

Yates Petroleum Corp.

Eddy County

Network "BKW" Federal Com #1H

Network "BKW" Federal Com #1H

OH

30-015-36387

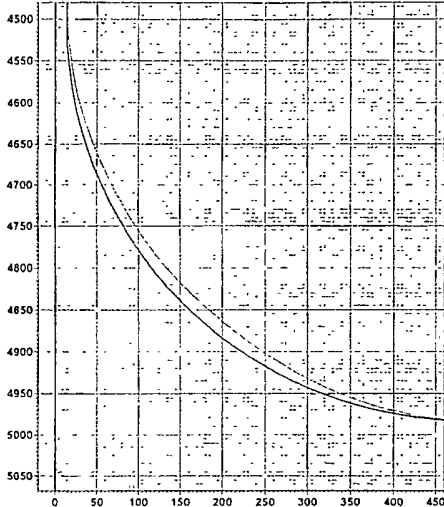
Survey: MWD #1

Pathfinder X & Y Survey Report

05 September, 2008

PATHFINDER
ENERGY SERVICES

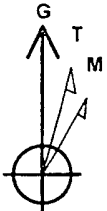
Yates Petroleum Corporation



SECTION DETAILS																	
Sec	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target							
14497	50	1	31	56	55	4496	88	-26	38	-14	73	0	00	14	22		
25264	58	91	01	271	34	4983	00	-8	57	-500	04	12	00	-145	19	499	79
35264	97	91	01	271	35	4982	99	-8	56	-500	43	2	00	95	95	500	18
49125	43	91	01	271	35	4915	00	82	23	-4359	22	0	00	0	00	4360	00
										End Lateral Tgt @ 4360' VS							

WELL DETAILS Network "BKW" Federal Com #1H										
Ground Elevation 3474.00										
RAB Elevation WELL @ 3474.00ft (Original Well Elev)										
Rig Name Original Well Elev										
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot				
0.00	0.00	697583.807	500891.062	32° 55' 3.371 N	104° 27' 54.505 W					

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N/-S	+E/-W	Northing	Easting
End Lateral	4915.00	82.23	-4359.22	697666.037	495531.942
				Shape Point	

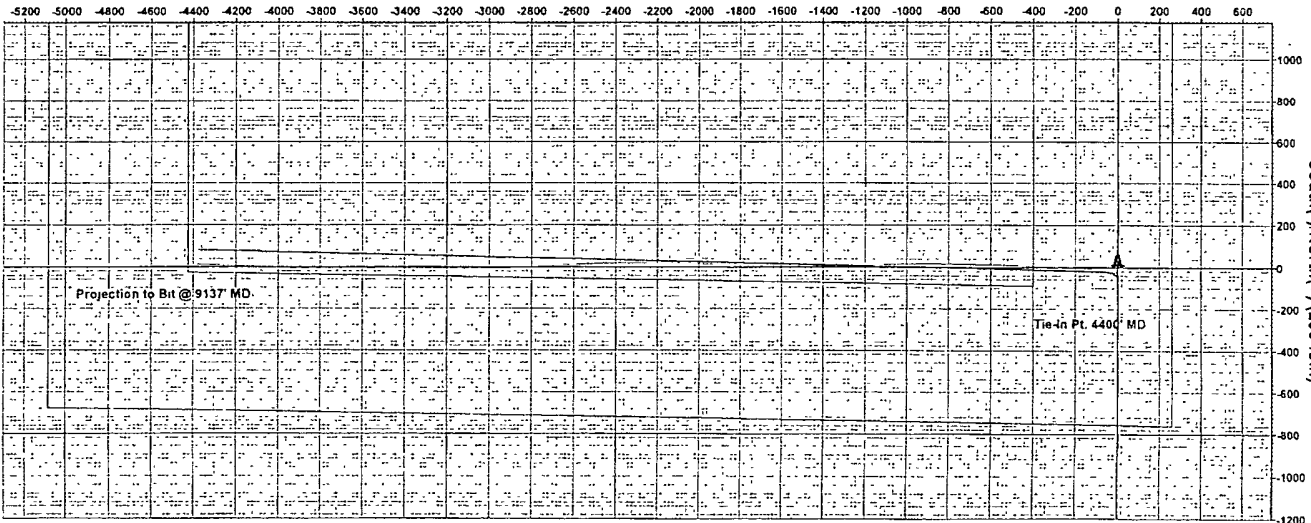
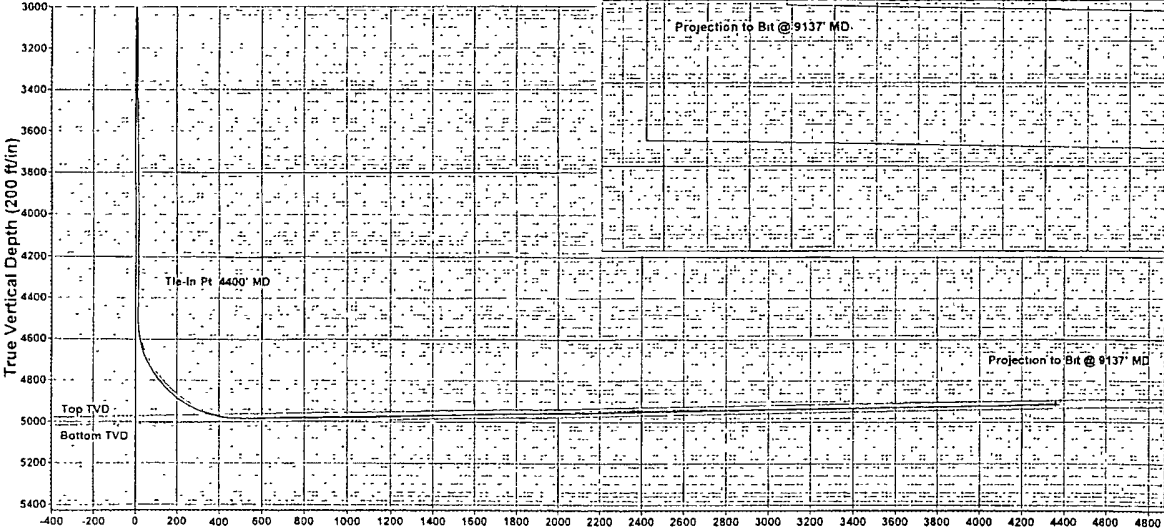


Azimuths to Grid North
True North: 0.07°
Magnetic North: 8.45°

Magnetic Field
Strength: 49242.9snT
Dip Angle: 60.75°
Date: 2008/08/04
Model: IGRF200510

EOW

Project: Eddy County
Site: Network "BKW" Federal Com #1H
Well: Network "BKW" Federal Com #1H
Wellbore: OH
Plan: Plan #2 PG (Network "BKW" Federal Com #1H/OH)



PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grd

Plan: Plan #2 PG (Network "BKW" Federal Com #1H/OH)
Created By: Nate Bingham Date: 13.11, September 05 2008
Checked: _____ Date: _____

Vertical Section at 271.08° (200 ft/in)

Pathfinder Energy Services
Pathfinder X & Y Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well Network "BKW" Federal Com #1H
Project:	Eddy County	TVD Reference:	WELL @ 3474.00ft (Original Well Elev)
Site:	Network "BKW" Federal Com #1H	MD Reference:	WELL @ 3474.00ft (Original Well Elev)
Well:	Network "BKW" Federal Com #1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 2003.16 Single User Db

Project:	Eddy County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Network "BKW" Federal Com #1H		
Site Position:		Northing:	697,583.807 ft
From:	Map	Easting:	500,891.062 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 55' 3.371 N
		Longitude:	104° 27' 54.505 W
		Grid Convergence:	-0.07 °

Well:	Network "BKW" Federal Com #1H		
Well Position	+N-S 0.00 ft	Northing:	697,583.807 ft
	+E-W 0.00 ft	Easting:	500,891.062 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 55' 3.371 N
		Longitude:	104° 27' 54.505 W
		Ground Level:	3,474.00 ft

Wellbore:	OH
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2008/08/04	8.38	60.75	49,243

Design:	OH
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Audit Notes:	
Version:	1.0
Phase:	ACTUAL
Tie On Depth:	0.00

Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)
	0.00	0.00	0.00	271.08

Survey Program		Date: 2008/09/05		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
5,250.00	5,250.00	Pilot Hole (OH)		

Pathfinder Energy Services

Pathfinder X & Y Survey Report



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Project:	Eddy County	TVD Reference:	WELL @ 3474.00ft (Original Well Elev)
Site:	Network "BKW" Federal Com #1H	MD Reference:	WELL @ 3474.00ft (Original Well Elev)
Well:	Network "BKW" Federal Com #1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 2003.16 Single User Db

Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	EW (ft)	V. Sec (ft)	DLeg (%/100ft)	Northing (ft)	Easting (ft)	
4,400.00	1 01	43.72	4,399.40	925.40	-27.62	-16.25	15.72	0.00	697,556.19	500,874.81	
Tie-In Pt. 4400' MD											
4,455.00	1 32	47.38	4,454.38	980.38	-26.84	-15.45	14.94	0.58	697,556.97	500,875.61	
4,486.00	0 97	330.45	4,485.38	1,011.38	-26.37	-15.31	14.81	4.68	697,557.44	500,875.75	
4,517.00	3.69	284.91	4,516.35	1,042.35	-25.89	-16.41	15.92	9.96	697,557.92	500,874.65	
4,548.00	7.56	282.10	4,547.20	1,073.20	-25.20	-19.37	18.89	12.51	697,558.61	500,871.69	
4,578.00	11.52	281.71	4,576.78	1,102.78	-24.18	-24.23	23.77	13.20	697,559.63	500,866.83	
4,609.00	15.74	280.05	4,606.90	1,132.90	-22.82	-31.41	30.97	13.67	697,560.99	500,859.66	
4,640.00	19.79	280.13	4,636.41	1,162.41	-21.16	-40.72	40.31	13.06	697,562.65	500,850.35	
4,670.00	23.13	279.86	4,664.33	1,190.33	-19.26	-51.52	51.15	11.14	697,564.55	500,839.54	
4,701.00	26.29	278.60	4,692.49	1,218.49	-17.19	-64.31	63.98	10.33	697,566.62	500,826.75	
4,732.00	29.46	278.89	4,719.89	1,245.89	-14.98	-78.64	78.34	10.24	697,568.83	500,812.42	
4,763.00	32.80	278.14	4,746.42	1,272.42	-12.61	-94.49	94.23	10.85	697,571.19	500,796.58	
4,793.00	36.32	277.35	4,771.12	1,297.12	-10.33	-111.35	111.13	11.83	697,573.48	500,779.72	
4,824.00	39.83	276.24	4,795.52	1,321.52	-8.07	-130.33	130.15	11.54	697,575.74	500,760.74	
4,854.00	43.79	274.71	4,817.88	1,343.88	-6.17	-150.23	150.09	13.63	697,577.63	500,740.83	
4,885.00	46.96	273.48	4,839.65	1,365.65	-4.60	-172.23	172.12	10.61	697,579.20	500,718.83	
4,916.00	49.59	272.69	4,860.28	1,386.28	-3.36	-195.34	195.24	8.69	697,580.44	500,695.73	
4,947.00	52.58	272.53	4,879.75	1,405.75	-2.27	-219.43	219.35	9.65	697,581.54	500,671.63	
4,978.00	54.96	272.95	4,898.07	1,424.07	-1.07	-244.40	244.34	7.75	697,582.74	500,646.66	
5,008.00	58.83	273.06	4,914.46	1,440.46	0.25	-269.50	269.45	12.90	697,584.06	500,621.57	
5,039.00	61.29	273.53	4,929.93	1,455.93	1.79	-296.31	296.29	8.04	697,585.60	500,594.75	
5,070.00	65.16	273.40	4,943.89	1,469.89	3.47	-323.93	323.94	12.49	697,587.27	500,567.13	
5,099.00	69.03	272.52	4,955.17	1,481.17	4.84	-350.60	350.63	13.63	697,588.65	500,540.46	
5,130.00	73.16	272.12	4,965.22	1,491.22	6.03	-379.90	379.95	13.38	697,589.84	500,511.16	
5,161.00	77.47	272.94	4,973.07	1,499.07	7.35	-409.85	409.92	14.14	697,591.16	500,481.21	
5,192.00	81.51	272.33	4,978.73	1,504.73	8.75	-440.29	440.38	13.18	697,592.56	500,450.77	

Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well Network "BKW" Federal Com #1H
Project:	Eddy County	TVD Reference:	WELL @ 3474.00ft (Original Well Elev)
Site:	Network "BKW" Federal Com #1H	MD Reference:	WELL @ 3474.00ft (Original Well Elev)
Well:	Network "BKW" Federal Com #1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM:2003.16 Single User Db

Survey												
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	EW (ft)	V-Sec (ft)	D Leg (ft/100ft)	Northing (ft)	Easting (ft)		
5,222.00	85.03	272.84	4,982.24	1,508.24	10.10	-470.05	470.16	11.85	697,593.90	500,421.01		
5,253.00	87.05	271.48	4,984.38	1,510.38	11.26	-500.95	501.08	7.85	697,595.07	500,390.11		
5,284.00	88.72	271.10	4,985.53	1,511.53	11.96	-531.92	532.05	5.52	697,595.77	500,359.14		
5,376.00	90.92	271.22	4,985.82	1,511.82	13.82	-623.90	624.05	2.39	697,597.63	500,267.16		
5,469.00	89.96	270.71	4,985.10	1,511.10	15.39	-716.88	717.04	1.17	697,599.20	500,174.18		
5,561.00	91.89	271.38	4,983.62	1,509.62	17.07	-808.85	809.03	2.22	697,600.87	500,082.21		
5,653.00	91.01	269.79	4,981.29	1,507.29	18.00	-900.81	900.99	1.97	697,601.81	499,990.25		
5,745.00	90.84	269.02	4,979.80	1,505.80	17.05	-992.79	992.94	0.86	697,600.86	499,898.27		
5,838.00	91.01	268.51	4,978.30	1,504.30	15.05	-1,085.76	1,085.85	0.58	697,598.85	499,805.30		
5,934.00	91.80	268.60	4,975.95	1,501.95	12.63	-1,181.70	1,181.73	0.83	697,596.43	499,709.36		
6,028.00	91.80	268.09	4,973.00	1,499.00	9.91	-1,275.61	1,275.57	0.54	697,593.72	499,615.45		
6,124.00	91.80	269.55	4,969.98	1,495.98	7.94	-1,371.54	1,371.45	1.52	697,591.74	499,519.52		
6,219.00	92.51	269.64	4,966.41	1,492.41	7.26	-1,466.47	1,466.35	0.75	697,591.07	499,424.59		
6,314.00	92.33	269.38	4,962.40	1,488.40	6.45	-1,561.38	1,561.23	0.33	697,590.26	499,329.68		
6,377.00	92.42	269.98	4,959.79	1,485.79	6.10	-1,624.33	1,624.16	0.96	697,589.91	499,266.73		
6,472.00	93.21	271.18	4,955.12	1,481.12	7.06	-1,719.21	1,719.03	1.51	697,590.87	499,171.86		
6,568.00	88.72	271.91	4,953.50	1,479.50	9.65	-1,815.13	1,814.99	4.74	697,593.46	499,075.93		
6,662.00	91.19	272.54	4,953.58	1,479.58	13.30	-1,909.05	1,908.97	2.71	697,597.11	498,982.01		
6,758.00	92.07	272.16	4,950.85	1,476.85	17.23	-2,004.93	2,004.90	1.00	697,601.04	498,886.13		
6,853.00	92.42	271.32	4,947.12	1,473.12	20.12	-2,099.82	2,099.82	0.96	697,603.92	498,791.25		
6,948.00	89.60	270.12	4,945.45	1,471.45	21.31	-2,194.78	2,194.79	3.23	697,605.12	498,696.28		
7,043.00	91.45	270.12	4,944.58	1,470.58	21.51	-2,289.77	2,289.77	1.95	697,605.31	498,601.29		
7,138.00	91.63	268.96	4,942.03	1,468.03	20.75	-2,384.74	2,384.70	1.24	697,604.55	498,506.33		
7,233.00	90.40	267.93	4,940.34	1,466.34	18.17	-2,479.68	2,479.58	1.69	697,601.97	498,411.38		
7,328.00	91.54	267.93	4,938.74	1,464.74	14.74	-2,574.61	2,574.43	1.20	697,598.54	498,316.46		
7,423.00	88.99	266.34	4,938.30	1,464.30	9.99	-2,669.47	2,669.19	3.16	697,593.80	498,221.59		
7,487.00	89.60	266.33	4,939.08	1,465.08	5.90	-2,733.34	2,732.96	0.95	697,589.70	498,157.72		

Pathfinder Energy Services
Pathfinder X & Y Survey Report



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Project:	Eddy County	TVD Reference:	WELL @ 3474.00ft (Original Well Elev)
Site:	Network "BKW" Federal Com #1H	MD Reference:	WELL @ 3474.00ft (Original Well Elev)
Well:	Network "BKW" Federal Com #1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 2003.16 Single User Db

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
7,582.00	89.25	267.28	4,940.04	1,466.04	0.60	-2,828.18	2,827.69	1.07	697,584.41	498,062.88
7,677.00	89.96	267.96	4,940.69	1,466.69	-3.34	-2,923.10	2,922.52	1.03	697,580.47	497,967.96
7,772.00	90.57	268.52	4,940.25	1,466.25	-6.26	-3,018.05	3,017.40	0.87	697,577.55	497,873.01
7,867.00	90.57	270.05	4,939.31	1,465.31	-7.44	-3,113.04	3,112.34	1.61	697,576.36	497,778.02
7,962.00	91.19	270.77	4,937.85	1,463.85	-6.76	-3,208.02	3,207.33	1.00	697,577.04	497,683.04
8,057.00	91.10	270.31	4,935.95	1,461.95	-5.87	-3,303.00	3,302.30	0.49	697,577.94	497,588.06
8,152.00	91.54	270.72	4,933.76	1,459.76	-5.02	-3,397.97	3,397.27	0.63	697,578.79	497,493.09
8,247.00	91.98	270.43	4,930.84	1,456.84	-4.06	-3,492.92	3,492.22	0.55	697,579.74	497,398.14
8,342.00	92.86	270.26	4,926.83	1,452.83	-3.49	-3,587.83	3,587.13	0.94	697,580.32	497,303.23
8,437.00	90.75	270.26	4,923.84	1,449.84	-3.06	-3,682.78	3,682.07	2.22	697,580.75	497,208.28
8,532.00	89.63	269.63	4,923.53	1,449.53	-3.15	-3,777.78	3,777.05	1.35	697,580.66	497,113.29
8,627.00	90.13	270.00	4,923.72	1,449.72	-3.46	-3,872.78	3,872.02	0.65	697,580.35	497,018.29
8,722.00	91.10	271.77	4,922.70	1,448.70	-1.99	-3,967.75	3,967.01	2.12	697,581.82	496,923.31
8,817.00	92.77	272.75	4,919.50	1,445.50	1.75	-4,062.62	4,061.93	2.04	697,585.56	496,828.44
8,880.00	93.30	272.71	4,916.16	1,442.16	4.75	-4,125.46	4,124.82	0.84	697,588.56	496,765.60
8,975.00	91.01	271.71	4,912.59	1,438.59	8.41	-4,220.32	4,219.72	2.63	697,592.22	496,670.75
9,079.00	91.63	271.58	4,910.19	1,436.19	11.39	-4,324.25	4,323.69	0.61	697,595.20	496,566.82
9,137.00	91.63	271.58	4,908.54	1,434.54	12.99	-4,382.20	4,381.67	0.00	697,596.80	496,508.86

Projection to Bit @ 9137' MD

Pathfinder Energy Services

Pathfinder X & Y Survey Report



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Project:	Eddy County	TVD Reference:	WELL @ 3474 00ft (Original Well Elev)
Site:	Network "BKW" Federal Com #1H	MD Reference:	WELL @ 3474 00ft (Original Well Elev)
Well:	Network "BKW" Federal Com #1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 2003.16 Single User Db

Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	Latitude Longitude
End Lateral Tgt @ 43'		0.00	0.00	4,915.00	82.23	-4,359.22	697,666.037	496,531.842	32° 55' 4.128 N 104° 28' 45.647 W
- survey misses by 70.09ft at 9115.76ft MD (4909.15 TVD, 12.41 N, -4360.98 E)									
- Point									

Survey Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	
4,400.00	4,399.40	-27.62	-16.25	Tie-In Pt. 4400' MD
9,137.00	4,908.54	12.99	-4,382.20	Projection to Bit @ 9137' MD

Checked By: _____ Approved By: _____ Date: _____

GYRO

H HEADER INFORMATION -----

H COMPANY : Yates Petroleum Corp.
 H FIELD : Eddy County
 H SITE : Network "BKW" Federal Com #1H
 H WELL : Network "BKW" Federal Com #1H
 H WELLPATH: OH
 H DEPTHUNT: ft
 H SURVDATE: 2008/08/22

H-----
H WELL INFORMATION

H WELL EW MAP : 500891.06
 H WELL NS MAP : 697583.81
 H DATUM ELEVN : 3474.00
 H VSECT ANGLE : 271.08
 H VSECT NORTH : 0.00
 H VSECT EAST : 0.00

H-----
H SURVEY TYPE INFORMATION

H 5250.00 - 5250.00 PILOT HOLE :
 H-----

H SURVEY LIST

H MD	INC	AZI	TVD	NS	EW
0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.28	79.63	100.00	0.04	0.24
200.00	0.47	109.79	200.00	-0.05	0.87
300.00	0.79	135.42	299.99	-0.68	1.74
400.00	0.88	177.60	399.98	-1.95	2.26
500.00	0.88	200.69	499.97	-3.43	2.02
600.00	0.91	207.53	599.96	-4.85	1.38
700.00	1.20	205.09	699.94	-6.50	0.58
800.00	1.48	201.46	799.91	-8.65	-0.34
900.00	1.80	182.80	899.87	-11.42	-0.89
1000.00	1.72	183.55	999.83	-14.49	-1.06
1100.00	1.76	184.44	1099.78	-17.52	-1.27
1200.00	1.65	181.91	1199.74	-20.49	-1.44
1300.00	1.52	186.05	1299.70	-23.25	-1.63
1400.00	1.31	182.53	1399.67	-25.72	-1.82
1500.00	1.39	178.46	1499.64	-28.08	-1.83
1600.00	1.35	175.63	1599.61	-30.47	-1.71
1700.00	1.28	175.46	1699.58	-32.76	-1.53
1800.00	1.13	183.43	1799.56	-34.86	-1.50
1900.00	1.01	195.60	1899.54	-36.70	-1.80
2000.00	0.90	214.24	1999.53	-38.19	-2.48
2100.00	0.70	237.97	2099.52	-39.16	-3.43
2200.00	0.57	236.47	2199.51	-39.76	-4.36
2300.00	0.39	254.46	2299.51	-40.12	-5.10
2400.00	0.32	268.14	2399.51	-40.22	-5.71
2500.00	0.35	282.24	2499.51	-40.17	-6.28
2600.00	0.31	301.46	2599.51	-39.96	-6.81
2700.00	0.41	301.93	2699.50	-39.63	-7.34
2800.00	0.41	299.37	2799.50	-39.27	-7.95
2900.00	0.49	301.73	2899.50	-38.88	-8.62
3000.00	0.57	296.58	2999.49	-38.43	-9.42
3100.00	0.58	298.75	3099.49	-37.96	-10.31
3200.00	0.59	291.98	3199.48	-37.53	-11.24
3300.00	0.58	298.40	3299.48	-37.09	-12.16
3400.00	0.81	301.11	3399.47	-36.49	-13.21
3500.00	0.92	305.50	3499.46	-35.65	-14.48
3600.00	0.97	308.28	3599.45	-34.66	-15.79
3700.00	0.72	316.53	3699.44	-33.69	-16.88
3800.00	0.60	322.69	3799.43	-32.82	-17.63
3900.00	0.56	326.95	3899.42	-31.99	-18.22
4000.00	0.37	23.89	3999.42	-31.28	-18.35

4100.00	0.42	8.38	4099.42	GYRO -30.63	-18.16
4200.00	0.55	26.28	4199.42	-29.83	-17.90
4300.00	0.81	35.83	4299.41	-28.83	-17.27
4400.00	1.01	43.72	4399.40	-27.62	-16.25
4500.00	1.32	56.80	4499.37	-26.35	-14.68
4600.00	1.53	53.33	4599.34	-24.92	-12.64
4700.00	1.48	52.49	4699.31	-23.34	-10.55
4800.00	1.44	43.74	4799.28	-21.65	-8.66
4900.00	1.18	36.66	4899.25	-19.92	-7.18
5000.00	1.15	31.00	4999.23	-18.23	-6.04
5069.00	1.07	29.92	5068.22	-17.07	-5.36