API Well Number: 43047539800000

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
SRW 823-22H1CS

2. TYPE OF WORK
DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○

3. FIELD OR WILDCAT
NATURAL BUTTES

4. TYPE OF WELL
Gas Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME
SOUTH RED WASH

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)
UTU-71424

11. MINERAL OWNERSHIP
FEDERAL ◉ INDIAN ○ STATE ○ FEE ○

12. SURFACE OWNERSHIP
FEDERAL ◉ INDIAN ○ STATE ○ FEE ○

13. NAME OF SURFACE OWNER (if box 12 = 'fee')

14. SURFACE OWNER PHONE (if box 12 = 'fee')

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ◉ (Submit Commingling Application) NO ○

19. SLANT
VERTICAL ○ DIRECTIONAL ◉ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2217 FNL 1899 FEL	SWNE	22	8.0 S	23.0 E	S
Top of Uppermost Producing Zone	1817 FNL 498 FEL	SENE	22	8.0 S	23.0 E	S
At Total Depth	1817 FNL 498 FEL	SENE	22	8.0 S	23.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
3452

23. NUMBER OF ACRES IN DRILLING UNIT
2560

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
2793

26. PROPOSED DEPTH
MD: 11594 TVD: 11400

27. ELEVATION - GROUND LEVEL
5318

28. BOND NUMBER
WYB000291

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	11	8.625	0 - 3700	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 - 11594	11.6	HCP-110 LT&C	12.5	Premium Lite High Strength	380	3.38	12.0
							50/50 Poz	1560	1.31	14.3

ATTACHMENTS

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

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

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

SIGNATURE | **DATE** 08/07/2013 | **EMAIL** cara.mahler@anadarko.com

API NUMBER ASSIGNED
43047539800000

APPROVAL

Permit Manager

RECEIVED: January 23, 2014

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

SRW 823-22H1CS

Surface:	2217 FNL / 1899 FEL	SWNE
BHL:	1817 FNL / 498 FEL	SENE

Section 22 T8S R23E

Unitah County, Utah
Mineral Lease: UTU-71424

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:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	2,488'	
Birds Nest	2,795'	Water
Mahogany	3,247'	Water
Wasatch	5,503'	Gas
Mesaverde	7,518'	Gas
Sego	9,812'	Gas
Castlegate	9,931'	Gas
Blackhawk	10,447'	Gas
TVD =	11,400'	
TD =	11,594'	

2.b Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk 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 a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

3. **Pressure Control Equipment**

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

RECEIVED: July 15, 2013

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 Group)

Maximum anticipated bottom hole pressure calculated at 11400' TVD, approximately equals 7,296 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,772 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 Formation/Mesaverde Group

Maximum anticipated bottom hole pressure calculated at 9812' TVD, approximately equals 5,985 psi (0.61 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 3,853 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 Standard Operating Practices on file with the BLM Vernal Field Office.

10. Other Information:

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

RECEIVED: July 15, 2013

KerrMcGee

KERR-McGEE OIL & GAS ONSHORE LP

Blackhawk Drilling Program

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	May 29, 2013
WELL NAME	**SRW 823-22H1CS**	TD	11,400' TVD 11,594' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah
FINISHED ELEVATION	5,318'		
SURFACE LOCATION	SWNE 2217 FNL 1899 FEL Sec 22 T 8S R 23E		
	Latitude: 40.109301 Longitude: -109.310581 NAD 83		
BTM HOLE LOCATION	SENE 1817 FNL 498 FEL Sec 22 T 8S R 23E		
	Latitude: 40.110399 Longitude: -109.305573 NAD 83		
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)		
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
		200'	12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
All water flows encountered while drilling will be reported to the appropriate agencies.			11.00'	8-5/8", 28#, IJ-55, LTC	Air mist
	Green River @	**2,488'**			
	Top of Birds Nest @	**2,795'**			
	Mahogany @	**3,247'**			
	Preset f/ GL @	**3,700' TVD**			
	Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.				
	Wasatch @	**5,503'**			
Mud logging program TBD Cased hole logging program from TD - surf csg			7-7/8"	4-1/2" 11.6# HCP-110 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-12.5 ppg
	Mesaverde @	**7,518' TVD**			
	Sego @	**9,812' TVD**			
	Castlegate @	**9,931' TVD**			
	Blackhawk	**10,447' TVD**			
Max anticipated Mud required 12.5 ppg	**TD @**	**11,400' TVD** **11,594' MD**			

RECEIVED: July 15, 2013

KerrMcGee

KERR-McGEE OIL & GAS ONSHORE LP

Blackhawk Drilling Program

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION LTC	TENSION DQX
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	3,700	28.00	IJ-55	LTC	1.45	1.09	3.84	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.17		3.37
	4-1/2"	5,000	to	11,594'	11.60	HCP-110	LTC	1.19	1.17	4.51	

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 @ 9000 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	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	3,200'	Premium cmt + 16% Gel + 10 pps gilsonite	390	35%	12.00		2.86
			+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	4,994'	Premium Lite II +0.25 pps celloflake + .4% FL-52	380	35%	12.00		3.38
			+ .3% R-3 + .5 lbs/sk Kol-Seal + 6%Bentonite II +					
			1.2% Sodium Metasilicate + .05 lbs/sk Static Free					
	TAIL	6,600'	50/50 Poz/G + 10% salt + .05 lbs/sk Static Free	1,560	35%	14.30		1.31
			+ 1.2% Sodium Metasilicate + .5 % EC-1					
			+.002 gps FP-6L + 2% Bentonite II					

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

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

DRILLING ENGINEER: _____ **DATE:** _____

Nick Spence / John Tuckwiller / Brian Cocchiere / Tyler Elliott

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

RECEIVED: July 15, 2013

KERR-McGEE OIL & GAS ONSHORE LP

Wasatch/Mesaverde Drilling Program

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	May 29, 2013
WELL NAME	**SRW 823-22H1CS**	TD	9,812' TVD 10,006' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	FINISHED ELEVATION 5,318'
SURFACE LOCATION	SWNE 2217 FNL 1899 FEL Sec 22 T 8S R 23E		
	Latitude: 40.109301 Longitude: -109.310581		NAD 83
BTM HOLE LOCATION	SENE 1817 FNL 498 FEL Sec 22 T 8S R 23E		
	Latitude: 40.110399 Longitude: -109.305573		NAD 83
OBJECTIVE ZONE(S)	Wasatch Formation/Mesaverde Group		
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
		200'			
			11.00'	8-5/8", 28#, IJ-55, LTC	Air mist
	Green River @	2,488'			
	Top of Birds Nest @	2,795'			
	Mahogany @	3,247'			
	Preset f/ GL @	3,700' TVD			
	Wasatch @	5,503'			
	Mesaverde @	7,518' TVD			
	Sego @	9,812' TVD			
	TD @	9,812' TVD 10,006' MD			

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

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

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

7-7/8"	4-1/2" 11.6# I-80/HCP-110 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-12.0 ppg

Max anticipated Mud required 12.0 ppg

RECEIVED: July 15, 2013

SRW 823-22H1CS

KerrMcGee

KERR-McGEE OIL & GAS ONSHORE LP

Wasatch/Mesaverde Drilling Program

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION	TENSION
										LTC	DQX
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	3,700	28.00	IJ-55	LTC	1.45	1.09	3.84	N/A
								7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.04		2.82
								10,690	8,650	223,000	
	4-1/2"	5,000	to	10,006'	11.60	HCP-110	LTC	1.53	1.41	4.70	

Surface Casing:

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

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

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

Production casing:

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

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

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE		**NOTE: If well will circulate water to surface, option 2 will be utilized**						
Option 2	LEAD	3,200'	Premium cmt + 16% Gel + 10 pps gilsonite	390	35%	12.00		2.86
			+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps Flocele + 3% salt BWOC + GR 3 pps					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	4,996'	Premium Lite II +0.25 pps celloflake + .4% FL-52	380	35%	12.00		3.38
			+ .3% R-3 + .5 lbs/sk Kol-Seal + 6%Bentonite II +					
			1.2% Sodium Metasilicate + .05 lbs/sk Static Free					
	TAIL	5,010'	50/50 Poz/G + 10% salt + .05 lbs/sk Static Free	1,180	35%	14.30		1.31
			+ 1.2% Sodium Metasilicate + .5 % EC-1					
			+.002 gps FP-6L + 2% Bentonite II					

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

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

DRILLING ENGINEER: _____ **DATE:** _____

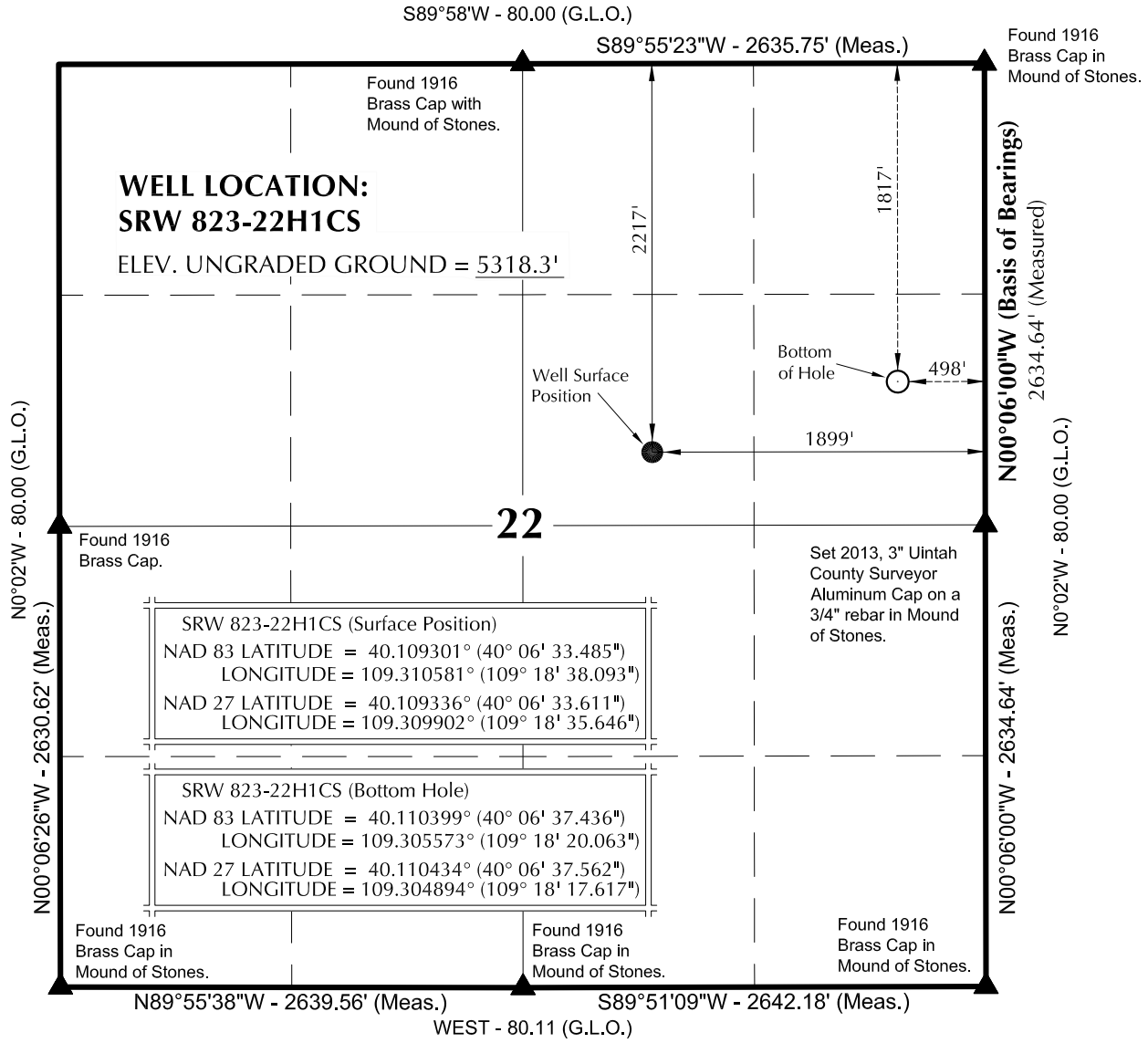
Nick Spence / John Tuckwiller / Brian Cocchiere / Tyler Elliott

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

RECEIVED: July 15, 2013

T8S, R23E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines. G.L.O. distances are shown in feet or chains.
2. 1 chain = 66 feet.
3. The Bottom of hole bears N73°58'21"E 1457.19' from the Surface Position.
4. NAD 83 Latitude & Longitude are (CORS 96)(EPOCH:2002).
5. Bearings and Distances are based upon a Local Cartesian Grid, oriented to Geodetic North at the North 1/4 Corner of Section 8, T10S, R22E, S.L.B.&M. The Grid having a mean project height of 5300'. Lineal units used are U.S. Survey Foot.
6. Basis of elevation is Tri-Sta "Two Water" located in Lot 4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

SURVEYOR'S CERTIFICATE

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

4-2-13

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

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

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

WELL PAD - SRW 823-22G

SRW 823-22H1CS
WELL PLAT
1817' FNL, 498' FEL (Bottom Hole)
SE ¼ NE ¼ OF SECTION 22, T8S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

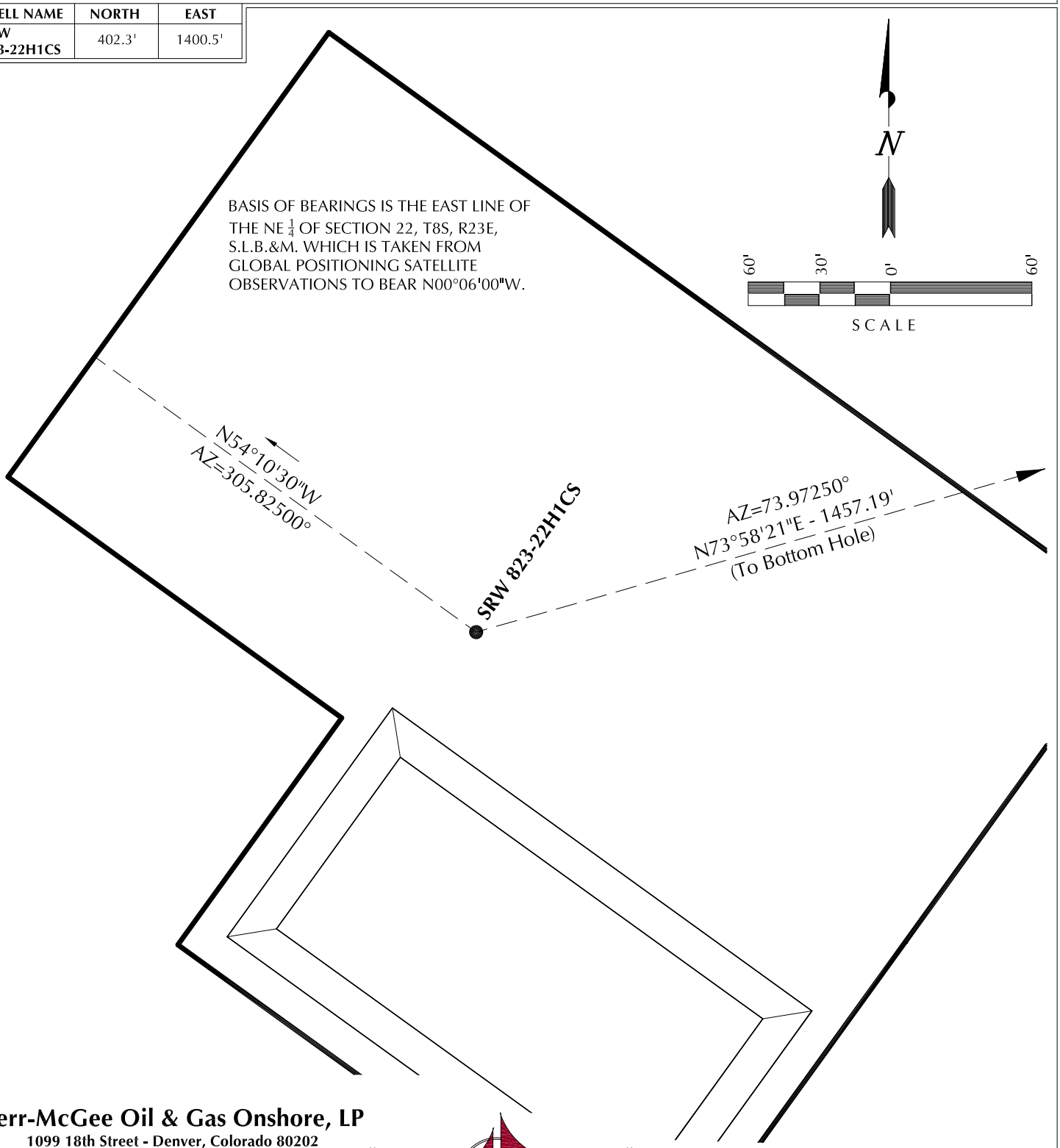
DATE SURVEYED: 3-22-13	SURVEYED BY: J.W.	SHEET NO:
DATE DRAWN: 3-27-13	DRAWN BY: J.G.C.	1
SCALE: 1" = 1000'	Date Last Revised:	1 OF 13

API Well Number: 43047539800000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
SRW 823-22H1CS	40°06'33.485" 40.109301°	109°18'38.093" 109.310581°	40°06'33.611" 40.109336°	109°18'35.646" 109.309902°	2217' FNL 1899' FEL	40°06'37.436" 40.110399°	109°18'20.063" 109.305573°	40°06'37.562" 40.110434°	109°18'17.617" 109.304894°	1817' FNL 498' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST
SRW 823-22H1CS	402.3'	1400.5'



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

WELL PAD - SRW 823-22G

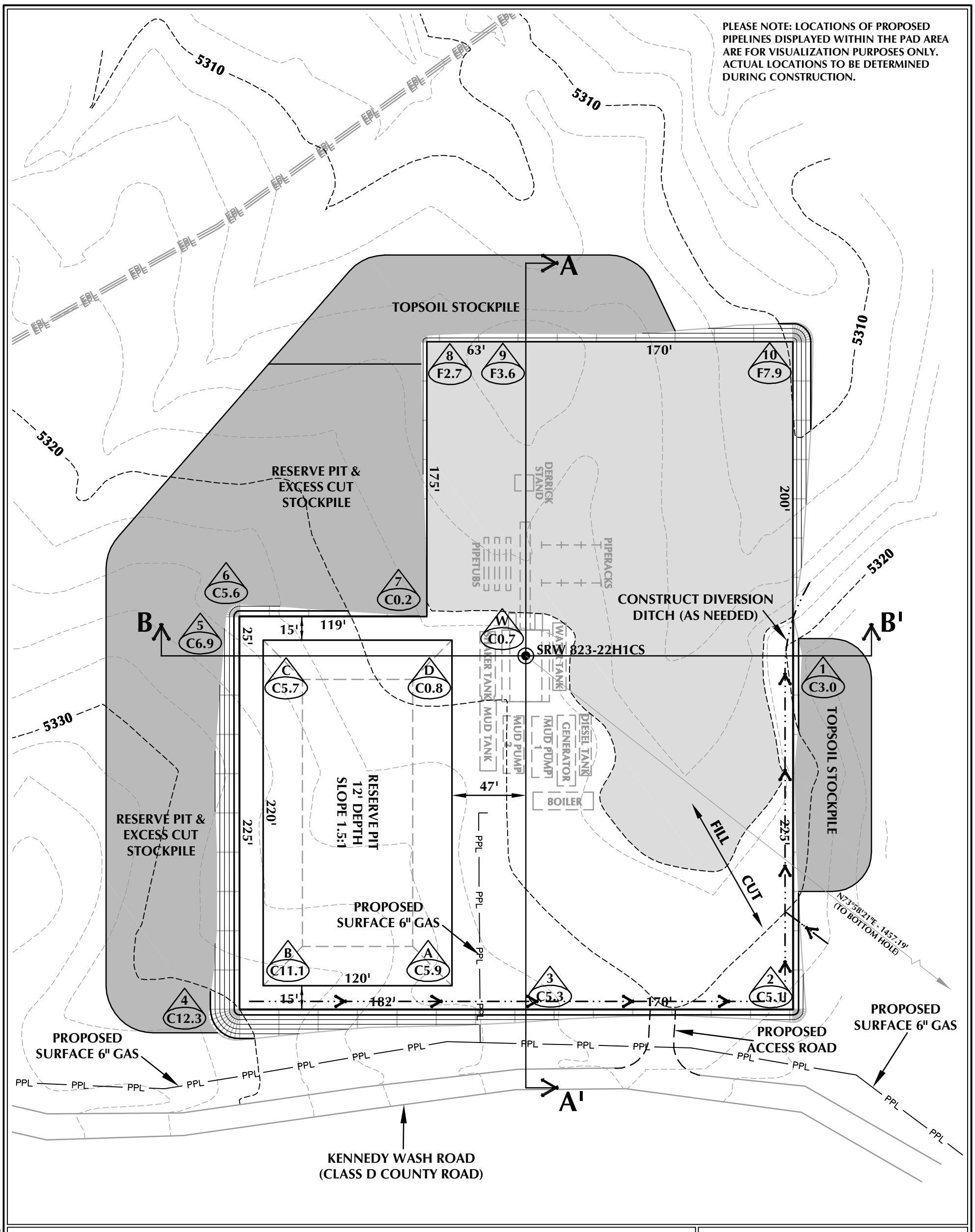
WELL PAD INTERFERENCE PLAT
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE SURVEYED: 3-22-13	SURVEYED BY: J.W.	SHEET NO:
DATE DRAWN: 3-27-13	DRAWN BY: J.G.C.	2
SCALE: 1" = 60'	Date Last Revised:	2 OF 13

RECEIVED: July 15, 2013



WELL PAD - SRW 823-22G DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5318.3'
FINISHED GRADE ELEVATION = 5317.6'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.24 ACRES
TOTAL DISTURBANCE AREA = 4.70 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 10,566 C.Y.
TOTAL FILL FOR WELL PAD = 8,044 C.Y.
TOPSOIL @ 6" DEPTH = 2,615 C.Y.
EXCESS MATERIAL = 2,522 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 9,210 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 35,230 BARRELS

WELL PAD LEGEND

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

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

WELL PAD - SRW 823-22G

WELL PAD - LOCATION LAYOUT
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

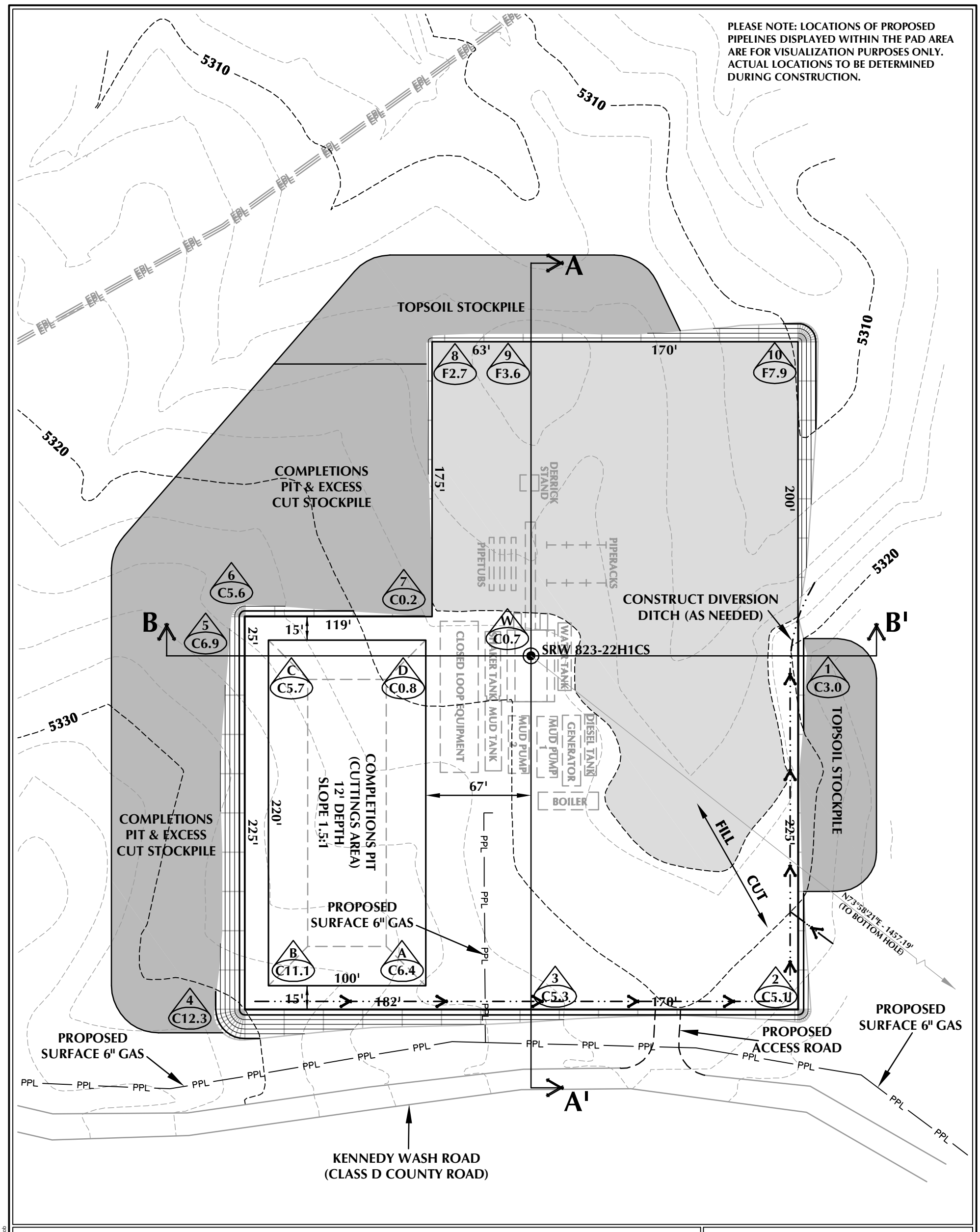
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

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

SCALE: 1"=60' | DATE: 4/4/13 | SHEET NO: 3
REVISED:
3 OF 13

K:\ANADARKO\2013\22-SRW WELL STAKING\DWGS\SRW 823-22G - 22H1CS\SRW 823-22H.dwg, 4/5/2013 2:14:05 PM, jacob

RECEIVED: July 15, 2013



WELL PAD - SRW 823-22G (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5318.3'
FINISHED GRADE ELEVATION = 5317.6'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.24 ACRES
TOTAL DISTURBANCE AREA = 4.70 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

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

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 10,566 C.Y.
TOTAL FILL FOR WELL PAD = 8,044 C.Y.
TOPSOIL @ 6" DEPTH = 2,615 C.Y.
EXCESS MATERIAL = 2,522 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
+/- 7,410 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 28,140 BARRELS

WELL PAD LEGEND

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

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

WELL PAD - SRW 823-22G

WELL PAD - LOCATION LAYOUT
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

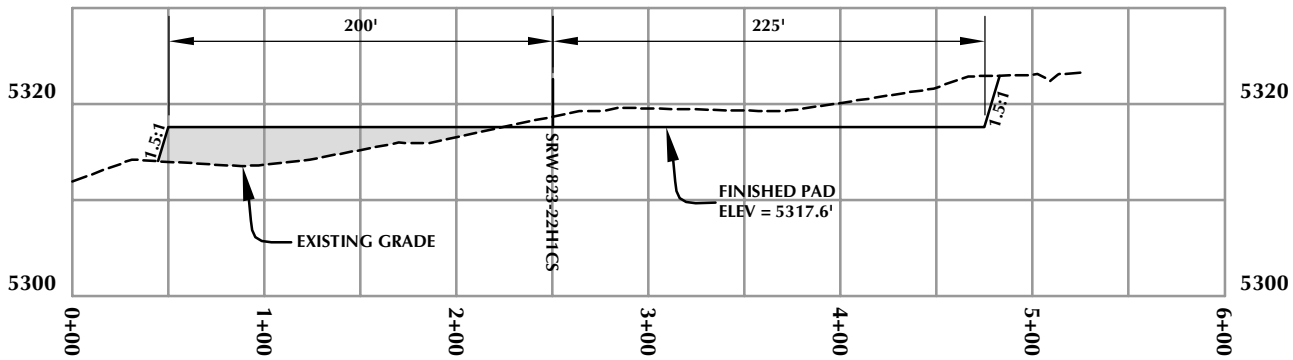
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

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

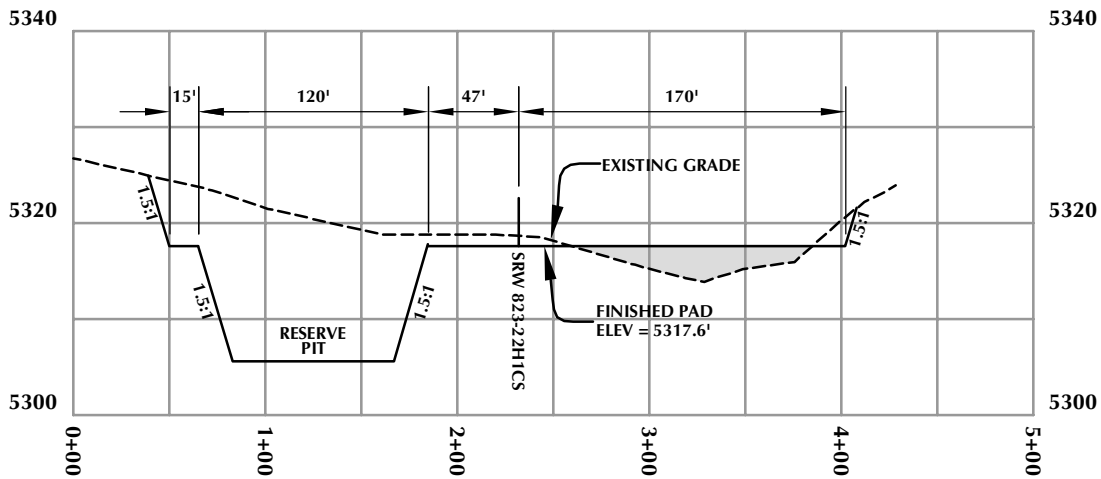
SCALE: 1"=60' | DATE: 4/30/13 | SHEET NO: 3B 3B OF 13
REVISED:

K:\ANADARKO\2013\22-SRW_WELL_STAKING\DWGS\SRW 823-22G - 22H1CS\SRW 823-22H.dwg, 4/30/2013 12:02:12 PM, jacob

RECEIVED: July 15, 2013



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

HORIZONTAL 0 50' 100' 1" = 100'

VERTICAL 0 10' 20' 1" = 20'

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

WELL PAD - SRW 823-22G

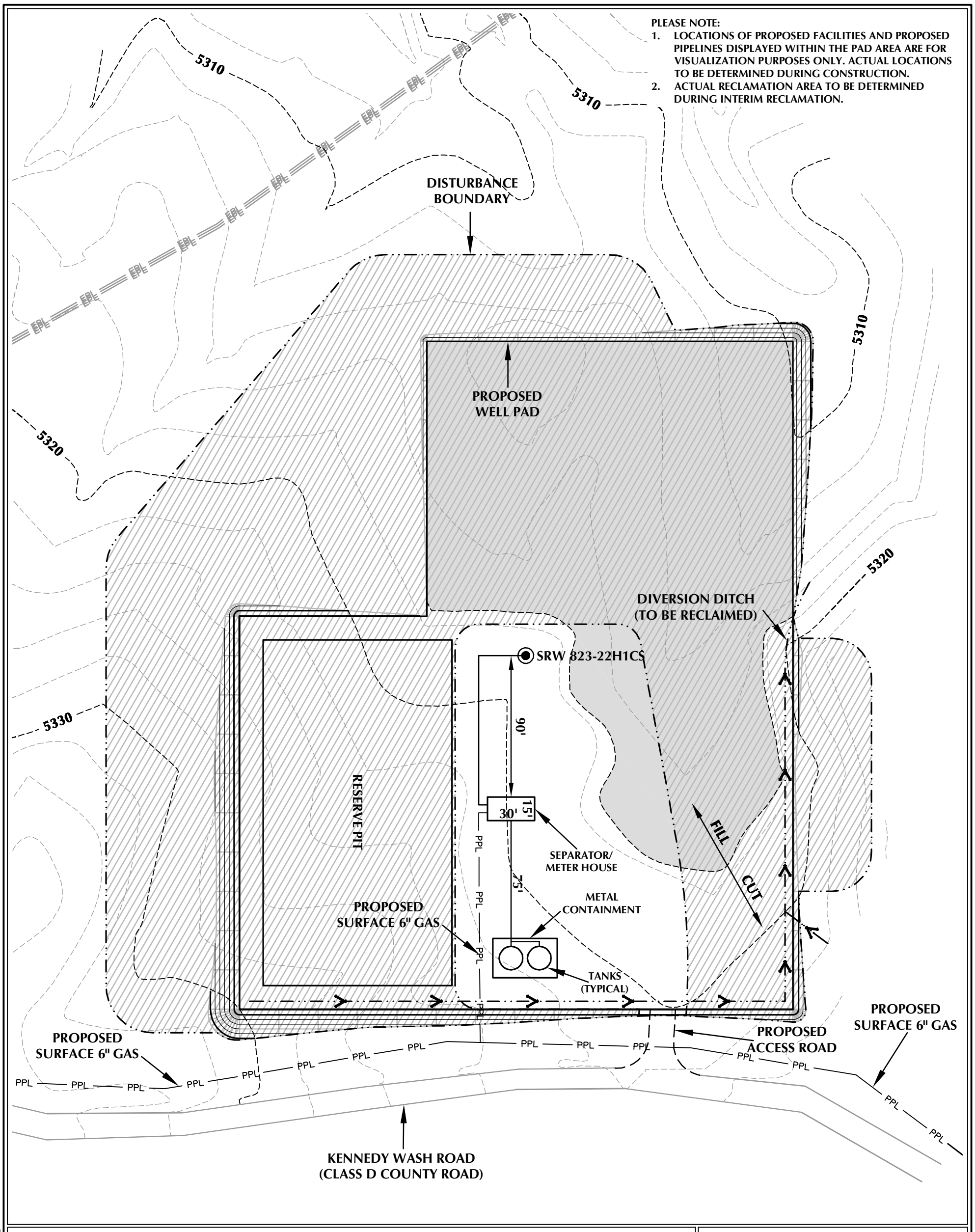
WELL PAD - CROSS SECTIONS
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

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

SCALE: 1"=100' | DATE: 4/4/13 | SHEET NO: 4
REVISED:
4 OF 13

K:\ANADARKO\2013\2013_22_SRW_WELL_STAKING\DWGS\SRW 823-22G - 22H1CS\SRW 823-22H.dwg, 4/4/2013 4:23:39 PM, ashley



WELL PAD - SRW 823-22G RECLAMATION DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 4.70 ACRES
RECLAMATION AREA = 3.93 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 0.77 ACRES

WELL PAD LEGEND

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

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

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

WELL PAD - SRW 823-22G

WELL PAD - RECLAMATION LAYOUT
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

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

SCALE: 1"=60' | DATE: 4/4/13 | SHEET NO: 5 | 5 OF 13
REVISED:

K:\ANADARKO\2013\2013_22_SRW_WELL_STAKING\DWGS\SRW 823-22G - 22H1CS\SRW 823-22H.dwg, 4/5/2013 2:15:20 PM, jacob

RECEIVED: July 15, 2013

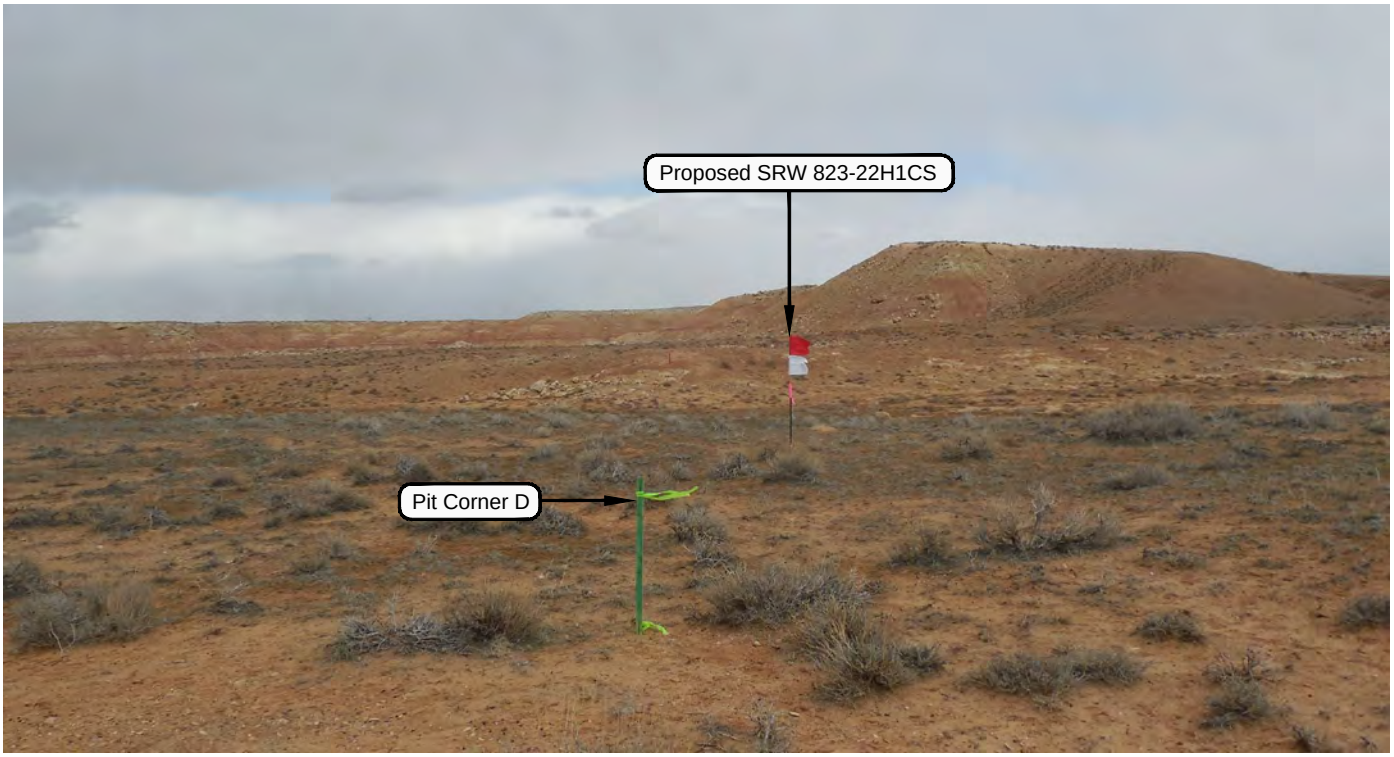


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE CAMERA ANGLE: NORTHEASTERLY

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD CAMERA ANGLE: NORTHWESTERLY

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

WELL PAD - SRW 823-22G

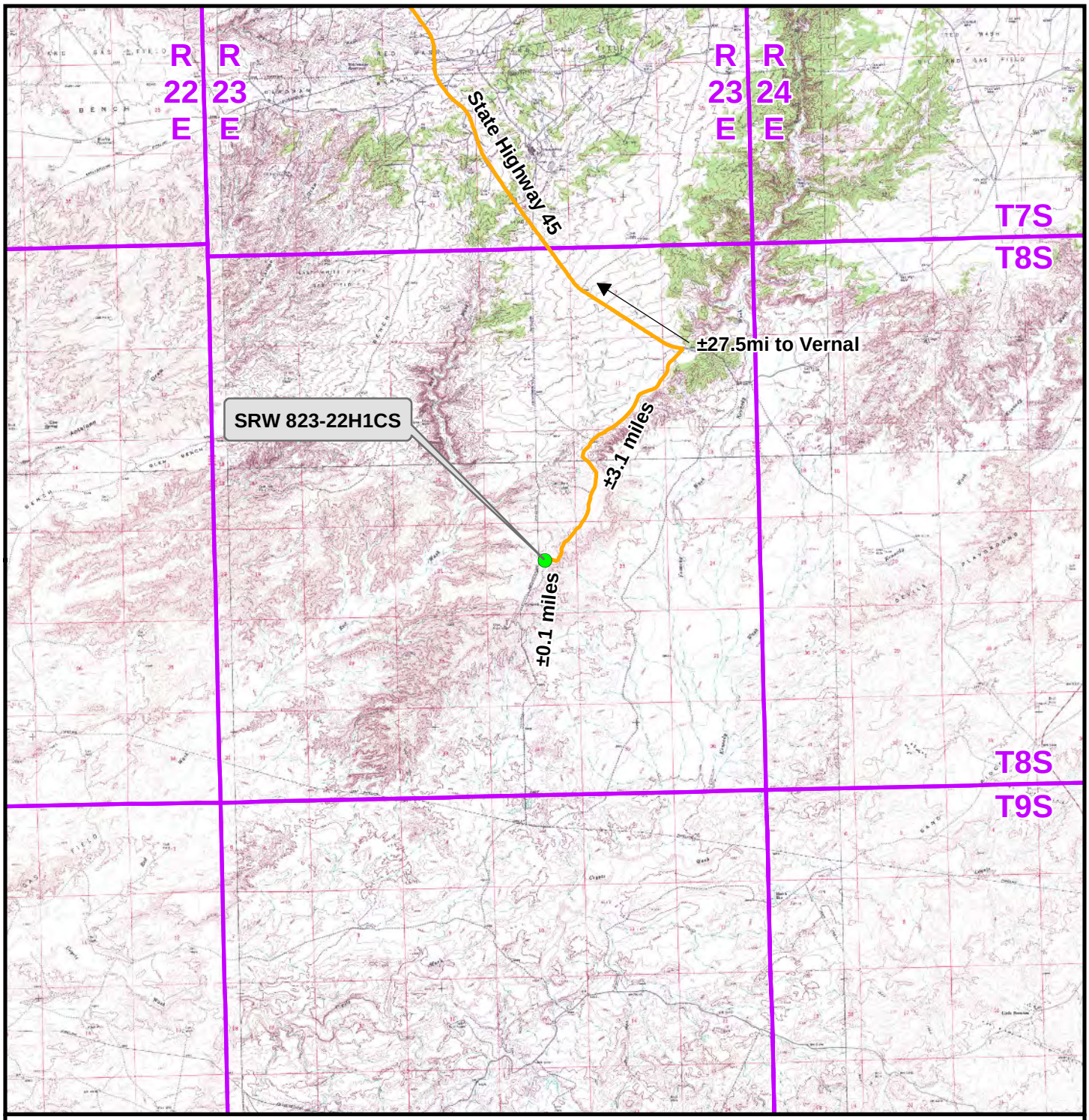
LOCATION PHOTOS
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH.

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

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

DATE PHOTOS TAKEN: 3-22-13	PHOTOS TAKEN BY: J.W.	SHEET NO:
DATE DRAWN: 3-27-13	DRAWN BY: J.G.C.	6
Date Last Revised:		6 OF 13

RECEIVED: July 15, 2013



Legend

Proposed Well Location — Access Route - Proposed

WELL PAD - SRW 823-22G

TOPO A
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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

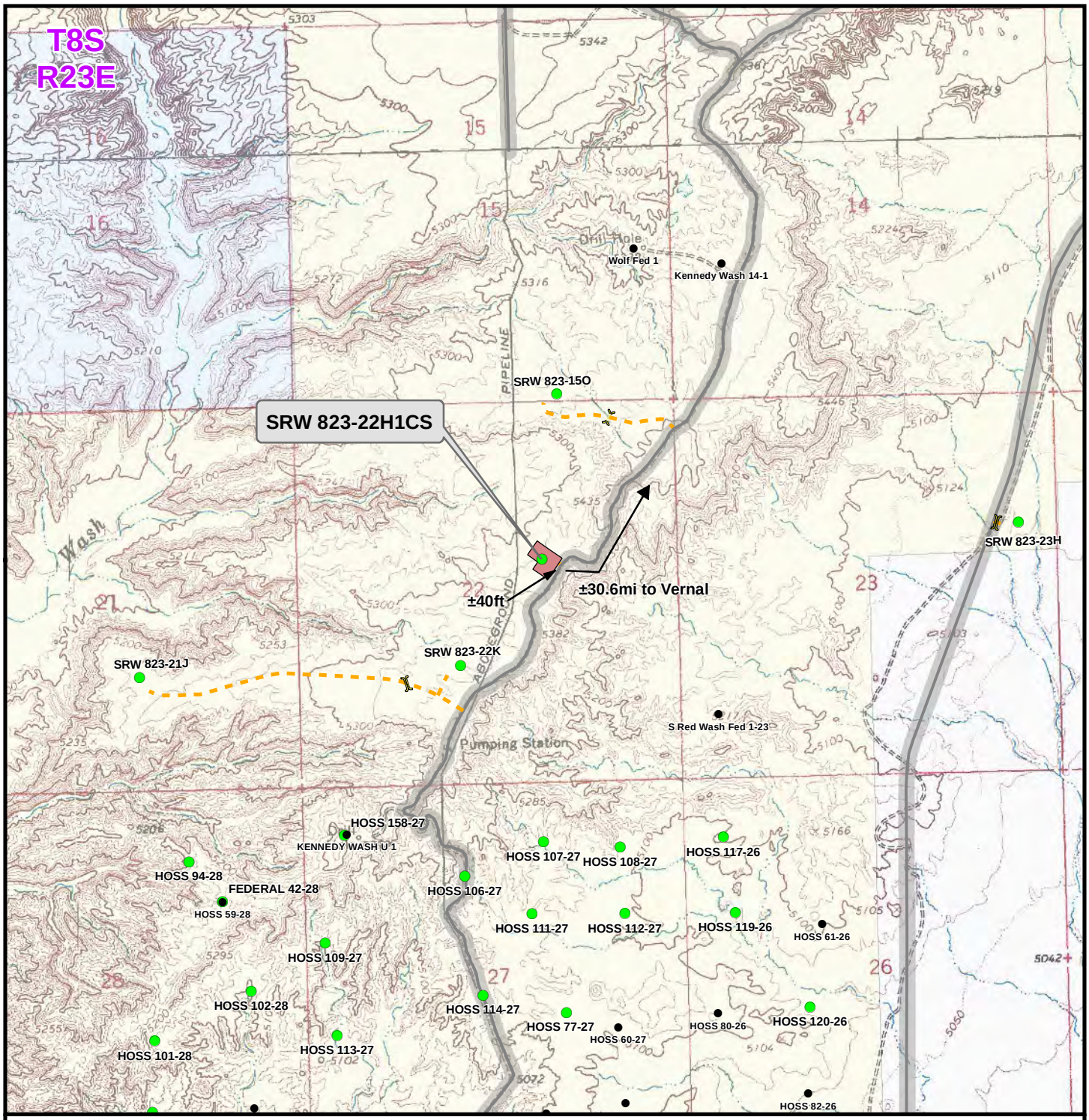
N

SCALE: 1:100,000	NAD83 USP Central	SHEET NO: 7
DRAWN: TL	DATE: 4 Apr 2013	7 OF 13
REVISED:	DATE:	

K:\ANADARKO\2013\2013_22_SRW_WELL_STAKNG\GIS\Maps_ABCDE\SRW 823-22G\SRW 823-22G_A.mxd4/4/2013 4:35:42 PM

RECEIVED: July 15, 2013

API Well Number: 43047539800000



Legend

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

Total Proposed Road Length: ±40ft

WELL PAD - SRW 823-22G

TOPO B
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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

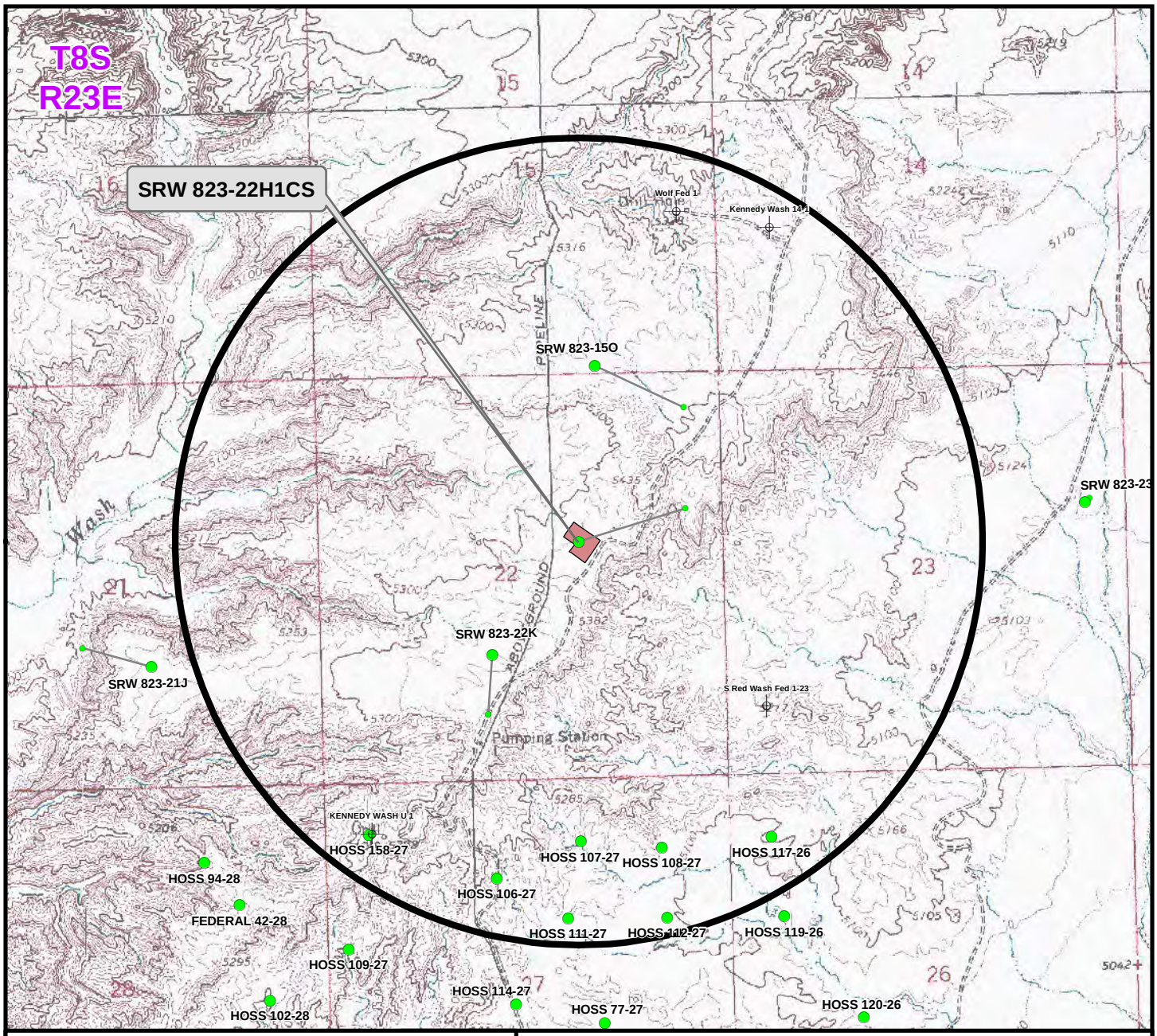
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:	
DRAWN: TL	DATE: 4 Apr 2013	8	
REVISED: TL	DATE: 12 Apr 2013	8 OF 13	

K:\ANADARKO\2013\2013_22_SRW_WELL_STAKING\GIS\Maps_ABCDE\SRW 823-22G\SRW 823-22G_B.mxd4/30/2013 10:56:15 AM

RECEIVED: July 15, 2013

API Well Number: 43047539800000



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
SRW 823-22H1CS	S Red Wash Fed 1-23	2,793ft

Legend

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

WELL PAD - SRW 823-22G

TOPO C
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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

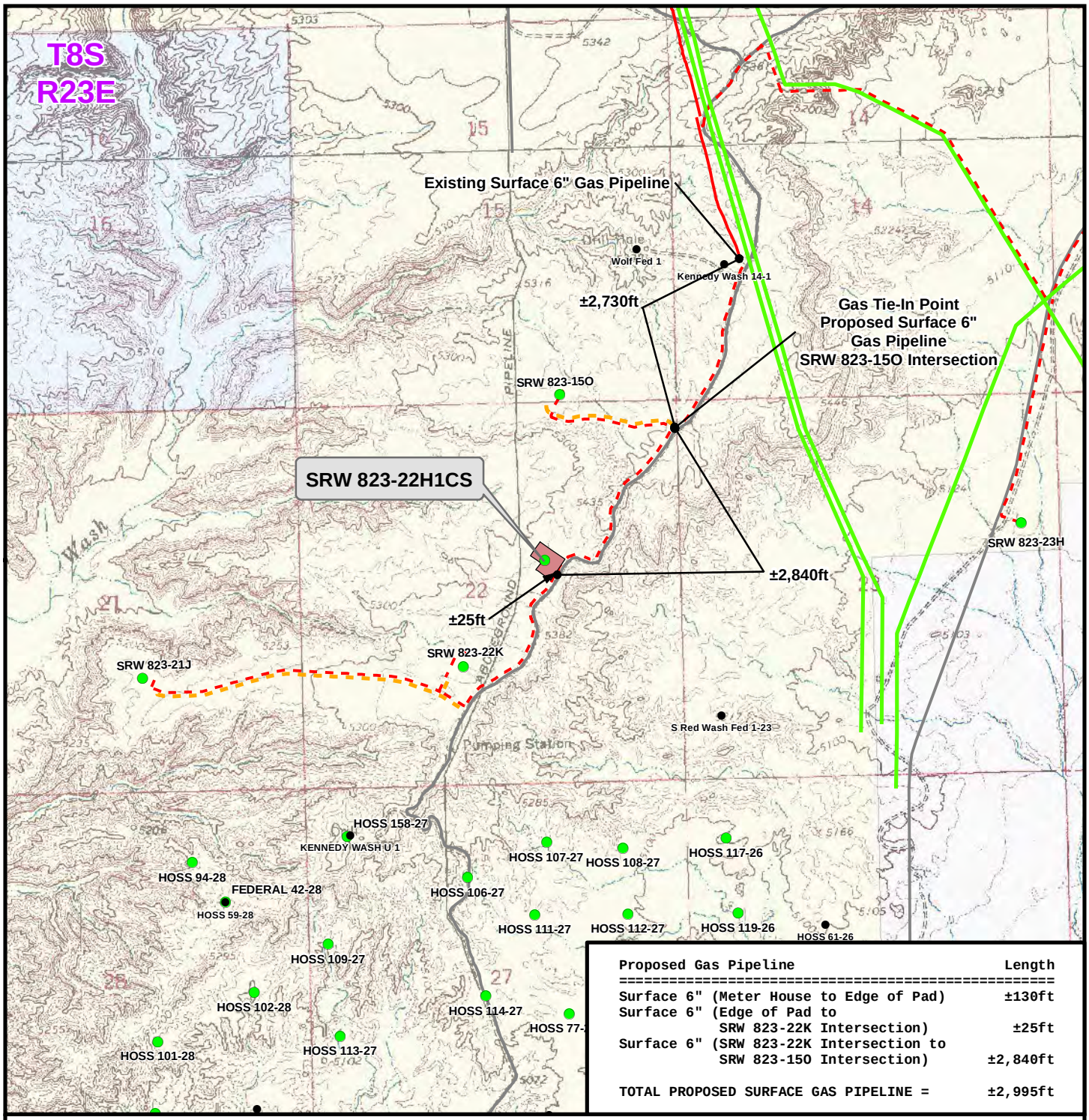
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 9
DRAWN: TL	DATE: 12 Apr 2013	9 OF 13
REVISED:	DATE:	

K:\ANADARKO\2013\2013_22_SRW_WELL_STAKING\GIS\Maps_ABCDE\SRW 823-22G\SRW 823-22G_C.mxd4/30/2013 10:57:51 AM

RECEIVED: July 15, 2013

API Well Number: 43047539800000



Proposed Gas Pipeline	Length
Surface 6" (Meter House to Edge of Pad)	±130ft
Surface 6" (Edge of Pad to SRW 823-22K Intersection)	±25ft
Surface 6" (SRW 823-22K Intersection to SRW 823-15O Intersection)	±2,840ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±2,995ft

Legend

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

WELL PAD - SRW 823-22G

TOPO D
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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

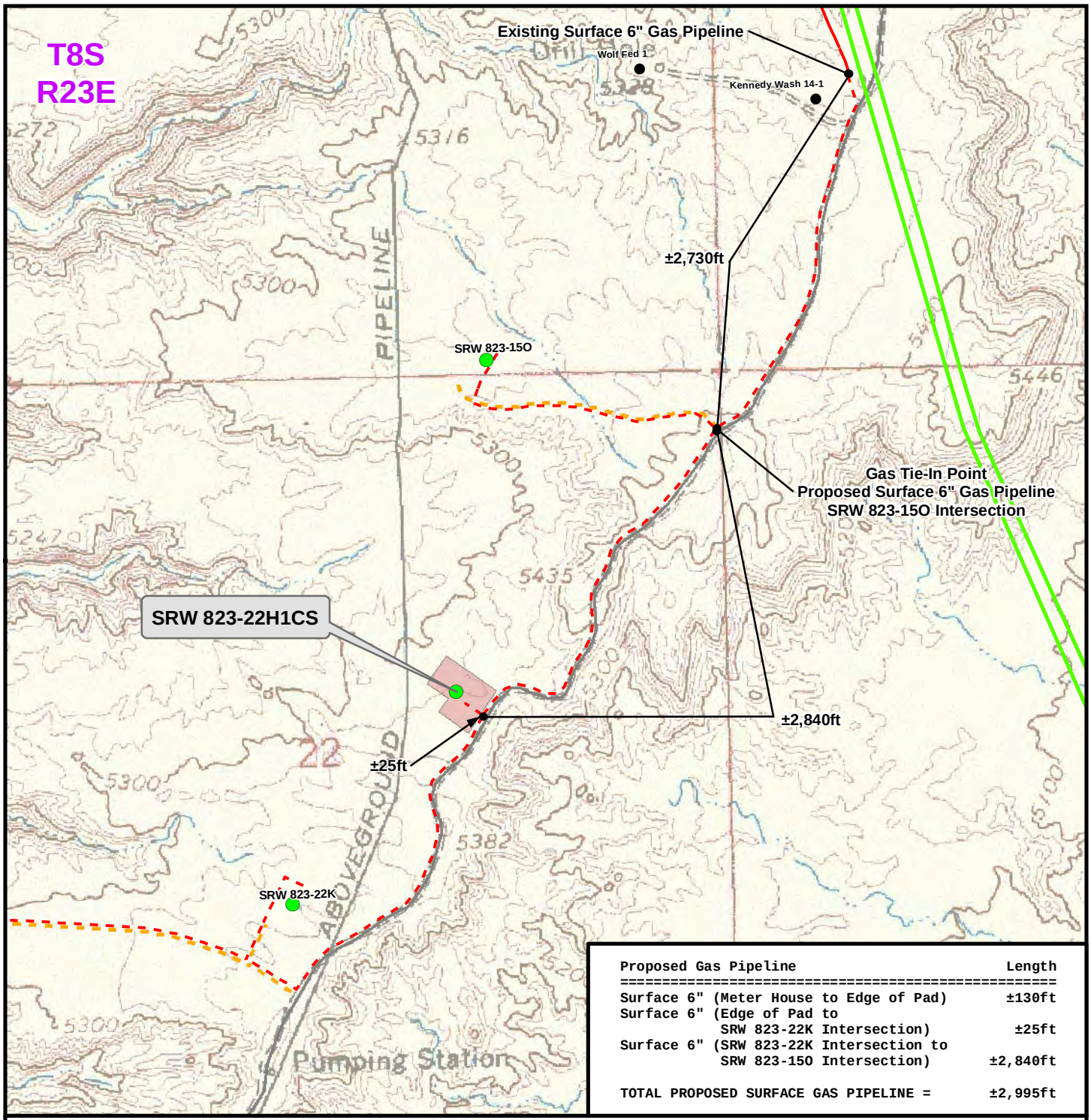
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 10
DRAWN: TL	DATE: 12 Apr 2013	10 OF 13
REVISED:	DATE:	

K:\ANADARKO\2013\2013_22_SRW_WELL_STAKING\GIS\Maps_ABCDE\SRW 823-22G\SRW 823-22G_D.mxd4/30/2013 11:02:27 AM

RECEIVED: July 15, 2013

API Well Number: 43047539800000



Proposed Gas Pipeline	Length
Surface 6" (Meter House to Edge of Pad)	±130ft
Surface 6" (Edge of Pad to SRW 823-22K Intersection)	±25ft
Surface 6" (SRW 823-22K Intersection to SRW 823-15O Intersection)	±2,840ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±2,995ft

Legend

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

WELL PAD - SRW 823-22G

TOPO D2 (PAD & PIPELINE DETAIL)
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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

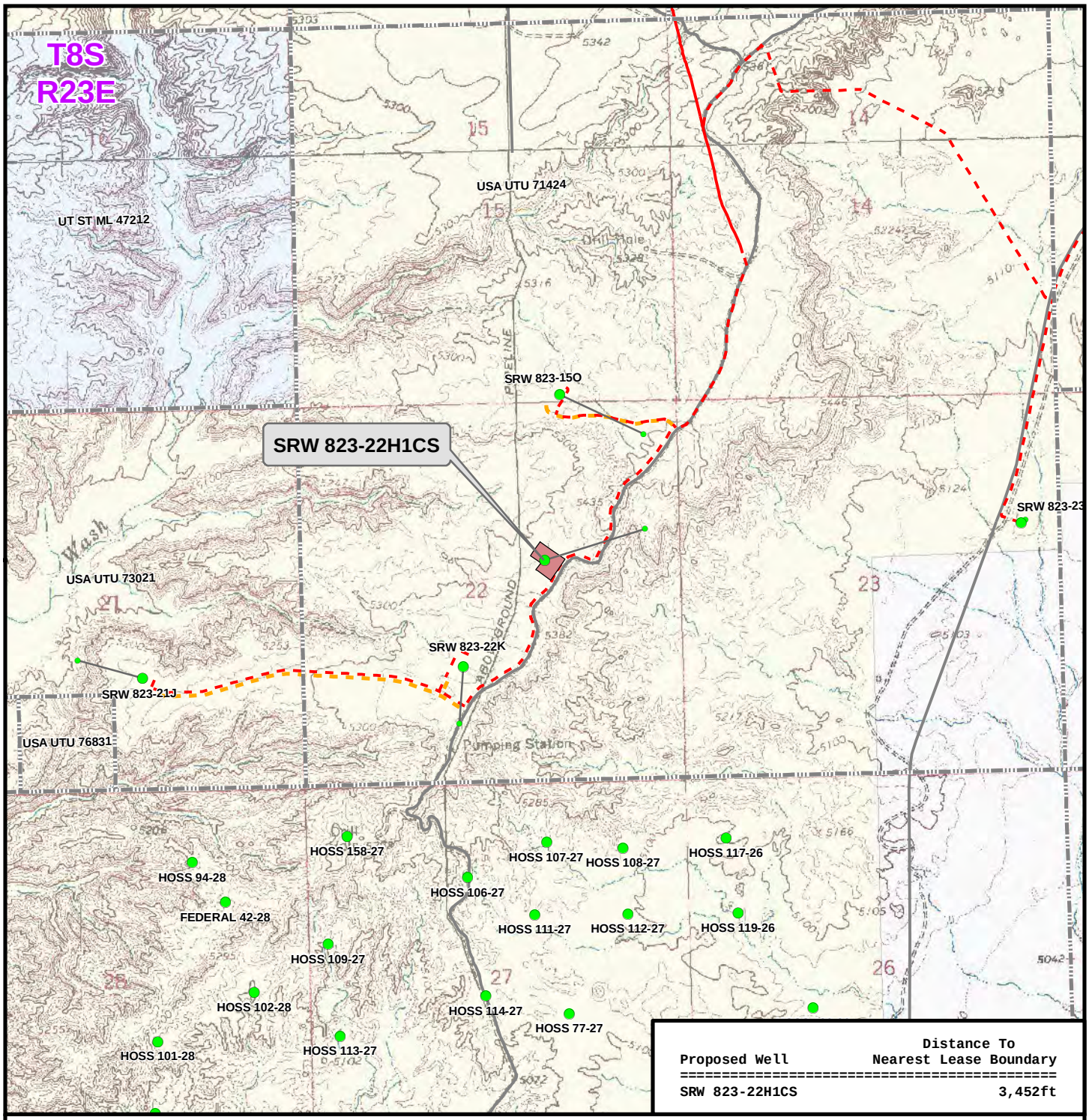
N

SCALE: 1" = 1,000ft	NAD83 USP Central	SHEET NO:	
DRAWN: TL	DATE: 4 Apr 2013	11	
REVISED: TL	DATE: 12 Apr 2013	11 OF 13	

K:\NADARKO\2013\2013_22_SRW_WELL_STAKING\GIS\Maps_ABCDE\SRW 823-22G\SRW 823-22G_D2.mxd4/30/2013 1:45:17 PM

RECEIVED: July 15, 2013

API Well Number: 43047539800000



Proposed Well	Distance To Nearest Lease Boundary
SRW 823-22H1CS	3,452ft

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 - SRW 823-22G

TOPO E
SRW 823-22H1CS
LOCATED IN SECTION 22, T8S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 12
DRAWN: TL	DATE: 12 Apr 2013	12 OF 13
REVISED:	DATE:	

K:\ANADARKO\2013\2013_22_SRW_WELL_STAKING\GIS\Maps_ABCDE\SRW 823-22G\SRW 823-22G_E.mxd4/30/2013 11:06:11 AM

RECEIVED: July 15, 2013

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – SRW 823-22G
WELL – SRW 823-22H1CS
Section 22, T8S, R23E, 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 to the south. Exit right and proceed in a southerly direction along State Highway 45 approximately 24.2 miles to the junction of Kennedy Wash Road (Class D County Road) to the southwest. Exit right and proceed in a southwesterly direction along Kennedy Wash Road approximately 3.1 miles to the proposed access road to the northwest. Exit right and follow the road flags in a northwesterly direction approximately 40 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 30.6 miles in a southerly direction.

RECEIVED: July 15, 2013

API Well Number: 43047539800000

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: SOUTH RED WASH UNIT 823-22H1CS
Well: SRW 823-22H1CS
Wellbore: OH
Design: PLAN #1 PERMIT

Anadarko Petroleum Corporation

T M

Azimuths to True North
Magnetic North: 10.77°

Magnetic Field
Strength: 52222.5snT
Dip Angle: 65.94°
Date: 05/09/2013
Model: IGRF2010

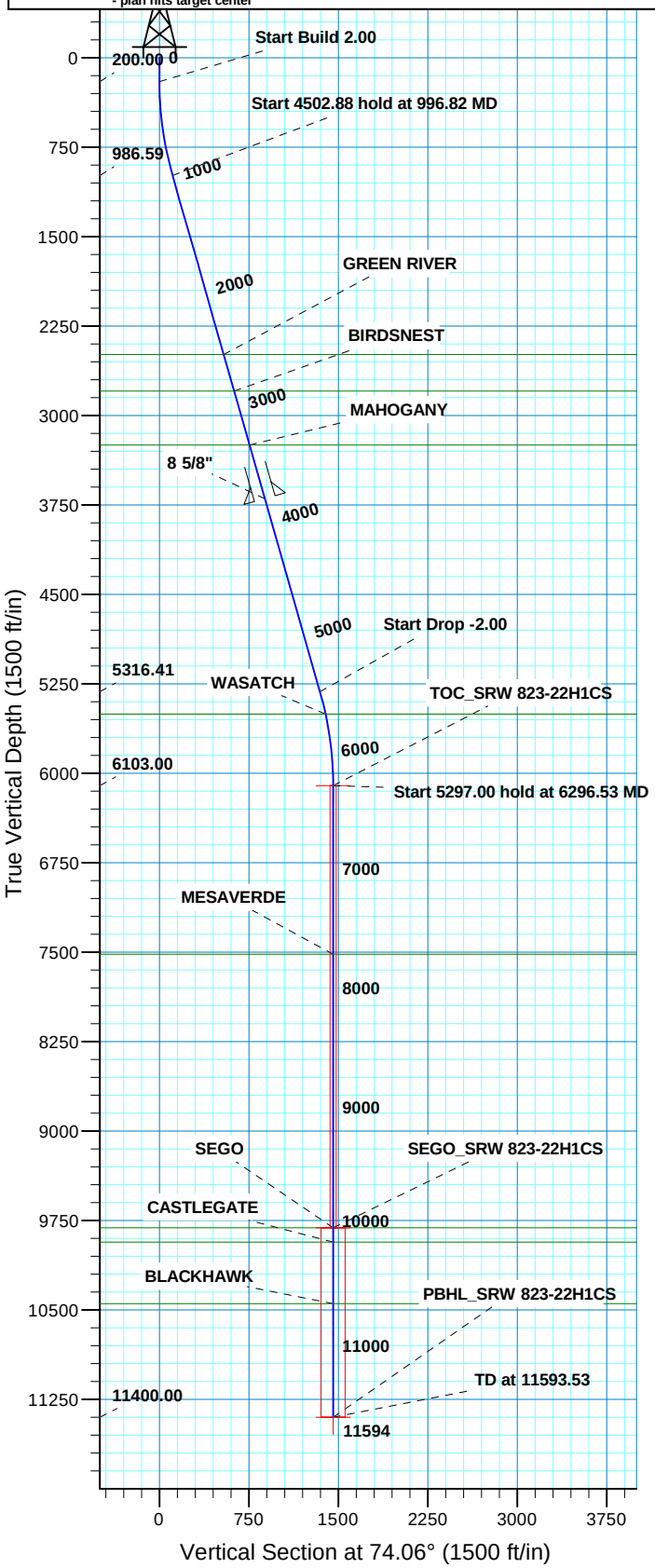
WELL DETAILS: SRW 823-22H1CS

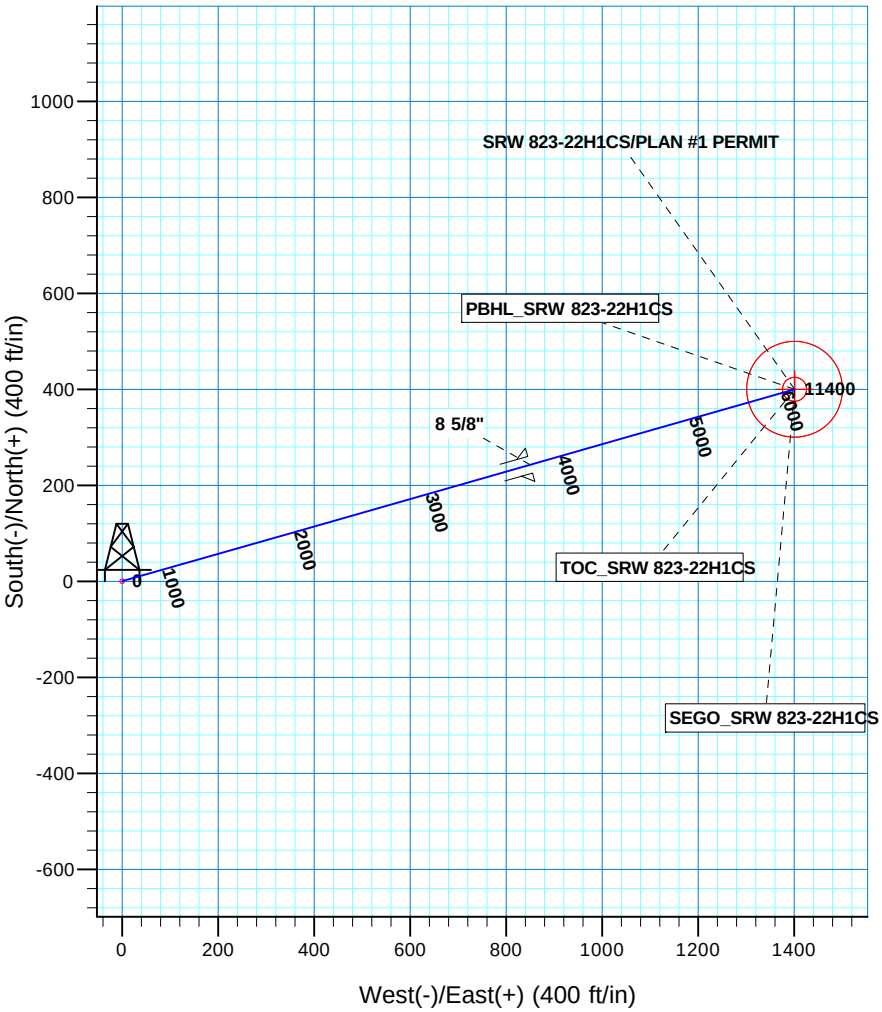
GL5318 & KB 4 @ 5322.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14570348.83	2112998.86	40.109336	-109.309901

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TOC	6103.00	399.97	1400.58	14570775.35	2114391.58	40.110434	-109.304894	Point
- plan hits target center								
SEGO	9812.00	399.97	1400.58	14570775.35	2114391.58	40.110434	-109.304894	Circle (Radius: 25.00)
- plan hits target center								
PBHL	11400.00	399.97	1400.58	14570775.35	2114391.58	40.110434	-109.304894	Circle (Radius: 100.00)
- plan hits target center								





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
996.82	15.94	74.06	986.59	30.23	105.87	2.00	74.06	110.10	
5499.71	15.94	74.06	5316.41	369.73	1294.71	0.00	0.00	1346.46	
6296.53	0.00	0.00	6103.00	399.97	1400.58	2.00	180.00	1456.57	TOC_SRW 823-22H1CS
11593.53	0.00	0.00	11400.00	399.97	1400.58	0.00	0.00	1456.57	PBHL_SRW 823-22H1CS

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

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION22 T10S R23E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2488.00	2558.24	GREEN RIVER
2795.00	2877.52	BIRDSNEST
3247.00	3347.58	MAHOGANY
5503.00	5692.05	WASATCH
7518.00	7711.53	MESAVERDE
9812.00	10005.53	SEGO
9931.00	10124.53	CASTLEGATE
10447.00	10640.53	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
3697.00	3815.57	8 5/8"	8.625

Plan: PLAN #1 PERMIT (SRW 823-22H1CS/OH)

Created By: Gabe Kendall Date: 22:18, May 23 2013

RECEIV

API Well Number: 43047539800000

Scientific Drilling

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
SOUTH RED WASH UNIT 823-22H1CS
SRW 823-22H1CS

OH

Plan: PLAN #1 PERMIT

Standard Planning Report

23 May, 2013

Anadarko Petroleum Corporation

RECEIVED: July 15, 2013

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well SRW 823-22H1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Site:	SOUTH RED WASH UNIT 823-22H1CS	**North Reference:**	True
Well:	SRW 823-22H1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

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 SOUTH RED WASH UNIT 823-22H1CS, SECTION 22 T10S R23E

Site Position:		**Northing:**	14,570,348.83 usft	**Latitude:**	40.109336
From:	Lat/Long	**Easting:**	2,112,998.86 usft	**Longitude:**	-109.309902
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.09 °

Well SRW 823-22H1CS, 2217 FNL 1899 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,570,348.83 usft	**Latitude:**	40.109336
	+E/-W	0.00 ft	**Easting:**	2,112,998.86 usft	**Longitude:**	-109.309902
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,318.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/09/13	10.77	65.94	52,222

Design PLAN #1 PERMIT

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	74.06

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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
996.82	15.94	74.06	986.59	30.23	105.87	2.00	2.00	0.00	74.06	
5,499.71	15.94	74.06	5,316.41	369.73	1,294.71	0.00	0.00	0.00	0.00	
6,296.53	0.00	0.00	6,103.00	399.97	1,400.58	2.00	-2.00	0.00	180.00	TOC_SRW 823-22H1
11,593.53	0.00	0.00	11,400.00	399.97	1,400.58	0.00	0.00	0.00	0.00	PBHL_SRW 823-22H

RECEIVED: July 15, 2013

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well SRW 823-22H1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Site:	SOUTH RED WASH UNIT 823-22H1CS	**North Reference:**	True
Well:	SRW 823-22H1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
300.00	2.00	74.06	299.98	0.48	1.68	1.75	2.00	2.00	0.00
400.00	4.00	74.06	399.84	1.92	6.71	6.98	2.00	2.00	0.00
500.00	6.00	74.06	499.45	4.31	15.09	15.69	2.00	2.00	0.00
600.00	8.00	74.06	598.70	7.66	26.81	27.88	2.00	2.00	0.00
700.00	10.00	74.06	697.47	11.95	41.85	43.52	2.00	2.00	0.00
800.00	12.00	74.06	795.62	17.19	60.20	62.60	2.00	2.00	0.00
900.00	14.00	74.06	893.06	23.37	81.83	85.10	2.00	2.00	0.00
996.82	15.94	74.06	986.59	30.23	105.87	110.10	2.00	2.00	0.00
Start 4502.88 hold at 996.82 MD									
1,000.00	15.94	74.06	989.64	30.47	106.71	110.98	0.00	0.00	0.00
1,100.00	15.94	74.06	1,085.80	38.01	133.11	138.43	0.00	0.00	0.00
1,200.00	15.94	74.06	1,181.96	45.55	159.51	165.89	0.00	0.00	0.00
1,300.00	15.94	74.06	1,278.11	53.09	185.91	193.35	0.00	0.00	0.00
1,400.00	15.94	74.06	1,374.27	60.63	212.32	220.80	0.00	0.00	0.00
1,500.00	15.94	74.06	1,470.43	68.17	238.72	248.26	0.00	0.00	0.00
1,600.00	15.94	74.06	1,566.58	75.71	265.12	275.72	0.00	0.00	0.00
1,700.00	15.94	74.06	1,662.74	83.25	291.52	303.18	0.00	0.00	0.00
1,800.00	15.94	74.06	1,758.90	90.79	317.92	330.63	0.00	0.00	0.00
1,900.00	15.94	74.06	1,855.05	98.33	344.32	358.09	0.00	0.00	0.00
2,000.00	15.94	74.06	1,951.21	105.87	370.73	385.55	0.00	0.00	0.00
2,100.00	15.94	74.06	2,047.37	113.41	397.13	413.00	0.00	0.00	0.00
2,200.00	15.94	74.06	2,143.52	120.95	423.53	440.46	0.00	0.00	0.00
2,300.00	15.94	74.06	2,239.68	128.49	449.93	467.92	0.00	0.00	0.00
2,400.00	15.94	74.06	2,335.84	136.03	476.33	495.37	0.00	0.00	0.00
2,500.00	15.94	74.06	2,431.99	143.57	502.73	522.83	0.00	0.00	0.00
2,558.25	15.94	74.06	2,488.00	147.96	518.11	538.82	0.00	0.00	0.00
GREEN RIVER									
2,600.00	15.94	74.06	2,528.15	151.11	529.14	550.29	0.00	0.00	0.00
2,700.00	15.94	74.06	2,624.31	158.65	555.54	577.75	0.00	0.00	0.00
2,800.00	15.94	74.06	2,720.46	166.19	581.94	605.20	0.00	0.00	0.00
2,877.52	15.94	74.06	2,795.00	172.03	602.40	626.49	0.00	0.00	0.00
BIRDSNEST									
2,900.00	15.94	74.06	2,816.62	173.73	608.34	632.66	0.00	0.00	0.00
3,000.00	15.94	74.06	2,912.78	181.27	634.74	660.12	0.00	0.00	0.00
3,100.00	15.94	74.06	3,008.93	188.81	661.14	687.57	0.00	0.00	0.00
3,200.00	15.94	74.06	3,105.09	196.35	687.55	715.03	0.00	0.00	0.00
3,300.00	15.94	74.06	3,201.25	203.88	713.95	742.49	0.00	0.00	0.00
3,347.58	15.94	74.06	3,247.00	207.47	726.51	755.55	0.00	0.00	0.00
MAHOGANY									
3,400.00	15.94	74.06	3,297.40	211.42	740.35	769.95	0.00	0.00	0.00
3,500.00	15.94	74.06	3,393.56	218.96	766.75	797.40	0.00	0.00	0.00
3,600.00	15.94	74.06	3,489.72	226.50	793.15	824.86	0.00	0.00	0.00
3,700.00	15.94	74.06	3,585.87	234.04	819.55	852.32	0.00	0.00	0.00
3,800.00	15.94	74.06	3,682.03	241.58	845.96	879.77	0.00	0.00	0.00
3,815.57	15.94	74.06	3,697.00	242.76	850.07	884.05	0.00	0.00	0.00
8 5/8"									
3,900.00	15.94	74.06	3,778.19	249.12	872.36	907.23	0.00	0.00	0.00
4,000.00	15.94	74.06	3,874.34	256.66	898.76	934.69	0.00	0.00	0.00
4,100.00	15.94	74.06	3,970.50	264.20	925.16	962.15	0.00	0.00	0.00

RECEIVED: July 15, 2013

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well SRW 823-22H1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Site:	SOUTH RED WASH UNIT 823-22H1CS	**North Reference:**	True
Well:	SRW 823-22H1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	15.94	74.06	4,066.66	271.74	951.56	989.60	0.00	0.00	0.00
4,300.00	15.94	74.06	4,162.81	279.28	977.96	1,017.06	0.00	0.00	0.00
4,400.00	15.94	74.06	4,258.97	286.82	1,004.37	1,044.52	0.00	0.00	0.00
4,500.00	15.94	74.06	4,355.13	294.36	1,030.77	1,071.97	0.00	0.00	0.00
4,600.00	15.94	74.06	4,451.28	301.90	1,057.17	1,099.43	0.00	0.00	0.00
4,700.00	15.94	74.06	4,547.44	309.44	1,083.57	1,126.89	0.00	0.00	0.00
4,800.00	15.94	74.06	4,643.60	316.98	1,109.97	1,154.35	0.00	0.00	0.00
4,900.00	15.94	74.06	4,739.75	324.52	1,136.37	1,181.80	0.00	0.00	0.00
5,000.00	15.94	74.06	4,835.91	332.06	1,162.77	1,209.26	0.00	0.00	0.00
5,100.00	15.94	74.06	4,932.07	339.60	1,189.18	1,236.72	0.00	0.00	0.00
5,200.00	15.94	74.06	5,028.22	347.14	1,215.58	1,264.17	0.00	0.00	0.00
5,300.00	15.94	74.06	5,124.38	354.68	1,241.98	1,291.63	0.00	0.00	0.00
5,400.00	15.94	74.06	5,220.54	362.22	1,268.38	1,319.09	0.00	0.00	0.00
5,499.71	15.94	74.06	5,316.41	369.73	1,294.71	1,346.46	0.00	0.00	0.00
Start Drop -2.00									
5,500.00	15.93	74.06	5,316.69	369.76	1,294.78	1,346.54	2.00	-2.00	0.00
5,600.00	13.93	74.06	5,413.31	376.83	1,319.56	1,372.31	2.00	-2.00	0.00
5,692.05	12.09	74.06	5,503.00	382.52	1,339.48	1,393.03	2.00	-2.00	0.00
WASATCH									
5,700.00	11.93	74.06	5,510.77	382.98	1,341.07	1,394.68	2.00	-2.00	0.00
5,800.00	9.93	74.06	5,608.95	388.18	1,359.30	1,413.65	2.00	-2.00	0.00
5,900.00	7.93	74.06	5,707.74	392.44	1,374.23	1,429.17	2.00	-2.00	0.00
6,000.00	5.93	74.06	5,807.00	395.76	1,385.83	1,441.23	2.00	-2.00	0.00
6,100.00	3.93	74.06	5,906.63	398.12	1,394.10	1,449.83	2.00	-2.00	0.00
6,200.00	1.93	74.06	6,006.49	399.52	1,399.01	1,454.94	2.00	-2.00	0.00
6,296.53	0.00	0.00	6,103.00	399.97	1,400.58	1,456.57	2.00	-2.00	-76.73
Start 5297.00 hold at 6296.53 MD - TOC_SRW 823-22H1CS									
6,300.00	0.00	0.00	6,106.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
6,400.00	0.00	0.00	6,206.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
6,500.00	0.00	0.00	6,306.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
6,600.00	0.00	0.00	6,406.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
6,700.00	0.00	0.00	6,506.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
6,800.00	0.00	0.00	6,606.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
6,900.00	0.00	0.00	6,706.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,000.00	0.00	0.00	6,806.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,100.00	0.00	0.00	6,906.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,200.00	0.00	0.00	7,006.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,300.00	0.00	0.00	7,106.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,400.00	0.00	0.00	7,206.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,500.00	0.00	0.00	7,306.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,600.00	0.00	0.00	7,406.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,700.00	0.00	0.00	7,506.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,711.53	0.00	0.00	7,518.00	399.97	1,400.58	1,456.57	0.00	0.00	0.00
MESAVERDE									
7,800.00	0.00	0.00	7,606.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
7,900.00	0.00	0.00	7,706.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,000.00	0.00	0.00	7,806.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,100.00	0.00	0.00	7,906.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,200.00	0.00	0.00	8,006.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,300.00	0.00	0.00	8,106.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,400.00	0.00	0.00	8,206.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,500.00	0.00	0.00	8,306.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,600.00	0.00	0.00	8,406.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00

RECEIVED: July 15, 2013

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well SRW 823-22H1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Site:	SOUTH RED WASH UNIT 823-22H1CS	**North Reference:**	True
Well:	SRW 823-22H1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,700.00	0.00	0.00	8,506.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,800.00	0.00	0.00	8,606.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
8,900.00	0.00	0.00	8,706.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,000.00	0.00	0.00	8,806.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,100.00	0.00	0.00	8,906.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,200.00	0.00	0.00	9,006.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,300.00	0.00	0.00	9,106.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,400.00	0.00	0.00	9,206.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,500.00	0.00	0.00	9,306.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,600.00	0.00	0.00	9,406.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,700.00	0.00	0.00	9,506.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,800.00	0.00	0.00	9,606.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
9,900.00	0.00	0.00	9,706.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,000.00	0.00	0.00	9,806.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,005.53	0.00	0.00	9,812.00	399.97	1,400.58	1,456.57	0.00	0.00	0.00
SEGO - SEGO_SRW 823-22H1CS									
10,100.00	0.00	0.00	9,906.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,124.53	0.00	0.00	9,931.00	399.97	1,400.58	1,456.57	0.00	0.00	0.00
CASTLEGATE									
10,200.00	0.00	0.00	10,006.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,300.00	0.00	0.00	10,106.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,400.00	0.00	0.00	10,206.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,500.00	0.00	0.00	10,306.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,600.00	0.00	0.00	10,406.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,640.53	0.00	0.00	10,447.00	399.97	1,400.58	1,456.57	0.00	0.00	0.00
BLACKHAWK									
10,700.00	0.00	0.00	10,506.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,800.00	0.00	0.00	10,606.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
10,900.00	0.00	0.00	10,706.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
11,000.00	0.00	0.00	10,806.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
11,100.00	0.00	0.00	10,906.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
11,200.00	0.00	0.00	11,006.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
11,300.00	0.00	0.00	11,106.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
11,400.00	0.00	0.00	11,206.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
11,500.00	0.00	0.00	11,306.47	399.97	1,400.58	1,456.57	0.00	0.00	0.00
11,593.53	0.00	0.00	11,400.00	399.97	1,400.58	1,456.57	0.00	0.00	0.00
TD at 11593.53 - PBHL_SRW 823-22H1CS									

RECEIVED: July 15, 2013

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well SRW 823-22H1CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL5318 & KB 4 @ 5322.00ft (ASSUMED)
Site:	SOUTH RED WASH UNIT 823-22H1CS	**North Reference:**	True
Well:	SRW 823-22H1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TOC_SRW 823-22H1CS - plan hits target center - Point	0.00	0.00	6,103.00	399.97	1,400.58	14,570,775.34	2,114,391.57	40.110434	-109.304894
SEGO_SRW 823-22H1C - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,812.00	399.97	1,400.58	14,570,775.34	2,114,391.57	40.110434	-109.304894
PBHL_SRW 823-22H1C - plan hits target center - Circle (radius 100.00)	0.00	0.00	11,400.00	399.97	1,400.58	14,570,775.34	2,114,391.57	40.110434	-109.304894

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
3,815.57	3,697.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,558.25	2,488.00	GREEN RIVER			
2,877.52	2,795.00	BIRDSNEST			
3,347.58	3,247.00	MAHOGANY			
5,692.05	5,503.00	WASATCH			
7,711.53	7,518.00	MESAVERDE			
10,005.53	9,812.00	SEGO			
10,124.53	9,931.00	CASTLEGATE			
10,640.53	10,447.00	BLACKHAWK			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
200.00	200.00	0.00	0.00	Start Build 2.00
996.82	986.59	30.23	105.87	Start 4502.88 hold at 996.82 MD
5,499.71	5,316.41	369.73	1,294.71	Start Drop -2.00
6,296.53	6,103.00	399.97	1,400.58	Start 5297.00 hold at 6296.53 MD
11,593.53	11,400.00	399.97	1,400.58	TD at 11593.53

RECEIVED: July 15, 2013

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

API #	SRW 823-22H1CS		
Surface:	2217 FNL / 1899 FEL	SWNE	Lot
BHL:	1817 FNL / 498 FEL	SENE	Lot

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

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

An on-site meeting was held on April 18, 2013. Present were:

- Tyler Cox, Aaron Roe, Jessica DaBell, Korie Hamming- BLM
- Mitch Batty - Timberline Engineering & Land Surveying, Inc.
- Gina Becker, Rod Anderson, Doyle Homes, Casey McKee, Doreen Green - Kerr-McGee
- Bill Knapp - ICF

A. Existing Roads:

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

Please refer to Topo B for existing roads.

B. New or Reconstructed Access Roads:

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

The following segments are "on-lease"

±40' (0.01 miles) – Section 22 T8S R23E (NE/4) – On-lease UTU71424, from the edge of pad to the existing County Road to the East. Please refer to Topo Map B.

C. Location of Existing Wells:

Please refer to Topo C for exiting wells.

D. Location of Existing and/or Proposed Facilities:

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

Gas Gathering Pipeline infrastructure will be utilized to collect and transport gas from the well which is owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

RECEIVED: August 26, 2013

GAS GATHERING

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

The total gas gathering pipeline distance from the meter to the tie in point is ±5725' and the individual segments are broken up as follows:

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

±130' (0.02 miles) – Section 22 T8S R23E (NE/4) – On-lease UTU71424, BLM surface, New 6" surface gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

±25' (0.35 miles) – Section 22 T8S R23E (NE/4) – On-lease UTU71424, BLM surface, New 6" surface gas gathering pipeline from the edge of the pad to the intersection of the proposed 6" surface gas pipeline to the West of the pad. Please refer to Exhibit A, Line 6.

±2840' (0.53 miles) – Section 22 T8S R23E (NE/4) – On-lease UTU71424, BLM surface, New 6" surface gas gathering pipeline from the proposed surface 6" gas pipeline tie-in point at the SRW 823-22G intersection to the proposed surface 6" gas pipeline tie in point at the SRW 823-15O intersection. This portion will run concurrently with SRW 823-21J, SRW 823-22K, and SRW 823-15O. Please refer to Exhibit A, Line 2.

±2730' (0.51 miles) – Section 22 T8S R23E (NE/4)) – On-lease UTU71424, BLM surface, New 6" surface gas gathering pipeline from the proposed surface 6" gas pipeline tie-in point at the SRW 823-15O intersection to the existing surface 6" gas pipeline to the Northeast in Sec. 14. This portion will run concurrently with SRW 823-21J, SRW 823-22K, and SRW 823-15O. Please refer to Exhibit A, Line 1.

Pipeline Gathering Construction

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

The Anadarko Completions Transportation System (ACTS) information:

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

Please refer to Exhibit C for ACTS Lines

E. Location and Types of Water Supply:

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

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

F. Construction Materials:

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

G. Methods for Handling Waste:

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

Materials Management

RECEIVED: August 26, 2013

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

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

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

J. Plans for Surface Reclamation:

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

Interim Reclamation

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

Final Reclamation

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

Measures Common to Interim and Final Reclamation

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

Weed Control

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

Monitoring

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

RECEIVED: August 26, 2013

K. Surface/Mineral Ownership:

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

L. Other Information:

Cultural and Paleontological Resources

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

Resource Reports:

A Class I literature survey was completed on April 23, 2013 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 13-057.

A paleontological reconnaissance survey was completed on April 01, 2013 by SWCA Environmental Consultants. For additional details please refer to report UT10-14314-12.

Biological field survey was completed on April 9, 2013 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-875.

Proposed Action Annual Emissions Tables:

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

RECEIVED: August 26, 2013

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

Cara Mahler
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6029

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

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

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

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

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

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

Cara Mahler

May 20, 2013
Date

RECEIVED: August 26, 2013

October 31, 2012

Kerr-McGee Oil & Gas Onshore L.P., wholly owned subsidiary of Anadarko Petroleum Corporation, Standard Operating Practice Agreement for the Greater Natural Buttes Field

Drilling Program

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations, Onshore Oil and Gas Orders, and the approved plan of operation. As Operator, Kerr-McGee, is fully responsible for actions of subcontractors. A copy of these Standard Operating Practices will be furnished to the field representatives to insure compliance.

BLM Notification Requirements:

Location Constructions: At least 48 hours prior to construction of location and access roads including notification, if applicable, to other surface management agencies, such as Ute Tribe Energy and Mineral Department, State of Utah, or private surface owner(s).

Location Completion: Prior to moving on the drilling rig

Spud Notice: At least 24 hours prior to spudding the well.

Casing String and Cementing: At least 24 hours prior to running casing and cementing all casing.

BOP & Related Equipment Tests: At least 24 hours prior to initiating pressure tests.

First Production Notice: Within 5 days after a new well begins production; or, within 5 days of when production resumes after a well has been off production for more than 90 days.

Details of the on-site inspection, including date, time, weather conditions, and individuals present, will be submitted with the site-specific Application for Permit to Drill (APD).

1. Estimated Tops of Important Geologic Markers:

Formation and depths will be submitted with site-specific APDs.

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

RECEIVED: August 26, 2013

Formation and depths will be submitted with site-specific APDs.

3. Pressure Control Equipment:

Pressure Control Equipment Schematic is attached as appendix F. Any variance will be included in the site-specific APDs.

4. Proposed Casing & Cementing Program:

Proposed casing and cementing will be submitted with site-specific APDs.

5. Drilling Fluids Program:

Proposed drilling fluids will be submitted with site-specific APDs.

6. Evaluation Program:

Evaluation program will be submitted with site-specific APDs.

7. Abnormal Conditions:

Any abnormal condition will be submitted with site specific APDs.

8. Anticipated Starting Dates:

Drilling is planned to commence within the administrative period of an approved application.

9. Variances:

Kerr-McGee respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2:

Variance for air drilling

An air rig is only used by Kerr-McGee 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.

KMG typically 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

RECEIVED: August 26, 2013

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 an 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with an 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.

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 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, will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement)

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 locations.

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.

RECEIVED: August 26, 2013

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 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 B1, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). These wells are not exploratory well and are 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.

10. Other Information:

Drilling Program will be submitted with site-specific APDs.

SURFACE USE PROGRAM

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing may be performed where excessive rutting or erosion may occur. Dust control may be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines may occupy common disturbance corridors where possible. Where available, roadways may be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor may overlap each other to the maximum extent possible, while maintaining safe and sound

RECEIVED: August 26, 2013

construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Within individual APDs, please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007). The BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to all applicable US Army Corps of Engineers requirements in cooperation with the Utah Division of Water Rights.

New well pads or pad expansions may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met Kerr-McGee may use unimproved and/or two-track roads for lease operations and to lessen total disturbance. Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities may be constructed to divert surface water runoff. Drainage features, including culverts, may be constructed or installed prior to commencing other operations, including drilling for facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s). Drainage features will meet the standards of the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007).

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activities will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

RECEIVED: August 26, 2013

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement and construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.
If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

For individual APDs, refer to Topo B.

C. Location of Existing Wells:

For individual APDs, refer to Topo C

D. Location of Existing and/or Proposed Facilities:

The following will apply if the well is productive: Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee). Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad.

A berm may be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed to hold the capacity of the largest tank and have sufficient freeboard to accommodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project- specific APD, ROW or NOS submission.

Gas Gathering

The gas gathering pipeline is made of steel line pipe, surface is bare pipe and buried is of coated with fusion bonded epoxy coating (or equivalent). The individual segments will be denoted in site-specific APDs.

Liquid Gathering

The individual segments will be denoted in site-specific APDs.

RECEIVED: August 26, 2013

Pipeline Gathering Construction

Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. The road and/or well pad may be utilized for construction activities and staging when the pipeline is adjacent to the road or well pad. The area of disturbance during construction from the edge of road or well pad will typically be 30 feet in width. Where pipelines run cross country, the width of disturbance will typically be 45 feet for buried lines and 30 feet for surface lines. In addition, Kerr-McGee requests for a permanent 30 feet disturbance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent disturbance width is for maintenance and repairs. Cross country permanent disturbance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. If installation cannot occur on the exact location, pipe may be constructed parallel and adjacent to a road and lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment. Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

When installing a buried pipeline, typically topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radio-graphically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route’s intersection with an access road.

RECEIVED: August 26, 2013

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.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or its successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

The Anadarko Completions Transportation System (ACTS) information:

For individual APDs, refer to Exhibit C for the proposed placement of the ACTS temporary lines.

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is discussed in more detail below. 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/completion pit.

RECEIVED: August 26, 2013

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit may be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system. Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of completion fluids by utilizing existing reserve pits, or newly constructed completion pits, as well as temporary, surface-laid aluminum liquids transfer lines between pad locations. The pit will be refurbished when a traditional drill pit is used including mix and pile up drill cuttings with dry dirt, bury the original liner in the pit and walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurbish will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Any hydrocarbons collected will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit.

ACTS will require temporarily laying multiple 6 inch aluminum water transfer lines on the surface between either existing or refurbished reserve pits. The temporary aluminum transfer lines will be utilized to transport completion fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon conclusion of the completion operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee will keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other completion jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:
JD Field Services:

Green River: 1087’ FSL & 1020’ FEL, Sec. 15 – T2N – R22E

RECEIVED: August 26, 2013

RN Industries:

High Pressure:	705’ FNL & 675’ FWL, Sec. 1 – T6S – R22E
	1057’ FNL & 390’ FWL, Sec. 1 – T6S – R22E
	1239’ FNL & 52’ FEL, Sec. 6 – T6S – R23E
White River:	501’ FNL & 1676’ FEL, Sec. 9 – T8S – R20E
	471’ FNL & 1676’ FEL, Sec. 9 – T8S – R20E
	900’ FNL & 550’ FEL, Sec. 35 – T9S – R22E
	200’ FNL & 950’ FEL, Sec. 2 – T10S – R22E
	275’ FSL & 2275’ FEL, Sec. 2 – T10S – R22E
	122’ FSL & 1350’ FEL, Sec. 11 – T10S – R22E
	1670’ FSL & 500’ FEL, Sec. 12 – T10S – R22E
	959’ FNL & 705’ FEL, Sec. 13 – T10S – R22E
	600’ FSL & 900’ FEL, Sec. 13 – T10S – R22E
Water Plant:	481’ FNL & 2176’ FEL, Sec. 9 – T8S – R20E
	471’ FNL & 2176’ FEL, Sec. 9 – T8S – R20E
Frog Pond:	4820’ FNL & 1200’ FWL, Sec. 33 – T8S – R20E
	4850’ FNL & 700’ FWL, Sec. 33 – T8S – R20E
Blue Tanks:	200’ FNL & 405’ FEL, Sec. 32 – T4S – R3E

Water will be hauled to location over the roads marked in the individual APD’s Maps A and B.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from Federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee maintains a Spill Control and Countermeasure Plan for each applicable location, which includes notification requirements, to the BLM and other appropriate agencies, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a

RECEIVED: August 26, 2013

release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A.

Drill cuttings and/or drilling fluids may be contained in a reserve/completion pit whether a closed loop system is or isn't utilized and cuttings may be buried in the pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

If utilizing a closed loop system, drill cuttings and/or drilling fluids may be stored in above ground containers while on the location. All used drilling fluids may be hauled to Anadarko Petroleum Corporation's Mud Plant where it may be recycled for use at future well locations, hauled to a permitted disposal facility, or solidified for incorporation into the pad during interim reclamation practices. Drill cuttings from a closed loop system may be either hauled to an approved Utah Department of Oil, Gas and Mining Commercial Landfarm Disposal Facility or incorporated into the pad location during interim reclamation.

Pits will be constructed to eliminate the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or completion pit will be lined with a synthetic material 30 mil or thicker liner. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Revisions to the water source or method of transportation will be subject to written approval from the BLM.

RECEIVED: August 26, 2013

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

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year 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. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

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 (trash and other solid waste including cans, paper, cable, etc.) 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. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced or netted to prevent wildlife or livestock entry.

Maximum distance between fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

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.

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.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or

RECEIVED: August 26, 2013

substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used. 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 (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Any produced water separated from recoverable condensate during well operations will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

If additional ancillary facilities are planned they will be depicted on site specific APDs.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig,

RECEIVED: August 26, 2013

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 depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of disturbance will not exceed the maximum disturbance outlined in the attached exhibits of the individual APDs.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The 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. Interim 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 may include pit evaporation, fluid removal, pit solidification, re-contouring, incorporation of cuttings, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

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. Stockpiled drill cuttings may also be incorporated into the spoils, recontoured, 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

RECEIVED: August 26, 2013

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. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after 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 Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. 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 close as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site and prior to replacing topsoil, final grading and site preparation will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and the surface soil material will be uniformly pitted with longitudinal depressions perpendicular to the natural flow of water where practical. Following site preparation, topsoil will be spread on the location and prepared for seeding.

Reclamation of roads will be performed at the discretion of the BLM. 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 to 24 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

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

Measures Common to Interim and Final Reclamation

Soil tillage will be conducted using a disk in areas needing additional seedbed preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen

RECEIVED: August 26, 2013

compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur in the fall and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box." Additionally an imprinter seeder may be used. An imprinter seeder creates divots to roughen the surface and collect moisture to aid in seed germination. 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 seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed" and noxious weed free seed.

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Bonanza Area Mix:	**Pure Live Seed lbs/acre**
Crested Wheat (Hycrest)	2
Bottlebrush Squirreltail	1
Western Wheatgrass (Arriba)	1
Indian Ricegrass	1
Fourwing Saltbush	2
Shadscale	2
Forage Kochia	0.25
Rocky Mountain Bee Plant	0.5
Total	**9.75**

Natural Buttes Area Mix Option 1:	**Pure Live Seed lbs/acre**
Indian Ricegrass (Nezpar)	3
Sandberg bluegrass	0.75
Bottlebrush squirreltail	1
Great Basin Wildrye	0.5
Crested wheatgrass (Ephraim)	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing saltbush	0.75
Forage Kochia	0.25
Total	**9.5**

Natural Buttes Area Mix Option 2:	**Pure Live Seed lbs/acre**
Great Basin Wildrye	2.5
Indian Ricegrass (Nezpar)	0.5

RECEIVED: August 26, 2013

Crested Wheatgrass	2
Siberian Wheatgrass	2
Bottlebrush Squirreltail	1
Munro Globemallow	0.5
Palmer Penstemon	0.1
Rocky Mtn beeplant	0.5
Western yarrow	0.1
Shadscale	0.5
Forage Kochia	0.5
Total	**10.2**

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes 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, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Proposal (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until

RECEIVED: August 26, 2013

the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines).

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

K. Surface/Mineral Ownership:

Depicted on site specific APDs.

L. Other Information:

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM or appropriate SMA.

Resource Reports

Appropriate archaeological and paleontological reconnaissance surveys and biological field surveys will be completed and provide to the BLM for individual APDs.

Proposed Action Annual Emissions Tables:

Appendix A through E contains the emission table per pad based on well count.

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

Depicted on site specific APDs.

RECEIVED: August 26, 2013

Appendix A:

Proposed Action Annual Emissions Tables: 4 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	1.29	5.09
CO	2.2	1.08	3.28
VOC	0.1	15.00	15.10
SO_2	0.005	0.01	0.02
PM_{10}	1.7	0.11	1.81
$PM_{2.5}$	0.4	0.05	0.45
Benzene	2.2E-03	0.12	0.12
Toluene	1.6E-03	0.20	0.20
Ethylbenzene	3.4E-04	0.01	0.01
Xylene	1.1E-03	0.09	0.09
n-Hexane	1.7E-04	0.51	0.51
Formaldehyde	1.3E-02	1.30E-04	1.31E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	5.09	16,547	0.031%
VOC	15.10	127,495	0.012%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

RECEIVED: August 26, 2013

Appendix B:

Proposed Action Annual Emissions Tables: 5 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	1.61	5.41
CO	2.2	1.35	3.55
VOC	0.1	18.75	18.85
SO_2	0.005	0.01	0.02
PM_{10}	1.7	0.14	1.84
$PM_{2.5}$	0.4	0.06	0.46
Benzene	2.2E-03	0.15	0.15
Toluene	1.6E-03	0.24	0.25
Ethylbenzene	3.4E-04	0.01	0.01
Xylene	1.1E-03	0.11	0.11
n-Hexane	1.7E-04	0.64	0.64
Formaldehyde	1.3E-02	1.62E-04	1.32E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	5.41	16,547	0.033%
VOC	18.85	127,495	0.015%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

RECEIVED: August 26, 2013

Appendix C:

Proposed Action Annual Emissions Tables: 6 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	1.94	5.74
CO	2.2	1.62	3.82
VOC	0.1	22.50	22.60
SO_2	0.005	0.02	0.02
PM_{10}	1.7	0.17	1.87
$PM_{2.5}$	0.4	0.07	0.47
Benzene	2.2E-03	0.18	0.18
Toluene	1.6E-03	0.29	0.29
Ethylbenzene	3.4E-04	0.02	0.02
Xylene	1.1E-03	0.14	0.14
n-Hexane	1.7E-04	0.77	0.77
Formaldehyde	1.3E-02	1.94E-04	1.32E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	5.74	16,547	0.035%
VOC	22.60	127,495	0.018%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

RECEIVED: August 26, 2013

Appendix D:

Proposed Action Annual Emissions Tables: 7 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	2.26	6.06
CO	2.2	1.89	4.09
VOC	0.1	26.25	26.35
SO_2	0.005	0.02	0.02
PM_{10}	1.7	0.19	1.89
$PM_{2.5}$	0.4	0.08	0.48
Benzene	2.2E-03	0.21	0.21
Toluene	1.6E-03	0.34	0.34
Ethylbenzene	3.4E-04	0.02	0.02
Xylene	1.1E-03	0.16	0.16
n-Hexane	1.7E-04	0.89	0.89
Formaldehyde	1.3E-02	2.27E-04	1.32E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	6.06	16,547	0.037%
VOC	26.35	127,495	0.021%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

RECEIVED: August 26, 2013

Appendix E:

Proposed Action Annual Emissions Tables: 8 Well Pad

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	2.58	6.38
CO	2.2	2.16	4.36
VOC	0.1	30.00	30.10
SO_2	0.005	0.02	0.03
PM_{10}	1.7	0.22	1.92
$PM_{2.5}$	0.4	0.09	0.49
Benzene	2.2E-03	0.24	0.24
Toluene	1.6E-03	0.39	0.39
Ethylbenzene	3.4E-04	0.02	0.02
Xylene	1.1E-03	0.18	0.18
n-Hexane	1.7E-04	1.02	1.02
Formaldehyde	1.3E-02	2.59E-04	1.33E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

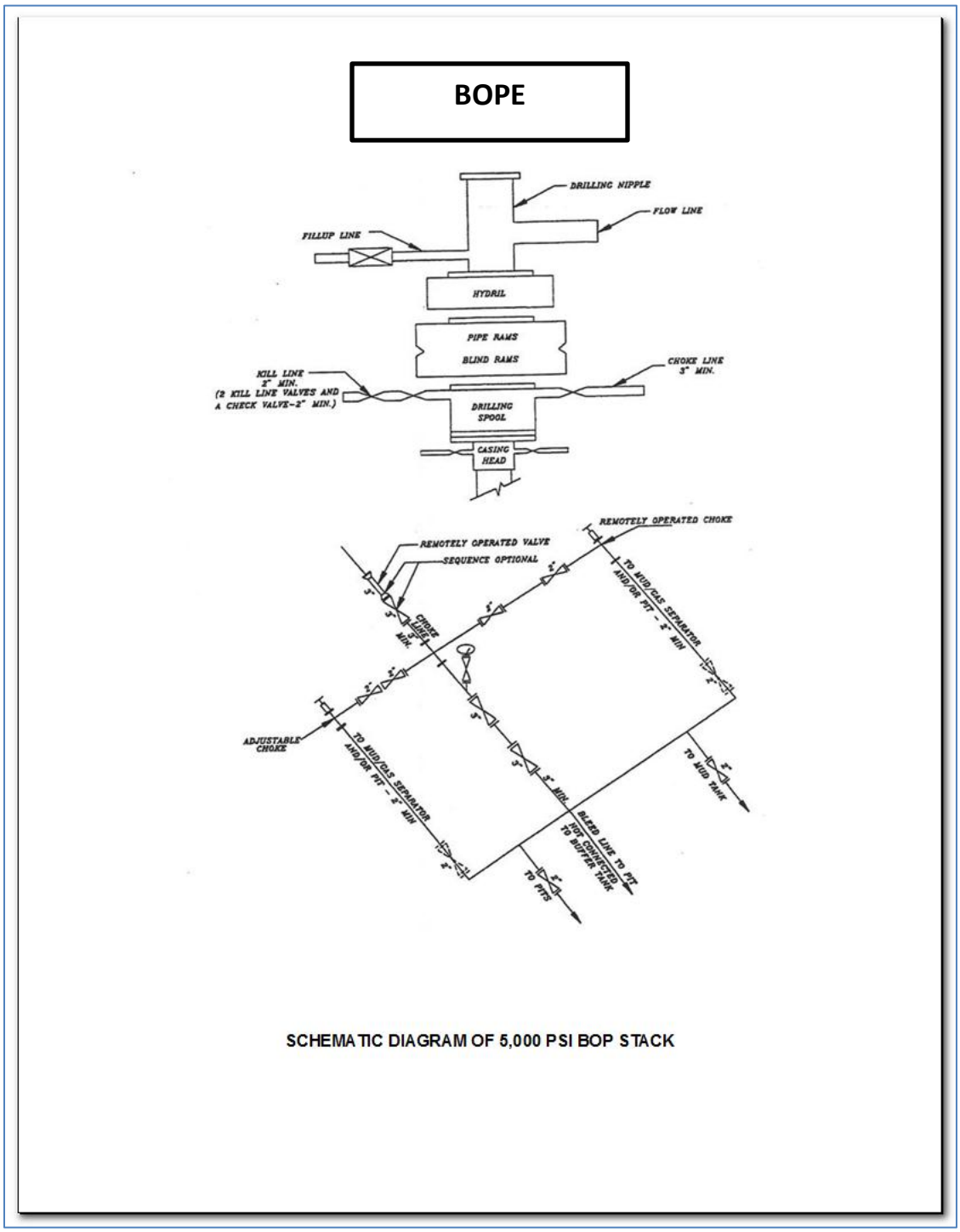
Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	6.38	16,547	0.039%
VOC	30.10	127,495	0.024%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

RECEIVED: August 26, 2013

Appendix F: Pressure Control Equipment Schematic



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

END

RECEIVED: August 26, 2013

Kerr-McGee Oil & Gas Onshore LP
A wholly owned subsidiary of Anadarko Petroleum Corporation
1099 18th Street
Denver, CO 80202
720-929-6000 (main)

May 3, 2013

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

RE: Well Name: SRW 823-22H1CS
T8S-R23E
Section 22: NE/4
Surface Location: 1899' FEL, 2217' FNL
Bottom Hole: 498' FEL, 1817' FNL
Uintah County, Utah

Dear Mrs. Mason:

Kerr-McGee Oil & Gas Onshore LP (KMG) has submitted a permit to drill the SRW 823-22H1CS well (Well) to test the Wasatch / Mesasverde / Blackhawk formations. The Well is located within an area that is not covered by a spacing order adjudicated by the Utah Department of Natural Resources, Division of Oil, Gas and Mining. Therefore, the Well is subject to the Utah Administrative Code Rule # R649-3, which provides for the location and siting of wells in the absence of spacing orders.

According to Rule # R649-3, each oil and gas well shall be located in the center of a 40 acre quarter-quarter section, or a substantially equivalent lot or tract or combination of lots or tracts as shown by the most recent governmental survey, with a tolerance of 200 feet in any direction from the center location, a "window" 400 feet square. Additionally, no oil or gas well shall be drilled less than 920 feet from any other well drilling to, is completed in, or capable of producing oil or gas from the same pool.

The surface location of the Well is approximately 37' feet outside of the 400 foot square "window" in the SWNE of Section 22. This is due to a limited amount of topographically acceptable surface locations and KMG's commitment to reducing its surface footprint. Additionally, there is no wellbore within 920 feet drilled to, is completed in, or capable of producing from the Wasatch / Mesasverde / Blackhawk formations. KMG owns 100% of the leasehold in the offset lands and has no objection to the exception location.

Kerr-McGee respectfully requests your approval of this exception location. If you have any questions or require any additional information, please do not hesitate to call me at 720-929-6351.

Sincerely,

Robert T. Spencer
Senior Landman

RECEIVED: August 29, 2013

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101

IN REPLY REFER TO:
3160
(UT-922)

September 3, 2013

Memorandum

To: Assistant Field Office Manager Minerals, Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2013 Plan of Development South Red Wash Unit Uintah County, Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2013 within the South Red Wash Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
Proposed PZ GREEN RIVER)		
43-047-53973	SRW 823-10G GR	Sec 10 T08S R23E 2015 FNL 1923 FEL
43-047-53974	SRW 823-03O GR	Sec 03 T08S R23E 0502 FSL 1932 FEL
43-047-53983	SRW 823-10B GR	Sec 10 T08S R23E 0672 FNL 1900 FEL
(Proposed PZ BLACKHAWK)		
43-047-53976	SRW 823-13G1CS	Sec 13 T08S R23E 1210 FNL 2429 FEL
		BHL Sec 13 T08S R23E 1812 FNL 1817 FEL
43-047-53977	SRW 823-22A1CS	Sec 15 T08S R23E 0078 FSL 1634 FEL
		BHL Sec 22 T08S R23E 0497 FNL 0483 FEL
43-047-53978	SRW 823-13L1CS	Sec 13 T08S R23E 2538 FNL 1308 FWL
		BHL Sec 13 T08S R23E 2146 FSL 0824 FWL
43-047-53979	SRW 823-21K4BS	Sec 21 T08S R23E 1548 FSL 2252 FEL
		BHL Sec 21 T08S R23E 1822 FSL 2139 FWL
43-047-53980	SRW 823-22H1CS	Sec 22 T08S R23E 2217 FNL 1899 FEL
		BHL Sec 22 T08S R23E 1817 FNL 0498 FEL
43-047-53981	SRW 823-23H1CS	Sec 23 T08S R23E 1870 FNL 0552 FEL
		BHL Sec 23 T08S R23E 1819 FNL 0494 FEL
43-047-53982	SRW 823-22N1CS	Sec 22 T08S R23E 1604 FSL 2212 FWL
		BHL Sec 22 T08S R23E 0814 FSL 2139 FWL

RECEIVED: September 03, 2013

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

Michael Coulthard

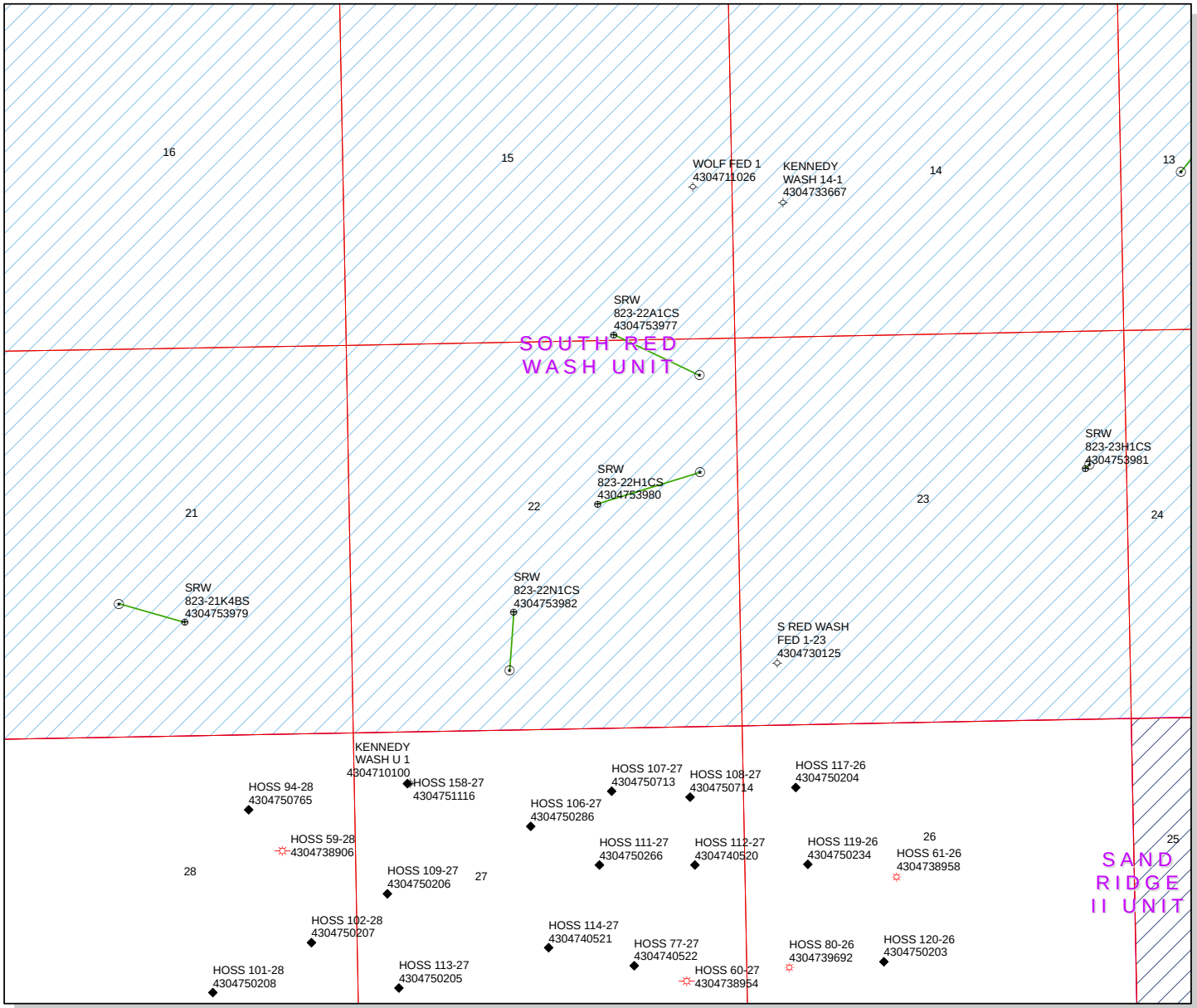
Digitally signed by Michael Coulthard
DN: cn=Michael Coulthard, o=Bureau of Land Management, ou=Division of Minerals, email=mcoultha@blm.gov, c=US
Date: 2013.09.03 11:48:13 -06'00'

bcc: File - South Red Wash
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:9-3-13

RECEIVED: September 03, 2013

API Well Number: 43047539800000



API Number: 4304753980

Well Name: SRW 823-22H1CS

Township: T08.0S Range: R23.0E Section: 22 Meridian: S

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

Map Prepared: 10/2/2013
Map Produced by Diana Mason

Wells Query

Status

- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

Units

STATUS

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

1,700 850 0 1,700 Feet

1:16,807

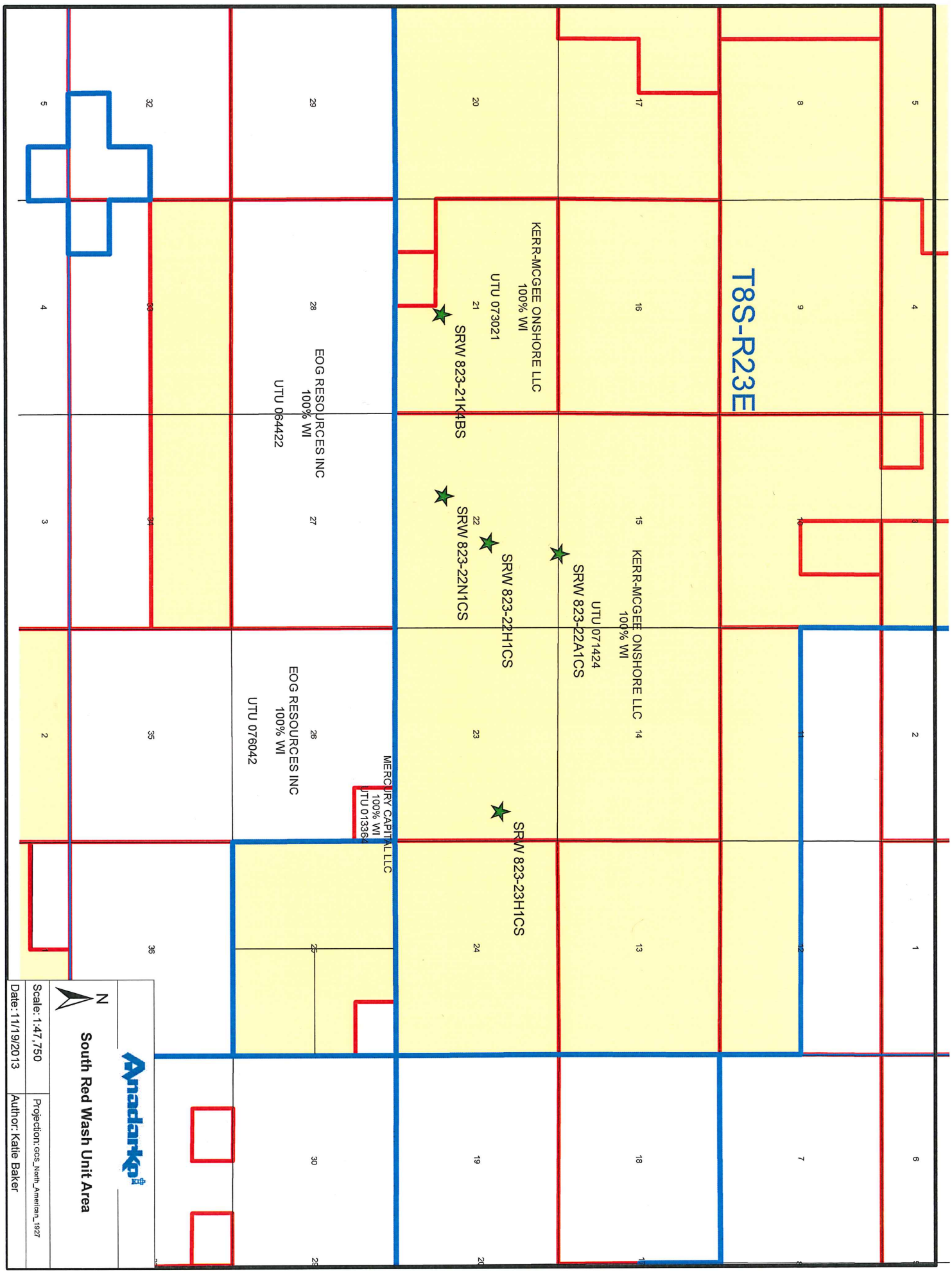
RECEIVED: October 02, 2013

Kerr-McGee Oil & Gas Onshore LP requests authorization for commingling approval in the Wasatch, Mesa Verde, and Blackhawk formations for the referenced wellbore. In the event allocation of production between zones is necessary, the allocation will be based on either: a proportionate net pay as calculated from wireline logs or a representative sampling obtained from production logs.

Attached is a map showing the location of our wells and the contiguous oil and gas leases or drilling units and affidavit showing that this application has been provided to owners of all contiguous oil and gas leases or drilling units overlying the pool.

RECEIVED: November 21, 2013

API Well Number: 43047539800000



API Well Number: 43047539800000

STATE OF COLORADO)

)ss

COUNTY OF DENVER)

VERIFICATION

Katie A. Baker, of lawful age, being first duly sworn upon oath, deposes and says: She is a Landman at Kerr-McGee Oil & Gas Onshore LP, of Denver, Colorado. KMOG is the operator of the following described well:

SRW 823-22H1CS
T8S-R23E Section 22
Uintah County, Utah

EOG Resources, Inc. and Kerr-McGee Oil & Gas Onshore LP are the only working interest owners in the well and/or of all contiguous oil and gas leases or drilling units overlying the pool.

On the 21st day of November, 2013 she placed in the United States mail, with postage prepaid, a copy of the attached Application for Commingling in one wellbore for the subject well.

Said envelope, which contained these instruments, was addressed to the Utah Division of Oil, Gas, & Mining, Bureau of Land Management, and EOG Resources, Inc.

Further affiant saith not.

Katie A. Baker
Katie A. Baker
Landman

Subscribed and sworn before me this 21st day of November, 2013.

Aubrey Miller
Notary Public

My Commission Expires:

AUBREY MILLER NOTARY PUBLIC STATE OF COLORADO

My Commission Expires 3/18/2014

API Well Number: 43047539800000

Exhibit "A" to Affidavit
SRW 823-22N1CS, SRW 823-22H1CS, SRW 823-22A1CS, SRW 823-23H1CS
Application to Commingle

EOG Resources, Inc.
600 Seventeenth Street
Suite 1000N
Denver, CO 80202
Attn: Toni Miller

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/7/2013 **API NO. ASSIGNED:** 43047539800000

WELL NAME: SRW 823-22H1CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6029

CONTACT: Cara Mahler

PROPOSED LOCATION: SWNE 22 080S 230E **Permit Tech Review:** ✔

SURFACE: 2217 FNL 1899 FEL **Engineering Review:** ✔

BOTTOM: 1817 FNL 0498 FEL **Geology Review:** ✔

COUNTY: UINTAH

LATITUDE: 40.10931 **LONGITUDE:** -109.31058

UTM SURF EASTINGS: 643982.00 **NORTHINGS:** 4441257.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-71424 **PROPOSED PRODUCING FORMATION(S):** BLACKHAWK

SURFACE OWNER: 1 - Federal **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ✔ **PLAT**
- ✔ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☐ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ✔ **Water Permit:** 43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ✔ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: SOUTH RED WASH

- ☐ **R649-3-2. General**
- ✔ **R649-3-3. Exception**
- ✔ **Drilling Unit**

Board Cause No: R649-3-11

Effective Date:

Siting:

- ✔ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
1 - Exception Location - bhill
3 - Commingling - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason
23 - Spacing - dmason

RECEIVED: January 23, 2014

GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: SRW 823-22H1CS
API Well Number: 43047539800000
Lease Number: UTU-71424
Surface Owner: FEDERAL
Approval Date: 1/23/2014

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 R649-3-11. 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

Exception Location:
Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

Commingle:
Administrative approval for commingling the production from the Wasatch formation and the Mesaverde formation in this well is hereby granted. Appropriate information has been submitted to DOGM in accordance with R649-3-22. No written objections from owners were received by DOGM.

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

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

In accordance with 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.

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

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

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284
  (please leave a voicemail message if not available)
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
  at http://oilgas.ogm.utah.gov

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

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

Approved By:

For John Rogers
Associate Director, Oil & Gas

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-71424

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: SOUTH RED WASH

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: SRW 823-22H1CS

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

9. API NUMBER: 43047539800000

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

PHONE NUMBER: 720 929-6100 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2217 FNL 1899 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 22 Township: 08.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/9/2014	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

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

Approved by the Utah Division of Oil, Gas and Mining
Date: December 15, 2014
By: [signature]

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Kay E. Kelly	720 929 6582	Regulatory Analyst
SIGNATURE N/A		**DATE** 12/9/2014

RECEIVED: Dec. 09, 2014

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047539800000

API: 43047539800000
Well Name: SRW 823-22H1CS
Location: 2217 FNL 1899 FEL QTR SWNE SEC 22 TWNP 080S RNG 230E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 1/23/2014

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

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

Signature: Kay E. Kelly **Date:** 12/9/2014
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Dec. 09, 2014

Division of Oil, Gas and Mining
Operator Change/Name Change Worksheet-for State use only

Effective Date: 9/8/2015

FORMER OPERATOR:	NEW OPERATOR:
KERR MCGEE OIL & GAS ONSHORE, LP PO BOX 173779 DENVER CO 80217	QEP ENERGY COMPANY INDEPENDENCE PLAZA 1050 17TH STREET STE 500 DENVER CO 80265
CA Number(s):	Unit(s):Mulligan South Red Wash

WELL INFORMATION:

Well Name	Sec	TWN	RNG	API	Entity	Mineral	Surface	Type	Status
See Attached List									

OPERATOR CHANGES DOCUMENTATION:

1. Sundry or legal documentation was received from the **FORMER** operator on: 9/22/2015
2. Sundry or legal documentation was received from the **NEW** operator on: 9/22/2015
3. New operator Division of Corporations Business Number: 764611-0143

REVIEW:

1. Surface Agreement Sundry from **NEW** operator on Fee Surface wells received on: N/A
2. Receipt of Acceptance of Drilling Procedures for APD on: 9/22/2015
3. Reports current for Production/Disposition & Sundries: 9/22/2015
4. OPS/SI/TA well(s) reviewed for full cost bonding: N/A
5. UIC5 on all disposal/injection/storage well(s) approved on: N/A
6. Surface Facility(s) included in operator change: None
7. Inspections of PA state/fee well sites complete on (only upon operators request): N/A

NEW OPERATOR BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: ESB000024
2. Indian well(s) covered by Bond Number: N/A
3.State/fee well(s) covered by Bond Number(s): N/A

DATA ENTRY:

1. Well(s) update in the **OGIS** on: 9/23/2015
2. Entity Number(s) updated in **OGIS** on: 9/23/2015
3. Unit(s) operator number update in **OGIS** on: 9/23/2015
4. Surface Facilities update in **OGIS** on: N/A
5. State/Fee well(s) attached to bond(s) in **RBDMS** on: N/A
6. Surface Facilities update in **RBDMS** on: N/A

LEASE INTEREST OWNER NOTIFICATION:

1. The **NEW** operator of the Fee (Mineral) wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

From: Kerr-McGee Oil Gas Onshore, L.P.
To: QEP Energy Company
Effective:9/8/2015

Well Name	Sec	TWN	RNG	API	Entity	Mineral	Surface	Type	Status
SRW 823-10G GR	10	08S	23E	4304753973		Federal	Federal	OW	APD
SRW 823-22H1CS	22	08S	23E	4304753980		Federal	Federal	GW	APD
SRW 823-23H1CS	23	08S	23E	4304753981		Federal	Federal	GW	APD
SRW 823-22N1CS	22	08S	23E	4304753982		Federal	Federal	GW	APD
SRW 823-10B GR	10	08S	23E	4304753983		Federal	Federal	OW	APD
SRW 823-13L1CS	13	08S	23E	4304755114		Federal	Federal	GW	APD
SRW 823-21K4BS	21	08S	23E	4304755115		Federal	Federal	GW	APD
KENNEDY WASH 13-1	13	08S	22E	4304733615	12926	Federal	Federal	GW	P
MULLIGAN 822-24H	24	08S	225E	4304737077	15547	Federal	Federal	GW	P
MULLIGAN 822-24G	24	08S	22E	4304737078	15547	Federal	Federal	GW	P

QEP RESOURCES™

Independence Plaza
1050 17th Street, Suite 500
Denver, CO 80265
Tel: 303.672.6900
Fax: 303.294.9632

September 14, 2015

Utah Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

Attn: Rachel Medina

RECEIVED
SEP 22 2015
DIV. OF OIL, GAS & MINING

RE: Request to Transfer Operator (13 wells)
Form 9 Notice of Intent Sundries
Request to Transfer Application or Permit to Drill

Dear Ms. Medina:

Effective Tuesday, September 8, 2015, Kerr McGee Oil and Gas Onshore, LP sold thirteen wells in the South Redwash Field, Uintah County, UT, to QEP Energy Company. Enclosed please find (in duplicate) Form 9 Notice of Intent Sundry Notices requesting the change of operator, along with associated Request to Transfer Application or Permit to Drill forms for each well.

Upon approval, please send one copy to my attention at the address above and the other copy to Kerr McGee, attention Joel Malefyt. Please see his mailing address listed below:

Kerr McGee Oil and Gas Onshore, LP
Attn: Joel Malefyt
1099 18th Street, Ste. 6000
Denver, CO 80202

If you have any additional questions or concerns, please don't hesitate to contact me at (303) 260-6745 or via email at laura.abrams@qepres.com.

Sincerely,

Laura Abrams
Sr. Regulatory Affairs Analyst

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU71424

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: SOUTH RED WASH UNIT

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: SRW 823-22H1CS

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

9. API NUMBER: 4304753980

3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217 PHONE NUMBER: (720) 929-6824

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 2217 FNL 1899 FEL COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE 22 8S 23E S STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
9/2/2015	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: TRANSFER OF OPERATOR
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

Effective September 2, 2015, Kerr McGee Oil & Gas Onshore, L.P. respectfully requests that the operator be transferred to QEP Energy Company for the above referenced well.

QEP Energy Company will operate the well under Nationwide Federal Bond No. ESB000024 and will comply with all the Conditions of Approval in the approved Application for Permit to Drill.

Michael K. Watanabe
Vice President, Land

RECEIVED
SEP 22 2015
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Matthew T. Miller TITLE Land Manager

SIGNATURE DATE 9/2/2015

APPROVED
SEP 23 2015
DIV. OIL GAS & MINING
BY: Rachel Medina

(This space for State use only)

(5/2000) (See Instructions on Reverse Side)

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

Request to Transfer Application or Permit to Drill

(This form should accompany a Sundry Notice, Form 9, requesting APD transfer)

Well name:	SRW 823-22H1CS
API number:	4304753980
Location:	Qtr-Qtr: SWNE Section: 22 Township: 8S Range: 23E
Company that filed original application:	KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date original permit was issued:	01/23/2014
Company that permit was issued to:	KERR-MCGEE OIL & GAS ONSHORE, L.P.

Check one	Desired Action:
	Transfer pending (unapproved) Application for Permit to Drill to new operator
	The undersigned as owner with legal rights to drill on the property, hereby verifies that the information as submitted in the pending Application for Permit to Drill, remains valid and does not require revision. The new owner of the application accepts and agrees to the information and procedures as stated in the application.
✓	**Transfer approved Application for Permit to Drill to new operator**
	The undersigned as owner with legal rights to drill on the property as permitted, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.	Yes	No
If located on private land, has the ownership changed?		✓
If so, has the surface agreement been updated?		✓
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?		✓
Have there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?		✓
Have there been any changes to the access route including ownership or right-of-way, which could affect the proposed location?		✓
Has the approved source of water for drilling changed?		✓
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?		✓
Is bonding still in place, which covers this proposed well? Bond No. WYB000291	✓	

Any desired or necessary changes to either a pending or approved Application for Permit to Drill that is being transferred, should be filed on a Sundry Notice, Form 9, or amended Application for Permit to Drill, Form 3, as appropriate, with necessary supporting information as required.

Name (please print) MICHAEL K. WATANABE Title VICE PRESIDENT, LAND

Signature Date 09/02/2015

Representing (company name) QEP ENERGY COMPANY

The person signing this form must have legal authority to represent the company or individual(s) to be listed as the new operator on the Application for Permit to Drill.

(3/2004)

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-71424

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: SOUTH RED WASH

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: SRW 823-22H1CS

2. NAME OF OPERATOR: QEP ENERGY COMPANY

9. API NUMBER: 43047539800000

3. ADDRESS OF OPERATOR: 11002 East 17500 South , Vernal, Ut, 84078

PHONE NUMBER: 303 595-5919 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2217 FNL 1899 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 22 Township: 08.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 1/23/2017	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

QEP ENERGY COMPANY HEREBY REQUESTS A ONE YEAR EXTENSION FOR THE APD ON THE ABOVE CAPTIONED WELL.

Approved by the
Utah Division of
Oil, Gas and Mining
Date: January 26, 2016
By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Valyn Davis	435 781-4369	Regulatory Affairs Analyst
SIGNATURE N/A		**DATE** 1/21/2016

RECEIVED: Jan. 21, 2016

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047539800000

API: 43047539800000
Well Name: SRW 823-22H1CS
Location: 2217 FNL 1899 FEL QTR SWNE SEC 22 TWNP 080S RNG 230E MER S
Company Permit Issued to: QEP ENERGY COMPANY
Date Original Permit Issued: 1/23/2014

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

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

Signature: Valyn Davis **Date:** 1/21/2016
Title: Regulatory Affairs Analyst **Representing:** QEP ENERGY COMPANY

RECEIVED: Jan. 21, 2016

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-71424

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: SOUTH RED WASH

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: SRW 823-22H1CS

2. NAME OF OPERATOR: QEP ENERGY COMPANY

9. API NUMBER: 43047539800000

3. ADDRESS OF OPERATOR: 11002 East 17500 South , Vernal, Ut, 84078

PHONE NUMBER: 303 595-5919 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2217 FNL 1899 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 22 Township: 08.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 1/23/2018	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

QEP ENERGY COMPANY HEREBY REQUESTS A ONE YEAR EXTENSION FOR THE APD ON THE ABOVE CAPTIONED WELL.

Approved by the
February 01, 2017
Utah Division of
Oil, Gas and Mining

Date:

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jan Nelson	435 781-4331	Permit Agent
SIGNATURE N/A		**DATE** 1/19/2017

RECEIVED: Jan. 19, 2017

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047539800000

API: 43047539800000
Well Name: SRW 823-22H1CS
Location: 2217 FNL 1899 FEL QTR SWNE SEC 22 TWNP 080S RNG 230E MER S
Company Permit Issued to: QEP ENERGY COMPANY
Date Original Permit Issued: 1/23/2014

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

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

Signature: Jan Nelson **Date:** 1/19/2017
Title: Permit Agent **Representing:** QEP ENERGY COMPANY

RECEIVED: Jan. 19, 2017