

Results of Directional Survey

API number:	30-025-40327		
OGRID:		Operator:	CIMAREX ENERGY CO. OF COLORADO
		Property:	HANSON 26 FEDERAL # 1H

surface	ULSTR:	D	26	T	20S	R	34E
				660	FNL	440	FWL

BH Loc	ULSTR:	M	26	T	20S	R	34E
15290	MD	11186.3	TVD	336	FSL	704	FWL
				4944	FNL		

Top Perf/OH	ULSTR:	D	26	T	20S	R	34E
10500	MD	10492.9	TVD	536	FNL	395	FWL

Bot Perf/OH	ULSTR:	M	26	T	20S	R	34E
15258	MD	11186.2	TVD	368	FSL	702	FWL
				4912	FNL		

	MD	N/S	E/W	VD
	10448	125.23	-46.23	10440.95
TOP PERFS/OH	10500	124.38	-45.22	10492.93
	10544	123.66	-44.37	10536.92
	15247	-4240.67	260.93	11186.17
BOT PERFS/OH	15258	-4251.64	261.70	11186.20
	15290	-4283.56	263.93	11186.27

NEXT TO LAST	15247	-4240.67	260.93	11186.17
LAST READING	15290	-4283.56	263.93	11186.27
TD	15290	-4283.56	263.93	11186.27

Surface Location	660	FN	440	FW
Projected BHL	4944	FN	704	FW
Location of				
Top Perfs/OH	536	FN	395	FW
Bottom Perfs/OH	4912	FN	702	FW

SUMMARY of Subsurface Locations

Surface Location	D-26-20S-34E	660	FN	440	FW	Vert. Depth
Top Perfs/OH	D-26-20S-34E	536	FN	395	FW	10492.93
Bottom Perfs/OH	M-26-20S-34E	4912	FN	702	FW	11186.20
Projected TD	M-26-20S-34E	4944	FN	704	FW	11186.27

MAY 07 2014

Cimarex Energy Co. Hanson 26 Federal 1H Gyro+MWD



Report Date: 4/10/2014	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: Cimarex Energy Co.	Vertical Section Azimuth: 176.622° (GridNorth)
Field: Bone Spring, South	Vertical Section Origin: 0 ft, 0 ft
Structure / Slot: Cimarex Energy Co. Hanson 26 Federal 1H / Cimarex Energy Co. Hanson 26 Federal 1H	TVD Reference Datum: DF
Well: Hanson 26 Federal 1H	TVD Reference Elevation: 3708 ft above MSL
Borehole: Original Borehole	Sea Bed / Ground Level Elevation: 3683 ft above MSL
UWI/API#: Unknown / 30-025-40327	Magnetic Declination: 7.39394 °
Survey Name / Date: Cimarex Energy Co. Hanson 26 Federal 1H Gyro+MWD 02-Jan-2014	Total Field Strength: 48546.38 nT
Grid Coordinate System: NAD83 New Mexico State Pla	Magnetic Dip: 60.42035 °
Location Lat/Long: 32° 32' 58.404" N, 103° 32' 17.066" W	Declination Date: 12/25/2013
Location Grid N/E Y/X: Easting: 786380.10 ft USNorthing: 564574.40 ft US	Magnetic Declination Model: BGGM 2013
Grid Convergence Angle: 0.42789 °	North Reference: GridNorth
Grid Scale Factor: 0.99991045	Total Corr Mag North -> Grid North: 6.96605 °
	Local Coordinates Referenced To: GridNorth

MD	INCL	AZIM	TVD	VSEC	ND	ED	DLS	CLOSURE	ATAZIM	COURSE	ROT	ROB
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	90.00	-999.25	-999.25	-999.25
100.00	0.50	223.71	100.00	0.30	-0.32	-0.30	0.50	0.43633	223.71	100.00	-136.29	0.5
200.00	0.58	234.44	199.99	0.86	-0.93	-1.01	0.13	1.37318	227.64	100.00	10.73	0.08
300.00	0.64	239.84	299.99	1.38	-1.50	-1.91	0.08	2.42818	231.85	100.00	5.4	0.06
400.00	0.68	247.88	399.98	1.83	-2.00	-2.94	0.10	3.55976	235.74	100.00	8.04	0.04
500.00	0.64	245.78	499.98	2.22	-2.46	-4.00	0.05	4.69508	238.45	100.00	-2.1	-0.04
600.00	0.57	240.55	599.97	2.63	-2.93	-4.94	0.09	5.74678	239.34	100.00	-5.23	-0.07
700.00	0.67	251.92	699.96	3.00	-3.36	-5.93	0.16	6.81612	240.50	100.00	11.37	0.1
800.00	0.70	257.25	799.96	3.25	-3.67	-7.08	0.07	7.97949	242.60	100.00	5.33	0.03
900.00	0.78	254.73	899.95	3.49	-3.99	-8.34	0.09	9.24071	244.44	100.00	-2.52	0.08
976.90	0.71	258.32	976.84	3.67	-4.22	-9.31	0.11	10.22038	245.61	76.90	4.6684	-0.09103
1065.60	0.66	257.77	1065.54	3.82	-4.44	-10.35	0.06	11.25818	246.77	88.70	-0.62007	-0.05637
1155.50	0.84	259.61	1155.43	3.98	-4.67	-11.50	0.20	12.41137	247.90	89.90	2.04672	0.20022
1245.50	0.71	258.43	1245.42	4.14	-4.90	-12.69	0.15	13.60763	248.89	90.00	-1.31111	-0.14444
1334.60	0.55	264.36	1334.51	4.24	-5.05	-13.66	0.19	14.56566	249.70	89.10	6.65544	-0.17957
1365.30	0.52	271.52	1365.21	4.23	-5.06	-13.95	0.24	14.83781	250.05	30.70	23.32248	-0.09772

1459.60	0.66	281.72	1459.51	4.05	-4.94	-14.91	0.19	15.70446	251.66	94.30	10.81654	0.14846
1553.90	0.75	289.58	1553.80	3.67	-4.62	-16.02	0.14	16.67412	253.90	94.30	8.3351	0.09544
1648.20	0.70	289.28	1648.09	3.21	-4.23	-17.15	0.05	17.6587	256.15	94.30	-0.31813	-0.05302
1742.50	0.48	282.91	1742.39	2.88	-3.95	-18.07	0.24	18.50033	257.67	94.30	-6.75504	-0.2333
1836.80	0.38	302.39	1836.69	2.58	-3.69	-18.72	0.19	19.0838	258.84	94.30	20.65748	-0.10604
1931.10	0.42	299.06	1930.98	2.22	-3.36	-19.29	0.05	19.57927	260.12	94.30	-3.53128	0.04242
2025.40	0.59	305.24	2025.28	1.73	-2.91	-19.99	0.19	20.19854	261.72	94.30	6.55355	0.18028
2119.70	0.60	299.12	2119.57	1.16	-2.39	-20.82	0.07	20.95241	263.45	94.30	-6.48993	0.0106
2214.00	0.53	302.65	2213.87	0.64	-1.91	-21.61	0.08	21.69884	264.94	94.30	3.74337	-0.07423
2308.40	0.44	297.56	2308.27	0.19	-1.51	-22.30	0.11	22.35432	266.13	94.40	-5.39195	-0.09534
2402.70	0.54	299.86	2402.56	-0.24	-1.12	-23.01	0.11	23.03693	267.21	94.30	2.43902	0.10604
2497.00	0.62	299.58	2496.86	-0.76	-0.65	-23.84	0.08	23.84751	268.44	94.30	-0.29692	0.08484
2591.30	0.70	301.70	2591.15	-1.37	-0.09	-24.77	0.09	24.77266	269.78	94.30	2.24814	0.08484
2685.60	0.65	307.21	2685.45	-2.04	0.53	-25.69	0.09	25.69408	271.19	94.30	5.84305	-0.05302
2779.90	0.81	318.19	2779.74	-2.91	1.35	-26.56	0.22	26.59333	272.91	94.30	11.64369	0.16967
2874.20	0.87	329.34	2874.03	-4.07	2.46	-27.37	0.18	27.47914	275.15	94.30	11.82397	0.06363
2968.50	0.94	344.87	2968.32	-5.47	3.83	-27.94	0.27	28.19632	277.80	94.30	16.46872	0.07423
3062.80	0.94	349.29	3062.60	-6.99	5.33	-28.28	0.08	28.77963	280.68	94.30	4.68717	0
3157.10	1.00	352.86	3156.89	-8.58	6.91	-28.53	0.09	29.35214	283.62	94.30	3.78579	0.06363
3251.50	1.42	1.16	3251.27	-10.57	8.90	-28.61	0.48	29.95751	287.28	94.40	8.79237	0.44492
3345.80	1.52	4.87	3345.54	-12.97	11.31	-28.48	0.15	30.6404	291.67	94.30	3.93425	0.10604
3440.10	1.60	5.24	3439.80	-15.51	13.87	-28.25	0.09	31.47036	296.15	94.30	0.39236	0.08484
3534.40	1.75	8.78	3534.06	-18.22	16.60	-27.91	0.19	32.4746	300.75	94.30	3.75398	0.15907
3628.70	1.90	10.10	3628.31	-21.15	19.57	-27.42	0.17	33.68093	305.51	94.30	1.39979	0.15907
3723.00	1.99	7.62	3722.56	-24.27	22.73	-26.92	0.13	35.23397	310.17	94.30	-2.6299	0.09544
3817.30	2.13	10.13	3816.80	-27.59	26.07	-26.40	0.18	37.10534	314.65	94.30	2.66172	0.14846
3911.60	2.37	11.28	3911.03	-31.18	29.71	-25.71	0.26	39.29099	319.13	94.30	1.21951	0.25451
4005.90	2.57	10.94	4005.24	-35.11	33.70	-24.93	0.21	41.91699	323.51	94.30	-0.36055	0.21209
4100.20	2.72	10.38	4099.44	-39.33	37.98	-24.12	0.16	44.9902	327.58	94.30	-0.59385	0.15907
4194.60	2.79	9.92	4193.73	-43.74	42.44	-23.32	0.08	48.42908	331.21	94.40	-0.48729	0.07415
4288.90	2.93	9.24	4287.91	-48.33	47.08	-22.54	0.15	52.20014	334.42	94.30	-0.7211	0.14846
4383.20	3.18	8.65	4382.08	-53.24	52.05	-21.76	0.27	56.41302	337.31	94.30	-0.62566	0.26511
4477.50	3.36	9.57	4476.22	-58.49	57.36	-20.91	0.20	61.04974	339.97	94.30	0.97561	0.19088
4571.80	3.44	9.27	4570.36	-63.94	62.88	-19.99	0.09	65.97719	342.36	94.30	-0.31813	0.08484

4666.10	3.63	8.24	4664.48	-69.63	68.62	-19.11	0.21	71.23274	344.44	94.30	-1.09226	0.20148
4760.40	3.87	7.01	4758.58	-75.68	74.73	-18.29	0.27	76.94089	346.25	94.30	-1.30435	0.25451
4854.70	4.25	7.77	4852.64	-82.24	81.36	-17.43	0.41	83.20199	347.91	94.30	0.80594	0.40297
4949.00	4.54	7.55	4946.66	-89.33	88.52	-16.47	0.31	90.0364	349.46	94.30	-0.2333	0.30753
5043.30	4.94	6.58	5040.64	-97.00	96.25	-15.51	0.43	97.49285	350.84	94.30	-1.02863	0.42418
5137.70	5.40	6.72	5134.66	-105.37	104.70	-14.53	0.49	105.703	352.10	94.40	0.14831	0.48729
5232.00	5.70	6.66	5228.51	-114.35	113.76	-13.47	0.32	114.5521	353.25	94.30	-0.06363	0.31813
5326.30	5.95	6.13	5322.33	-123.79	123.27	-12.40	0.27	123.8911	354.26	94.30	-0.56204	0.26511
5420.60	6.25	6.22	5416.09	-133.67	133.23	-11.32	0.32	133.7117	355.14	94.30	0.09544	0.31813
5541.00	6.59	9.11	5535.74	-146.87	146.57	-9.52	0.39	146.8771	356.28	120.40	2.40033	0.28239
5636.00	3.91	4.50	5630.33	-155.41	155.18	-8.40	2.85	155.4087	356.90	95.00	-4.85263	-2.82105
5729.00	1.32	339.49	5723.23	-159.57	159.35	-8.53	2.98	159.5746	356.94	93.00	-26.8925	-2.78495
5918.00	1.19	320.60	5912.18	-163.24	162.90	-10.54	0.23	163.2425	356.30	189.00	-9.99471	-0.06878
6107.00	1.41	323.59	6101.13	-166.78	166.29	-13.16	0.12	166.8101	355.47	189.00	1.58201	0.1164
6296.00	1.49	322.18	6290.07	-170.75	170.10	-16.05	0.05	170.858	354.61	189.00	-0.74603	0.04233
6484.00	1.32	321.92	6478.02	-174.55	173.74	-18.88	0.09	174.761	353.80	188.00	-0.1383	-0.09043
6674.00	1.19	304.60	6667.97	-177.56	176.58	-21.86	0.21	177.9284	352.94	190.00	-9.11579	-0.06842
6862.00	1.41	291.99	6855.92	-179.75	178.56	-25.61	0.19	180.3825	351.84	188.00	-6.70745	0.11702
7050.00	1.32	286.41	7043.87	-181.48	180.03	-29.83	0.09	182.488	350.59	188.00	-2.96809	-0.04787
7240.00	1.19	276.78	7233.83	-182.57	180.88	-33.89	0.13	184.0317	349.39	190.00	-5.06842	-0.06842
7429.00	1.01	268.48	7422.79	-182.97	181.07	-37.50	0.13	184.915	348.30	189.00	-4.39153	-0.09524
7617.00	0.79	267.60	7610.77	-183.04	180.97	-40.45	0.12	185.4402	347.40	188.00	-0.46809	-0.11702
7805.00	0.62	240.62	7798.75	-182.62	180.42	-42.64	0.20	185.3897	346.70	188.00	-14.3511	-0.09043
7995.00	0.88	230.69	7988.74	-181.31	178.99	-44.66	0.15	184.4793	345.99	190.00	-5.22632	0.13684
8183.00	1.19	231.92	8176.71	-179.35	176.87	-47.31	0.17	183.0921	345.02	188.00	0.65426	0.16489
8372.00	1.19	215.39	8365.67	-176.71	174.06	-50.00	0.18	181.1005	343.97	189.00	-8.74603	0
8561.00	1.01	192.19	8554.63	-173.57	170.83	-51.48	0.25	178.4238	343.23	189.00	-12.2751	-0.09524
8750.00	0.88	161.20	8743.61	-170.57	167.83	-51.37	0.28	175.5175	342.98	189.00	-16.3968	-0.06878
8937.00	1.32	129.61	8930.57	-167.71	165.10	-49.25	0.39	172.2878	343.39	187.00	-16.8931	0.23529
9127.00	1.80	148.99	9120.51	-163.58	161.15	-46.02	0.37	167.59	344.06	190.00	10.2	0.25263
9316.00	2.50	182.61	9309.38	-156.85	154.48	-44.68	0.75	160.8164	343.87	189.00	17.78836	0.37037
9506.00	0.62	167.01	9499.30	-151.71	149.34	-44.64	1.01	155.8716	343.36	190.00	-8.21053	-0.98947
9693.00	1.49	187.18	9686.27	-148.33	145.95	-44.71	0.50	152.6413	342.97	187.00	10.7861	0.46524
9882.00	1.89	188.28	9875.18	-142.86	140.42	-45.47	0.21	147.6013	342.06	189.00	0.58201	0.21164

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10072.00	2.02	186.39	10065.07	-136.49	133.99	-46.29	0.08	141.7664	340.94	190.00	-0.99474	0.06842
10259.00	1.32	197.11	10251.99	-131.22	128.66	-47.29	0.41	137.078	339.82	187.00	5.73262	-0.37433
10448.00	1.32	128.38	10440.95	-127.73	125.23	-46.23	0.79	133.4887	339.74	189.00	-36.3651	0
10544.00	1.58	131.59	10536.92	-126.06	123.66	-44.37	0.28	131.383	340.26	96.00	3.34375	0.27083
10582.00	1.71	129.56	10574.91	-125.31	122.96	-43.54	0.37	130.4378	340.50	38.00	-5.34047	0.33415
10645.00	9.07	134.89	10637.59	-120.96	118.85	-39.30	11.71	125.1743	341.70	63.00	8.46717	11.69068
10676.00	13.23	138.70	10667.99	-116.33	114.45	-35.22	13.62	119.7503	342.89	31.00	12.28795	13.42172
10708.00	17.36	145.10	10698.86	-109.37	107.78	-30.07	13.93	111.898	344.41	32.00	19.9976	12.90875
10739.00	21.14	152.79	10728.12	-100.31	99.01	-24.86	14.64	102.0868	345.90	31.00	24.78603	12.17821
10771.00	24.87	158.90	10757.58	-88.61	87.60	-19.80	13.84	89.80679	347.26	32.00	19.10601	11.6695
10802.00	28.20	167.60	10785.32	-75.16	74.35	-15.88	16.49	76.02794	347.94	31.00	28.07091	10.73907
10834.00	31.23	174.94	10813.11	-59.39	58.69	-13.52	14.77	60.23226	347.03	32.00	22.93167	9.45405
10865.00	34.92	179.83	10839.09	-42.49	41.81	-12.79	14.69	43.72031	342.99	31.00	15.77547	11.91446
10897.00	37.23	177.74	10864.95	-23.66	22.97	-12.38	8.17	26.09664	331.68	32.00	-6.52122	7.21408
10928.00	39.59	176.45	10889.25	-4.41	3.74	-11.40	8.03	11.99753	288.17	31.00	-4.17727	7.59962
10960.00	42.35	175.30	10913.41	16.57	-17.18	-9.88	8.95	19.82137	209.91	32.00	-3.5902	8.63998
10991.00	46.16	174.71	10935.61	38.19	-38.73	-8.00	12.35	39.54406	191.67	31.00	-1.90577	12.27396
11023.00	49.04	173.32	10957.18	61.79	-62.22	-5.53	9.56	62.46775	185.08	32.00	-4.34599	9.00307
11054.00	52.75	171.23	10976.74	85.77	-86.05	-2.28	13.07	86.08209	181.52	31.00	-6.72406	11.98557
11086.00	56.92	170.25	10995.16	111.78	-111.86	1.93	13.27	111.8812	179.01	32.00	-3.06306	13.03226
11117.00	61.00	171.62	11011.14	138.21	-138.09	6.10	13.68	138.2234	177.47	31.00	4.39714	13.14977
11148.00	64.88	171.35	11025.24	165.70	-165.39	10.19	12.56	165.6992	176.47	31.00	-0.87384	12.53476
11180.00	66.02	171.61	11038.54	194.69	-194.17	14.51	3.64	194.7127	175.73	32.00	0.8112	3.56092
11211.00	68.45	173.55	11050.53	223.20	-222.51	18.20	9.72	223.2567	175.33	31.00	6.26324	7.82409
11243.00	72.09	176.22	11061.33	253.30	-252.51	20.87	13.84	253.3694	175.27	32.00	8.35748	11.39295
11274.00	74.57	178.05	11070.22	282.99	-282.16	22.35	9.77	283.0489	175.47	31.00	5.88231	7.97707
11306.00	76.82	176.01	11078.13	313.99	-313.13	23.96	9.36	314.0423	175.62	32.00	-6.37689	7.0313
11337.00	80.85	174.84	11084.13	344.39	-343.44	26.39	13.51	344.4484	175.61	31.00	-3.75081	13.00283
11432.00	85.90	174.71	11095.09	438.68	-437.38	34.98	5.32	438.776	175.43	95.00	-0.13514	5.32245
11472.00	86.21	174.27	11097.84	478.56	-477.10	38.81	1.35	478.6764	175.35	40.00	-1.10424	0.77177
11567.00	84.80	174.12	11105.28	573.18	-571.32	48.39	1.50	573.366	175.16	95.00	-0.16401	-1.4876
11661.00	84.80	175.18	11113.80	666.74	-664.52	57.12	1.13	666.9745	175.09	94.00	1.13032	-0.00219
11755.00	85.45	178.06	11121.79	760.38	-758.01	62.64	3.13	760.5947	175.28	94.00	3.06612	0.69816
11849.00	87.39	180.33	11127.66	854.10	-851.81	63.95	3.17	854.205	175.71	94.00	2.41662	2.05371

11944.00	89.21	181.20	11130.48	948.80	-946.75	62.68	2.13	948.8248	176.21	95.00	0.91614	1.92013
12038.00	89.83	180.82	11131.27	1042.52	-1040.73	61.02	0.78	1042.521	176.64	94.00	-0.40898	0.65832
12133.00	89.66	180.15	11131.70	1137.30	-1135.73	60.21	0.73	1137.324	176.97	95.00	-0.7038	-0.18129
12227.00	89.69	178.74	11132.23	1231.19	-1229.72	61.12	1.50	1231.239	177.15	94.00	-1.50242	0.03685
12321.00	89.79	177.37	11132.66	1325.15	-1323.66	64.32	1.46	1325.225	177.22	94.00	-1.45395	0.1098
12416.00	89.55	176.77	11133.20	1420.15	-1418.54	69.17	0.68	1420.223	177.21	95.00	-0.63019	-0.25338
12510.00	89.38	176.44	11134.07	1514.14	-1512.37	74.73	0.40	1514.213	177.17	94.00	-0.35095	-0.18298
12605.00	89.42	176.05	11135.07	1609.14	-1607.16	80.95	0.42	1609.196	177.12	95.00	-0.41377	0.03636
12699.00	89.28	175.42	11136.14	1703.12	-1700.89	87.94	0.68	1703.164	177.04	94.00	-0.66762	-0.14675
12794.00	89.07	175.14	11137.51	1798.08	-1795.56	95.75	0.37	1798.112	176.95	95.00	-0.2987	-0.21746
12888.00	88.87	174.41	11139.20	1892.02	-1889.15	104.31	0.80	1892.031	176.84	94.00	-0.77122	-0.21867
12981.00	88.35	174.45	11141.46	1984.92	-1981.69	113.33	0.56	1984.925	176.73	93.00	0.03943	-0.55433
13077.00	87.52	174.84	11144.92	2080.80	-2077.21	122.28	0.95	2080.802	176.63	96.00	0.40946	-0.86267
13171.00	86.94	174.94	11149.46	2174.65	-2170.72	130.64	0.63	2174.65	176.56	94.00	0.10671	-0.62158
13265.00	86.15	174.78	11155.13	2268.43	-2264.17	139.04	0.86	2268.439	176.49	94.00	-0.17293	-0.84043
13360.00	85.80	174.74	11161.80	2363.15	-2358.54	147.70	0.36	2363.163	176.42	95.00	-0.04409	-0.36108
13454.00	85.91	174.49	11168.59	2456.84	-2451.88	156.49	0.28	2456.873	176.35	94.00	-0.26368	0.1074
13549.00	86.49	175.85	11174.89	2551.60	-2546.34	164.48	1.55	2551.642	176.30	95.00	1.42527	0.61597
13643.00	87.80	178.13	11179.58	2645.48	-2640.08	169.41	2.80	2645.51	176.33	94.00	2.42889	1.39253
13738.00	88.66	179.24	11182.51	2740.37	-2735.01	171.59	1.48	2740.385	176.41	95.00	1.16781	0.90473
13832.00	89.00	179.20	11184.43	2834.25	-2828.98	172.87	0.37	2834.256	176.50	94.00	-0.03829	0.36578
13927.00	89.18	179.24	11185.94	2929.14	-2923.96	174.16	0.19	2929.141	176.59	95.00	0.04166	0.18117
14021.00	89.48	178.83	11187.04	3023.05	-3017.94	175.74	0.55	3023.051	176.67	94.00	-0.43617	0.32891
14115.00	90.00	178.71	11187.46	3116.98	-3111.92	177.76	0.56	3116.988	176.73	94.00	-0.12522	0.54876
14210.00	90.03	178.00	11187.44	3211.94	-3206.88	180.48	0.75	3211.951	176.78	95.00	-0.74734	0.0362
14305.00	89.72	176.35	11187.63	3306.93	-3301.76	185.16	1.77	3306.945	176.79	95.00	-1.74228	-0.32586
14399.00	90.07	176.00	11187.80	3400.93	-3395.55	191.43	0.52	3400.939	176.77	94.00	-0.36782	0.36582
14494.00	90.10	175.88	11187.66	3495.92	-3490.31	198.15	0.13	3495.929	176.75	95.00	-0.12984	0.03626
14588.00	90.07	175.70	11187.52	3589.91	-3584.05	205.06	0.20	3589.916	176.73	94.00	-0.19333	-0.0366
14683.00	89.93	174.72	11187.52	3684.88	-3678.72	212.99	1.04	3684.883	176.69	95.00	-1.02632	-0.14469
14777.00	90.17	174.94	11187.44	3778.83	-3772.34	221.46	0.34	3778.834	176.64	94.00	0.2312	0.25602
14871.00	90.10	174.85	11187.21	3872.79	-3865.97	229.82	0.12	3872.791	176.60	94.00	-0.09868	-0.07329
14966.00	90.21	174.72	11186.95	3967.74	-3960.57	238.46	0.17	3967.745	176.55	95.00	-0.13335	0.10863
15060.00	90.10	175.26	11186.70	4061.70	-4054.21	246.67	0.58	4061.71	176.52	94.00	0.57384	-0.10978

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15154.00	90.21	175.64	11186.45	4155.68	-4147.92	254.12	0.42	4155.693	176.49	94.00	0.40668	0.10991
15247.00	90.14	175.96	11186.17	4248.67	-4240.67	260.93	0.35	4248.686	176.48	93.00	0.34662	-0.07401
15290.00	90.14	175.96	11186.27	4291.67	-4283.56	263.93	0.00	4291.683	176.47	43.00	0	0.00