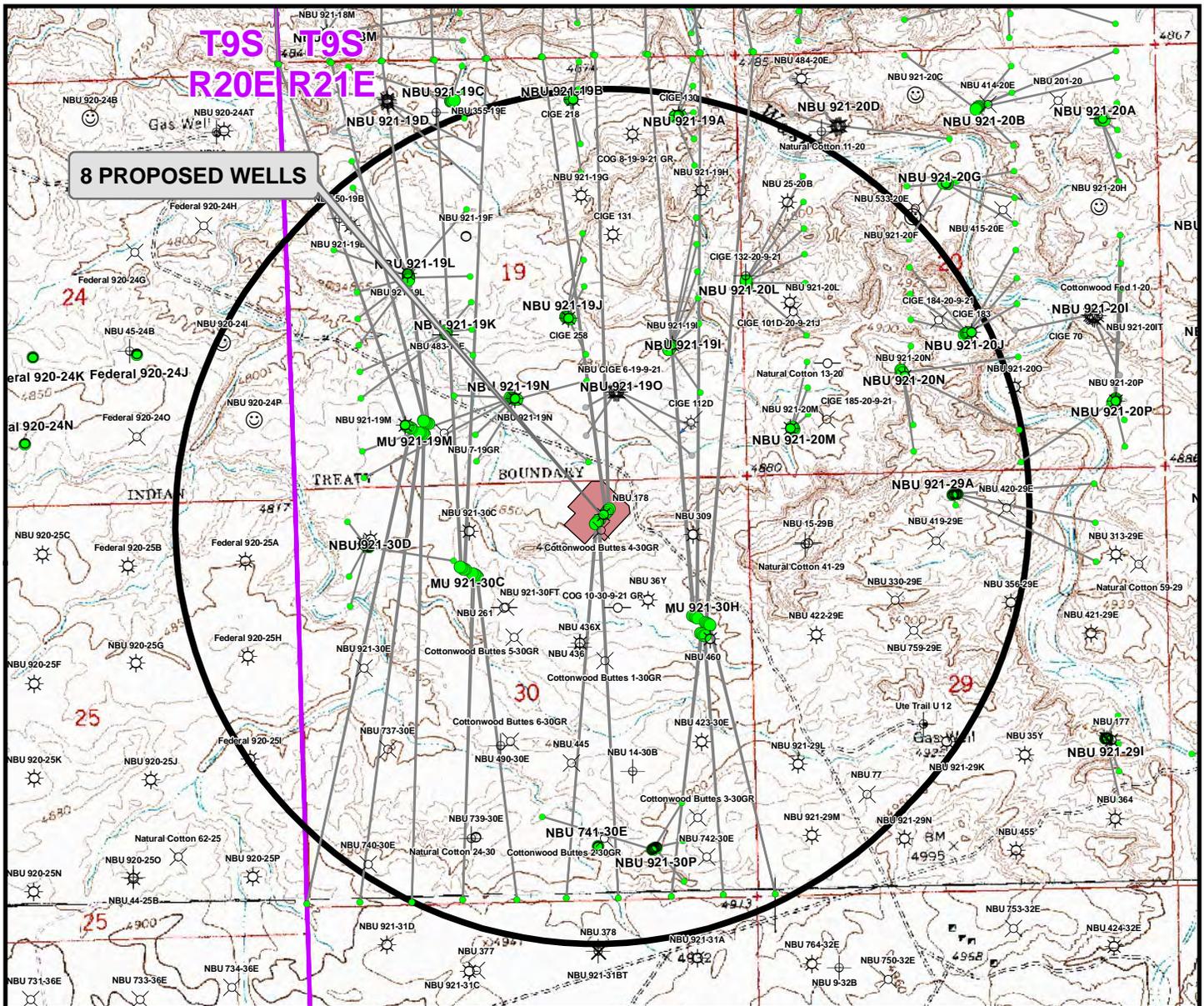
1099 18th Street
 Denver, Colorado 80202



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



SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:
DRAWN: TL	DATE: 28 Sep 2012	15
REVISED:	DATE:	



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	Proposed Well	Nearest Well Bore	Footage
MU 921-19B1B-CMHZ	CIGE 218	614ft	MU 921-30O4D-CMHZ	NBU 378	717ft
MU 921-19B1B-UBHZ	CIGE 218	614ft	MU 921-30O4D-UBHZ	NBU 378	717ft
MU 921-19B2A-CMHZ	CIGE 218	655ft	MU 921-30O3D-CMHZ	NBU 378	774ft
MU 921-19B2A-UBHZ	CIGE 218	655ft	MU 921-30O3D-UBHZ	NBU 378	774ft

Legend

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

WELL PAD - MU 921-30B

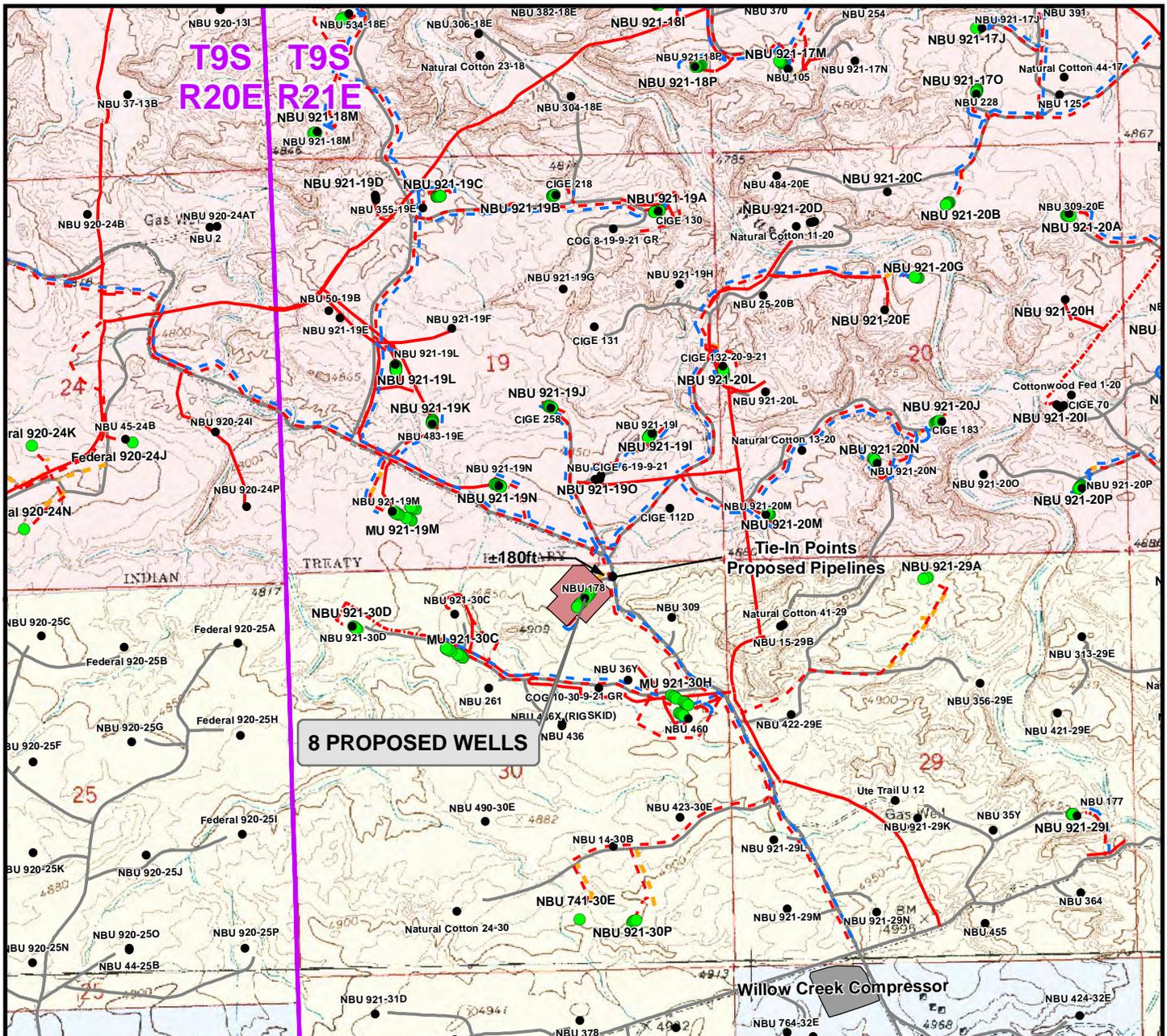
TOPO C
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., Uintah County, Utah

**Kerr-McGee Oil &
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CONSULTING, LLC
 2155 North Main Street
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182

SCALE: 1" = 2,000ft	NAD83 USP Central	16
DRAWN: TL	DATE: 28 Sep 2012	
REVISED:	DATE:	



8 PROPOSED WELLS

**Tie-In Points
Proposed Pipelines**

Willow Creek Compressor

Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Separator to Edge of Pad)	±800ft
Buried 6" (Max.) (Edge of Pad to Proposed 6" Liquid Pipeline)	±180ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±980ft

Proposed Gas Pipeline	Length
Buried 6" (Meter House to Edge of Pad)	±800ft
Buried 6" (Edge of Pad to Proposed 16" Gas Pipeline)	±180ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±980ft

Legend

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

WELL PAD - MU 921-30B

TOPO D
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., Uintah County, Utah

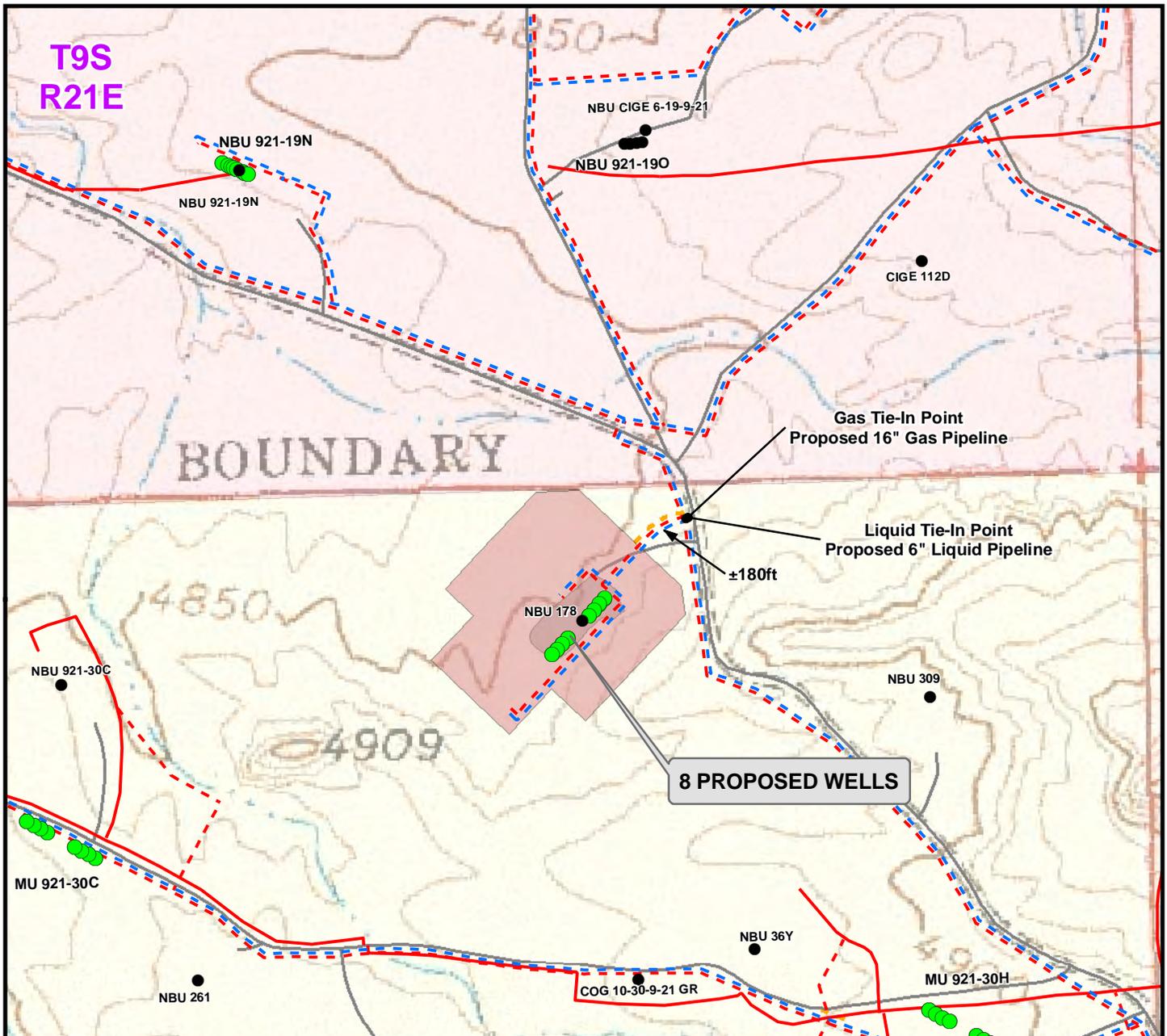
**Kerr-McGee Oil &
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 1099 18th Street
 Denver, Colorado 80202



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

SCALE: 1" = 2,000ft	NAD83 USP Central	17
DRAWN: TL	DATE: 28 Sep 2012	
REVISED:	DATE:	

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Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Buried 6" (Max.) (Separator to Edge of Pad)	±800ft	Buried 6" (Meter House to Edge of Pad)	±800ft
Buried 6" (Max.) (Edge of Pad to Proposed 6" Liquid Pipeline)	±180ft	Buried 6" (Edge of Pad to Proposed 16" Gas Pipeline)	±180ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±980ft	TOTAL PROPOSED BURIED GAS PIPELINE =	±980ft

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

WELL PAD - MU 921-30B

TOPO D2 (PAD & PIPELINE DETAIL)
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., Uintah County, Utah

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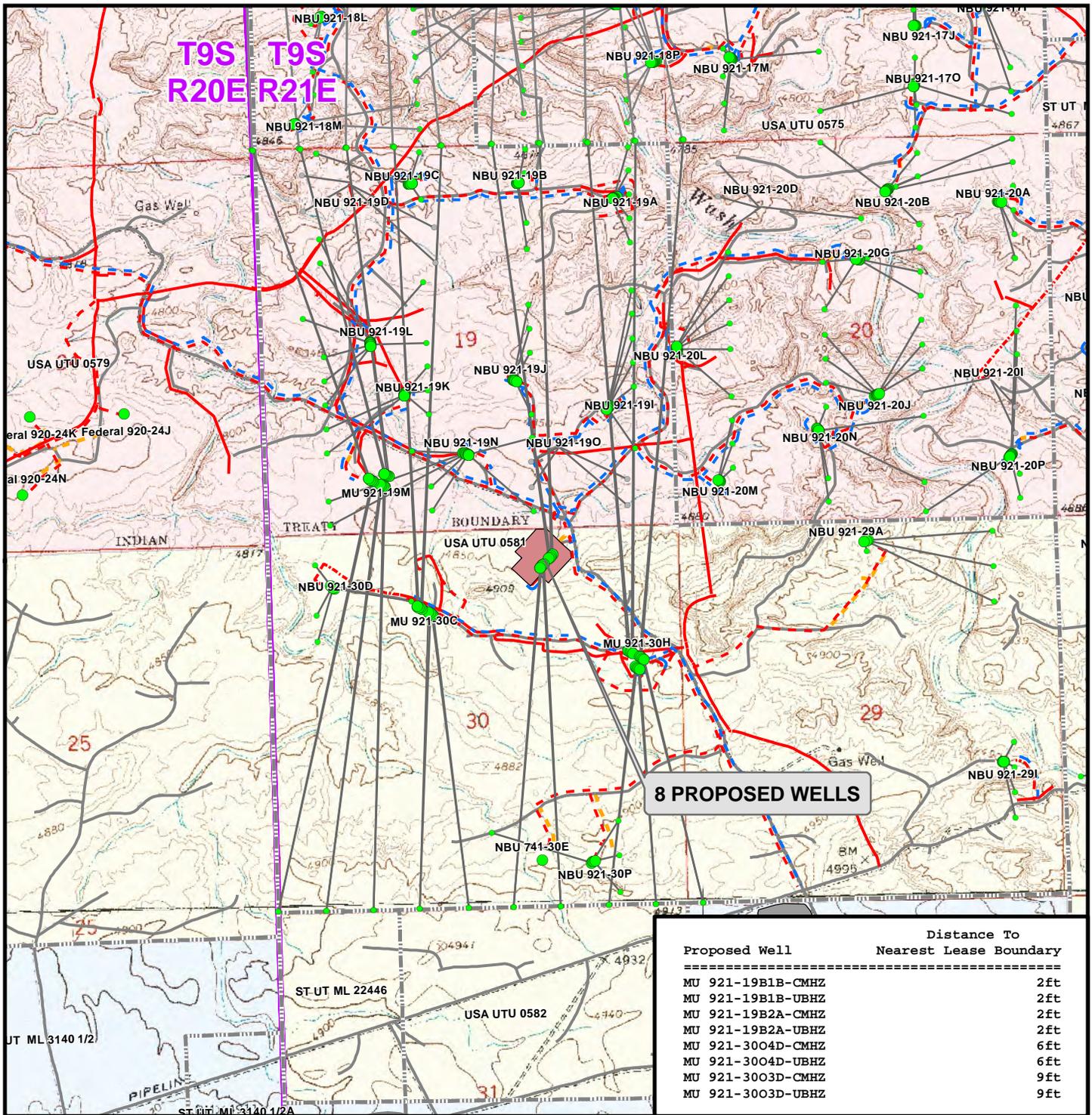


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 2155 North Main Street
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182



SCALE: 1" = 500ft	NAD83 USP Central	18
DRAWN: TL	DATE: 28 Sep 2012	
REVISED:	DATE:	

SHEET NO:
18 OF 20



Proposed Well	Distance To Nearest Lease Boundary
MU 921-19B1B-CMHZ	2ft
MU 921-19B1B-UBHZ	2ft
MU 921-19B2A-CMHZ	2ft
MU 921-19B2A-UBHZ	2ft
MU 921-30O4D-CMHZ	6ft
MU 921-30O4D-UBHZ	6ft
MU 921-30O3D-CMHZ	9ft
MU 921-30O3D-UBHZ	9ft

Legend

- Well - Proposed (Green dot)
- Bottom Hole - Proposed (Green circle)
- Bottom Hole - Existing (Grey circle)
- Well Path (Black line)
- Well Pad (Red shaded area)
- Lease Boundary (Black dashed line)
- Gas Pipeline - Proposed (Red dashed line)
- Gas Pipeline - To Be Upgraded (Red dotted line)
- Gas Pipeline - Existing (Red solid line)
- Liquid Pipeline - Proposed (Blue dashed line)
- Liquid Pipeline - Existing (Blue solid line)
- Road - Proposed (Yellow dashed line)
- Road - Existing (Grey solid line)
- Bureau of Land Management (Yellow shaded area)
- Indian Reservation (Red shaded area)
- State (Blue shaded area)
- Private (White shaded area)

WELL PAD - MU 921-30B

TOPO E
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., Uintah County, Utah

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 Denver, Colorado 80202



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SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 19 19 OF 20
DRAWN: TL	DATE: 28 Sep 2012	
REVISED:	DATE:	

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Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – MU 921-30B
WELL – MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
Section 30, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 17.7 miles to a Class D County Road to the southwest. Exit right and proceed in a southwesterly direction along the Class D County Road approximately 3.9 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 1.2 miles to the proposed access road. Follow road flags in a southwesterly direction approximately 210 feet to the proposed well location.

Total distance from Vernal, Utah, to the proposed well location is approximately 46.4 miles in a southerly direction.



Site: MU 921-30B PAD
 Well: MU 921-19B1B-CMHZ
 Wellbore: OH
 Design: PLAN #1 PRELIMINARY



WELL DETAILS: MU 921-19B1B-CMHZ
 GL 4872 & KB 19 @ 4872.00ft (ASSUMED)

+N/-S 0.00	+E/-W 0.00	Northing 14533971.91	Easting 2035115.03	Latitude 40.0131970	Longitude -109.5904100
---------------	---------------	-------------------------	-----------------------	------------------------	---------------------------

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - plan hits target center	4367.00	5705.57	-56.57	14539675.86	2034968.21	40.0288630	-109.5906120	Point

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	
3794.04	0.00	0.00	3794.04	0.00	0.00	0.00	0.00	0.00	
4694.04	90.00	359.43	4367.00	572.93	-5.68	10.00	359.43	572.96	
9826.94	90.00	359.43	4367.00	5705.57	-56.57	0.00	0.00	5705.85	PBHL_MU 921-19B1B-CMHZ

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 30 T9S R21E
 System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name	Size
2818.00	2818.00	9 5/8"	9.625
4367.00	4694.04	7"	7.000

FORMATION TOP DETAILS

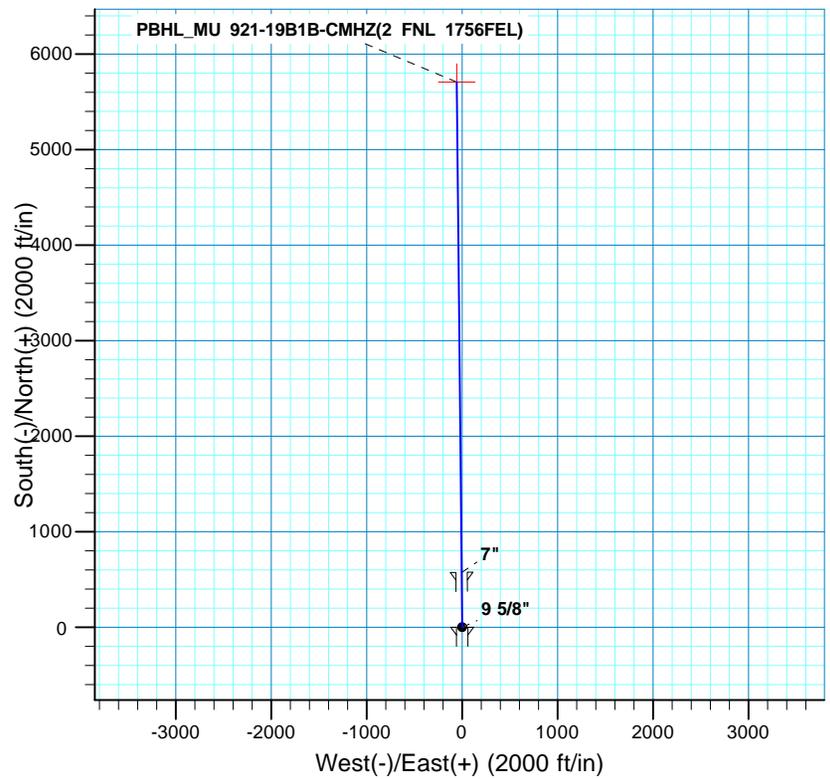
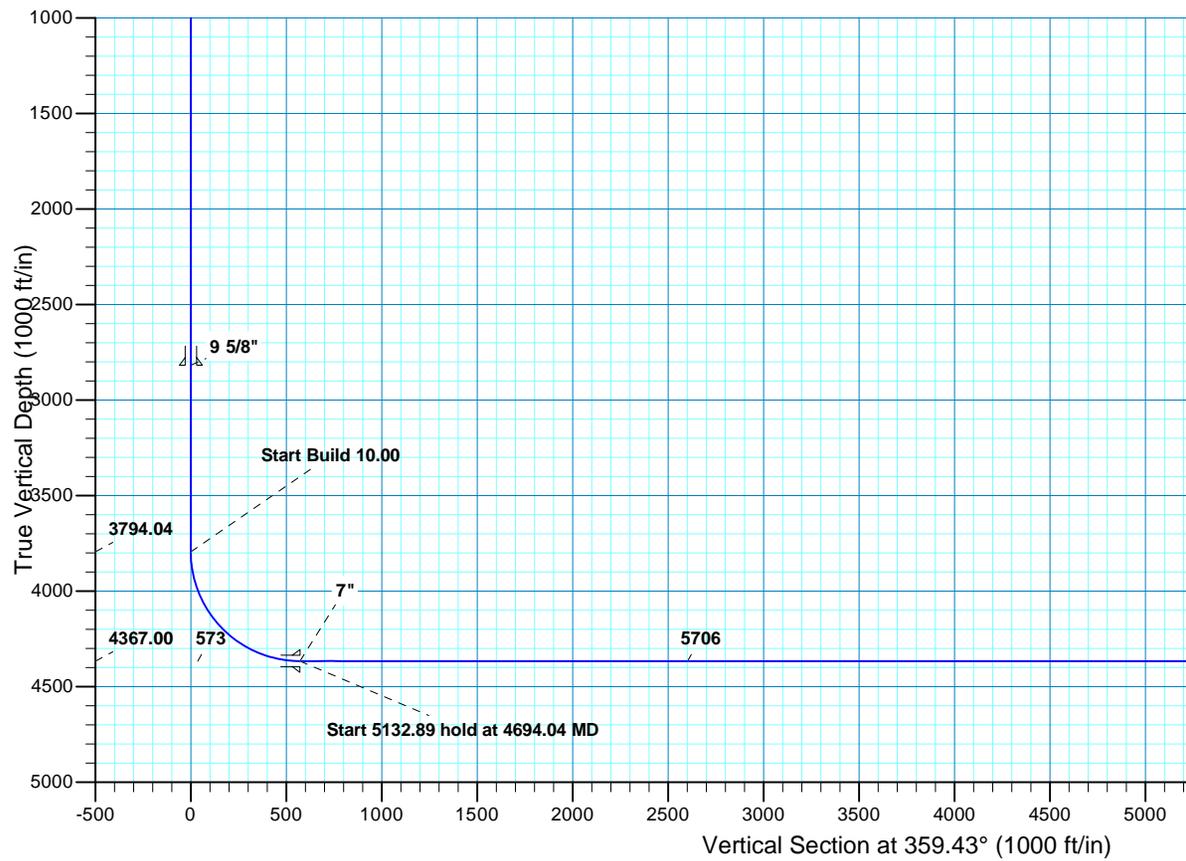
TVDPATH	MDPATH	FORMATION
1594.00	1594.00	GREEN RIVER
1866.00	1866.00	BIRDSNEST
2368.00	2368.00	MAHOGANY
4357.00	4586.84	GREEN RIVER LOWER

WELL DETAILS: MU 921-19B1B-CMHZ						
GL 4872 & KB 19 @ 4872.00ft (ASSUMED)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14533971.91	2035115.03	40.0131970	-109.5904100	

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3794.04	0.00	0.00	3794.04	0.00	0.00	0.00	0.00	0.00	
4694.04	90.00	359.43	4367.00	572.93	-5.68	10.00	359.43	572.96	
9826.94	90.00	359.43	4367.00	5705.57	-56.57	0.00	0.00	5705.85	PBHL_MU 921-19B1B-CMHZ

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1594.00	1594.00	GREEN RIVER
1866.00	1866.00	BIRDSNEST
2368.00	2368.00	MAHOAGANY
4357.00	4586.84	GREEN RIVER LOWER

CASING DETAILS			
TVD	MD	Name	Size
2818.00	2818.00	9 5/8"	9.625
4367.00	4694.04	7"	7.000





Scientific Drilling

US ROCKIES REGION PLANNING

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

MU 921-30B PAD

MU 921-19B1B-CMHZ

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

19 December, 2012





Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4872 & KB 19 @ 4872.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4872 & KB 19 @ 4872.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	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	MU 921-30B PAD, SECTION 30 T9S R21E				
Site Position:	Northing:	14,533,971.91 usft	Latitude:	40.0131970	
From:	Lat/Long	Easting:	2,035,115.03 usft	Longitude:	-109.5904100
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.91 °

Well	MU 921-19B1B-CMHZ, 395 FNL 1713 FEL					
Well Position	+N/-S	0.00 ft	Northing:	14,533,971.91 usft	Latitude:	40.0131970
	+E/-W	0.00 ft	Easting:	2,035,115.03 usft	Longitude:	-109.5904100
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,853.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2012/12/19	10.92	65.82	52,174

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	359.43

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	
3,794.04	0.00	0.00	3,794.04	0.00	0.00	0.00	0.00	0.00	0.00	
4,694.04	90.00	359.43	4,367.00	572.93	-5.68	10.00	10.00	0.00	359.43	
9,826.94	90.00	359.43	4,367.00	5,705.57	-56.57	0.00	0.00	0.00	0.00	PBHL_MU 921-19B1E



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4872 & KB 19 @ 4872.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4872 & KB 19 @ 4872.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	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	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,594.00	0.00	0.00	1,594.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GREEN RIVER										
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,866.00	0.00	0.00	1,866.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIRDSNEST										
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,368.00	0.00	0.00	2,368.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAHOGANY										
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,818.00	0.00	0.00	2,818.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"										
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,794.04	0.00	0.00	3,794.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 10.00										
3,800.00	0.60	359.43	3,800.00	0.03	0.00	0.03	10.00	10.00	0.00	0.00
3,900.00	10.60	359.43	3,899.40	9.77	-0.10	9.77	10.00	10.00	0.00	0.00
4,000.00	20.60	359.43	3,995.59	36.62	-0.36	36.62	10.00	10.00	0.00	0.00
4,100.00	30.60	359.43	4,085.67	79.76	-0.79	79.77	10.00	10.00	0.00	0.00
4,200.00	40.60	359.43	4,166.88	137.89	-1.37	137.90	10.00	10.00	0.00	0.00
4,300.00	50.60	359.43	4,236.76	209.24	-2.07	209.25	10.00	10.00	0.00	0.00



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4872 & KB 19 @ 4872.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4872 & KB 19 @ 4872.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	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)
4,400.00	60.60	359.43	4,293.19	291.64	-2.89	291.65	10.00	10.00	0.00
4,500.00	70.60	359.43	4,334.46	382.58	-3.79	382.60	10.00	10.00	0.00
4,586.84	79.28	359.43	4,357.00	466.36	-4.62	466.38	10.00	10.00	0.00
GREEN RIVER LOWER									
4,600.00	80.60	359.43	4,359.30	479.31	-4.75	479.34	10.00	10.00	0.00
4,694.04	90.00	359.43	4,367.00	572.93	-5.68	572.96	10.00	10.00	0.00
Start 5132.89 hold at 4694.04 MD - 7"									
4,700.00	90.00	359.43	4,367.00	578.89	-5.74	578.92	0.00	0.00	0.00
4,800.00	90.00	359.43	4,367.00	678.88	-6.73	678.92	0.00	0.00	0.00
4,900.00	90.00	359.43	4,367.00	778.88	-7.72	778.92	0.00	0.00	0.00
5,000.00	90.00	359.43	4,367.00	878.87	-8.71	878.92	0.00	0.00	0.00
5,100.00	90.00	359.43	4,367.00	978.87	-9.70	978.92	0.00	0.00	0.00
5,200.00	90.00	359.43	4,367.00	1,078.86	-10.70	1,078.92	0.00	0.00	0.00
5,300.00	90.00	359.43	4,367.00	1,178.86	-11.69	1,178.92	0.00	0.00	0.00
5,400.00	90.00	359.43	4,367.00	1,278.85	-12.68	1,278.92	0.00	0.00	0.00
5,500.00	90.00	359.43	4,367.00	1,378.85	-13.67	1,378.92	0.00	0.00	0.00
5,600.00	90.00	359.43	4,367.00	1,478.84	-14.66	1,478.92	0.00	0.00	0.00
5,700.00	90.00	359.43	4,367.00	1,578.84	-15.65	1,578.92	0.00	0.00	0.00
5,800.00	90.00	359.43	4,367.00	1,678.83	-16.64	1,678.92	0.00	0.00	0.00
5,900.00	90.00	359.43	4,367.00	1,778.83	-17.64	1,778.92	0.00	0.00	0.00
6,000.00	90.00	359.43	4,367.00	1,878.82	-18.63	1,878.92	0.00	0.00	0.00
6,100.00	90.00	359.43	4,367.00	1,978.82	-19.62	1,978.92	0.00	0.00	0.00
6,200.00	90.00	359.43	4,367.00	2,078.81	-20.61	2,078.92	0.00	0.00	0.00
6,300.00	90.00	359.43	4,367.00	2,178.81	-21.60	2,178.92	0.00	0.00	0.00
6,400.00	90.00	359.43	4,367.00	2,278.80	-22.59	2,278.92	0.00	0.00	0.00
6,500.00	90.00	359.43	4,367.00	2,378.80	-23.58	2,378.92	0.00	0.00	0.00
6,600.00	90.00	359.43	4,367.00	2,478.79	-24.58	2,478.92	0.00	0.00	0.00
6,700.00	90.00	359.43	4,367.00	2,578.79	-25.57	2,578.92	0.00	0.00	0.00
6,800.00	90.00	359.43	4,367.00	2,678.78	-26.56	2,678.92	0.00	0.00	0.00
6,900.00	90.00	359.43	4,367.00	2,778.78	-27.55	2,778.92	0.00	0.00	0.00
7,000.00	90.00	359.43	4,367.00	2,878.77	-28.54	2,878.92	0.00	0.00	0.00
7,100.00	90.00	359.43	4,367.00	2,978.77	-29.53	2,978.92	0.00	0.00	0.00
7,200.00	90.00	359.43	4,367.00	3,078.76	-30.52	3,078.92	0.00	0.00	0.00
7,300.00	90.00	359.43	4,367.00	3,178.76	-31.52	3,178.92	0.00	0.00	0.00
7,400.00	90.00	359.43	4,367.00	3,278.75	-32.51	3,278.92	0.00	0.00	0.00
7,500.00	90.00	359.43	4,367.00	3,378.75	-33.50	3,378.92	0.00	0.00	0.00
7,600.00	90.00	359.43	4,367.00	3,478.74	-34.49	3,478.92	0.00	0.00	0.00
7,700.00	90.00	359.43	4,367.00	3,578.74	-35.48	3,578.92	0.00	0.00	0.00
7,800.00	90.00	359.43	4,367.00	3,678.73	-36.47	3,678.92	0.00	0.00	0.00
7,900.00	90.00	359.43	4,367.00	3,778.73	-37.46	3,778.92	0.00	0.00	0.00
8,000.00	90.00	359.43	4,367.00	3,878.73	-38.46	3,878.92	0.00	0.00	0.00
8,100.00	90.00	359.43	4,367.00	3,978.72	-39.45	3,978.92	0.00	0.00	0.00
8,200.00	90.00	359.43	4,367.00	4,078.72	-40.44	4,078.92	0.00	0.00	0.00
8,300.00	90.00	359.43	4,367.00	4,178.71	-41.43	4,178.92	0.00	0.00	0.00
8,400.00	90.00	359.43	4,367.00	4,278.71	-42.42	4,278.92	0.00	0.00	0.00
8,500.00	90.00	359.43	4,367.00	4,378.70	-43.41	4,378.92	0.00	0.00	0.00
8,600.00	90.00	359.43	4,367.00	4,478.70	-44.40	4,478.92	0.00	0.00	0.00
8,700.00	90.00	359.43	4,367.00	4,578.69	-45.40	4,578.92	0.00	0.00	0.00
8,800.00	90.00	359.43	4,367.00	4,678.69	-46.39	4,678.92	0.00	0.00	0.00
8,900.00	90.00	359.43	4,367.00	4,778.68	-47.38	4,778.92	0.00	0.00	0.00
9,000.00	90.00	359.43	4,367.00	4,878.68	-48.37	4,878.92	0.00	0.00	0.00
9,100.00	90.00	359.43	4,367.00	4,978.67	-49.36	4,978.92	0.00	0.00	0.00
9,200.00	90.00	359.43	4,367.00	5,078.67	-50.35	5,078.92	0.00	0.00	0.00



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4872 & KB 19 @ 4872.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4872 & KB 19 @ 4872.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	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)	
9,300.00	90.00	359.43	4,367.00	5,178.66	-51.34	5,178.92	0.00	0.00	0.00	
9,400.00	90.00	359.43	4,367.00	5,278.66	-52.33	5,278.92	0.00	0.00	0.00	
9,500.00	90.00	359.43	4,367.00	5,378.65	-53.33	5,378.92	0.00	0.00	0.00	
9,600.00	90.00	359.43	4,367.00	5,478.65	-54.32	5,478.92	0.00	0.00	0.00	
9,700.00	90.00	359.43	4,367.00	5,578.64	-55.31	5,578.92	0.00	0.00	0.00	
9,800.00	90.00	359.43	4,367.00	5,678.64	-56.30	5,678.92	0.00	0.00	0.00	
9,826.94	90.00	359.43	4,367.00	5,705.57	-56.57	5,705.85	0.00	0.00	0.00	
TD at 9826.94 - PBHL_MU 921-19B1B-CMHZ(2 FNL 1756 FEL)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL_MU 921-19B1B-C - hit/miss target - Shape - Point	0.00	0.00	4,367.00	5,705.57	-56.57	14,539,675.86	2,034,968.20	40.0288630	-109.5906120	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,818.00	2,818.00	9 5/8"	9.625	12.250		
4,694.04	4,367.00	7"	7.000	7.500		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,594.00	1,594.00	GREEN RIVER				
1,866.00	1,866.00	BIRDSNEST				
2,368.00	2,368.00	MAHOGANY				
4,586.84	4,357.00	GREEN RIVER LOWER				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
3,794.04	3,794.04	0.00	0.00	Start Build 10.00	
4,694.04	4,367.00	572.93	-5.68	Start 5132.89 hold at 4694.04 MD	
9,826.94	4,367.00	5,705.57	-56.57	TD at 9826.94	

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

MU 921-30B PAD

<u>API #</u>	<u>MU 921-19B1B-CMHZ</u>		
	Surface: 395 FNL / 1713 FEL	NWNE	Section 30
	BHL: 2 FNL / 1756 FEL	NWNE	Section 19
<u>API #</u>	<u>MU 921-19B1B-UBHZ</u>		
	Surface: 413 FNL / 1730 FEL	NWNE	Section 30
	BHL: 2 FNL / 1756 FEL	NWNE	Section 19
<u>API #</u>	<u>MU 921-19B2A-CMHZ</u>		
	Surface: 431 FNL / 1748 FEL	NWNE	Section 30
	BHL: 2 FNL / 2414 FEL	NWNE	Section 19
<u>API #</u>	<u>MU 921-19B2A-UBHZ</u>		
	Surface: 449 FNL / 1765 FEL	NWNE	Section 30
	BHL: 2 FNL / 2414 FEL	NWNE	Section 19
<u>API #</u>	<u>MU 921-30O3D-CMHZ</u>		
	Surface: 556 FNL / 1871 FEL	NWNE	Section 30
	BHL: 9 FSL / 2372 FEL	SWSE	Section 30
<u>API #</u>	<u>MU 921-30O3D-UBHZ</u>		
	Surface: 573 FNL / 1888 FEL	NWNE	Section 30
	BHL: 9 FSL / 2372 FEL	SWSE	Section 30
<u>API #</u>	<u>MU 921-30O4D-CMHZ</u>		
	Surface: 520 FNL / 1836 FEL	NWNE	Section 30
	BHL: 6 FSL / 1714 FEL	SWSE	Section 30
<u>API #</u>	<u>MU 921-30O4D-UBHZ</u>		
	Surface: 538 FNL / 1853 FEL	NWNE	Section 30
	BHL: 6 FSL / 1714 FEL	SWSE	Section 30

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

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.

An on-site meeting was held on October 23, 2012. Present were:

- Dave Gordon, Tyler Cox, Melissa Wardle - BLM;
- Mitch Batty - Timberline Engineering & Land Surveying, Inc.; and
- Randy Townley, Casey McKee, Cara Mahler, Danielle Piernot, Justin Brady, Rod Anderson and Charles Chase, - Kerr-McGee
- Scott Carson - Smiling Lake
- John Mills - J.C. Construction

A. Existing Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Topo B for existing roads.

B. New or Reconstructed Access Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

The following segments are "on-lease"

±210' (0.04 miles) – Section 30 T9S R21E (NW/4 NE/4) – On-lease UTU0581, from the edge of pad northeast to the existing road. Please refer to Topo B.

C. Location of Existing Wells:

Please refer to Topo C for exiting wells.

D. Location of Existing and/or Proposed Facilities:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

This pad will expand the existing pad for the NBU 178, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on January 10, 2013. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The total gas gathering pipeline distance from the meter to the tie in point is ±980' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±980' (0.19 miles) – Section 30 T9S R21E (NW/4 NE/4) – On-lease UTU0581, Tribal surface, New 6" buried gas gathering pipeline from the meter to the proposed 16" gas pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 980'$ and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

$\pm 980'$ (0.19 miles) – Section 30 T9S R21E (NW/4 NE/4) – On-lease UTU0581, Tribal surface, New 6" buried liquid gathering pipeline from the separator to the proposed 6" pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

Pipeline Gathering Construction

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

The Anadarko Completions Transportation System (ACTS) information:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Exhibit C for ACTS Lines

E. Location and Types of Water Supply:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

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

F. Construction Materials:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

G. Methods for Handling Waste:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Materials Management

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

J. Plans for Surface Reclamation:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Interim Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Measures Common to Interim and Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Weed Control

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Monitoring

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

K. Surface/Mineral Ownership:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. Other Information:

Cultural and Paleontological Resources

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Resource Reports:

A Class I literature survey was completed on November 7, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 12-283.

A paleontological reconnaissance survey was completed on October 5, 2012 by SWCA Environmental Consultants. For additional details please refer to report UT12-14314-186.

Biological field survey was completed on October 16, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-851.

Proposed Action Annual Emissions Tables:

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

MU 921-19B1B-CMHZ/ 921-19B1B-UBHZ/ 921-19B2A-CMHZ/ 921-19B2A-UBHZ
MU 921-30O3D-CMHZ/ 921-30O3d-UBHZ/ 921-30O4D-CMHZ/ 921-30O4D-UBHZ
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
5 of 5

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

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

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

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

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

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

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

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



Danielle Piernot

January 15, 2013

Date

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)

March 4, 2013

Memorandum

To: Assistant Field Office Manager Minerals
Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2013 Plan of Development Maverick 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 Maverick Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ GREEN RIVER)		
43-047-53640	MU 921-21J	Sec 21 T09S R21E 1963 FSL 1591 FEL
43-047-53654	MU 921-21L	Sec 21 T09S R21E 1761 FSL 0849 FWL
43-047-53657	MU 921-19B1B-CMHZ	Sec 30 T09S R21E 0395 FNL 1713 FEL
	Lateral 1	Sec 19 T09S R21E 0002 FNL 1756 FEL
43-047-53658	MU 921-21M	Sec 21 T09S R21E 0976 FSL 0939 FWL
43-047-53667	MU 921-21O	Sec 21 T09S R21E 0966 FSL 1481 FEL

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

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land
Management, ou=Branch of Minerals,
email=Michael_Coulthard@blm.gov, c=US
Date: 2013.03.04 13:12:41 -0700

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

MCoulthard:mc:3-4-13

RECEIVED: March 04, 2013



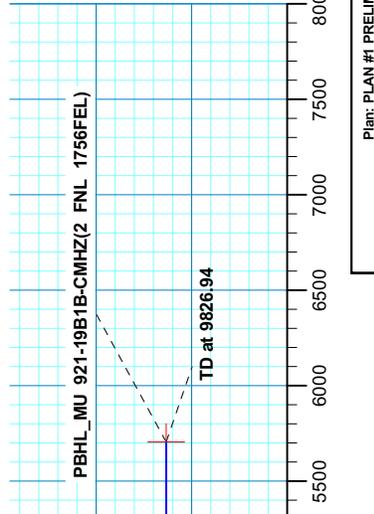
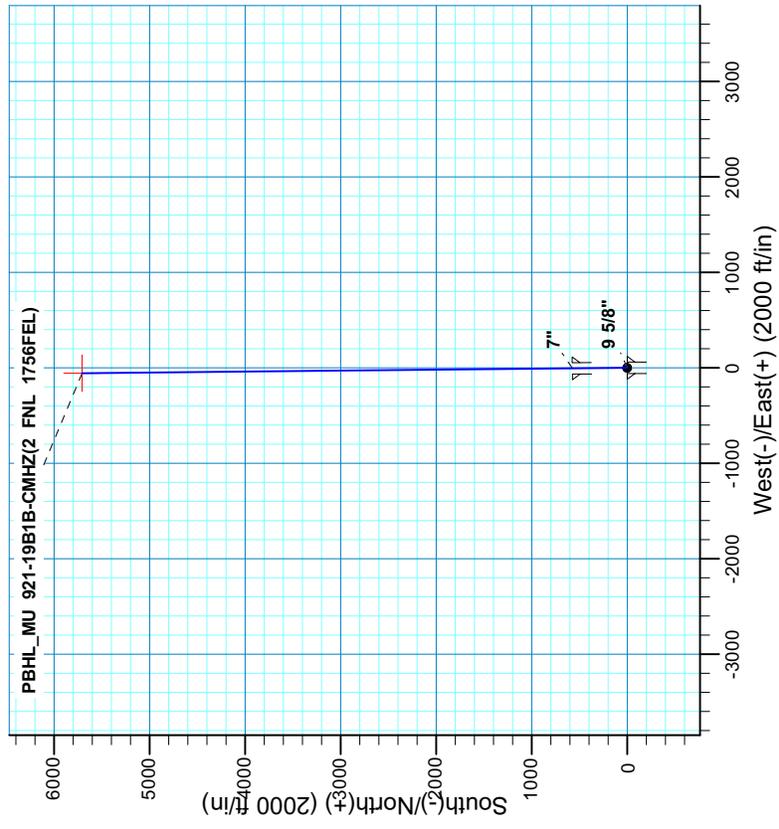
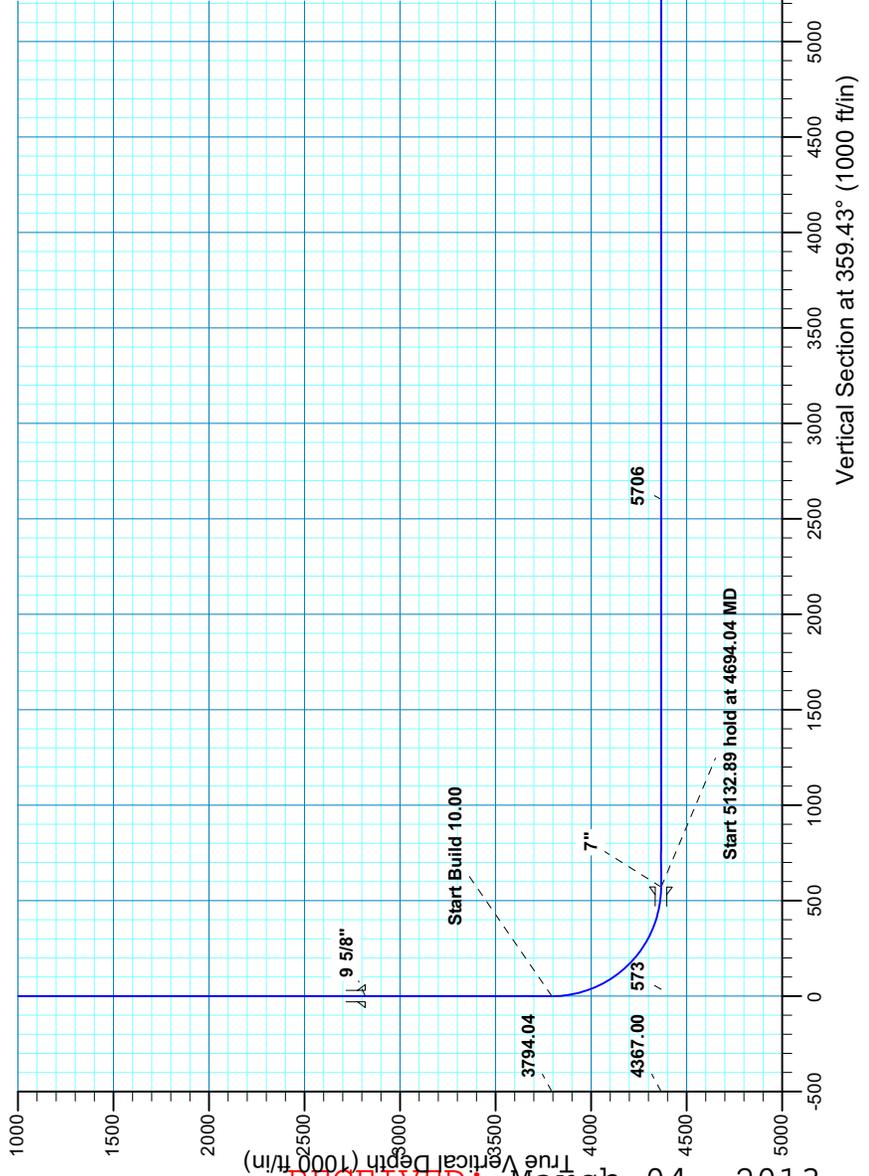
Project: UTAH - UTM (feet), NAD27, Zone 12N
 Site: MU 921-30B PAD
 Well: MU 921-19B1B-CMHZ
 Wellbore: OH
 Design: PLAN #1 PRELIMINARY



WELL DETAILS: MU 921-19B1B-CMHZ			
GL-4872 & KB 19 @ 4872.00ft (ASSUMED)			
+N/-S	+E/-W	Northing	Eastng
0.00	0.00	14533971.91	2035115.03
Latitude	Longitude		
40.0131970	-109.5904100		

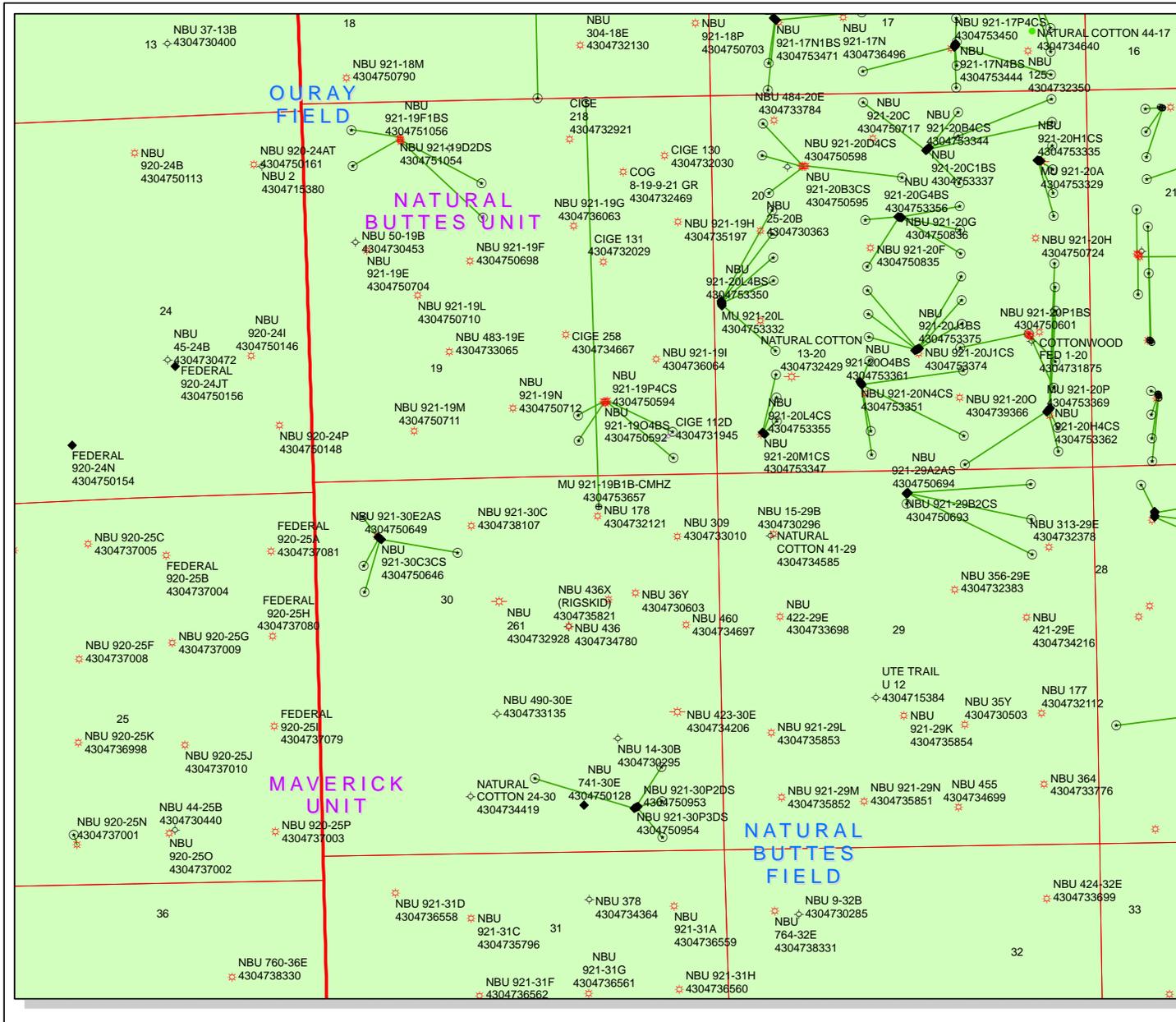
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3794.04	0.00	0.00	3794.04	0.00	0.00	0.00	0.00	0.00	0.00
4694.04	90.00	359.43	4367.00	572.93	-5.68	10.00	359.43	572.96	
9826.94	90.00	359.43	4367.00	5705.57	-56.57	0.00	5705.65	572.96	PBHL_MU 921-19B1B-CMHZ

FORMATION TOP DETAILS			CASING DETAILS		
MDPath	Formation	TVD	MD	Name	Size
1594.00	GREEN RIVER	2818.00	2818.00	9 5/8"	9.625
1866.00	BIRDSNEST	4367.00	4367.00	7"	7.000
2368.00	MAHOGANY				
4357.00	GREEN RIVER LOWER				



RECEIVED: March 04, 2013

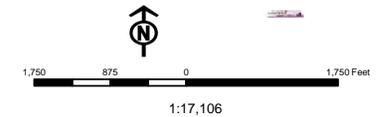
Plan: PLAN #1 PRELIMINARY (MU 921-19B1B-CMHZOH)
 Received: February 28, 2013
 Submitted by: Robert J. Miller



API Number: 4304753657
Well Name: MU 921-19B1B-CMHZ
Township T09.0S Range R21.0E Section 30
Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

- Units**
- ACTIVE
 - EXPLORATORY
 - GAS STORAGE
 - NP PP OIL
 - NP SECONDARY
 - PI OIL
 - PP GAS
 - PP GEOTHERMAL
 - PP OIL
 - SECONDARY
 - TERMINATED
- Fields**
- Unknown
 - ABANDONED
 - ACTIVE
 - COMBINED
 - INACTIVE
 - STORAGE
 - TERMINATED



WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 2/28/2013

API NO. ASSIGNED: 43047536570000

WELL NAME: MU 921-19B1B-CMHZ

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

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NWNE 30 090S 210E

Permit Tech Review:

SURFACE: 0395 FNL 1713 FEL

Engineering Review:

BOTTOM: 0002 FNL 1756 FEL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.01306

LONGITUDE: -109.59095

UTM SURF EASTINGS: 620255.00

NORTHINGS: 4430158.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU0581

PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: FEDERAL - WYB000291
- 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

Commingle Approved

LOCATION AND SITING:

- R649-2-3.
- Unit: MAVERICK
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 197-13
- Effective Date: 8/21/2012
- Siting: Suspends General Siting
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason
17 - Oil Shale 190-5(b) - dmason
27 - Other - bhll



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: MU 921-19B1B-CMHZ
API Well Number: 43047536570000
Lease Number: UTU0581
Surface Owner: FEDERAL
Approval Date: 3/25/2013

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 197-13. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

General:

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

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

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

In accordance with Utah Admin. R.649-3-21, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

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 at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

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

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JAN 18 2013

APPLICATION FOR PERMIT TO DRILL OR REENTER **BLM**

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU0581	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator KERR MCGEE OIL & GAS ONSHORE		7. If Unit or CA Agreement, Name and No. UTU88574X	
3a. Address 1368 SOUTH 1200 EAST VERNAL, UT 84078		8. Lease Name and Well No. MU 921-19B1B-CMHZ	
3b. Phone No. (include area code) Ph: 720-929-6029 Fx: 720-929-7029		9. API Well No. 43-047-53657	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNE 395FNL 1713FEL 40.013161 N Lat, 109.591100 W Lon At proposed prod. zone NWNE 2FNL 1756FEL 40.013161 N Lat, 109.591100 W Lon Sec. 19		10. Field and Pool, or Exploratory NATURAL BUTTES ←	
14. Distance in miles and direction from nearest town or post office* 46.4 MILES FROM VERNAL UTAH		11. Sec., T., R., M., or Blk. and Survey or Area Sec 30 T9S R21E Mer SLB SME: BLM	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 2'		12. County or Parish UINTAH	13. State UT
16. No. of Acres in Lease 2399.60		17. Spacing Unit dedicated to this well	
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 614'		20. BLM/BIA Bond No. on file WYB000291	
21. Elevations (Show whether DF, KB, RT, GL, etc.) 4853 GL		23. Estimated duration 60-90 DAYS	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) CARA MAHLER Ph: 720-929-6029	Date 01/15/2013
Title REGULATORY ANALYST		
Approved by (Signature)	Name (Printed/Typed) Jerry Kenczka	Date AUG 21 2013
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached. **CONDITIONS OF APPROVAL ATTACHED**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED

Additional Operator Remarks (see next page)

AUG 30 2013

Electronic Submission #183376 verified by the BLM Well Information System
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal
Committed to AFMSS for processing by JOHNETTA MAGEE on 01/25/2013 (13JM0174AE)

DIV. OF OIL, GAS & MINING

NOTICE OF APPROVAL

UDOGM

** BLM REVISED **

Additional Operator Remarks:

The following wells are also on the MU 921-30B Pad:

MU 921-19B1B-CMHZ
MU 921-19B1B-UBHZ
MU 921-19B2A-CMHZ
MU 921-19B2A-UBHZ
MU 921-30O3D-CMHZ
MU 921-30O3D-UBHZ
MU 921-30O4D-CMHZ
MU 921-30O4D-UBHZ

The filing fee for this well will be hand delivered or sent via overnight UPS delivery.

Please contact Cara Mahler at 720-929-6029, or via email at cara.mahler@anadarko.com with any questions, comments or concerns regarding this application.

Revisions to Operator-Submitted EC Data for APD #183376

Operator Submitted

BLM Revised (AFMSS)

Lease:	UTU0581	UTU0581
Agreement:	UTU88574X	UTU88574X (UTU88574X)
Operator:	KERR MCGEE OIL & GAS LP PO BOX 173779 DENVER, CO 80202-3779 Ph: 720-929-6000	KERR MCGEE OIL & GAS ONSHORE L 1368 SOUTH 1200 EAST VERNAL, UT 84078 Ph: 435.789.3995
Admin Contact:	CARA MAHLER REGULATORY ANALYST 1099 18TH STREET SUITE 1800 DENVER, CO 80202 Ph: 720-929-6029 Fx: 720-929-7029 E-Mail: cara.mahler@anadarko.com	CARA MAHLER REGULATORY ANALYST 1368 SOUTH 1200 EAST VERNAL, UT 84078 Ph: 720-929-6029 Fx: 720-929-7029 E-Mail: cara.mahler@anadarko.com
Tech Contact:	CARA MAHLER REGULATORY ANALYST 1099 18TH STREET SUITE 1800 DENVER, CO 80202	CARA MAHLER REGULATORY ANALYST 1368 SOUTH 1200 EAST VERNAL, UT 84078
Well Name: Number:	MU 921-19B1B-CMHZ	MU 921-19B1B-CMHZ
Location: State: County: S/T/R: Surf Loc:	UT UINTAH Sec 30 T9S R21E Mer SLB NWNE 395FNL 1713FEL 40.013161 N Lat, 109.591100 W Lon	UT UINTAH Sec 30 T9S R21E Mer SLB NWNE 395FNL 1713FEL 40.013161 N Lat, 109.591100 W Lon
Field/Pool:	NATURAL BUTTES	NATURAL BUTTES
Bond:	WYB000291	WYB000291



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Kerr McGee Oil & Gas Onshore
Well No: MU 921-19B1B-CMHZ
API No: 43-047-53657

Location: NWNE SEC 30 T9S R21E
Lease No: UTU-0581
Agreement: NATURAL BUTTES

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

**SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

- Mitigation measures can be found in Appendix B, Table B-2, of the GNB ROD (BLM 2012b) under the following sections of the table:
 - Air Quality
 - Soils
 - Vegetation: *Sclerocactus wetlandicus*
 - Wildlife: Colorado River Fish

- Where populations or individuals of *Sclerocactus wetlandicus* are located within 300 feet of the proposed edge of project ROWs, the following actions will be taken to minimize impacts:
 - Silt fencing will be used to protect cacti that are within 300 feet and downslope or downwind of surface disturbance. Fencing is intended to prevent sedimentation or dust deposition and will be evaluated for effectiveness by a qualified botanist.
 - A qualified botanist will be on site to monitor surface-disturbing activities when cacti are within 300 feet of any surface disturbance.
 - Dust abatement (consisting of water only) will occur during construction where plants are closer than 300 feet from surface-disturbing activities.
 - Cacti within 300 feet of proposed surface disturbance will be flagged immediately prior to surface-disturbing activities and flags will be removed immediately after surface-disturbing activities are completed. Leaving cacti flagged for as short a time as possible will minimize drawing attention to the cacti location and reduce potential for theft.
 - Pipelines will be sited to maximize distance from adjacent cacti locations.
 - Project personnel associated with construction activities will be instructed to drive at a speed limit of 15 miles per hour on unpaved roads and remain in existing roadway ROWs at all times.

- For permanent surface pipelines, KMG will adhere to existing cacti survey/buffer guidelines of 300 feet, or amended guidelines if developed by the BLM and USFWS. In areas where avoidance by 300 feet is not feasible and populations or individuals of *Sclerocactus wetlandicus* are within 50 feet of proposed project components, the following actions will be taken to minimize impacts:
 - Prior to construction, flag individual cactus. Once pipe installation is complete, remove the flagging.
 - Prior to construction, install protective fencing around the cacti if they are down gradient of the surface pipe. Once pipe installation is complete, remove the protective fencing.
 - A qualified botanist will be present during construction to monitor surface line installation.
 - The following considerations are required for those wells where KMG deems completion fluid recycling is appropriate based on new well density and topography:
 - Temporary lines associated with recycling of completion water will be sited in existing ROWs. The pressure in the lines is less than 50 pounds per square inch and the lines are constructed of rigid aluminum; therefore, virtually no movement will occur during operation.

- If surface water completion lines are placed within the footprint of a road disturbance where vegetation does not grow, *Sclerocactus wetlandicus* surveys will not be necessary.
- A qualified botanist will survey a 50-foot-wide corridor along roads where temporary lines are planned to ensure *Sclerocactus wetlandicus* is not present.
- If cacti are present within the 50-foot-wide survey corridor and avoidance is necessary (to ensure the line is more than 50 feet away from identified cactus), the new alignment will, if possible, be such that the cacti are topographically higher than the re-aligned line so a potential spill from the line will not impact the identified cacti.
- If it is not possible to re-align the surface lines to avoid individuals or populations of the *Sclerocactus wetlandicus* that are within 50 feet of surface disturbance, the following actions will be taken to minimize impacts:
 - Prior to construction, KMG will flag individual cacti. Once pipe installation is complete, remove the flagging.
 - Prior to construction, KMG will install protective fencing around the cacti if they are down gradient of the surface pipe. Once pipe installation is complete, remove the protective fencing.
 - A qualified botanist will be present during construction to monitor surface line installation.
- Avoidance of cactus by 300 feet will take priority in the expansion of pads within the cactus core conservation areas. When the 300-foot buffer cannot be avoided in pad expansion, KMG will notify the USFWS and work with the BLM to determine pad expansion that places a priority on avoiding cactus impacts.
- KMG will follow existing ROWs and/or roads in constructing new buried pipelines within the cactus core conservation areas. For instance, where a new buried pipeline is unable to follow an existing ROW and/or road and exceeds 600 feet in length, KMG will work with the USFWS and the BLM to determine a route that places a priority on avoiding cactus impacts.
- Maintenance activities on pipelines within cactus core conservation areas will avoid impacts to cactus, to the extent possible.
- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an integrated pest management program is applicable, coordination has been undertaken with the

state and local management program (if existing). A copy of the pest management plan will be submitted for each project.

- A pesticide use permit (PUP) will be obtained for the project, if applicable.
- Bird exclusion netting will be installed over reserve pits containing water that are left open for more than 30 days to reduce possibility of exposure to hazardous chemicals (BLM 2012b).
- KMG will install bird-excluding devices that prevent the perching and entry of migratory birds on or into its new fired vessel exhaust stacks (BLM 2012b).
- Tree removal within pinyon-juniper habitat will occur outside of the nesting season for migratory birds (approximately 4/1 to 7/31 (BLM 2012b).
 1. Paint facilities "Shadow Gray."
 2. Save and segregate the top six (6) inches of soil during well pad construction.
 3. Conduct a raptor survey prior to construction operations if such activities will take place during raptor nesting season (January 1 through September 30). If active raptor nests are identified during the survey, operations should be conducted according to the seasonal restrictions detailed in the Uinta Basin-specific RMP guidelines BLM 2008a.
 4. If construction and/or drilling operations have not been initiated prior to September 27, 2013, conduct a biological survey to determine the presence of Uinta Basin hookless cactus in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures and the BLM RMP ROD. KMG will implement commitments contained in the GNB BO.
 5. Monitor construction activities with a permitted archaeologist.
 6. Utilize applicable erosion BMPs to protect fill slopes.
 7. Replace pond during initial reclamation.
 8. If any blasting is needed during construction activities, the Operator must notify any active Gilsonite operation located within two miles of the location 48 hours prior to the blasting.
- Damage to livestock and livestock facilities will be reported as quickly as possible to the BLM and affected livestock operators. Operators will develop and employ prevention measures to avoid damaging fences, gates, and cattleguards, including upgrading cattleguard gate widths and load-bearing requirements and fencing all open pits and cellars.
- If partial or complete removal of a fence cannot be avoided, the fence will be braced and tied off per the BLM guidance. Where the fence is crossed by a road, the fence will be braced and a cattleguard and gate installed per BLM guidance.

**DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

SITE SPECIFIC DOWNHOLE COAs:

- Cement for the Intermediate casing shall be brought 200 feet above the surface casing shoe.
- A CBL shall be run from TD to TOC in the intermediate casing.
- Cement for the surface casing shall be circulated to the surface.
- Variances shall be granted as requested in Section 9 of the drilling plan.
- A variance is granted for the FIT test requirement.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in CD (compact disc) format to the Vernal BLM Field Office. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼ ¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid,

and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU0581	
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: MAVERICK	
1. TYPE OF WELL Oil Well	
8. WELL NAME and NUMBER: MU 921-19B1B-CMHZ	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	
9. API NUMBER: 43047536570000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6100	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0395 FNL 1713 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 21.0E Meridian: S	
COUNTY: Uintah	
STATE: UTAH	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 3/25/2014	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

Approved by the
Utah Division of
Oil, Gas and Mining

Date: February 12, 2014

By:

NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A	DATE 2/7/2014	



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 43047536570000

API: 43047536570000

Well Name: MU 921-19B1B-CMHZ

Location: 0395 FNL 1713 FEL QTR NWNE SEC 30 TWP 090S RNG 210E MER S

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

Date Original Permit Issued: 3/25/2013

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: 2/7/2014

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU0581
1. TYPE OF WELL Oil Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME: MAVERICK
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: MU 921-19B1B-CMHZ
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0395 FNL 1713 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 21.0E Meridian: S	9. API NUMBER: 43047536570000
PHONE NUMBER: 720 929-6111	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 2/6/2015	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
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	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Kerr-McGee Oil & Gas Onshore L.P. 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
 Feb 09, 2015
 Oil, Gas and Mining

Date: _____

By: 

NAME (PLEASE PRINT) Joel Malefy	PHONE NUMBER 720 929-6828	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 2/6/2015	



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 43047536570000

API: 43047536570000

Well Name: MU 921-19B1B-CMHZ

Location: 0395 FNL 1713 FEL QTR NWNE SEC 30 TWP 090S RNG 210E MER S

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Date Original Permit Issued: 3/25/2013

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.

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- 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: Joel Malefyt

Date: 2/6/2015

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

MAY 19 2015

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

BLM

5. Lease Serial No.
UTU0581

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
UTU88574X

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. MU 921-19B1B-CMHZ
2. Name of Operator KERR MCGEE OIL & GAS ONSHORE-Mail: JENNIFER.THOMAS@ANADARKO.COM		9. API Well No. 43-047-53657
3a. Address P.O. BOX 173779 1099 18TH STREET, SUITE 600 DENVER, CO 80217	3b. Phone No. (include area code) Ph: 720-929-6808	10. Field and Pool, or Exploratory NATURAL BUTTES
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 30 T9S R21E Mer SLB NWNE 395FNL 1713FEL		11. County or Parish, and State UINTAH COUNTY, UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original APD
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

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.

APD - 8/21/13

NEPA - 2013-165 EA

CONDITIONS OF APPROVAL ATTACHED

RECEIVED

JUN 15 2015

DIV. OF OIL, GAS & MINING

VERNAL FIELD OFFICE	
ENG.	<i>RAN 6/4/15</i>
GEOL.	_____
E.S.	_____
PET.	_____
RECL.	_____

14. I hereby certify that the foregoing is true and correct. Electronic Submission #302160 verified by the BLM Well Information System For KERR MCGEE OIL & GAS ONSHORE, sent to the Vernal Committed to AFMSS for processing by JOHNETTA MAGEE on 05/21/2015 ()	
Name (Printed/Typed) JENNIFER THOMAS	Title REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 05/19/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>[Signature]</i>	Assistant Field Manager Lands & Mineral Resources	JUN 05 2015
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	VERNAL FIELD OFFICE Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

UDOGM

CONDITIONS OF APPROVAL

Kerr McGee Oil and Gas Onshore LP.

Notice of Intent APD Extension

Lease: UTU-0581
Well: MU 921-19B1B-CMHZ
Location: NWNE Sec 30-T9S-R21E

An extension for the referenced APD is granted with the following conditions:

1. The extension and APD shall expire on 08/21/2017.
2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (435) 781-2777

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU0581
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: MAVERICK
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: MU 921-19B1B-CMHZ
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047536570000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6100
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0395 FNL 1713 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 1/1/2015 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>

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

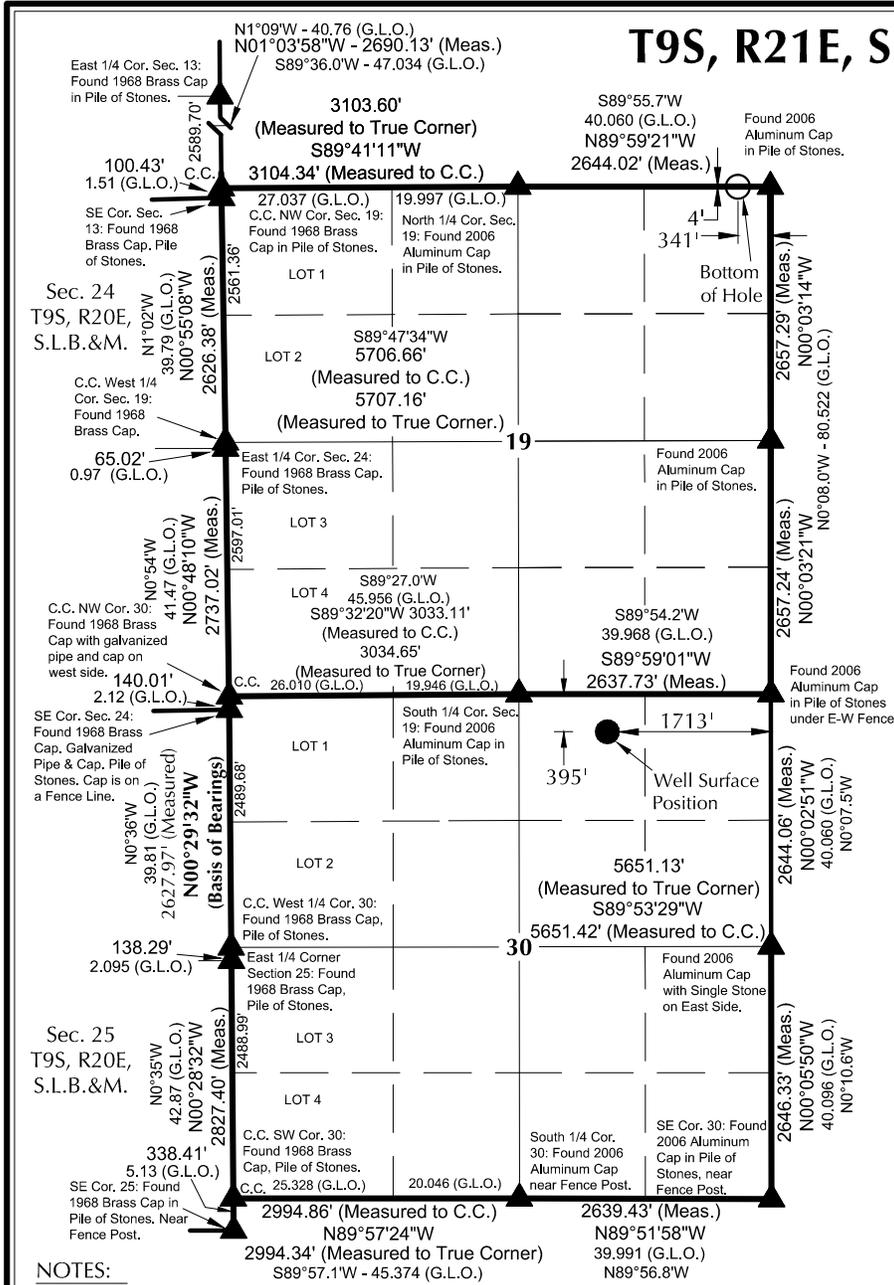
Kerr-McGee Oil & Gas Onshore, LP respectfully requests move the bottom hole location for the subject well. Please see the attached updated plats, drill program, SUPO, and directional plan for the specific details.

Approved by the
September 28, 2015
Oil, Gas and Mining

Date: _____
By: *[Signature]*

NAME (PLEASE PRINT) Joel Malefyt	PHONE NUMBER 720 929-6828	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 9/24/2015	

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

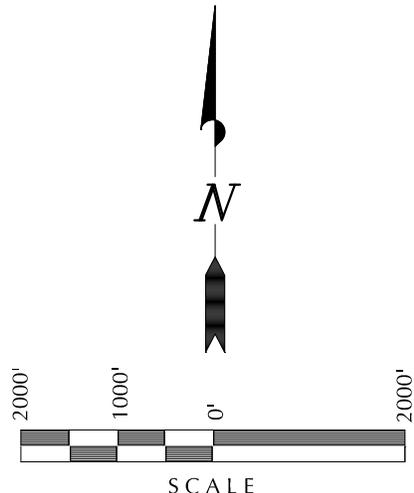


MU 921-19B1B-CMHZ (Surface Position)
 NAD 83 LATITUDE = 40.013161° (40° 00' 47.381")
 LONGITUDE = 109.591100° (109° 35' 27.960")
 NAD 27 LATITUDE = 40.013197° (40° 00' 47.508")
 LONGITUDE = 109.590410° (109° 35' 25.475")

MU 921-19B1B-CMHZ (Bottom Hole)
 NAD 83 LATITUDE = 40.028827° (40° 01' 43.776")
 LONGITUDE = 109.586251° (109° 35' 10.504")
 NAD 27 LATITUDE = 40.028862° (40° 01' 43.904")
 LONGITUDE = 109.585561° (109° 35' 08.020")

WELL LOCATION: MU 921-19B1B-CMHZ

ELEV. UNGRADED GROUND = 4854.8'



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 N13°27'57"E 5867.56' 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'.

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

WELL PAD: MU 921-30B

**MU 921-19B1B-CMHZ
 WELL PLAT**

4' FNL, 341' FEL (Bottom Hole)

**NE 1/4 NE 1/4 OF SECTION 19, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH.**



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

SURVEYOR'S CERTIFICATE

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

John R. Laugh
 No. 6028691-3-14-15
 JOHN R. LAUGH
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION NO. 6028691
 STATE OF UTAH

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

DATE SURVEYED: 9-6-12	SURVEYED BY: A.F.	SHEET NO: 1
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
SCALE: 1" = 2000'		1 OF 20

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – MU 921-30B
WELL – MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
Section 30, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 17.7 miles to a Class D County Road to the southwest. Exit right and proceed in a southwesterly direction along the Class D County Road approximately 3.9 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 1.2 miles to the proposed access road. Follow road flags in a southwesterly direction approximately 210 feet to the proposed well location.

Total distance from Vernal, Utah, to the proposed well location is approximately 46.4 miles in a southerly direction.

Kerr-McGee Oil & Gas Onshore. L.P.**MU 921-19B1B-CMHZ**

Surface:	395' FNL/ 1713' FEL	NENE	Sec. 30
BHL:	4' FNL/ 341' FEL	NENE	Sec. 19

T9S R21E

Uintah County, Utah
Mineral Lease: UTU-0581

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,651'	Water
Birds Nest	1,887'	Water
Mahogany	2,370'	Water
Wasatch	4,970'	Oil/Gas
Mesaverde	8,077'	Oil/Gas
Castlegate	10,294'	Water
Blackhawk	10,684'	Oil/Gas
TVD	11,110'	
MD	16,463'	

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

Please refer to the attached Drilling Program

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

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 11110' TVD
7,395 psi

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

Maximum anticipated surface pressure equals approximately 4,951 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 could commence immediately upon approval of this application.

9. Variances:

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

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

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

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

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

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

Background

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

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

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

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

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

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

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

Variance for FIT Requirements

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

Conclusion

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

10. Other Information:

Please refer to the attached Drilling Program.



Kerr McGee Oil and Gas Onshore LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3520	2020	453000
SURFACE	9-5/8"	0 to 2,820'	36.00	J55	LTC	1.41	1.54	2.41
						9960	6210	693000
INTERMEDIATE	7"	0 to 11,247'	26.00	P-110	LTC	1.58	1.20	2.11
						12410	10670	338000
PRODUCTION	4-1/2"	10,222' to 16,463'	13.50	P-110	LTC	1.47	1.44	2.05

Surface Casing:

Burst Assumptions: Pressure test with 8.7ppg @ 2500 psi

Collapse Assumption: Pore Pressure on Backside, 100% Internal Evacuation

Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water + 100,000 lbs overpull

Intermediate Casing:

Burst Assumptions: Pressure test with 13.0ppg MW @ 5000 psi

Collapse Assumption: 50% casing evacuation inside

12.8 ppg PP from Offsets

Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water + 100,000 lbs overpull

Production Liner:

Burst Assumptions: Frac @ 10,000 psi

Collapse Assumption: Full evacuation inside

12.8ppg PP from offsets

Tension Assumptions: Frac @ 10,000 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
Surface	LEAD	2,320'	94 lb/sk Class G + 2% D079 Extender + .2% D046 Anti-Foam + .25 lb/sk D029 Celophane Flake + .6% D013 Lignosulfonate Retarder	640	85%	12.50	2.11
	TAIL	500'	94 lb/sk Class G + .2% D046 Anti-Foam + .25 lb/sk D029 Celophane Flake + .27% D013 Lignosulfonate Retarder	250	85%	15.80	1.16
	TOP OUT CMT	as required	94 lb/sk Class G	as req.		15.80	1.16
INTERMEDIATE	LEAD	4,470'	65:35 Poz:G + .3% D065 TIC Dispersant + .08% D208 Polymer Extender + .05% D198 Synthetic Retarder + .2% D046 Anti-Foam + .25 lb/sk D029 Celophane Flake	620	30%	13.50	1.29
	TAIL	6,777'	50:50 Poz:G + 35% BWOC D066 Silica + 1.7% D020 Bentonite Extender + .3% B477 Fluid Loss+ .14% D198 Synthetic Retarder + .2% D046 Anti-Foam + .25 lb/sk D029 Celophane Flake+ .02% D208 Polymer Extender	960	25%	14.50	1.36
	PRODUCTION LINER TAIL	6,241'	50:50 Poz:G + .35% D167 UniFLAC + .8% D800 Lignosulfonate Retarder + .2% D046 Anti-Foam + .25 lb/sk D029 Celophane Flake + 35% BWOC D066 Silica + .08% D208 Polymer Extender	470.00	15%	14.00	1.46

****Excess applied to the Lead slurry is calculated on Open hole Volume only.**

*Substitute caliper hole volume plus 5% 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, float collar. Centralize first 3 joints with bow spring centralizers.
INTERMEDIATE	Float shoe, 2 jt w/centralizer on each, float collar (2 centralizers), 1 centralizer per 1 joint in the curve, 1 centralizer per 3 joints until estimated top of tail
PRODUCTION	Float shoe, 2 jt w/ centralizer on each, float collar

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out. Test intermediate casing to 1500 psi or greater prior to drill out.

BOPE: 11" 5M rating or greater. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder &

tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Survey with MWD every 100' during planned angle changes and every 500' when maintaining angle.

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

DRILLING ENGINEER:

Zach Haynes

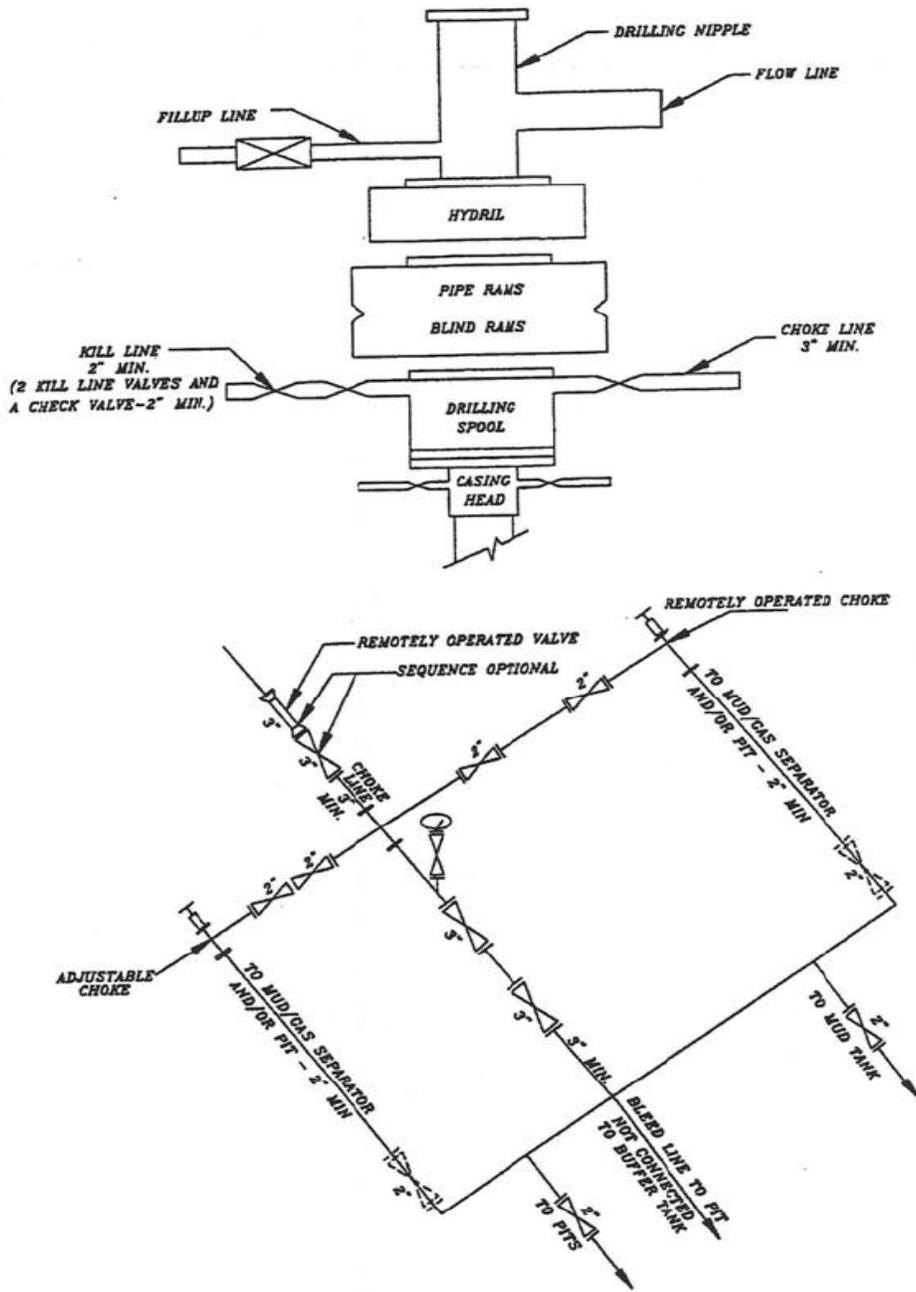
DATE: 9/17/2015

DRILLING SUPERINTENDENT:

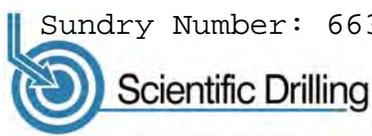
Level Young

DATE: _____

EXHIBIT A MU 921-19B1B-CMHZ



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



Sundry Number: 66333 API Well Number: 01415-3577600 Project: 01415-3577600 (NAD27, Zone 12N)

Site: MU 921-30B PAD

Well: MU 921-19B1B-CMHZ

Wellbore: OH

Design: PLAN #5 PRELIMINARY



WELL DETAILS: MU 921-19B1B-CMHZ

GL 4853 & KB 25' @ 4878.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533971.91	2035115.03	40.0131970	-109.5904100

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2920.00	0.00	0.00	2920.00	0.00	0.00	0.00	0.00	0.00	0.00
10271.85	0.00	0.00	10271.85	0.00	0.00	0.00	0.00	0.00	0.00
11247.19	87.78	13.591	10908.00	594.83	143.78	9.00	13.59	611.96	
16462.67	87.78	13.591	11110.00	5660.53	1368.20	0.00	0.005823.53		MU 921-19B1B-CMHZ - BHL (NEW)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL	11110.00	5660.53	1368.20	14539653.36	2036393.51	40.0287392	-109.5855234	Point

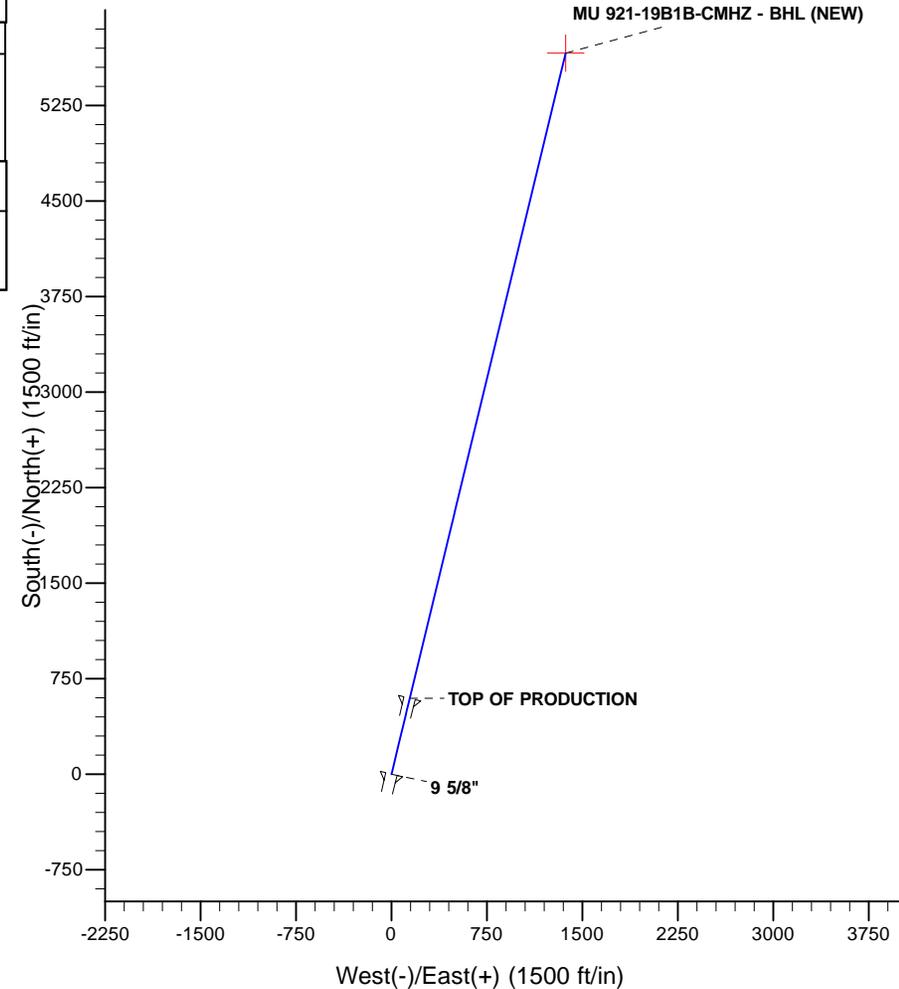
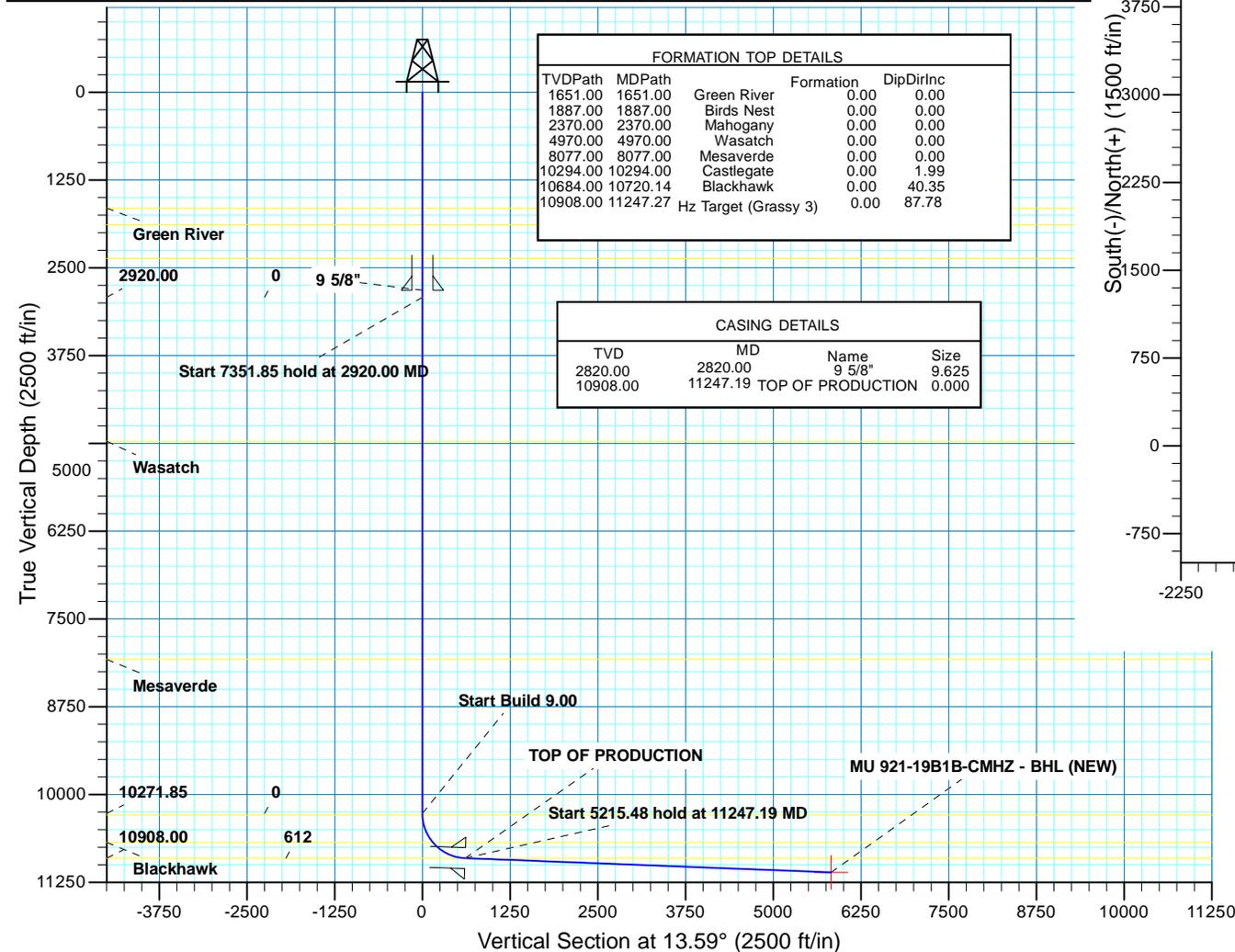
- plan hits target center

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipDirInc
1651.00	1651.00	Green River	0.00 0.00
1887.00	1887.00	Birds Nest	0.00 0.00
2370.00	2370.00	Mahogany	0.00 0.00
4970.00	4970.00	Wasatch	0.00 0.00
8077.00	8077.00	Mesaverde	0.00 0.00
10294.00	10294.00	Castlegate	0.00 1.99
10684.00	10720.14	Blackhawk	0.00 40.35
10908.00	11247.27	Hz Target (Grassy 3)	0.00 87.78

CASING DETAILS

TVD	MD	Name	Size
2820.00	2820.00	9 5/8"	9.625
10908.00	11247.19	TOP OF PRODUCTION	0.000





US ROCKIES REGION PLANNING

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

MU 921-30B PAD

MU 921-19B1B-CMHZ

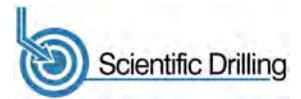
OH

Plan: PLAN #5 PRELIMINARY

Standard Planning Report

14 September, 2015





Database:	Denver Sales	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #5 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	MU 921-30B PAD, SECTION 30 T9S R21E				
Site Position:	Northing:	14,533,971.91 usft	Latitude:	40.0131970	
From:	Lat/Long	Easting:	2,035,115.03 usft	Longitude:	-109.5904100
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.91 °

Well	MU 921-19B1B-CMHZ, 351 FSL 1733 FEL					
Well Position	+N/-S	0.00 ft	Northing:	14,533,971.91 usft	Latitude:	40.0131970
	+E/-W	0.00 ft	Easting:	2,035,115.03 usft	Longitude:	-109.5904100
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,853.00 ft

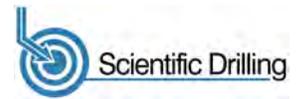
Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/19/2012	10.92	65.82	52,174

Design	PLAN #5 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	13.59

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,920.00	0.00	0.00	2,920.00	0.00	0.00	0.00	0.00	0.00	0.00	
10,271.85	0.00	0.00	10,271.85	0.00	0.00	0.00	0.00	0.00	0.00	
11,247.19	87.78	13.59	10,908.00	594.83	143.78	9.00	9.00	0.00	13.59	
16,462.67	87.78	13.59	11,110.00	5,660.53	1,368.20	0.00	0.00	0.00	0.00	MU 921-19B1B-CMHZ



Planning Report

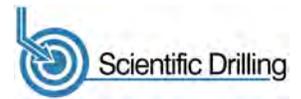


Database:	Denver Sales	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #5 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,651.00	0.00	0.00	1,651.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River										
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,887.00	0.00	0.00	1,887.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Birds Nest										
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,370.00	0.00	0.00	2,370.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mahogany										
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,820.00	0.00	0.00	2,820.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"										
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,920.00	0.00	0.00	2,920.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start 7351.85 hold at 2920.00 MD										
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

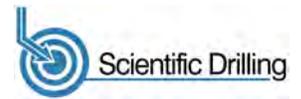


Planning Report



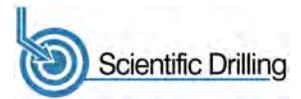
Database:	Denver Sales	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #5 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,872.00	0.00	0.00	4,872.00	0.00	0.00	0.00	0.00	0.00	0.00
PBHL_MU 921-19B2A-UBHZ(2 FNL 2414 FEL)									
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,970.00	0.00	0.00	4,970.00	0.00	0.00	0.00	0.00	0.00	0.00
Wasatch									
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,077.00	0.00	0.00	8,077.00	0.00	0.00	0.00	0.00	0.00	0.00
Mesaverde									
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00



Database:	Denver Sales	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #5 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,271.85	0.00	0.00	10,271.85	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 9.00									
10,294.00	1.99	13.59	10,294.00	0.37	0.09	0.39	9.00	9.00	0.00
Castlegate									
10,300.00	2.53	13.59	10,299.99	0.60	0.15	0.62	9.00	9.00	0.00
10,400.00	11.53	13.59	10,399.14	12.49	3.02	12.85	9.00	9.00	0.00
10,500.00	20.53	13.59	10,495.15	39.31	9.50	40.44	9.00	9.00	0.00
10,600.00	29.53	13.59	10,585.66	80.40	19.43	82.72	9.00	9.00	0.00
10,700.00	38.53	13.59	10,668.45	134.74	32.57	138.63	9.00	9.00	0.00
10,720.14	40.35	13.59	10,684.00	147.18	35.57	151.42	9.00	9.00	0.00
Blackhawk									
10,800.00	47.53	13.59	10,741.47	201.01	48.59	206.80	9.00	9.00	0.00
10,900.00	56.53	13.59	10,802.93	277.56	67.09	285.55	9.00	9.00	0.00
11,000.00	65.53	13.59	10,851.31	362.51	87.62	372.95	9.00	9.00	0.00
11,100.00	74.53	13.59	10,885.42	453.78	109.68	466.84	9.00	9.00	0.00
11,200.00	83.53	13.59	10,904.42	549.11	132.72	564.92	9.00	9.00	0.00
11,247.19	87.78	13.59	10,908.00	594.83	143.78	611.96	9.00	9.00	0.00
Start 5215.48 hold at 11247.19 MD - TOP OF PRODUCTION									
11,247.27	87.78	13.59	10,908.00	594.91	143.79	612.04	0.29	0.29	0.00
H_z Target (Grassy 3)									
11,300.00	87.78	13.59	10,910.04	646.13	156.17	664.73	0.00	0.00	0.00
11,400.00	87.78	13.59	10,913.92	743.25	179.65	764.66	0.00	0.00	0.00
11,500.00	87.78	13.59	10,917.79	840.38	203.13	864.58	0.00	0.00	0.00
11,600.00	87.78	13.59	10,921.66	937.51	226.60	964.51	0.00	0.00	0.00
11,700.00	87.78	13.59	10,925.54	1,034.64	250.08	1,064.43	0.00	0.00	0.00
11,800.00	87.78	13.59	10,929.41	1,131.77	273.56	1,164.36	0.00	0.00	0.00
11,900.00	87.78	13.59	10,933.28	1,228.89	297.03	1,264.28	0.00	0.00	0.00
12,000.00	87.78	13.59	10,937.15	1,326.02	320.51	1,364.21	0.00	0.00	0.00
12,100.00	87.78	13.59	10,941.03	1,423.15	343.99	1,464.13	0.00	0.00	0.00
12,200.00	87.78	13.59	10,944.90	1,520.28	367.46	1,564.06	0.00	0.00	0.00
12,300.00	87.78	13.59	10,948.77	1,617.41	390.94	1,663.98	0.00	0.00	0.00
12,400.00	87.78	13.59	10,952.65	1,714.53	414.42	1,763.91	0.00	0.00	0.00
12,500.00	87.78	13.59	10,956.52	1,811.66	437.89	1,863.83	0.00	0.00	0.00
12,600.00	87.78	13.59	10,960.39	1,908.79	461.37	1,963.76	0.00	0.00	0.00
12,700.00	87.78	13.59	10,964.27	2,005.92	484.85	2,063.68	0.00	0.00	0.00
12,800.00	87.78	13.59	10,968.14	2,103.05	508.32	2,163.61	0.00	0.00	0.00
12,900.00	87.78	13.59	10,972.01	2,200.17	531.80	2,263.53	0.00	0.00	0.00
13,000.00	87.78	13.59	10,975.89	2,297.30	555.28	2,363.46	0.00	0.00	0.00
13,100.00	87.78	13.59	10,979.76	2,394.43	578.75	2,463.38	0.00	0.00	0.00
13,200.00	87.78	13.59	10,983.63	2,491.56	602.23	2,563.31	0.00	0.00	0.00
13,300.00	87.78	13.59	10,987.51	2,588.69	625.71	2,663.23	0.00	0.00	0.00



Database:	Denver Sales	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #5 PRELIMINARY		

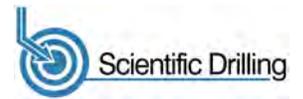
Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,400.00	87.78	13.59	10,991.38	2,685.81	649.18	2,763.16	0.00	0.00	0.00	
13,500.00	87.78	13.59	10,995.25	2,782.94	672.66	2,863.08	0.00	0.00	0.00	
13,600.00	87.78	13.59	10,999.12	2,880.07	696.14	2,963.01	0.00	0.00	0.00	
13,700.00	87.78	13.59	11,003.00	2,977.20	719.61	3,062.93	0.00	0.00	0.00	
13,800.00	87.78	13.59	11,006.87	3,074.33	743.09	3,162.86	0.00	0.00	0.00	
13,900.00	87.78	13.59	11,010.74	3,171.45	766.57	3,262.78	0.00	0.00	0.00	
14,000.00	87.78	13.59	11,014.62	3,268.58	790.04	3,362.71	0.00	0.00	0.00	
14,100.00	87.78	13.59	11,018.49	3,365.71	813.52	3,462.63	0.00	0.00	0.00	
14,200.00	87.78	13.59	11,022.36	3,462.84	837.00	3,562.56	0.00	0.00	0.00	
14,300.00	87.78	13.59	11,026.24	3,559.97	860.47	3,662.48	0.00	0.00	0.00	
14,400.00	87.78	13.59	11,030.11	3,657.09	883.95	3,762.41	0.00	0.00	0.00	
14,500.00	87.78	13.59	11,033.98	3,754.22	907.43	3,862.33	0.00	0.00	0.00	
14,600.00	87.78	13.59	11,037.86	3,851.35	930.90	3,962.26	0.00	0.00	0.00	
14,700.00	87.78	13.59	11,041.73	3,948.48	954.38	4,062.18	0.00	0.00	0.00	
14,800.00	87.78	13.59	11,045.60	4,045.60	977.86	4,162.11	0.00	0.00	0.00	
14,900.00	87.78	13.59	11,049.48	4,142.73	1,001.33	4,262.03	0.00	0.00	0.00	
15,000.00	87.78	13.59	11,053.35	4,239.86	1,024.81	4,361.96	0.00	0.00	0.00	
15,100.00	87.78	13.59	11,057.22	4,336.99	1,048.29	4,461.88	0.00	0.00	0.00	
15,200.00	87.78	13.59	11,061.10	4,434.12	1,071.76	4,561.81	0.00	0.00	0.00	
15,300.00	87.78	13.59	11,064.97	4,531.24	1,095.24	4,661.73	0.00	0.00	0.00	
15,400.00	87.78	13.59	11,068.84	4,628.37	1,118.72	4,761.66	0.00	0.00	0.00	
15,500.00	87.78	13.59	11,072.71	4,725.50	1,142.19	4,861.58	0.00	0.00	0.00	
15,600.00	87.78	13.59	11,076.59	4,822.63	1,165.67	4,961.51	0.00	0.00	0.00	
15,700.00	87.78	13.59	11,080.46	4,919.76	1,189.15	5,061.43	0.00	0.00	0.00	
15,800.00	87.78	13.59	11,084.33	5,016.88	1,212.62	5,161.36	0.00	0.00	0.00	
15,900.00	87.78	13.59	11,088.21	5,114.01	1,236.10	5,261.28	0.00	0.00	0.00	
16,000.00	87.78	13.59	11,092.08	5,211.14	1,259.58	5,361.21	0.00	0.00	0.00	
16,100.00	87.78	13.59	11,095.95	5,308.27	1,283.05	5,461.13	0.00	0.00	0.00	
16,200.00	87.78	13.59	11,099.83	5,405.40	1,306.53	5,561.06	0.00	0.00	0.00	
16,300.00	87.78	13.59	11,103.70	5,502.52	1,330.01	5,660.98	0.00	0.00	0.00	
16,400.00	87.78	13.59	11,107.57	5,599.65	1,353.48	5,760.91	0.00	0.00	0.00	
16,462.67	87.78	13.59	11,110.00	5,660.53	1,368.20	5,823.53	0.00	0.00	0.00	
TD at 16462.67 - MU 921-19B1B-CMHZ - BHL (NEW)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
MU 921-19B1B-CMHZ - - hit/miss target - Shape - Point	0.00	0.00	11,110.00	5,660.53	1,368.20	14,539,653.36	2,036,393.50	40.0287392	-109.5855234	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,820.00	2,820.00	9 5/8"	9.625	13.500	
11,247.19	10,908.00	TOP OF PRODUCTION	0.000	7.875	



Planning Report



Database:	Denver Sales	Local Co-ordinate Reference:	Well MU 921-19B1B-CMHZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4853 & KB 25' @ 4878.00ft (ASSUMED)
Site:	MU 921-30B PAD	North Reference:	True
Well:	MU 921-19B1B-CMHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #5 PRELIMINARY		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,651.00	1,651.00	Green River		0.00		
1,887.00	1,887.00	Birds Nest		0.00		
2,370.00	2,370.00	Mahogany		0.00		
4,970.00	4,970.00	Wasatch		0.00		
8,077.00	8,077.00	Mesaverde		0.00		
10,294.00	10,294.00	Castlegate		0.00		
10,720.14	10,684.00	Blackhawk		0.00		
11,247.27	10,908.00	Hz Target (Grassy 3)		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,920.00	2,920.00	0.00	0.00	Start 7351.85 hold at 2920.00 MD	
10,271.85	10,271.85	0.00	0.00	Start Build 9.00	
11,247.19	10,908.00	594.83	143.78	Start 5215.48 hold at 11247.19 MD	
16,462.67	11,110.00	5,660.53	1,368.20	TD at 16462.67	

MU 921-19B1B-CMHZ/ 921-19B1B-UBHZ/ 921-19B2A-CMHZ/ 921-19B2A-UBHZ
 MU 921-30O3D-CMHZ/ 921-30O3d-UBHZ/ 921-30O4D-CMHZ/ 921-30O4D-UBHZ
 Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
 1 of 5

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

MU 921-30B PAD

<u>API #</u>	<u>MU 921-19B1B-CMHZ</u>		
	Surface: 395 FNL / 1713 FEL	NWNE	Section 30
	BHL: 2 FNL / 1756 FEL	NWNE	Section 19
<u>API #</u>	<u>MU 921-19B1B-UBHZ</u>		
	Surface: 413 FNL / 1730 FEL	NWNE	Section 30
	BHL: 2 FNL / 1756 FEL	NWNE	Section 19
<u>API #</u>	<u>MU 921-19B2A-CMHZ</u>		
	Surface: 431 FNL / 1748 FEL	NWNE	Section 30
	BHL: 2 FNL / 2414 FEL	NWNE	Section 19
<u>API #</u>	<u>MU 921-19B2A-UBHZ</u>		
	Surface: 449 FNL / 1765 FEL	NWNE	Section 30
	BHL: 2 FNL / 2414 FEL	NWNE	Section 19
<u>API #</u>	<u>MU 921-30O3D-CMHZ</u>		
	Surface: 556 FNL / 1871 FEL	NWNE	Section 30
	BHL: 9 FSL / 2372 FEL	SWSE	Section 30
<u>API #</u>	<u>MU 921-30O3D-UBHZ</u>		
	Surface: 573 FNL / 1888 FEL	NWNE	Section 30
	BHL: 9 FSL / 2372 FEL	SWSE	Section 30
<u>API #</u>	<u>MU 921-30O4D-CMHZ</u>		
	Surface: 520 FNL / 1836 FEL	NWNE	Section 30
	BHL: 6 FSL / 1714 FEL	SWSE	Section 30
<u>API #</u>	<u>MU 921-30O4D-UBHZ</u>		
	Surface: 538 FNL / 1853 FEL	NWNE	Section 30
	BHL: 6 FSL / 1714 FEL	SWSE	Section 30

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

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.

MU 921-19B1B-CMHZ/ 921-19B1B-UBHZ/ 921-19B2A-CMHZ/ 921-19B2A-UBHZ
MU 921-30O3D-CMHZ/ 921-30O3d-UBHZ/ 921-30O4D-CMHZ/ 921-30O4D-UBHZ
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
2 of 5

An on-site meeting was held on October 23, 2012. Present were:

- Dave Gordon, Tyler Cox, Melissa Wardle - BLM;
- Mitch Batty - Timberline Engineering & Land Surveying, Inc.; and
- Randy Townley, Casey McKee, Cara Mahler, Danielle Piernot, Justin Brady, Rod Anderson and Charles Chase, - Kerr-McGee
- Scott Carson - Smiling Lake
- John Mills - J.C. Construction

A. Existing Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Topo B for existing roads.

B. New or Reconstructed Access Roads:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

The following segments are "on-lease"

±210' (0.04 miles) – Section 30 T9S R21E (NW/4 NE/4) – On-lease UTU0581, from the edge of pad northeast to the existing road. Please refer to Topo B.

C. Location of Existing Wells:

Please refer to Topo C for existing wells.

D. Location of Existing and/or Proposed Facilities:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

This pad will expand the existing pad for the NBU 178, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on January 10, 2013. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The total gas gathering pipeline distance from the meter to the tie in point is ±980' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±980' (0.19 miles) – Section 30 T9S R21E (NW/4 NE/4) – On-lease UTU0581, Tribal surface, New 6" buried gas gathering pipeline from the meter to the proposed 16" gas pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

MU 921-19B1B-CMHZ/ 921-19B1B-UBHZ/ 921-19B2A-CMHZ/ 921-19B2A-UBHZ
MU 921-30O3D-CMHZ/ 921-30O3d-UBHZ/ 921-30O4D-CMHZ/ 921-30O4D-UBHZ
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
3 of 5

LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 980'$ and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

$\pm 980'$ (0.19 miles) – Section 30 T9S R21E (NW/4 NE/4) – On-lease UTU0581, Tribal surface, New 6" buried liquid gathering pipeline from the separator to the proposed 6" pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

Pipeline Gathering Construction

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

The Anadarko Completions Transportation System (ACTS) information:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Exhibit C for ACTS Lines

E. Location and Types of Water Supply:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

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

F. Construction Materials:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

G. Methods for Handling Waste:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Materials Management

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

J. Plans for Surface Reclamation:

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

MU 921-19B1B-CMHZ/ 921-19B1B-UBHZ/ 921-19B2A-CMHZ/ 921-19B2A-UBHZ
MU 921-30O3D-CMHZ/ 921-30O3d-UBHZ/ 921-30O4D-CMHZ/ 921-30O4D-UBHZ
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
4 of 5

Interim Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Measures Common to Interim and Final Reclamation

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Weed Control

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Monitoring

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

K. Surface/Mineral Ownership:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. Other Information:

Cultural and Paleontological Resources

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Resource Reports:

A Class I literature survey was completed on November 7, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 12-283.

A paleontological reconnaissance survey was completed on October 5, 2012 by SWCA Environmental Consultants. For additional details please refer to report UT12-14314-186.

Biological field survey was completed on October 16, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-851.

Proposed Action Annual Emissions Tables:

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

MU 921-19B1B-CMHZ/ 921-19B1B-UBHZ/ 921-19B2A-CMHZ/ 921-19B2A-UBHZ
MU 921-3003D-CMHZ/ 921-3003d-UBHZ/ 921-3004D-CMHZ/ 921-3004D-UBHZ
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations
5 of 5

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

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

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

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

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

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

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

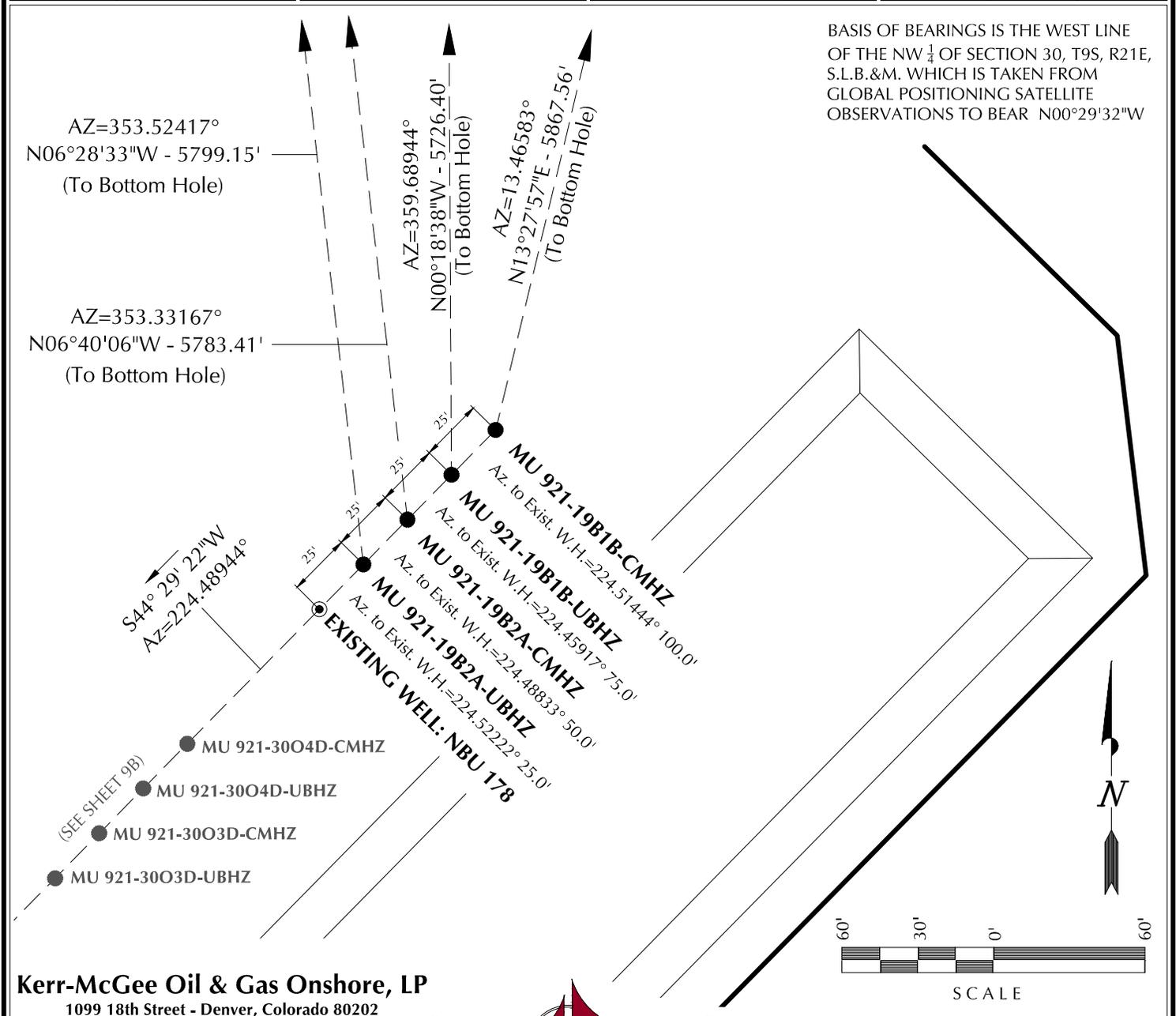
I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan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

Danielle Piernot

January 15, 2013
Date

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
MU 921-19B1B-CMHZ	40°00'47.381"	109°35'27.960"	40°00'47.508"	109°35'25.475"	395' FNL	40°01'43.776"	109°35'10.504"	40°01'43.904"	109°35'08.020"	4' FNL
MU 921-19B1B-UBHZ	40.013161°	109.591100°	40.013197°	109.590410°	1713' FEL	40.028827°	109.586251°	40.028862°	109.585561°	341' FEL
MU 921-19B2A-CMHZ	40°00'47.205"	109°35'28.185"	40°00'47.332"	109°35'25.701"	413' FNL	40°01'43.779"	109°35'28.690"	40°01'43.906"	109°35'26.205"	2' FNL
MU 921-19B2A-UBHZ	40.013112°	109.591163°	40.013148°	109.590473°	1730' FEL	40.028827°	109.591303°	40.028863°	109.590612°	1756' FEL
MU 921-19B2A-CMHZ	40°00'47.028"	109°35'28.410"	40°00'47.155"	109°35'25.925"	431' FNL	40°01'43.771"	109°35'37.146"	40°01'43.898"	109°35'34.661"	2' FNL
MU 921-19B2A-UBHZ	40.013063°	109.591225°	40.013099°	109.590535°	1748' FEL	40.028825°	109.593652°	40.028861°	109.592961°	2414' FEL
MU 921-19B2A-CMHZ	40°00'46.851"	109°35'28.634"	40°00'46.978"	109°35'26.150"	449' FNL	40°01'43.771"	109°35'37.146"	40°01'43.898"	109°35'34.661"	2' FNL
MU 921-19B2A-UBHZ	40.013014°	109.591287°	40.013050°	109.590597°	1765' FEL	40.028825°	109.593652°	40.028861°	109.592961°	2414' FEL
NBU 178	40°00'46.675"	109°35'28.859"	40°00'46.802"	109°35'26.375"	466' FNL					
NBU 178	40.012965°	109.591350°	40.013001°	109.590660°	1783' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole											
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
MU 921-19B1B-CMHZ	5706.3'	1,366.4'	MU 921-19B1B-UBHZ	5726.3'	-31.0'	MU 921-19B2A-CMHZ	5744.3'	-671.6'	MU 921-19B2A-UBHZ	5762.1'	-654.1'



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

WELL PAD - MU 921-30B

WELL PAD INTERFERENCE PLAT
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-3004D-CMHZ, MU 921-3004D-UBHZ,
 MU 921-3003D-CMHZ & MU 921-3003D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., UTAH COUNTY, UTAH.

609

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

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

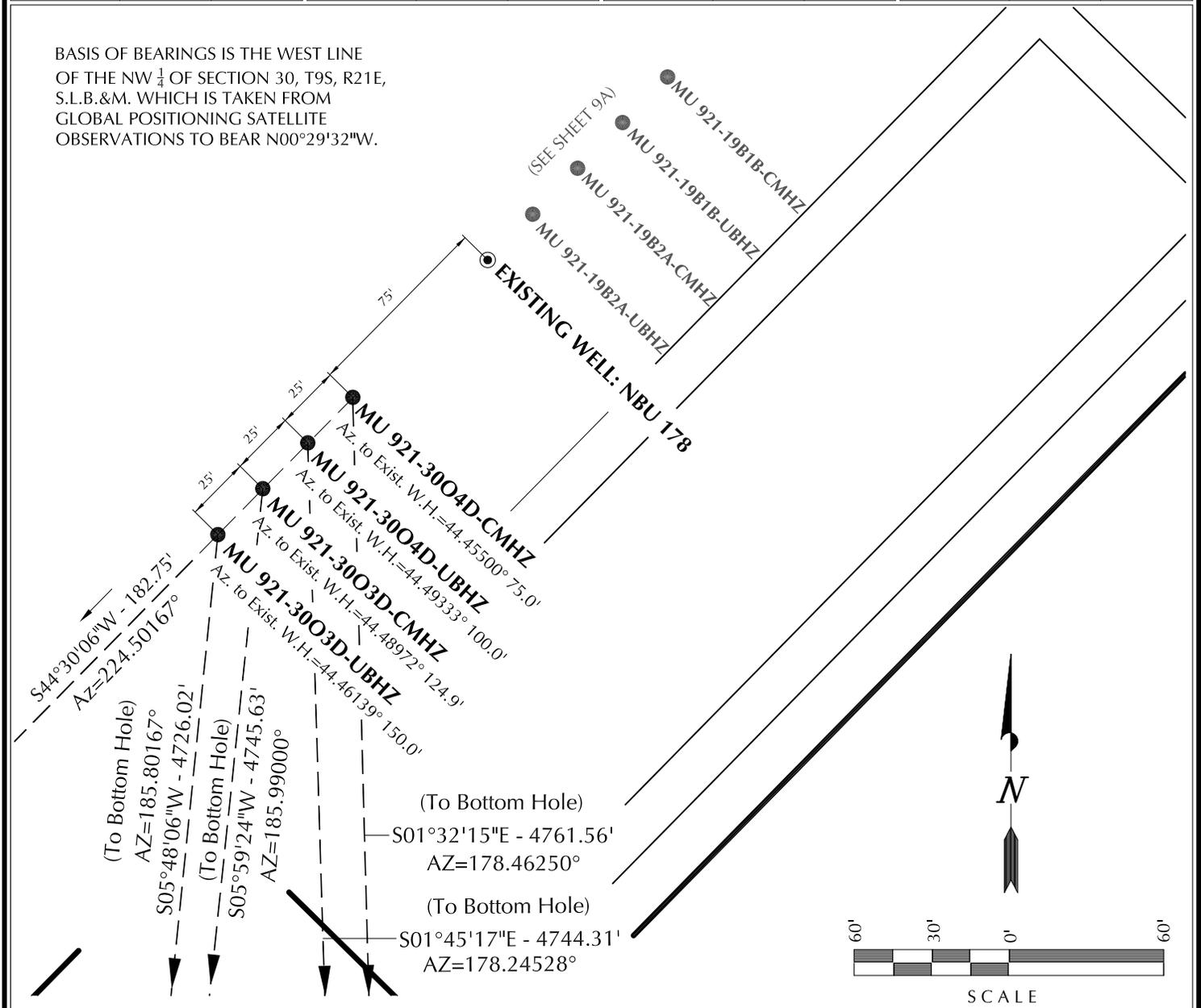
DATE SURVEYED: 9-6-12	SURVEYED BY: A.F.	SHEET NO: 9A 9A OF 20
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
SCALE: 1" = 60'		Date Last Revised: 9-10-15 M.W.W.

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
MU 921-3004D-CMHZ	40°00'46.145"	109°35'29.533"	40°00'46.272"	109°35'27.049"	520' FNL	39°59'59.121"	109°35'27.804"	39°59'59.247"	109°35'25.321"	6' FSL
MU 921-3004D-UBHZ	40.012818°	109.591537°	40.012853°	109.590847°	1836' FEL	39.999756°	109.591057°	39.999791°	109.590367°	1714' FEL
MU 921-3003D-CMHZ	40°00'45.969"	109°35'29.758"	40°00'46.096"	109°35'27.274"	538' FNL	39°59'59.121"	109°35'27.804"	39°59'59.247"	109°35'25.321"	6' FSL
MU 921-3003D-UBHZ	40.012769°	109.591599°	40.012805°	109.590909°	1853' FEL	39.999756°	109.591057°	39.999791°	109.590367°	1714' FEL
MU 921-3003D-CMHZ	40°00'45.793"	109°35'29.983"	40°00'45.920"	109°35'27.498"	556' FNL	39°59'59.156"	109°35'36.257"	39°59'59.283"	109°35'33.773"	9' FSL
MU 921-3003D-UBHZ	40.012720°	109.591662°	40.012756°	109.590972°	1871' FEL	39.999766°	109.593405°	39.999801°	109.592715°	2372' FEL
MU 921-3003D-CMHZ	40°00'45.616"	109°35'30.207"	40°00'45.743"	109°35'27.723"	573' FNL	39°59'59.156"	109°35'36.257"	39°59'59.283"	109°35'33.773"	9' FSL
MU 921-3003D-UBHZ	40.012671°	109.591724°	40.012706°	109.591034°	1888' FEL	39.999766°	109.593405°	39.999801°	109.592715°	2372' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
MU 921-3004D-CMHZ	-4759.8'	127.8'	MU 921-3004D-UBHZ	-4742.1'	145.3'	MU 921-3003D-CMHZ	-4719.7'	-495.2'	MU 921-3003D-UBHZ	-4701.8'	-477.7'

BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 30, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°29'32"W.



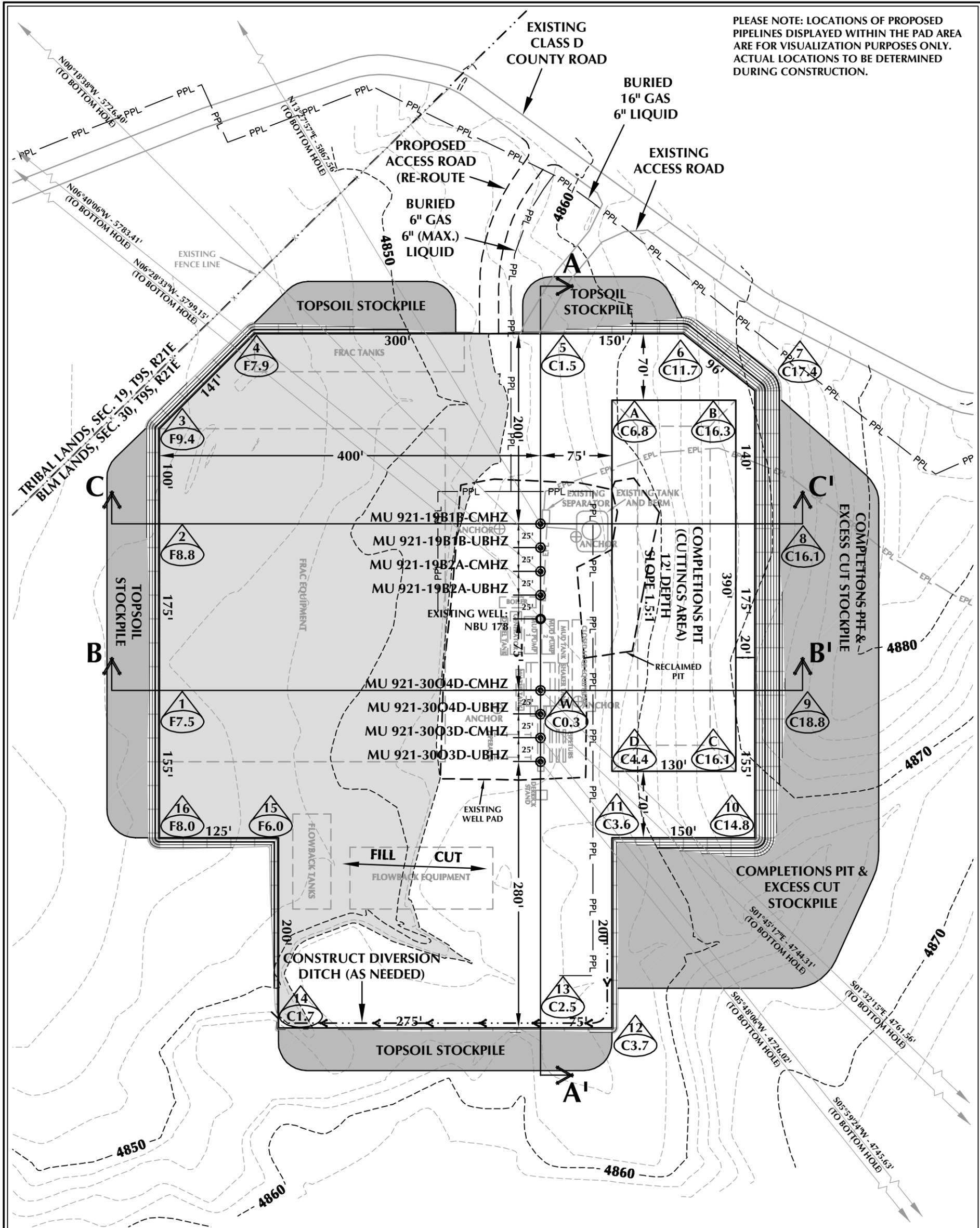
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - MU 921-30B
WELL PAD INTERFERENCE PLAT
MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
MU 921-3004D-CMHZ, MU 921-3004D-UBHZ,
MU 921-3003D-CMHZ & MU 921-3003D-UBHZ
LOCATED IN SECTION 30, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE SURVEYED: 9-6-12	SURVEYED BY: A.F.	SHEET NO: 9B
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
SCALE: 1" = 60'		9B OF 20



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

WELL PAD - MU 921-30B DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4853.2'
 FINISHED GRADE ELEVATION = 4852.9'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 9.83 ACRES
 TOTAL DISTURBANCE AREA = 12.75 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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 1099 18th Street - Denver, Colorado 80202

WELL PAD - MU 921-30B
 WELL PAD - LOCATION LAYOUT
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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

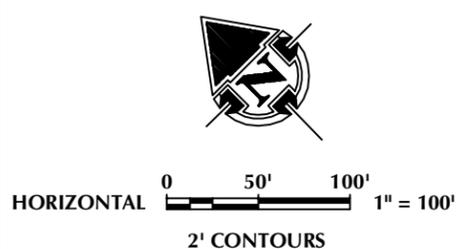
WELL PAD QUANTITIES
 TOTAL CUT FOR WELL PAD = 42,896 C.Y.
 TOTAL FILL FOR WELL PAD = 41,207 C.Y.
 TOPSOIL @ 6" DEPTH = 7,064 C.Y.
 EXCESS MATERIAL = 1,689 C.Y.

COMPLETIONS PIT QUANTITIES
 TOTAL CUT FOR COMPLETIONS PIT
 +/- 18,570 C.Y.
 COMPLETIONS PIT CAPACITY
 (2' OF FREEBOARD)
 +/- 71,050 BARRELS

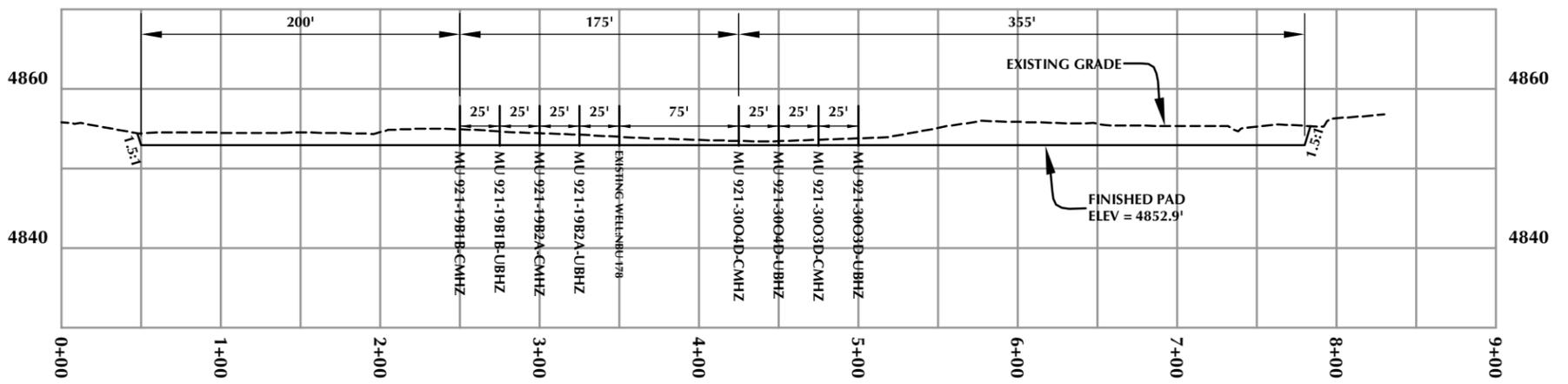
TIMBERLINE
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

WELL PAD LEGEND

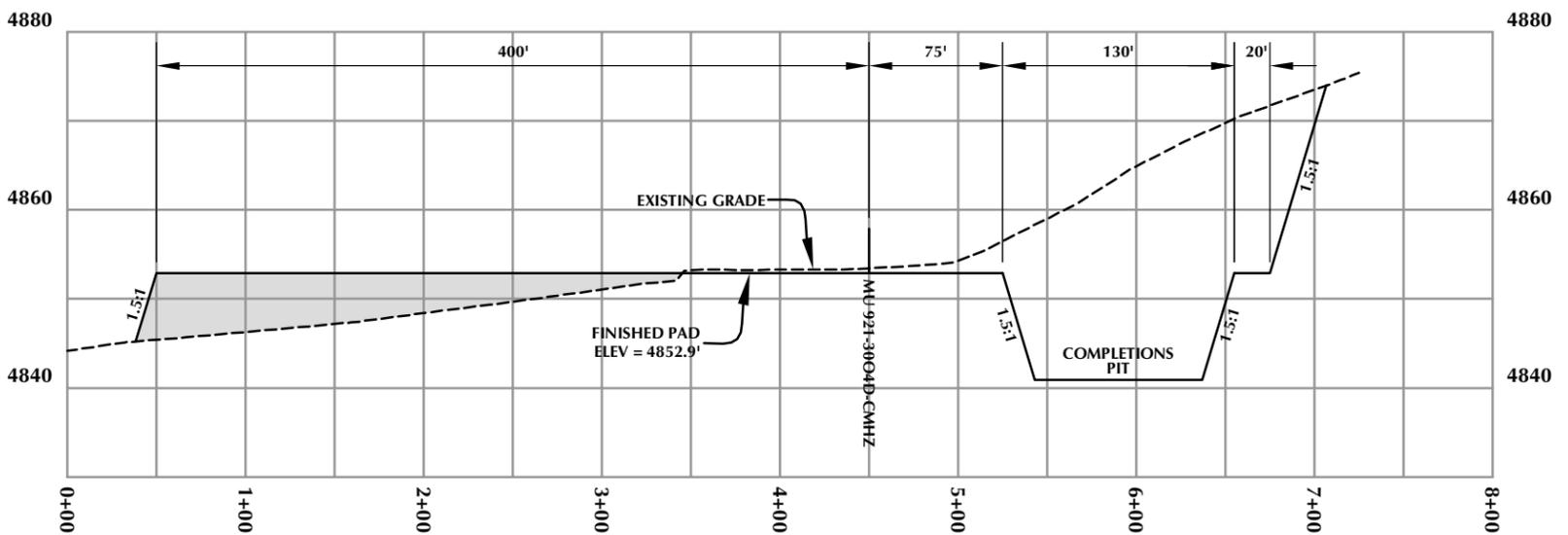
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE



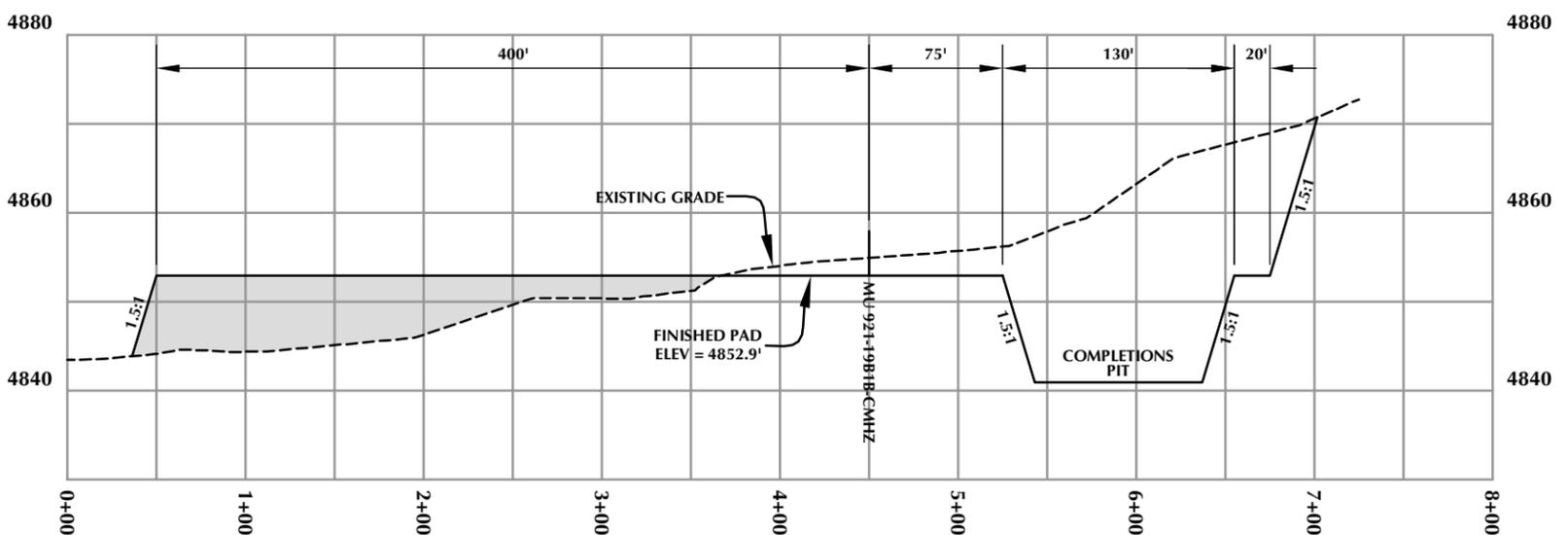
SCALE: 1"=100' DATE: 9/28/12 SHEET NO:
 9/16/15
 TJP
10 10 OF 20



CROSS SECTION A-A'



CROSS SECTION B-B'



CROSS SECTION C-C'

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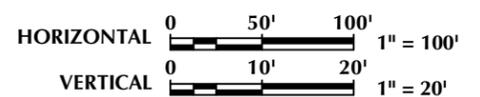
WELL PAD - MU 921-30B

WELL PAD - CROSS SECTIONS
MU 921-1981B-CMHZ, MU 921-1981B-UBHZ,
MU 921-1982A-CMHZ, MU 921-1982A-UBHZ,
MU 921-3004D-CMHZ, MU 921-3004D-UBHZ,
MU 921-3003D-CMHZ & MU 921-3003D-UBHZ
LOCATED IN SECTION 30, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

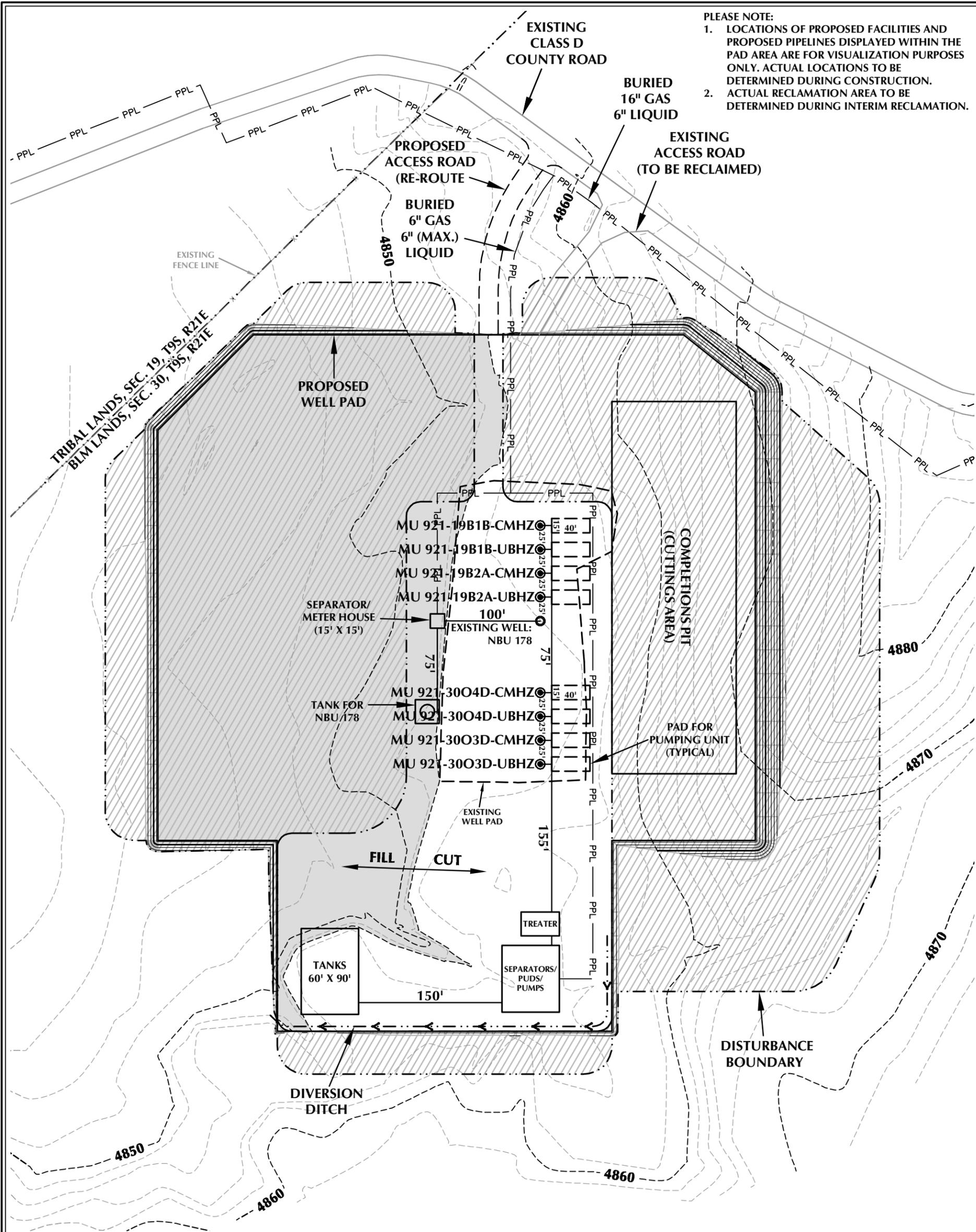


CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

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



Scale: 1"=100' Date: 9/28/12 SHEET NO:
REVISD: **11** 11 OF 20



WELL PAD - MU 921-30B RECLAMATION DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 12.75 ACRES (INCLUDING EXISTING)
 RECLAMATION AREA = 9.23 ACRES
 TOTAL WELL PAD AREA AFTER RECLAMATION = 3.52 ACRES

WELL PAD LEGEND

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



HORIZONTAL 0 50' 100' 1" = 100'
 2' CONTOURS

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WELL PAD - MU 921-30B

WELL PAD - RECLAMATION LAYOUT
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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

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SCALE: 1"=100'

DATE: 9/28/12

SHEET NO:

REVISED:

12

12 OF 20



PHOTO VIEW: FROM LOCATION STAKES TO CORNER #2

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM LOCATION STAKES TO CORNER #1

CAMERA ANGLE: NORTHWESTERLY

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WELL PAD - MU 921-30B

LOCATION PHOTOS
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., Uintah County, Utah.



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

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 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 9-6-12	PHOTOS TAKEN BY: A.F.	13A 13A OF 20
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
Date Last Revised:		



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHWESTERLY

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WELL PAD - MU 921-30B

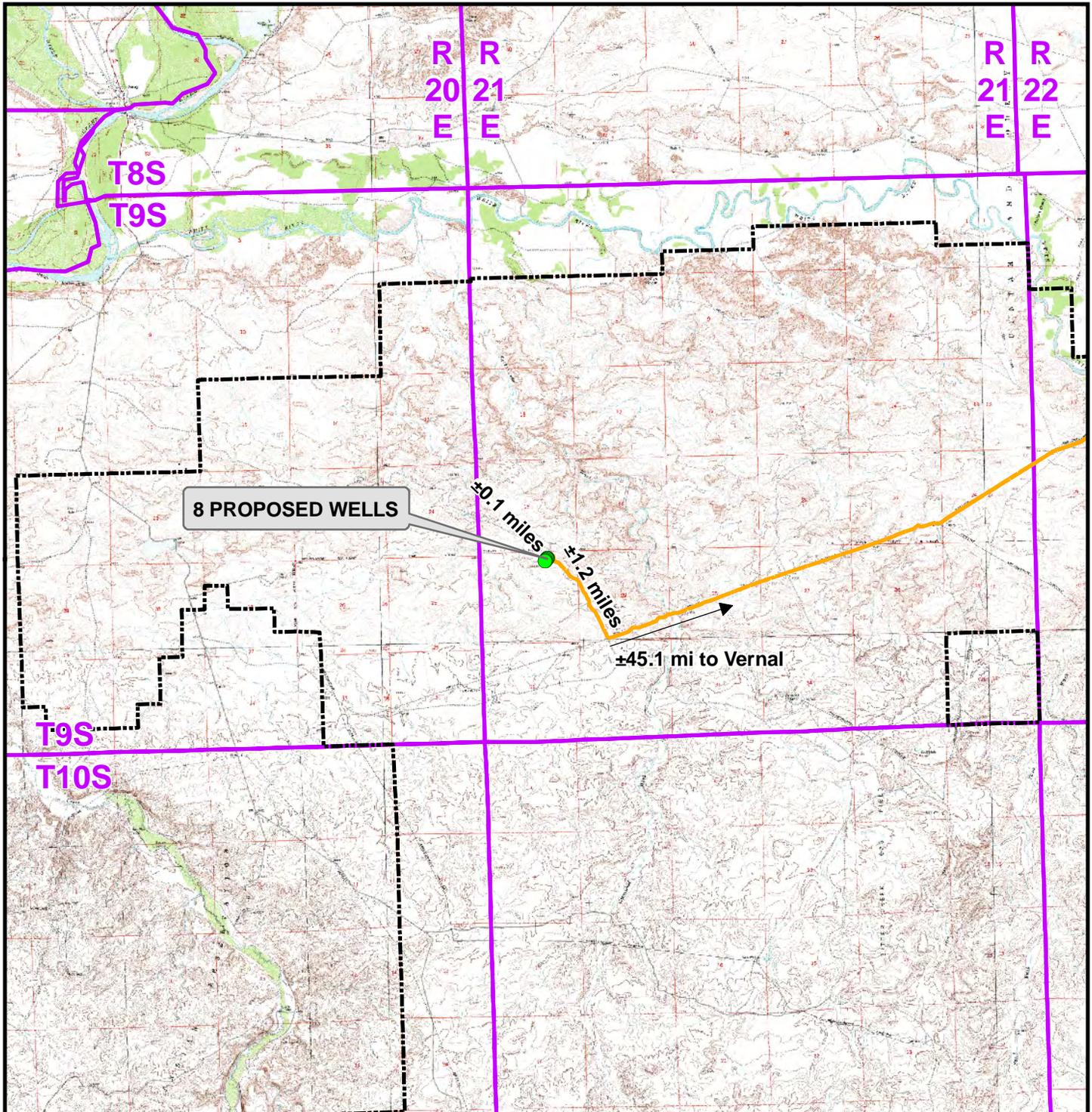
LOCATION PHOTOS
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E,
 S.L.B.&M., Uintah County, Utah.



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

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

DATE PHOTOS TAKEN: 9-6-12	PHOTOS TAKEN BY: A.F.	13B 13B OF 20
DATE DRAWN: 9-22-12	DRAWN BY: C.T.C.	
Date Last Revised:		



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Legend

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

Distance From Well Pad - MU 921-30B To Unit Boundary: ±13,639ft

WELL PAD - MU 921-30B

TOPO A
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., UINTAH COUNTY, UTAH

**Kerr-McGee Oil &
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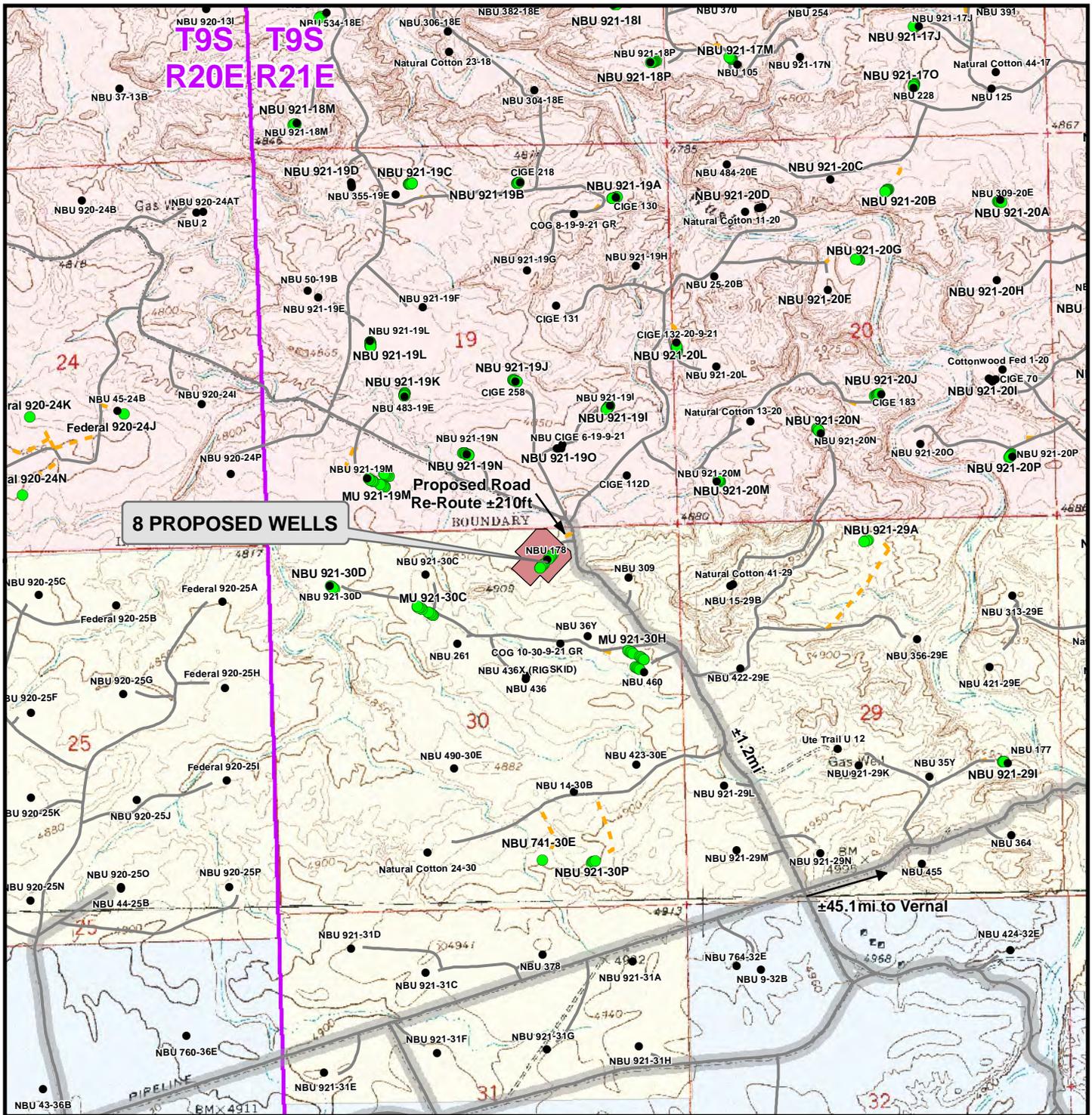
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 Denver, Colorado 80202



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



SCALE: 1:100,000	NAD83 USP Central	SHEET NO:
DRAWN: TL	DATE: 28 Sep 2012	14
REVISED:	DATE:	



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Legend

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

Total Proposed Road Re-Route Length: ±210ft

WELL PAD - MU 921-30B

TOPO B
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., UINTAH COUNTY, UTAH

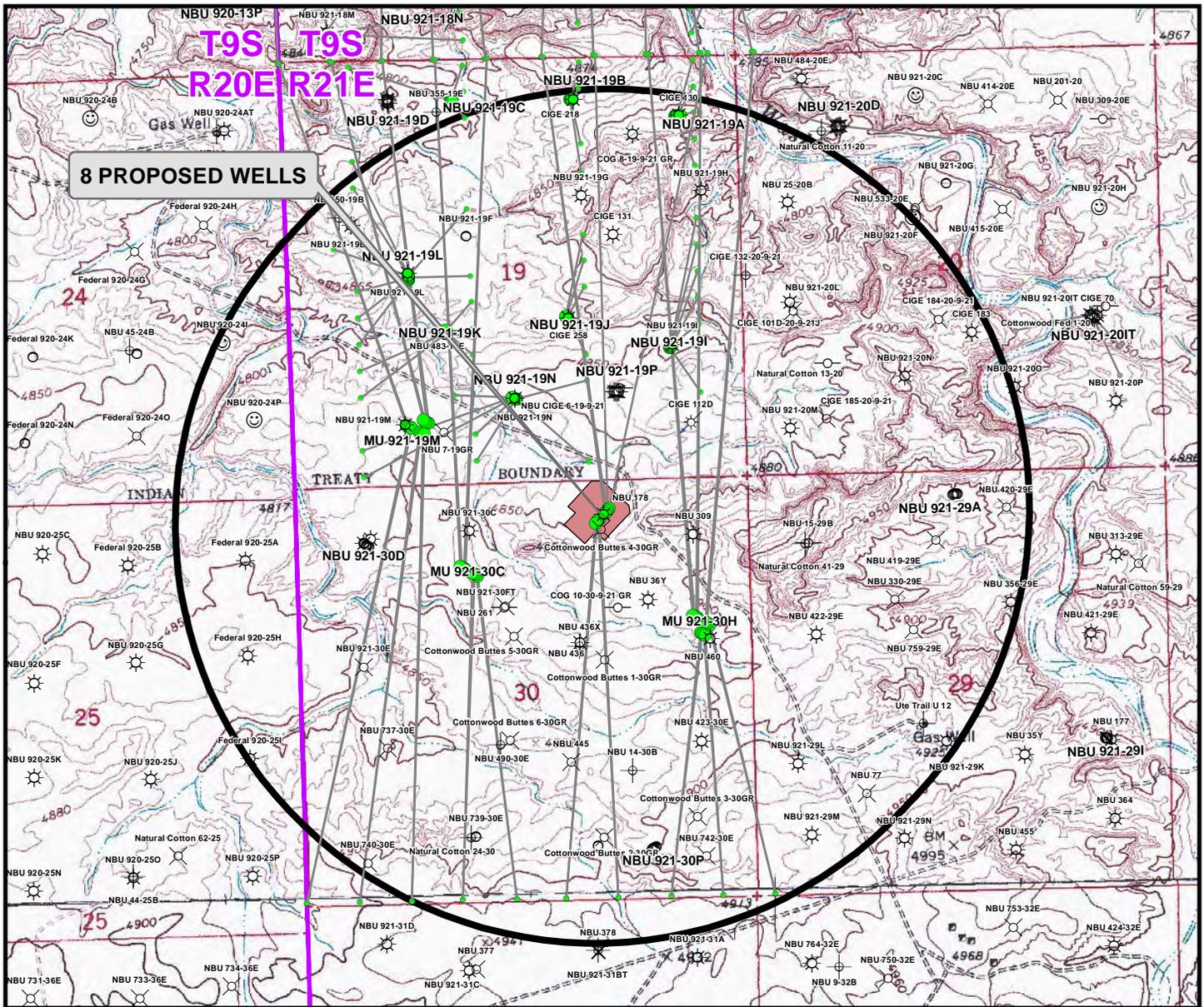
**Kerr-McGee Oil &
 Gas Onshore L.P.**
 1099 18th Street
 Denver, Colorado 80202



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



SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:
DRAWN: TL	DATE: 28 Sep 2012	15
REVISED:	DATE:	



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	Proposed Well	Nearest Well Bore	Footage
MU 921-19B1B-CMHZ	CIGE 130	864ft	MU 921-30O4D-CMHZ	NBU 378	717ft
MU 921-19B1B-UBHZ	CIGE 218	614ft	MU 921-30O4D-UBHZ	NBU 378	717ft
MU 921-19B2A-CMHZ	CIGE 218	655ft	MU 921-30O3D-CMHZ	NBU 378	774ft
MU 921-19B2A-UBHZ	CIGE 218	655ft	MU 921-30O3D-UBHZ	NBU 378	774ft

Legend

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

WELL PAD - MU 921-30B

TOPO C
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., Uintah County, Utah

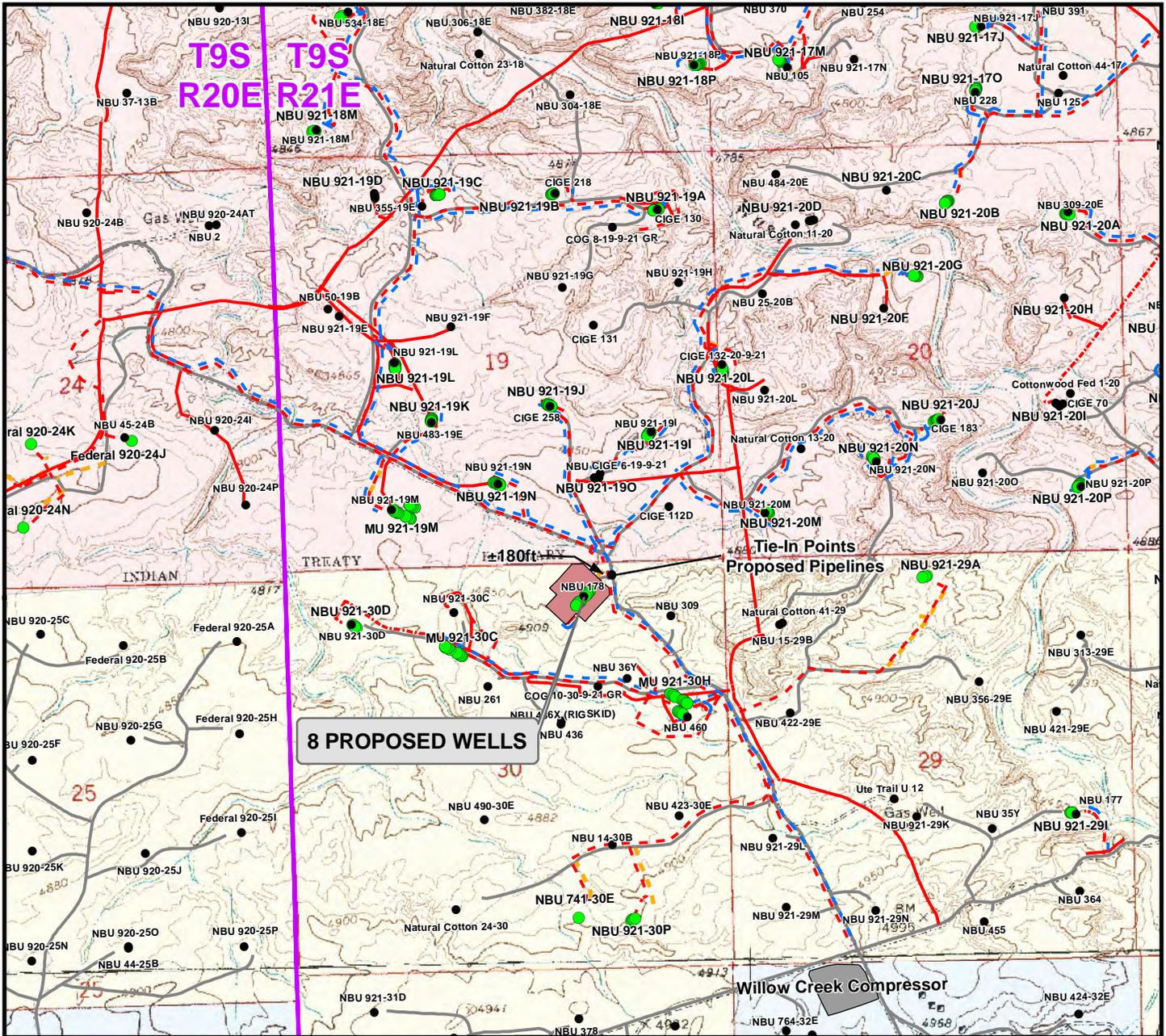
**Kerr-McGee Oil &
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 Denver, Colorado 80202



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

SCALE: 1" = 2,000ft	NAD83 USP Central	16
DRAWN: TL	DATE: 28 Sep 2012	
REVISED: TL	DATE: 17 Sept 2015	

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8 PROPOSED WELLS

Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Separator to Edge of Pad)	±800ft
Buried 6" (Max.) (Edge of Pad to Proposed 6" Liquid Pipeline)	±180ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±980ft

Proposed Gas Pipeline	Length
Buried 6" (Meter House to Edge of Pad)	±800ft
Buried 6" (Edge of Pad to Proposed 16" Gas Pipeline)	±180ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±980ft

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

WELL PAD - MU 921-30B

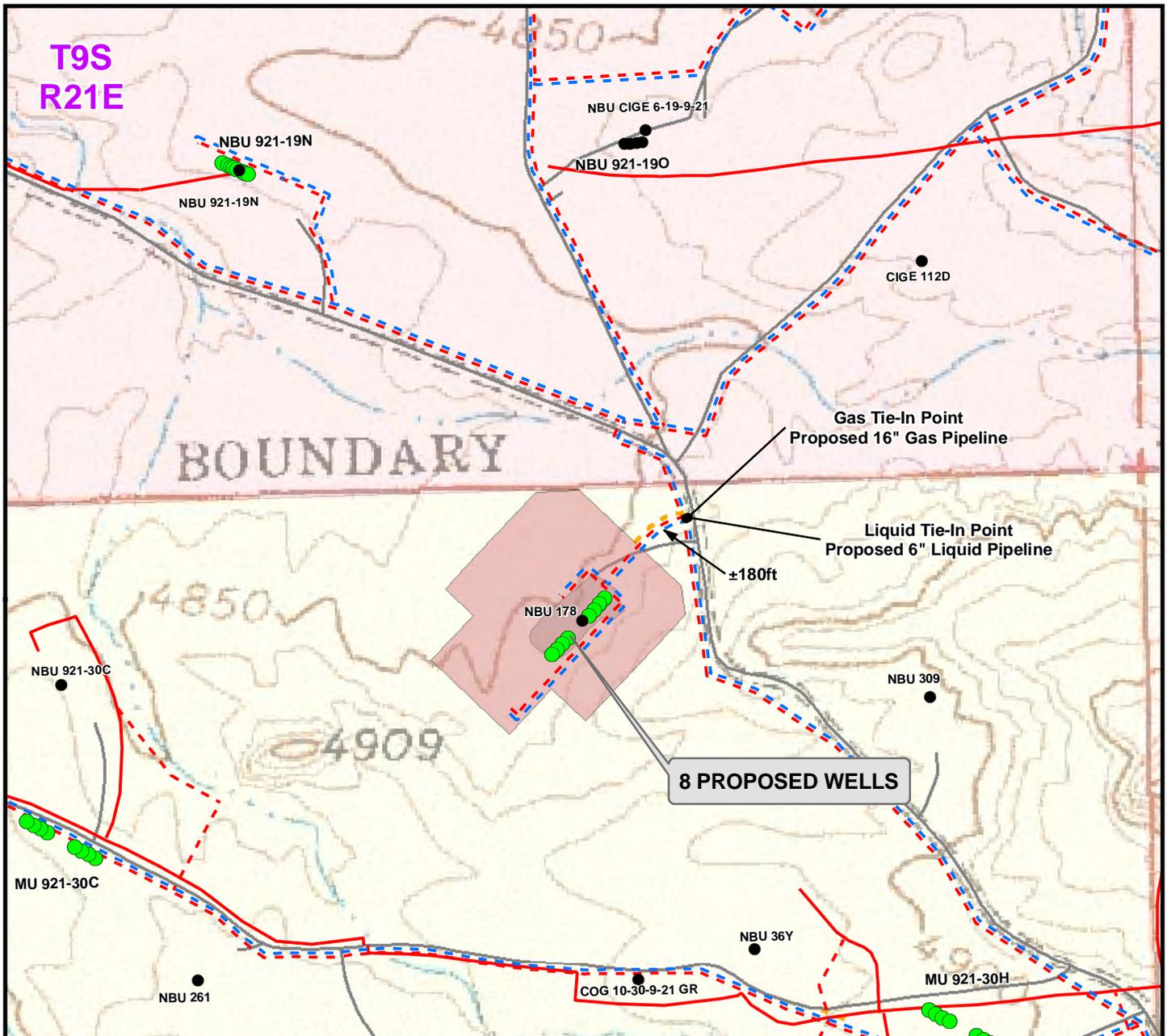
TOPO D
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., Uintah County, Utah

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 1099 18th Street
 Denver, Colorado 80202



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

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 17 17 OF 20
DRAWN: TL	DATE: 28 Sep 2012	
REVISED:	DATE:	



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Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
----- Buried 6" (Max.) (Separator to Edge of Pad)	±800ft	----- Buried 6" (Meter House to Edge of Pad)	±800ft
Buried 6" (Max.) (Edge of Pad to Proposed 6" Liquid Pipeline)	±180ft	Buried 6" (Edge of Pad to Proposed 16" Gas Pipeline)	±180ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±980ft	TOTAL PROPOSED BURIED GAS PIPELINE =	±980ft

Legend

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

WELL PAD - MU 921-30B

TOPO D2 (PAD & PIPELINE DETAIL)
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., Uintah County, Utah

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

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Denver, Colorado 80202

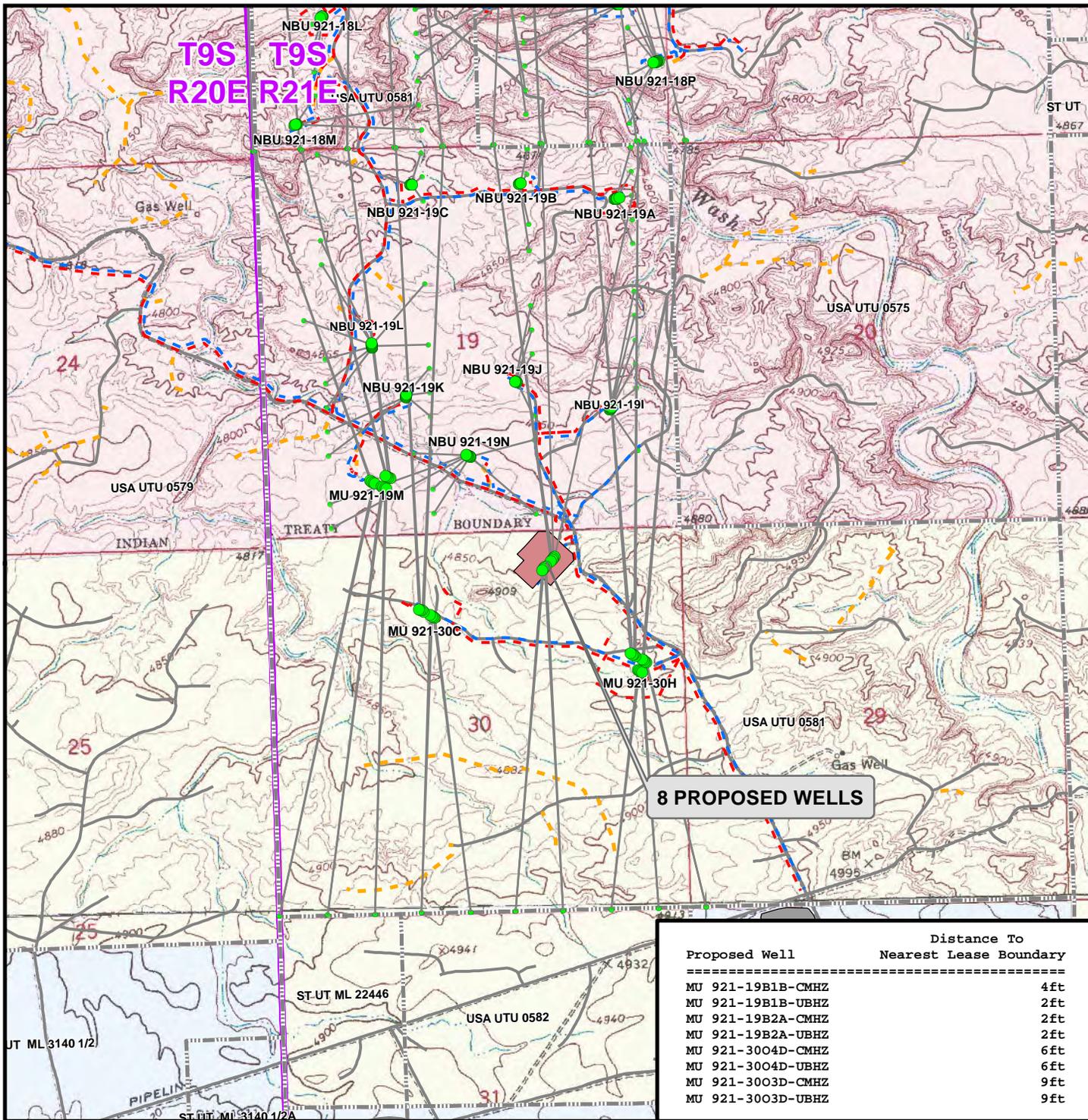


CONSULTING, LLC
 2155 North Main Street
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182



SCALE: 1" = 500ft	NAD83 USP Central	18
DRAWN: TL	DATE: 28 Sep 2012	
REVISED:	DATE:	

SHEET NO:
18 OF 20



Proposed Well	Distance To Nearest Lease Boundary
MU 921-19B1B-CMHZ	4ft
MU 921-19B1B-UBHZ	2ft
MU 921-19B2A-CMHZ	2ft
MU 921-19B2A-UBHZ	2ft
MU 921-30O4D-CMHZ	6ft
MU 921-30O4D-UBHZ	6ft
MU 921-30O3D-CMHZ	9ft
MU 921-30O3D-UBHZ	9ft

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 - MU 921-30B

TOPO E
 MU 921-19B1B-CMHZ, MU 921-19B1B-UBHZ,
 MU 921-19B2A-CMHZ, MU 921-19B2A-UBHZ,
 MU 921-30O4D-CMHZ, MU 921-30O4D-UBHZ,
 MU 921-30O3D-CMHZ & MU 921-30O3D-UBHZ
 LOCATED IN SECTION 30, T9S, R21E
 S.L.B.&M., UINTAH COUNTY, UTAH

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 Sheridan, Wyoming 82801
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SCALE: 1" = 2,000ft

DRAWN: TL

REVISED: TL

NAD83 USP Central

DATE: 28 Sep 2012

DATE: 17 Sept 2015

SHEET NO:

19

19 OF 20

File: K:\ANADARKO\2012\12_76_NBU_921-19-30_FOCUS\GIS\Maps_ABCDE\MU 921-30B\MU 921-30B_E.mxd, 9/29/2012 5:58:54 PM

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Oil Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU0581
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: MAVERICK
PHONE NUMBER: 720 929-6500	8. WELL NAME and NUMBER: MU 921-19B1B-CMHZ
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0395 FNL 1713 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 21.0E Meridian: S	9. API NUMBER: 43047536570000
	9. FIELD and POOL or WILDCAT: SOUTHERN BUTTES
	COUNTY: UINTAH
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 2/26/2016	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

Approved by the
Feb 26, 2016
Oil, Gas and Mining

Date: _____

By:

NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUMBER 720 929-6808	TITLE Regulatory Specialist
SIGNATURE N/A	DATE 2/26/2016	



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 43047536570000

API: 43047536570000

Well Name: MU 921-19B1B-CMHZ

Location: 0395 FNL 1713 FEL QTR NWNE SEC 30 TWP 090S RNG 210E MER S

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

Date Original Permit Issued: 3/25/2013

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: Jennifer Thomas

Date: 2/26/2016

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