

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMLC064200

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
RIVERBOAT 12/1 WOPA FED COM 1H9. API Well No.
30-015-45305-00-X110. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator
CIMAREX ENERGY COMPANY
Contact: TERRI STATHEM
E-Mail: tstatthem@cimarex.com3a. Address
600 N MARIENFELD STE 600
MIDLAND, TX 79701
3b. Phone No. (include area code)
Ph: 432-620-19364. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 12 T24S R26E SESE 285FSL 449FEL
32.225086 N Lat, 104.239204 W Lon**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION				
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD	

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

Cimarex respectfully request approval to change the SHL and BHL for the referenced well as follows:

SHL: 215' FSL 380' FEL - Sec. 12, 24S, 26E

BHL: 330' FNL 330' FEL - Sec. 1, 24S, 26E

The proposed SHL was previously approved in the APD. However, a new SHL move request was submitted and approved by the BLM on 11/5/18.

Cimarex inadvertently drilled the well at the APD location. Please see the attached C102 and Directional Survey for information regarding the SHL & BHL as drilled.

NM OIL CONSERVATION
ARTESIA DISTRICT

SEP 23 2019

Engineering OK. Same COAs from [Signature]
Surface good. 8/19/19. NM. Same COAs apply.

OCD Artesia

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #475708 verified by the BLM Well Information System

For CIMAREX ENERGY COMPANY, sent to the Carlsbad

Committed to AFMSS for processing by JUANA MEDRANO on 07/30/2019 (19JM0081SE)

Name (Printed/Typed) TERRI STATHEM

Title MANAGER REGULATORY COMPLIANCE

Signature (Electronic Submission)

Date 07/29/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Ref 10-29-19

Revisions to Operator-Submitted EC Data for Sundry Notice #475708

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMLC064200	NMLC064200
Agreement:		
Operator:	CIMAREX ENERGY COMPANY 600 N. MARIENFELD ST STE 600 MIDLAND, TX 79701 Ph: 432-620-1936	CIMAREX ENERGY COMPANY 600 N MARIENFELD STE 600 MIDLAND, TX 79701 Ph: 432.620.1936 Fx: 918.749.8059
Admin Contact:	TERRI STATHEM MANAGER REGULATORY COMPLIANCE E-Mail: tstathem@cimarex.com Ph: 432-620-1936	TERRI STATHEM MANAGER REGULATORY COMPLIANCE E-Mail: tstathem@cimarex.com Ph: 432-620-1936
Tech Contact:	TERRI STATHEM MANAGER REGULATORY COMPLIANCE E-Mail: tstathem@cimarex.com Ph: 432-620-1936	TERRI STATHEM MANAGER REGULATORY COMPLIANCE E-Mail: tstathem@cimarex.com Ph: 432-620-1936
Location:		
State:	NM	NM
County:	EDDY	EDDY
Field/Pool:	PURPLE SAGE WOLFCAMP GAS	PURPLE SAGE-WOLFCAMP (GAS)
Well/Facility:	RIVERBOAT 12-1 W0PA FED COM 1H Sec 12 T24S R26E SESE 285FSL 449FEL	RIVERBOAT 12/1 W0PA FED COM 1H Sec 12 T24S R26E SESE 285FSL 449FEL 32.225086 N Lat, 104.239204 W Lon

Cimarex



Borehole:				Well:				Field:				Structure:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Original Borehole				Cimarex Riverboat 12-1 WOPA Fed Com 1H				NM Eddy County (NAD 83)				Cimarex Riverboat 12-1 WOPA Fed Com 1H																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Model:		HDDM 2010		Dip:		69.881°		Date:		25-Jul-2019		Surface Location				NAD83 New Mexico State Plane, Central Zone, US Feet				Miscellaneous																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
MagDec:		7.259°		FS:		47819.57nT		Gravity FS:		980.451mg (0.00055 Based)		Lat:		N 32 13 30.32		Long:		W 104 14 21.14		Northings:		445633.570US		Eastings:		876444.770US		Grid Conv:		0.0502°		Scale Fact:		0.02001000		Slot:		Cimarex Riverboat 12-1 WOPA Fed Com 1H		TVD Ref:		RKB (2020) above MSL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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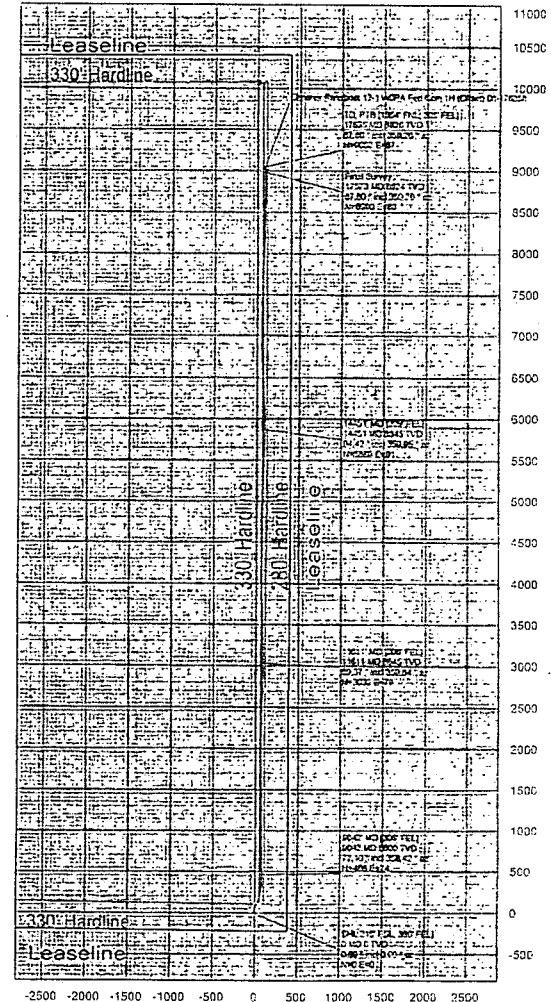
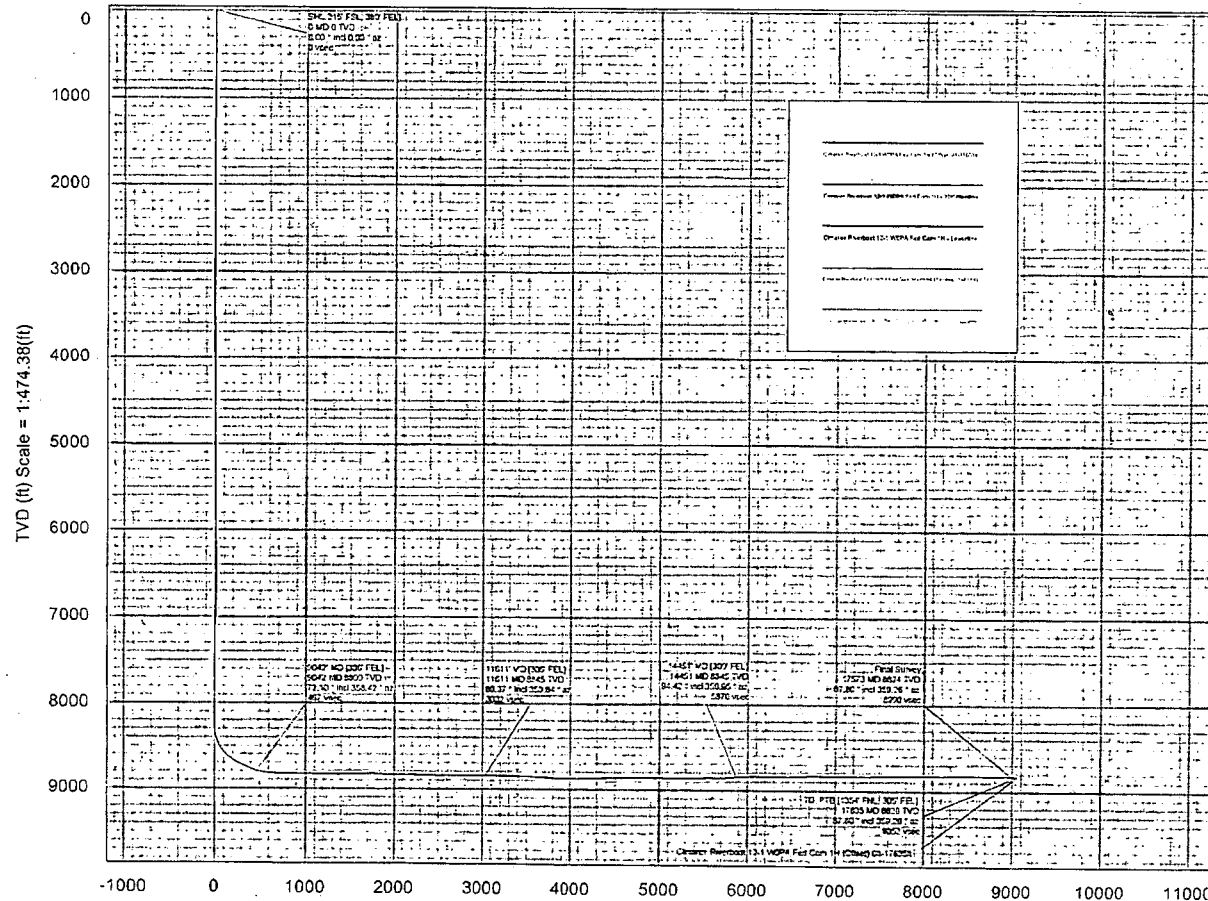
Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL 215' FSL, 386' FEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9042' MD [306' FEL]	9042.00	72.10	358.42	8300.29	456.76	456.19	74.35	12.91
11611' MD [306' FEL]	11611.00	89.37	359.84	8844.57	3032.04	3031.51	79.47	1.34
14451' MD [309' FEL]	14451.00	94.42	359.95	8844.87	5869.97	5869.44	90.66	2.12
Final Survey	17573.00	87.80	359.26	8823.82	8999.26	8999.87	85.06	2.26
TD, PTB [1354' FNL, 305' FEL]	17625.00	87.50	359.26	8826.20	9052.22	9051.82	87.26	0.00



Grid
True
Mag

Grid North
Tot Corr (M->G 7.209°)
Mag Dec (7.259°)
Grid Conv (0.050°)

CONTROLLED	
Drawn by	23
Checked by	
Date	
Scale	
Sheet	
Project	
Well	
Location	



Vertical Section (ft) Azim = 0.45° Scale = 1:474.38(ft) Origin = 0N/-S, 0E/-W

EW (ft) Scale = 1:497.36(ft)

Cimarex Riverboat 12-1 W0PA Fed Com 1H (Offset) 0ft-17635ft Survey

Geodetic Report

(Def Survey)



Report Date: July 29, 2019 - 02:10 PM
 Client: Cimarex
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Cimarex Riverboat 12-1 W0PA Fed Com 1H / Cimarex Riverboat 12-1 W0PA Fed Com 1H
 Well: Cimarex Riverboat 12-1 W0PA Fed Com 1H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Cimarex Riverboat 12-1 W0PA Fed Com 1H (Offset) 0ft-17635ft
 Survey Date: July 26, 2019
 Tort / AHD / DDI / ERD Ratio: 259.492 ° / 9223.902 ft / 6.677 / 1.039
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 13' 30.31616", W 104° 14' 21.13751"
 Location Grid N/E Y/X: N 445633.500 ftUS, E 570444.700 ftUS
 CRS Grid Convergence Angle: 0.0502 °
 Grid Scale Factor: 0.99991006
 Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 0.451 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3263.000 ft above MSL
 Seabed / Ground Elevation: 3237.000 ft above MSL
 Magnetic Declination: 7.259 °
 Total Gravity Field Strength: 998.4513mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47819.570 nT
 Magnetic Dip Angle: 59.881 °
 Declination Date: July 26, 2019
 Magnetic Declination Model: HDGM 2019
 North Reference: Grid North
 Grid Convergence Used: 0.0502 °
 Total Corr Mag North->Grid North: 7.2086 °
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL 215' FSL, 380' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	445633.50	570444.70	N 32 13 30.32	W 104 14 21.14
	199.00	0.73	62.54	198.99	0.59	0.58	1.12	0.37	445634.08	570445.82	N 32 13 30.32	W 104 14 21.12
	277.00	0.77	87.85	276.99	0.85	0.83	2.09	0.42	445634.33	570446.79	N 32 13 30.32	W 104 14 21.11
	483.00	0.99	113.88	482.96	0.20	0.16	5.10	0.22	445633.66	570449.80	N 32 13 30.32	W 104 14 21.08
	574.00	0.87	118.18	573.95	-0.43	-0.48	6.43	0.15	445633.02	570451.13	N 32 13 30.31	W 104 14 21.06
	666.00	1.13	115.75	665.94	-1.14	-1.20	7.86	0.29	445632.30	570452.56	N 32 13 30.30	W 104 14 21.05
	756.00	1.11	111.96	755.92	-1.84	-1.92	9.47	0.09	445631.59	570454.17	N 32 13 30.30	W 104 14 21.03
	845.00	1.20	111.06	844.90	-2.48	-2.57	11.14	0.10	445630.93	570455.84	N 32 13 30.29	W 104 14 21.01
	940.00	1.01	97.90	939.89	-2.94	-3.04	12.90	0.33	445630.46	570457.59	N 32 13 30.29	W 104 14 20.99
	1034.00	0.39	106.70	1033.88	-3.14	-3.25	14.02	0.67	445630.25	570458.72	N 32 13 30.28	W 104 14 20.97
	1129.00	0.26	187.18	1128.88	-3.44	-3.56	14.31	0.45	445629.94	570459.00	N 32 13 30.28	W 104 14 20.97
	1223.00	0.79	131.97	1222.87	-4.09	-4.20	14.76	0.72	445629.30	570459.46	N 32 13 30.27	W 104 14 20.97
	1317.00	2.32	117.80	1316.84	-5.39	-5.52	16.93	1.67	445627.98	570461.62	N 32 13 30.26	W 104 14 20.94
	1412.00	2.66	116.73	1411.75	-7.25	-7.41	20.59	0.36	445626.09	570465.29	N 32 13 30.24	W 104 14 20.90
	1507.00	0.77	245.87	1506.72	-8.49	-8.66	21.98	3.37	445624.84	570466.68	N 32 13 30.23	W 104 14 20.88
	1696.00	1.14	280.39	1695.69	-8.69	-8.84	18.97	0.35	445624.66	570463.67	N 32 13 30.23	W 104 14 20.92
	1790.00	1.43	279.88	1789.67	-8.34	-8.47	16.90	0.31	445625.03	570461.60	N 32 13 30.23	W 104 14 20.94
	1885.00	1.48	279.10	1884.64	-7.96	-8.08	14.52	0.06	445625.42	570459.22	N 32 13 30.24	W 104 14 20.97
	2064.00	1.65	282.83	2063.57	-7.06	-7.14	9.72	0.11	445626.36	570454.42	N 32 13 30.25	W 104 14 21.02
	2253.00	1.68	285.28	2252.49	-5.77	-5.80	4.40	0.04	445627.70	570449.10	N 32 13 30.26	W 104 14 21.09
	2348.00	1.66	285.62	2347.45	-5.05	-5.07	1.73	0.02	445628.43	570446.43	N 32 13 30.27	W 104 14 21.12
	2537.00	0.48	203.97	2536.42	-5.06	-5.05	-1.23	0.88	445628.45	570443.47	N 32 13 30.27	W 104 14 21.15
	2632.00	0.38	214.34	2631.42	-5.69	-5.68	-1.57	0.13	445627.82	570443.13	N 32 13 30.26	W 104 14 21.16
	2821.00	0.68	216.70	2820.41	-7.11	-7.09	-2.59	0.16	445626.41	570442.11	N 32 13 30.25	W 104 14 21.17
	2915.00	0.61	230.04	2914.40	-7.89	-7.86	-3.31	0.18	445625.64	570441.39	N 32 13 30.24	W 104 14 21.18
	3009.00	0.67	230.93	3008.40	-8.56	-8.53	-4.12	0.06	445624.97	570440.56	N 32 13 30.23	W 104 14 21.19

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	3104.00	1.00	232.62	3103.39	-9.42	-9.38	-5.21	0.35	445624.12	570439.49	N 32 13 30.22	W 104 14 21.20
	3293.00	0.76	47.81	3292.38	-9.59	-9.54	-5.59	0.93	445623.96	570439.11	N 32 13 30.22	W 104 14 21.20
	3387.00	0.76	65.84	3386.37	-8.91	-8.87	-4.56	0.25	445624.63	570440.14	N 32 13 30.23	W 104 14 21.19
	3482.00	0.74	62.75	3481.36	-8.36	-8.33	-3.44	0.05	445625.17	570441.26	N 32 13 30.23	W 104 14 21.18
	3671.00	0.64	69.39	3670.35	-7.41	-7.40	-1.37	0.07	445626.10	570443.33	N 32 13 30.24	W 104 14 21.15
	3860.00	0.84	68.32	3859.33	-6.51	-6.52	0.91	0.11	445626.98	570445.61	N 32 13 30.25	W 104 14 21.13
	3955.00	0.96	53.08	3954.32	-5.76	-5.78	2.19	0.28	445627.72	570446.89	N 32 13 30.26	W 104 14 21.11
	4144.00	0.71	59.68	4143.30	-4.20	-4.24	4.47	0.14	445629.26	570449.17	N 32 13 30.27	W 104 14 21.09
	4333.00	0.94	33.67	4332.28	-2.31	-2.36	6.34	0.23	445631.14	570451.04	N 32 13 30.29	W 104 14 21.06
	4427.00	0.83	40.30	4426.27	-1.14	-1.20	7.21	0.16	445632.30	570451.91	N 32 13 30.30	W 104 14 21.05
	4616.00	0.85	63.19	4615.25	0.55	0.48	9.34	0.18	445633.98	570454.04	N 32 13 30.32	W 104 14 21.03
	4710.00	0.76	83.56	4709.24	0.95	0.86	10.58	0.32	445634.36	570455.28	N 32 13 30.32	W 104 14 21.01
	4899.00	0.49	74.66	4898.23	1.32	1.22	12.61	0.15	445634.72	570457.31	N 32 13 30.33	W 104 14 20.99
	4994.00	0.57	65.99	4993.23	1.62	1.52	13.43	0.12	445635.02	570458.13	N 32 13 30.33	W 104 14 20.98
	5183.00	0.39	66.90	5182.22	2.27	2.15	14.88	0.10	445635.65	570459.58	N 32 13 30.34	W 104 14 20.96
	5277.00	0.35	70.39	5276.22	2.50	2.37	15.45	0.05	445635.87	570460.15	N 32 13 30.34	W 104 14 20.96
	5371.00	0.37	63.53	5370.22	2.73	2.61	15.99	0.05	445636.11	570460.69	N 32 13 30.34	W 104 14 20.95
	5560.00	0.65	25.91	5559.21	3.98	3.84	17.01	0.22	445637.34	570461.70	N 32 13 30.35	W 104 14 20.94
	5655.00	0.74	14.48	5654.20	5.06	4.92	17.39	0.17	445638.42	570462.09	N 32 13 30.36	W 104 14 20.93
	5750.00	0.46	287.64	5749.20	5.77	5.63	17.18	0.89	445639.13	570461.88	N 32 13 30.37	W 104 14 20.94
	5844.00	1.19	284.46	5843.19	6.11	5.99	15.88	0.78	445639.49	570460.58	N 32 13 30.38	W 104 14 20.95
	5939.00	1.87	288.67	5938.15	6.84	6.73	13.46	0.73	445640.23	570458.15	N 32 13 30.38	W 104 14 20.96
	6033.00	2.09	310.52	6032.10	8.42	8.34	10.70	0.83	445641.84	570455.40	N 32 13 30.40	W 104 14 21.01
	6128.00	2.22	318.45	6127.03	10.90	10.84	8.16	0.34	445644.34	570452.86	N 32 13 30.42	W 104 14 21.04
	6222.00	1.32	289.02	6220.99	12.60	12.55	5.93	1.33	445646.05	570450.63	N 32 13 30.44	W 104 14 21.07
	6317.00	1.14	288.50	6315.97	13.24	13.21	4.00	0.19	445646.71	570448.70	N 32 13 30.45	W 104 14 21.09
	6411.00	1.70	293.27	6409.94	14.07	14.06	1.83	0.61	445647.56	570446.53	N 32 13 30.46	W 104 14 21.12
	6506.00	1.57	256.79	6504.90	14.31	14.32	-0.73	1.09	445647.82	570443.97	N 32 13 30.46	W 104 14 21.15
	6694.00	2.31	256.78	6692.79	12.81	12.86	-6.92	0.39	445646.36	570437.78	N 32 13 30.44	W 104 14 21.22
	6883.00	2.71	210.97	6881.63	8.06	8.16	-12.93	1.05	445641.66	570431.77	N 32 13 30.40	W 104 14 21.29
	6978.00	2.15	181.09	6976.55	4.34	4.45	-14.12	1.44	445637.95	570430.58	N 32 13 30.36	W 104 14 21.30
	7072.00	0.57	172.30	7070.52	2.11	2.23	-14.09	1.69	445635.73	570430.61	N 32 13 30.34	W 104 14 21.30
	7167.00	0.28	128.81	7165.51	1.50	1.61	-13.85	0.44	445635.11	570430.85	N 32 13 30.33	W 104 14 21.30
	7261.00	0.36	199.41	7259.51	1.08	1.19	-13.77	0.40	445634.69	570430.93	N 32 13 30.33	W 104 14 21.30
	7356.00	0.41	241.13	7354.51	0.63	0.74	-14.16	0.29	445634.24	570430.54	N 32 13 30.32	W 104 14 21.30
	7450.00	0.87	255.69	7448.50	0.29	0.40	-15.15	0.52	445633.90	570429.55	N 32 13 30.32	W 104 14 21.31
	7544.00	2.79	264.06	7542.45	-0.15	-0.01	-18.12	2.06	445633.49	570426.58	N 32 13 30.32	W 104 14 21.35
	7639.00	0.95	278.40	7637.40	-0.30	-0.13	-21.20	1.98	445633.37	570423.50	N 32 13 30.32	W 104 14 21.36
	7733.00	1.36	313.91	7731.38	0.58	0.76	-22.77	0.86	445634.25	570421.93	N 32 13 30.32	W 104 14 21.40
	7828.00	0.96	242.23	7826.36	0.97	1.17	-24.29	1.47	445634.67	570420.41	N 32 13 30.33	W 104 14 21.42
	7922.00	2.33	203.19	7920.33	-1.16	-0.96	-25.74	1.80	445632.54	570418.96	N 32 13 30.31	W 104 14 21.44
	8017.00	1.48	224.37	8015.27	-3.82	-3.61	-27.36	1.15	445629.89	570417.35	N 32 13 30.28	W 104 14 21.46
	8111.00	0.90	265.28	8109.25	-4.77	-4.54	-28.94	1.06	445628.96	570415.76	N 32 13 30.27	W 104 14 21.47
	8172.00	0.67	285.02	8170.25	-4.72	-4.48	-29.76	0.58	445629.02	570414.94	N 32 13 30.27	W 104 14 21.48
	8266.00	4.79	29.33	8264.12	-0.38	-0.16	-28.07	4.38	445633.34	570416.63	N 32 13 30.31	W 104 14 21.46
	8334.00	8.88	30.49	8331.77	4.58	4.78	-25.21	8.53	445638.28	570419.49	N 32 13 30.36	W 104 14 21.43
	8365.00	12.15	26.51	8362.24	9.59	9.76	-22.54	10.80	445643.26	570422.16	N 32 13 30.41	W 104 14 21.40
	8397.00	15.57	25.60	8393.31	16.50	16.65	-19.18	10.71	445650.15	570425.52	N 32 13 30.48	W 104 14 21.36
	8428.00	18.97	25.82	8422.90	24.82	24.94	-15.19	10.97	445658.44	570429.51	N 32 13 30.56	W 104 14 21.31
	8459.00	22.41	25.19	8451.90	34.75	34.83	-10.48	11.12	445668.33	570434.23	N 32 13 30.66	W 104 14 21.26
	8491.00	26.14	26.07	8481.07	46.65	46.66	-4.78	11.71	445680.18	570439.92	N 32 13 30.78	W 104 14 21.19
	8522.00	30.00	25.72	8508.41	59.82	59.81	1.59	12.46	445693.30	570446.29	N 32 13 30.91	W 104 14 21.12
	8570.00	35.80	22.10	8548.70	83.74	83.65	12.09	12.75	445717.14	570456.79	N 32 13 31.14	W 104 14 21.00
	8617.00	40.69	19.79	8585.61	110.99	110.82	22.45	10.84	445744.31	570467.15	N 32 13 31.41	W 104 14 20.88
	8664.00	46.75	18.53	8619.56	141.75	141.49	33.09	13.03	445774.98	570477.79	N 32 13 31.72	W 104 14 20.75
	8711.00	52.98	17.88	8649.84	175.96	175.61	44.30	13.30	445809.10	570489.00	N 32 13 32.05	W 104 14 20.62
	8758.00	58.12	16.31	8676.42	213.08	212.65	55.67	11.28	445846.13	570500.37	N 32 13 32.42	W 104 14 20.49
	8806.00	62.27	10.57	8700.29	253.64	253.13	65.30	13.50	445886.61	570510.00	N 32 13 32.82	W 104 14 20.37

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
9042' MD [306' FEL]	8853.00	63.05	3.92	8721.89	295.06	294.52	70.56	12.68	445927.99	570515.25	N 32 13 33.23	W 104 14 20.31
	8900.00	63.43	3.03	8743.05	336.97	336.41	73.10	1.87	445969.88	570517.79	N 32 13 33.64	W 104 14 20.26
	8947.00	64.68	1.08	8763.62	379.21	378.64	74.61	4.58	446012.10	570519.30	N 32 13 34.06	W 104 14 20.27
	8995.00	66.20	359.93	8783.57	422.87	422.29	74.99	3.84	446055.75	570519.69	N 32 13 34.49	W 104 14 20.26
	9042.00	72.10	358.42	8800.29	466.76	466.19	74.35	12.91	446099.65	570519.04	N 32 13 34.93	W 104 14 20.27
	9089.00	78.56	358.81	8812.19	512.18	511.62	73.25	13.77	446145.07	570517.95	N 32 13 35.38	W 104 14 20.26
	9136.00	81.04	358.28	8820.51	558.41	557.86	72.08	5.39	446191.31	570516.77	N 32 13 35.84	W 104 14 20.29
	9184.00	85.03	358.33	8826.33	606.01	605.47	70.67	8.31	446238.92	570515.36	N 32 13 36.31	W 104 14 20.31
	9208.00	87.21	358.90	8827.95	629.94	629.41	70.09	9.39	446262.85	570514.78	N 32 13 36.54	W 104 14 20.32
	9245.00	88.68	359.54	8829.28	666.91	666.38	69.59	4.33	446299.82	570514.28	N 32 13 36.91	W 104 14 20.32
	9340.00	89.09	359.80	8831.13	761.88	761.36	69.04	0.51	446394.79	570513.73	N 32 13 37.85	W 104 14 20.33
	9435.00	89.07	359.71	8832.65	856.86	856.35	68.63	0.10	446489.77	570513.33	N 32 13 38.79	W 104 14 20.33
	9529.00	88.86	359.75	8834.35	950.84	950.33	68.19	0.23	446583.74	570512.89	N 32 13 39.72	W 104 14 20.33
	9624.00	89.22	0.02	8835.94	1045.82	1045.32	68.00	0.47	446678.72	570512.70	N 32 13 40.66	W 104 14 20.34
	9718.00	89.94	0.16	8836.63	1139.82	1139.31	68.15	0.78	446772.71	570512.84	N 32 13 41.59	W 104 14 20.33
	9813.00	87.87	359.63	8838.45	1234.79	1234.29	67.98	2.25	446867.68	570512.67	N 32 13 42.53	W 104 14 20.33
	9907.00	89.22	359.85	8840.84	1328.75	1328.26	67.55	1.46	446961.64	570512.24	N 32 13 43.46	W 104 14 20.34
	10002.00	90.85	359.51	8840.94	1423.74	1423.25	67.02	1.55	447056.62	570511.71	N 32 13 44.40	W 104 14 20.34
	10096.00	91.41	358.99	8839.25	1517.70	1517.23	65.79	0.98	447150.59	570510.48	N 32 13 45.33	W 104 14 20.36
	10191.00	91.60	358.96	8838.76	1612.64	1612.18	64.09	0.20	447245.53	570508.78	N 32 13 46.27	W 104 14 20.37
	10285.00	91.92	359.01	8833.87	1706.56	1706.12	62.42	0.34	447339.47	570507.12	N 32 13 47.20	W 104 14 20.39
	10380.00	87.73	358.75	8834.16	1801.50	1801.08	60.57	4.42	447434.42	570505.26	N 32 13 48.14	W 104 14 20.41
	10474.00	86.94	358.96	8838.53	1895.36	1894.96	58.69	0.87	447528.29	570503.39	N 32 13 49.07	W 104 14 20.43
	10569.00	89.45	0.31	8841.52	1990.30	1989.90	58.09	3.00	447623.22	570502.78	N 32 13 50.01	W 104 14 20.44
	10663.00	89.56	0.33	8842.34	2084.29	2083.90	58.61	0.12	447717.21	570503.31	N 32 13 50.94	W 104 14 20.43
	10758.00	91.08	1.05	8841.81	2179.29	2178.89	59.76	1.77	447812.19	570504.45	N 32 13 51.88	W 104 14 20.42
	10852.00	88.24	1.00	8842.36	2273.27	2272.86	61.44	3.02	447906.15	570506.13	N 32 13 52.81	W 104 14 20.40
	10948.00	88.58	1.21	8845.03	2369.23	2368.80	63.29	0.42	448002.09	570507.98	N 32 13 53.76	W 104 14 20.38
	11043.00	89.62	1.73	8846.52	2464.20	2463.76	65.73	1.22	448097.03	570510.42	N 32 13 54.69	W 104 14 20.35
	11137.00	89.11	1.83	8847.56	2558.17	2557.71	68.65	0.55	448190.97	570513.34	N 32 13 55.62	W 104 14 20.31
	11232.00	90.83	2.64	8847.81	2653.12	2652.63	72.35	2.00	448285.89	570517.04	N 32 13 56.56	W 104 14 20.27
	11327.00	90.13	1.57	8846.81	2748.07	2747.56	75.84	1.35	448380.81	570520.53	N 32 13 57.50	W 104 14 20.23
	11422.00	91.14	1.00	8845.76	2843.06	2842.53	77.97	1.22	448475.77	570522.66	N 32 13 58.44	W 104 14 20.20
	11516.00	90.47	0.49	8844.44	2937.05	2936.51	79.19	0.90	448569.74	570523.88	N 32 13 59.37	W 104 14 20.19
11611' MD [306' FEL]	11611.00	89.37	359.84	8844.57	3032.04	3031.51	79.47	1.34	448664.73	570524.16	N 32 14 0.31	W 104 14 20.18
	11706.00	87.92	359.38	8846.82	3127.00	3126.48	78.80	1.61	448759.69	570523.49	N 32 14 1.25	W 104 14 20.19
	11801.00	88.29	359.03	8849.96	3221.93	3221.42	77.47	0.52	448854.62	570522.16	N 32 14 2.19	W 104 14 20.20
	11896.00	90.41	359.18	8851.04	3316.89	3316.39	75.98	2.24	448949.59	570520.68	N 32 14 3.13	W 104 14 20.22
	11990.00	88.70	359.04	8851.77	3410.86	3410.38	74.52	1.83	449043.56	570519.22	N 32 14 4.06	W 104 14 20.24
	12085.00	89.46	358.90	8853.30	3505.81	3505.35	72.82	0.81	449138.53	570517.51	N 32 14 5.00	W 104 14 20.25
	12179.00	86.74	358.38	8856.41	3599.70	3599.26	70.59	2.95	449232.43	570515.28	N 32 14 5.93	W 104 14 20.26
	12274.00	86.97	358.38	8861.62	3694.50	3694.08	67.91	0.24	449327.24	570512.60	N 32 14 6.87	W 104 14 20.31
	12369.00	87.03	358.59	8866.60	3789.31	3788.92	65.40	0.23	449422.07	570510.09	N 32 14 7.81	W 104 14 20.34
	12464.00	87.46	359.22	8871.16	3884.17	3883.79	63.58	0.80	449516.93	570508.28	N 32 14 8.75	W 104 14 20.36
	12559.00	88.49	0.09	8874.52	3979.10	3978.73	63.01	1.42	449611.86	570507.71	N 32 14 9.69	W 104 14 20.36
	12653.00	90.00	0.30	8876.76	4073.09	4072.71	63.33	1.62	449705.84	570508.03	N 32 14 10.62	W 104 14 20.36
	12748.00	92.02	0.32	8874.08	4168.07	4167.69	63.85	2.13	449800.81	570508.54	N 32 14 11.56	W 104 14 20.35
	12843.00	92.65	0.26	8870.21	4262.99	4262.61	64.33	0.67	449895.72	570509.02	N 32 14 12.49	W 104 14 20.35
	12937.00	91.80	0.01	8866.56	4356.91	4356.54	64.55	0.94	449989.64	570509.24	N 32 14 13.42	W 104 14 20.34
	13031.00	91.27	359.63	8864.04	4450.87	4450.51	64.25	0.69	450083.60	570508.95	N 32 14 14.35	W 104 14 20.34
	13126.00	90.54	358.84	8862.54	4545.84	4545.48	62.99	1.13	450178.57	570507.68	N 32 14 15.29	W 104 14 20.36
	13221.00	90.95	0.36	8861.31	4640.82	4640.47	62.32	1.66	450273.54	570507.02	N 32 14 16.23	W 104 14 20.36
	13316.00	90.72	0.96	8859.92	4735.81	4735.45	63.42	0.68	450368.52	570508.11	N 32 14 17.17	W 104 14 20.35
	13410.00	88.52	0.82	8860.55	4829.80	4829.43	64.88	2.35	450462.49	570509.57	N 32 14 18.10	W 104 14 20.33
	13505.00	91.39	1.66	8860.62	4924.78	4924.40	66.93	3.15	450557.45	570511.63	N 32 14 19.04	W 104 14 20.31
	13600.00	88.89	1.48	8860.39	5019.75	5019.36	69.53	2.64	450652.40	570514.23	N 32 14 19.98	W 104 14 20.28

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
14451' MD [309' FEL]	13694.00	89.11	1.18	8862.03	5113.72	5113.32	71.70	0.41	450746.35	570516.39	N 32 14 20.91	W 104 14 20.25
	13789.00	89.54	1.70	8863.15	5208.70	5208.28	74.07	0.73	450841.30	570518.76	N 32 14 21.85	W 104 14 20.22
	13884.00	89.72	1.67	8863.76	5303.68	5303.24	76.86	0.19	450936.25	570521.56	N 32 14 22.79	W 104 14 20.19
	13978.00	91.65	1.85	8862.84	5397.64	5397.18	79.75	2.06	451030.19	570524.44	N 32 14 23.72	W 104 14 20.15
	14073.00	91.74	1.84	8859.83	5492.57	5492.09	82.81	0.10	451125.09	570527.50	N 32 14 24.66	W 104 14 20.12
	14167.00	90.39	1.32	8858.08	5586.54	5586.04	85.40	1.54	451219.02	570530.09	N 32 14 25.59	W 104 14 20.08
	14262.00	89.74	1.20	8857.97	5681.53	5681.01	87.49	0.70	451313.99	570532.18	N 32 14 26.53	W 104 14 20.06
	14356.00	95.86	1.36	8853.39	5775.36	5774.83	89.58	6.51	451407.80	570534.28	N 32 14 27.46	W 104 14 20.04
	14451.00	94.42	359.95	8844.87	5869.97	5869.44	90.66	2.12	451502.40	570535.36	N 32 14 28.39	W 104 14 20.02
	14546.00	90.92	359.21	8840.45	5964.84	5964.32	89.97	3.77	451597.27	570534.66	N 32 14 29.33	W 104 14 20.03
	14641.00	90.82	358.45	8839.79	6059.79	6059.29	88.03	0.81	451692.23	570532.72	N 32 14 30.27	W 104 14 20.05
	14736.00	88.27	357.33	8839.76	6154.69	6154.21	84.53	2.93	451787.15	570529.22	N 32 14 31.21	W 104 14 20.09
	14830.00	91.49	357.97	8839.96	6248.56	6248.12	80.68	3.49	451881.04	570525.37	N 32 14 32.14	W 104 14 20.13
	14925.00	89.38	358.06	8839.24	6343.47	6343.05	77.39	2.22	451975.97	570522.08	N 32 14 33.08	W 104 14 20.17
	15020.00	91.90	358.61	8838.18	6438.39	6438.00	74.63	2.72	452070.91	570519.32	N 32 14 34.02	W 104 14 20.20
	15115.00	89.61	357.19	8836.92	6533.28	6532.92	71.15	2.84	452165.82	570515.84	N 32 14 34.96	W 104 14 20.24
	15210.00	92.12	357.84	8835.49	6628.13	6627.81	67.03	2.73	452260.70	570511.72	N 32 14 35.90	W 104 14 20.29
	15304.00	91.74	357.73	8832.32	6721.98	6721.69	63.40	0.42	452354.57	570508.09	N 32 14 36.83	W 104 14 20.33
	15399.00	88.85	357.32	8831.83	6816.84	6816.59	59.29	3.07	452449.46	570503.99	N 32 14 37.77	W 104 14 20.36
	15494.00	90.25	358.25	8832.58	6911.73	6911.51	55.62	1.77	452544.37	570500.32	N 32 14 38.71	W 104 14 20.42
	15588.00	90.36	0.44	8832.08	7005.71	7005.50	54.55	2.33	452638.35	570499.24	N 32 14 39.64	W 104 14 20.43
	15683.00	90.09	359.27	8831.71	7100.70	7100.49	54.31	1.26	452733.34	570499.00	N 32 14 40.58	W 104 14 20.43
	15778.00	89.51	359.94	8832.04	7195.69	7195.49	53.65	0.93	452828.33	570498.35	N 32 14 41.52	W 104 14 20.44
	15873.00	91.08	1.34	8831.55	7290.68	7290.48	54.71	2.21	452923.31	570499.41	N 32 14 42.46	W 104 14 20.43
	15968.00	91.12	1.10	8829.73	7385.66	7385.44	56.74	0.26	453018.26	570501.43	N 32 14 43.40	W 104 14 20.40
	16063.00	90.73	0.94	8828.19	7480.64	7480.41	58.43	0.44	453113.22	570503.12	N 32 14 44.34	W 104 14 20.38
	16157.00	90.69	0.59	8827.03	7574.63	7574.39	59.68	0.37	453207.20	570504.38	N 32 14 45.27	W 104 14 20.37
	16251.00	90.43	1.77	8826.11	7668.62	7668.37	61.62	1.29	453301.16	570506.31	N 32 14 46.20	W 104 14 20.34
	16346.00	90.13	2.14	8825.64	7763.58	7763.31	64.86	0.50	453396.10	570509.55	N 32 14 47.13	W 104 14 20.30
	16440.00	89.92	2.39	8825.60	7857.53	7857.24	68.57	0.35	453490.02	570513.27	N 32 14 48.06	W 104 14 20.26
	16534.00	90.09	2.32	8825.60	7951.48	7951.16	72.44	0.20	453583.93	570517.13	N 32 14 48.99	W 104 14 20.21
	16629.00	90.33	2.19	8825.25	8046.44	8046.08	76.17	0.29	453678.84	570520.87	N 32 14 49.93	W 104 14 20.17
	16723.00	91.03	2.17	8824.13	8140.39	8140.01	79.75	0.74	453772.76	570524.44	N 32 14 50.86	W 104 14 20.13
	16818.00	90.78	1.21	8822.63	8235.35	8234.96	82.55	1.04	453867.70	570527.24	N 32 14 51.80	W 104 14 20.09
	16912.00	90.00	0.68	8821.99	8329.34	8328.94	84.10	1.00	453961.67	570528.79	N 32 14 52.73	W 104 14 20.07
	17006.00	89.68	0.47	8822.25	8423.34	8422.93	85.04	0.41	454055.66	570529.74	N 32 14 53.66	W 104 14 20.06
	17101.00	90.32	0.53	8822.25	8518.34	8517.93	85.87	0.68	454150.65	570530.57	N 32 14 54.60	W 104 14 20.05
	17196.00	89.78	0.77	8822.17	8613.34	8612.92	86.95	0.62	454245.63	570531.64	N 32 14 55.54	W 104 14 20.04
	17290.00	89.03	0.61	8823.15	8707.33	8706.91	88.08	0.82	454339.61	570532.78	N 32 14 56.47	W 104 14 20.02
	17384.00	91.21	0.27	8822.95	8801.33	8800.90	88.81	2.35	454433.59	570533.50	N 32 14 57.40	W 104 14 20.01
	17479.00	89.86	359.78	8821.98	8896.32	8895.89	88.85	1.41	454528.58	570533.54	N 32 14 58.34	W 104 14 20.01
	17573.00	87.80	359.26	8823.82	8990.28	8989.87	88.06	2.36	454622.54	570532.75	N 32 14 59.27	W 104 14 20.02
Final Survey TD, PTB [1354' FNL, 305' FEL]	17635.00	87.80	359.26	8826.20	9052.22	9051.82	87.26	0.00	454684.48	570531.95	N 32 14 59.88	W 104 14 20.03

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
		1	0.000	26.000	1/98.425	30.000	30.000	NAL_MWD_IFR1+MS-Depth Only			Original Borehole / Cimarex Riverboat 12-1 W0PA Fed Com 1H (Offset) 0ft-17635ft	
		1	26.000	26.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS-Depth Only			Original Borehole / Cimarex Riverboat 12-1 W0PA Fed Com 1H (Offset) 0ft-17635ft	
		1	26.000	17635.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS			Original Borehole / Cimarex Riverboat 12-1 W0PA Fed Com	

District I
1425 N. French Dr., Santa Fe, NM 87505
Phone: (505) 425-4161 Fax: (505) 425-4170
District II
1111 R. Road 81, Arroyo, NM 87410
Phone: (505) 748-1283 Fax: (505) 748-9726
District III
6500 10th Avenue Road, Arroyo, NM 87410
Phone: (505) 748-1178 Fax: (505) 748-6870
District IV
8120 N. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 475-3450 Fax: (505) 475-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-45305	2 Pool Code 98220	3 Pool Name Purple Sage Wolfcamp Gas
4 Property Code 322504	5 Property Name RIVERBOAT 12/1 WDPA FEDERAL COM	
6 Well Number 1H	7 Elevation 3237'	
8 OPERD NO 215099	9 Operator Name CIMAREX ENERGY COMPANY	

10 Surface Location

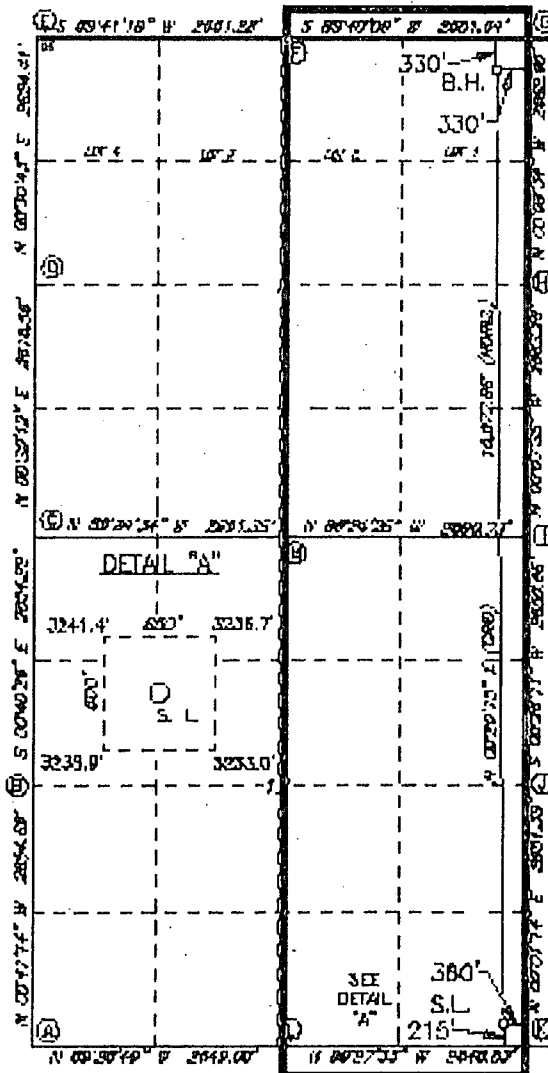
11. or 12th	Section	Township	Range	1st 12th	Feet from the	North/South line	Feet from the	East/West line	County
P	12	24S	28E		215	SOUTH	380	EAST	EDDY

11 Bottom Hole Location If Different From Surface

11. or 12th	Section	Township	Range	1st 12th	Feet from the	North/South line	Feet from the	East/West line	County
1	1	24S	28E		330	NORTH	330	EAST	EDDY

12 Dedicated Area 640.12	13 Joint or Infill	14 Current Use Code	15 Order No.
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No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



DETAILED DATA
WAD 43 000 - NW 6ST
SURFACE LOCATION
E: 443833.3 - E: 570444.7
LAT: 34.225305° N
LONG: 104.208005° W

BOTTOM HOLE
E: 443700.7 - E: 570304.0
LAT: 34.225305° N
LONG: 104.208005° W

NEUTRAL DATA
WAD 43 000 - NW 6ST
A: FOUND BRACE CAP "1000"
E: 440404.0 - E: 568300.1

B: FOUND BRACE CAP "1000"
E: 440117.0 - E: 568400.3
D: FOUND BRACE CAP "1000"
E: 430771.2 - E: 568499.1

C: FOUND BRACE CAP "1000"
E: 433307.1 - E: 568400.1
E: FOUND BRACE CAP "1000"
E: 440010.7 - E: 568611.6

F: FOUND BRACE CAP "1000"
E: 440600.2 - E: 568172.1
G: FOUND BRACE CAP "1000"
E: 430040.6 - E: 570033.1

H: FOUND BRACE CAP "1000"
E: 443378.3 - E: 570039.7
I: FOUND BRACE CAP "1000"
E: 440718.8 - E: 570045.0

J: FOUND BRACE CAP "1000"
E: 440000.7 - E: 570023.4
K: FOUND BRACE CAP "1000"
E: 440414.0 - E: 570024.6

L: FOUND BRACE CAP "1000"
E: 440438.9 - E: 568170.4
M: FOUND BRACE CAP "1000"
E: 430243.5 - E: 568153.7

11 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided interest (interest) in the land including the proposed bottom hole location or has a right to drill this well as the location pursuant to a contract with an owner of such a mineral or working interest, or an authorized paying agreement or a compulsory paying agreement.

Signature: *Terri Stathem*
Date: 7/29/19
Printed Name: Terri Stathem
E-mail Address: tstathem@cimarex.com

12 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

10-19-2018

Date of Survey
Signature and Seal of Surveyor: *Jerrey L. Fawcett*
10034
10080
Certificate Number

REV. 7/28/18 S.L. B.H. MOVE

Job No.: LS18101188R

RwP 10-29-19