

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 Morgan State 921-36F4BS				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES				
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME				
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.						7. OPERATOR PHONE 720 929-6515				
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL julie.jacobson@anadarko.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML 22265			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		2266 FNL 1820 FWL		SEnw	36	9.0 S	21.0 E	S		
Top of Uppermost Producing Zone		2071 FNL 2144 FWL		SEnw	36	9.0 S	21.0 E	S		
At Total Depth		2071 FNL 2144 FWL		SEnw	36	9.0 S	21.0 E	S		
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 2071			23. NUMBER OF ACRES IN DRILLING UNIT 639				
27. ELEVATION - GROUND LEVEL 5005			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 301			26. PROPOSED DEPTH MD: 10585 TVD: 10559				
			28. BOND NUMBER 22013542			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496				
Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2600	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 10585	11.6	HCP-110 LT&C	13.0	Premium Lite High Strength	320	3.38	12.0
							50/50 Poz	1530	1.31	14.3
ATTACHMENTS										
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Danielle Piernot			TITLE Regulatory Analyst			PHONE 720 929-6156				
SIGNATURE			DATE 12/19/2011			EMAIL danielle.piernot@anadarko.com				
API NUMBER ASSIGNED 43047522850000			APPROVAL  Permit Manager							

Kerr-McGee Oil & Gas Onshore. L.P.**MORGAN STATE 921-36F4BS**

Surface: 2266 FNL / 1820 FWL SENW
 BHL: 2071 FNL / 2144 FWL SENW

Section 36 T9S R21E

Unitah County, Utah
 Mineral Lease: ML-22265

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2.a **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	1,363'	
Birds Nest	1,658'	Water
Mahogany	2,152'	Water
Wasatch	4,610'	Gas
Mesaverde	7,285'	Gas
Sego	9,484'	Gas
Castlegate	9,529'	Gas
MN5	9,959'	Gas
TVD =	10,559'	
TD =	10,585'	

- 2.C Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Sego as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

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

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. Drilling Fluids Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. Evaluation Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. Abnormal Conditions:**7.a Blackhawk (Part of Mesaverde Formation) Target Formation**

Maximum anticipated bottom hole pressure calculated at 10559' TVD, approximately equals
6,969 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,694 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))

7.b Wasach/Mesaverde Target Formation

Maximum anticipated bottom hole pressure calculated at 9484' TVD, approximately equals
6,070 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 3,970 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 Blackhawk Drilling Program and the Wasatch/Mesaverde 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 Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP
BLACKHAWK DRILLING PROGRAM

CASING PROGRAM

							DESIGN FACTORS			
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	LTC	DQX
		TENSION								
CONDUCTOR	14"	0-40'					3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to 2,600	28.00	IJ-55	LTC	2.07	1.55	5.46	N/A
PRODUCTION	4-1/2"	0	to 5,000	11.60	HCP-110	DQX	1.19	1.21	279,000	367,174
	4-1/2"	5,000	to 10,585'	11.60	HCP-110	LTC	1.19	1.21	5.37	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

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

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,100'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
Option 2	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,105'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	35%	12.00	3.38
	TAIL	6,480'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,530	35%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT:

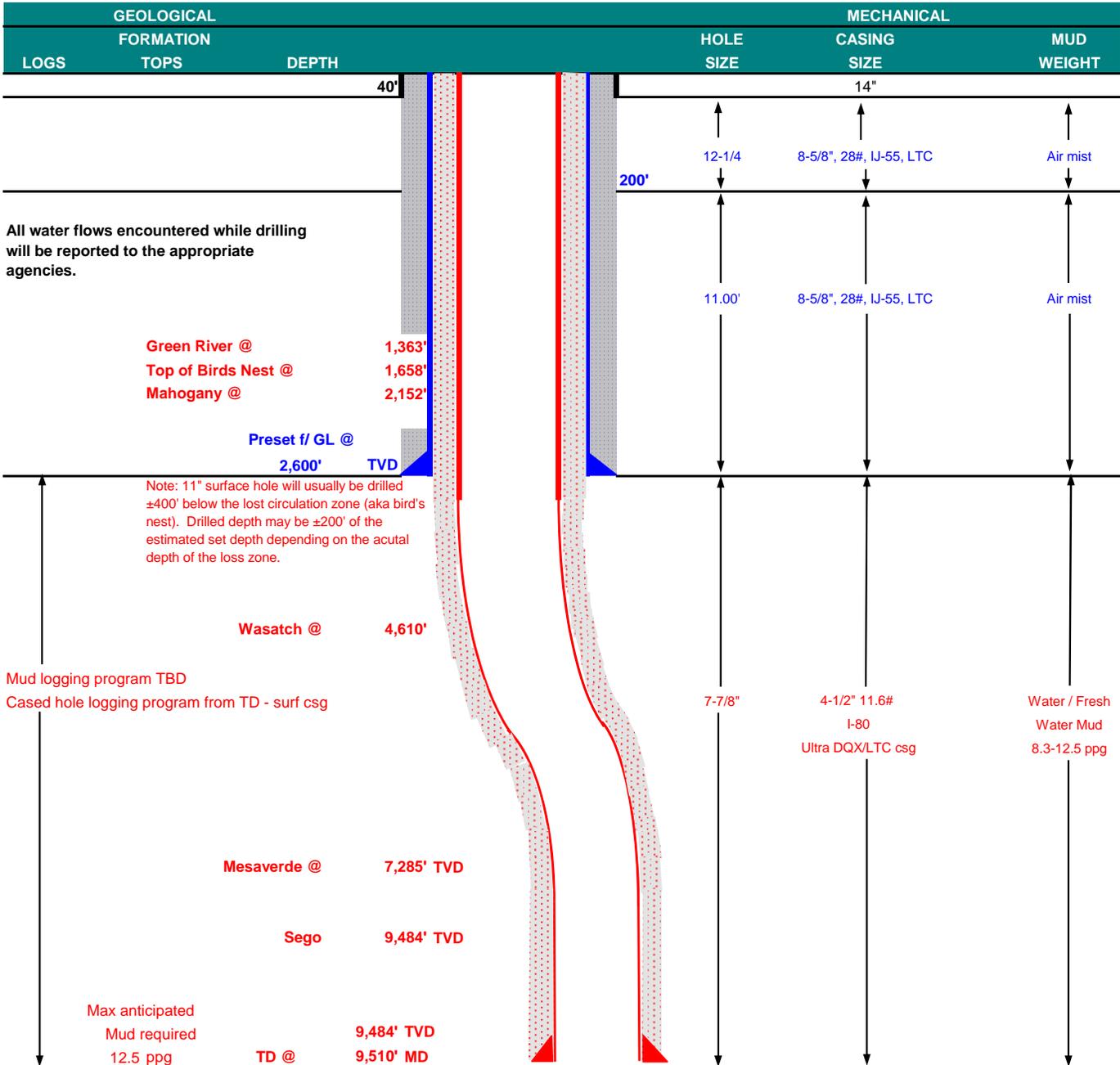
Kenny Gathings / Lovel Young

DATE: _____



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	December 19, 2011	
WELL NAME	MORGAN STATE 921-36F4BS		TD	9,484'	9,510' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	SENW	2266 FNL	1820 FWL	Sec 36 T 9S R 21E	FINISHED ELEVATION 5,005'
	Latitude:	39.993555	Longitude:	-109.502292	NAD 27
BTM HOLE LOCATION	SENW	2071 FNL	2144 FWL	Sec 36 T 9S R 21E	
	Latitude:	39.994091	Longitude:	-109.501139	NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM

							DESIGN FACTORS			
							LTC		DQX	
	SIZE	INTERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION		
CONDUCTOR	14"	0-40'								
						3,390	1,880	348,000	N/A	
SURFACE	8-5/8"	0 to 2,600	28.00	IJ-55	LTC	2.07	1.55	5.46	N/A	
						7,780	6,350		267,035	
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	1.11	1.03		2.99	
						7,780	6,350	223,000		
	4-1/2"	5,000 to 9,510'	11.60	I-80	LTC	1.11	1.03	5.27		

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

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

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

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

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	Option 1						
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
	Option 2						
	LEAD	2,100'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,110'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	35%	12.00	3.38
	TAIL	5,400'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,280	35%	14.30	1.31

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

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

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SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
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Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

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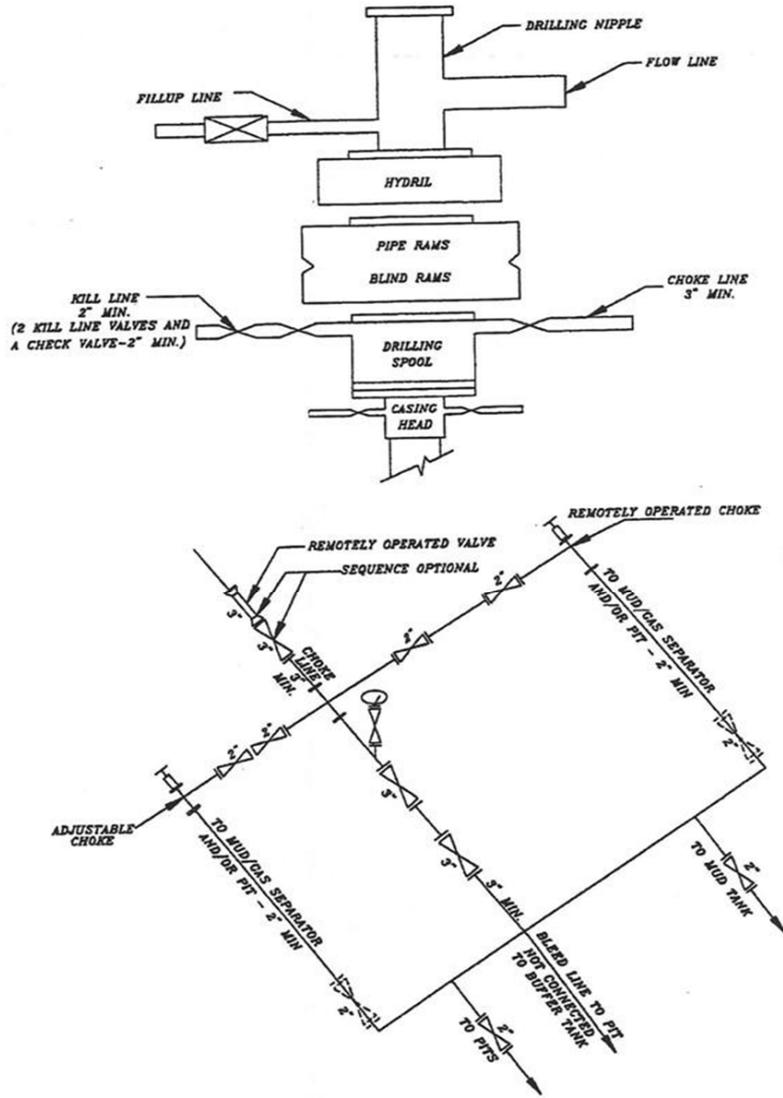
DRILLING ENGINEER: _____
Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT: _____
Kenny Gathings / Lovel Young

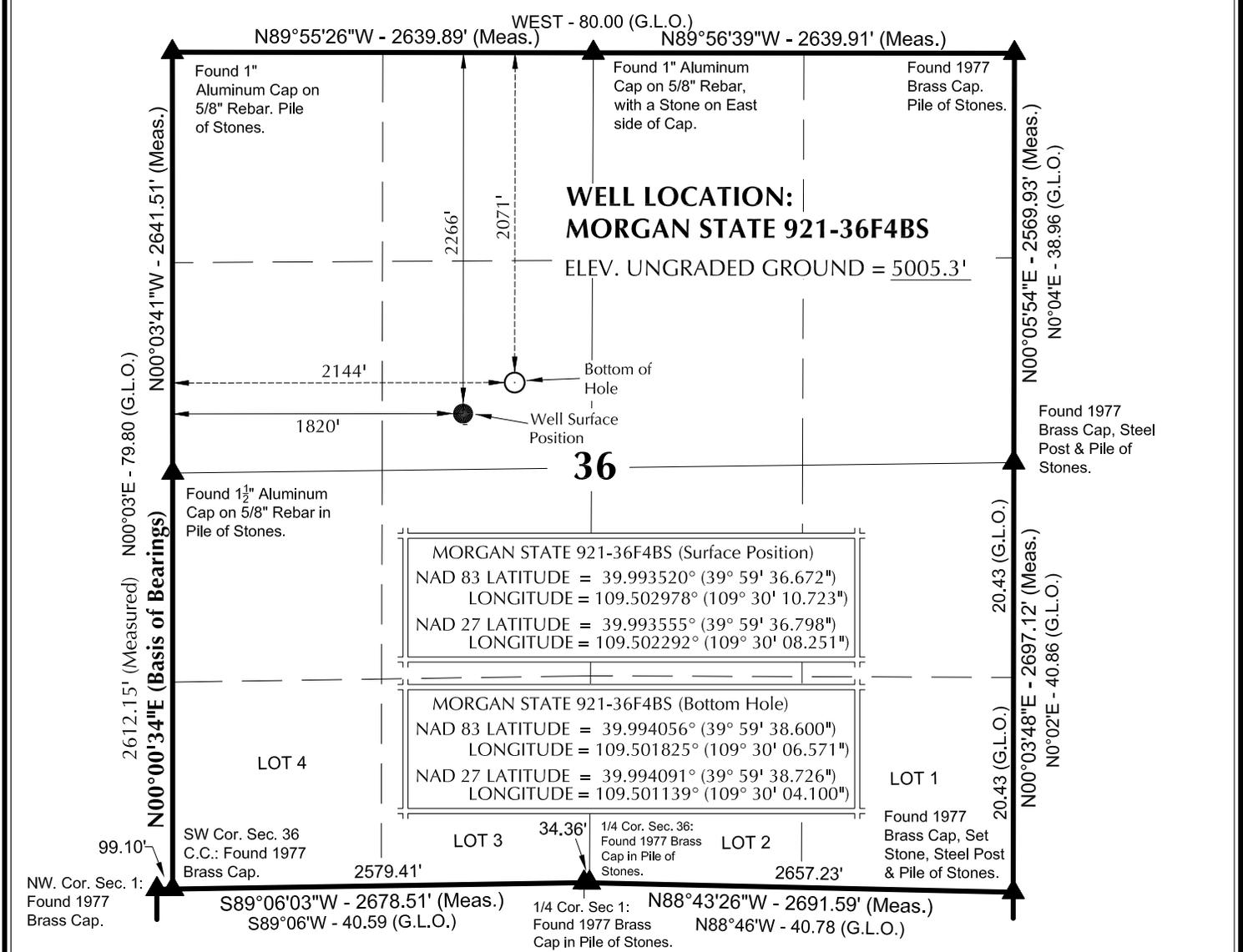
DATE: _____

EXHIBIT A
MORGAN STATE 921-36F4BS



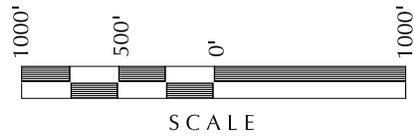
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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



NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- 3. The Bottom of hole bears N58°53'48"E 377.57' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW 1/4 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'.



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.

No. 6028691-11-11-11
JOHN R. LAUGH
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH

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

WELL PAD: MORGAN STATE 921-36F3

**MORGAN STATE 921-36F4BS
 WELL PLAT**
 2071' FNL, 2144' FWL (Bottom Hole)
 SE 1/4 NW 1/4 OF SECTION 36, T9S, R21E,
 S.L.B.&M., UTAH COUNTY, UTAH.

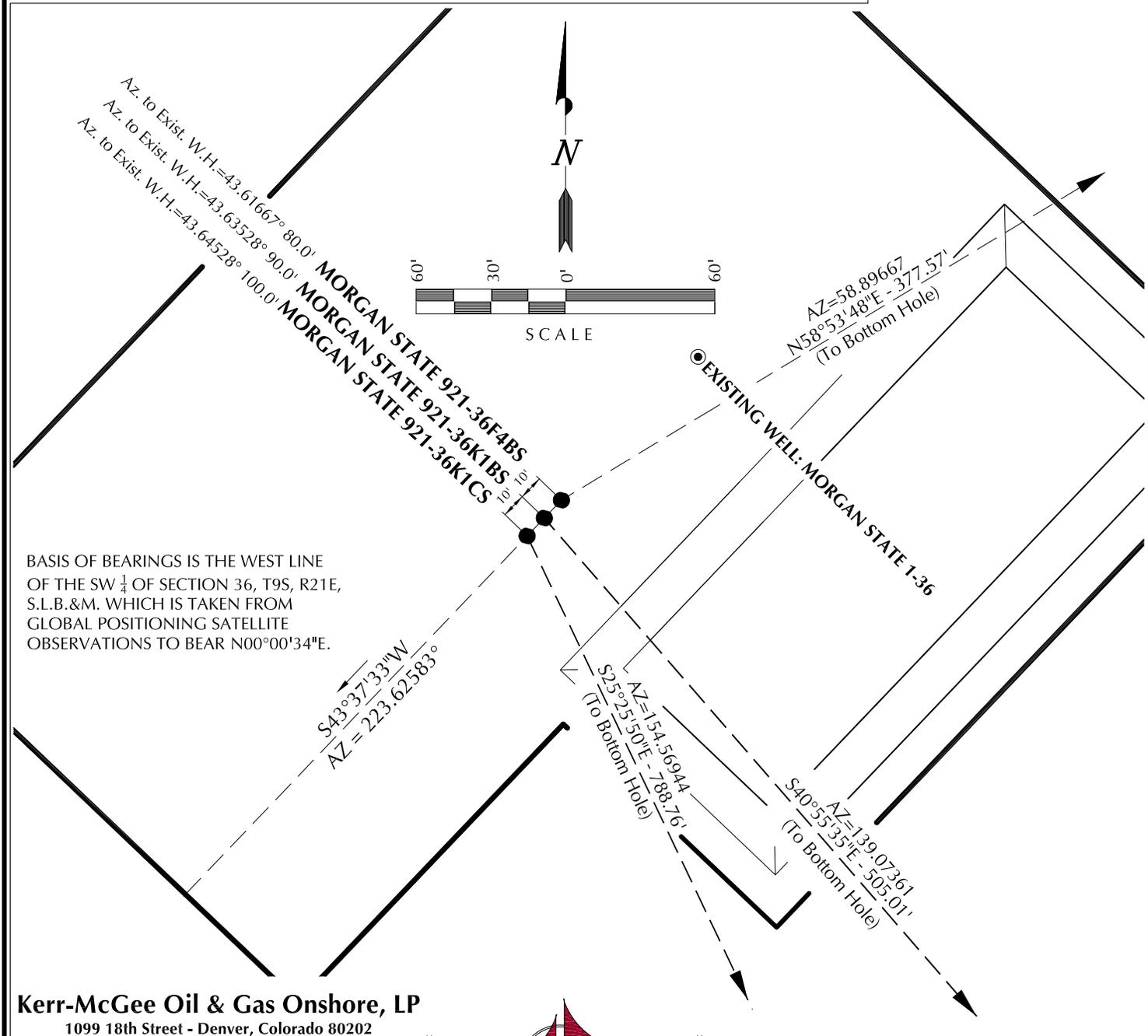
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CONSULTING, LLC
 2155 North Main Street
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

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

DATE SURVEYED: 10-11-11	SURVEYED BY: J.W.	SHEET NO: 1 1 OF 15
DATE DRAWN: 10-29-11	DRAWN BY: C.T.C.	
SCALE: 1" = 1000' Date Last Revised:		

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
MORGAN STATE 921-36F4BS	39°59'36.672"	109°30'10.723"	39°59'36.798"	109°30'08.251"	2266' FNL	39°59'38.600"	109°30'06.571"	39°59'38.726"	109°30'04.100"	2071' FNL
	39.993520°	109.502978°	39.993555°	109.502292°	1820' FWL	39.994056°	109.501825°	39.994091°	109.501139°	2144' FWL
MORGAN STATE 921-36K1BS	39°59'36.600"	109°30'10.812"	39°59'36.726"	109°30'08.340"	2274' FNL	39°59'32.832"	109°30'06.560"	39°59'32.958"	109°30'04.089"	2562' FSL
	39.993500°	109.503003°	39.993535°	109.502317°	1814' FWL	39.992453°	109.501822°	39.992488°	109.501136°	2144' FWL
MORGAN STATE 921-36K1CS	39°59'36.529"	109°30'10.901"	39°59'36.655"	109°30'08.429"	2281' FNL	39°59'29.492"	109°30'06.546"	39°59'29.618"	109°30'04.075"	2224' FSL
	39.993480°	109.503028°	39.993515°	109.502341°	1807' FWL	39.991526°	109.501818°	39.991561°	109.501132°	2145' FWL
MORGAN STATE 1-36	39°59'37.244"	109°30'10.014"	39°59'37.370"	109°30'07.543"	2209' FNL					
	39.993679°	109.502782°	39.993714°	109.502095°	1876' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole								
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
MORGAN STATE 921-36F4BS	195.0'	323.3'	MORGAN STATE 921-36K1BS	-381.6'	330.8'	MORGAN STATE 921-36K1CS	-712.3'	337.7'



BASIS OF BEARINGS IS THE WEST LINE OF THE SW ¼ OF SECTION 36, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°00'34"E.

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1099 18th Street - Denver, Colorado 80202

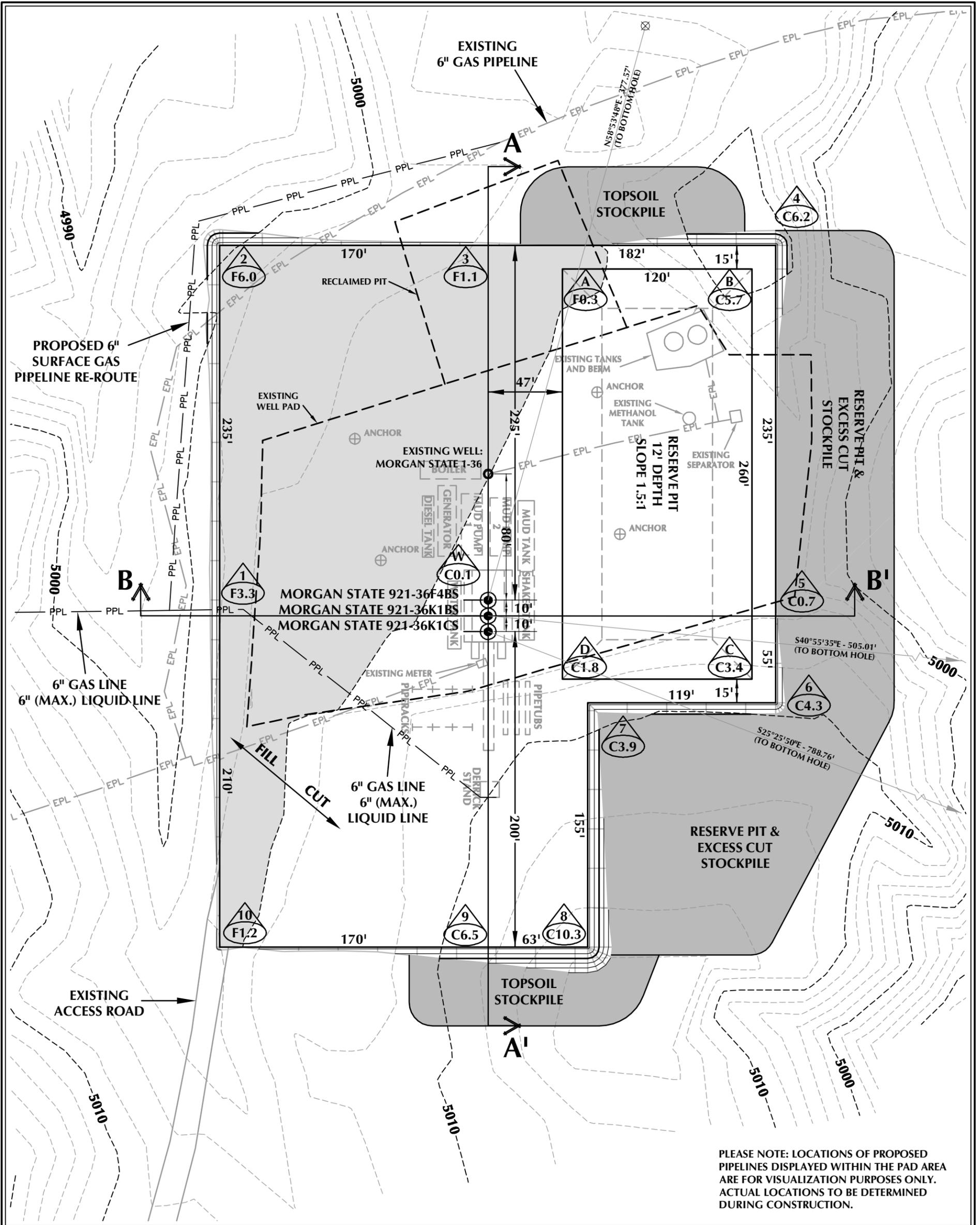
WELL PAD - MORGAN STATE 921-36F3

WELL PAD INTERFERENCE PLAT
WELLS - MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS, &
MORGAN STATE 921-36K1CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., Uintah County, Utah.



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Fax 307-674-0182

TIMBERLINE		(435) 789-1365
ENGINEERING & LAND SURVEYING, INC.		
209 NORTH 300 WEST - VERNAL, UTAH 84078		
DATE SURVEYED: 10-11-11	SURVEYED BY: J.W.	SHEET NO: 4
DATE DRAWN: 10-29-11	DRAWN BY: C.T.C.	
SCALE: 1" = 60'	Date Last Revised:	4 OF 15



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 - MORGAN STATE 921-36F3 DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5005.3'
 FINISHED GRADE ELEVATION = 5005.2'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.37 ACRES
 TOTAL DISTURBANCE AREA = 4.65 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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WELL PAD - MORGAN STATE 921-36F3

WELL PAD - LOCATION LAYOUT
 MORGAN STATE 921-36F4BS,
 MORGAN STATE 921-36K1BS &
 MORGAN STATE 921-36K1CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., Uintah County, Utah



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WELL PAD QUANTITIES

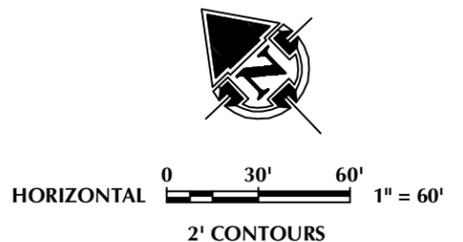
TOTAL CUT FOR WELL PAD = 5,581 C.Y.
 TOTAL FILL FOR WELL PAD = 3,161 C.Y.
 TOPSOIL @ 6" DEPTH = 1,555 C.Y.
 EXCESS MATERIAL = 2,420 C.Y.

RESERVE PIT QUANTITIES

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

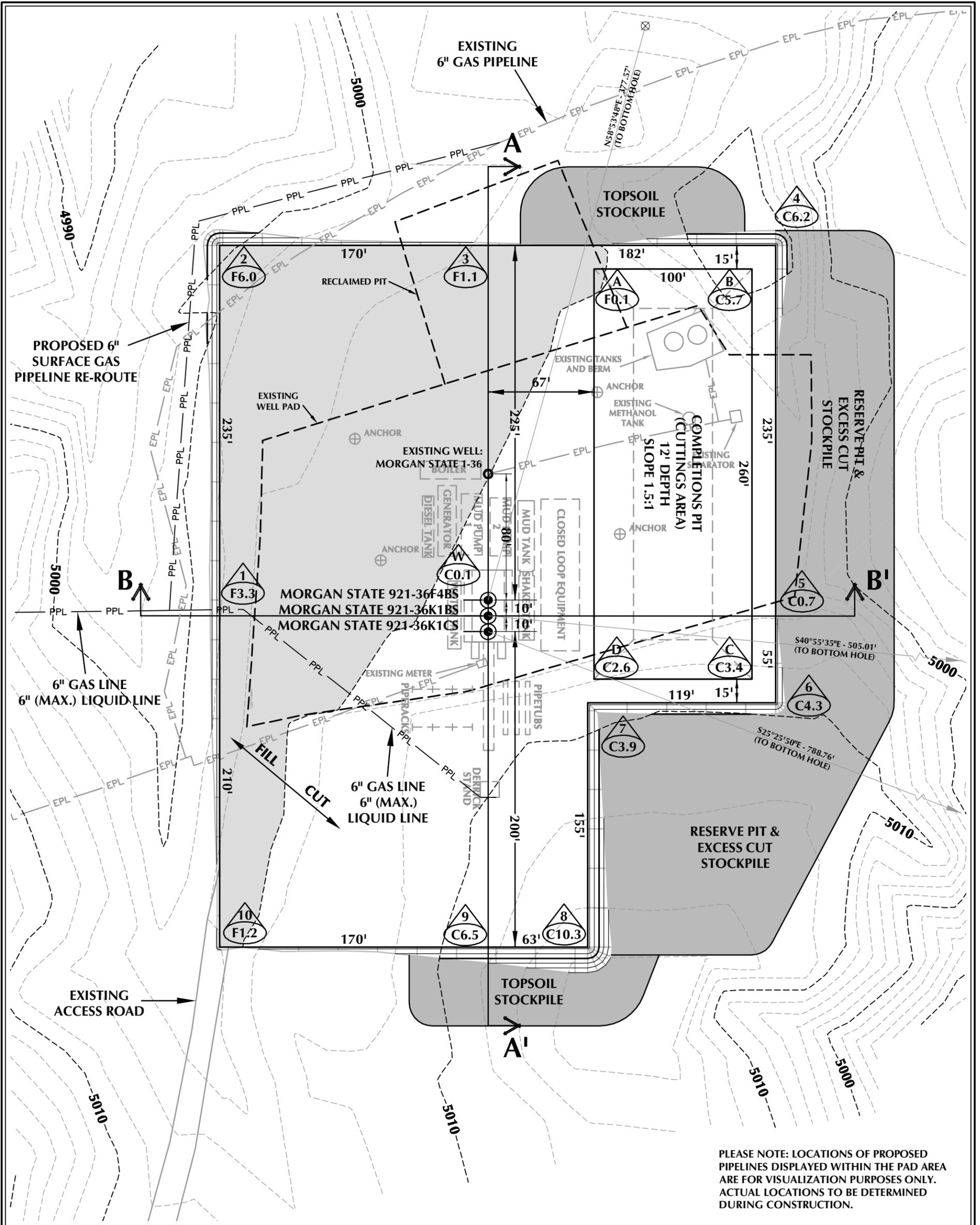
WELL PAD LEGEND

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



TIMBERLINE ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078
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SCALE: 1"=60' DATE: 11/11/11 SHEET NO: 5 OF 15



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 - MORGAN STATE 921-36F3 (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5005.3'
 FINISHED GRADE ELEVATION = 5005.2'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.37 ACRES
 TOTAL DISTURBANCE AREA = 4.65 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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WELL PAD - MORGAN STATE 921-36F3

WELL PAD - LOCATION LAYOUT
 MORGAN STATE 921-36F4BS,
 MORGAN STATE 921-36K1BS &
 MORGAN STATE 921-36K1CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., Uintah County, Utah



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WELL PAD QUANTITIES

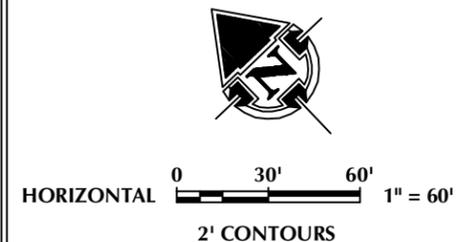
TOTAL CUT FOR WELL PAD = 5,581 C.Y.
 TOTAL FILL FOR WELL PAD = 3,161 C.Y.
 TOPSOIL @ 6" DEPTH = 1,555 C.Y.
 EXCESS MATERIAL = 2,420 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
 +/- 8,870 C.Y.
 COMPLETIONS PIT CAPACITY
 (2' OF FREEBOARD)
 +/- 33,770 BARRELS

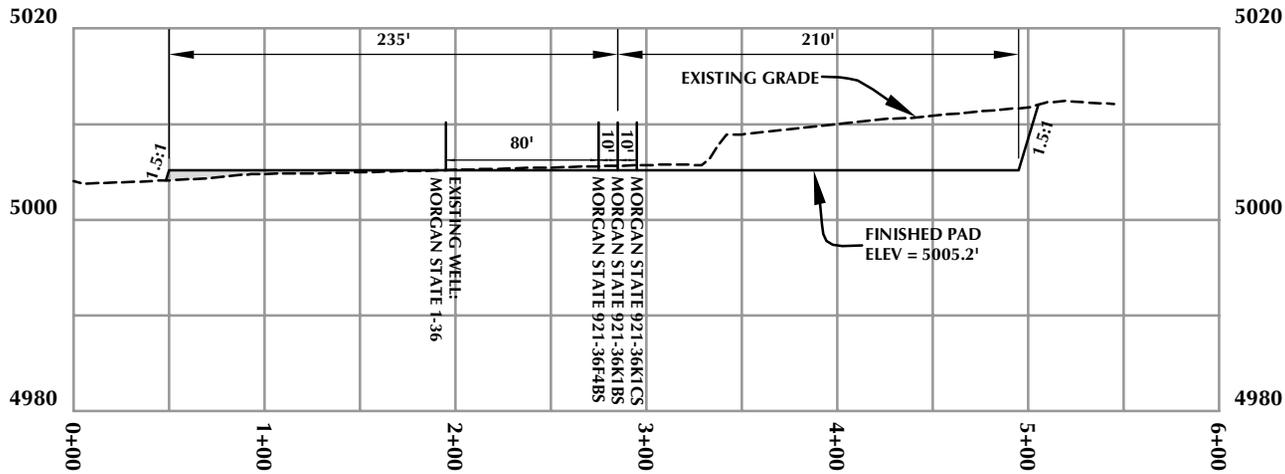
WELL PAD LEGEND

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

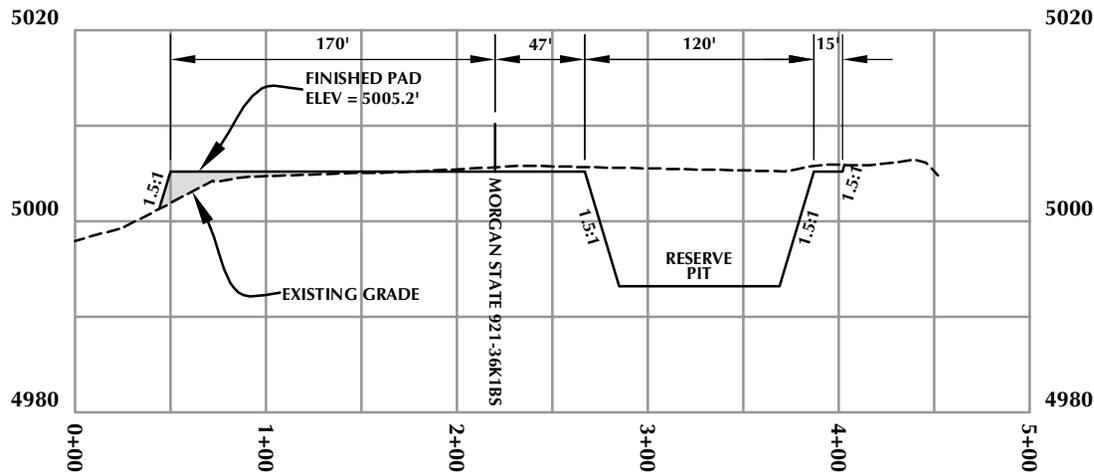


SCALE: 1"=60' DATE: 11/15/11 SHEET NO:
 REVISED: **5B** 5B OF 15

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CROSS SECTION A-A'



CROSS SECTION B-B'

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WELL PAD - MORGAN STATE 921-36F3

**WELL PAD - CROSS SECTIONS
MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS &
MORGAN STATE 921-36K1CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UTAH COUNTY, UTAH**



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Scale: 1"=100'

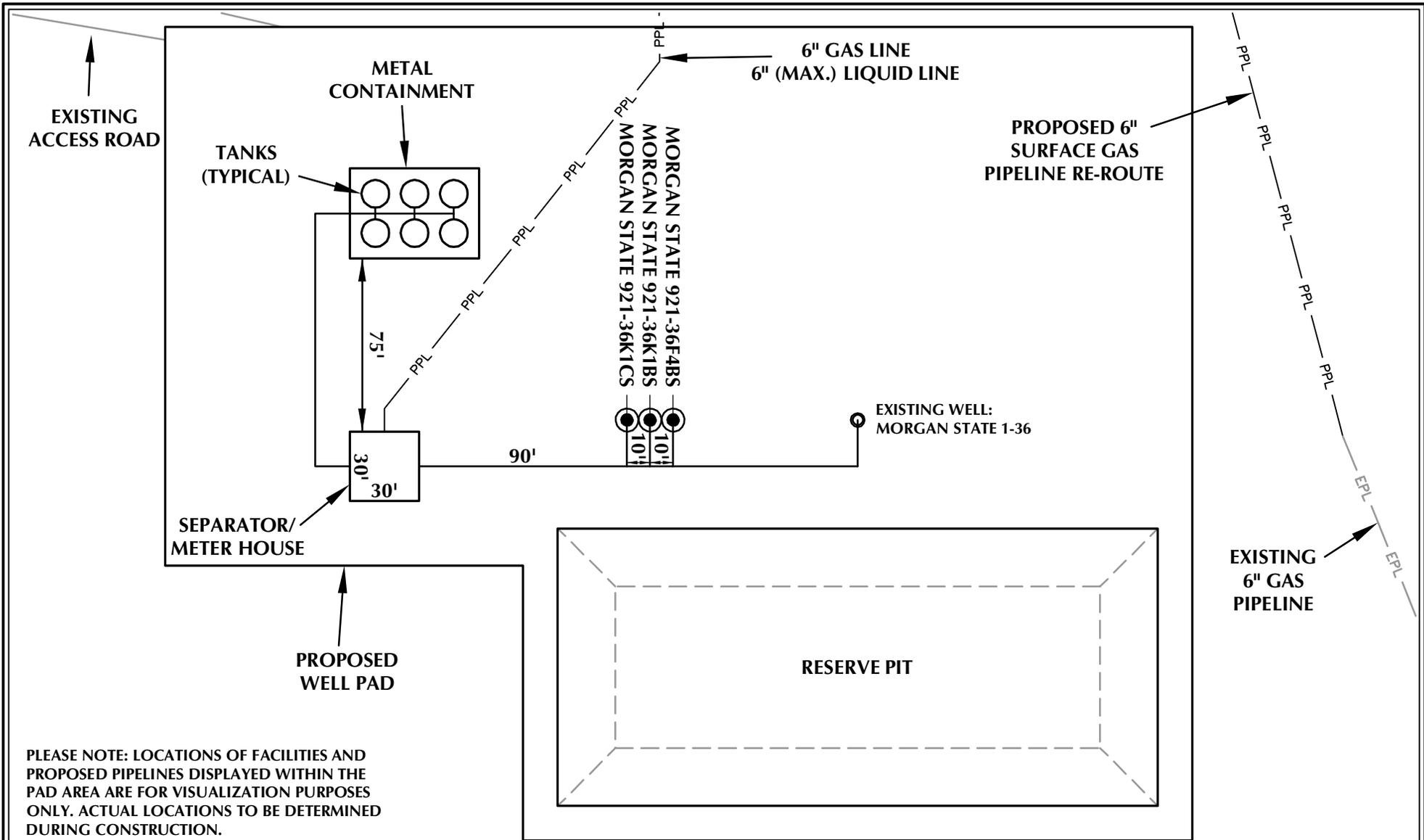
Date: 11/11/11

SHEET NO:

REVISED:

6

6 OF 15



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

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WELL PAD - MORGAN STATE 921-36F3

WELL PAD - FACILITIES DIAGRAM
MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS &
MORGAN STATE 921-36K1CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UTAH COUNTY, UTAH



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WELL PAD LEGEND

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



HORIZONTAL 1" = 60'

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Scale: 1"=60' Date: 11/11/11
REVISED:

SHEET NO:
7
7 OF 15

K:\MADRID\2011\11\011_65_NBU_FOCUS_921-36\MORGAN STATE 921-36F3.dwg, 11/15/2011 11:14:19 AM, .ndy

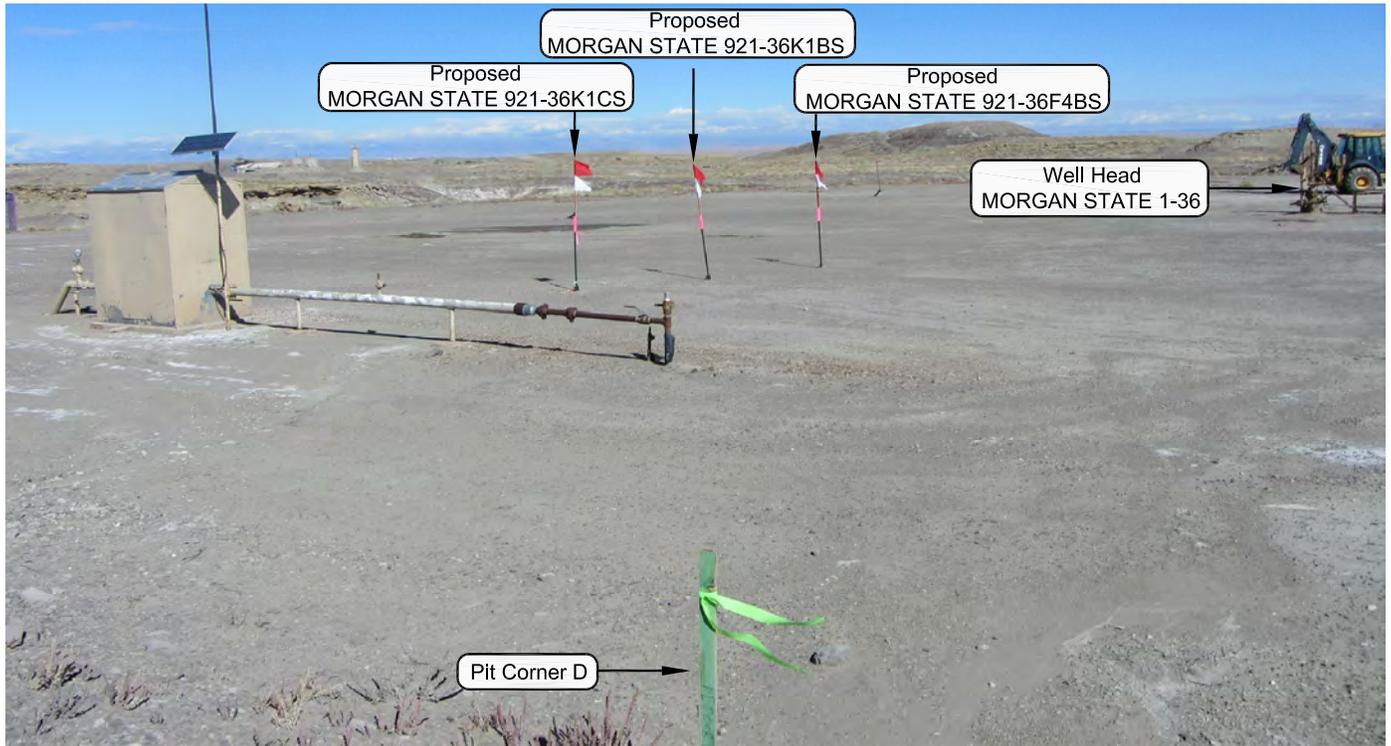


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHEASTERLY

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WELL PAD - MORGAN STATE 921-36F3

LOCATION PHOTOS
MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS &
MORGAN STATE 921-36K1CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



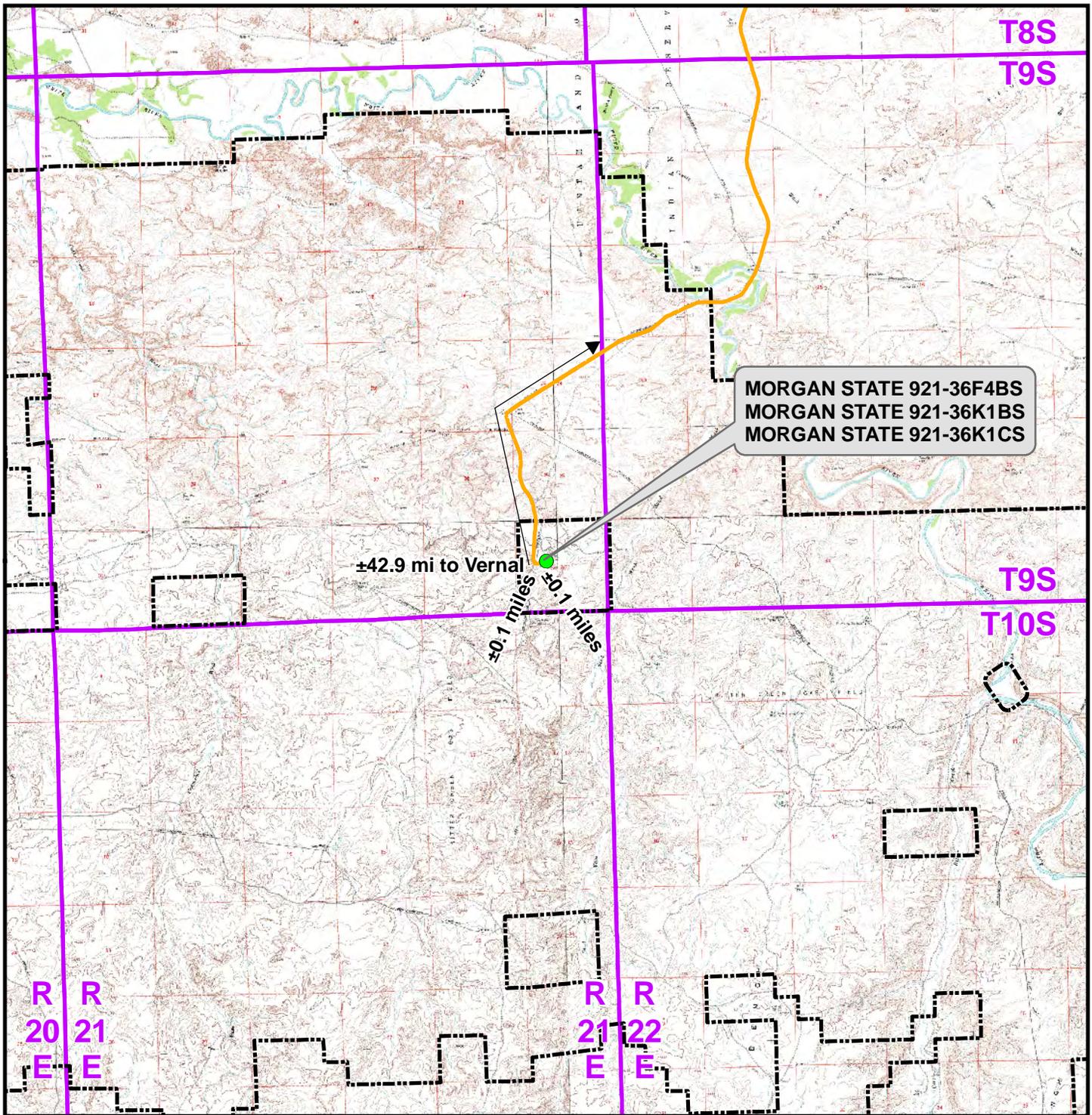
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 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 10-11-11	PHOTOS TAKEN BY: J.W.	SHEET NO: 8 8 OF 15
DATE DRAWN: 10-29-11	DRAWN BY: C.T.C.	
Date Last Revised:		



Legend

Distance From Well Pad - MORGAN STATE 921-36F3 To Unit Boundary: ±1,807ft

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

WELL PAD - MORGAN STATE 921-36F3

TOPO A
MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS &
MORGAN STATE 921-36K1CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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SCALE: 1:100,000

NAD83 USP Central

SHEET NO:

DRAWN: TL

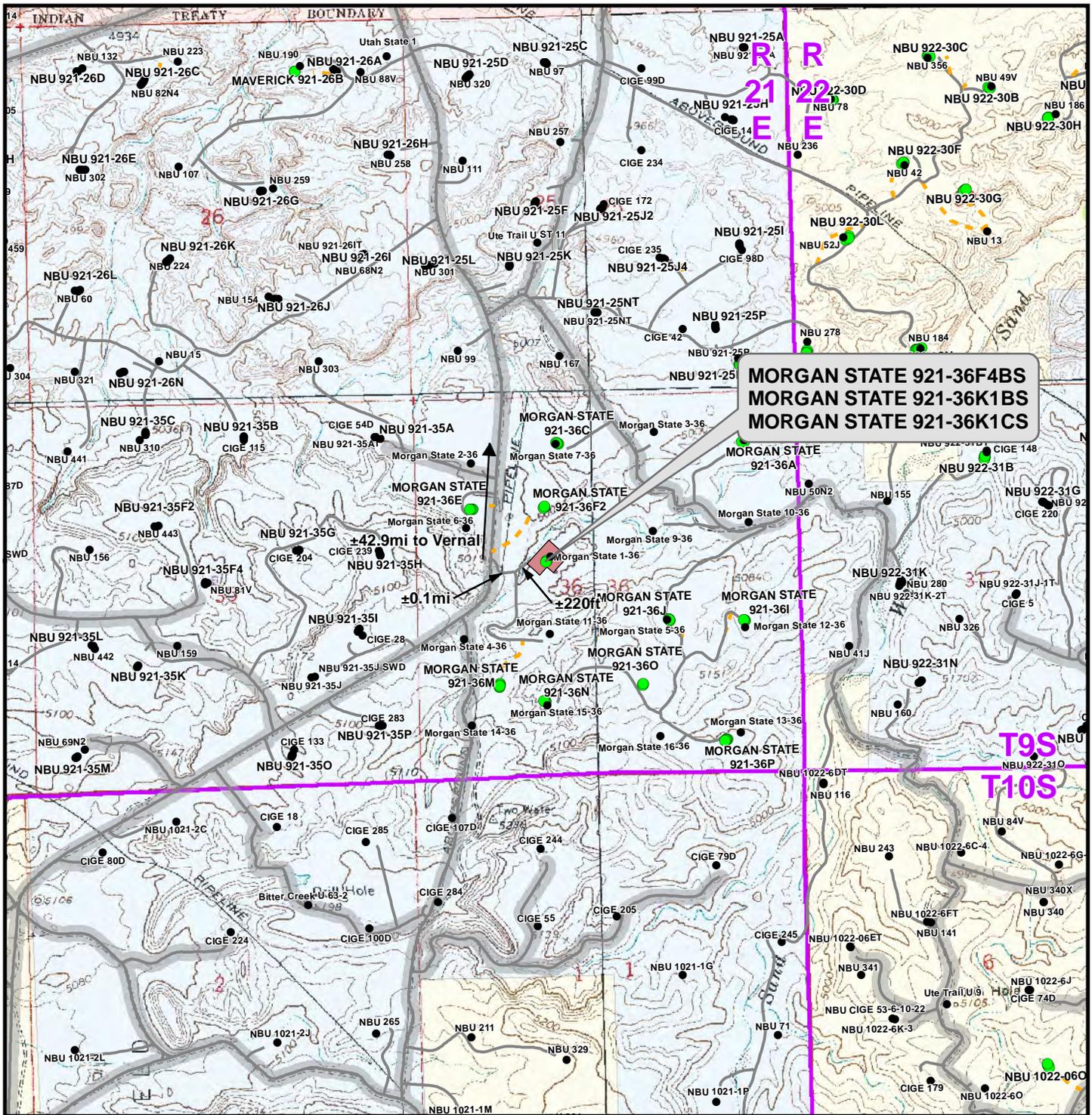
DATE: 11 Nov 2011

9

REVISED:

DATE:

9 OF 15



**MORGAN STATE 921-36F4BS
MORGAN STATE 921-36K1BS
MORGAN STATE 921-36K1CS**

±42.9mi to Vernal
±0.1mi

Legend

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

Total Proposed Road Length: ±0ft

WELL PAD - MORGAN STATE 921-36F3

**TOPO B
MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS &
MORGAN STATE 921-36K1CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH**

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

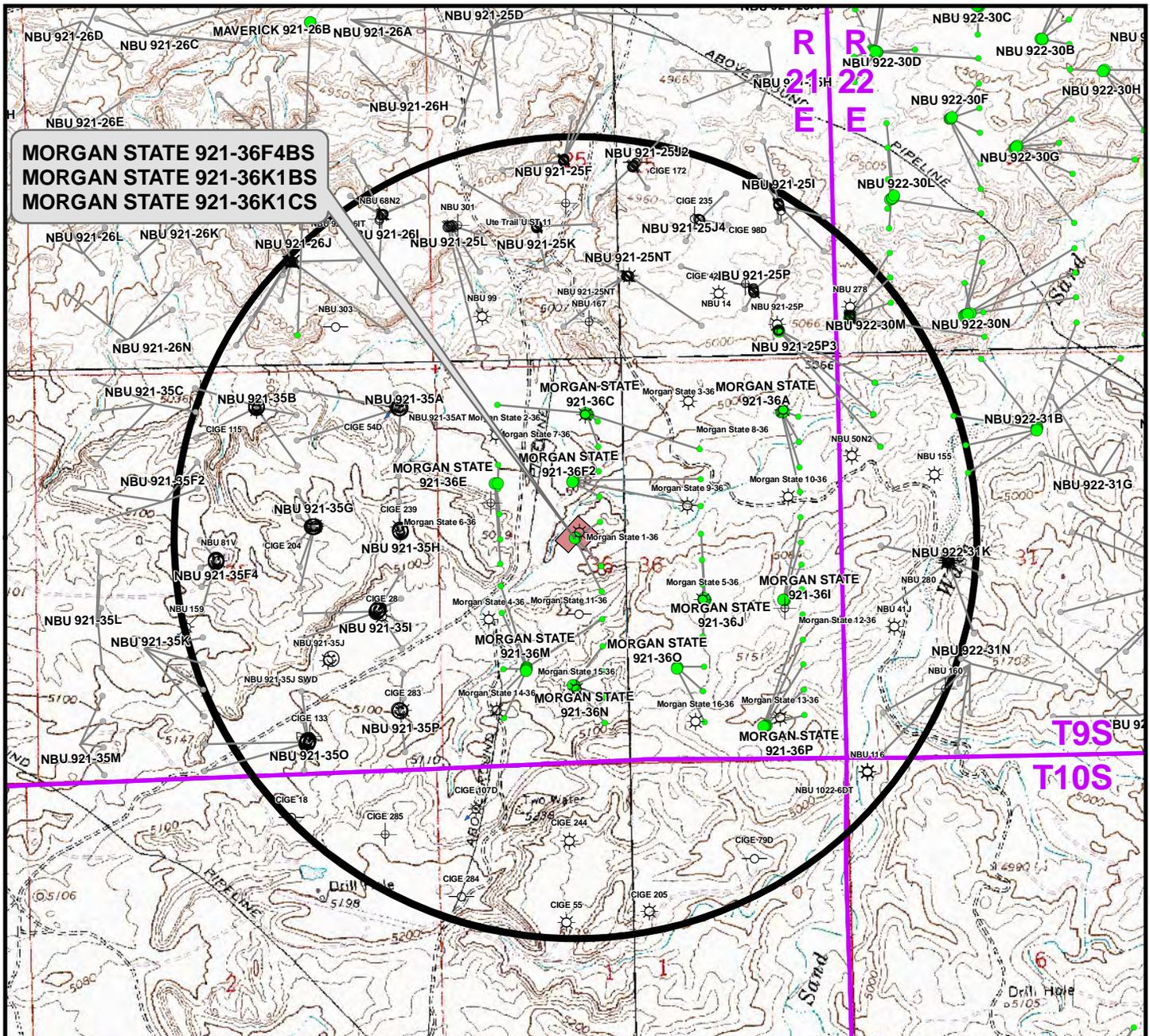
1099 18th Street
Denver, Colorado 80202

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Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	10
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	

SHEET NO:
10 OF 15



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
MORGAN STATE 921-36F4BS	Morgan State 1-36	301ft
MORGAN STATE 921-36K1BS	Morgan State 1-36	521ft
MORGAN STATE 921-36K1CS	Morgan State 11-36	418ft

Legend

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

WELL PAD - MORGAN STATE 921-36F3

TOPO C
 MORGAN STATE 921-36F4BS,
 MORGAN STATE 921-36K1BS &
 MORGAN STATE 921-36K1CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., Uintah County, Utah

Kerr-McGee Oil & Gas Onshore L.P.

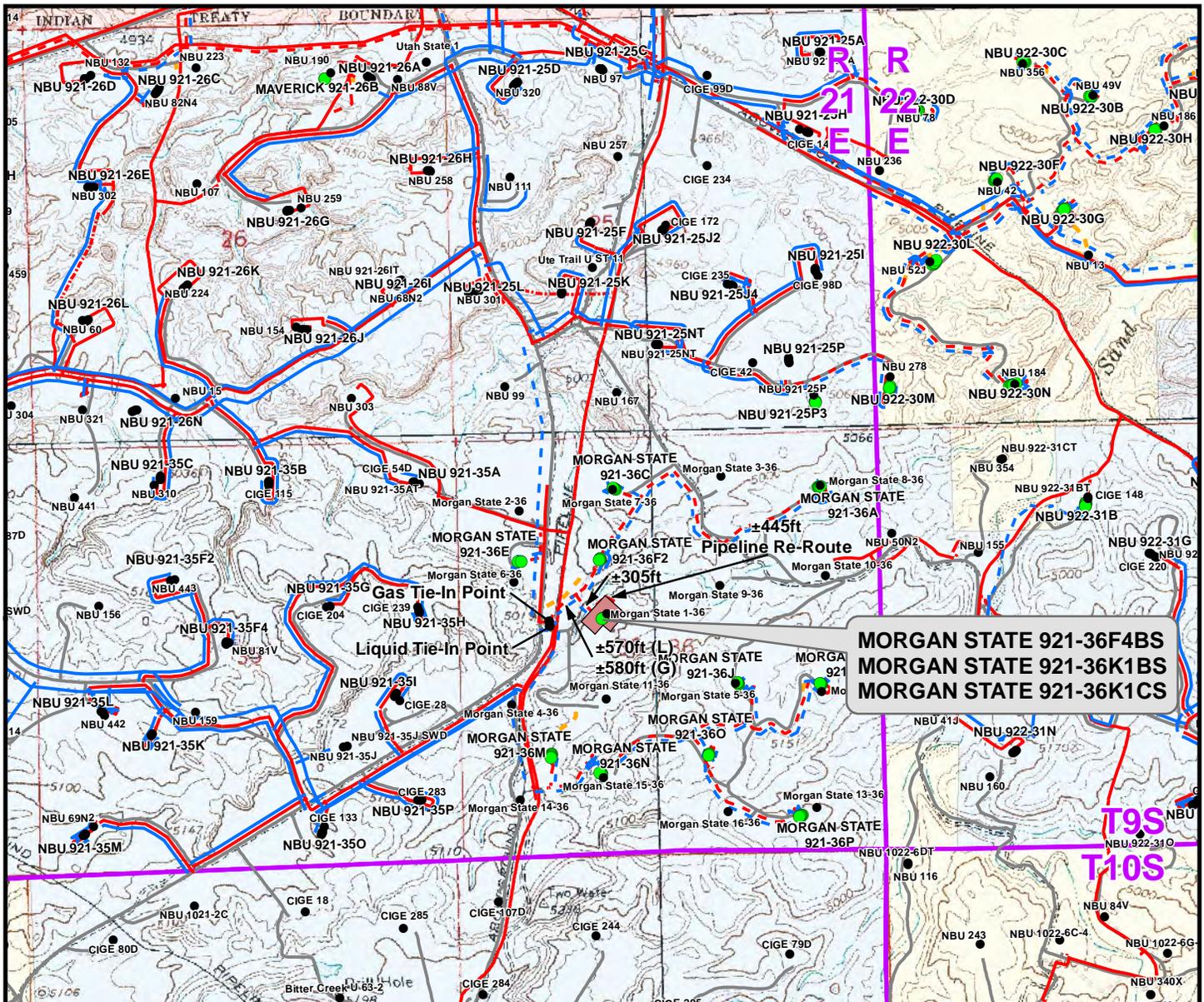
1099 18th Street
 Denver, Colorado 80202

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N

SCALE: 1" = 2,000ft	NAD83 USP Central	11
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	

SHEET NO:
11 OF 15



**MORGAN STATE 921-36F4BS
MORGAN STATE 921-36K1BS
MORGAN STATE 921-36K1CS**

Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
----- Buried 6" (Max.) (Meter House to Edge of Pad)	±230ft	----- Buried 6" (Meter House to Edge of Pad)	±230ft
----- Buried 6" (Max.) (Edge of Pad to 36F2 Intersection)	±305ft	----- Buried 6" (Edge of Pad to 36F2 Intersection)	±305ft
----- Buried 6" (Max.) (36F2 Intersection to Proposed Liquid Pipeline ROW In Progress)	±570ft	----- Buried 10" (36F2 Intersection to Existing Buried 16" Gas Pipeline)	±580ft
		----- Surface 6" (Proposed Pipeline Re-Route)	±445ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±1,105ft	TOTAL PROPOSED BURIED GAS PIPELINE =	±1,115ft
		TOTAL PROPOSED SURFACE GAS PIPELINE =	±445ft

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 - MORGAN STATE 921-36F3

**TOPO D
MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS &
MORGAN STATE 921-36K1CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH**

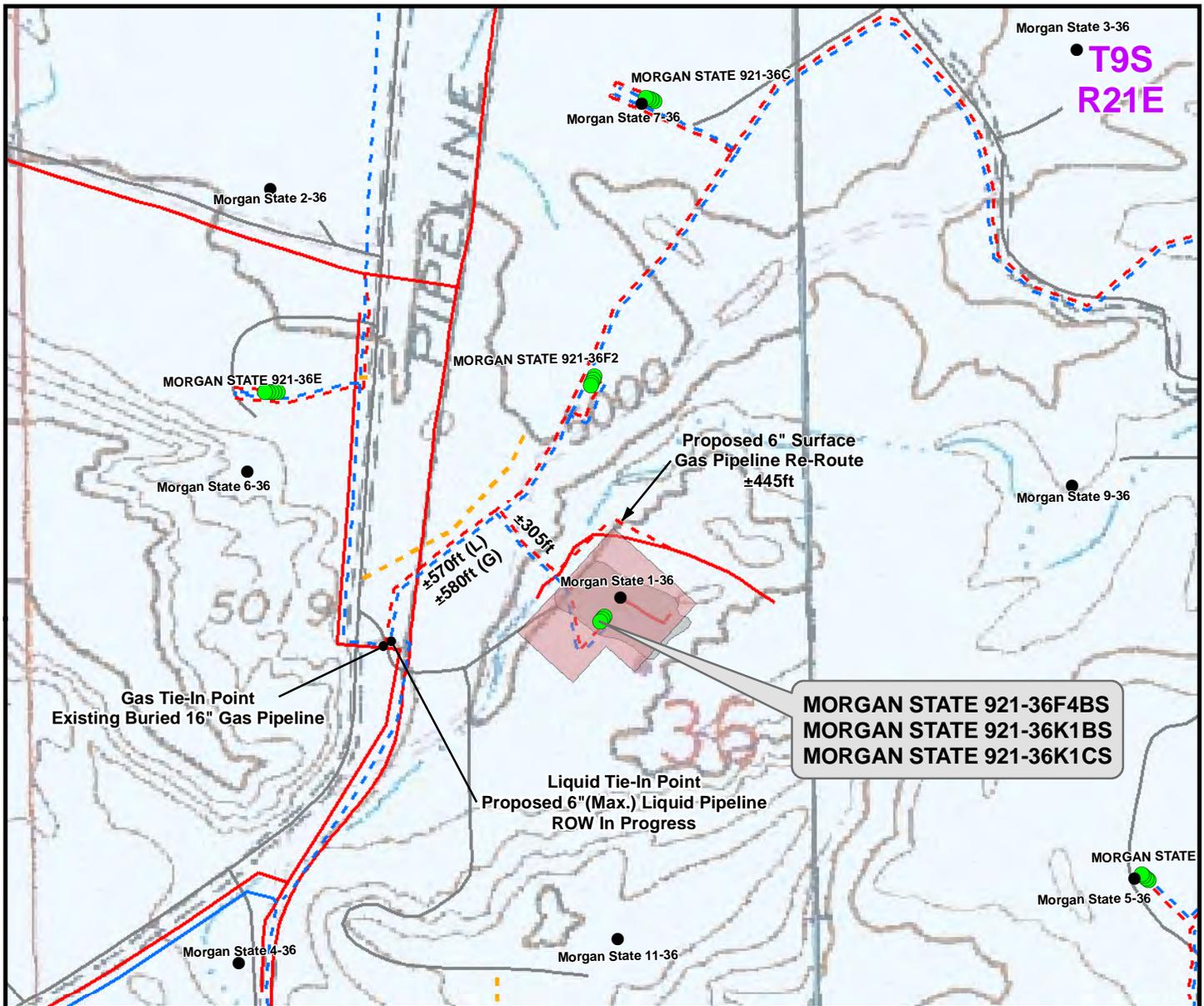
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Denver, Colorado 80202**

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Phone 307-674-0609
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SCALE: 1" = 2,000ft	NAD83 USP Central	12
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	

SHEET NO:
12 OF 15



**MORGAN STATE 921-36F4BS
MORGAN STATE 921-36K1BS
MORGAN STATE 921-36K1CS**

Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Meter House to Edge of Pad)	±230ft
Buried 6" (Max.) (Edge of Pad to 36F2 Intersection)	±305ft
Buried 6" (Max.) (36F2 Intersection to Proposed Liquid Pipeline ROW In Progress)	±570ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±1,105ft

Proposed Gas Pipeline	Length
Buried 6" (Meter House to Edge of Pad)	±230ft
Buried 6" (Edge of Pad to 36F2 Intersection)	±305ft
Buried 10" (36F2 Intersection to Existing Buried 16" Gas Pipeline)	±580ft
Surface 6" (Proposed Pipeline Re-Route)	±445ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±1,115ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±445ft

Legend

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

WELL PAD - MORGAN STATE 921-36F3

**TOPO D2 (PAD & PIPELINE DETAIL)
MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS &
MORGAN STATE 921-36K1CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH**

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

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Denver, Colorado 80202**



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Fax 307-674-0182



SCALE: 1" = 500ft

NAD83 USP Central

SHEET NO:

DRAWN: TL

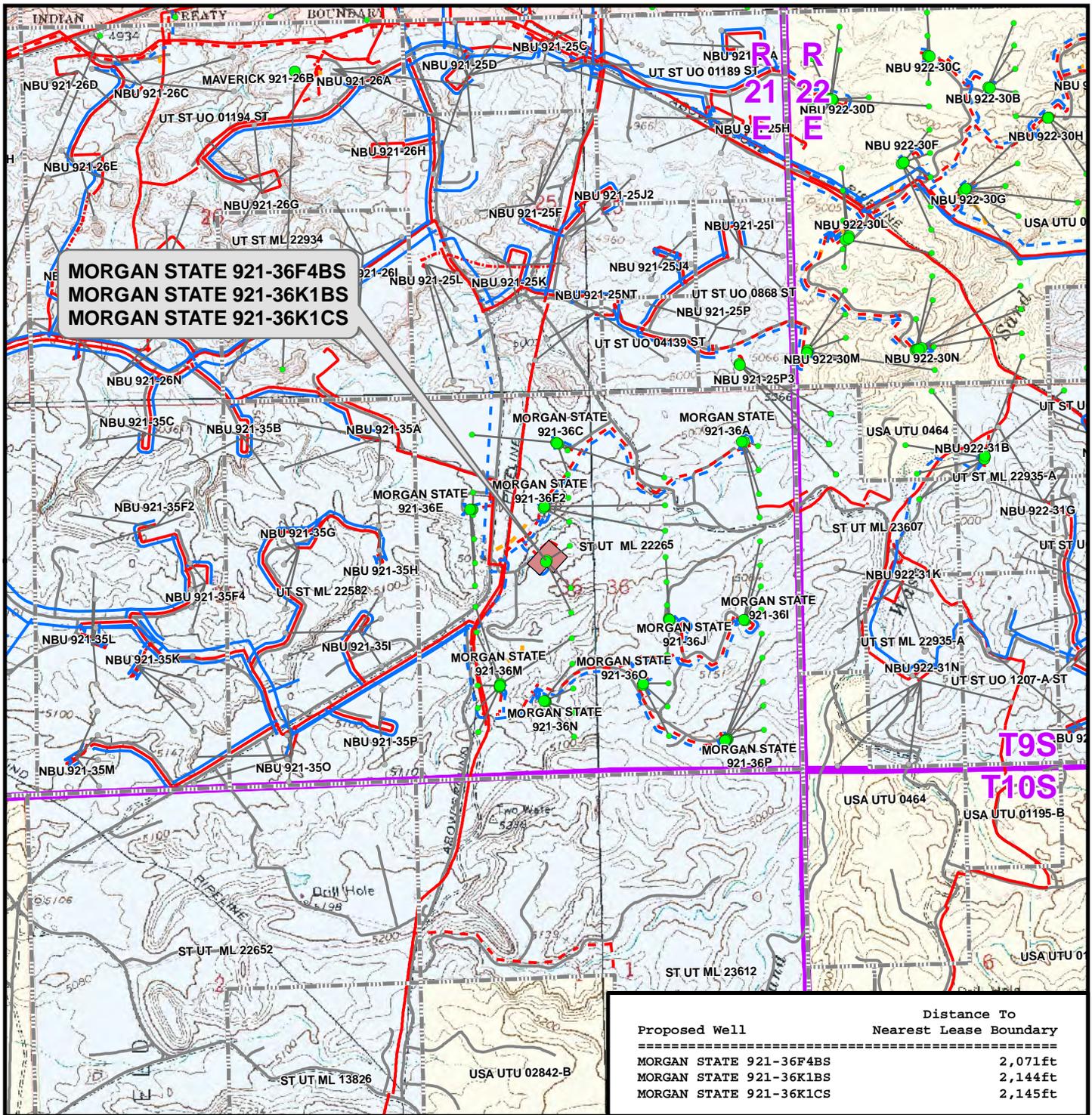
DATE: 11 Nov 2011

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REVISED:

DATE:

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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 - MORGAN STATE 921-36F3

TOPO E
 MORGAN STATE 921-36F4BS,
 MORGAN STATE 921-36K1BS &
 MORGAN STATE 921-36K1CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

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SCALE: 1" = 2,000ft

DRAWN: TL

REVISED:

NAD83 USP Central

DATE: 11 Nov 2011

DATE:

SHEET NO:

14

14 OF 15

**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – MORGAN STATE 921-36F3
WELLS – MORGAN STATE 921-36F4BS,
MORGAN STATE 921-36K1BS & MORGAN STATE 921-36K1CS
Section 36, 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 19.4 miles to a service road to the southeast. Exit left proceeding in a southeasterly direction along the service road approximately 0.1 miles to a second service road to the northeast. Exit left and proceed in a northeasterly direction along the second service road approximately 220 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.0 miles in a southerly direction.



WELL DETAILS: MORGAN STATE 921-36F4BS

GL 5005 & KB 4 @ 5009.00ft (ASSUMED)

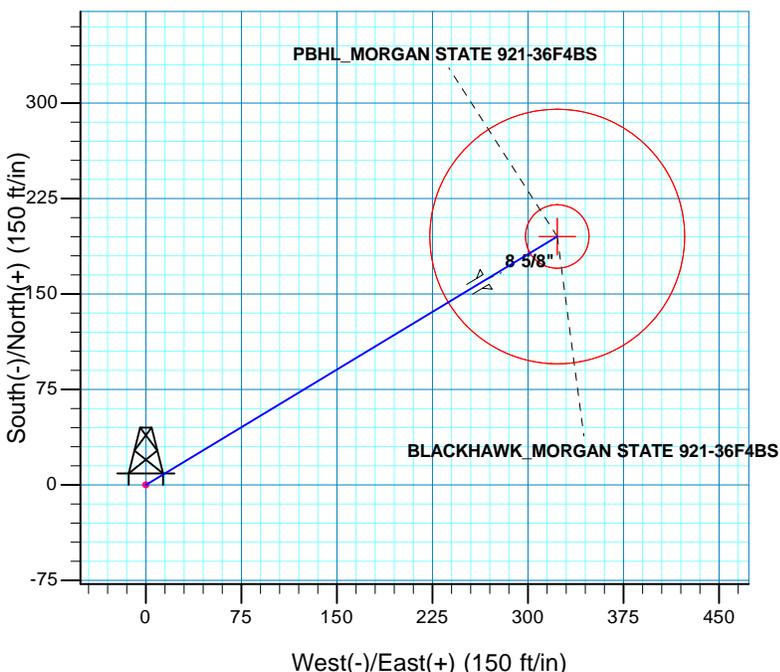
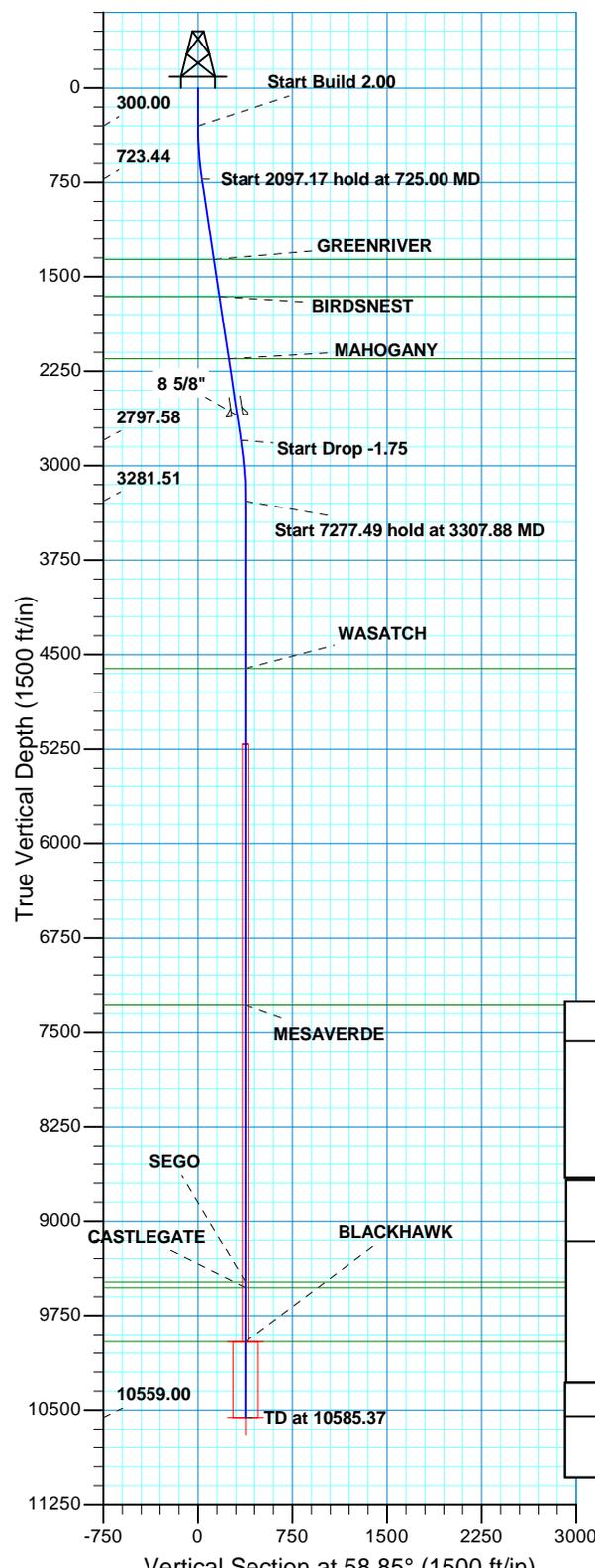
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14527221.75	2059910.07	39° 59' 36.798 N	109° 30' 8.251 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BLACKHAWK	9959.00	195.22	323.00	14527422.37	2060229.75	39° 59' 38.728 N	109° 30' 4.100 W	Circle (Radius: 25.00)
- plan hits target center								
PBHL	10559.00	195.22	323.00	14527422.37	2060229.75	39° 59' 38.728 N	109° 30' 4.100 W	Circle (Radius: 100.00)
- plan hits target center								

Azimuths to True North
 Magnetic North: 11.02°

 Magnetic Field
 Strength: 52279.2snT
 Dip Angle: 65.85°
 Date: 2011/11/30
 Model: IGRF2010



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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
725.00	8.50	58.85	723.44	16.28	26.93	2.00	58.85	31.47	
2822.17	8.50	58.85	2797.58	176.62	292.22	0.00	0.00	341.45	
3307.88	0.00	0.00	3281.51	195.22	323.00	1.75	180.00	377.41	
10585.37	0.00	0.00	10559.00	195.22	323.00	0.00	0.00	377.41	PBHL_MORGAN STATE 921-36F4BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N		FORMATION TOP DETAILS		
Geodetic System:	Universal Transverse Mercator (US Survey Feet)	TVDPath	MDPath	Formation
Datum:	NAD 1927 (NADCON CONUS)	1363.00	1371.66	GREENRIVER
Ellipsoid:	Clarke 1866	1658.00	1669.94	BIRDSNEST
Zone:	Zone 12N (114 W to 108 W)	2152.00	2169.42	MAHOGANY
Location:	SECTION T9S R21E	4610.00	4636.37	WASATCH
System Datum:	Mean Sea Level	7285.00	7311.37	MESAVERDE
		9484.00	9510.37	SEGO
		9529.00	9555.37	CASTLEGATE
		9959.00	9985.37	BLACKHAWK

CASING DETAILS			
TVD	MD	Name	Size
2602.00	2624.42	8 5/8"	8.625

RECEIVED :



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

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

MORGAN STATE 921-36F3 PAD

MORGAN STATE 921-36F4BS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

30 November, 2011





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36F4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Site:	MORGAN STATE 921-36F3 PAD	North Reference:	True
Well:	MORGAN STATE 921-36F4BS	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	MORGAN STATE 921-36F3 PAD, SECTION T9S R21E				
Site Position:	Northing:	14,527,221.76 usft	Latitude:	39° 59' 36.798 N	
From: Lat/Long	Easting:	2,059,910.07 usft	Longitude:	109° 30' 8.251 W	
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.96 °

Well	MORGAN STATE 921-36F4BS, 2266 FNL 1820 FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,527,221.76 usft	Latitude:	39° 59' 36.798 N
	+E/-W	0.00 ft	Easting:	2,059,910.07 usft	Longitude:	109° 30' 8.251 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,005.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/11/30	11.02	65.85	52,279

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	58.85

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
725.00	8.50	58.85	723.44	16.28	26.93	2.00	2.00	0.00	58.85	
2,822.17	8.50	58.85	2,797.58	176.62	292.22	0.00	0.00	0.00	0.00	
3,307.89	0.00	0.00	3,281.51	195.22	323.00	1.75	-1.75	0.00	180.00	
10,585.37	0.00	0.00	10,559.00	195.22	323.00	0.00	0.00	0.00	0.00	PBHL_MORGAN ST/



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36F4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Site:	MORGAN STATE 921-36F3 PAD	North Reference:	True
Well:	MORGAN STATE 921-36F4BS	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
Start Build 2.00										
400.00	2.00	58.85	399.98	0.90	1.49	1.75	2.00	2.00	2.00	0.00
500.00	4.00	58.85	499.84	3.61	5.97	6.98	2.00	2.00	2.00	0.00
600.00	6.00	58.85	599.45	8.12	13.43	15.69	2.00	2.00	2.00	0.00
700.00	8.00	58.85	698.70	14.42	23.86	27.88	2.00	2.00	2.00	0.00
725.00	8.50	58.85	723.44	16.28	26.93	31.47	2.00	2.00	2.00	0.00
Start 2097.17 hold at 725.00 MD										
800.00	8.50	58.85	797.62	22.01	36.42	42.55	0.00	0.00	0.00	0.00
900.00	8.50	58.85	896.52	29.66	49.07	57.33	0.00	0.00	0.00	0.00
1,000.00	8.50	58.85	995.42	37.30	61.72	72.11	0.00	0.00	0.00	0.00
1,100.00	8.50	58.85	1,094.32	44.95	74.37	86.90	0.00	0.00	0.00	0.00
1,200.00	8.50	58.85	1,193.23	52.59	87.02	101.68	0.00	0.00	0.00	0.00
1,300.00	8.50	58.85	1,292.13	60.24	99.67	116.46	0.00	0.00	0.00	0.00
1,371.66	8.50	58.85	1,363.00	65.72	108.73	127.05	0.00	0.00	0.00	0.00
GREENRIVER										
1,400.00	8.50	58.85	1,391.03	67.88	112.32	131.24	0.00	0.00	0.00	0.00
1,500.00	8.50	58.85	1,489.93	75.53	124.97	146.02	0.00	0.00	0.00	0.00
1,600.00	8.50	58.85	1,588.83	83.17	137.62	160.80	0.00	0.00	0.00	0.00
1,669.94	8.50	58.85	1,658.00	88.52	146.47	171.14	0.00	0.00	0.00	0.00
BIRDSNEST										
1,700.00	8.50	58.85	1,687.73	90.82	150.27	175.58	0.00	0.00	0.00	0.00
1,800.00	8.50	58.85	1,786.63	98.47	162.92	190.36	0.00	0.00	0.00	0.00
1,900.00	8.50	58.85	1,885.54	106.11	175.57	205.14	0.00	0.00	0.00	0.00
2,000.00	8.50	58.85	1,984.44	113.76	188.22	219.92	0.00	0.00	0.00	0.00
2,100.00	8.50	58.85	2,083.34	121.40	200.87	234.71	0.00	0.00	0.00	0.00
2,169.42	8.50	58.85	2,152.00	126.71	209.65	244.97	0.00	0.00	0.00	0.00
MAHOGANY										
2,200.00	8.50	58.85	2,182.24	129.05	213.52	249.49	0.00	0.00	0.00	0.00
2,300.00	8.50	58.85	2,281.14	136.69	226.17	264.27	0.00	0.00	0.00	0.00
2,400.00	8.50	58.85	2,380.04	144.34	238.82	279.05	0.00	0.00	0.00	0.00
2,500.00	8.50	58.85	2,478.95	151.98	251.47	293.83	0.00	0.00	0.00	0.00
2,600.00	8.50	58.85	2,577.85	159.63	264.12	308.61	0.00	0.00	0.00	0.00
2,624.42	8.50	58.85	2,602.00	161.50	267.21	312.22	0.00	0.00	0.00	0.00
8 5/8"										
2,700.00	8.50	58.85	2,676.75	167.27	276.77	323.39	0.00	0.00	0.00	0.00
2,800.00	8.50	58.85	2,775.65	174.92	289.42	338.17	0.00	0.00	0.00	0.00
2,822.17	8.50	58.85	2,797.58	176.62	292.22	341.45	0.00	0.00	0.00	0.00
Start Drop -1.75										
2,900.00	7.14	58.85	2,874.68	182.09	301.28	352.04	1.75	-1.75	0.00	0.00
3,000.00	5.39	58.85	2,974.08	187.73	310.62	362.95	1.75	-1.75	0.00	0.00
3,100.00	3.64	58.85	3,073.77	191.80	317.35	370.81	1.75	-1.75	0.00	0.00
3,200.00	1.89	58.85	3,173.65	194.30	321.48	375.63	1.75	-1.75	0.00	0.00
3,300.00	0.14	58.85	3,273.63	195.21	322.99	377.40	1.75	-1.75	0.00	0.00
3,307.89	0.00	0.00	3,281.51	195.22	323.00	377.41	1.75	-1.75	0.00	0.00
Start 7277.49 hold at 3307.88 MD										
3,400.00	0.00	0.00	3,373.63	195.22	323.00	377.41	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,473.63	195.22	323.00	377.41	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,573.63	195.22	323.00	377.41	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,673.63	195.22	323.00	377.41	0.00	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36F4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Site:	MORGAN STATE 921-36F3 PAD	North Reference:	True
Well:	MORGAN STATE 921-36F4BS	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)
3,800.00	0.00	0.00	3,773.63	195.22	323.00	377.41	0.00	0.00	0.00
3,900.00	0.00	0.00	3,873.63	195.22	323.00	377.41	0.00	0.00	0.00
4,000.00	0.00	0.00	3,973.63	195.22	323.00	377.41	0.00	0.00	0.00
4,100.00	0.00	0.00	4,073.63	195.22	323.00	377.41	0.00	0.00	0.00
4,200.00	0.00	0.00	4,173.63	195.22	323.00	377.41	0.00	0.00	0.00
4,300.00	0.00	0.00	4,273.63	195.22	323.00	377.41	0.00	0.00	0.00
4,400.00	0.00	0.00	4,373.63	195.22	323.00	377.41	0.00	0.00	0.00
4,500.00	0.00	0.00	4,473.63	195.22	323.00	377.41	0.00	0.00	0.00
4,600.00	0.00	0.00	4,573.63	195.22	323.00	377.41	0.00	0.00	0.00
4,636.37	0.00	0.00	4,610.00	195.22	323.00	377.41	0.00	0.00	0.00
WASATCH									
4,700.00	0.00	0.00	4,673.63	195.22	323.00	377.41	0.00	0.00	0.00
4,800.00	0.00	0.00	4,773.63	195.22	323.00	377.41	0.00	0.00	0.00
4,900.00	0.00	0.00	4,873.63	195.22	323.00	377.41	0.00	0.00	0.00
5,000.00	0.00	0.00	4,973.63	195.22	323.00	377.41	0.00	0.00	0.00
5,100.00	0.00	0.00	5,073.63	195.22	323.00	377.41	0.00	0.00	0.00
5,200.00	0.00	0.00	5,173.63	195.22	323.00	377.41	0.00	0.00	0.00
5,300.00	0.00	0.00	5,273.63	195.22	323.00	377.41	0.00	0.00	0.00
5,400.00	0.00	0.00	5,373.63	195.22	323.00	377.41	0.00	0.00	0.00
5,500.00	0.00	0.00	5,473.63	195.22	323.00	377.41	0.00	0.00	0.00
5,600.00	0.00	0.00	5,573.63	195.22	323.00	377.41	0.00	0.00	0.00
5,700.00	0.00	0.00	5,673.63	195.22	323.00	377.41	0.00	0.00	0.00
5,800.00	0.00	0.00	5,773.63	195.22	323.00	377.41	0.00	0.00	0.00
5,900.00	0.00	0.00	5,873.63	195.22	323.00	377.41	0.00	0.00	0.00
6,000.00	0.00	0.00	5,973.63	195.22	323.00	377.41	0.00	0.00	0.00
6,100.00	0.00	0.00	6,073.63	195.22	323.00	377.41	0.00	0.00	0.00
6,200.00	0.00	0.00	6,173.63	195.22	323.00	377.41	0.00	0.00	0.00
6,300.00	0.00	0.00	6,273.63	195.22	323.00	377.41	0.00	0.00	0.00
6,400.00	0.00	0.00	6,373.63	195.22	323.00	377.41	0.00	0.00	0.00
6,500.00	0.00	0.00	6,473.63	195.22	323.00	377.41	0.00	0.00	0.00
6,600.00	0.00	0.00	6,573.63	195.22	323.00	377.41	0.00	0.00	0.00
6,700.00	0.00	0.00	6,673.63	195.22	323.00	377.41	0.00	0.00	0.00
6,800.00	0.00	0.00	6,773.63	195.22	323.00	377.41	0.00	0.00	0.00
6,900.00	0.00	0.00	6,873.63	195.22	323.00	377.41	0.00	0.00	0.00
7,000.00	0.00	0.00	6,973.63	195.22	323.00	377.41	0.00	0.00	0.00
7,100.00	0.00	0.00	7,073.63	195.22	323.00	377.41	0.00	0.00	0.00
7,200.00	0.00	0.00	7,173.63	195.22	323.00	377.41	0.00	0.00	0.00
7,300.00	0.00	0.00	7,273.63	195.22	323.00	377.41	0.00	0.00	0.00
7,311.37	0.00	0.00	7,285.00	195.22	323.00	377.41	0.00	0.00	0.00
MESAVERDE									
7,400.00	0.00	0.00	7,373.63	195.22	323.00	377.41	0.00	0.00	0.00
7,500.00	0.00	0.00	7,473.63	195.22	323.00	377.41	0.00	0.00	0.00
7,600.00	0.00	0.00	7,573.63	195.22	323.00	377.41	0.00	0.00	0.00
7,700.00	0.00	0.00	7,673.63	195.22	323.00	377.41	0.00	0.00	0.00
7,800.00	0.00	0.00	7,773.63	195.22	323.00	377.41	0.00	0.00	0.00
7,900.00	0.00	0.00	7,873.63	195.22	323.00	377.41	0.00	0.00	0.00
8,000.00	0.00	0.00	7,973.63	195.22	323.00	377.41	0.00	0.00	0.00
8,100.00	0.00	0.00	8,073.63	195.22	323.00	377.41	0.00	0.00	0.00
8,200.00	0.00	0.00	8,173.63	195.22	323.00	377.41	0.00	0.00	0.00
8,300.00	0.00	0.00	8,273.63	195.22	323.00	377.41	0.00	0.00	0.00
8,400.00	0.00	0.00	8,373.63	195.22	323.00	377.41	0.00	0.00	0.00
8,500.00	0.00	0.00	8,473.63	195.22	323.00	377.41	0.00	0.00	0.00
8,600.00	0.00	0.00	8,573.63	195.22	323.00	377.41	0.00	0.00	0.00
8,700.00	0.00	0.00	8,673.63	195.22	323.00	377.41	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36F4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Site:	MORGAN STATE 921-36F3 PAD	North Reference:	True
Well:	MORGAN STATE 921-36F4BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,800.00	0.00	0.00	8,773.63	195.22	323.00	377.41	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,873.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,973.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,073.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,173.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,273.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,373.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,473.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,510.37	0.00	0.00	9,484.00	195.22	323.00	377.41	0.00	0.00	0.00	
SEGO										
9,555.37	0.00	0.00	9,529.00	195.22	323.00	377.41	0.00	0.00	0.00	
CASTLEGATE										
9,600.00	0.00	0.00	9,573.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,673.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,773.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,873.63	195.22	323.00	377.41	0.00	0.00	0.00	
9,985.37	0.00	0.00	9,959.00	195.22	323.00	377.41	0.00	0.00	0.00	
BLACKHAWK - BLACKHAWK_MORGAN STATE 921-36F4BS										
10,000.00	0.00	0.00	9,973.63	195.22	323.00	377.41	0.00	0.00	0.00	
10,100.00	0.00	0.00	10,073.63	195.22	323.00	377.41	0.00	0.00	0.00	
10,200.00	0.00	0.00	10,173.63	195.22	323.00	377.41	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,273.63	195.22	323.00	377.41	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,373.63	195.22	323.00	377.41	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,473.63	195.22	323.00	377.41	0.00	0.00	0.00	
10,585.37	0.00	0.00	10,559.00	195.22	323.00	377.41	0.00	0.00	0.00	
PBHL_MORGAN STATE 921-36F4BS										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BLACKHAWK_MORGAI - hit/miss target - Shape - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,959.00	195.22	323.00	14,527,422.37	2,060,229.74	39° 59' 38.728 N	109° 30' 4.100 W	
PBHL_MORGAN STATE - plan hits target center - Circle (radius 100.00)	0.00	0.00	10,559.00	195.22	323.00	14,527,422.37	2,060,229.74	39° 59' 38.728 N	109° 30' 4.100 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,624.42	2,602.00	8 5/8"	8.625	11.000		



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36F4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5005 & KB 4 @ 5009.00ft (ASSUMED)
Site:	MORGAN STATE 921-36F3 PAD	North Reference:	True
Well:	MORGAN STATE 921-36F4BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,371.66	1,359.00	GREENRIVER				
1,669.94	1,654.00	BIRDSNEST				
2,169.42	2,148.00	MAHOGANY				
4,636.37	4,606.00	WASATCH				
7,311.37	7,281.00	MESAVERDE				
9,510.37	9,480.00	SEGO				
9,555.37	9,525.00	CASTLEGATE				
9,985.37	9,955.00	BLACKHAWK				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
725.00	723.44	16.28	26.93	Start 2097.17 hold at 725.00 MD	
2,822.17	2,797.58	176.62	292.22	Start Drop -1.75	
3,307.89	3,281.51	195.22	323.00	Start 7277.49 hold at 3307.88 MD	
10,585.37	10,559.00	195.22	323.00	TD at 10585.37	

MORGAN STATE 921-36F4BS

Surface:	2266 FNL / 1820 FWL	SENW	Lot
BHL:	2071 FNL / 2144 FWL	SENW	Lot

MORGAN STATE 921-36K1BS

Surface:	2274 FNL / 1814 FWL	SENW	Lot
BHL:	2562 FSL / 2144 FWL	NESW	Lot

MORGAN STATE 921-36K1CS

Surface:	2281 FNL / 1807 FWL	SENW	Lot
BHL:	2224 FSL / 2145 FWL	NESW	Lot

Pad: MORGAN STATE 921-36F3 PAD

Section 36 T9S R21E
Mineral Lease: ML-22265

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

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

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

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

A. Existing Roads:

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

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

B. Planned Access Roads:

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

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

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

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the Morgan State 1-36. The Morgan State 1-36 well location is a vertical shut-in well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of December 7, 2011.

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

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

Gathering Facilities:

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

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,115'$ of buried gas pipeline and $\pm 445'$ of surface gas pipeline and the individual segments are broken up as follows:

- $\pm 230'$ (0.04 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 305'$ (0.1 miles) –New 6" buried gas pipeline from the edge of the pad to the 921-36F2 intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 580'$ (0.1 miles) –New 10" buried gas pipeline from the 921-36F2 intersection to the existing buried 16" gas pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 445'$ (0.1 miles) –6" surface gas pipeline re-route. Please refer to Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,105'$ and the individual segments are broken up as follows:

- $\pm 230'$ (0.04 miles) –New 6” buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 305'$ (0.1 miles) –New 6” buried liquid pipeline from the edge of the pad to the 921-36F2 intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 570'$ (0.1 miles) –New 6” buried liquid pipeline from the 921-36F2 intersection to the proposed liquid pipeline ROW in progress. Please refer to Topo D2 - Pad and Pipeline Detail.

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

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

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

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

D. Location and Type of Water Supply:

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

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

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

No water well is to be drilled on this lease.

E. Source of Construction Materials:

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

F. Methods for Handling Waste Materials:

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

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

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

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

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

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

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

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

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

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

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

Materials Management

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

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

G. Ancillary Facilities:

None are anticipated.

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

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

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

I. Plans for Reclamation of the Surface:

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

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

Interim Reclamation

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

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

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/

completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

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

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

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

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

Seeding and Measures Common to Interim and Final Reclamation

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

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

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

J. Surface/Mineral Ownership:

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

L. Other Information:

None

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

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

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



Danielle Piernot

December 19, 2011

Date



Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
DENVER, CO 80217-3779

December 14, 2011

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

Re: Directional Drilling R649-3-11
Morgan State 921-36F4BS
T9S-R21E
Section 36: SENW (Surface), SENW (Bottom Hole)
Surface: 2266' FNL, 1820' FWL
Bottom Hole: 2071' FNL, 2144' FWL
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink that reads 'Joe Matney'.

Joe Matney
Sr. Staff Landman

From: Jim Davis
To: APD APPROVAL
CC: Danielle Piernot; Julie Jacobson
Date: 2/23/2012 3:22 PM
Subject: APD Approval: the Kerr McGee Morgan State wells

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

4304752246 Morgan State 921-36G4BS
4304752253 Morgan State 921-36G4CS
4304752255 Morgan State 921-36J1CS
4304752256 Morgan State 921-36J4BS
4304752281 Morgan State 921-36F1BS
4304752282 Morgan State 921-36F1CS
4304752283 Morgan State 921-36G1BS
4304752284 Morgan State 921-36G1CS
4304752285 Morgan State 921-36F4BS
4304752286 Morgan State 921-36K1BS
4304752287 Morgan State 921-36K1CS
4304752247 Morgan State 921-36P1BS
4304752248 Morgan State 921-36P1CS
4304752249 Morgan State 921-36I4BS
4304752250 Morgan State 921-36I4CS
4304752252 Morgan State 921-36P4BS
4304752263 Morgan State 921-36K4CS
4304752264 Morgan State 921-36N1BS
4304752265 Morgan State 921-36N1CS
4304752266 Morgan State 921-36N4BS
4304752276 Morgan State 921-36D4CS
4304752277 Morgan State 921-36E1BS
4304752278 Morgan State 921-36E1CS
4304752279 Morgan State 921-36E4BS
4304752280 Morgan State 921-36E4CS
4304752245 Morgan State 921-36O4CS
4304752254 Morgan State 921-36O1CS
4304752267 Morgan State 921-36O1BS
4304752257 Morgan State 921-36K4BS
4304752258 Morgan State 921-36L1BS
4304752259 Morgan State 921-36L1CS
4304752260 Morgan State 921-36M1BS
4304752261 Morgan State 921-36M1CS
4304752262 Morgan State 921-36M4BS
4304752272 Morgan State 921-36B4CS
4304752273 Morgan State 921-36C4BS
4304752274 Morgan State 921-36C4CS
4304752275 Morgan State 921-36D1CS

There are eight more wells on two pads in this section, the 36A pad and the 36I pad, that have not yet been approved. Anadarko is gathering reclamation cost figures on pads similar to those as part of the process of acquiring adequate SITLA bonds.
-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov

API Well Number: 43047522850000

Phone: (801) 538-5156

RECEIVED: February 23, 2012

From: Jim Davis
To: APD APPROVAL
CC: Danielle Piernot; Julie Jacobson
Date: 2/23/2012 3:22 PM
Subject: APD Approval: the Kerr McGee Morgan State wells

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

4304752246 Morgan State 921-36G4BS
4304752253 Morgan State 921-36G4CS
4304752255 Morgan State 921-36J1CS
4304752256 Morgan State 921-36J4BS
4304752281 Morgan State 921-36F1BS
4304752282 Morgan State 921-36F1CS
4304752283 Morgan State 921-36G1BS
4304752284 Morgan State 921-36G1CS
4304752285 Morgan State 921-36F4BS
4304752286 Morgan State 921-36K1BS
4304752287 Morgan State 921-36K1CS
4304752247 Morgan State 921-36P1BS
4304752248 Morgan State 921-36P1CS
4304752249 Morgan State 921-36I4BS
4304752250 Morgan State 921-36I4CS
4304752252 Morgan State 921-36P4BS
4304752263 Morgan State 921-36K4CS
4304752264 Morgan State 921-36N1BS
4304752265 Morgan State 921-36N1CS
4304752266 Morgan State 921-36N4BS
4304752276 Morgan State 921-36D4CS
4304752277 Morgan State 921-36E1BS
4304752278 Morgan State 921-36E1CS
4304752279 Morgan State 921-36E4BS
4304752280 Morgan State 921-36E4CS
4304752245 Morgan State 921-36O4CS
4304752254 Morgan State 921-36O1CS
4304752267 Morgan State 921-36O1BS
4304752257 Morgan State 921-36K4BS
4304752258 Morgan State 921-36L1BS
4304752259 Morgan State 921-36L1CS
4304752260 Morgan State 921-36M1BS
4304752261 Morgan State 921-36M1CS
4304752262 Morgan State 921-36M4BS
4304752272 Morgan State 921-36B4CS
4304752273 Morgan State 921-36C4BS
4304752274 Morgan State 921-36C4CS
4304752275 Morgan State 921-36D1CS

There are eight more wells on two pads in this section, the 36A pad and the 36I pad, that have not yet been approved. Anadarko is gathering reclamation cost figures on pads similar to those as part of the process of acquiring adequate SITLA bonds.
-Jim

Jim Davis
Utah Trust Lands Administration
jimDavis1@utah.gov

API Well Number: 43047522850000

Phone: (801) 538-5156

RECEIVED: February 23, 2012

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. Morgan State 921-36F4BS 4			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2578	10559		
Previous Shoe Setting Depth (TVD)	0	2578		
Max Mud Weight (ppg)	8.4	13.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	10690		
Operators Max Anticipated Pressure (psi)	6969	12.7		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	1126	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	817	NO air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	559	NO Reasonable depth in area
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	559	NO
Required Casing/BOPE Test Pressure=		2373	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

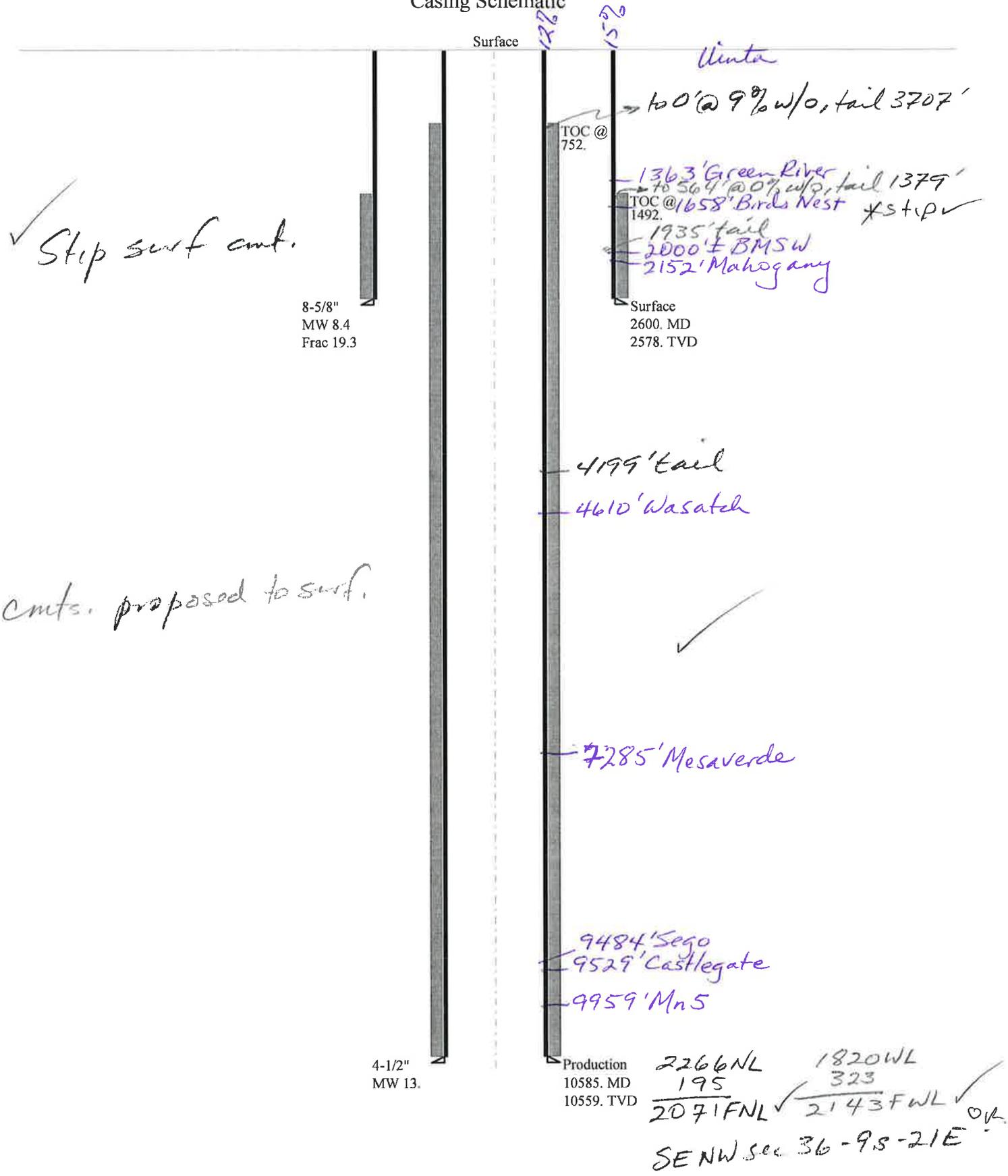
Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	7138	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	5871	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	4815	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	5382	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2578	psi *Assumes 1psi/ft frac gradient

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

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

43047522850000 Morgan State 921-36F4BS

Casing Schematic



✓ Stop surf amt.

cmts. proposed to surf.

Uinta

to 0' @ 9% w/o, tail 3707'

TOC @ 752.

1363' Green River
to 564' @ 0% w/o, tail 1379'

TOC @ 1658' Birds Nest

1935' tail
2000' ± BMSW
2152' Mahogany

Surface
2600. MD
2578. TVD

4199' tail

4610' Wasatch

7285' Mesaverde

9484' Segoe
9529' Castlegate
9959' Mn5

4-1/2"
MW 13.

Production
10585. MD
10559. TVD

2266 NL	1820 WL
195	323
<hr/>	<hr/>
2071 FNL ✓	2143 FNL ✓

SE NW sec 36-9S-21E

Well name: 4304752285000 Morgan State 921-36F4BS	
Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.	Project ID: 43-047-52285
String type: Surface	
Location: UINTAH COUNTY	

Design parameters:

Collapse

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

Burst

Max anticipated surface pressure: 2,269 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP: 2,578 psi

 No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

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

Tension is based on air weight.
 Neutral point: 2,277 ft

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 110 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

 Cement top: 1,492 ft

Directional Info - Build & Drop

Kick-off point: 300 ft
 Departure at shoe: 309 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 8.5 °

Re subsequent strings:

Next setting depth: 10,559 ft
 Next mud weight: 13.000 ppg
 Next setting BHP: 7,131 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 2,578 ft
 Injection pressure: 2,578 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2600	8.625	28.00	I-55	LT&C	2578	2600	7.892	102956
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1125	1880	1.671	2578	3390	1.32	72.2	348	4.82 J

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

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

Date: March 6, 2012
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2578 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name:	43047522850000 Morgan State 921-36F4BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-52285
Location:	UINTAH COUNTY		

Design parameters:**Collapse**

Mud weight: 13.000 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 222 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 752 ft

Burst

Max anticipated surface pressure: 4,808 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 7,131 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.

Neutral point: 8,533 ft

Directional well information:

Kick-off point 300 ft
Departure at shoe: 377 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 0 °

Estimated cost: 158,909 (\$)

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	5000	4.5	11.60	HCP-110	DQX	4974	5000	3.875	132000
1	5585	4.5	11.60	HCP-110	LT&C	10559	10585	3.875	26909
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	3359	8127	2.420	5902	10690	1.81	122.5	367.2	3.00 B
1	7131	8650	1.213	7131	10690	1.50	64.8	279	4.31 J

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

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

Date: March 6, 2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 10559 ft, a mud weight of 13 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

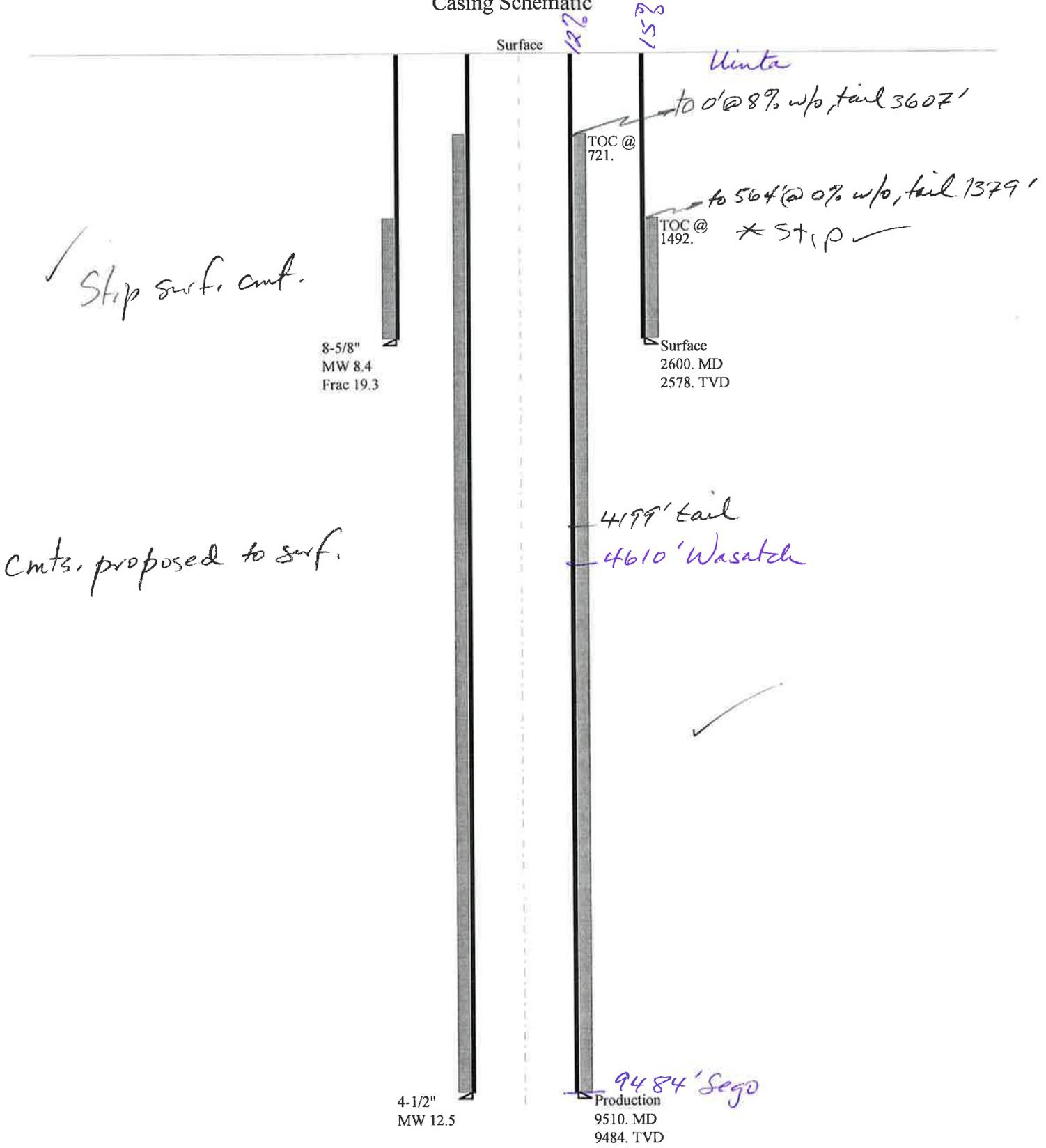
Burst strength is not adjusted for tension.

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

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

43047522850000 Morgan State 921-36F4BS

Casing Schematic



Cmts. proposed to surf.

Well name:	43047522850000 Morgan State 921-36F4BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-52285
Location:	UINTAH COUNTY		

Design parameters:

Collapse

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

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 110 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 1,492 ft

Burst

Max anticipated surface pressure: 2,269 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 2,578 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
 Neutral point: 2,277 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 309 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 8.5 °

Re subsequent strings:

Next setting depth: 9,484 ft
 Next mud weight: 12.500 ppg
 Next setting BHP: 6,158 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 2,578 ft
 Injection pressure: 2,578 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2600	8.625	28.00	I-55	LT&C	2578	2600	7.892	102960
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1125	1880	1.671	2578	3390	1.32	72.2	348	4.82 J

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

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

Date: March 6, 2012
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2578 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name: 43047522850000 Morgan State 921-36F4BS	
Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.	Project ID: 43-047-52285
String type: Production	
Location: UINTAH COUNTY	

Design parameters:

Collapse

Mud weight: 12.500 ppg
 Internal fluid density: 1.500 ppg

Burst

Max anticipated surface pressure: 4,072 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP: 6,158 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

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

Tension is based on air weight.
 Neutral point: 7,738 ft

Estimated cost: 191,532 (\$)

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 207 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 721 ft

Directional Info - Build & Drop

Kick-off point: 300 ft
 Departure at shoe: 377 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	5000	4.5	11.60	I-80	DQX	4974	5000	3.875	132000
1	4510	4.5	11.60	I-80	LT&C	9484	9510	3.875	59532

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	2842	5912	2.080	5166	7780	1.51	110	267	2.43 J
1	5419	6360	1.174	6158	7780	1.26	52.3	212	4.05 J

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

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

Date: March 6, 2012
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9484 ft, a mud weight of 12.5 ppg. An internal gradient of .078 psi/ft was used for collapse from TD. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name Morgan State 921-36F4BS
API Number 43047522850000 **APD No** 5073 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SENW **Sec** 36 **Tw** 9.0S **Rng** 21.0E 2266 FNL 1820 FWL
GPS Coord (UTM) 627790 4428108 **Surface Owner**

Participants

D. Piernot, S. Wopsock, C. Chase, D. Holmes, K Gathings, - Anadarko; C.Jensen, D. Hackford – DOGM; M.Batty, J. Slaugh – Timberline; A. Hansen- DWR

Regional/Local Setting & Topography

This location is within the Natural Buttes Unit but is not part of the Natural Buttes Unit. It is approximately 14 road miles southeast of Ouray, Utah. The general area is at the head of a long unnamed wash east of Cottonwood Wash. Both washes enter the White River in the same general area, approximately six miles to the north. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. This unnamed wash is an ephemeral drainage. No springs, seeps or streams exist in the area. The washes are sometimes rimmed with steep side hills, which have exposed sandstone bedrock cliffs along the rims.

Three new directional wells will be drilled from this location which currently has one well, the Morgan State 1-36. The decision to PA or TA this existing well hasn't been made at this time.

Surface Use Plan

Current Surface Use

Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 120 Length 260	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

dominant vegetation;

Galletta, shadscale and rabbit brush surround the well pad.

Disturbed soils are not habitat for wildlife. DWR had no comment / issues

Soil Type and Characteristics

Very flaggy loam. Motto- casmos complex, of fluvial and lacustrine origins

Erosion Issues Y

soil types are highly erodible

Sedimentation Issues Y

sediments / pollutants may be easily transported by large drainages to east

Site Stability Issues N**Drainage Diversion Required? N****Berm Required? Y**

stockpile are in plans to be used for control purposes

Erosion Sedimentation Control Required? N

operator plans detail stockpiling to act as diversion

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

Reserve Pit**Site-Specific Factors****Site Ranking**

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	200 to 300	10
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	10 to 20	5
Affected Populations		
Presence Nearby Utility Conduits	Unknown	10
Final Score		40 1 Sensitivity Level

Characteristics / Requirements

reserve pit will be constructed as 120' X 260' to a depth of 12' . Pit shall be lined and and a felt underliner used as soils are very flaggy and shallow in places to sandstone bedrock and broken basalt deposits. Operator representatives noted 30 mil liner to be used

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

Other Observations / Comments

Chris Jensen
Evaluator

1/11/2012
Date / Time

Application for Permit to Drill Statement of Basis

3/20/2012

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
5073	43047522850000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	Morgan State 921-36F4BS		Unit		
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	SENW 36 9S 21E S 2266 FNL 1820 FWL GPS Coord (UTM) 627804E 4428113N				

Geologic Statement of Basis

Kerr McGee proposes to set 2,600' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,000'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 36. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill
APD Evaluator

2/1/2012
Date / Time

Surface Statement of Basis

Location is an existing well pad in the Morgan State unit which is within the Natural Buttes unit in southern Uintah County. There are deep drainages close to the proposed activities which are eventual tributaries to the white river. Because the soil is erodible and any spills may readily reach the dry wash, pad is to be bermed and stockpiles act as a buffer for these hydrologic features. Due to the rock within the soils and likely hood of disturbance to sandstone bedrock, the pit is to be underlined to prevent puncture. The operators representative was present and an integral part of this decision.

Chris Jensen
Onsite Evaluator

1/11/2012
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/19/2011

API NO. ASSIGNED: 43047522850000

WELL NAME: Morgan State 921-36F4BS

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

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SENW 36 090S 210E

Permit Tech Review:

SURFACE: 2266 FNL 1820 FWL

Engineering Review:

BOTTOM: 2071 FNL 2144 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 39.99354

LONGITUDE: -109.50293

UTM SURF EASTINGS: 627804.00

NORTHINGS: 4428113.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22265

PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE/FEE - 22013542
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 43-8496
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingling Approved

LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 173-24
- Effective Date: 10/5/2009
- Siting: 460' Fr Exterior Lease Boundary
- R649-3-11. Directional Drill

Comments: Presite Completed

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



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Morgan State 921-36F4BS
API Well Number: 43047522850000
Lease Number: ML 22265
Surface Owner: STATE
Approval Date: 3/20/2012

Issued to:

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

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-24. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

Commingle:

In accordance with Board Cause No. 173-24, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

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

Conditions of Approval:

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

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

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Surface casing shall be cemented to the surface.

Additional Approvals:

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

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

Notification Requirements:

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

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

Contact Information:

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

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

Reporting Requirements:

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

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

plugging

Approved By:

A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers
Associate Director, Oil & Gas

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By JAIME SCHARNOWSKE Phone Number 720.929.6304
Well Name/Number MORGAN STATE 921-36F4BS
Qtr/Qtr SENW Section 36 Township 9S Range 21E
Lease Serial Number ML 22265
API Number 4304752285

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

Date/Time 04/17/2012 12:00 HRS AM PM

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

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

RECEIVED
APR 17 2012
DIV. OF OIL, GAS & MINING

Date/Time 05/08/2012 08:00 HRS AM PM

BOPE

- Initial BOPE test at surface casing point
- BOPE test at intermediate casing point
- 30 day BOPE test
- Other

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT 435.828.0986 OR LOVEL YOUNG AT 435.781.7051

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: Morgan State 921-36F4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 Township: 09.0S Range: 21.0E Meridian: S	9. API NUMBER: 43047522850000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	9. FIELD and POOL or WILDCAT: MORGAN STATE BUTTES
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 4/17/2012	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU TRIPPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
 RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD
 WELL ON 04/17/2012 AT 0830 HRS.

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

FOR RECORD ONLY

April 26, 2012

NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/19/2012	

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

FORM 6

ENTITY ACTION FORM

Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
 Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078 Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752287	MORGAN STATE 921-36K1CS		SENW	36	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	104906	4/17/2012		4/24/2012		
Comments: MIRU TRIPPLE A BUCKET RIG. SPUD WELL ON 04/17/2012 AT 1430 HRS. <i>MVRD</i>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752286	MORGAN STATE 921-36K1BS		SENW	36	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	104907	4/17/2012		4/24/2012		
Comments: MIRU TRIPPLE A BUCKET RIG. SPUD WELL ON 04/17/2012 AT 1130 HRS. <i>MVRD</i>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752285	MORGAN STATE 921-36F4BS		SENW	36	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	104909	4/17/2012		4/24/2012		
Comments: MIRU TRIPPLE A BUCKET RIG. SPUD WELL ON 04/17/2012 AT 0830 HRS. <i>MVRD</i>							

ACTION CODES:

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

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

Title

4/19/2012

Date

RECEIVED

APR 23 2012

Div. of Oil, Gas & Mining

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME:	
8. WELL NAME and NUMBER: Morgan State 921-36F4BS	
9. API NUMBER: 43047522850000	
9. FIELD and POOL or WILDCAT: MORGAN STATE LATERAL BUTTES	
COUNTY: UINTAH	
STATE: UTAH	

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: Morgan State 921-36F4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522850000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	9. FIELD and POOL or WILDCAT: MORGAN STATE LATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 Township: 09.0S Range: 21.0E Meridian: S	PHONE NUMBER: 720 929-6511

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 5/18/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU AIR RIG ON 5/16/2012. DRILLED SURFACE HOLE TO 2646'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

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

FOR RECORD ONLY

May 21, 2012

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 5/21/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: Morgan State 921-36F4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 Township: 09.0S Range: 21.0E Meridian: S	9. API NUMBER: 43047522850000
5. PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: MATHEW BUTTES
COUNTY: UINTAH	STATE: UTAH

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

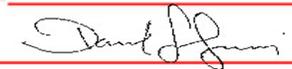
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 5/30/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="ACTS/ Pit Refurb"/>

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

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

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

Date: May 29, 2012

By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 5/22/2012	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047522850000

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
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:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: Morgan State 921-36F4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522850000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: MORGAN STATE BUTTES COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/6/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No activity for the month of June 2012. Surface casing set at 2,646'.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 July 09, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 7/6/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
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:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: Morgan State 921-36F4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522850000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: MATERIAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/2/2012	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 No activity for the month of July 2012. Surface casing set at 2,666'.

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

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 8/2/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: Morgan State 921-36F4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 Township: 09.0S Range: 21.0E Meridian: S	9. API NUMBER: 43047522850000
5. PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: MOUNTAIN BUTTES
COUNTY: UINTAH	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/9/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU ROTARY RIG. FINISHED DRILLING FROM 2646' TO 10590' ON 8/6/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED H&P 318 RIG ON 8/9/2012 @6:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 August 14, 2012**

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 8/10/2012	

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# HP 318 Submitted
By BRAD PEDERSEN Phone Number 435-828-
0988/1544
Well Name/Number MORGAN STATE 921-36F4BS
Qtr/Qtr SE/NW Section 36 Township 9S Range 21E
Lease Serial Number ML 22265
API Number 43-047-522850000

Casing – Time casing run starts, not cementing times.

- Production Casing
 Other

Date/Time 8/7/2012 11:00 AM PM

BOPE

- Initial BOPE test at surface casing point
 Other

Date/Time _____ AM PM

RECEIVED
AUG 08 2012

Rig Move

Location To: MORGAN STATE 921-36F4BS

DIV. OF OIL, GAS & MINING

Date/Time 8/8/2012 06:00 AM PM

Remarks TIME IS ESTIMATED

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
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:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-36F4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522850000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: MORGAN STATE LATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/3/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width:100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 No Activity for the month of September 2012. Well TD at 10,590.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 October 03, 2012**

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 10/3/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-36F4BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522850000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: MORGAN STATE LATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/5/2012	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. No Activity for the month of October 2012. Well TD at 10,590.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 06, 2012		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 11/5/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
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.		7. UNIT or CA AGREEMENT NAME:
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: MATERIAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/3/2012	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
Started completing the well. Well TD at 10,590.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 03, 2012		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 12/3/2012

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME:	
8. WELL NAME and NUMBER: MORGAN STATE 921-36F4BS	
9. API NUMBER: 43047522850000	
9. FIELD and POOL or WILDCAT: MATHEW BUTTES	
COUNTY: UINTAH	
STATE: UTAH	

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-36F4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522850000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	9. FIELD and POOL or WILDCAT: MATHEW BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2266 FNL 1820 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 36 Township: 09.0S Range: 21.0E Meridian: S	PHONE NUMBER: 720 929-6511

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<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
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<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/7/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The subject well was placed on production on 12/07/2012. The Chronological Well History will be submitted with the well completion report.

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

FOR RECORD ONLY

December 10, 2012

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 12/10/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265	

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: _____
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1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: MORGAN STATE 921-36F4BS
------------------------------------	--

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047522850000
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: MORGAN STATE BUTTES
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STATE: UTAH	

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TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: _____			
<input type="checkbox"/> SPUD REPORT Date of Spud: _____			
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 1/3/2013			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 Well was completed, finishing well completion report. Well TD at 10,590

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 January 07, 2013**

NAME (PLEASE PRINT) Laura Abrams	PHONE NUMBER 720 929-6356	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 1/3/2013	

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

AMENDED REPORT FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML 22265

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER:
MORGAN STATE 921-36F4BS

9. API NUMBER:
4304752285

10. FIELD AND POOL, OR WILDCAT
NATURAL BUTTES

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
SENW 36 9S 21E S

12. COUNTY
UINTAH

13. STATE
UTAH

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

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

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

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

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

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: **SENW 2266 FNL 1820 FWL S36,T9S,R21E**
AT TOP PRODUCING INTERVAL REPORTED BELOW: **SENW 2059 FNL 2134 FWL S36,T9S,R21E**
AT TOTAL DEPTH: **SENW 2103 FNL 2162 FWL S36,T9S,R21E** *BHL by HSM*

14. DATE SPUDDED: **4/17/2012** 15. DATE T.D. REACHED: **8/6/2012** 16. DATE COMPLETED: **12/7/2012** ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
5029 RKB

18. TOTAL DEPTH: MD **10,590** TVD **10,558** 19. PLUG BACK T.D.: MD **10,513** TVD **10,482** 20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE MD PLUG SET: TVD

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

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

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#	0	40		28			
11"	8 5/8" IJ-55	28#	0	2,635		670		0	
7 7/8"	4 1/2" I-80	11.6#	0	10,560		1,980		2097	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	10,075							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) MESAVERDE	7,335	10,402		
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
7,335 10,402	0.36	222	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7335-10,402	PUMP 14,292 BBLS SLICK H2O & 305,311 LBS 30/50 OTTAWA SAND 10 STAGES

RECEIVED
JAN 08 2013

DIV. OF OIL, GAS & MINING

29. ENCLOSED ATTACHMENTS:

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

30. WELL STATUS:
PROD

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 12/7/2012		TEST DATE: 12/11/2012		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 1,636	WATER - BBL: 0	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 2,385	CSG. PRESS. 3,314	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 1,636	WATER - BBL: 0	INTERVAL STATUS: PROD

INTERVAL B (As shown in item #26)

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

INTERVAL C (As shown in item #26)

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

INTERVAL D (As shown in item #26)

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

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

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	1,361
				BIRD'S NEST	1,645
				MAHOGANY	2,189
				WASATCH	4,656
				MESAVERDE	7,335

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 1/4" bit. The remainder of surface hole was drilled with an 11" bit. DQX P-110 csg was run from surface to 5044'; LTC P-110 csg was run from 5044' to 10,560'. Attached is the chronological well history, perforation report & final survey.

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

NAME (PLEASE PRINT) LINDSEY FRAZIER

TITLE REGULATORY ANALYST

SIGNATURE *Lindsay Frazier*

DATE 1/3/2013

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340

Fax: 801-359-3940

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: H&P 318/318, PROPETRO 11/11
Event: DRILLING		Start Date: 5/7/2012	End Date: 8/9/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWM: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/VW/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/15/2012	20:30 - 0:00	3.50	MIRU	01	A	P		2.5 MILE RIG MOVE, STALLION- 2 HEAVY HAUL TRUCKS, 3 ONE TON TRUCKS 6 HANDS / J.D. FIELD SERVICE-3 HEAVY HAUL TRUCKS, 3 HANDS / PRO PETRO-5 HEAVY HAUL, 1 ONE TON, 5 HANDS. 75% MOVED
5/16/2012	0:00 - 3:00	3.00	MIRU	01	B	P		M.S. 921-36F4BS (WELL 1 OF 3) INSTALL DIVERTOR HEAD AND BLUEY LINE. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP CLOSED LOOP SYSTEM. RIG UP PUMP. PRIME PUMP. INSPECT RIG. SAFETY MEETING
	3:00 - 10:30	7.50	MIRU	21	E	Z		WAIT ON CLOSED LOOP TANKS, RIG WATER AND DIRECTIONAL TRAILER. FINISH RIGGING UP
	10:30 - 12:00	1.50	DRLSUR	02	D	P		DRL F/ 44'- T/210' (166'@ 110.6' PER HR) W.O.B. 5-15K RPM 45 UP/DWN/ROT 20/20/20 PSI ON/OFF 600/400 M.W. 8.4# VIS 27 395.8 GPM PUMP RATE / NO AIR NOV-DEWATERING
	12:00 - 12:30	0.50	DRLSUR	06	A	P		TOOH LDDP & BHA #1
	12:30 - 14:00	1.50	DRLSUR	06	A	P		TIH #2 BHA WITH 11" BIT
	14:00 - 21:30	7.50	DRLSUR	02	D	P		DRL F/210' T/1190' (980'@ 130.6' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT 62/46/51 PSI ON/OFF 1150/950 M.W. 8.7 VIS 27 395.8 GPM PUMP RATE / NO AIR NOV-DEWATERING
	21:30 - 23:00	1.50	DRLSUR	08	A	Z		FIX CABLE ON MAIN HYDRAULIC CONTROL
	23:00 - 0:00	1.00	DRLSUR	02	D	P		DRL F/1190' T/1310' (120'@ 120' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT 64/48/53 PSI ON/OFF 1300/1040 M.W. 8.7 VIS 27 395.8 GPM PUMP RATE / NO AIR NOV-DEWATERING
5/17/2012	0:00 - 6:00	6.00	DRLSUR	02	D	P		DRL F/1310' T/1820' (510'@ 85' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT 74/51/61 PSI ON/OFF 1500/1300 M.W. 8.7 VIS 27 395.8 GPM PUMP RATE / NO AIR NOV-DEWATERING
	6:00 - 8:00	2.00	DRLSUR	08	B	Z		TRIP OUT 5 JOINTS, CHANGE OUT SWAB AND LINER ON MUD PUMP
	8:00 - 8:30	0.50	DRLSUR	06	A	Z		TIH 5 JOINTS TO 1820'
	8:30 - 9:00	0.50	DRLSUR	02	D	P		DRILL FROM 1820' - 1850'
	9:00 - 9:30	0.50	DRLSUR	08	B	Z		FIX THROTTLE ON MUD PUMP
	9:30 - 12:00	2.50	DRLSUR	02	D	P		DRL F/1850' T/2030' (180'@ 72' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT 79/55/65 PSI ON/OFF 1350/1120 M.W. 8.7 VIS 27 395.8 GPM PUMP RATE / NO AIR NOV-DEWATERING 3.5' RIGHT 4.0' LOW OF LINE

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED Spud Date: 5/16/2012
 Project: UTAH-UINTAH Site: MORGAN STATE 921-36F3 PAD Rig Name No: H&P 318/318, PROPETRO 11/11
 Event: DRILLING Start Date: 5/7/2012 End Date: 8/9/2012
 Active Datum: RKB @5,029.00usft (above Mean Sea Level) UWM: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/VW/0/1820/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/18/2012	12:00 - 21:00	9.00	DRLSUR	02	D	P		DRL F/2030' T/2646' (616'@ 68.4' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT 89/62/73 PSI ON/OFF 1600/1250 M.W. 8.7 VIS 27 395.8 GPM PUMP RATE / NO AIR NOV-DEWATERING 5.98' RIGHT 5.33' BELOW OF LINE
	21:00 - 23:00	2.00	DRLSUR	05	C	P		CIRCULATE FOR CASING
	23:00 - 0:00	1.00	DRLSUR	06	D	P		LDDS, BHA & DIR. TOOLS
	0:00 - 1:30	1.50	DRLSUR	06	D	P		LDDS, BHA & DIR. TOOLS
	1:30 - 2:30	1.00	DRLSUR	12	A	P		MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. MOVE CSG INTO POSITION TO P/U.
	2:30 - 5:00	2.50	DRLSUR	12	C	P		RUN 59 JOINTS 8 5/8", 28#, J55 CASING SHOE IS AT 2610.9' BAFFLE IS AT 2565.4'
	5:00 - 5:30	0.50	DRLSUR	12	B	P		HOLD SAFETY MEETING PUMP ON CASING RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES,.
7/29/2012	5:30 - 7:00	1.50	DRLSUR	12	E	P		PRO PETRO CMTERS MAKE UP HEAD & LOAD PLUG TEST LINES TO 2000 PSI. PUMP 140 BBLS OF 8.4# H2O AHEAD. PUMP 160 BBLS OF 8.4# GEL WATER AHEAD. PUMP 220 SX(149 BBLS) 11# 3.82 YIELD LEAD CEMENT. PUMP 200 SX (41 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4#/SK OF FLOCELE). DROP PLUG ON FLY AND DISPLACE W/ 160 BBLS OF 8.4# H2O. FINAL LIFT PRESSURE 520 PSI. BUMP PLUG AND HOLD 800 PSI FOR 5 MIN. FLOAT HELD, RETURNS THRU OUT JOB 40 BBLS LEAD CEMENT TO SURF PUMP 150 SX 15.8# (30.7BBLS) CMT W/4% CALCIUM DOWN 1". CEMENT FELL BACK WOC PUMP 100SX (20.5 BBLS) CMT DOWN BACKSIDE. CEMENT TO SURFACE, FELL AWAY, RELEASE RIG @ 09:00
	7:00 - 9:00	2.00	DRLSUR	13	A	P		
	6:00 - 18:00	12.00	RDMO	01	E	P		RIG MOVE 14 MILES WITH JONES TRUCKING \$ 135,000 SPLIT 3 WAYS = \$45,000. EACH WELL. JONES HAD 8 TRUCKS 2 FORKLIFTS, 2 PUSHER 3 SWAMPER, 2 FLAGERS RIG DOWN MOVE BACK YARD , SET 3/4 OF BACK YARD ON NEW LOCTIONS MOVED CAMPS WITH STALLION HAD 3 SERVICES TRUCKS, 4 HANDS 2 HAL CROFT TRUCKS, 4 STALLION TRUCKS H&P HAD 13 HANDS 1 PUSHER, 1 SAFETY HAND
7/30/2012	18:00 - 0:00	6.00	RDMO	21	C	P		WAIT ON DAY LITE
	0:00 - 7:00	7.00	RDMO	21	C	P		WAIT ON DAY LITE (H&P 298 TOOK 500 BBLS 12.4 42 VIS MUD & PIONEER 54 TOOK 500 BBLS 12.4 VIS 42)
	7:00 - 19:00	12.00	RDMO	01	B	P		FINISH RIG DOWN ON OLD LOCATION . MOVE RIG , RIG UP WITH JONES TRUCKS HAD 9 2 FORK LIFTS 3 SWAMPERS 2 PUSHERS 2 FLAG CARS, 2CURT'S CRANES 4 OILERS H&P HAD 13 HANDS 1 PUSHER 1 SAFETY HAN DRIG DOWN & MOVED 100 % OFF OLD LOC. RIGED UP 85 % ON NEW LOCTION (RELEASED 1 CRAIN & 9 TRUCK @ 1800 7/30 2012) TOTAL HRS WITH TRUCKS 24)
	19:00 - 0:00	5.00	RDMO	21	C			WAIT ON DAY LITE

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: H&P 318/318, PROPETRO 11/11
Event: DRILLING		Start Date: 5/7/2012	End Date: 8/9/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
7/31/2012	0:00 - 6:00	6.00	MIRU	21	C	P		WAIT ON DAY LITE	
	6:00 - 18:00	12.00	MIRU	01	B	P		RIG UP BY HAND RAISE DERRICK RUN ELE. CABLES PIN TDS RIGUP PIPE WRANGLER	
	18:00 - 19:00	1.00	MIRU	01	B	P		PREPARE TO SKID	
	19:00 - 20:00	1.00	MIRU	01	C	P		SKID RIG OVER CENTER OF WELL	
	20:00 - 0:00	4.00	MIRU	14	A	P		NIPPLE UP BOPS	
8/1/2012	0:00 - 3:00	3.00	MIRU	14	A	P		NIPPLE UP BOP & EQUIPMENT, PROBLEMS GETTING ORBIT VALVE TO LINE UP.	
	3:00 - 9:00	6.00	MIRU	15	A	P		SAFETY MEETING W/ A-1 TESTING , RIG UP & TEST BOP , IBOP, LOWER KELLY VALVE, FLOOR VALVE, PIPE RAMS, BLIND RAMS, HCR, WING VALVES CHOKE MANIFOLD ,CHECK VALVE LOW 250 HIGH 5,000 PSI ANN LOW 250 PSI HIGH 2500 PSI CASING 1500 FOR 30 MINS, TEST NOV SWACO CHOKE LINES & ORBIT VALVE TO 1,000 PSI OK, RIG DOWN TESTER	
	9:00 - 9:30	0.50	MIRU	14	B	P		INSTALL WEAR BUSHING	
	9:30 - 10:00	0.50	MIRU	07	A	P		RIG SERVICE	
	10:00 - 13:00	3.00	PRPSPD	01	B	P		FINISH RIGGING UP ROTARY TOOLS, FLARE LINES & MISC, CHECK MUD LINES, SET OUT & STRAP BHA & DRILL PIPE.	
	13:00 - 18:00	5.00	PRPSPD	06	A	P		PICK UP SMITH MDSI 616 BIT , SDI .23 RPG/1.5 BEND MOTOR, MWD , ORIENT MWD, DRILL COLLARS , HWDP & DRILL PIPE TO 2350'	
	18:00 - 19:00	1.00	PRPSPD	05	B	P		CHECK SURFACE EQUIPMENT F/ LEAKS CIRC THROUGH FLOWLINE & GAS BUSTER, HAD A LEAK ON 10' KNIFE VALVE ON FLOW LINE	
	19:00 - 0:00	5.00	PRPSPD	08	B	Z		***FAILURE: RIG REPAIR ,CHANGE OUT 10" KNIFE VALVE ON FLOWLINE	
	8/2/2012	0:00 - 0:30	0.50	PRPSPD	06	A	P		FINISH PICKING UP DRILLSTRING TAG CEMENT @ 2535'
		0:30 - 1:30	1.00	DRLPRO	02	F	P		DRILL CEMENT & FLOAT EQUIP F/ 3535' TO 2666' , SPUD @ 00:30 8/2/2012
1:30 - 10:30		9.00	DRLPRO					DRILL F/ 2666' TO 3956' 1290'@ 143.3' HR WOB 17/26 RPM 44-70/124 SPM 120 GPM 540 ON/OFF 1600/ 1150 UP/SO/ROT 135/105/115 WT 8.5 , VIS 27 ROTATE: 1182' IN 7.74 HRS = 152.7' HR SLIDE: 108' IN 1.26 HRS = 85.7' HR NOV: DEWATERING	
	10:30 - 11:00	0.50	DRLPRO	07	A	P		RIG SERVICE	

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED

Spud Date: 5/16/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-36F3 PAD

Rig Name No: H&P 318/318, PROPETRO 11/11

Event: DRILLING

Start Date: 5/7/2012

End Date: 8/9/2012

Active Datum: RKB @5,029.00usft (above Mean Sea Level)

UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	11:00 - 18:00	7.00	DRLPRO	02	D	P		DRILL F/ 3956 ' TO 4996' , 1040' @ 148.5' HR WOB 22/25 RPM 56/62 SPM 120 GPM 540 TORQUE 6/10 ON/OFF 2300/1850, UP/SO/ROT 154/108/126 WT 8.4, VIS 26 ROTATE: 1012' IN 6.58 HRS = 153.7' HR SLIDE: 28' IN .42 HRS = 66.6' HR NOV: DEWATERING
	18:00 - 22:00	4.00	DRLPRO	02	D	P		DRILL F/ 4996' TO 5660' , 664' @ 166' HR WOB 22/25 RPM 56/62 SPM 120 GPM 540 TORQUE 10/5 ON/OFF 2300/1829 UP/SO/ROT 166/122/140 WT 8.8, VIS 27 ROTATE: 648' IN 3.67 HRS = 176.5' HR SLIDE: 16' IN .33 HRS = 48.4' HR NOV: DEWATERING
	22:00 - 0:00	2.00	DRLPRO	22	G	X		*** LOST CIRC @ 5660', LOST APPROX 200 BBLs, SLOWED PUMP STROKES TO 40 STROKES PER MINUTE, PULLED UP TO 5565' REGAINED CIRC ,BUILD VOLUME , MIX & PUMP 15%-20% LCM SWEEPS. (CONTACTED MR GATHINGS WAS INSTRUCTED TO FOLLOW DRILLING PROCEDURE)
8/3/2012	0:00 - 0:30	0.50	DRLPRO	22	G	X		*** LOST CIRC , LOST APPROX 200BBLs, FINISH BUILDING VOLUME, PUMP 50 BBL LCM SWEEP
	0:30 - 6:00	5.50	DRLPRO	02	D	P		DRILL F/ 5660' TO 6193' , 533' @ 96.9' HR WOB 22/25 RPM 56/62/ 124 SPM 120 GPM 540 TORQUE 10/5 ON/OFF 2300/1850 UP/SO/ROT 172/127/146 WT 8.7 , VIS 27 PUMPING 50 BBL LCM SWEEPS EVERY 100' TO CONTROL SEEPAGE. LOST APPROX 220 BBLs TO SEEPAGE, ABOUT 40 BBLs PER /HR ROTATE: 518' IN 5.17 HRS = 100.1' HR SLIDE: 15' IN .33 HRS = 45.4' HR NOV: DEWATERING BOP DRILL @ STATIONS 3 MIN 20 SEC

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: H&P 318/318, PROPETRO 11/11
Event: DRILLING		Start Date: 5/7/2012	End Date: 8/9/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 12:00	6.00	DRLPRO	02	D	P		DRILL F/ 6193' TO 6788' , 595' @ 99.1' HR WOB 22/25 RPM 56/62/ 124 SPM 120 GPM 540 TORQUE 10/5 ON/OFF 2300/1850 UP/SO/ROT 175/1130/157 WT 8.7 , VIS 27 PUMPING 50 BBL LCM SWEEPS EVERY 100' TO CONTROL SEEPAGE. LOST APPROX 220 BBLS TO SEEPAGE, ABOUT 40 BBLS PER/HR ROTATE: 580' IN 5.42 HRS = 107' HR SLIDE: 15' IN .58 HRS = 25.8' HR NOV: DEWATERING RIG SERVICE
	12:00 - 12:30	0.50	DRLPRO	07	A	P		
	12:30 - 18:00	5.50	DRLPRO	02	D	P		DRILL F/ 6788' TO 7200' , 412' @ 74.9' HR WOB 22/25 RPM 56/62/ 124 SPM 120 GPM 540 TORQUE 11/7 ON/OFF 2300/1900 UP/SO/ROT 206/136/164 WT 8.7 , VIS 27 PUMPING 50 BBL LCM SWEEPS EVERY 100' TO CONTROL SEEPAGE. LOST APPROX 180 BBLS TO SEEPAGE ABOUT 30 BBLS PER/HR ROTATE: 397' IN 4.83 HRS = 82.1' HR SLIDE: 15' IN .58 HRS = 22.3' HR NOV: DEWATERING
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILL F/ 7200' TO 7745' , 545' @ 900.8' HR WOB 22/25 RPM 56/68 SPM 120 GPM 540 TORQUE 11/7 ON/OFF 2100/1642 UP/SO/ROT 208/141/167 WT 8.6 , VIS 27 PUMPING 50 BBL LCM SWEEPS EVERY 100' TO CONTROL SEEPAGE. LOST APPROX 150 BBLS TO SEEPAGE ABOUT 25 BBLS PER/HR (TOTAL LOSSES 1270 BBLS F/ WELL) ROTATE: 528' IN 5.42 HRS = 97.4' HR SLIDE: 17' IN .58 HRS = 29.3' HR NOV: DEWATERING

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED Spud Date: 5/16/2012
 Project: UTAH-UINTAH Site: MORGAN STATE 921-36F3 PAD Rig Name No: H&P 318/318, PROPETRO 11/11
 Event: DRILLING Start Date: 5/7/2012 End Date: 8/9/2012
 Active Datum: RKB @5,029.00usft (above Mean Sea Level) UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/4/2012	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 7745' TO 8300' , 555' @ 92.5' HR WOB 22/25 RPM 56/68 SPM 120 GPM 540 TORQUE 11/8 ON/OFF 2100/1650 UP/SO/ROT 213/146/173 WT 8.6 , VIS 27 PUMPING 50 BBL LCM SWEEPS EVERY 200" TO CONTROL SEEPAGE. LOST APPROX 80 BBLS TO SEEPAGE ABOUT 15 BBLS PER/HR , 10' TO 15' BACK GROUND FLARE , 20' TO 25' BOTTOMS UP FLARE. ROTATE: 540' IN 5.17 HRS = 104.4' HR SLIDE: 15' IN .83 HRS = 18' HR NOV: DEWATERING
	6:00 - 15:30	9.50	DRLPRO	02	D	P		DRILL F/ 8300' TO 9051' , 751' @ 79' HR WOB 22/26 RPM 50/70 SPM 120 GPM 540 TORQUE 12/9 ON/OFF 2450/1980 UP/SO/ROT 246/154/196 WT 8.6 , VIS 27 10' TO 15' FLARE , BOTTOMS UP 20' TO 25' FLARE PUMPING 50 BBL LCM SWEEPS EVERY 200' TO CONTROL SEEPAGE. LOST APPROX 100 BBLS TO SEEPAGE ABOUT 10 BBLS PER/HR ROTATE: 751' IN 9.5 HRS = 79' HR SLIDE: 0 NOV: DEWATERING RIG SERVICE
	15:30 - 16:00	0.50	DRLPRO	07	A	P		
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DRILL F/ 9051' TO 9652' , 601' @ 75.1' HR WOB 22/26 RPM 50/70 SPM 110 GPM 495 TORQUE 14/10 ON/OFF 1702/1445 UP/SO/ROT 257/170/207 WT 8.6 , VIS 27 MPD ON LINE @ 9400' 260 PSI HELD ON ANNULUS, MUD WT EQUIV OF 9.3 10' TO 25' FLARE PUMPING 50 BBL LCM SWEEPS EVERY 200' TO CONTROL SEEPAGE. LOST APPROX 200 BBLS TO SEEPAGE ABOUT 25 BBLS PER/HR (TOTAL LOSSES 1650 BBLS F/WELL) ROTATE: 601' IN 8 HRS = 75.1' HR SLIDE: 0 NOV: DEWATERING

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: H&P 318/318, PROPETRO 11/11
Event: DRILLING		Start Date: 5/7/2012	End Date: 8/9/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/VW/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/5/2012	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 9652' TO 9873' , 221' @ 36.8' HR WOB 22/26 RPM 50/70 SPM 110 GPM 495 TORQUE 14/8 ON/OFF 1750/1500 UP/SO/ROT 259/171/208 WT 8.6 , VIS 27 MPD ON LINE 200 PSI HELD ON ANNULUS, MUD WT EQUIV OF 9.1 10' TO 15' FLARE PUMPING 50 BBL LCM SWEEPS EVERY 200' TO CONTROL SEEPAGE. LOST APPROX 80 BBLS TO SEEPAGE ABOUT 13 BBLS PER/HR ROTATE: 221' IN 6 HRS = 36.8' HR SLIDE: 0 NOV: DEWATERING
	6:00 - 14:00	8.00	DRLPRO	02	D	P		DRILL F/ 9873' TO 10081' , 208' @ 26' HR WOB 22/28 RPM 50/70 SPM 105 GPM 472 TORQUE 14/10 ON/OFF 2050/1690 UP/SO/ROT 262/178/208 WT 8.5 , VIS 26 MPD ON LINE 200 PSI HELD ON ANNULUS, MUD WT EQUIV OF 9.1 10' TO 15' FLARE PUMPING 50 BBL LCM SWEEPS EVERY 200' TO CONTROL SEEPAGE. LOST APPROX 80 BBLS TO SEEPAGE ABOUT 13 BBLS PER/HR ROTATE: 208' IN 8 HRS = 26' HR SLIDE: 0 NOV: DEWATERING
	14:00 - 14:30	0.50	DRLPRO	08	A	Z		***FAILURE RIG EQUIPMENT, GENERATOR # 2 WENT DOWN DUE TO LOSING FAN BELTS AND OVERHEATING, REPAIR FAN BELTS
	14:30 - 15:00	0.50	DRLPRO	07	A	P		RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: H&P 318/318, PROPETRO 11/11
Event: DRILLING		Start Date: 5/7/2012	End Date: 8/9/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/VW/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:00 - 0:00	9.00	DRLPRO	02	D	P		DRILL F/ 10081' TO 10365' , 284' @ 31.5' HR WOB 26/29 RPM 68/70 SPM 95 GPM 428 TORQUE 14/12 ON/OFF 2050/1690 UP/SO/ROT 276/174/214 WT 8.6 , VIS 27 MPD ON LINE, FULL OPEN, 150 PSI HELD ON ANNULUS, MUD WT EQUIV OF 8.9 10' TO 15' FLARE PUMPING 50 BBL LCM SWEEPS EVERY 200' TO CONTROL SEEPAGE. LOST APPROX 80 BBLS TO SEEPAGE ABOUT 9 BBLS PER/HR , (TOTAL LOOSES F/ WELL 2000 BBLS) ROTATE: 284' IN 9 HRS = 31.5' HR SLIDE: 0 NOV: DEWATERING
8/6/2012	0:00 - 5:00	5.00	DRLPRO	02	D	P		DRILL F/ 10365' TO 10590' TD @ 05:00 8/6/2012 , 225' @ 45' HR WOB 22/27 RPM 57/60 SPM 95 GPM 428 TORQUE 14/12 ON/OFF 2050/1690 UP/SO/ROT 278/176/217 WT 8.6 , VIS 27 MPD ON LINE, FULL OPEN, 150 PSI HELD ON ANNULUS, MUD WT EQUIV OF 8.9 10' TO 15' FLARE PUMPING 50 BBL LCM SWEEPS EVERY 200' TO CONTROL SEEPAGE. LOST APPROX 80 BBLS TO SEEPAGE ABOUT 9 BBLS PER/HR , (TOTAL LOSSES F/ WELL 2080 BBLS) ROTATE:225' IN 5 HRS = 45' HR SLIDE: 0 NOV: SHUT DOWN @ 10400'
	5:00 - 10:30	5.50	DRLPRO	05	C	P		DISPLACE HOLE W/ MUD & CONDITION, MIXING LCM , HAD HOLE HEALED, RAISING WT TO 12 # LOST CIRC @ 11.7#, HOLE BECAME TIGHT, SLOWED PUMP STROKES DOWN TO 10 SPM , WORK PIPE OUT OF HOLE F/ 10550' TO 9835', PULLED TIGHT F/ 10550' TO 9930' PUMPED 135 BBLS W/ NO CIRC, (LOST APPROX 1270 BBLS TOTAL MUD)
	10:30 - 21:00	10.50	DRLPRO	06	E	X		*** (LOST CIRC) TRIP OUT OF HOLE , WORK THROUGH TIGHT SPOTS @ 9730' ,7085' ,5608' ,SPOT 80 BBL 20% LCM PILL @ 5300' , CONTINUE TRIP OUT , TIGHT @ 4926' , LAY DOWN DIRECTIONAL TOOLS
	21:00 - 23:00	2.00	DRLPRO	06	E	X		*** (LOST CIRC) PICK UP RERUN TRICONE BIT & BIT SUB ,TRIP IN HOLE TAG @ 4200' (FILLED PIPE @ 2700')

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED Spud Date: 5/16/2012
 Project: UTAH-UINTAH Site: MORGAN STATE 921-36F3 PAD Rig Name No: H&P 318/318, PROPETRO 11/11
 Event: DRILLING Start Date: 5/7/2012 End Date: 8/9/2012
 Active Datum: RKB @5,029.00usft (above Mean Sea Level) UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	23:00 - 0:00	1.00	DRLPRO	03	A	X		*** (LOST CIRC) WASH & REAM F/ 4200' TO 4347' WOB 0-35 RPM 58/70 SPM 80 GPM 360 PUMP PSI 730/850 WT 11.4 , VIS 40 LOSING APPROX 20 BBLS PER /HR (LOST APPROX 1700 BBLS MUD TOTAL)
8/7/2012	0:00 - 7:00	7.00	DRLPRO	03	A	X		*** (LOST CIRC) WASH & REAM F/ 4347' TO 5670', HOLE SLOUGHING IN , LOST RETURNS, HOLE TIGHT , WORK PIPE OUT TO 4920' (LOST 50 BBLS) TOTAL MUD LOSSES 1750 BBLS
	7:00 - 10:30	3.50	DRLPRO	05	A	X		*** (LOST CIRC) SHAKERS BY PASSED AS PER MR STRAHAN, RAISE LCM CONTENT TO 20%, RAISE MUD WT TO 12#
	10:30 - 13:30	3.00	DRLPRO	03	A	X		*** (LOST CIRC) WASH & REAM F/ 4920' TO 6335'
	13:30 - 14:00	0.50	DRLPRO	05	A	X		*** (LOST CIRC) CIRC BOTTOMS UP
	14:00 - 15:30	1.50	DRLPRO	06	E	X		*** (LOST CIRC) TRIP IN HOLE F/ 6335' TO 8210
	15:30 - 16:30	1.00	DRLPRO	05	A	X		*** (LOST CIRC) CIRC BOTTOMS UP , 10' FLARE , 15 BBL GAIN
	16:30 - 17:00	0.50	DRLPRO	06	A	X		*** (LOST CIRC) TRIP IN HOLE F/ 8210' TO 9140'
	17:00 - 18:00	1.00	DRLPRO	05	A	X		*** (LOST CIRC) CIRC BOTTOMS UP , 10' FLARE
	18:00 - 21:30	3.50	DRLPRO	03	A	X		*** (LOST CIRC) TIH F/ 9140' TO 9420' , WASH & REAM F/ 9420' TO TD @ 10590' , 30' FILL
	21:30 - 23:30	2.00	DRLPRO	05	C	X		*** (LOST CIRC) CIRC & COND F/ SHORT TRIP
	23:30 - 0:00	0.50	DRLPRO	06	E	X		*** (LOST CIRC) START 30 STAND SHORT TRIP 10590' TO 10166'
8/8/2012	0:00 - 2:30	2.50	DRLPRO	06	E	P		SHORT TRIP 30 STANDS (NO PROBLEMS)
	2:30 - 4:30	2.00	DRLPRO	05	C	P		CIRC & COND F/ LOGS
	4:30 - 10:00	5.50	DRLPRO	06	A	P		TRIP OUT OF HOLE F/ LOGS , TIGHT SPOT @ 5638'
	10:00 - 11:00	1.00	DRLPRO	14	B	P		PULL BEARING PACK, PULL WEAR BUSHING, INSTALL CASING RUNNING SPOOL
	11:00 - 14:30	3.50	DRLPRO	11	C	P		*** (FAILURE NO LOGS) SAFETY MEEING W/ BAKER ATLAS , RIG UP LOGGERS & RUN TRIPLE COMBO LOGS, LOGS BRIDGED OUT @ 4375' RIG DOWN LOGGERS (NO LOGS)
	14:30 - 15:30	1.00	DRLPRO	12	A	P		RIG UP KIMZEY CASERS, SAFETY MEETING
	15:30 - 22:00	6.50	DRLPRO	12	C	P		RUN 238 JOINTS 4.5, 11.6 P110 CASING (125 JTS LT&C, 113 JTS DQX) SHOE 10560', TOP OF FLOAT 10513, TOP OF MARKER 7169' TOP OF X/O 5022'
	22:00 - 0:00	2.00	DRLPRO	05	D	P		TAG AND WENT THROUGH BRIDGE @ 5630' (SHAKING OUT LCM) CIRC F/ CEMENT, RIG DOWN CASERS, SAFETY MEETING W/ BJ SERVICES

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: H&P 318/318, PROPETRO 11/11
Event: DRILLING		Start Date: 5/7/2012	End Date: 8/9/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/09/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/9/2012	0:00 - 3:30	3.50	DRLPRO	12	E	P		CEMENT PROD CASING, PRESSURE TEST TO 5386 PSI, DROP BOTTOM PLUG , PUMP 25 BBLs SPACER , 590 SX, PREMIUM LITE II CEMENT + 5 LBS/SACK KOL-SEAL, 50 LB BAG + 0.4% BWOC FL-52 + 0.4% BWOC SODIUM METASILICATE + 6% BWOC BENTONITE II + 0.05LBS/SACK STATIC FREE + 0.6% BWOC R-3 +0.25 LBS/SACK CELLO FLAKE + 84.8% FRESH WATER ,13# ,1.77 YLD, LEAD , 1390 SACKS (50:50) POZ (FLY ASH): CLASS G CEMENT + 0.05 LBS/SACK STATIC FREE + 10% BWOW SODIUM CHLORIDE + 0.2% BWOC R-3 + 0.5% BWOC EC-1 + 0.002 GPS FP-6L + 2% BWOC BENTONITE II + 58.9% FRESH WATER 14.3# ,1.32 YLD TAIL, SHUT DOWN WASH UP ,DROP TOP PLUG, DISPLACE W/ 163.4 BBLs CLAY CARE + 1 GAL MAGNACIDE @ 8.34 PPG, FINAL LIFT 3107 PSI , BUMP PLUG @ 3694 PSI , HELD F/ 5 MIN , LOST CIRC 135 BBLs INTO DISPLACMENT , NO CEMENT BACK TO PIT ,TOP OF TAIL EST 4140', FLUSH STACK AND LINES , RIG DOWN CEMENTERS
	3:30 - 4:30	1.00	DRLPRO	14	B	P		WASH OUT STACK, THIRD PARTY CHOKE, BACK OUT OF LANDING JOINT, INSTALL PACK OFF ASSEMBLY, LAY DOWN LANDING JOINT NIPPLE DOWN BOP
	4:30 - 5:00	0.50	DRLPRO	14	A	P		
	5:00 - 6:00	1.00	DRLPRO	01	E	P		RIG DOWN ROTARY EQUIP, RELEASE RIG @ 06:00 8/9/2012

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	MORGAN STATE 921-36F4BS RED	Wellbore No.	OH
Well Name	MORGAN STATE 921-36F4BS	Wellbore Name	MORGAN STATE 921-36F4BS
Report No.	1	Report Date	11/26/2012
Project	UTAH-UINTAH	Site	MORGAN STATE 921-36F3 PAD
Rig Name/No.		Event	COMPLETION
Start Date	11/21/2012	End Date	12/7/2012
Spud Date	5/16/2012	Active Datum	RKB @5,029.00usft (above Mean Sea Level)
UWI	SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0		

1.3 General

Contractor		Job Method	PERFORATE	Supervisor	
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	7,335.0 (usft)-10,402.0 (usft)	Start Date/Time	11/26/2012 12:00AM
No. of Intervals	60	End Date/Time	11/26/2012 12:00AM
Total Shots	222	Net Perforation Interval	74.00 (usft)
Avg Shot Density	3.00 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (")	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/2012 12:00AM	MESAVERDE/			7,335.0	7,336.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/2012 12:00AM	MESAVERDE/			7,344.0	7,345.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,363.0	7,365.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,396.0	7,398.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,426.0	7,428.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,456.0	7,457.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,488.0	7,490.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,533.0	7,535.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,589.0	7,590.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,603.0	7,604.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,670.0	7,671.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,727.0	7,728.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,748.0	7,749.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,759.0	7,760.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			7,772.0	7,773.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/2012 12:00AM	MESAVERDE/			7,870.0	7,872.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,112.0	8,113.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,129.0	8,130.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,211.0	8,212.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,222.0	8,223.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,233.0	8,234.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,283.0	8,285.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,336.0	8,337.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,354.0	8,355.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,400.0	8,401.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,421.0	8,422.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,433.0	8,434.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,483.0	8,484.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			8,508.0	8,509.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/201 2 12:00AM	MESAVERDE/			8,561.0	8,562.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,610.0	8,611.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,629.0	8,630.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,655.0	8,656.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,698.0	8,699.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,722.0	8,723.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,740.0	8,741.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,765.0	8,766.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,794.0	8,795.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,823.0	8,824.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,861.0	8,863.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,887.0	8,888.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			8,900.0	8,901.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			9,010.0	9,011.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

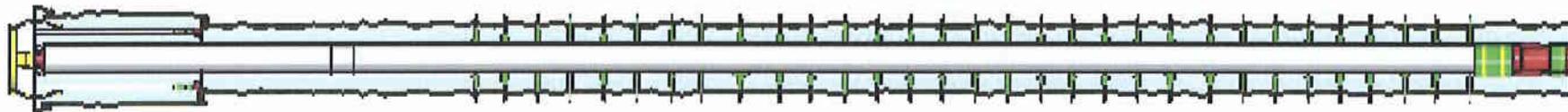
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/2012 12:00AM	MESAVERDE/			9,040.0	9,041.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			9,197.0	9,198.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			9,209.0	9,210.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			9,218.0	9,219.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			9,294.0	9,297.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			9,320.0	9,321.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			10,091.0	10,092.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			10,106.0	10,107.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			10,123.0	10,124.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			10,138.0	10,139.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			10,147.0	10,148.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			10,158.0	10,159.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			10,185.0	10,186.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/2012 12:00AM	MESAVERDE/			10,255.0	10,257.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/26/201 2 12:00AM	MESAVERDE/			10,269.0	10,271.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			10,301.0	10,303.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/26/201 2 12:00AM	MESAVERDE/			10,400.0	10,402.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



**US ROCKIES REGION
Operation Summary Report**

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: MILES 2/2, MILES 2/2
Event: COMPLETION		Start Date: 11/21/2012	End Date: 12/7/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/NW/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/15/2012	7:00 -			34	I			RIH SET CIBP @ 10512'
8/16/2012	-							
8/17/2012	-							
11/22/2012	7:30 - 9:00	1.50	FRAC	33	D	P		RU ACTON HOT OILER , FILLED SURFACE WITH 1/4 BBLS TMAC PRESSURED TO 1000, PSI HELD 2 MIN ON BLEED OFF , BLED WELL DOWN
11/26/2012	8:00 - 8:45	0.75	FRAC	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. 1ST PSI TEST T/ 9000 PSI. HELD FOR 15 MIN LOST 60 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWFW
11/30/2012	7:00 - 9:00	2.00	FRAC	37	1	P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWFW

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED

Spud Date: 5/16/2012

Project: UTAH-UINTAH

Site: MORGAN STATE 921-36F3 PAD

Rig Name No: MILES 2/2, MILES 2/2

Event: COMPLETION

Start Date: 11/21/2012

End Date: 12/7/2012

Active Datum: RKB @5,029.00usft (above Mean Sea Level)

UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/3/2012	10:00 - 18:00	8.00	FRAC	36	B	P		<p>FRAC STG 1)WHP 1789 PSI, BRK 3949 PSI @ 4.7 BPM. ISIP 2768 PSI, FG .0.71, CALC PERFS OPEN @ 50.3 BPM @ 6762 PSI = 71% HOLES OPEN. ISIP 3984 PSI, FG .0.82, NPI 1216 PSI. MP 8075 PSI, MR 51 BPM, AP 6693 PSI, AR 49.9 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 10,216' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 2)WHP 3244 PSI, BRK 4211 PSI @ 4.7 BPM. ISIP 3328 PSI, FG .0.77, CALC PERFS OPEN @ 50.3 BPM @ 6596 PSI = 100% HOLES OPEN. ISIP 3677 PSI, FG .0.8, NPI 349 PSI. MP 7420 PSI, MR 51.3 BPM, AP 6404 PSI, AR 50.5 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 9351' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 3)WHP 397 PSI, BRK 2611 PSI @ 4.7 BPM. ISIP 1660 PSI, FG .0.62, CALC PERFS OPEN @ 50.5 BPM @ 5529 PSI = 86% HOLES OPEN. ISIP 2728 PSI, FG .0.73, NPI 1068 PSI. MP 5831 PSI, MR 51.7 BPM, AP 5148 PSI, AR 50.4 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 9071' P/U PERF AS PER DESIGN. POOH, SWFN.</p>

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: MILES 2/2, MILES 2/2
Event: COMPLETION		Start Date: 11/21/2012	End Date: 12/7/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/4/2012	7:30 - 18:00	10.50	FRAC	36	B	P		<p>FRAC STG 4)WHP 1420 PSI, BRK 3227 PSI @ 4.7 BPM. ISIP 2280 PSI, FG .0.69, CALC PERFS OPEN @ 51.3 BPM @ 5578 PSI = 83% HOLES OPEN. ISIP 2848 PSI, FG .0.76, NPI 568 PSI. MP 5785 PSI, MR 51.8 BPM, AP 5141 PSI, AR 50.7 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8776' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 5)WHP 1901 PSI, BRK 2379 PSI @ 4.7 BPM. ISIP 1937 PSI, FG .0.66, CALC PERFS OPEN @ 50.9 BPM @ 4672 PSI = 96% HOLES OPEN. ISIP 2333 PSI, FG .0.71, NPI 396 PSI. MP 5380 PSI, MR 51.7 BPM, AP 4451 PSI, AR 50.8 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8539' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 6)WHP 275 PSI, BRK 2529 PSI @ 4.7 BPM. ISIP 1621 PSI, FG .0.63, CALC PERFS OPEN @ 50.8 BPM @ 4979 PSI = 91% HOLES OPEN. ISIP 2595 PSI, FG .0.75, NPI 974 PSI. MP 5693 PSI, MR 51.4 BPM, AP 4872 PSI, AR 50.6 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8315' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 7)WHP 1847 PSI, BRK 2498 PSI @ 4.7 BPM. ISIP 2047 PSI, FG .0.69, CALC PERFS OPEN @ 45 BPM @ 4502 PSI = 95% HOLES OPEN. ISIP 2565 PSI, FG .0.75, NPI 518 PSI. MP 4741 PSI, MR 46.3 BPM, AP 4364 PSI, AR 44.9 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 8)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7902' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p>

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED			Spud Date: 5/16/2012		
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD		Rig Name No: MILES 2/2, MILES 2/2	
Event: COMPLETION		Start Date: 11/21/2012		End Date: 12/7/2012	
Active Datum: RKB @5,029.00usft (above Mean Sea Level)			UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/5/2012	7:00 - 18:00	11.00	FRAC	36	B	P		<p>FRAC STG 8)WHP 1040 PSI, BRK 3008 PSI @ 4.7 BPM. ISIP 1691 PSI, FG .066, CALC PERFS OPEN @ 51 BPM @ 4912 PSI = 91% HOLES OPEN. ISIP 2916 PSI, FG .0.75, NPI 1099 PSI. MP 6034 PSI, MR 51.3 BPM, AP 4887 PSI, AR 50.2 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 9)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7634' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 9)WHP 1691 PSI, BRK 2417 PSI @ 4.7 BPM. ISIP 1794 PSI, FG .0.68, CALC PERFS OPEN @ 51.1 BPM @ 4320 PSI = 100% HOLES OPEN. ISIP 1687 PSI, FG .0.66, NPI -107 PSI. MP 5409 PSI, MR 51.7 BPM, AP 4202 PSI, AR 51 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 10)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7438' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 10)WHP 1226 PSI, BRK 1604 PSI @ 4.7 BPM. ISIP 1297 PSI, FG .0.61, CALC PERFS OPEN @ 50.9 BPM @ 5265 PSI = 67% HOLES OPEN. ISIP 1854 PSI, FG .0.69, NPI 557 PSI. MP 5731 PSI, MR 51.4 BPM, AP 4305 PSI, AR 51.2 BPM, PUMPED 30/50 OWATTA SAND. SWI. XO T/ WL.</p> <p>PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 7285'. POOH. SWI. RD OFF THIS WELL. DONE FRACING THIS WELL.</p> <p>TOTAL SAND = 305,311 LBS TOTAL CLFL = 14,292 BBLS JSA-SAFETY MEETING</p>
12/6/2012	7:00 - 7:15	0.25	DRLOUT	48		P		<p>ROAD RIG TO LOC, MIRU UNIT,N/D WH. N/U 4" 10K BOPS,</p> <p>CHECK BOPS OUT, FOUND PIPE RAM BLOCK'S WORE OUT, CHANGE OUT RAM BLOCK'S, P/U 3 7/8" BIT AND PUMP OFF BIT SUB, RIH W/ 2 3/8" P-110 TBG, TALLY IN HOLE, RIH 230 JTS TAG KILL PLUG @ 8285', P/O LAY DN 2 JTS, R/U DRILLING EQUIPT, SHUT WELL IN SDFN,</p> <p>JSA-SAFETY MEETING</p>
	7:15 - 9:00	1.75	DRLOUT	30	A	P		
	9:00 - 12:00	3.00	DRLOUT	30	F	P		
	12:00 - 16:00	4.00	DRLOUT	31	I	P		
12/7/2012	6:30 - 6:45	0.25	DRLOUT	48		P		<p>PRESSURE TEST CSG BOPS AND SURFACE LINE TO 3000# OK</p>
	6:45 - 7:00	0.25	DRLOUT	30	D	P		

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: MILES 2/2, MILES 2/2
Event: COMPLETION		Start Date: 11/21/2012	End Date: 12/7/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/W/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 15:00	8.00	DRLOUT	44	C	P		<p>ESTB. CIRC DN TBG OUT CSG, DRILL OUT CBPS,</p> <p>(CBP #1) 7285' DRILL OUT HALLIBURTON 8K CBP IN 5 MIN, 400 # DIFF, RIH TAG SAND @ 7428 ', C/O 10' SAND, FCP = 200 #.</p> <p>(CBP #2) 7438', DRILL OUT HALLIBURTON 8K CBP IN 7 MIN, 300 # DIFF, RIH TAG SNAD @ 7614 ', C/O 20' SAND, FCP = 200 #.</p> <p>(CBP #3) 7634', DRILL OUT HALLIBURTON 8K CBP IN 6 MIN, 600 # DIFF, RIH TAG SNAD @ 7872 ', C/O 30' SAND, FCP = 400 #.</p> <p>(CBP #4) 7902', DRILL OUT HALLIBURTON 8K CBP IN 8 MIN, 700 # DIFF, RIH TAG SNAD @ 8305 ', C/O 10' SAND, FCP = 400 #.</p> <p>(CBP #5) 8315', DRILL OUT HALLIBURTON 8K CBP IN 8 MIN, 800 # DIFF, RIH TAG SNAD @ 8509 ', C/O 30' SAND, FCP = 425 #.</p> <p>(CBP #6) 8539', DRILL OUT HALLIBURTON 8K CBP IN 9 MIN, 450 # DIFF, RIH TAG SNAD @ 8756 ', C/O 20' SAND, FCP = 400 #.</p> <p>(CBP #7) 8776', DRILL OUT HALLIBURTON 8K CBP IN 10 MIN, 300 # DIFF, RIH TAG SNAD @ 9041 ', C/O 30' SAND, FCP = 400 #.</p> <p>(CBP #8) 9071', DRILL OUT HALLIBURTON 8K CBP IN 10 MIN, 700 # DIFF, RIH TAG SAND @ 9331 ', C/O 20' SAND, FCP = 425 #.</p> <p>(CBP #9) 9351', DRILL OUT HALLIBURTON 8K CBP IN 10 MIN, 700 # DIFF, RIH TAG SAND @ 10186 ', C/O 30' SAND, FCP = 425 #.</p> <p>(CBP #10) 10216', DRILL OUT HALLIBURTON 10K CBP IN 7 MIN, 150 # DIFF, RIH TAG SAND @ 10424 ', C/O 88' SAND TO 10512' PBTD, FCP = 500 #.</p> <p>P/O LAY DN 13 JTS ON TRAILER, LAND TBG IN WELL W/ 317 JTS 2 3/8" P-110 TBG, EOT @ 10074.53 ', N/D BOP'S, N/U WH, PRESSURE TEST FLOWLINE TO 2500 #, PUMP BIT OFF @ 2400 #, TURN WELL OVER TO FLOW BACK CREW W/ 13567 BBLs WTR LEFT TO RECOVER, SITP = 1400 #, SICP = 2600 #, SALE LINE NEED REPAIR, R/D UNIT MOVE TO 36K1BS,</p> <p style="text-align: right;">KB = 24.00' HANGER = .83' 317 JTS 2 3/8" P-110 TBG = 10047.50'</p>

US ROCKIES REGION
Operation Summary Report

Well: MORGAN STATE 921-36F4BS RED		Spud Date: 5/16/2012	
Project: UTAH-UINTAH		Site: MORGAN STATE 921-36F3 PAD	Rig Name No: MILES 2/2, MILES 2/2
Event: COMPLETION		Start Date: 11/21/2012	End Date: 12/7/2012
Active Datum: RKB @5,029.00usft (above Mean Sea Level)		UWI: SE/NW/0/9/S/21/E/36/0/0/26/PM/N/2266/VW/0/1820/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								XN-NIPPLE 1.875" POBS = 2.20'
								EOT = 10074.53'
								346 JTS 2 3/8" P-110 DELV. 317 JTS 2 3/8" P-110 LANDED 29 JTS 2 3/8" P-110 TRANS FER TO 36K1BS WELL TURNED TO SALES @ 1530 HR ON 12/7/2012. 960 MCFD, 1920 BWPD, FCP 220#, FTP 875#, 20/64" CK.
	15:00 - 15:00	0.00	DRLOUT	50				
12/11/2012	7:00 -			50				WELL IP'D ON 12/11/12 - 1636 MCFD, 0 BWPD, 0 BOPD, CP 3314#, FTP 2385#, LP 114#, 24 HRS, CK 20/64

WELL DETAILS: MORGAN STATE 921-36F4BS

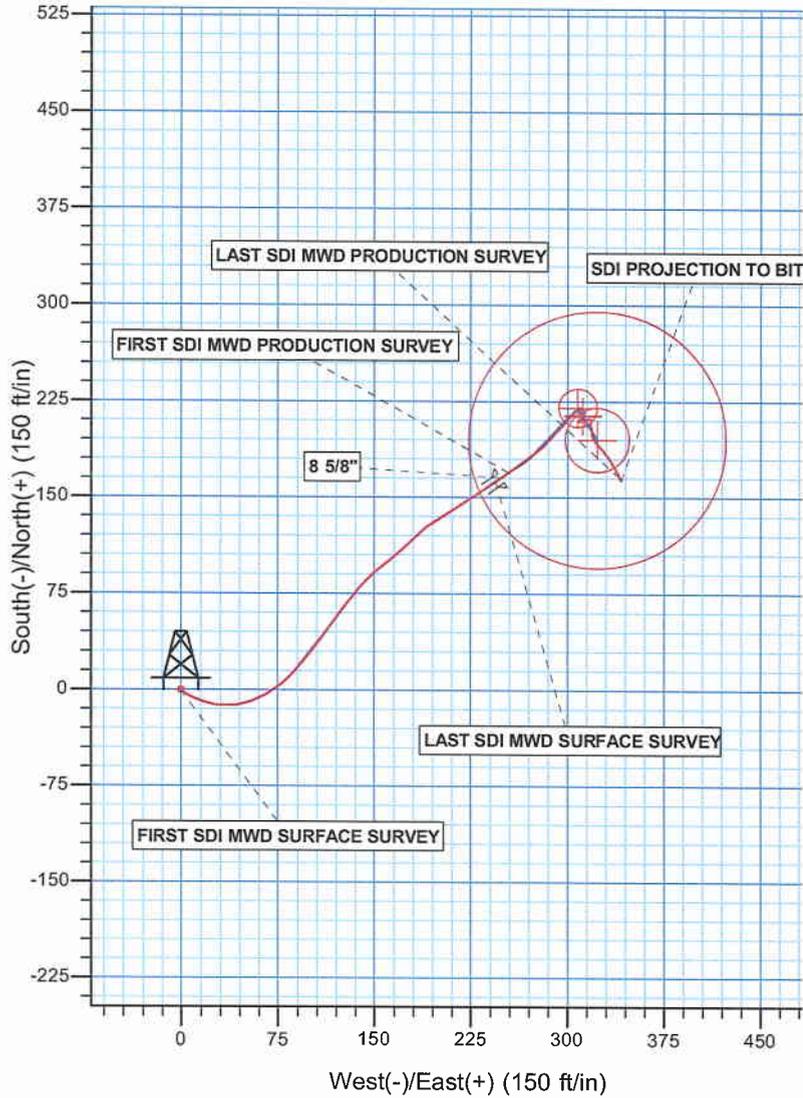
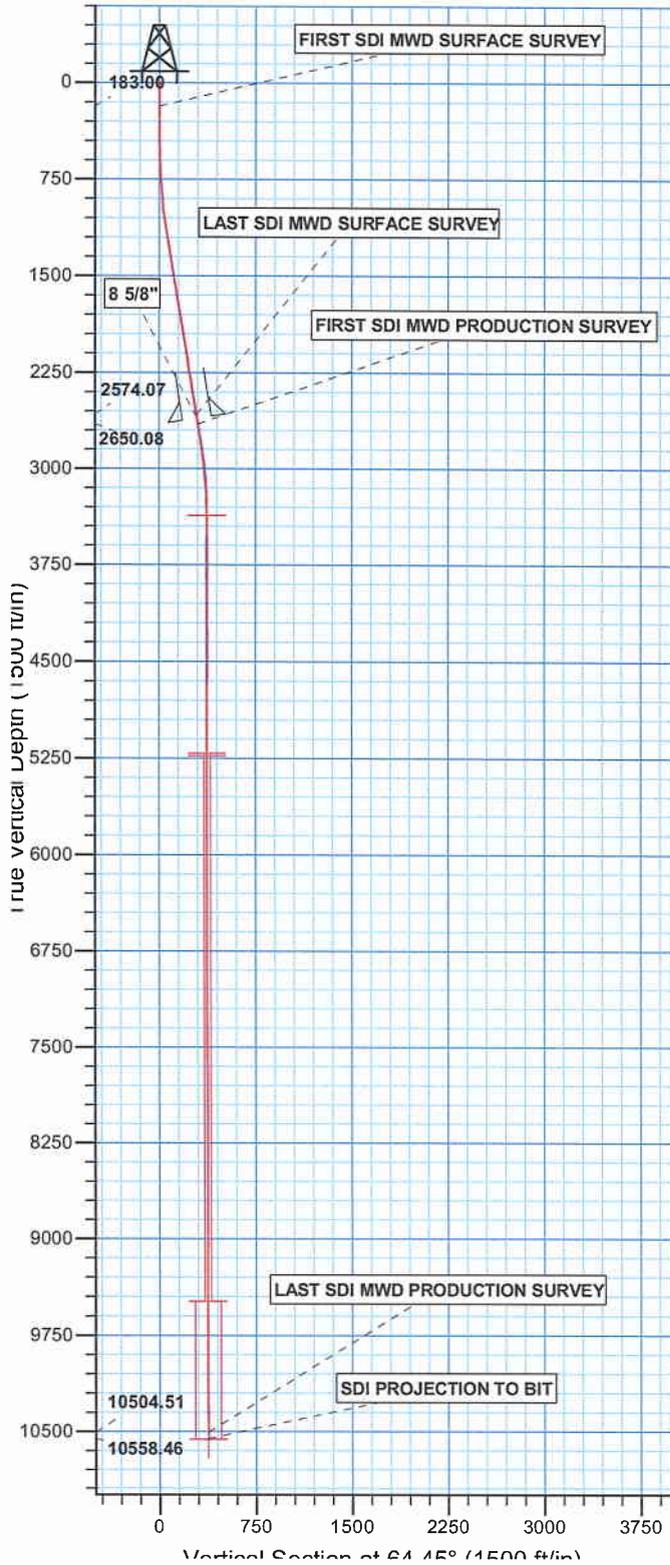
GL 5005 & KB 24 @ 5029.00ft (HP 318)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14527221.75	2059910.07	39.993555	-109.502292



Azimuths to True North
 Magnetic North: 11.02°

Magnetic Field
 Strength: 52279.0snT
 Dip Angle: 65.85°
 Date: 11/30/2011
 Model: IGRF2010



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

Geodetic System: Universal Transverse Mercator (US Survey F)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION T9S R21E
 System Datum: Mean Sea Level

Design: OH (MORGAN STATE 921-36F4BS/OH)

Created By: Caba Kendall Date: 12:40 August 15 2012



Scientific Drilling

US ROCKIES REGION PLANNING

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

MORGAN STATE 921-36F3 PAD

MORGAN STATE 921-36F4BS

OH

Design: OH

Standard Survey Report

15 August, 2012

Anadarko 
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well MORGAN STATE 921-36F4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5005 & KB 24 @ 5029.00ft (HP 318)
Site:	MORGAN STATE 921-36F3 PAD	MD Reference:	GL 5005 & KB 24 @ 5029.00ft (HP 318)
Well:	MORGAN STATE 921-36F4BS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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	MORGAN STATE 921-36F3 PAD, SECTION T9S R21E				
Site Position:		Northing:	14,527,221.76 usft	Latitude:	39.993555
From:	Lat/Long	Easting:	2,059,910.07 usft	Longitude:	-109.502292
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.96 °

Well	MORGAN STATE 921-36F4BS, 2266 FNL 1820 FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,527,221.76 usft	Latitude:	39.993555
	+E/-W	0.00 ft	Easting:	2,059,910.07 usft	Longitude:	-109.502292
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,005.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	11/30/11	(°)	(°)	(nT)
			11.02	65.85	52,279

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	64.45	

Survey Program	Date	08/15/12			
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
20.00	2,599.00	Survey #1 SDI MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
2,676.00	10,590.00	Survey #2 SDI MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
20.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	
163.00	0.35	219.00	163.00	-0.34	-0.27	-0.39	0.24	0.24	0.00	
183.00	0.14	244.10	183.00	-0.40	-0.34	-0.47	1.16	-1.05	125.50	
FIRST SDI MWD SURFACE SURVEY										
192.00	0.09	292.03	192.00	-0.40	-0.35	-0.49	1.16	-0.56	532.56	
220.00	0.35	147.36	220.00	-0.46	-0.33	-0.49	1.52	0.93	-516.68	
247.00	0.35	85.14	247.00	-0.53	-0.20	-0.41	1.34	0.00	-230.44	
274.00	0.35	131.63	274.00	-0.57	-0.06	-0.30	1.02	0.00	172.19	
301.00	0.44	124.07	301.00	-0.69	0.09	-0.21	0.38	0.33	-28.00	

Company: US ROCKIES REGION PLANNING
 Project: UTAH - UTM (feet), NAD27, Zone 12N
 Site: MORGAN STATE 921-36F3 PAD
 Well: MORGAN STATE 921-36F4BS
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well MORGAN STATE 921-36F4BS
 TVD Reference: GL 5005 & KB 24 @ 5029.00ft (HP 318)
 MD Reference: GL 5005 & KB 24 @ 5029.00ft (HP 318)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
329.00	0.88	111.50	329.00	-0.83	0.38	-0.01	1.65	1.57	-44.89
359.00	0.98	133.63	358.99	-1.09	0.78	0.24	1.23	0.33	73.77
449.00	1.85	119.85	448.96	-2.34	2.60	1.33	1.03	0.97	-15.31
539.00	2.99	121.26	538.88	-4.28	5.86	3.44	1.27	1.27	1.57
629.00	3.69	112.38	628.73	-6.60	10.55	6.67	0.96	0.78	-9.87
719.00	4.31	109.04	718.51	-8.81	16.42	11.02	0.74	0.69	-3.71
809.00	5.19	102.89	808.20	-10.82	23.59	16.62	1.13	0.98	-6.83
899.00	6.07	94.37	897.77	-12.09	32.30	23.93	1.35	0.98	-9.47
989.00	6.77	82.24	987.21	-11.74	42.30	33.11	1.69	0.78	-13.48
1,079.00	8.18	71.25	1,076.44	-8.96	53.62	44.52	2.22	1.57	-12.21
1,169.00	9.15	61.41	1,165.42	-3.48	65.97	58.02	1.96	1.08	-10.93
1,259.00	9.58	48.22	1,254.23	4.94	77.84	72.36	2.43	0.48	-14.66
1,349.00	10.34	40.92	1,342.88	16.03	88.72	86.95	1.64	0.84	-8.11
1,439.00	10.23	38.56	1,431.43	28.38	98.99	101.55	0.48	-0.12	-2.62
1,529.00	10.47	37.13	1,519.97	41.15	108.91	116.01	0.39	0.27	-1.59
1,619.00	11.09	34.77	1,608.38	54.78	118.78	130.79	0.85	0.69	-2.62
1,709.00	10.09	38.03	1,696.85	68.10	128.57	145.37	1.29	-1.11	3.62
1,799.00	10.38	40.58	1,785.41	80.47	138.70	159.85	0.60	0.32	2.83
1,889.00	9.85	50.51	1,874.02	91.52	149.92	174.73	2.02	-0.59	11.03
1,979.00	9.58	50.77	1,962.73	101.16	161.66	189.48	0.30	-0.30	0.29
2,069.00	9.85	46.47	2,051.44	111.19	173.04	204.08	0.86	0.30	-4.78
2,159.00	9.76	47.08	2,140.13	121.69	184.21	218.68	0.15	-0.10	0.68
2,249.00	8.89	57.23	2,228.94	130.65	195.65	232.86	2.06	-0.97	11.28
2,339.00	10.11	57.98	2,317.71	138.60	208.19	247.61	1.36	1.36	0.83
2,429.00	9.58	56.22	2,406.38	146.96	221.12	262.87	0.68	-0.59	-1.96
2,519.00	9.41	55.87	2,495.15	155.25	233.43	277.56	0.20	-0.19	-0.39
2,599.00	9.41	55.34	2,574.07	162.64	244.22	290.48	0.11	0.00	-0.66
LAST SDI MWD SURFACE SURVEY									
2,676.00	8.97	53.82	2,650.08	169.76	254.25	302.60	0.65	-0.57	-1.97
FIRST SDI MWD PRODUCTION SURVEY									
2,771.00	8.00	53.91	2,744.04	178.03	265.57	316.38	1.02	-1.02	0.09
2,865.00	8.62	52.15	2,837.05	186.20	276.41	329.69	0.71	0.66	-1.87
2,960.00	7.91	40.55	2,931.07	195.54	286.29	342.62	1.90	-0.75	-12.21
3,054.00	6.42	42.66	3,024.34	204.32	294.05	353.42	1.61	-1.59	2.24
3,149.00	4.92	43.18	3,118.87	211.19	300.44	362.15	1.58	-1.58	0.55
3,243.00	3.24	41.54	3,212.63	216.12	304.96	368.35	1.79	-1.79	-1.74
3,337.00	1.41	47.76	3,306.55	218.89	307.58	371.90	1.96	-1.95	6.62
3,432.00	0.40	82.02	3,401.53	219.72	308.77	373.34	1.16	-1.06	36.06
3,526.00	0.42	88.56	3,495.53	219.77	309.44	373.97	0.05	0.02	6.96
3,621.00	0.54	330.78	3,590.53	220.17	309.57	374.26	0.87	0.13	-123.98
3,715.00	0.12	32.05	3,684.53	220.64	309.41	374.31	0.53	-0.45	65.18
3,810.00	0.34	105.98	3,779.53	220.65	309.73	374.61	0.34	0.23	77.82
3,904.00	0.60	135.20	3,873.52	220.22	310.35	374.98	0.37	0.28	31.09

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: MORGAN STATE 921-36F3 PAD
Well: MORGAN STATE 921-36F4BS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well MORGAN STATE 921-36F4BS
TVD Reference: GL 5005 & KB 24 @ 5029.00ft (HP 318)
MD Reference: GL 5005 & KB 24 @ 5029.00ft (HP 318)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,999.00	1.02	135.76	3,968.52	219.27	311.29	375.41	0.44	0.44	0.59
4,093.00	0.07	278.88	4,062.51	218.68	311.81	375.63	1.15	-1.01	152.26
4,187.00	0.26	94.66	4,156.51	218.67	311.97	375.77	0.35	0.20	187.00
4,282.00	0.32	127.41	4,251.51	218.49	312.39	376.08	0.18	0.06	34.47
4,376.00	0.64	140.16	4,345.51	217.93	312.94	376.33	0.36	0.34	13.56
4,470.00	0.82	156.47	4,439.50	216.91	313.54	376.43	0.29	0.19	17.35
4,565.00	0.35	246.47	4,534.49	216.17	313.55	376.12	0.94	-0.49	94.74
4,659.00	0.65	232.53	4,628.49	215.73	312.86	375.31	0.34	0.32	-14.83
4,753.00	0.62	219.76	4,722.48	215.01	312.12	374.33	0.15	-0.03	-13.59
4,848.00	0.70	228.19	4,817.48	214.23	311.35	373.30	0.13	0.08	8.87
4,942.00	0.70	205.43	4,911.47	213.33	310.68	372.30	0.29	0.00	-24.21
5,036.00	0.70	196.47	5,005.46	212.26	310.27	371.47	0.12	0.00	-9.53
5,131.00	0.88	196.47	5,100.46	211.00	309.90	370.60	0.19	0.19	0.00
5,225.00	0.97	193.04	5,194.44	209.54	309.51	369.62	0.11	0.10	-3.65
5,319.00	0.53	2.58	5,288.44	209.20	309.35	369.33	1.59	-0.47	180.36
5,414.00	0.35	22.71	5,383.44	209.90	309.49	369.75	0.25	-0.19	21.19
5,508.00	0.26	24.64	5,477.44	210.36	309.69	370.13	0.10	-0.10	2.05
5,602.00	0.26	69.02	5,571.44	210.63	309.97	370.50	0.21	0.00	47.21
5,697.00	0.35	63.84	5,666.43	210.84	310.44	371.01	0.10	0.09	-5.45
5,791.00	0.44	110.60	5,760.43	210.84	311.03	371.55	0.34	0.10	49.74
5,885.00	0.53	119.03	5,854.43	210.50	311.75	372.05	0.12	0.10	8.97
5,980.00	0.70	137.75	5,949.42	209.86	312.52	372.47	0.27	0.18	19.71
6,074.00	0.44	3.72	6,043.42	209.79	312.93	372.81	1.12	-0.28	-142.59
6,169.00	0.18	53.29	6,138.42	210.24	313.08	373.14	0.37	-0.27	52.18
6,263.00	0.35	133.18	6,232.42	210.14	313.40	373.39	0.39	0.18	84.99
6,357.00	0.62	150.85	6,326.42	209.49	313.86	373.52	0.33	0.29	18.80
6,452.00	0.79	162.28	6,421.41	208.42	314.31	373.46	0.23	0.18	12.03
6,546.00	0.35	318.72	6,515.41	208.02	314.32	373.30	1.19	-0.47	166.43
6,641.00	0.09	271.35	6,610.40	208.24	314.05	373.15	0.31	-0.27	-49.86
6,735.00	0.18	224.94	6,704.40	208.14	313.87	372.95	0.14	0.10	-49.37
6,830.00	0.28	202.37	6,799.40	207.82	313.68	372.64	0.14	0.11	-23.76
6,924.00	0.35	162.28	6,893.40	207.33	313.68	372.43	0.24	0.07	-42.65
7,019.00	0.70	167.20	6,988.40	206.49	313.90	372.26	0.37	0.37	5.18
7,113.00	0.44	324.96	7,082.40	206.22	313.82	372.07	1.19	-0.28	167.83
7,207.00	0.18	17.52	7,176.40	206.66	313.65	372.11	0.38	-0.28	55.91
7,302.00	0.26	82.47	7,271.39	206.83	313.91	372.42	0.26	0.08	68.37
7,396.00	0.44	88.54	7,365.39	206.87	314.49	372.95	0.20	0.19	6.46
7,490.00	0.88	353.79	7,459.39	207.60	314.77	373.52	1.08	0.47	-100.80
7,588.00	0.70	1.17	7,557.38	208.94	314.70	374.04	0.21	-0.18	7.53
7,679.00	0.53	7.15	7,648.37	209.92	314.76	374.52	0.20	-0.19	6.57
7,773.00	0.33	35.86	7,742.37	210.57	314.98	374.99	0.31	-0.21	30.54
7,867.00	0.26	32.99	7,836.37	210.96	315.25	375.41	0.08	-0.07	-3.05
7,962.00	0.44	62.34	7,931.37	211.31	315.69	375.96	0.26	0.19	30.89
8,056.00	0.26	71.57	8,025.37	211.55	316.21	376.53	0.20	-0.19	9.82

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: MORGAN STATE 921-36F3 PAD
Well: MORGAN STATE 921-36F4BS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well MORGAN STATE 921-36F4BS
TVD Reference: GL 5005 & KB 24 @ 5029.00ft (HP 318)
MD Reference: GL 5005 & KB 24 @ 5029.00ft (HP 318)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,150.00	0.44	90.29	8,119.36	211.62	316.78	377.07	0.22	0.19	19.91	
8,245.00	0.70	125.54	8,214.36	211.28	317.61	377.67	0.45	0.27	37.11	
8,340.00	0.35	300.35	8,309.36	211.09	317.84	377.79	1.10	-0.37	184.01	
8,434.00	0.09	276.09	8,403.36	211.24	317.51	377.57	0.29	-0.28	-25.81	
8,528.00	0.18	123.25	8,497.36	211.16	317.56	377.58	0.28	0.10	-162.60	
8,623.00	0.53	169.04	8,592.36	210.65	317.77	377.55	0.45	0.37	48.20	
8,717.00	0.88	173.44	8,686.35	209.51	317.94	377.20	0.38	0.37	4.68	
8,811.00	0.97	191.81	8,780.34	208.01	317.86	376.49	0.33	0.10	19.54	
8,905.00	0.70	170.80	8,874.33	206.67	317.79	375.84	0.43	-0.29	-22.35	
9,000.00	0.70	159.81	8,969.32	205.55	318.08	375.63	0.14	0.00	-11.57	
9,094.00	0.79	157.44	9,063.31	204.41	318.53	375.54	0.10	0.10	-2.52	
9,188.00	0.97	175.37	9,157.30	203.02	318.84	375.22	0.35	0.19	19.07	
9,283.00	1.14	179.33	9,252.28	201.27	318.91	374.54	0.19	0.18	4.17	
9,377.00	0.97	179.24	9,346.27	199.54	318.94	373.81	0.18	-0.18	-0.10	
9,471.00	1.14	156.83	9,440.25	197.89	319.31	373.44	0.47	0.18	-23.84	
9,566.00	1.67	153.93	9,535.22	195.78	320.29	373.41	0.56	0.56	-3.05	
9,660.00	1.67	143.99	9,629.18	193.44	321.70	373.67	0.31	0.00	-10.57	
9,755.00	1.85	139.69	9,724.14	191.15	323.51	374.31	0.23	0.19	-4.53	
9,849.00	1.76	135.12	9,818.09	188.97	325.51	375.18	0.18	-0.10	-4.86	
9,943.00	1.85	141.36	9,912.05	186.76	327.47	376.00	0.23	0.10	6.64	
10,038.00	2.20	139.25	10,006.99	184.18	329.62	376.82	0.38	0.37	-2.22	
10,132.00	2.29	146.46	10,100.92	181.25	331.84	377.56	0.32	0.10	7.67	
10,227.00	2.46	150.85	10,195.83	177.89	333.88	377.95	0.26	0.18	4.62	
10,321.00	2.46	147.42	10,289.75	174.42	335.95	378.32	0.16	0.00	-3.65	
10,416.00	2.64	154.19	10,384.65	170.74	338.00	378.58	0.37	0.19	7.13	
10,510.00	2.90	152.43	10,478.54	166.68	340.04	378.68	0.29	0.28	-1.87	
10,536.00	2.64	149.62	10,504.51	165.58	340.65	378.75	1.13	-1.00	-10.81	
LAST SDI MWD PRODUCTION SURVEY										
10,590.00	2.64	149.62	10,558.46	163.43	341.91	378.96	0.00	0.00	0.00	
SDI PROJECTION TO BIT										

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,630.00	2,604.66	8 5/8"	8.625	11.000

Company: US ROCKIES REGION PLANNING
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Design: OH

Local Co-ordinate Reference: Well MORGAN STATE 921-36F4BS
TVD Reference: GL 5005 & KB 24 @ 5029.00ft (HP 318)
MD Reference: GL 5005 & KB 24 @ 5029.00ft (HP 318)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
183.00	183.00	-0.40	-0.34	FIRST SDI MWD SURFACE SURVEY
2,599.00	2,574.07	162.64	244.22	LAST SDI MWD SURFACE SURVEY
2,676.00	2,650.08	169.76	254.25	FIRST SDI MWD PRODUCTION SURVEY
10,536.00	10,504.51	165.58	340.65	LAST SDI MWD PRODUCTION SURVEY
10,590.00	10,558.46	163.43	341.91	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____