

Results of Directional Survey

API number:	30-025-41066		
OGRID:		Operator:	CIMAREX ENERGY CO of COLORADO
		Property:	CHEF 30 STATE # 4H

surface	ULSTR:	D	30	T 20S	R 35E
				660 FNL	320 FWL

5284

BH Loc	ULSTR:	A	30	T 20S	R 35E
15164	MD	10979.2	TVD	1020 FNL	343 FEL
					4941 FWL

Top Perf/OH	ULSTR:	D	30	T 20S	R 35E
10540	MD	10504.4	TVD	656 FNL	419 FWL

Bot Perf/OH	ULSTR:	A	30	T 20S	R 35E
15136	MD	10970.2	TVD	1016 FNL	370 FEL
					4914 FWL

	MD	N/S	E/W	VD
	10519	3.53	85.34	10488.31
TOP PERFS/OH	10540	3.70	98.78	10504.44
	10551	3.79	105.82	10512.89
	15095	-350.24	4555.93	10957.00
BOT PERFS/OH	15136	-355.83	4594.34	10970.21
	15164	-359.65	4620.57	10979.23

NEXT TO LAST	15095	-350.24	4555.93	10957.00
LAST READING	15164	-359.65	4620.57	10979.23
TD	15164	-359.65	4620.57	10979.23

Surface Location	660 FN	320 FW
Projected BHL	1020 FN	4941 FW
Location of		
Top Perfs/OH	656 FN	419 FW
Bottom Perfs/OH	1016 FN	4914 FW

SUMMARY of Subsurface Locations

Surface Location	D-30-20S-35E	660 FN	320 FW	Vert. Depth
Top Perfs/OH	D-30-20S-35E	656 FN	419 FW	10504.44
Bottom Perfs/OH	A-30-20S-35E	1016 FN	4914 FW	10970.21
Projected TD	A-30-20S-35E	1020 FN	4941 FW	10979.23

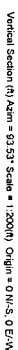
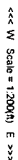
OCT 22 2013



PATHFINDER
A Schlumberger Company

Legend

Grid North
Tot Cor (M->G 7.0016°)
Mag Dec (7.448°)
Grid Conv (0.446°)



Drawn By
R. Schmeider
Date Created
May 19, 2013 07:28:23 PM
Checked By
Checked Date
Approved By
Approved Date



Cimarex Chief 30 State #4H Gyro+MWD 0ft to 15164ft MD (Def Survey)

Report Date: May 30, 2013 - 09:38 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: ScanDrill Eagle / Cimarex Chief 30 State #4H
Well: Cimarex Chief 30 State #4H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Chief 30 State #4H Gyro+MWD 0ft to 15164ft MD
Survey Date: May 10, 2013
Tort / AHD / DDI / ERD Ratio: 186.076 ° / 4866.597 ft / 6.097 / 0.443
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 32' 58.40162", W 103° 30' 14.91897"
Location Grid N/E Y/X: N 564653.900 ftUS, E 796835.100 ftUS
CRS Grid Convergence Angle: 0.4462 °
Grid Scale Factor: 0.99998385

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 93.530 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3721.000 ft above MSL
Seabed / Ground Elevation: 3696.000 ft above MSL
Magnetic Declination: 7.451 °
Total Gravity Field Strength: 998.4856mgn (9.80665 Based)
Total Magnetic Field Strength: 48603.365 nT
Magnetic Dip Angle: 60.414 °
Declination Date: May 10, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.4462 °
Total Corr Mag North->Grid North: 7.0045 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
SHL Chief 30 State #4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	38.74M
	100.00	1.41	38.74	99.99	0.71	0.96	0.77	1.23	38.74	1.41	38.32M
	200.00	2.34	38.32	199.94	2.58	3.52	2.81	4.50	38.55	0.93	40.75M
	300.00	3.22	40.75	299.82	5.45	7.25	5.90	9.35	39.16	0.89	38.73M
	400.00	3.73	38.73	399.63	9.02	11.92	9.77	15.41	39.36	0.52	46.38M
	500.00	3.06	46.38	499.46	12.71	16.29	13.74	21.31	40.14	0.81	45.74M
	600.00	2.45	45.74	599.34	15.96	19.63	17.20	26.10	41.23	0.61	48.37M
	700.00	2.17	48.37	699.26	18.73	22.38	20.15	30.11	42.00	0.30	53.05M
	800.00	2.66	53.05	799.17	21.83	25.03	23.42	34.28	43.10	0.53	53.57M
	848.90	2.84	53.57	848.01	23.63	26.43	25.30	36.59	43.75	0.37	132.98M
	943.40	3.48	132.98	942.41	27.64	25.87	29.28	39.07	48.55	4.30	55.61M
	1037.90	2.69	55.61	1036.81	31.60	25.16	33.21	41.67	52.85	4.13	58.36M
	1132.40	1.71	58.36	1131.24	34.50	27.15	36.24	45.29	53.16	1.04	60.02M
	1226.90	1.12	60.02	1225.71	36.43	28.36	38.24	47.61	53.45	0.63	64.41M
	1321.40	0.77	64.41	1320.19	37.75	29.09	39.62	49.15	53.71	0.38	62.45M
	1415.90	0.52	62.45	1414.69	38.67	29.56	40.57	50.20	53.92	0.27	67.28M
	1510.40	0.22	67.28	1509.18	39.20	29.83	41.12	50.80	54.04	0.32	123.48M
	1604.90	0.14	123.48	1603.68	39.47	29.84	41.38	51.02	54.21	0.19	266.15M
	1699.40	0.28	266.15	1698.18	39.34	29.76	41.25	50.86	54.19	0.42	273.15M
	1793.80	0.46	273.15	1792.58	38.73	29.77	40.64	50.37	53.78	0.20	279.25M
	1888.30	0.44	279.25	1887.08	37.99	29.84	39.90	49.83	53.21	0.05	312.15M
	1982.80	0.02	312.15	1981.58	37.61	29.91	39.53	49.57	52.88	0.45	194.2M
	2077.30	0.18	194.20	2076.08	37.57	29.78	39.48	49.46	52.97	0.20	194.85M
	2171.80	0.19	194.85	2170.58	37.52	29.49	39.41	49.22	53.19	0.01	228.6M
	2266.30	0.25	228.60	2265.08	37.34	29.20	39.21	48.89	53.33	0.15	248.74M
	2360.80	0.22	248.74	2359.58	37.03	29.00	38.89	48.51	53.29	0.09	324.02M
	2455.30	0.11	324.02	2454.08	36.81	29.00	38.67	48.33	53.13	0.23	51.84M
	2549.80	0.27	51.84	2548.58	36.91	29.21	38.79	48.56	53.01	0.30	44.2M
	2644.30	0.34	44.20	2643.07	37.26	29.55	39.16	49.06	52.96	0.09	37.63M
	2738.70	0.44	37.63	2737.47	37.65	30.04	39.57	49.68	52.80	0.12	34.73M
	2833.20	0.44	34.73	2831.97	38.04	30.63	40.00	50.38	52.56	0.02	36.63M
	2927.70	0.58	36.63	2926.47	38.49	31.31	40.49	51.19	52.29	0.15	55.51M
	3022.20	0.90	55.51	3020.96	39.34	32.11	41.39	52.39	52.20	0.42	67.32M
	3116.70	1.12	67.32	3115.44	40.75	32.89	42.86	54.02	52.50	0.32	63.73M
	3211.20	1.31	63.73	3209.92	42.52	33.72	44.68	55.98	52.95	0.22	58.55M
	3305.70	1.30	58.55	3304.40	44.33	34.76	46.56	58.10	53.26	0.13	53.92M
	3400.20	1.12	53.92	3398.88	45.92	35.86	48.22	60.10	53.36	0.22	49.68M
	3494.70	1.33	49.68	3493.35	47.42	37.12	49.80	62.11	53.30	0.24	57.41M
	3589.20	1.33	57.41	3587.83	49.10	38.42	51.56	64.30	53.31	0.19	60.46M
	3683.60	1.12	60.46	3682.21	50.76	39.46	53.29	66.31	53.48	0.23	66.26M
	3778.10	0.84	66.26	3776.69	52.15	40.20	54.73	67.90	53.70	0.31	66.19M
	3872.60	0.83	66.19	3871.18	53.37	40.75	55.99	69.25	53.95	0.01	79.36M
	3967.10	0.88	79.36	3965.67	54.68	41.16	57.33	70.57	54.32	0.21	75.1M
	4061.60	0.84	75.10	4060.16	56.04	41.47	58.71	71.88	54.76	0.08	88.15M
	4156.10	0.37	88.15	4154.66	57.00	41.66	59.68	72.79	55.08	0.52	99.34M
	4250.60	0.28	99.34	4249.16	57.54	41.63	60.22	73.21	55.34	0.12	86.22M
	4345.10	0.24	86.22	4343.65	57.96	41.61	60.64	73.54	55.54	0.08	63.52M
	4439.60	0.18	63.52	4438.15	58.29	41.69	60.97	73.86	55.64	0.11	56.55M
	4534.10	0.28	56.55	4532.65	58.60	41.88	61.30	74.24	55.66	0.11	56.37M
	4628.50	0.21	56.37	4627.05	58.92	42.11	61.63	74.64	55.66	0.07	23.98M
	4723.00	0.26	23.98	4721.55	59.14	42.40	61.87	75.00	55.58	0.15	34.95M
	4817.50	0.29	34.95	4816.05	59.34	42.79	62.09	75.41	55.43	0.06	51.63M
	4912.00	0.23	51.63	4910.55	59.60	43.10	62.38	75.82	55.35	0.10	61.73M
	5006.50	0.23	61.73	5005.05	59.91	43.31	62.69	76.20	55.38	0.04	57.93M
	5101.00	0.25	57.93	5099.55	60.23	43.51	63.03	76.59	55.38	0.03	326.74M
	5195.50	0.13	326.74	5194.05	60.34	43.71	63.15	76.80	55.31	0.30	141.43M
	5290.00	0.15	141.43	5288.55	60.36	43.70	63.17	76.81	55.32	0.30	149.05M
	5384.50	0.28	149.05	5383.05	60.57	43.41	63.36	76.81	55.59	0.14	131.48M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
Final Gvro	5479.00	0.36	131.48	5477.55	60.93	43.01	63.70	76.87	55.97	0.13	74.8M
	5573.40	0.22	74.80	5571.94	61.34	42.86	64.10	77.11	56.23	0.32	328.53M
	5685.00	0.22	328.53	5683.54	61.42	43.10	64.20	77.32	56.12	0.32	328.53M
	5779.00	0.09	328.53	5777.54	61.27	43.32	64.06	77.33	55.93	0.14	28.74M
	5874.00	0.22	28.74	5872.54	61.31	43.54	64.11	77.50	55.82	0.20	15.64M
	5969.00	0.22	15.64	5967.54	61.43	43.88	64.25	77.80	55.67	0.05	48.64M
	6063.00	0.22	48.64	6061.54	61.59	44.17	64.43	78.12	55.57	0.13	49.35M
	6158.00	0.22	49.35	6156.54	61.85	44.41	64.71	78.48	55.54	0.00	49.35M
	6252.00	0.22	49.35	6250.54	62.11	44.65	64.98	78.84	55.51	0.00	42.54M
	6347.00	0.31	42.54	6345.54	62.40	44.95	65.29	79.27	55.45	0.10	16.17M
	6442.00	0.40	16.17	6440.54	62.64	45.46	65.56	79.78	55.26	0.19	18.37M
	6537.00	0.48	18.37	6535.53	62.81	46.16	65.78	80.36	54.94	0.09	20.34M
	6631.00	0.22	20.34	6629.53	62.96	46.70	65.96	80.82	54.70	0.28	351.65M
	6726.00	0.31	351.65	6724.53	62.96	47.13	65.99	81.09	54.47	0.17	320.45M
	6821.00	0.22	320.45	6819.53	62.79	47.52	65.84	81.20	54.18	0.18	298.34M
	6916.00	0.31	298.34	6914.53	62.43	47.78	65.50	81.07	53.89	0.14	337.81M
	7011.00	0.40	337.81	7009.53	62.05	48.21	65.14	81.04	53.49	0.27	302.17M
	7105.00	0.70	302.17	7103.52	61.41	48.82	64.53	80.92	52.89	0.47	279.67M
	7199.00	0.70	279.67	7197.52	60.33	49.23	63.48	80.33	52.21	0.29	273.95M
	7295.00	0.79	273.95	7293.51	59.09	49.37	62.24	79.45	51.58	0.12	275.36M
	7389.00	1.10	275.36	7387.50	57.54	49.50	60.70	78.32	50.80	0.33	274.17M
	7483.00	1.19	274.17	7481.48	55.66	49.65	58.83	76.98	49.83	0.10	274.17M
	7578.00	1.41	274.17	7576.45	53.50	49.81	56.68	75.45	48.69	0.23	276.24M
	7673.00	1.58	276.24	7671.42	51.03	50.04	54.21	73.77	47.29	0.19	272.55M
	7767.00	1.58	272.55	7765.38	48.44	50.24	51.63	72.03	45.78	0.11	272.55M
	7862.00	1.71	272.55	7860.35	45.71	50.36	48.90	70.19	44.16	0.14	271.14M
	7955.00	1.80	271.14	7953.30	42.86	50.45	46.06	68.31	42.39	0.11	276.06M
	8050.00	1.89	276.06	8048.25	39.81	50.64	43.01	66.44	40.34	0.19	280.24M
	8145.00	2.11	280.24	8143.19	36.50	51.12	39.73	64.74	37.85	0.28	279.36M
	8239.00	2.42	279.36	8237.12	32.81	51.75	36.07	63.08	34.87	0.33	273.64M
	8333.00	1.58	273.64	8331.06	29.54	52.15	32.81	61.62	32.18	0.92	271.36M
	8428.00	1.80	271.36	8426.02	26.74	52.27	30.02	60.28	29.86	0.24	272.6M
	8523.00	2.11	272.60	8520.97	23.50	52.39	26.78	58.83	27.07	0.33	280.15M
	8617.00	2.59	280.15	8614.89	19.66	52.84	22.96	57.61	23.48	0.61	269.25M
	8712.00	2.20	269.25	8709.80	15.71	53.20	19.02	56.49	19.68	0.63	252.07M
	8807.00	1.41	252.07	8804.76	12.80	52.81	16.09	55.21	16.94	1.00	261.34M
	8901.00	2.02	261.34	8898.72	10.11	52.21	13.35	53.89	14.34	0.71	260.37M
	9092.00	3.12	260.37	9089.52	1.76	50.83	4.90	51.07	5.50	0.58	240.86M
	9187.00	2.59	240.86	9184.40	-2.57	49.35	0.47	49.35	0.55	1.16	230.67M
	9281.00	1.58	230.67	9278.34	-5.31	47.50	-2.39	47.56	357.12	1.14	243.54M
	9375.00	2.02	243.54	9372.29	-7.69	45.94	-4.87	46.19	353.95	0.63	240.21M
	9469.00	2.59	240.21	9466.22	-10.90	44.14	-8.20	44.90	349.48	0.62	214.14M
	9564.00	1.19	214.14	9561.17	-13.20	42.26	-10.61	43.57	345.90	1.69	244.46M
	9659.00	1.41	244.46	9656.14	-14.72	40.94	-12.22	42.73	343.38	0.75	248.86M
	9753.00	1.80	248.86	9750.11	-17.07	39.91	-14.64	42.51	339.85	0.43	248.94M
Final Extreme Survey	9849.00	2.50	248.94	9846.04	-20.35	38.61	-18.00	42.60	335.00	0.73	232.25M
	9966.00	1.86	232.25	9962.95	-24.09	36.53	-21.89	42.59	329.08	0.77	234.09M
	10061.00	1.93	234.09	10057.90	-26.49	34.65	-24.40	42.38	324.85	0.10	237.24M
	10093.00	2.10	237.24	10089.88	-27.38	34.02	-25.33	42.41	323.33	0.63	237.27M
	10124.00	2.01	237.27	10120.86	-28.27	33.42	-26.27	42.50	321.83	0.29	204.78M
	10156.00	1.84	204.78	10152.84	-28.91	32.65	-26.95	42.34	320.46	3.40	138.68M
	10187.00	3.41	138.68	10183.82	-28.44	31.50	-26.55	41.20	319.87	10.16	132.42M
	10219.00	6.54	132.42	10215.69	-26.35	29.56	-24.58	38.44	320.26	9.91	127.87M
	10251.00	9.86	127.87	10247.36	-22.67	26.65	-21.07	33.97	321.67	10.56	38.7L
	10282.00	12.90	117.63	10277.75	-17.32	23.41	-15.91	28.30	325.81	11.74	26.13L
Survey 22-May-13	10314.00	16.37	111.73	10308.71	-9.77	20.08	-8.55	21.83	336.94	11.79	8.54L
	10345.00	20.28	110.04	10338.13	-0.47	16.62	0.56	16.63	1.93	12.73	17.48L
	10377.00	23.85	107.28	10367.78	11.14	12.80	11.95	17.51	43.03	11.61	31.18L
	10408.00	27.24	102.89	10395.75	24.23	9.35	24.86	26.56	69.38	12.52	33.85L
Survey 23-May-13	10440.00	30.59	98.57	10423.76	39.58	6.51	40.05	40.58	80.77	12.33	31.44L
	10487.00	36.40	92.74	10462.95	65.46	4.05	65.84	65.96	86.48	14.12	31.99L
	10519.00	38.77	90.40	10488.31	84.96	3.53	85.34	85.42	87.63	8.64	34.83L
	10551.00	40.85	88.21	10512.89	105.39	3.79	105.82	105.89	87.95	7.84	5.93L
	10582.00	44.14	87.72	10535.74	126.23	4.53	126.75	126.83	87.95	10.67	17.13R
	10614.00	47.22	89.01	10558.10	149.03	5.18	149.63	149.72	88.02	10.05	16.28R
	10644.00	49.98	90.06	10577.94	171.47	5.36	172.13	172.21	88.22	9.57	5.97R
	10677.00	53.28	90.49	10598.42	197.30	5.23	198.00	198.07	88.49	10.05	9.43R
	10709.00	56.55	91.14	10616.81	223.45	4.86	224.18	224.23	88.76	10.35	4.73R
	10740.00	59.79	91.45	10633.16	249.77	4.26	250.51	250.54	89.03	10.49	4.37R
	10772.00	63.66	91.78	10648.31	277.93	3.46	278.67	278.69	89.29	12.13	2.02R
	10803.00	67.59	91.93	10661.10	306.15	2.55	306.89	306.90	89.52	12.69	7.83L
	10835.00	70.68	91.48	10672.50	336.03	1.66	336.77	336.78	89.72	9.75	26.64L
	10866.00	72.72	90.41	10682.23	365.43	1.18	366.20	366.20	89.82	7.35	2.94R
	10898.00	74.98	90.53	10691.13	396.12	0.93	396.93	396.93	89.87	7.07	7.28R
	10929.00	77.27	90.83	10698.57	426.18	0.57	427.02	427.02	89.92	7.45	16.49R
	10961.00	80.00	91.65	10704.87	457.52	-0.11	458.39	458.39	90.01	8.89	6.24R
	11049.00	85.20	92.22	10716.20	544.73	-3.06	545.57	545.58	90.32	5.94	47.66R
	11144.00	87.16	94.37	10722.53	639.50	-8.51	640.19	640.25	90.76	3.06	33.17R
	11239.00	88.92	95.52	10725.78	734.41	-16.69	734.78	734.97	91.30	2.21	110.05R
	11333.00	88.57	96.48	10727.84	828.30	-26.52	828.24	828.67	91.83	1.09	76.76R
	11428.00	88.61	96.65	10730.18	923.14	-37.37	922.59	923.35	92.32	0.18	86.89L

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	11523.00	88.78	93.56	10732.34	1018.07	-45.82	1017.18	1018.21	92.58	3.26	86.92L
Survey 28-May-13	11618.00	88.92	90.98	10734.25	1113.02	-49.59	1112.08	1113.18	92.55	2.72	66.04L
	11713.00	89.16	90.44	10735.84	1207.89	-50.76	1207.05	1208.12	92.41	0.62	128.17R
	11809.00	88.61	91.14	10737.71	1303.76	-52.09	1303.03	1304.07	92.29	0.93	96.29R
	11905.00	88.50	92.14	10740.13	1399.68	-54.83	1398.96	1400.03	92.24	1.05	79.94R
	12000.00	88.61	92.76	10742.53	1494.63	-58.89	1493.84	1495.00	92.26	0.66	82.88L
	12096.00	88.67	92.28	10744.80	1590.59	-63.11	1589.72	1590.97	92.27	0.50	163.82R
	12191.00	88.36	92.37	10747.27	1685.53	-66.97	1684.61	1685.94	92.28	0.34	17.28R
	12287.00	88.81	92.51	10749.64	1781.49	-71.05	1780.49	1781.91	92.29	0.49	102.75R
	12382.00	88.46	94.06	10751.90	1876.46	-76.49	1875.31	1876.86	92.34	1.67	57.09R
	12478.00	88.57	94.23	10754.39	1972.42	-83.43	1971.02	1972.79	92.42	0.21	67.32R
	12574.00	89.08	95.45	10756.36	2068.37	-91.53	2066.66	2068.68	92.54	1.38	124.22R
	12669.00	88.91	95.70	10758.02	2163.30	-100.76	2161.19	2163.54	92.67	0.32	98.24R
	12765.00	88.80	96.46	10759.94	2259.18	-110.92	2256.63	2259.36	92.81	0.80	113.9L
	12860.00	88.49	95.76	10762.19	2354.06	-121.03	2351.07	2354.18	92.95	0.81	21.89L
	12956.00	89.56	95.33	10763.82	2449.98	-130.30	2446.60	2450.07	93.05	1.20	135.77L
	13052.00	89.18	94.96	10764.88	2545.94	-138.91	2542.21	2546.00	93.13	0.55	53.13L
	13148.00	89.21	94.92	10766.23	2641.90	-147.18	2637.84	2641.95	93.19	0.05	120.26R
	13244.00	89.07	95.16	10767.67	2737.86	-155.61	2733.46	2737.89	93.26	0.29	171.59L
	13339.00	87.65	94.95	10770.39	2832.78	-163.98	2828.05	2832.80	93.32	1.51	96.13R
	13434.00	87.62	95.23	10774.31	2927.66	-172.40	2922.59	2927.68	93.38	0.30	21.65R
Survey 29-May-13	13529.00	89.51	95.98	10776.68	3022.57	-181.68	3017.11	3022.57	93.45	2.14	2.39L
	13624.00	89.75	95.97	10777.30	3117.48	-191.56	3111.59	3117.48	93.52	0.25	131.34L
	13718.00	88.51	94.56	10778.73	3211.42	-200.19	3205.18	3211.42	93.57	2.00	172.36R
	13813.00	87.17	94.74	10782.31	3306.33	-207.88	3299.79	3306.34	93.60	1.42	35.19R
	13908.00	87.51	94.98	10786.71	3401.20	-215.92	3394.35	3401.21	93.64	0.44	116.59R
	14002.00	87.48	95.04	10790.82	3495.08	-224.13	3487.90	3495.10	93.68	0.07	116.91L
	14097.00	87.10	94.29	10795.31	3589.96	-231.84	3582.48	3589.97	93.70	0.88	88.99L
	14192.00	87.13	92.66	10800.10	3684.83	-237.59	3677.18	3684.85	93.70	1.71	144.96R
	14286.00	84.83	94.28	10806.69	3778.59	-243.27	3770.77	3778.61	93.69	2.99	166.91R
	14381.00	83.42	94.61	10816.41	3873.08	-250.59	3864.98	3873.10	93.71	1.52	119.71R
	14476.00	82.90	95.53	10827.72	3967.37	-258.93	3958.94	3967.40	93.74	1.11	138.48R
	14570.00	81.85	96.47	10840.20	4060.45	-268.66	4051.59	4060.49	93.79	1.49	121.36R
	14665.00	80.67	98.44	10854.63	4154.12	-280.84	4144.69	4154.19	93.88	2.40	126.85R
	14760.00	79.48	100.06	10871.01	4247.23	-295.88	4237.05	4247.37	93.99	2.10	174.54R
	14855.00	76.63	100.34	10890.67	4339.53	-312.34	4328.51	4339.77	94.13	3.01	166.18L
	14949.00	74.36	99.76	10914.21	4429.94	-328.22	4418.11	4430.29	94.25	2.49	154.64L
	15044.00	72.65	98.91	10941.18	4520.56	-343.00	4507.99	4521.02	94.35	1.99	157.51L
	15095.00	71.21	98.28	10957.00	4568.85	-350.24	4555.93	4569.37	94.40	3.06	HS
	15164.00	71.21	98.28	10979.23	4633.95	-359.65	4620.57	4634.55	94.45	0.00	

Survey Type: Def Survey

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

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	25.000	Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Original Borehole / Cimarex Chief 30 State #4H Gyro+MWD 0ft to 15164ft MD
	25.000	5573.400	Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Cimarex Chief 30 State #4H Gyro+MWD 0ft to
	5573.400	9849.000	Act Stns	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Chief 30 State #4H Gyro+MWD 0ft to
	9849.000	10440.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Chief 30 State #4H Gyro+MWD 0ft to
	10440.000	10961.000	Act Stns	30.000	30.000	SLB_MWD+DMAG	Original Borehole / Cimarex Chief 30 State #4H Gyro+MWD 0ft to
	10961.000	15095.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Chief 30 State #4H Gyro+MWD 0ft to
	15095.000	15164.000	Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Borehole / Cimarex Chief 30 State #4H Gyro+MWD 0ft to