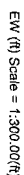
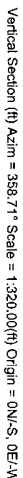


CIMAREX

Cimarex Klein 33 Federal Corn #8H

Macellaneous	0.0738*
Crimarx Klein	
Sloth: 33 Federal Com	TVD Ref: RKBj3224t above MSU
#H4	
Plasn: Cimarx Klein 33 Federal Com 3H 0H to Update	

Critical Points



CONTROLLED

CONTROLLED	
Name and Drawing and Copy Number	Drawing Number Date
Location	Date
of 3	07-MAR-2018
Control Control Control Control	Control Control Control Control

Cimarex Klein 33 Federal Com 8H Off to 14227ft Survey Report



(Def Survey)

Report Date: November 07, 2016 - 11:21 AM
 Client: Cimarex
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Cimarex Klein 33 Federal Com #8H / Cimarex Klein 33 Federal Com #8H
 Well: Cimarex Klein 33 Federal Com #8H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Cimarex Klein 33 Federal Com 8H Off to 14227ft
 Survey Date: October 26, 2016
 Tort / AHD / DDI / ERD Ratio: 286.333 ° / 7757.103 ft / 6.624 / 1.033
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 0' 2.93768", W 104° 11' 39.97649"
 Location Grid N/E Y/X: N 364064.030 ftUS, E 584393.060 ftUS
 CRS Grid Convergence Angle: 0.0736 °
 Grid Scale Factor: 0.99991121
 Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 6.610 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3221.000 ft above MSL
 Seabed / Ground Elevation: 3197.000 ft above MSL
 Magnetic Declination: 7.432 °
 Total Gravity Field Strength: 998.4326mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48036.303 nT
 Magnetic Dip Angle: 59.704 °
 Declination Date: October 26, 2016
 Magnetic Declination Model: HDGM 2016
 North Reference: Grid North
 Grid Convergence Used: 0.0736 °
 Total Corr Mag North->Grid North: 7.3584 °
 Local Coord Referenced To: Structure Reference Point

RECEIVED
 MAR 17 2017
 ARTESIA DISTRICT
 NM OIL CONSERVATION

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 Cimarex Klein 33 Federal Com 8H	0.00	0.00	90.00	0.00	0.00	0.00	0.00	N/A	364064.03	584393.06	N 32° 0' 2.94"	W 104° 11' 39.98"
	141.00	0.22	5.37	141.00	0.27	0.27	0.03	0.16	364064.30	584393.09	N 32° 0' 2.94"	W 104° 11' 39.98"
	209.00	0.09	40.55	209.00	0.45	0.44	0.07	0.23	364064.47	584393.13	N 32° 0' 2.94"	W 104° 11' 39.98"
	300.00	0.22	3.57	300.00	0.68	0.67	0.13	0.17	364064.70	584393.19	N 32° 0' 2.94"	W 104° 11' 39.97"
	350.00	0.40	99.65	350.00	0.77	0.74	0.31	0.95	364064.77	584393.37	N 32° 0' 2.94"	W 104° 11' 39.97"
	475.00	0.60	85.67	474.99	0.87	0.71	1.39	0.19	364064.74	584394.45	N 32° 0' 2.94"	W 104° 11' 39.96"
	566.00	0.50	91.47	565.99	0.99	0.74	2.26	0.13	364064.77	584395.32	N 32° 0' 2.94"	W 104° 11' 39.95"
	655.00	0.71	73.87	654.98	1.24	0.88	3.18	0.31	364064.91	584396.24	N 32° 0' 2.95"	W 104° 11' 39.94"
	743.00	0.80	94.07	742.98	1.48	0.99	4.32	0.32	364065.02	584397.38	N 32° 0' 2.95"	W 104° 11' 39.93"
	836.00	1.02	78.76	835.97	1.76	1.10	5.78	0.35	364065.13	584398.84	N 32° 0' 2.95"	W 104° 11' 39.91"
	925.00	1.19	79.77	924.95	2.27	1.42	7.46	0.19	364065.45	584400.52	N 32° 0' 2.95"	W 104° 11' 39.89"
	1016.00	1.72	85.68	1015.92	2.80	1.69	9.75	0.60	364065.72	584402.81	N 32° 0' 2.95"	W 104° 11' 39.86"
	1114.00	2.70	88.89	1113.85	3.39	1.85	13.53	1.01	364065.88	584406.59	N 32° 0' 2.96"	W 104° 11' 39.82"
	1208.00	4.73	95.73	1207.64	3.75	1.90	19.60	2.21	364065.53	584412.66	N 32° 0' 2.95"	W 104° 11' 39.75"
	1302.00	3.54	94.31	1301.40	3.93	0.90	26.35	1.27	364064.93	584419.41	N 32° 0' 2.95"	W 104° 11' 39.67"
	1395.00	2.52	88.67	1394.27	4.32	0.73	31.26	1.14	364064.76	584424.31	N 32° 0' 2.94"	W 104° 11' 39.61"
	1490.00	1.59	89.51	1489.20	4.78	0.79	34.66	0.98	364064.82	584427.72	N 32° 0' 2.95"	W 104° 11' 39.57"
	1583.00	1.50	88.28	1582.17	5.11	0.84	37.17	0.10	364064.87	584430.23	N 32° 0' 2.95"	W 104° 11' 39.54"
	1677.00	1.90	82.20	1676.13	5.68	1.09	39.94	0.47	364065.12	584433.00	N 32° 0' 2.95"	W 104° 11' 39.51"
	1773.00	1.72	84.88	1772.08	6.37	1.43	42.98	0.21	364065.46	584436.01	N 32° 0' 2.95"	W 104° 11' 39.48"
	1865.00	1.90	84.97	1864.03	6.95	1.69	45.85	0.20	364065.72	584438.91	N 32° 0' 2.95"	W 104° 11' 39.44"
	1957.00	2.03	74.44	1955.98	7.88	2.26	48.94	0.42	364066.29	584441.99	N 32° 0' 2.96"	W 104° 11' 39.41"
	2062.00	0.49	172.53	2060.96	8.14	2.31	50.79	2.05	364066.34	584443.84	N 32° 0' 2.96"	W 104° 11' 39.39"

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 ° ' '')
	2155.00	0.71	193.47	2153.95	7.19	1.36	50.71	0.33	364065.39	584443.76	N 32 0 2.95	W 104 11 39.39
	2254.00	0.50	197.80	2252.95	6.15	0.35	50.43	0.22	364064.38	584443.49	N 32 0 2.94	W 104 11 39.39
	2342.00	0.50	210.70	2340.94	5.43	-0.35	50.12	0.13	364063.68	584443.17	N 32 0 2.93	W 104 11 39.39
	2436.00	0.49	195.58	2434.94	4.65	-1.09	49.80	0.14	364062.94	584442.86	N 32 0 2.93	W 104 11 39.40
	2529.00	0.71	193.91	2527.94	3.69	-2.03	49.56	0.24	364062.00	584442.61	N 32 0 2.92	W 104 11 39.40
	2623.00	0.62	217.26	2621.93	2.67	-3.00	49.11	0.30	364061.03	584442.16	N 32 0 2.91	W 104 11 39.41
	2717.00	0.80	220.26	2715.92	1.69	-3.90	48.38	0.20	364060.13	584441.43	N 32 0 2.90	W 104 11 39.41
	2812.00	0.88	212.46	2810.91	0.48	-5.02	47.56	0.15	364059.01	584440.61	N 32 0 2.89	W 104 11 39.42
	2905.00	1.10	210.12	2903.90	-0.98	-6.40	46.72	0.24	364057.63	584439.78	N 32 0 2.87	W 104 11 39.43
	3000.00	1.10	222.68	2998.88	-2.55	-7.86	45.65	0.25	364056.17	584438.70	N 32 0 2.86	W 104 11 39.45
	3094.00	1.02	178.35	3092.87	-4.11	-9.36	44.06	0.85	364054.67	584438.12	N 32 0 2.84	W 104 11 39.45
	3191.00	1.10	220.96	3189.85	-5.73	-10.92	44.48	0.80	364053.11	584437.53	N 32 0 2.82	W 104 11 39.46
	3285.00	0.62	219.77	3283.84	-6.90	-12.00	43.56	0.51	364052.03	584436.61	N 32 0 2.82	W 104 11 39.47
	3379.00	1.72	104.85	3377.83	-7.53	-12.75	44.60	2.19	364051.28	584437.65	N 32 0 2.81	W 104 11 39.46
	3473.00	3.54	91.01	3471.72	-7.45	-13.16	48.86	2.04	364050.87	584441.92	N 32 0 2.81	W 104 11 39.41
	3567.00	5.60	98.02	3565.42	-7.28	-13.85	56.31	2.27	364050.18	584440.36	N 32 0 2.80	W 104 11 39.32
	3662.00	7.42	88.47	3659.81	-6.31	-14.12	67.02	2.35	364049.91	584460.07	N 32 0 2.80	W 104 11 39.20
	3756.00	9.40	88.30	3752.79	-4.14	-13.52	80.75	2.13	364050.51	584473.81	N 32 0 2.80	W 104 11 39.04
	3852.00	11.05	98.81	3847.27	-3.36	-14.70	97.68	2.59	364049.33	584490.73	N 32 0 2.79	W 104 11 38.04
	3945.00	13.48	99.21	3938.14	-4.19	-17.80	117.19	2.61	364046.23	584510.24	N 32 0 2.76	W 104 11 38.62
	4041.00	12.99	110.66	4031.61	-7.32	-23.40	138.34	2.77	364040.64	584531.38	N 32 0 2.70	W 104 11 38.84
	4134.00	12.86	109.96	4122.25	-12.24	-30.62	157.84	0.22	364033.42	584550.89	N 32 0 2.63	W 104 11 38.17
	4228.00	11.98	111.37	4214.05	-17.15	-37.74	176.76	0.99	364026.29	584569.81	N 32 0 2.56	W 104 11 37.92
	4322.00	11.45	113.35	4306.10	-22.32	-45.00	194.41	0.71	364018.04	584587.46	N 32 0 2.49	W 104 11 37.72
	4416.00	11.75	106.43	4398.18	-26.64	-51.40	212.16	1.51	364012.63	584605.20	N 32 0 2.43	W 104 11 37.51
	4510.00	11.58	108.33	4490.24	-30.19	-57.08	230.30	0.45	364006.96	584623.34	N 32 0 2.37	W 104 11 37.30
	4604.00	11.27	100.62	4582.38	-32.75	-61.74	248.28	1.66	364002.30	584641.32	N 32 0 2.32	W 104 11 37.09
	4698.00	10.34	100.53	4674.71	-33.97	-64.97	265.60	0.99	363998.07	584655.64	N 32 0 2.29	W 104 11 36.89
	4792.00	11.36	103.22	4767.03	-35.61	-68.63	282.91	1.21	363995.41	584675.95	N 32 0 2.25	W 104 11 36.69
	4885.00	11.18	103.44	4858.24	-37.73	-72.82	300.60	0.20	363991.22	584693.63	N 32 0 2.21	W 104 11 36.49
	4979.00	12.15	104.94	4950.30	-40.25	-77.49	319.02	1.08	363986.55	584712.05	N 32 0 2.17	W 104 11 36.27
	5074.00	12.28	105.24	5043.15	-43.22	-82.72	338.43	0.15	363981.32	584731.46	N 32 0 2.11	W 104 11 36.05
	5169.00	11.75	106.57	5136.07	-46.40	-88.14	357.44	0.63	363975.90	584750.47	N 32 0 2.06	W 104 11 35.83
	5263.00	11.58	107.84	5228.12	-49.90	-93.76	375.60	0.33	363970.28	584768.63	N 32 0 2.01	W 104 11 35.62
	5357.00	11.18	108.64	5320.28	-53.63	-99.56	393.22	0.46	363964.48	584786.24	N 32 0 1.95	W 104 11 35.41
	5450.00	11.98	105.02	5411.38	-56.93	-104.94	411.08	1.16	363959.10	584804.10	N 32 0 1.89	W 104 11 35.20
	5545.00	10.56	104.32	5504.55	-59.54	-109.65	429.04	1.50	363954.39	584822.06	N 32 0 1.85	W 104 11 35.00
	5640.00	11.58	105.55	5597.78	-62.19	-114.36	446.66	1.10	363949.68	584839.68	N 32 0 1.80	W 104 11 34.79
	5734.00	9.46	109.65	5690.20	-65.39	-119.49	463.03	2.39	363944.55	584856.04	N 32 0 1.75	W 104 11 34.60
	5830.00	9.37	104.54	5784.90	-68.25	-124.10	478.02	0.88	363939.94	584871.04	N 32 0 1.70	W 104 11 34.43
	5923.00	9.54	105.95	5876.64	-70.55	-128.12	492.76	0.31	363935.92	584885.78	N 32 0 1.66	W 104 11 34.26
	6017.00	7.34	104.05	5969.62	-72.59	-131.72	506.08	2.36	363932.32	584899.09	N 32 0 1.63	W 104 11 34.10
	6112.00	7.42	102.82	6063.83	-74.04	-134.55	517.94	0.19	363928.49	584910.96	N 32 0 1.60	W 104 11 33.96
	6205.00	8.35	103.35	6155.95	-75.48	-137.45	530.37	1.00	363926.60	584923.38	N 32 0 1.57	W 104 11 33.82
	6299.00	8.90	102.40	6248.89	-77.02	-140.58	544.11	0.60	363923.46	584937.12	N 32 0 1.54	W 104 11 33.66
	6392.00	10.87	97.14	6340.50	-77.82	-143.22	559.84	2.33	363920.83	584952.85	N 32 0 1.51	W 104 11 33.48
	6485.00	14.36	98.02	6431.25	-78.19	-145.92	579.97	3.76	363918.13	584972.98	N 32 0 1.49	W 104 11 33.24
	6581.00	15.60	92.02	6523.99	-77.45	-148.03	604.66	2.07	363916.01	584997.67	N 32 0 1.47	W 104 11 32.96
	6674.00	14.27	97.31	6613.85	-76.59	-149.93	628.53	2.05	363914.11	585021.53	N 32 0 1.45	W 104 11 32.68
	6768.00	14.89	106.04	6704.83	-78.71	-154.75	651.63	2.43	363908.30	585044.63	N 32 0 1.40	W 104 11 32.41
	6865.00	15.36	105.16	6798.47	-82.66	-161.55	676.02	0.56	363902.49	585069.02	N 32 0 1.33	W 104 11 32.13
	6918.00	13.57	102.03	6849.78	-84.30	-164.69	688.89	3.72	363899.36	585081.89	N 32 0 1.30	W 104 11 31.98
	6946.00	12.76	101.58	6877.05	-84.87	-165.99	695.13	2.92	363896.05	585088.13	N 32 0 1.28	W 104 11 31.81
	6978.00	13.12	92.43	6908.24	-84.91	-166.86	702.22	6.49	363897.19	585095.22	N 32 0 1.29	W 104 11 31.62
	7009.00	15.41	75.48	6938.29	-83.17	-165.97	709.73	15.29	363896.07	585102.72	N 32 0 1.29	W 104 11 31.74
	7041.00	18.40	62.02	6968.92	-78.77	-162.53	718.31	15.33	363901.21	585111.30	N 32 0 1.32	W 104 11 31.64
	7073.00	21.42	55.32	6999.01	-72.05	-156.84	727.58	11.81	363907.51	585120.57	N 32 0 1.38	W 104 11 31.53
	7105.00	24.38	51.97	7028.48	-63.55	-149.44	737.59	10.10	363914.60	585130.58	N 32 0 1.45	W 104 11 31.41

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 ° ' ")
First Legal Take Point	7136.00	27.21	48.63	7056.39	-53.78	-140.81	747.95	10.26	363923.23	585140.94	N 32 0 1.53	W 104 11 31.28
	7167.00	29.50	43.82	7083.67	-42.44	-130.62	758.56	10.43	363933.42	585151.55	N 32 0 1.64	W 104 11 31.17
	7198.00	31.46	36.74	7110.40	-29.35	-118.63	768.68	13.19	363945.42	585161.67	N 32 0 1.75	W 104 11 31.05
	7230.00	33.81	29.56	7137.35	-13.93	-104.18	778.08	14.14	363959.86	585171.07	N 32 0 1.90	W 104 11 30.94
	7261.00	36.35	26.11	7162.72	2.68	-88.43	786.38	10.39	363975.61	585179.37	N 32 0 2.05	W 104 11 30.85
	7293.00	38.88	23.84	7188.07	21.22	-70.72	794.61	9.01	363993.32	585187.60	N 32 0 2.23	W 104 11 30.75
	7324.00	42.05	20.15	7211.66	40.61	-52.07	802.12	12.81	364011.97	585195.11	N 32 0 2.41	W 104 11 30.66
	7356.00	45.58	15.08	7234.75	62.34	-30.97	808.81	15.38	364033.07	585201.80	N 32 0 2.62	W 104 11 30.58
	7387.00	48.37	11.19	7255.90	84.85	-8.90	813.94	13.22	364055.13	585206.93	N 32 0 2.84	W 104 11 30.52
	7419.00	51.21	9.35	7276.56	109.23	15.14	818.27	9.79	364079.17	585211.25	N 32 0 3.08	W 104 11 30.47
	7451.00	54.39	8.30	7295.91	134.70	40.33	822.17	10.28	364104.36	585215.16	N 32 0 3.33	W 104 11 30.43
	7451.88	54.52	8.22	7296.42	135.42	41.04	822.28	16.77	364105.06	585215.26	N 32 0 3.33	W 104 11 30.43
	7482.00	59.12	5.72	7312.90	160.61	66.05	825.32	16.77	364130.08	585218.30	N 32 0 3.58	W 104 11 30.39
	7514.00	63.47	3.12	7328.27	188.65	94.03	827.47	15.35	364158.05	585220.45	N 32 0 3.86	W 104 11 30.37
	7545.00	67.53	2.49	7341.12	216.79	122.20	828.85	13.23	364186.22	585221.83	N 32 0 4.14	W 104 11 30.35
	7576.00	71.16	2.71	7352.05	245.72	151.17	830.16	11.73	364215.19	585223.15	N 32 0 4.42	W 104 11 30.33
	7608.00	75.16	2.84	7361.32	276.28	181.75	831.65	12.51	364245.77	585224.63	N 32 0 4.73	W 104 11 30.32
	7640.00	78.86	2.95	7368.51	307.39	212.89	833.22	11.57	364276.90	585226.20	N 32 0 5.03	W 104 11 30.30
	7671.00	81.41	2.99	7373.82	337.86	243.39	834.80	8.23	364307.40	585227.79	N 32 0 5.34	W 104 11 30.28
	7703.00	83.91	2.80	7377.91	369.53	275.08	836.41	7.83	364339.09	585229.39	N 32 0 5.65	W 104 11 30.25
	7735.00	86.60	0.82	7380.56	401.31	306.95	837.41	10.43	364370.96	585230.40	N 32 0 5.96	W 104 11 30.25
	7767.00	88.63	359.88	7381.89	433.09	338.92	837.61	6.99	364402.92	585230.59	N 32 0 6.28	W 104 11 30.24
	7797.00	89.48	359.95	7382.38	462.88	368.92	837.56	2.84	364432.91	585230.55	N 32 0 6.58	W 104 11 30.24
	7866.00	90.10	359.63	7382.64	531.39	437.92	837.31	1.01	364501.91	585230.29	N 32 0 7.26	W 104 11 30.25
	7960.00	88.07	0.72	7384.14	624.78	531.90	837.60	2.45	364595.88	585230.58	N 32 0 8.19	W 104 11 30.24
	8055.00	87.76	2.05	7387.60	719.32	626.81	839.89	1.44	364690.78	585232.87	N 32 0 9.13	W 104 11 30.21
	8149.00	87.25	1.92	7391.69	812.92	720.66	843.14	0.56	364764.62	585236.13	N 32 0 10.06	W 104 11 30.17
	8244.00	87.08	1.43	7396.39	907.45	815.50	845.92	0.55	364879.46	585238.90	N 32 0 11.00	W 104 11 30.14
	8338.00	87.25	359.89	7401.04	1000.83	909.38	847.00	1.65	364973.33	585239.98	N 32 0 11.93	W 104 11 30.13
	8433.00	87.21	358.46	7405.63	1094.92	1004.25	845.63	1.50	365068.19	585238.62	N 32 0 12.86	W 104 11 30.14
	8528.00	87.01	358.61	7410.42	1188.86	1099.10	843.21	0.26	365163.03	585236.19	N 32 0 13.80	W 104 11 30.17
	8622.00	87.25	359.34	7415.12	1281.91	1192.97	841.53	0.82	365256.89	585234.51	N 32 0 14.73	W 104 11 30.19
	8716.00	87.11	0.57	7419.75	1375.16	1286.85	841.45	1.32	365350.77	585234.44	N 32 0 15.66	W 104 11 30.16
	8811.00	87.28	1.95	7424.40	1469.63	1381.71	843.54	1.46	365445.62	585236.52	N 32 0 16.60	W 104 11 30.16
	8905.00	87.11	359.58	7429.00	1563.02	1475.59	844.79	2.52	365539.48	585237.78	N 32 0 17.53	W 104 11 30.14
	8999.00	87.25	0.49	7435.62	1656.29	1569.47	844.85	0.98	365633.36	585237.83	N 32 0 18.46	W 104 11 30.14
	9094.00	91.03	355.80	7435.07	1750.20	1664.37	841.78	6.32	365728.25	585234.76	N 32 0 19.40	W 104 11 30.18
	9188.00	91.03	354.24	7433.41	1842.27	1756.00	833.62	1.66	365821.87	585226.60	N 32 0 20.32	W 104 11 30.27
	9282.00	87.73	353.70	7434.43	1933.97	1851.46	823.74	3.56	365915.32	585216.73	N 32 0 21.25	W 104 11 30.38
	9376.00	87.21	359.45	7438.58	2026.40	1945.16	818.14	6.14	366009.01	585211.12	N 32 0 22.18	W 104 11 30.45
	9470.00	86.90	4.26	7443.41	2119.93	2038.96	821.17	5.12	366102.80	585214.16	N 32 0 23.10	W 104 11 30.41
	9565.00	88.07	3.85	7447.58	2214.74	2133.63	827.88	1.30	366197.46	585220.87	N 32 0 24.04	W 104 11 30.41
	9660.00	88.38	359.59	7449.69	2309.35	2228.53	830.73	4.69	366292.36	585223.72	N 32 0 24.98	W 104 11 30.30
	9754.00	88.52	356.18	7451.42	2402.23	2322.44	827.27	3.74	366386.26	585220.25	N 32 0 25.91	W 104 11 30.33
	9848.00	87.49	356.33	7454.69	2416.64	2416.18	821.13	1.11	366479.99	585214.12	N 32 0 26.84	W 104 11 30.46
	9942.00	87.70	357.88	7458.63	2587.26	2509.98	816.39	0.83	366573.78	585209.37	N 32 0 27.76	W 104 11 30.46
	10037.00	86.97	357.59	7463.05	2681.03	2604.80	812.64	1.66	366668.59	585205.62	N 32 0 28.70	W 104 11 30.50
	10131.00	87.49	0.65	7467.60	2774.10	2698.67	811.19	3.30	366762.45	585204.18	N 32 0 29.63	W 104 11 30.52
	10226.00	87.66	1.85	7471.61	2868.60	2793.56	813.27	1.27	366857.33	585206.25	N 32 0 30.57	W 104 11 30.49
	10321.00	87.28	1.77	7475.81	2968.18	2888.42	816.26	0.41	366952.18	585209.25	N 32 0 31.51	W 104 11 30.45
	10415.00	87.49	2.33	7480.10	3056.78	2982.26	819.62	0.64	367046.02	585212.61	N 32 0 32.44	W 104 11 30.41
	10509.00	87.87	2.61	7483.90	3150.46	3076.09	823.67	0.50	367139.84	585216.66	N 32 0 33.37	W 104 11 30.36
	10604.00	88.18	1.89	7487.18	3245.13	3170.96	827.40	0.82	367234.70	585220.38	N 32 0 34.31	W 104 11 30.32
	10697.00	90.52	358.41	7488.23	3337.51	3263.94	827.64	4.51	367327.67	585220.62	N 32 0 35.23	W 104 11 30.32
	10792.00	89.45	356.57	7488.26	3431.30	3358.84	823.48	2.24	367422.56	585216.47	N 32 0 36.16	W 104 11 30.36
	10886.00	87.97	358.73	7490.37	3524.12	3452.73	819.63	2.78	367516.44	585212.61	N 32 0 37.09	W 104 11 30.41
	10980.00	88.07	0.19	7493.62	3617.33	3546.67	818.74	1.56	367610.37	585211.73	N 32 0 38.02	W 104 11 30.42

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 ° ' '')
	11075.00	87.56	0.18	7497.24	3711.67	3641.60	819.05	0.54	367705.29	585212.03	N 32° 0' 38.96"	W 104° 11' 30.41"
	11169.00	88.86	1.82	7500.18	3805.17	3735.53	820.69	2.23	367799.22	585213.67	N 32° 0' 39.89"	W 104° 11' 30.39"
	11264.00	89.28	358.48	7501.72	3899.54	3830.50	820.94	3.54	367894.19	585213.92	N 32° 0' 40.83"	W 104° 11' 30.39"
	11358.00	89.45	357.27	7502.76	3992.44	3924.43	817.45	1.30	367988.10	585210.44	N 32° 0' 41.76"	W 104° 11' 30.42"
	11453.00	89.14	357.01	7503.93	4086.14	4019.31	812.71	0.43	368082.97	585205.70	N 32° 0' 42.70"	W 104° 11' 30.48"
	11547.00	89.45	356.58	7505.09	4178.76	4113.15	807.46	0.56	368176.81	585202.87	N 32° 0' 43.63"	W 104° 11' 30.54"
	11641.00	87.97	358.04	7507.21	4271.49	4207.02	803.05	2.21	368270.67	585196.03	N 32° 0' 44.56"	W 104° 11' 30.59"
	11735.00	89.48	0.45	7509.30	4364.68	4300.98	801.81	3.02	368364.62	585194.80	N 32° 0' 45.49"	W 104° 11' 30.60"
	11828.00	89.72	358.70	7510.29	4456.98	4393.97	801.12	1.90	368457.60	585194.11	N 32° 0' 46.41"	W 104° 11' 30.61"
	11923.00	89.86	359.91	7511.23	4551.20	4488.96	799.97	1.28	368552.58	585192.95	N 32° 0' 47.35"	W 104° 11' 30.62"
	12017.00	89.00	2.18	7511.23	4644.75	4582.93	804.68	2.58	368646.55	585194.67	N 32° 0' 48.28"	W 104° 11' 30.60"
	12112.00	90.00	1.65	7512.06	4739.43	4677.87	804.85	1.19	368741.48	585197.84	N 32° 0' 49.22"	W 104° 11' 30.56"
	12207.00	91.14	1.38	7511.11	4834.04	4772.83	807.37	1.23	368836.43	585200.35	N 32° 0' 50.16"	W 104° 11' 30.53"
	12301.00	90.86	358.46	7509.47	4927.38	4866.81	807.23	3.12	368930.40	585200.22	N 32° 0' 51.09"	W 104° 11' 30.53"
	12396.00	90.79	357.83	7508.10	5021.33	4861.75	804.16	0.67	369025.33	585197.15	N 32° 0' 52.03"	W 104° 11' 30.56"
	12491.00	90.62	358.07	7506.94	5115.24	5056.68	800.76	0.29	369120.25	585193.75	N 32° 0' 52.97"	W 104° 11' 30.63"
	12585.00	90.72	358.32	7505.84	5208.23	5150.63	797.80	0.51	369214.19	585190.79	N 32° 0' 53.90"	W 104° 11' 30.63"
	12680.00	90.89	357.87	7504.50	5302.17	5245.57	794.64	0.29	369309.12	585187.63	N 32° 0' 54.83"	W 104° 11' 30.67"
	12775.00	90.45	359.08	7503.39	5396.20	5340.52	792.12	1.36	369404.07	585185.10	N 32° 0' 55.77"	W 104° 11' 30.70"
	12869.00	89.76	2.37	7503.22	5489.70	5434.50	793.30	3.58	369498.04	585186.29	N 32° 0' 56.70"	W 104° 11' 30.68"
	12962.00	92.79	3.49	7501.15	5582.47	5527.35	798.06	3.47	369590.87	585185.04	N 32° 0' 57.62"	W 104° 11' 30.63"
	13056.00	92.20	359.80	7497.06	5676.01	5621.20	800.75	3.97	369684.72	585193.74	N 32° 0' 58.55"	W 104° 11' 30.59"
	13151.00	91.20	0.42	7494.24	5770.36	5716.16	800.93	1.24	369779.67	585193.92	N 32° 0' 59.49"	W 104° 11' 30.59"
	13246.00	91.99	0.24	7491.59	5864.75	5811.12	801.48	0.85	369874.62	585194.66	N 32° 1' 0' 0.37"	W 104° 11' 30.58"
	13341.00	92.68	0.24	7487.72	5959.08	5906.04	801.88	0.73	369969.53	585194.86	N 32° 1' 0' 1.37"	W 104° 11' 30.58"
	13435.00	93.10	359.51	7482.98	6052.32	5999.92	801.67	0.90	370063.40	585194.66	N 32° 1' 2' 30.0	W 104° 11' 30.58"
	13530.00	93.61	359.48	7477.42	6146.42	6094.75	800.84	0.54	370158.23	585193.82	N 32° 1' 3' 24.0	W 104° 11' 30.58"
	13627.00	94.34	359.24	7470.70	6242.41	6191.51	799.76	0.79	370254.98	585192.74	N 32° 1' 4' 20.0	W 104° 11' 30.60"
	13720.00	91.27	355.73	7466.15	6334.10	6284.28	793.68	5.01	370347.74	585188.67	N 32° 1' 5' 11.0	W 104° 11' 30.64"
	13814.00	90.41	355.83	7464.77	6426.42	6378.02	788.76	0.92	370441.47	585181.75	N 32° 1' 6' 04.0	W 104° 11' 30.72"
	13909.00	90.21	0.09	7464.26	6520.31	6472.93	785.38	4.49	370536.38	585178.37	N 32° 1' 6' 58.0	W 104° 11' 30.76"
	14003.00	89.69	0.63	7464.34	6613.75	6566.93	785.97	0.80	370630.37	585178.96	N 32° 1' 7' 91.0	W 104° 11' 30.75"
	14098.00	89.83	0.54	7464.74	6708.23	6661.93	786.94	0.18	370725.35	585179.93	N 32° 1' 8' 85.0	W 104° 11' 30.74"
	14156.00	89.79	0.00	7464.93	6785.87	6719.93	787.21	0.93	370783.35	585180.20	N 32° 1' 9' 42.0	W 104° 11' 30.73"
	14227.00	89.79	0.00	7465.19	6836.40	6790.92	787.21	0.00	370854.34	585180.20	N 32° 1' 10' 13.0	W 104° 11' 30.73"

Survey Type:

Def Survey

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	24.000	1/98.425	30.000	30.000	NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Borehole / Cimarex Klein 33 Federal Com 8H 0ft to 14227ft
	1	24.000	24.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Borehole / Cimarex Klein 33 Federal Com 8H 0ft to 14227ft
	1	24.000	14227.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Cimarex Klein 33 Federal Com 8H 0ft to 14227ft