



Real Time Log

Natural Formation Evaluation
Gamma Ray

Scale:

1:240

True Vertical Depth

Company: Kerr-McGee Oil & Gas Onshore LP

Well: Wirkner-Vance 14C-1HZ

Field: Weld County (Kerr-McGee)

Region: Continental US Country: United States

Status:

Final Print

Surface Location:

Latitude: 40° 10' 29.802" N

Longitude: 104° 50' 42.691" W

Other Services:

Directional
VSS

API Number:
051233788200

Section 36

TWN: 3N

Range 67W

Permanent Datum (P.D.): Ground Level

Elevation: 4822.00 ft.

Elevations: 4835.00 ft.

Log Measured From: Kelly Bushing

13.00 ft.

Above P.D.

KB:

DF:

n/a

Depth Reference:

Driller's Depth

GL:

4822.00 ft.

Interval Logged

Dates

Magnetic Field Reference

Top: 6873 ft. Date From: 11/Nov/13 Date To: 17/Nov/13 Dip Angle: 66.97° Az Reference North: True

Bottom: 13009ft. Date To: 17/Nov/13 Total Mag to Reference

Spud Date: 11/Nov/13 Field Strength: 52795.0 nT North Correction: 8.61°

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
8.750 in.	917 ft.	7840 ft.	9.625 in.	36.00 lb/ft	Surface	917 ft.
6.000 in.	7840 ft.	13057 ft.	7.000 in.		917 ft.	7840 ft.

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Water Based - Fresh	917 ft.	7840 ft.	8.750 in.	100 ft.	0.4° / 258.1°	84.9° / 185.6°
LSND	7647 ft.	12787 ft.	6.000 in.	200 ft.	91.5° / 185.6°	89.9° / 180.8°
					/	/
					/	/
					/	/
					/	/

Acquisition System

Software Version

Other

Advantage	2.20U4	Rig: / Contractor:	Ensign 138	/ Kerr-McGee Oil & Gas Onshore LP
PATS	6.4.1.34	Job No:	5851200	/ D & E
		District / Unit:	RMD	

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Log Run Summary

LWD Run No.	BHA Run No.	Bit Run No.	Bit Size (in.)	Bit Type	Bit Gauge Length (in.)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Time (hrs.)
							Top (ft.)	Bottom (ft.)	From (ft.)	To (ft.)	Start	End	
1	1	2	8.750	PDC	3.000	Steerable	6873	7262	917	7314	11/Nov/2013 08:30	13/Nov/2013 01:30	29
2	2	3	8.750	PDC	3.000	Steerable	N/A	N/A	N/A	N/A	13/Nov/2013 02:30	13/Nov/2013 09:00	0
3	3	4	8.750	PDC	3.000	Steerable	7262	7790	7314	7840	13/Nov/2013 10:15	14/Nov/2013 08:30	13.09
4	4	5	6.000	PDC	6.000	Steerable	7790	13009	7840	13057	15/Nov/2013 01:30	17/Nov/2013 01:10	20

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Robert Bartlett	11/Nov/2013	15/Nov/2013	William Drake	14/Nov/2013	17/Nov/2013	Stephan Martinez	12/Nov/2013	17/Nov/2013

David Browning	11/Nov/2013	17/Nov/2013	Andrew Overbey	11/Nov/2013	17/Nov/2013	Edward Beaty	11/Nov/2013	17/Nov/2013
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Mud Properties Record

[illegible]

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg.	API
ROPA	Rate of Penetration, 3.0 ft. Avg.	ft/hr
TCDX	Downhole Temperature	degF
WOBA	Surface Weight on Bit, 1.0 ft. Avg.	klbf

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (m.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	11730412	Directional	56.08	6.750	3.250
1	SRIG	10098472	Gamma	52.70	6.750	3.250
2	DIR	11730412	Directional	52.81	6.750	3.250
2	SRIG	10098472	Gamma	49.44	6.750	3.250
3	DIR	12546339	Directional	53.10	6.750	3.250
3	SRIG	12416860	Gamma	49.72	6.750	3.250
4	DIR	12662924	Directional	51.14	4.750	2.750
4	SRIG	10473320	Gamma	47.76	4.750	2.750

Service and Tool Mnemonics

Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments

1.) Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.

2.) Baker Hughes runs 1 and 2 utilized 6 3/4 inch NaviTrak services (Directional only) behind an 8 3/4 inch bit and steerable assembly from 917 to 6873 feet MD (917 to 6702 feet TVD).

3.) Baker Hughes runs 2 and 3 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 6873 to 7840 feet MD (6702 to 7325 feet TVD).

4.) The interval from 917 to 6873 feet MD (917 to 6702 feet TVD) was not logged due to directional only services being provided through the straight-hole and nudge section for Baker Hughes runs 1, 2 and 3.

5.) Baker Hughes run 4 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 6 inch bit and steerable assembly from 7840 to 13057 feet MD (7325 to 7332 feet TVD).

6.) The interval from 13009 to 13057 feet MD (7331 to 7332 feet TVD) was not logged due gamma ray sensor to bit offset.

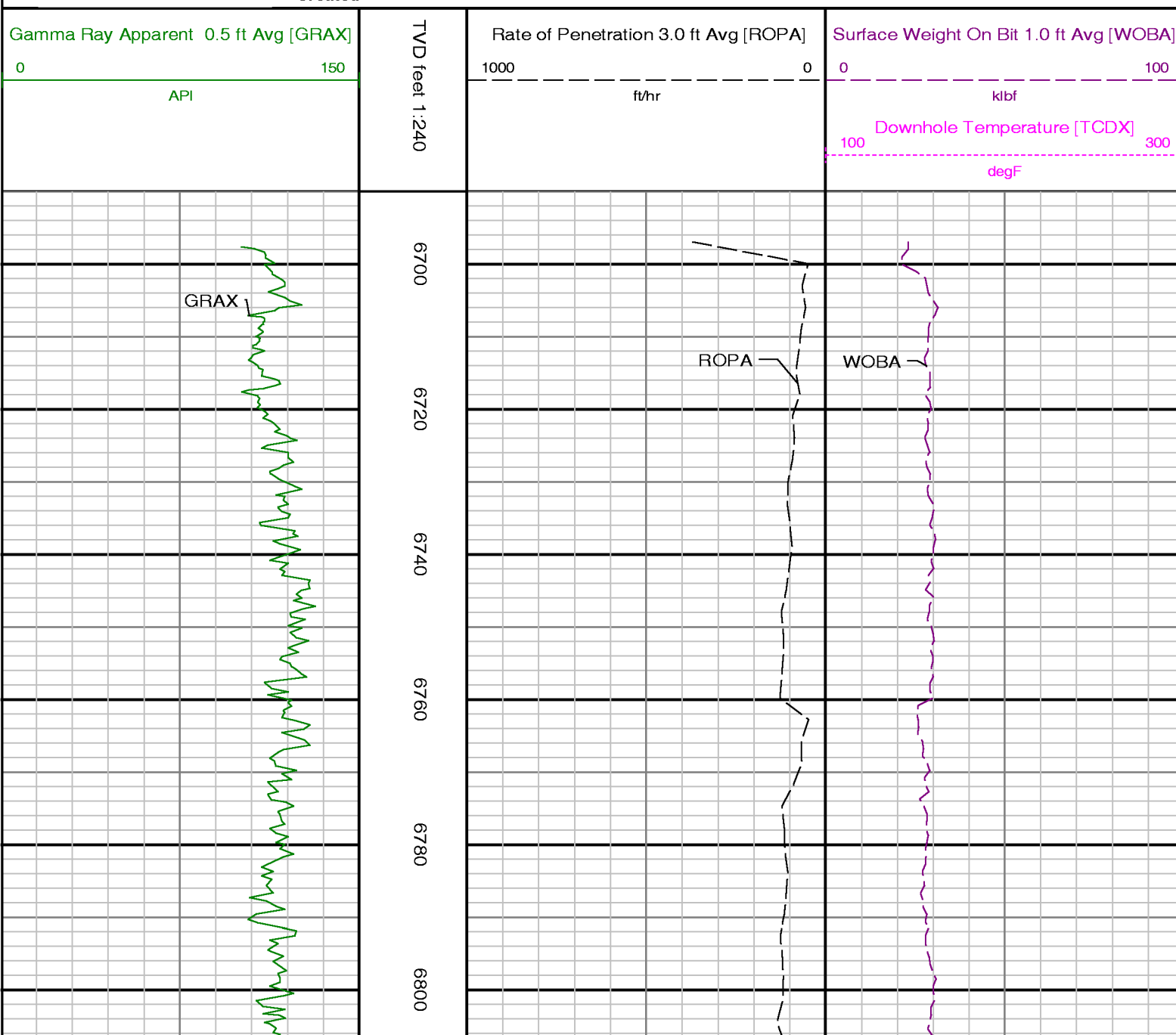


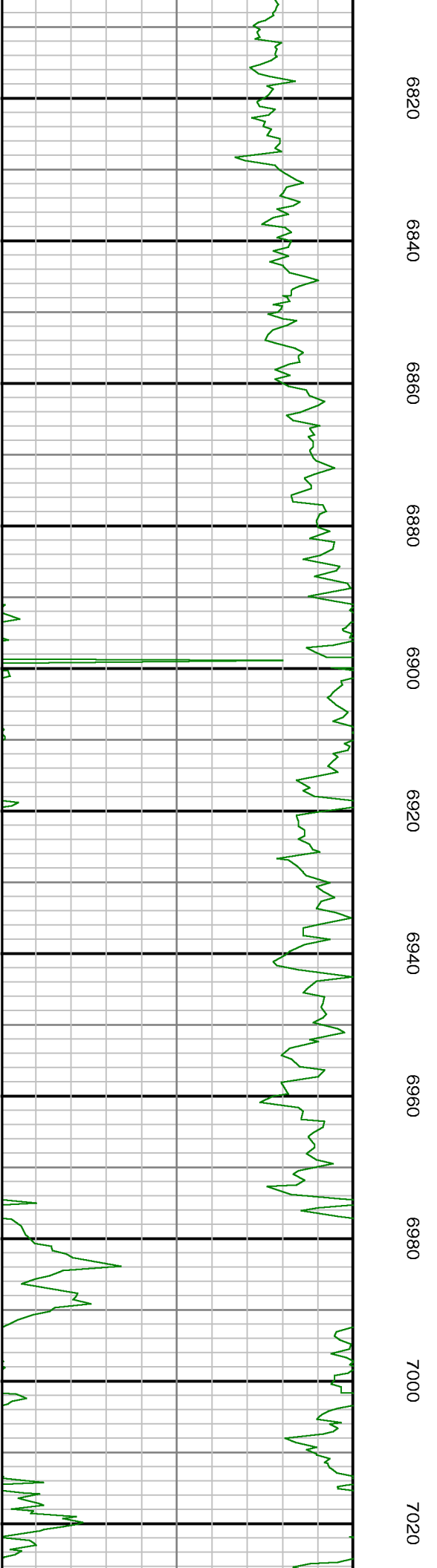
Company : Kerr McGee Oil & Gas Onshore LP

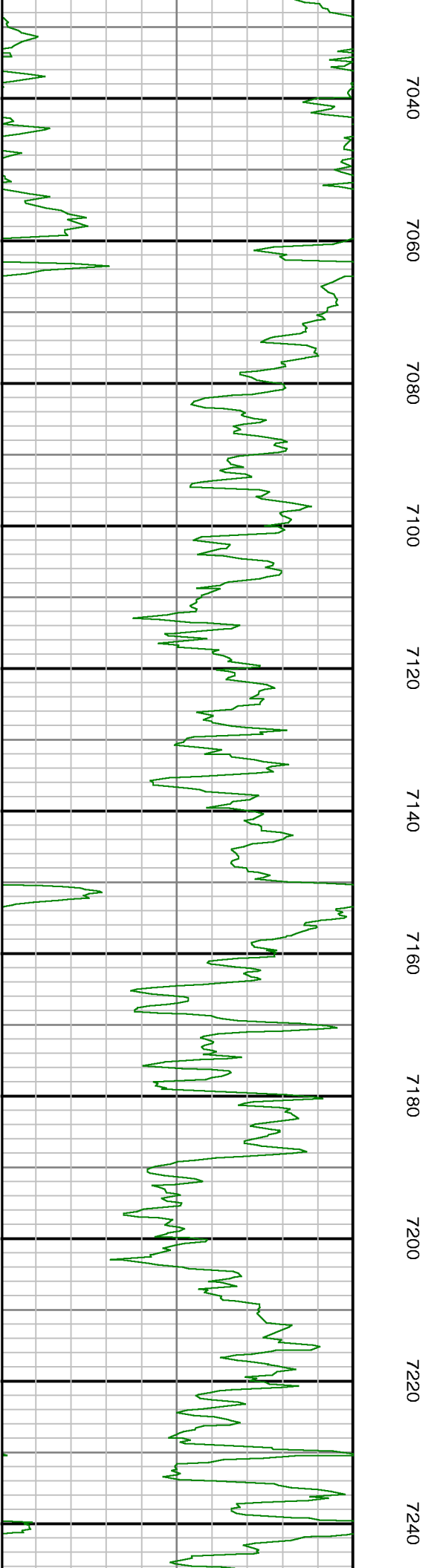
Well : Wirkner-Vance 14C-1HZ

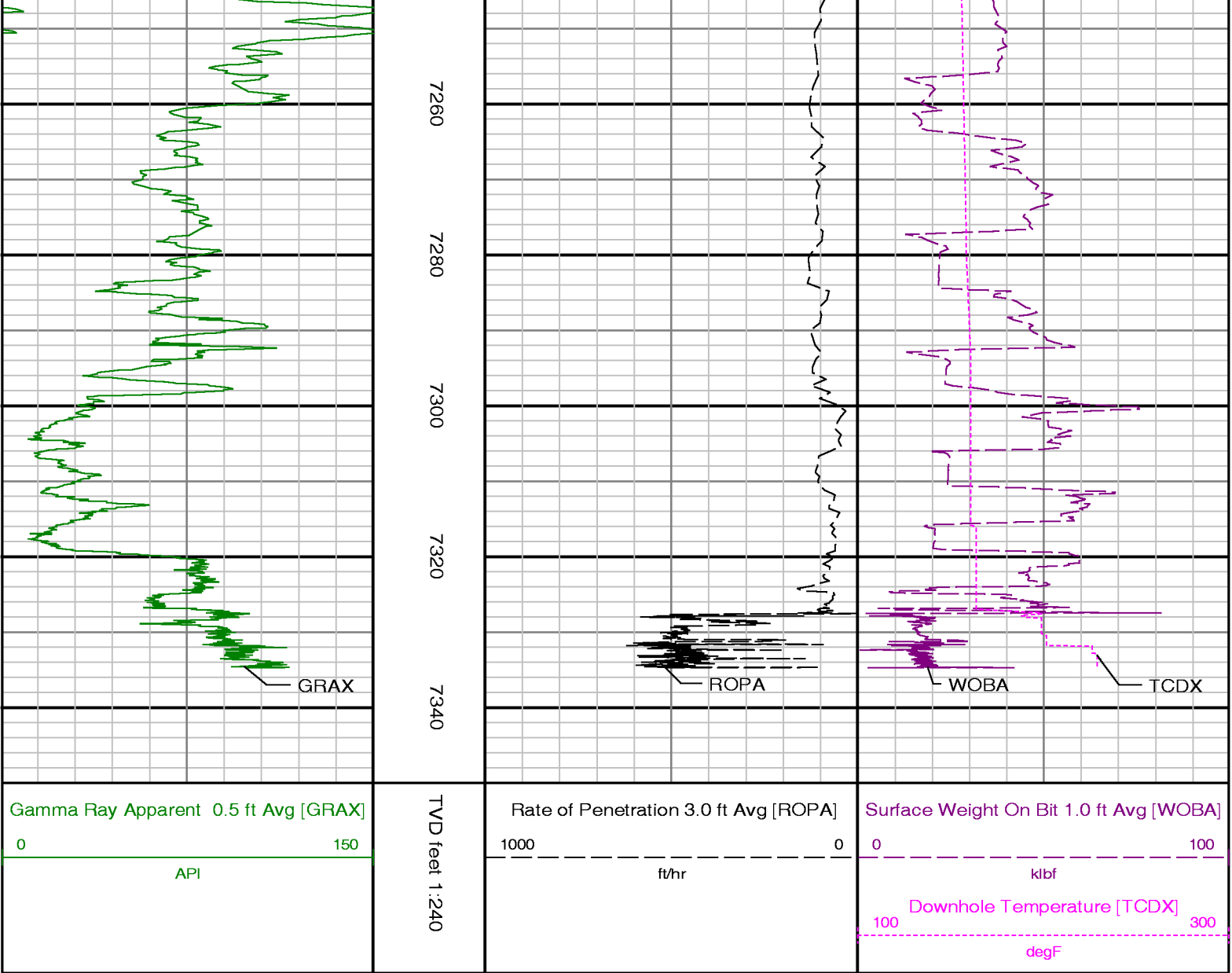
Interval : 6690.00 - 7350.00 feet

Created : 16/Nov/2013 1:07:56 PM









ADVANTAGE Final Survey Listing

Operator : Kerr McGee Oil & Gas Onshore LP	Field : Weld County (KerrMcGee)	API No :
Well : Wirkner-Vance 14C-1HZ	Rig : Ensign 138	Job : 2RKJR15
Wellbore : Wirkner-Vance 14C-1HZ Orig Hole		

Well Origin

Latitude	40.1749 deg	Longitude	-104.8452 deg
North Reference	True	Drill Depth Zero	NULL
Vertical Datum is	Mean Sea Level	Vertical Datum to DDZ	4835.00 ft
Vertical Section North	0.00 ft	Vertical Section East	0.00 ft
Vertical Section Azimuth	177.9900 deg	Vertical Section Depth	0.00ft
Grid Convergence	0.0000 deg	Magnetic Declination	8.6000 deg
Total Correction	8.6000 deg	TVD Calculation Method	Minimal Curvature
D-Row Calculation	Magcorr1	Local Magnetic Field	52767 nT
Local Magnetic Dip Angle	66.9800 deg	Local Gravity Field	9.798 m/s^2

Tie	MD ft	Incl deg	Azim deg	North ft	East ft	TVD ft	VS ft	Incr VS ft	Crs Len ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft
	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00				
U	13.00	0.0000	164.8400	0.00	0.00	13.00	0.00	0.00	13.00	0.00	0.00	1268.00

	113.00	0.4100	164.8400	-0.35	0.09	113.00	0.35	0.36	100.00	0.41	0.41	0.00
	213.00	0.1500	148.6100	-0.80	0.26	213.00	0.81	0.84	100.00	0.27	-0.26	-16.23
	313.00	0.1300	154.7600	-1.02	0.37	313.00	1.03	1.09	100.00	0.02	-0.02	6.15
	413.00	0.1200	184.6800	-1.22	0.41	413.00	1.24	1.30	100.00	0.07	-0.01	29.92
	513.00	0.2700	185.3700	-1.56	0.38	513.00	1.58	1.64	100.00	0.15	0.15	0.69
	613.00	0.3200	208.8200	-2.04	0.22	613.00	2.05	2.14	100.00	0.13	0.05	23.45
	713.00	0.3400	228.5900	-2.48	-0.13	712.99	2.48	2.71	100.00	0.12	0.02	19.77
	813.00	0.2300	208.6400	-2.86	-0.45	812.99	2.84	3.20	100.00	0.15	-0.11	-19.95
	913.00	0.2300	218.7500	-3.19	-0.67	912.99	3.16	3.60	100.00	0.04	0.00	10.11
	1085.00	0.4000	258.1000	-3.58	-1.48	1084.99	3.53	4.49	172.00	0.15	0.10	22.88
	1450.00	0.6000	283.8000	-3.39	-4.58	1449.98	3.23	7.60	365.00	0.08	0.05	7.04
	1562.00	1.3000	86.8000	-3.18	-3.88	1561.97	3.04	8.33	112.00	1.68	0.63	145.54
	1653.00	3.1000	54.7000	-1.70	-0.84	1652.90	1.67	11.71	91.00	2.32	1.98	-35.27
	1745.00	4.3000	51.0000	1.91	3.87	1744.71	-1.77	17.65	92.00	1.33	1.30	-4.02
	1836.00	4.9000	43.8000	6.86	9.21	1835.41	-6.54	24.93	91.00	0.91	0.66	-7.91
	1928.00	6.8000	42.0000	13.75	15.58	1926.93	-13.19	34.31	92.00	2.07	2.07	-1.96
	2019.00	7.7000	50.7000	21.61	23.90	2017.21	-20.76	45.76	91.00	1.56	0.99	9.56
	2110.00	10.6000	56.3000	30.12	35.58	2107.04	-28.85	60.21	91.00	3.33	3.19	6.15
	2201.00	12.1000	58.7000	39.72	50.70	2196.26	-37.92	78.11	91.00	1.73	1.65	2.64
	2292.00	13.4000	57.0000	50.42	67.69	2285.01	-48.01	98.20	91.00	1.49	1.43	-1.87
	2382.00	13.8000	59.5000	61.55	85.68	2372.49	-58.50	119.35	90.00	0.79	0.44	2.78
	2473.00	14.7000	53.6000	73.91	104.33	2460.69	-70.20	141.72	91.00	1.88	0.99	-6.48
	2564.00	16.5000	50.9000	88.91	123.65	2548.34	-84.52	166.19	91.00	2.13	1.98	-2.97
	2655.00	19.5000	47.2000	107.38	144.83	2634.88	-102.24	194.29	91.00	3.53	3.30	-4.07
	2747.00	19.9000	52.5000	127.35	168.52	2721.50	-121.36	225.27	92.00	1.99	0.43	5.76
	2828.00	18.9000	52.2000	143.78	189.83	2797.90	-137.04	252.18	81.00	1.24	-1.23	-0.37
	2919.00	19.2000	57.6000	160.84	214.11	2883.92	-153.23	281.85	91.00	1.96	0.33	5.93
	3010.00	19.1000	56.3000	177.11	239.13	2969.89	-168.62	311.70	91.00	0.48	-0.11	-1.43
	3100.00	19.6000	56.9000	193.53	264.02	3054.80	-184.15	341.52	90.00	0.60	0.56	0.67
	3190.00	18.9000	57.1000	209.69	288.91	3139.77	-199.43	371.19	90.00	0.78	-0.78	0.22
	3285.00	16.4000	59.9000	224.77	313.43	3230.29	-213.64	399.99	95.00	2.78	-2.63	2.95
	3379.00	17.0000	57.5000	238.81	336.51	3320.33	-226.86	426.99	94.00	0.97	0.64	-2.55
	3473.00	17.4000	57.1000	253.83	359.90	3410.13	-241.05	454.79	94.00	0.44	0.43	-0.43
	3567.00	18.9000	56.8000	269.80	384.44	3499.45	-256.15	484.07	94.00	1.60	1.60	-0.32
	3661.00	18.8000	63.4000	284.92	410.72	3588.41	-270.34	514.39	94.00	2.27	-0.11	7.02
	3756.00	20.0000	59.5000	300.02	438.41	3678.02	-284.46	545.93	95.00	1.86	1.26	-4.11
	3945.00	14.3000	56.4000	329.37	485.74	3858.55	-312.13	601.62	189.00	3.05	-3.02	-1.64
	4039.00	16.5000	50.5000	344.29	505.71	3949.17	-326.34	626.55	94.00	2.87	2.34	-6.28
	4133.00	19.9000	55.6000	361.82	529.22	4038.46	-343.04	655.88	94.00	3.99	3.62	5.43
	4228.00	19.3000	61.1000	378.55	556.31	4127.97	-358.80	687.71	95.00	2.04	-0.63	5.79
	4416.00	16.8000	54.3000	409.42	605.59	4306.72	-387.93	745.86	188.00	1.74	-1.33	-3.62
	4511.00	18.2000	56.0000	425.73	629.03	4397.32	-403.41	774.43	95.00	1.57	1.47	1.79
	4605.00	20.2000	54.5000	443.37	654.42	4486.09	-420.14	805.34	94.00	2.19	2.13	-1.60
	4699.00	20.5000	56.9000	461.78	681.42	4574.22	-437.60	838.02	94.00	0.94	0.32	2.55
	4794.00	19.3000	57.7000	479.25	708.63	4663.55	-454.10	870.35	95.00	1.30	-1.26	0.84
	4888.00	19.1000	54.8000	496.42	734.33	4752.32	-470.36	901.26	94.00	1.04	-0.21	-3.09
	4981.00	19.5000	54.8000	514.14	759.44	4840.10	-487.19	932.00	93.00	0.43	0.43	0.00
	5075.00	19.7000	56.6000	531.90	785.49	4928.65	-504.03	963.52	94.00	0.68	0.21	1.91
Tie	MD ft	Incl deg	Azim deg	North ft	East ft	TVD ft	VS ft	Incr VS ft	Crs Len ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft
	5170.00	19.6000	56.4000	549.54	812.13	5018.12	-520.71	995.47	95.00	0.13	-0.11	-0.21
	5266.00	16.7000	54.5000	566.46	836.78	5109.33	-536.76	1025.37	96.00	3.08	-3.02	-1.98
	5361.00	16.8000	52.9000	582.67	858.84	5200.30	-552.19	1052.74	95.00	0.50	0.11	-1.68
	5455.00	16.2000	53.4000	598.68	880.20	5290.43	-567.44	1079.44	94.00	0.66	-0.64	0.53
	5551.00	13.2000	52.2000	613.39	899.62	5383.28	-581.46	1103.80	96.00	3.14	-3.13	-1.25
	5645.00	12.0000	55.8000	625.46	916.18	5475.01	-592.94	1124.29	94.00	1.53	-1.28	3.83
	5741.00	10.8000	58.8000	635.73	932.13	5569.12	-602.64	1143.26	96.00	1.39	-1.25	3.13
	5835.00	8.0000	53.0000	644.23	944.89	5661.85	-610.69	1158.59	94.00	3.14	-2.98	-6.17
	5931.00	5.9000	48.3000	651.53	953.91	5757.14	-617.67	1170.20	96.00	2.26	-2.19	-4.90
	6025.00	6.0000	43.7000	658.30	960.91	5850.63	-624.19	1179.94	94.00	0.52	0.11	-4.89
	6120.00	5.5000	53.3000	664.61	967.99	5945.16	-630.25	1189.42	95.00	1.14	-0.53	10.11
	6215.00	5.8000	57.8000	669.89	975.70	6039.70	-635.25	1198.77	95.00	0.56	0.32	4.74
	6309.00	4.7000	52.2000	674.78	982.77	6133.30	-639.89	1207.36	94.00	1.29	-1.17	-5.96

	6404.00	2.6000	69.0000	677.94	987.85	6228.11	-642.87	1213.35	95.00	2.46	-2.21	17.68
	6499.00	1.5000	108.1000	678.32	991.05	6323.05	-643.14	1216.56	95.00	1.81	-1.16	41.16
	6594.00	0.9000	196.9000	677.22	992.01	6418.03	-642.01	1218.03	95.00	1.82	-0.63	93.47
	6815.00	0.5000	178.0000	674.60	991.54	6639.02	-639.40	1220.69	221.00	0.21	-0.18	-8.55
	6878.00	1.6000	164.5000	673.47	991.79	6702.01	-638.27	1221.84	63.00	1.78	1.75	-21.43
	6973.00	8.9000	161.4000	665.22	994.49	6796.54	-629.93	1230.53	95.00	7.69	7.68	-3.26
	7020.00	12.1000	159.8000	657.15	997.35	6842.75	-621.76	1239.09	47.00	6.84	6.81	-3.40
	7068.00	16.0000	159.2000	646.24	1001.44	6889.30	-610.72	1250.74	48.00	8.13	8.13	-1.25
	7163.00	23.0000	154.0000	617.28	1014.24	6978.81	-581.33	1282.40	95.00	7.58	7.37	-5.47
	7257.00	29.9000	157.2000	579.13	1031.39	7062.92	-542.60	1324.23	94.00	7.49	7.34	3.40
	7356.00	38.2000	171.4000	525.94	1045.58	7145.01	-488.94	1379.28	99.00	11.56	8.38	14.34
	7403.00	44.6000	177.4000	495.04	1048.50	7180.26	-457.96	1410.32	47.00	16.01	13.62	12.77
	7450.00	52.4000	182.2000	459.89	1048.54	7211.39	-422.83	1445.47	47.00	18.26	16.60	10.21
	7497.00	58.0000	186.0000	421.42	1045.74	7238.20	-384.48	1484.04	47.00	13.64	11.91	8.09
	7545.00	63.2000	187.0000	379.89	1040.99	7261.76	-343.14	1525.84	48.00	10.98	10.83	2.08
	7592.00	67.9000	187.3000	337.45	1035.67	7281.21	-300.91	1568.62	47.00	10.02	10.00	0.64
	7640.00	73.3000	187.7000	292.58	1029.76	7297.15	-256.28	1613.87	48.00	11.28	11.25	0.83
	7687.00	77.5000	190.5000	247.68	1022.56	7308.99	-211.67	1659.34	47.00	10.63	8.94	5.96
	7735.00	80.8000	189.1000	201.24	1014.54	7318.03	-165.53	1706.47	48.00	7.45	6.87	-2.92
	7772.00	83.2000	186.4000	164.94	1009.60	7323.18	-129.42	1743.11	37.00	9.71	6.49	-7.30
	7787.00	84.9000	185.6000	150.10	1008.04	7324.73	-114.65	1758.03	15.00	12.51	11.33	-5.33
	7872.00	91.5000	185.6000	65.59	999.75	7327.40	-30.49	1842.94	85.00	7.76	7.76	0.00
	7967.00	90.7000	184.6000	-29.01	991.31	7325.58	63.76	1937.92	95.00	1.35	-0.84	-1.05
	8061.00	89.3000	181.8000	-122.85	986.06	7325.58	157.36	2031.91	94.00	3.33	-1.49	-2.98
	8156.00	88.9000	180.2000	-217.82	984.41	7327.07	252.22	2126.89	95.00	1.74	-0.42	-1.68
	8250.00	89.9000	180.6000	-311.81	983.75	7328.05	346.13	2220.89	94.00	1.15	1.06	0.43
	8345.00	90.7000	181.0000	-406.80	982.42	7327.56	441.01	2315.88	95.00	0.94	0.84	0.42
	8440.00	89.5000	179.9000	-501.80	981.68	7327.39	535.92	2410.88	95.00	1.71	-1.26	-1.16
	8535.00	90.3000	180.9000	-596.79	981.02	7327.56	630.83	2505.88	95.00	1.35	0.84	1.05
	8630.00	89.5000	178.9000	-691.79	981.18	7327.72	725.77	2600.87	95.00	2.27	-0.84	-2.11
	8724.00	88.1000	177.2000	-785.71	984.38	7329.69	819.75	2694.85	94.00	2.34	-1.49	-1.81
	8819.00	89.8000	177.0000	-880.56	989.18	7331.43	914.72	2789.83	95.00	1.80	1.79	-0.21
	8914.00	89.8000	176.0000	-975.38	994.98	7331.76	1009.68	2884.82	95.00	1.05	0.00	-1.05
	9008.00	90.9000	175.4000	-1069.12	1002.03	7331.19	1103.60	2978.82	94.00	1.33	1.17	-0.64
	9103.00	90.5000	174.5000	-1163.74	1010.39	7330.03	1198.46	3073.81	95.00	1.04	-0.42	-0.95
	9197.00	88.9000	172.6000	-1257.14	1020.95	7330.52	1292.17	3167.80	94.00	2.64	-1.70	-2.02
	9291.00	89.8000	173.6000	-1350.45	1032.24	7331.59	1385.82	3261.80	94.00	1.43	0.96	1.06
Tie	MD	Incl	Azim	North	East	TVD	VS	Incr VS	Crs Len	DLS	Build	Turn
	ft	deg	deg	ft	ft	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft
	9387.00	90.5000	174.3000	-1445.91	1042.36	7331.34	1481.58	3357.79	96.00	1.03	0.73	0.73
	9482.00	90.5000	175.6000	-1540.54	1050.72	7330.51	1576.44	3452.79	95.00	1.37	0.00	1.37
	9576.00	90.6000	176.4000	-1634.30	1057.28	7329.60	1670.38	3546.78	94.00	0.86	0.11	0.85
	9671.00	89.1000	175.9000	-1729.08	1063.66	7329.85	1765.33	3641.78	95.00	1.66	-1.58	-0.53
	9765.00	89.9000	176.2000	-1822.86	1070.13	7330.67	1859.27	3735.78	94.00	0.91	0.85	0.32
	9860.00	90.7000	176.4000	-1917.66	1076.26	7330.18	1954.23	3830.77	95.00	0.87	0.84	0.21
	9955.00	90.3000	176.8000	-2012.49	1081.90	7329.35	2049.19	3925.77	95.00	0.60	-0.42	0.42
	10050.00	89.7000	176.4000	-2107.32	1087.53	7329.35	2144.17	4020.77	95.00	0.76	-0.63	-0.42
	10144.00	89.4000	176.8000	-2201.15	1093.11	7330.09	2238.13	4114.77	94.00	0.53	-0.32	0.43
	10238.00	90.2000	177.9000	-2295.05	1097.45	7330.41	2332.13	4208.76	94.00	1.45	0.85	1.17
	10333.00	90.3000	178.1000	-2389.99	1100.77	7330.00	2427.12	4303.76	95.00	0.24	0.11	0.21
	10429.00	90.0000	177.4000	-2485.91	1104.54	7329.75	2523.12	4399.76	96.00	0.79	-0.31	-0.73
	10523.00	90.2000	177.2000	-2579.81	1108.96	7329.58	2617.12	4493.76	94.00	0.30	0.21	-0.21
	10712.00	90.0000	176.7000	-2768.54	1119.02	7329.25	2806.08	4682.76	189.00	0.28	-0.11	-0.26
	10902.00	90.0000	177.0000	-2958.25	1129.46	7329.25	2996.05	4872.76	190.00	0.16	0.00	0.16
	11187.00	90.6000	176.5000	-3242.79	1145.62	7327.76	3280.97	5157.75	285.00	0.27	0.21	-0.18
	11280.00	90.5000	175.2000	-3335.54	1152.35	7326.87	3373.90	5250.75	93.00	1.40	-0.11	-1.40
	11375.00	89.5000	175.6000	-3430.23	1159.97	7326.87	3468.80	5345.75	95.00	1.13	-1.05	0.42
	11471.00	88.4000	176.8000	-3526.00	1166.33	7328.63	3564.74	5441.73	96.00	1.70	-1.15	1.25
	11566.00	89.0000	177.7000	-3620.86	1170.88	7330.78	3659.70	5536.70	95.00	1.14	0.63	0.95
	11662.00	89.6000	179.6000	-3716.83	1173.15	7331.96	3755.69	5632.69	96.00	2.08	0.63	1.98
	11851.00	89.1000	179.3000	-3905.80	1174.96	7334.10	3944.61	5821.68	189.00	0.31	-0.26	-0.16
	11946.00	90.1000	180.6000	-4000.80	1175.04	7334.76	4039.55	5916.67	95.00	1.73	1.05	1.37
	12041.00	90.5000	180.5000	-4095.79	1174.13	7334.27	4134.45	6011.67	95.00	0.43	0.42	-0.11
	12136.00	89.2000	180.8000	-4284.77	1175.35	7335.55	4232.33	6112.66	189.00	0.24	0.21	0.23

12230.00	90.7000	180.9000	-4284.77	1171.82	7332.29	4323.23	6200.66	189.00	0.24	0.11	0.21
12325.00	89.9000	180.2000	-4379.76	1170.91	7331.79	4418.13	6295.65	95.00	1.12	-0.84	-0.74
12514.00	90.7000	181.3000	-4568.74	1168.44	7330.80	4606.91	6484.65	189.00	0.72	0.42	0.58
12609.00	89.2000	179.8000	-4663.73	1167.52	7330.88	4701.81	6579.64	95.00	2.23	-1.58	-1.58
12798.00	90.2000	180.5000	-4852.72	1167.03	7331.87	4890.67	6768.64	189.00	0.65	0.53	0.37
13006.00	89.9000	180.8000	-5060.71	1164.67	7331.69	5098.44	6976.64	208.00	0.20	-0.14	0.14
Projection to TD:											
13057.00	89.9000	180.8000	-5111.70	1163.96	7331.78	5149.38	7027.64	51.00	0.00	0.00	0.00