

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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
AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-45973	² Pool Code 98220	³ Pool Name Purple Sage; Wolfcamp (Gas)
⁴ Property Code 321482	⁵ Property Name RIVERBEND 12-13 FEDERAL COM	⁶ Well Number 32H
⁷ OGRID No. 215099	⁸ Operator Name CIMAREX ENERGY CO.	⁹ Elevation 2938.4

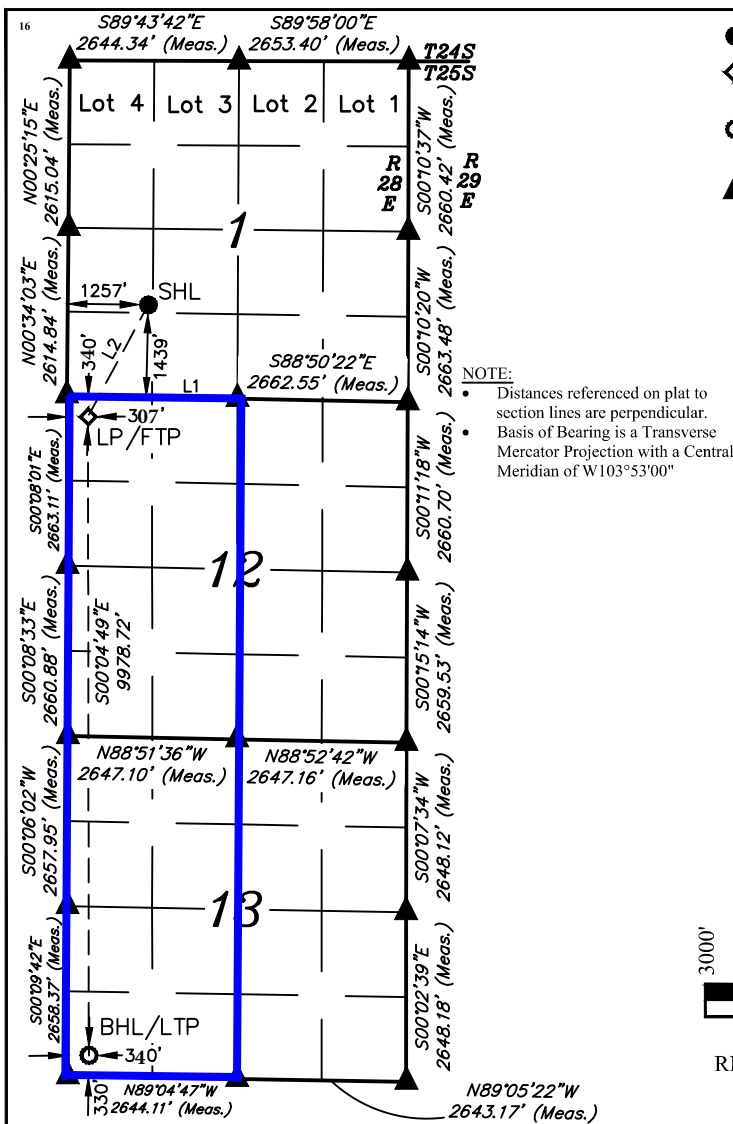
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	1	25S	28E		1439	SOUTH	1257	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	13	25S	28E		330	SOUTH	340	WEST	EDDY
¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



- = SURFACE HOLE LOCATION
- ◆ = LANDING POINT/FIRST TAKE POINT
- = BOTTOM HOLE LOCATION/ LAST TAKE POINT
- ▲ = SECTION CORNER LOCATED

NAD 83 (SURFACE HOLE LOCATION)

LATITUDE = 32°09'21.63" (32.156008)

LONGITUDE = 104°02'43.39" (104.045387)

NAD 27 (SURFACE HOLE LOCATION)

LATITUDE = 32°09'21.19" (32.155886)

LONGITUDE = 104°02'41.63" (104.044897)

STATE PLANE NAD 83 (N.M. EAST)

N: 420610.29 E: 630446.22

STATE PLANE NAD 27 (N.M. EAST)

N: 420552.01 E: 589262.06

NAD 83 (BHL/LTP)

LATITUDE = 32.123769

LONGITUDE = 104.048292



DRAWN BY: C.D. 03-28-17
REV: 4 06-26-19 C.M.T. (BHL MOVE)

¹⁷ 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 unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Fatima Vasquez 04/13/2020
Signature Date

Fatima Vasquez

Printed Name

fvasquez@cimarex.com

E-mail Address

¹⁸ 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.

December 12, 2017

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number:

Final Surveys - Cimarex Riverbend 12-13 Federal Com #32H 0' to 21507' (Surcon Corrected) Survey Geodetic Report (Def Survey)

Report Date: October 01, 2019 - 02:08 PM
Client: Cimarex Energy
Field: NM Eddy County (NAD 83)
Structure / Slot: Cimarex Riverbend 12-13 Federal Com #32H / New Slot
Well: Riverbend 12-13 Fed Com #32H
Borehole: Riverbend 12-13 Fed Com #32H
UWI / API#: Unknown / Unknown
Survey Name: Final Surveys - Cimarex Riverbend 12-13 Federal Com #32H 0' to 21507'
(Surcon Corrected)
Survey Date: July 12, 2019
Tort / AHD / DDI / ERD Ratio: 244.247' / 12738.715 ft / 6.827 / 1.279
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 9' 21.63036", W 104° 2' 43.39207"
Location Grid NIE Y/X: N 420610.290 ftUS, E 630446.220 ftUS
CRS Grid Convergence Angle: 0.1533°
Grid Scale Factor: 0.99991819
Version / Patch: 2.10.782.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.676° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 2961.400 ft above MSL
Seabed / Ground Elevation: 2938.400 ft above MSL
Magnetic Declination: 6.987°
Total Gravity Field Strength: 998.460mgpn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47845.881 nT
Magnetic Dip Angle: 59.856°
Declination Date: September 25, 2019
Magnetic Declination Model: HDGM 2019
North Reference: Grid North
Grid Convergence Used: 0.1533°
Total Corr Mag North->Grid North: 6.8341°
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 ° ' '')	Closure Azimuth (°)	Closure (ft)
SHL [1439 FSL, 1257 FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	420610.29	630446.22	N 32 9 21.63	W 104 2 43.39	0.00	0.00
	171.00	0.10	13.79	171.00	-0.14	0.14	0.04	0.06	420610.43	630446.26	N 32 9 21.63	W 104 2 43.39	13.79	0.15
	301.00	0.80	14.69	301.00	-0.80	0.80	0.21	0.31	420611.09	630446.43	N 32 9 21.64	W 104 2 43.39	14.41	0.83
	390.00	1.80	132.49	389.98	-0.23	0.24	1.34	2.34	420610.53	630447.56	N 32 9 21.63	W 104 2 43.38	80.01	1.36
	481.00	2.01	134.28	480.93	1.86	-1.84	3.53	0.24	420608.45	630449.75	N 32 9 21.61	W 104 2 43.35	117.57	3.98
	572.00	1.92	138.20	571.88	4.13	-4.09	5.69	0.18	420606.20	630451.91	N 32 9 21.59	W 104 2 43.33	125.74	7.01
	662.00	1.93	142.26	661.83	6.46	-6.42	7.62	0.15	420603.87	630453.84	N 32 9 21.57	W 104 2 43.30	130.09	9.96
	752.00	1.74	159.80	751.78	8.95	-8.90	9.02	0.66	420601.39	630455.24	N 32 9 21.54	W 104 2 43.29	134.60	12.67
	845.00	1.96	251.17	844.75	10.78	-10.74	8.00	2.85	420599.55	630454.22	N 32 9 21.52	W 104 2 43.30	143.29	13.39
	934.00	3.78	284.00	933.64	10.54	-10.52	3.72	2.68	420599.77	630449.94	N 32 9 21.53	W 104 2 43.35	160.54	11.16
	1028.00	4.34	284.16	1027.41	8.88	-8.90	-2.74	0.60	420601.39	630443.48	N 32 9 21.54	W 104 2 43.42	197.10	9.31
	1123.00	4.83	280.44	1122.10	7.24	-7.29	-10.16	0.60	420603.00	630436.06	N 32 9 21.56	W 104 2 43.51	234.31	12.50
	1218.00	5.30	280.99	1216.73	5.63	-5.73	-18.40	0.50	420604.56	630427.82	N 32 9 21.57	W 104 2 43.61	252.69	19.27
	1313.00	5.79	266.04	1311.29	5.07	-5.23	-27.49	1.60	420605.06	630418.74	N 32 9 21.58	W 104 2 43.71	259.23	27.98
	1407.00	6.26	257.75	1404.77	6.43	-6.64	-37.22	1.05	420603.65	630409.00	N 32 9 21.57	W 104 2 43.83	259.88	37.81
	1502.00	6.00	264.23	1499.23	7.97	-8.24	-47.23	0.78	420602.05	630399.00	N 32 9 21.55	W 104 2 43.94	260.10	47.94
	1596.00	5.53	268.96	1592.76	8.50	-8.82	-56.64	0.71	420601.47	630389.58	N 32 9 21.54	W 104 2 44.05	261.15	57.32
	1691.00	6.26	272.95	1687.25	8.26	-8.63	-66.39	0.88	420601.66	630379.83	N 32 9 21.55	W 104 2 44.16	262.59	66.95
	1785.00	7.14	274.31	1780.61	7.49	-7.93	-77.34	0.95	420602.36	630368.89	N 32 9 21.55	W 104 2 44.29	264.14	77.74
	1880.00	7.14	271.81	1874.87	6.80	-7.30	-89.12	0.33	420602.99	630357.10	N 32 9 21.56	W 104 2 44.43	265.32	89.42
	1975.00	5.48	266.09	1969.30	6.86	-7.42	-99.55	1.87	420602.87	630346.68	N 32 9 21.56	W 104 2 44.55	265.74	99.83
	2069.00	5.13	266.64	2062.89	7.36	-7.98	-108.22	0.38	420602.31	630338.00	N 32 9 21.55	W 104 2 44.65	265.79	108.52
	2164.00	6.78	272.77	2157.38	7.29	-7.95	-118.07	1.86	420602.34	630328.16	N 32 9 21.56	W 104 2 44.77	266.15	118.33
	2258.00	6.72	273.31	2250.73	6.64	-7.37	-129.10	0.09	420602.92	630317.13	N 32 9 21.55	W 104 2 44.89	266.73	129.31
	2353.00	5.41	269.60	2345.19	6.29	-7.08	-139.13	1.44	420603.21	630307.10	N 32 9 21.56	W 104 2 45.01	267.09	139.31
	2448.00	5.34	268.11	2439.78	6.42	-7.26	-148.02	0.16	420603.04	630298.21	N 32 9 21.56	W 104 2 45.11	267.19	148.20
	2542.00	8.57	272.45	2533.07	6.20	-7.10	-159.40	3.48	420603.19	630286.84	N 32 9 21.56	W 104 2 45.25	267.45	159.55
	2577.00	10.43	275.15	2567.59	5.77	-6.70	-165.16	5.46	420603.59	630281.08	N 32 9 21.57	W 104 2 45.31	267.68	165.29
	2728.00	11.72	276.71	2715.78	2.59	-3.69	-194.00	0.88	420606.60	630252.23	N 32 9 21.60	W 104 2 45.65	268.91	194.04
	2823.00	12.01	277.22	2808.75	0.11	-1.32	-213.39	0.32	420608.97	630232.85	N 32 9 21.62	W 104 2 45.87	269.65	213.39
	2917.00	11.64	272.83	2900.75	-1.70	0.38	-232.56	1.03	420610.67	630213.68	N 32 9 21.62	W 104 2 46.10	270.09	232.56
	3011.00	11.81	292.79	2992.79	-2.62	1.20	-251.65	0.25	420611.49	630194.59	N 32 9 21.65	W 104 2 46.32	270.27	251.65
	3107.00	11.16	269.98	3086.87	-3.08	1.55	-270.76	0.80	420611.84	630175.49	N 32 9 21.65	W 104 2 46.54	270.33	270.76
	3200.00	11.22	269.30	3178.10	-3.06	1.43	-288.80	0.16	420611.72	630157.44	N 32 9 21.65	W 104 2 46.75	270.28	288.81

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 ° ' ")	Closure Azimuth (°)	Closure (ft)
	3294.00	11.48	268.85	3270.26	-2.87	1.13	-307.30	0.29	420611.42	630138.94	N 32° 9' 21.65" W 104° 2' 46.97"	270.21	270.21	307.30
	3389.00	9.83	267.18	3363.62	-2.38	0.54	-324.85	1.77	420610.83	630121.39	N 32° 9' 21.64" W 104° 2' 47.17"	270.10	270.10	324.85
	3483.00	9.55	266.81	3456.28	-1.64	-0.29	-340.65	0.31	420610.00	630105.59	N 32° 9' 21.64" W 104° 2' 47.35"	269.95	269.95	340.65
	3577.00	9.15	265.48	3549.03	-0.70	-1.31	-355.89	0.48	420608.98	630090.36	N 32° 9' 21.63" W 104° 2' 47.53"	269.79	269.79	355.89
	3672.00	9.67	271.37	3642.75	-0.39	-1.71	-371.40	1.15	420608.58	630074.85	N 32° 9' 21.62" W 104° 2' 47.71"	269.74	269.74	371.40
	3767.00	10.07	272.34	3736.38	-1.00	-1.19	-387.47	0.23	420609.11	630058.78	N 32° 9' 21.63" W 104° 2' 47.90"	269.82	269.82	387.47
	3861.00	10.30	271.95	3828.97	-1.70	-0.58	-403.69	0.28	420609.71	630042.56	N 32° 9' 21.64" W 104° 2' 48.09"	269.92	269.92	403.69
	3955.00	10.30	271.58	3921.49	-2.30	-0.07	-420.30	0.25	420610.22	630025.95	N 32° 9' 21.64" W 104° 2' 48.28"	269.99	269.99	420.30
	4049.00	10.29	271.57	4013.98	-2.86	0.39	-437.10	0.01	420610.68	630009.16	N 32° 9' 21.65" W 104° 2' 48.48"	270.05	270.05	437.10
	4144.00	10.30	271.21	4107.45	-3.37	0.80	-454.07	0.07	420611.09	629992.19	N 32° 9' 21.65" W 104° 2' 48.67"	270.10	270.10	454.07
	4238.00	10.52	270.97	4199.90	-3.79	1.12	-471.05	0.24	420611.41	629975.21	N 32° 9' 21.65" W 104° 2' 48.87"	270.14	270.14	471.05
	4332.00	10.64	270.03	4292.30	-4.03	1.27	-488.31	0.22	420611.56	629957.95	N 32° 9' 21.66" W 104° 2' 49.07"	270.15	270.15	488.31
	4426.00	10.79	269.24	4384.66	-4.02	1.16	-505.79	0.33	420611.45	629940.48	N 32° 9' 21.66" W 104° 2' 49.28"	270.13	270.13	505.79
	4520.00	11.07	268.54	4476.96	-3.78	0.81	-523.61	0.22	420611.10	629922.66	N 32° 9' 21.65" W 104° 2' 49.48"	270.09	270.09	523.61
	4614.00	11.32	267.74	4569.17	-3.28	0.22	-541.85	0.31	420610.51	629904.42	N 32° 9' 21.65" W 104° 2' 49.69"	270.02	270.02	541.85
	4708.00	11.54	267.49	4661.31	-2.61	-0.55	-560.46	0.24	420609.74	629885.81	N 32° 9' 21.64" W 104° 2' 49.91"	269.94	269.94	560.46
	4803.00	11.45	267.04	4754.40	-1.82	-1.46	-579.37	0.13	420608.83	629866.90	N 32° 9' 21.63" W 104° 2' 50.13"	269.86	269.86	579.37
	4898.00	10.25	266.89	4847.70	-0.97	-2.40	-597.22	1.26	420607.89	629849.05	N 32° 9' 21.62" W 104° 2' 50.34"	269.77	269.77	597.22
	4992.00	10.33	266.28	4940.19	-0.07	-3.40	-613.99	0.14	420606.89	629832.29	N 32° 9' 21.61" W 104° 2' 50.53"	269.68	269.68	613.99
	5086.00	10.37	265.62	5032.66	1.03	-4.60	-630.83	0.13	420605.69	629815.44	N 32° 9' 21.60" W 104° 2' 50.73"	269.58	269.58	630.83
	5180.00	9.66	271.19	5125.23	1.42	-5.08	-647.15	1.28	420605.21	629799.12	N 32° 9' 21.60" W 104° 2' 50.92"	269.55	269.55	647.15
	5274.00	9.21	271.10	5217.96	1.02	-4.77	-662.56	0.48	420605.52	629783.72	N 32° 9' 21.60" W 104° 2' 51.10"	269.50	269.50	662.56
	5368.00	9.39	270.18	5310.72	0.77	-4.60	-677.75	0.25	420605.69	629768.53	N 32° 9' 21.60" W 104° 2' 51.28"	269.61	269.61	677.75
	5463.00	9.43	269.18	5404.44	0.77	-4.69	-693.28	0.18	420605.60	629753.00	N 32° 9' 21.60" W 104° 2' 51.46"	269.61	269.61	693.30
	5557.00	9.09	267.82	5497.22	1.08	-5.08	-708.40	0.43	420605.21	629737.88	N 32° 9' 21.60" W 104° 2' 51.63"	269.59	269.59	708.40
	5651.00	9.04	267.70	5590.04	1.57	-5.66	-723.20	0.06	420604.63	629723.08	N 32° 9' 21.59" W 104° 2' 51.80"	269.55	269.55	723.20
	5745.00	8.97	266.13	5682.88	2.28	-6.45	-737.89	0.27	420603.84	629708.39	N 32° 9' 21.59" W 104° 2' 51.98"	269.50	269.50	737.89
	5839.00	8.99	265.52	5775.73	3.26	-7.52	-752.52	0.10	420602.77	629693.76	N 32° 9' 21.58" W 104° 2' 52.15"	269.43	269.43	752.52
	5933.00	9.01	264.55	5868.58	4.45	-8.79	-767.17	0.16	420601.50	629679.11	N 32° 9' 21.56" W 104° 2' 52.32"	269.34	269.34	767.17
	6027.00	8.68	267.94	5961.46	5.33	-9.75	-781.59	0.66	420600.54	629664.70	N 32° 9' 21.55" W 104° 2' 52.48"	269.29	269.29	781.59
	6121.00	8.95	271.77	6054.35	5.27	-9.78	-795.98	0.69	420600.51	629650.30	N 32° 9' 21.55" W 104° 2' 52.65"	269.30	269.30	795.98
	6215.00	8.88	272.71	6147.21	4.62	-9.21	-810.54	0.17	420601.08	629635.75	N 32° 9' 21.56" W 104° 2' 52.82"	269.35	269.35	810.54
	6309.00	8.79	271.10	6240.10	3.82	-8.44	-824.97	0.28	420601.56	629621.32	N 32° 9' 21.57" W 104° 2' 52.99"	269.39	269.39	825.01
	6403.00	8.49	270.18	6333.03	3.02	-8.57	-839.09	0.35	420601.72	629607.20	N 32° 9' 21.57" W 104° 2' 53.15"	269.42	269.42	839.13
	6498.00	7.99	269.85	6427.05	3.74	-8.56	-852.70	0.53	420601.73	629593.59	N 32° 9' 21.57" W 104° 2' 53.31"	269.42	269.42	852.70
	6592.00	7.58	270.55	6520.18	3.63	-8.52	-865.44	0.45	420601.77	629580.86	N 32° 9' 21.57" W 104° 2' 53.46"	269.44	269.44	865.44
	6686.00	6.86	270.22	6613.44	3.48	-8.44	-877.25	0.77	420601.85	629569.04	N 32° 9' 21.57" W 104° 2' 53.60"	269.45	269.45	877.25
	6780.00	6.38	269.83	6706.81	3.41	-8.43	-888.15	0.51	420601.96	629558.21	N 32° 9' 21.57" W 104° 2' 53.72"	269.46	269.46	888.13
	6875.00	5.78	269.16	6801.28	3.44	-8.52	-898.15	0.64	420601.77	629548.15	N 32° 9' 21.57" W 104° 2' 53.84"	269.46	269.46	898.13
	6968.00	5.27	272.94	6893.84	3.24	-8.37	-907.09	0.67	420601.92	629539.20	N 32° 9' 21.57" W 104° 2' 53.94"	269.47	269.47	907.13
	7063.00	4.32	270.89	6988.51	2.91	-8.09	-915.03	1.02	420602.20	629531.27	N 32° 9' 21.57" W 104° 2' 54.04"	269.49	269.49	915.07
	7156.00	4.44	272.58	7081.24	2.66	-7.87	-922.13	0.19	420602.42	629524.17	N 32° 9' 21.58" W 104° 2' 54.12"	269.51	269.51	922.16
	7251.00	3.67	275.12	7176.00	2.18	-7.44	-928.83	0.83	420602.86	629517.47	N 32° 9' 21.58" W 104° 2' 54.20"	269.54	269.54	928.86
	7345.00	2.84	282.48	7269.85	1.38	-6.66	-934.10	0.99	420603.63	629512.20	N 32° 9' 21.59" W 104° 2' 54.26"	269.59	269.59	934.12
	7440.00	2.66	282.16	7364.74	0.38	-5.69	-938.55	0.19	420604.60	629507.75	N 32° 9' 21.60" W 104° 2' 54.31"	269.65	269.65	938.57
	7534.00	2.29	283.17	7458.65	-0.53	-4.80	-942.51	0.40	420605.49	629503.79	N 32° 9' 21.61" W 104° 2' 54.36"	269.71	269.71	942.53
	7628.00	1.61	283.42	7552.60	-1.28	-4.07	-945.63	0.72	420606.22	629500.67	N 32° 9' 21.61" W 104° 2' 54.39"	269.75	269.75	945.64
	7722.00	1.19	279.12	7646.57	-1.75	-0.89	-947.88	0.74	420606.68	629498.42	N 32° 9' 21.62" W 104° 2' 54.42"	269.78	269.78	947.88
	7816.00	1.44	288.47	7740.54	-2.29	-3.08	-949.96	0.35	420607.21	629496.34	N 32° 9' 21.62" W 104° 2' 54.44"	269.81	269.81	949.96
	7910.00	0.55	280.68	7834.53	-2.76	-2.62	-951.52	0.96	420607.67	629494.78	N 32° 9' 21.63" W 104° 2' 54.46"	269.84	269.84	951.53
	8004.00	1.01	296.85	7928.52	-3.22	-2.16	-952.71	0.54	420608.13	629493.59	N 32° 9' 21.63" W 104° 2' 54.47"	269.87	269.87	952.71
	8100.00	1.16	299.31	8024.50	-4.09	-1.31	-954.31	0.16	420608.98	629491.99	N 32° 9' 21.64" W 104° 2' 54.49"	269.92	269.92	954.31
	8195.00	1.33	289.48	8119.48	-4.52	-0.89	-956.25	0.74	420609.40	629490.05	N 32° 9' 21.64" W 104° 2' 54.52"	269.95	269.95	956.25
	8288.00	1.60	252.79	8212.45	-4.10	-1.32	-958.57	0.49	420608.97	629487.73	N 32° 9' 21.64" W 104° 2' 54.54"	269.92	269.92	958.57
	8383.00	0.52	225.38	8307.43	-3.41	-2.02	-960.14	1.22	420608.27	629486.16	N 32° 9' 21.64" W 104° 2' 54.56"	269.88	269.88	960.14
	8477.00	0.22	80.63	8401.43	-3.14	-2.29	-960.27	0.76	420608.00	629486.04	N 32° 9' 21.63" W 104° 2' 54.56"	269.86	269.86	960.27
	8570.00	0.32	273.83	8494.43	-3.19	-2.24	-960.35	0.58	420608.05	629485.95	N 32° 9' 21.63" W 104° 2' 54.56"	269.87	269.87	960.35
	8665.00	0.69	277.93	8589.43	-3.29	-2.14	-961.18	0.39	420608.15	629485.12	N 32° 9' 21.63" W 104° 2' 54.57"	269.87	269.87	961.18
	8759.00	0.74	240.64	8683.42	-3.08	-2.36	-962.27	0.49	420607.93	629484.03	N 32° 9' 21.63" W 104° 2' 54.59"	269.86	269.86	962.27
	8853.00	0.40	259.20	8777.42	-2.72	-2.72	-963.12	0.41	420607.57	629483.18	N 32° 9' 21.63" W 104° 2' 54.60"	269.84	269.84	963.12
	8947.00	0.93	309.03	8871.41	-3.15	-2.30	-964.04	0.79	420607.99	629482.90	N 32° 9' 21.63" W 104° 2' 54.61"	269.86	269.86	964.04
	9041.00	1.29	313.21	8965.39	-4.36	-1.10	-965.40	0.39	420609.19	629480.27	N 32° 9' 21.64" W 104° 2' 54.62"	269.93	269.93	965.40
	9136.00	1.30	312.64	9060.37	-5.83	0.36	-966.97	0.02	420610.65	629479.33	N 32° 9' 21.66" W 104° 2' 54.64"	270.02	270.02	966.97
	9230.00	0.97	279.48	9154.35	-6.69	1.22	-968.54	0.77	420611.51	629477.76	N 32° 9' 21.67" W 104° 2' 54.66"	270.07	270.07	968.54
	9324.00	1.00	272.60	9248.34	-6.87	1.38	-970.14	0.13	420611.67	629476.16	N 32° 9' 21.67" W 104° 2' 54.68"	270.08	270.08	970.15
	9387.00	0.98	264.71	9311.33	-6.85	1.36	-971.23							

Comments	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure Azimuth (°)	Closure (ft)
First SLB Survey KOP	9443.00	0.94	252.89	9367.32	-6.68	1.18	-972.15	0.36	420611.47	629474.16	N 32 9 21.67 W 104 2 54.70	270.07	972.15	
	9474.00	2.43	180.93	9398.31	-5.95	0.45	-972.40	7.48	420610.74	629473.90	N 32 9 21.66 W 104 2 54.70	270.03	972.40	
	9479.38	3.01	176.55	9403.68	-5.69	0.19	-972.39	11.49	420610.48	629473.91	N 32 9 21.66 W 104 2 54.70	270.01	972.39	
	9506.00	6.00	167.73	9430.22	-3.63	-1.87	-972.06	11.49	420608.42	629474.25	N 32 9 21.64 W 104 2 54.70	269.89	972.06	
	9537.00	9.28	161.12	9460.94	0.32	-5.81	-970.90	10.94	420604.48	629475.40	N 32 9 21.60 W 104 2 54.69	269.66	970.92	
	9568.00	11.35	159.87	9491.43	5.56	-11.04	-969.04	6.72	420599.25	629477.26	N 32 9 21.55 W 104 2 54.66	269.35	969.11	
	9599.00	12.52	159.60	9521.76	11.59	-17.06	-966.82	3.78	420593.23	629479.48	N 32 9 21.49 W 104 2 54.64	268.99	966.97	
	9630.00	13.98	157.11	9551.94	18.20	-23.66	-964.19	5.06	420586.63	629482.11	N 32 9 21.42 W 104 2 54.61	268.59	964.48	
	9661.00	15.60	159.86	9581.91	25.58	-31.02	-961.30	5.69	420579.27	629485.00	N 32 9 21.35 W 104 2 54.57	268.15	961.80	
	9693.00	19.11	172.47	9612.46	34.84	-40.26	-959.13	16.02	420570.03	629487.17	N 32 9 21.26 W 104 2 54.55	267.60	959.98	
	9724.00	23.26	180.86	9641.37	46.00	-51.42	-958.56	16.55	420568.88	629487.74	N 32 9 21.15 W 104 2 54.54	266.93	958.94	
	9756.00	27.86	186.97	9670.23	59.74	-65.17	-959.56	16.55	420545.13	629486.74	N 32 9 21.01 W 104 2 54.56	266.11	961.77	
	9787.00	32.33	184.97	9697.05	75.19	-80.62	-961.16	14.78	420529.67	629485.14	N 32 9 20.86 W 104 2 54.57	265.21	964.54	
	9818.00	37.26	182.02	9722.50	92.83	-98.27	-962.21	16.80	420512.03	629484.09	N 32 9 20.68 W 104 2 54.59	264.17	967.22	
	9850.00	43.28	179.14	9746.90	113.50	-118.94	-962.39	19.69	420491.36	629483.91	N 32 9 20.48 W 104 2 54.59	262.95	969.71	
	9881.00	48.84	176.95	9768.41	135.80	-141.24	-961.61	18.64	420469.06	629484.69	N 32 9 20.26 W 104 2 54.58	261.64	971.92	
Section 1-12 Line Crossing [327' FWL]	9913.00	54.37	176.15	9788.27	160.83	-166.26	-960.09	17.39	420444.04	629486.21	N 32 9 20.01 W 104 2 54.56	260.18	974.38	
	9944.00	58.18	176.82	9805.48	186.57	-191.99	-958.51	12.42	420418.31	629487.79	N 32 9 19.76 W 104 2 54.55	258.67	977.55	
	9976.00	61.32	177.19	9821.60	214.18	-219.59	-957.07	9.86	420390.71	629489.23	N 32 9 19.48 W 104 2 54.53	257.08	981.94	
	10007.00	64.26	177.71	9835.78	241.72	-247.13	-955.85	9.60	420363.18	629490.45	N 32 9 19.21 W 104 2 54.52	255.50	987.28	
	10042.00	65.29	178.06	9850.69	273.37	-278.77	-954.68	3.08	420331.54	629491.62	N 32 9 18.90 W 104 2 54.51	253.72	994.55	
	10083.00	68.72	177.35	9866.71	311.08	-316.48	-953.16	8.52	420293.84	629493.14	N 32 9 18.52 W 104 2 54.49	251.63	1004.33	
	10174.00	75.57	175.60	9894.59	397.51	-402.88	-947.82	7.75	420207.45	629498.48	N 32 9 17.67 W 104 2 54.43	246.97	1029.89	
	10214.00	77.84	176.07	9903.79	436.35	-441.70	-944.99	5.79	420168.63	629501.31	N 32 9 17.28 W 104 2 54.40	244.95	1043.12	
	10308.00	85.32	177.33	9917.55	529.14	-534.46	-939.65	8.07	420075.87	629506.65	N 32 9 16.37 W 104 2 54.34	240.37	1081.02	
	10403.00	89.93	177.97	9921.48	617.94	-629.28	-935.76	4.90	419981.07	629510.54	N 32 9 15.43 W 104 2 54.30	236.08	1127.67	
	10497.00	89.86	178.51	9921.65	717.94	-723.23	-932.87	0.58	419887.12	629513.42	N 32 9 14.50 W 104 2 54.27	232.21	1180.39	
	10591.00	90.17	180.50	9921.63	811.94	-817.22	-932.06	2.14	419793.14	629514.24	N 32 9 13.57 W 104 2 54.26	228.76	1239.59	
	10685.00	90.96	182.04	9920.70	905.89	-911.19	-934.14	1.84	419699.17	629512.15	N 32 9 12.64 W 104 2 54.29	225.71	1304.95	
	10779.00	89.79	181.12	9920.09	999.84	-1005.15	-936.74	1.58	419605.22	629509.56	N 32 9 11.71 W 104 2 54.32	222.98	1373.97	
	10873.00	89.69	181.61	9920.51	1093.81	-1099.13	-938.61	0.11	419511.25	629507.69	N 32 9 10.78 W 104 2 54.34	220.50	1445.36	
	10967.00	89.11	181.26	9921.50	1187.77	-1193.11	-940.59	0.63	419417.28	629505.71	N 32 9 9.85 W 104 2 54.37	218.25	1519.28	
First Legal Take Point [330' From 1-22 Section Line, 323' FWL]	11062.00	89.83	178.89	9922.38	1282.75	-1288.09	-940.72	2.61	419322.30	629505.58	N 32 9 8.91 W 104 2 54.37	216.14	1595.03	
	11139.00	88.97	178.98	9923.18	1359.74	-1385.08	-939.28	1.12	419245.33	629507.01	N 32 9 8.15 W 104 2 54.36	214.53	1657.01	
	11156.00	89.11	178.94	9923.47	1376.74	-1382.07	-938.98	0.86	419228.34	629507.32	N 32 9 7.98 W 104 2 54.36	214.19	1670.87	
	11197.70	89.19	179.54	9924.09	1418.43	-1423.76	-938.42	1.45	419186.65	629507.88	N 32 9 7.57 W 104 2 54.35	213.39	1705.21	
	11250.00	89.28	180.29	9924.79	1470.73	-1476.06	-938.34	1.45	419134.36	629507.95	N 32 9 7.05 W 104 2 54.35	212.44	1749.07	
	11344.00	89.17	180.63	9926.06	1564.71	-1570.04	-939.10	0.38	419040.38	629507.20	N 32 9 6.12 W 104 2 54.36	210.89	1829.47	
	11438.00	89.38	180.33	9927.25	1658.69	-1664.03	-939.89	0.39	418946.40	629506.41	N 32 9 5.19 W 104 2 54.38	209.46	1911.12	
	11527.81	89.25	180.28	9928.32	1748.49	-1753.84	-940.37	0.16	418856.60	629505.93	N 32 9 4.30 W 104 2 54.38	208.20	1990.03	
	11533.00	89.24	180.28	9928.39	1753.68	-1759.03	-940.39	0.16	418851.41	629505.91	N 32 9 4.25 W 104 2 54.38	208.13	1994.62	
	11627.00	89.07	178.94	9929.78	1847.67	-1853.01	-937.75	1.44	418757.43	629506.55	N 32 9 3.32 W 104 2 54.38	206.89	2077.69	
	11721.00	89.76	178.38	9930.74	1941.65	-1946.98	-937.55	0.95	418663.47	629508.74	N 32 9 2.39 W 104 2 54.36	205.71	2160.96	
	11815.00	89.42	179.50	9931.41	2035.63	-2040.96	-935.82	1.25	418569.50	629510.48	N 32 9 1.46 W 104 2 54.34	204.63	2245.28	
	11909.00	89.38	179.63	9932.40	2129.63	-2134.95	-935.10	0.14	418475.52	629511.20	N 32 9 0.53 W 104 2 54.33	203.65	2330.76	
	12004.00	89.21	179.54	9933.57	2224.62	-2229.94	-934.41	0.20	418380.54	629511.88	N 32 8 59.59 W 104 2 54.33	202.74	2417.80	
	12097.00	89.31	179.11	9934.77	2317.61	-2322.93	-933.32	0.47	418287.56	629512.98	N 32 8 58.67 W 104 2 54.32	201.89	2503.41	
	12192.00	89.79	179.69	9935.51	2412.61	-2417.92	-932.32	0.79	418192.57	629513.97	N 32 8 57.73 W 104 2 54.31	201.09	2591.44	

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 ° ' ")	Closure Azimuth (°)	Closure (ft)
	13418.00	90.28	178.39	9933.69	3638.52	-3643.78	-919.44	0.36	416966.82	629526.86	N 32 8 45.60 W 104 2 54.20	W 104 2 54.20	194.16	3757.99
	13512.00	90.69	177.75	9932.89	3732.48	-3737.72	-916.27	0.81	416872.88	629530.02	N 32 8 44.67 W 104 2 54.17	W 104 2 54.17	193.77	3848.39
	13601.00	90.14	179.45	9932.21	3826.46	-3831.69	-913.98	1.90	416778.92	629532.32	N 32 8 43.74 W 104 2 54.14	W 104 2 54.14	193.42	3939.16
	13701.00	90.76	179.57	9931.47	3921.45	-3926.68	-913.16	0.66	416683.94	629533.13	N 32 8 42.80 W 104 2 54.13	W 104 2 54.13	193.09	4031.46
	13796.00	90.83	179.32	9930.15	4016.44	-4021.67	-912.24	0.27	416588.96	629534.05	N 32 8 41.86 W 104 2 54.13	W 104 2 54.13	192.78	4123.83
	13890.00	91.20	179.93	9928.48	4110.43	-4115.65	-911.63	0.76	416494.98	629534.67	N 32 8 40.93 W 104 2 54.12	W 104 2 54.12	192.49	4215.41
	13985.00	91.03	179.96	9926.63	4205.41	-4210.63	-911.54	0.18	416400.01	629534.76	N 32 8 39.99 W 104 2 54.12	W 104 2 54.12	192.22	4308.17
	14079.00	90.96	180.02	9925.00	4299.39	-4304.62	-911.52	0.10	416306.03	629534.78	N 32 8 39.06 W 104 2 54.13	W 104 2 54.13	191.96	4400.07
	14173.00	90.58	180.19	9923.74	4393.38	-4398.61	-911.69	0.44	416212.05	629534.60	N 32 8 38.33 W 104 2 54.13	W 104 2 54.13	191.71	4492.10
	14268.00	91.00	180.14	9922.43	4488.37	-4493.60	-911.97	0.45	416117.07	629534.33	N 32 8 37.19 W 104 2 54.14	W 104 2 54.14	191.47	4585.21
	14362.00	91.31	179.65	9920.53	4582.35	-4587.58	-911.79	0.62	416023.09	629534.50	N 32 8 36.26 W 104 2 54.14	W 104 2 54.14	191.24	4677.31
	14456.00	90.55	179.53	9919.01	4676.34	-4681.56	-911.12	0.82	415929.12	629535.17	N 32 8 35.33 W 104 2 54.13	W 104 2 54.13	191.01	4769.40
	14552.00	89.31	179.39	9919.13	4772.33	-4777.56	-910.22	1.30	415833.13	629536.08	N 32 8 34.38 W 104 2 54.13	W 104 2 54.13	190.79	4863.49
	14646.00	89.38	179.56	9920.20	4866.33	-4871.55	-909.36	0.20	415739.15	629536.94	N 32 8 33.45 W 104 2 54.12	W 104 2 54.12	190.57	4955.69
	14741.00	89.59	179.62	9921.05	4961.32	-4966.54	-908.68	0.23	415644.16	629537.62	N 32 8 32.51 W 104 2 54.11	W 104 2 54.11	190.37	5048.98
	14835.00	89.59	179.86	9921.73	5055.32	-5060.54	-908.25	0.26	415550.18	629538.05	N 32 8 31.58 W 104 2 54.10	W 104 2 54.10	190.17	5141.40
	14930.00	89.28	179.50	9922.66	5150.32	-5155.53	-907.72	0.50	415455.19	629538.58	N 32 8 30.64 W 104 2 54.11	W 104 2 54.11	189.99	5234.83
	15024.00	90.28	180.18	9923.03	5244.31	-5249.53	-907.46	1.29	415361.20	629538.84	N 32 8 29.71 W 104 2 54.11	W 104 2 54.11	189.81	5327.39
	15119.00	89.62	179.74	9923.11	5339.31	-5344.53	-907.39	0.83	415266.21	629538.91	N 32 8 28.77 W 104 2 54.11	W 104 2 54.11	189.64	5421.01
	15213.00	89.76	179.65	9923.62	5433.31	-5438.53	-906.89	0.18	415172.22	629539.41	N 32 8 27.84 W 104 2 54.11	W 104 2 54.11	189.47	5513.62
	15308.00	90.07	179.51	9923.76	5528.31	-5533.52	-906.19	0.36	415077.23	629540.10	N 32 8 26.90 W 104 2 54.10	W 104 2 54.10	189.30	5607.23
	15403.00	89.83	179.08	9923.84	5623.31	-5628.52	-905.02	0.52	414982.25	629541.27	N 32 8 25.96 W 104 2 54.09	W 104 2 54.09	189.13	5700.81
	15497.00	89.11	179.29	9924.71	5717.30	-5722.50	-903.69	0.80	414888.27	629542.61	N 32 8 25.03 W 104 2 54.08	W 104 2 54.08	188.97	5793.42
	15592.00	88.42	179.64	9926.76	5812.28	-5817.47	-902.80	0.81	414793.30	629543.49	N 32 8 24.09 W 104 2 54.07	W 104 2 54.07	188.82	5887.11
	15687.00	89.45	179.39	9928.52	5907.26	-5912.45	-902.00	1.12	414698.33	629544.30	N 32 8 23.15 W 104 2 54.07	W 104 2 54.07	188.67	5980.86
	15782.00	90.14	179.45	9928.86	6002.26	-6007.45	-901.04	0.73	414603.35	629545.26	N 32 8 22.21 W 104 2 54.06	W 104 2 54.06	188.53	6074.64
	15877.00	89.97	179.39	9928.77	6097.25	-6102.44	-900.07	0.19	414508.36	629546.22	N 32 8 21.27 W 104 2 54.05	W 104 2 54.05	188.39	6168.46
	15971.00	90.31	179.75	9928.54	6191.25	-6196.44	-899.37	0.53	414414.37	629546.93	N 32 8 20.34 W 104 2 54.04	W 104 2 54.04	188.26	6261.37
	16066.00	89.97	179.87	9928.31	6286.25	-6291.44	-898.05	0.38	414319.38	629547.24	N 32 8 19.40 W 104 2 54.04	W 104 2 54.04	188.13	6355.35
	16160.00	89.55	179.94	9928.70	6380.25	-6385.44	-898.90	0.45	414225.39	629547.40	N 32 8 18.47 W 104 2 54.04	W 104 2 54.04	188.01	6448.40
	16254.00	90.10	179.33	9928.99	6474.25	-6479.43	-898.30	0.87	414131.40	629548.00	N 32 8 17.54 W 104 2 54.04	W 104 2 54.04	187.89	6541.41
	16348.00	90.21	179.79	9928.74	6568.25	-6573.43	-897.58	0.50	414037.41	629548.72	N 32 8 16.61 W 104 2 54.04	W 104 2 54.04	187.78	6634.43
	16442.00	90.21	179.64	9928.39	6662.25	-6667.43	-897.11	0.16	413943.42	629549.19	N 32 8 15.68 W 104 2 54.03	W 104 2 54.03	187.66	6727.51
Section 12-13 Line Crossing [334' FWL]	16521.50	90.21	179.39	9928.10	6741.75	-6746.92	-896.43	0.32	413863.93	629549.86	N 32 8 14.89 W 104 2 54.03	W 104 2 54.03	187.57	6806.22
	16536.00	90.21	179.34	9928.05	6756.25	-6761.42	-896.27	0.32	413849.43	629550.02	N 32 8 14.75 W 104 2 54.03	W 104 2 54.03	187.55	6820.57
	16631.00	89.69	179.56	9928.13	6851.25	-6856.42	-895.36	0.59	413754.45	629550.93	N 32 8 13.81 W 104 2 54.02	W 104 2 54.02	187.44	6914.63
	16722.00	89.83	180.52	9928.51	6942.24	-6947.42	-895.42	1.07	413663.46	629550.87	N 32 8 12.91 W 104 2 54.02	W 104 2 54.02	187.34	7004.88
	16816.00	88.76	180.73	9929.67	7036.22	-7041.40	-896.45	1.16	413569.48	629549.85	N 32 8 11.98 W 104 2 54.04	W 104 2 54.04	187.26	7098.24
	16911.00	88.69	180.93	9931.78	7131.18	-7136.37	-897.82	0.22	413474.52	629548.47	N 32 8 11.04 W 104 2 54.06	W 104 2 54.06	187.17	7192.03
	17006.00	88.76	180.70	9933.90	7226.14	-7231.34	-899.18	0.25	413379.56	629547.12	N 32 8 10.10 W 104 2 54.07	W 104 2 54.07	187.09	7287.63
	17101.00	88.87	180.88	9935.86	7321.10	-7326.31	-900.49	0.22	413284.60	629545.81	N 32 8 9.16 W 104 2 54.09	W 104 2 54.09	187.01	7381.44
	17289.00	88.73	181.08	9939.80	7509.01	-7514.24	-903.70	0.13	413096.68	629542.60	N 32 8 7.30 W 104 2 54.14	W 104 2 54.14	186.86	7568.38
	17383.00	89.86	181.43	9940.95	7602.96	-7608.21	-905.76	1.26	413002.72	629540.54	N 32 8 6.37 W 104 2 54.16	W 104 2 54.16	186.79	7661.93
	17477.00	88.57	183.58	9944.60	7696.75	-7702.02	-909.86	4.98	412908.92	629536.44	N 32 8 5.44 W 104 2 54.21	W 104 2 54.21	186.74	7755.58
	17571.00	88.80	181.93	9949.10	7790.49	-7795.79	-914.37	3.73	412815.15	629531.93	N 32 8 4.51 W 104 2 54.27	W 104 2 54.27	186.69	7849.23
	17665.00	90.31	178.62	9949.84	7884.47	-7889.77	-914.82	3.87	412721.18	629531.48	N 32 8 3.58 W 104 2 54.28	W 104 2 54.28	186.61	7942.63
	17758.00	90.03	177.94	9949.56	7977.44	-7982.73	-912.03	0.79	412628.23	629534.27	N 32 8 2.66 W 104 2 54.25	W 104 2 54.25	186.52	8034.66
	17853.00	90.38	177.85	9949.22	8072.39	-8077.66	-908.54	0.38	412533.31	629537.76	N 32 8 1.72 W 104 2 54.21	W 104 2 54.21	186.42	8128.60
	17947.00	90.17	186.36	9948.77	8166.36	-8171.61	-905.42	0.58	412439.37	629540.87	N 32 8 0.79 W 104 2 54.18	W 104 2 54.18	186.32	8221.62
	18041.00	90.24	178.18	9948.43	8260.33	-8265.56	-902.58	0.20	412345.42	629543.72	N 32 7 59.86 W 104 2 54.15	W 104 2 54.15	186.23	8314.70
	18136.00	90.38	177.68	9947.92	8355.28	-8360.50	-899.15	0.55	412250.49	629547.15	N 32 7 58.92 W 104 2 54.11	W 104 2 54.11	186.14	8408.71
	18230.00	90.21	178.07	9947.43	8449.23	-8454.43	-895.66	0.45	412156.56	629550.63	N 32 7 57.00 W 104 2 54.07	W 104 2 54.07	186.05	8501.75
	18324.00	90.07	177.90	9947.20	8543.19	-8548.38	-892.36	0.23	412062.63	629553.94	N 32 7 55.07 W 104 2 54.04	W 104 2 54.04	185.96	8594.83
	18418.00	90.21	179.02	9946.97	8637.17	-8642.34	-889.83	1.20	411968.67	629556.46	N 32 7 56.14 W 104 2 53.91	W 104 2 53.91	185.88	8688.03
	18512.00	89.28	177.79	9947.81	8825.12	-8830.26	-884.60	0.82	411780.77	629561.70	N 32 7 54.28 W 104 2 53.95	W 104 2 53.95	185.72	8774.46
	18605.00	89.31	178.22	9948.54	8894.09	-8899.22	-882.54	0.73	411721.82	629563.75	N 32 7 53.69 W 104 2 53.93	W 104 2 53.93	185.67	8832.92
	18759.00	89.24	178.38	9949.73	8978.05	-8983.17	-879.76	0.19	411627.87	629566.54	N 32 7 52.76 W 104 2 53.90	W 104 2 53.90	185.59	8926.15
	18854.00	89.04	177.88	9951.15	9073.01	-9078.11	-876.66	0.57	411532.94	629569.64	N 32 7 51.82 W 104 2 53.87	W 104 2 53.87	185.52	9020.34
	18948.00	89.11	178.31	9952.67	9166.96	-9172.04	-873.53	0.96	411439.01	629572.76	N 32 7 50.89 W 104 2 53.84	W 104 2 53.84	185.44	9123.55
	19042.00	88.93	180.13	9954.28	9260.94	-9266.02	-872.25	1.95	411345.05	629574.04	N 32 7 49.96 W 104 2 53.82	W 104 2 53.82	185.38	9306.98
	19136.00	89.07	181.96	9955.92	9354.89	-9359.98	-873.97	1.95	411251.09	629572.33	N 32 7 49.03 W 104 2 53.85	W 104 2 53.85	185.33	9400.70
	19229.00	88.83	182.12	9957.62	9447.80	-9452.91	-877.28	0.31	411158.17	629569.02	N 32 7 48.11 W 104 2 53.89	W		

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 ° ' ")	Closure Azimuth (°)	Closure (ft)
	19606.00	90.55	179.67	9961.41	9824.72	-9829.85	-879.11	1.25	410781.27	629567.18	N 32 7 44.38 W 104 2 53.92		185.11	9869.08
	19700.00	90.31	179.47	9960.70	9918.71	-9923.84	-878.41	0.33	410687.28	629567.89	N 32 7 43.45 W 104 2 53.92		185.06	9962.64
	19795.00	90.83	179.59	9959.76	10013.71	-10018.83	-877.63	0.56	410592.30	629568.67	N 32 7 42.51 W 104 2 53.91		185.01	10057.20
	19889.00	91.27	180.03	9958.04	10107.69	-10112.81	-877.32	0.66	410498.32	629568.98	N 32 7 41.58 W 104 2 53.91		184.96	10150.80
	19983.00	89.90	179.73	9957.08	10201.68	-10206.81	-877.12	1.49	410404.34	629569.17	N 32 7 40.65 W 104 2 53.91		184.91	10244.43
	20078.00	90.00	179.61	9957.16	10296.68	-10301.81	-876.57	0.16	410309.35	629569.72	N 32 7 39.71 W 104 2 53.91		184.86	10339.03
	20172.00	89.62	179.52	9957.47	10390.68	-10395.80	-875.86	0.42	410215.36	629570.43	N 32 7 38.78 W 104 2 53.90		184.82	10432.63
	20266.00	89.62	179.95	9958.09	10484.68	-10489.80	-875.42	0.46	410121.37	629570.87	N 32 7 37.85 W 104 2 53.90		184.77	10526.26
	20360.00	89.86	179.26	9958.52	10578.68	-10583.80	-874.78	0.78	410027.38	629571.52	N 32 7 36.92 W 104 2 53.89		184.72	10619.88
	20454.00	89.38	179.29	9959.14	10672.67	-10677.79	-873.59	0.51	409933.40	629572.71	N 32 7 35.99 W 104 2 53.88		184.68	10713.46
	20549.00	89.79	179.10	9959.83	10767.67	-10772.77	-872.25	0.64	409838.42	629574.04	N 32 7 35.05 W 104 2 53.87		184.63	10808.03
	20643.00	89.83	179.70	9960.14	10861.67	-10866.77	-871.27	0.64	409744.43	629575.03	N 32 7 34.12 W 104 2 53.86		184.58	10901.64
	20738.00	89.83	179.29	9960.43	10956.67	-10961.76	-870.43	0.43	409649.45	629575.86	N 32 7 33.18 W 104 2 53.85		184.54	10996.27
	20832.00	89.59	179.88	9960.90	11050.66	-11055.76	-869.75	0.68	409555.46	629576.54	N 32 7 32.25 W 104 2 53.85		184.50	11089.92
	20927.00	90.48	180.17	9960.84	11145.66	-11150.76	-869.79	0.99	409460.47	629576.50	N 32 7 31.31 W 104 2 53.85		184.46	11184.63
	21022.00	89.86	179.28	9960.56	11240.66	-11245.75	-869.33	1.14	409365.48	629576.96	N 32 7 30.37 W 104 2 53.85		184.42	11279.31
	21116.00	89.83	180.31	9960.82	11334.66	-11339.75	-869.00	1.10	409271.49	629577.29	N 32 7 29.44 W 104 2 53.85		184.38	11373.00
	21210.00	90.17	179.56	9960.82	11428.66	-11433.75	-868.89	0.88	409177.50	629577.40	N 32 7 28.51 W 104 2 53.85		184.35	11466.72
	21304.00	90.24	179.72	9960.48	11522.65	-11527.75	-868.30	0.19	409083.51	629577.99	N 32 7 27.58 W 104 2 53.85		184.31	11560.40
	21398.00	90.07	179.97	9960.23	11616.65	-11621.75	-868.05	0.32	408989.52	629578.25	N 32 7 26.65 W 104 2 53.85		184.27	11654.12
	21465.00	90.07	179.86	9960.14	11683.65	-11688.75	-867.95	0.16	408922.52	629578.35	N 32 7 25.99 W 104 2 53.85		184.25	11720.93
	21507.00	90.07	179.86	9960.09	11725.65	-11730.75	-867.85	0.00	408880.53	629578.45	N 32 7 25.57 W 104 2 53.85		184.23	11762.81

Last Survey
TD, PTB [330'
FSL, 340' FWL]

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 (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.00	23.000	1/98.425	17.500	13.375	NAL_MWD_IFR1+MS-Depth Only	Riverbend 12-13 Fed Com #32H / Final Surveys - Cimarex Riverbend 12-13 Federal Com #32H 0' to
	1	23.000	23.000	Act Stns	17.500	13.375	NAL_MWD_IFR1+MS-Depth Only	Riverbend 12-13 Fed Com #32H / Final Surveys - Cimarex Riverbend 12-13 Federal Com #32H 0' to
	1	23.000	454.000	Act Stns	17.500	13.375	NAL_MWD_IFR1+MS	Riverbend 12-13 Fed Com #32H / Final Surveys - Cimarex Riverbend
	1	454.000	2647.000	Act Stns	12.250	9.625	NAL_MWD_IFR1+MS	Riverbend 12-13 Fed Com #32H / Final Surveys - Cimarex Riverbend
	1	2647.000	10148.000	Act Stns	8.750	7.000	NAL_MWD_IFR1+MS	Riverbend 12-13 Fed Com #32H / Final Surveys - Cimarex Riverbend
	1	10148.000	21507.000	Act Stns	6.000	4.500	NAL_MWD_IFR1+MS	Riverbend 12-13 Fed Com #32H / Final Surveys - Cimarex Riverbend



Borehole: Riverbend 12-13 Fed Com #32H	Well: Riverbend 12-13 Fed Com #32H	Field: NM Eddy County (NAD 83)	Structure: Cimarex Riverbend 12-13 Federal Com #32H
---	---	---	--

Gravity & Magnetic Parameters				Surface Location				NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2019	Dip:	59.856°	Date:	25-Sep-2019	Lat:	N 32 9 21.63	Northing:	420610.29ftUS	Grid Conv:	0.1533°	Slot:	New Slot	TVD Ref:	RKB(2961.4ft above MSL)
MagDec:	6.987°	FS:	47845.881nT	Gravity FS:	998.46mgn (9.80665 Based)	Lon:	W 104 2 43.39	Easting:	630446.22ftUS	Scale Fact:	0.99991819	Plan:	Final Surveys - Cimarex Riverbend 12-13 Federal Com #32H 0' to 21507' (Surcon Corrected)		

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [1439' FSL, 1257' FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
First SLB Survey	9443.00	0.94	252.89	9367.32	-6.68	1.18	-972.15	0.36
KOP	9479.38	3.01	176.55	9403.68	-5.69	0.19	-972.39	11.49
Section 1-12 Line Crossing [327' FWL]	11197.70	89.19	179.54	9924.09	1418.43	-1423.76	-938.42	1.45
First Legal Take Point [330' From 1-22 Section Line,323' FWL]	11527.81	89.25	180.28	9928.32	1748.49	-1753.84	-940.37	0.16
Section 12-13 Line Crossing [334' FWL]	16521.50	90.21	179.39	9928.10	6741.75	-6746.92	-896.43	0.32
Last Survey	21465.00	90.07	179.86	9960.14	11683.65	-11688.75	-867.95	0.16
TD, PTB [330' FSL, 340' FWL]	21507.00	90.07	179.86	9960.09	11725.65	-11730.75	-867.85	0.00

