

1990)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

FOR APPROVED

OMB NO. 1004-0137

Expires: December 31, 1991

LEASE DESIGNATION AND SERIAL NO.

NM0441951-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

White City 31 Federal No. 2

9. API WELL NO.

30-015-33394 SI

10. FIELD AND POOL, OR WILDCAT

White City, Penn (Gas)

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

31-24S-26E

12. COUNTY OR PARISH
Eddy13. STATE
NM

RECEIVED

APR 12 2005

OCCASISTIA

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. REMVR. ☐ Other _____

2. NAME OF OPERATOR

Gruy Petroleum Management Co.

3. ADDRESS AND TELEPHONE NO.

P O Box 140907 Irving Tx. 75014-0907

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface 2150' FSL & 1700' FWL

At top prod. interval reported below 2575' FSL & 1520' FWL

At total depth 2591' FSL & 1490' FWL

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED

12-23-04

16. DATE T.D. REACHED

01-25-05

17. DATE COMPL. (Ready to prod.)

03-09-05

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*

3493' GR

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

MD 12150' TVD 12079'

21. PLUG, BACK T.D., MD & TVD

MD 11938' TVD 11865'

22. IF MULTIPLE COMPL., HOW MANY*

→

23. INTERVALS DRILLED BY

→

ROTARY TOOLS

All

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

11922' - 11936' MD

11855' - 11873' TVD

25. WAS DIRECTIONAL SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Spaced Neutron, DLL Microguard, Cement Bond Log

27. WAS WELL CORED

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 - 3/8" J-55	54.5 #	208'	17-1/2"	250 sx Prem circ 98 sx	
9-5/8" NS-110	40 #	1685'	12-1/4"	600 sx IntC/Prem circ 200 sx	
5-1/2" P-110/N-80	17#	12150'	8-3/4"	2570 sx IntH/SupH/IntC/Prem circ 75 sx	
				TOC 490'	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
			ACCEPTED FOR RECORD		2-7/8"	11837'	11837'

31. PERFORATION RECORD (Interval, size and number)

11922' - 11936' 6 JSPF 84 Holes APR - 8 2005

ALEXIS C. SWOBODA
PETROLEUM ENGINEER

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
11922' - 11936'	25368gal foam CO2 38000# 18/40 VProp

33. PRODUCTION

DATE FIRST PRODUCTION 03-09-05		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) Producing	
DATE OF TEST 03-10-05	HOURS TESTED 24	CHOKER SIZE 7/64	PROD'N. FOR TEST PERIOD →	OIL—BBL. 0	GAS—MCF. 1098	WATER—BBL. 0	GAS-OIL RATIO NA
FLOW, TUBING PRESS. 2900	CASING PRESSURE 1350	CALCULATED 24-HOUR RATE →	OIL—BBL. 0	GAS—MCF. 1098	WATER—BBL. 0	OIL GRAVITY-API (CORR.) N/A	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Electric logs and Inclination Summary

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Natalie Kueger

TITLE

Regulatory Analyst

DATE April 7, 2005

*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Bone Spring	6726'					
Cisco	9656'					
Canyon	10011'					
Strawn	10180'					
Atoka	10802'					
Morrow	11135'					

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-33394	Pool Code	Pool Name White City; Penn (Gas)
Property Code	Property Name WHITE CITY 31 FEDERAL	Well Number 2
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3493'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	31	24 S	26 E		2150	SOUTH	1700	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	31	24-S	26-E		2591	SOUTH	1490	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

RECEIVED

APR 12 2005

OCC. ARTESIA

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Zeno Farris

Signature

Zeno Farris

Printed Name

Manager Operations Admin

Title

April 7, 2005

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JANUARY 21, 2004

Date Surveyed

LMP

Signature & Seal of Professional Surveyor

GARY EIDSON

04.11.0005

Certificate No. GARY EIDSON 12641



**Gruy Petroleum Management Co.
New Mexico
Eddy County
Sec. 31-T24S-R26E
White City 31 Federal 2 - MWD survey**

Sperry-Sun

Survey Report

1 February, 2005

RECEIVED

APR 12 2005

ODDARTSIA

Survey Ref: svy8122

Prepared by: Dennis Cook
Checked by:
Approved by:

HALLIBURTON

Survey Report for Sec. 31-T24S-R26E - White City 31 Federal 2

Measured Depth (ft)	Incl.	Grid Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
Gyrodata Survey							
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
200.00	0.639	330.641	200.00	0.97 N	0.55 W	-0.70	0.32
400.00	3.922	346.325	399.81	8.59 N	2.71 W	-6.97	1.66
600.00	3.541	351.869	599.39	21.35 N	5.20 W	-17.89	0.26
800.00	4.020	347.699	798.95	34.32 N	7.57 W	-29.05	0.28
1000.00	4.132	339.568	998.45	47.92 N	11.58 W	-40.19	0.29
1200.00	3.944	340.600	1197.95	61.16 N	16.38 W	-50.70	0.10
1400.00	3.292	341.259	1397.55	73.08 N	20.51 W	-60.24	0.33
1600.00	2.035	336.723	1597.33	81.78 N	23.75 W	-67.11	0.64
1800.00	1.694	333.839	1797.23	87.70 N	26.46 W	-71.60	0.18
2000.00	1.343	324.150	1997.16	92.25 N	29.14 W	-74.83	0.22
2200.00	1.211	311.457	2197.11	95.55 N	32.09 W	-76.80	0.16
2400.00	1.129	285.888	2397.07	97.49 N	35.57 W	-77.30	0.26
2600.00	0.891	269.754	2597.04	98.02 N	39.02 W	-76.52	0.18
2800.00	0.699	281.652	2797.02	98.26 N	41.77 W	-75.72	0.13
3000.00	0.569	287.949	2997.00	98.81 N	43.91 W	-75.44	0.07
3200.00	0.633	286.851	3196.99	99.44 N	45.91 W	-75.28	0.03
3400.00	0.612	272.053	3396.98	99.79 N	48.03 W	-74.82	0.08
3600.00	0.513	230.248	3596.97	99.26 N	49.79 W	-73.67	0.21
3800.00	0.439	234.891	3796.97	98.25 N	51.10 W	-72.24	0.04
4000.00	0.396	222.650	3996.96	97.30 N	52.20 W	-70.96	0.05
4200.00	0.469	217.268	4196.95	96.14 N	53.16 W	-69.52	0.04
4400.00	0.507	211.802	4396.95	94.74 N	54.12 W	-67.86	0.03
4600.00	0.441	208.986	4596.94	93.31 N	54.96 W	-66.23	0.03
4800.00	0.444	170.263	4796.93	91.88 N	55.20 W	-64.80	0.15
5000.00	0.495	164.206	4996.93	90.28 N	54.84 W	-63.46	0.04
5200.00	0.562	151.093	5196.92	88.59 N	54.13 W	-62.15	0.07
5400.00	0.115	251.910	5396.92	87.67 N	53.85 W	-61.41	0.30
5600.00	0.488	265.062	5596.91	87.54 N	54.89 W	-60.89	0.19
5800.00	0.174	16.538	5796.91	87.75 N	55.65 W	-60.81	0.29
6000.00	1.114	357.005	5996.90	89.99 N	55.66 W	-62.88	0.48
6200.00	0.731	342.898	6196.87	93.15 N	56.14 W	-65.64	0.22
6400.00	0.558	299.701	6396.86	94.85 N	57.36 W	-66.76	0.25
6600.00	1.331	305.757	6596.83	96.69 N	60.09 W	-67.46	0.39
6800.00	1.162	287.373	6796.78	98.65 N	63.91 W	-67.86	0.22
7000.00	0.295	183.780	6996.77	98.74 N	65.88 W	-67.22	0.63
7200.00	1.218	236.931	7196.75	97.07 N	67.70 W	-64.99	0.53
7400.00	2.921	202.787	7396.62	91.21 N	71.45 W	-58.15	1.02
7500.00	2.830	190.524	7496.49	86.44 N	72.89 W	-53.19	0.62
7600.00	2.788	185.636	7596.37	81.59 N	73.58 W	-48.43	0.24

Survey Report for Sec. 31-T24S-R26E - White City 31 Federal 2

Measured Depth (ft)	Incl.	Grid Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
7700.00	2.325	189.290	7696.27	77.17 N	74.15 W	-44.11	0.49
7800.00	2.264	185.694	7796.19	73.20 N	74.67 W	-40.23	0.16
7900.00	1.952	188.633	7896.13	69.55 N	75.12 W	-36.68	0.33
8000.00	1.695	194.047	7996.08	66.43 N	75.74 W	-33.55	0.31
8100.00	1.545	177.570	8096.04	63.65 N	76.04 W	-30.86	0.49
8200.00	1.542	179.306	8196.00	60.96 N	75.97 W	-28.39	0.05
8300.00	1.374	181.454	8295.97	58.42 N	75.98 W	-26.02	0.18
8400.00	1.138	195.324	8395.94	56.26 N	76.27 W	-23.91	0.38
8500.00	0.996	193.052	8495.93	54.45 N	76.73 W	-22.07	0.15
8600.00	0.866	196.688	8595.91	52.88 N	77.14 W	-20.45	0.14
8700.00	0.855	199.569	8695.90	51.46 N	77.61 W	-18.96	0.04
8800.00	0.849	209.195	8795.89	50.11 N	78.22 W	-17.48	0.14
8900.00	0.644	199.953	8895.88	48.93 N	78.78 W	-16.18	0.24
9000.00	0.565	192.864	8995.88	47.92 N	79.08 W	-15.13	0.11
9100.00	0.535	235.065	9095.87	47.18 N	79.57 W	-14.25	0.40
9200.00	1.160	266.244	9195.86	46.84 N	80.96 W	-13.43	0.75
9300.00	1.421	265.515	9295.84	46.68 N	83.21 W	-12.44	0.26
9400.00	1.633	262.931	9395.80	46.41 N	85.86 W	-11.20	0.22
9500.00	2.112	261.200	9495.75	45.95 N	89.09 W	-9.58	0.48
9600.00	1.525	261.298	9595.70	45.47 N	92.23 W	-7.97	0.59
9687.00	1.264	260.167	9682.67	45.13 N	94.32 W	-6.87	0.30

MWD survey

9702.00	1.100	249.470	9697.67	45.05 N	94.62 W	-6.69	1.83
9765.00	1.590	210.840	9760.65	44.09 N	95.63 W	-5.42	1.59
9828.00	4.040	193.290	9823.57	41.18 N	96.59 W	-2.36	4.08
9892.00	5.330	192.810	9887.36	36.08 N	97.77 W	2.80	2.02
9955.00	6.380	194.620	9950.03	29.84 N	99.30 W	9.17	1.69
10019.00	8.400	200.370	10013.49	22.02 N	101.82 W	17.37	3.36
10080.00	9.080	205.980	10073.79	13.51 N	105.48 W	26.62	1.79
10143.00	9.160	208.390	10135.99	4.63 N	110.05 W	36.56	0.62
10206.00	9.710	201.440	10198.14	4.72 S	114.37 W	46.86	2.01
10270.00	11.120	190.100	10261.09	15.82 S	117.43 W	58.30	3.88
10333.00	11.740	189.260	10322.84	28.13 S	119.52 W	70.51	1.02
10396.00	13.410	184.910	10384.33	41.74 S	121.18 W	83.75	3.05
10459.00	15.100	179.310	10445.39	57.22 S	121.71 W	98.33	3.46
10523.00	14.740	179.920	10507.23	73.70 S	121.60 W	113.59	0.61
10586.00	14.830	180.380	10568.14	89.78 S	121.64 W	128.53	0.23

Survey Report for Sec. 31-T24S-R26E - White City 31 Federal 2

Measured Depth (ft)	Incl.	Grid Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
10649.00	16.090	176.830	10628.87	106.56 S	121.21 W	143.95	2.50
10712.00	17.290	177.250	10689.21	124.63 S	120.28 W	160.38	1.91
10807.00	17.150	175.750	10779.95	152.69 S	118.56 W	185.80	0.49
10903.00	17.200	174.890	10871.67	180.95 S	116.25 W	211.18	0.27
10998.00	17.220	177.630	10962.42	208.99 S	114.42 W	236.53	0.85
11093.00	17.560	179.920	11053.08	237.37 S	113.81 W	262.66	0.80
11188.00	18.010	184.020	11143.54	266.35 S	114.82 W	289.95	1.40
11283.00	17.960	189.670	11233.91	295.44 S	118.31 W	318.25	1.84
11377.00	18.250	197.920	11323.27	323.74 S	125.28 W	347.11	2.74
11473.00	18.300	202.530	11414.43	351.96 S	135.68 W	377.18	1.51
11567.00	13.930	207.770	11504.72	375.62 S	146.61 W	403.20	4.90
11662.00	12.730	212.990	11597.16	394.52 S	157.64 W	424.85	1.79
11758.00	10.650	215.810	11691.17	410.59 S	168.59 W	443.83	2.25
11853.00	9.650	222.050	11784.68	423.62 S	179.06 W	459.82	1.56
11948.00	7.740	231.830	11878.59	433.49 S	189.42 W	472.83	2.54
12042.00	6.470	250.930	11971.88	439.13 S	199.41 W	481.78	2.83
12092.00	5.540	261.890	12021.61	440.39 S	204.46 W	484.83	2.94
12150.00	5.540	261.890	12079.34	441.18 S	210.00 W	487.62	0.00

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to RKB. Northings and Eastings are relative to 2150' FSL/1700' FWL.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from 2150' FSL/1700' FWL and calculated along an Azimuth of 201.800° (Grid).

Based upon Minimum Curvature type calculations, at a Measured Depth of 12150.00ft.,
The Bottom Hole Displacement is 488.61ft., in the Direction of 205.455° (Grid).

Comments

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
9687.00	9682.67	45.13 N	94.32 W	last gyro survey
12092.00	12021.61	440.39 S	204.46 W	last MWD survey
12150.00	12079.34	441.18 S	210.00 W	projection to TD

North Reference Sheet for Sec. 31-T24S-R26E - White City 31 Federal 2

Coordinate System is NAD27 New Mexico State Planes, Eastern Zone, US Foot
Source: Snyder, J.P., 1987, Map Projections - A Working Manual

Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

Spheroid is Clarke - 1866

Equatorial Radius: 6378206.400m., Polar Radius: 6356583.800m., Inverse Flattening: 294.978698213901

Projection method is Transverse Mercator or Gauss Kruger Projection

Central Meridian is -104.333°, Longitude Origin: 0.000°, Latitude Origin: 31.000°

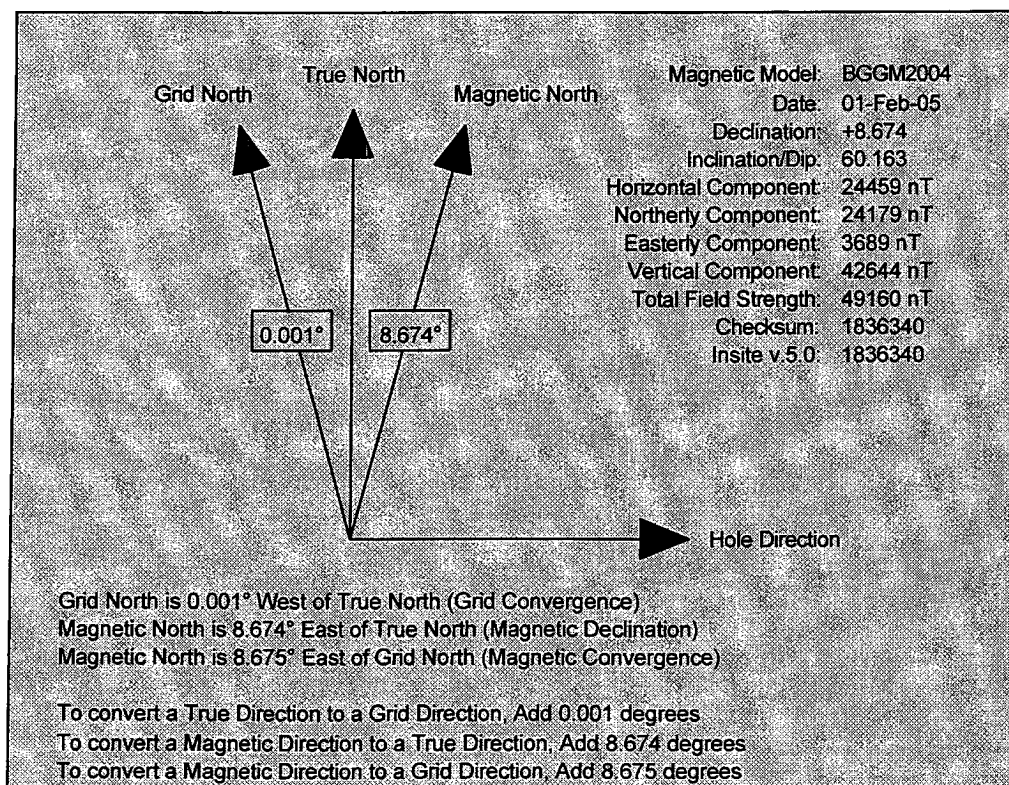
False Easting: 152400.00m, False Northing: 0.00m, Scale Reduction: 0.99990909

Grid Coordinates of Well: 426368.70 N, 499536.00 E

Geographical Coordinates of Well: 32° 10' 19.9362" N, 104° 20' 05.3986" W

Surface Elevation of Well: 3493.00ft

Grid Convergence at Surface is -0.001°, Magnetic Convergence at Surface is -8.675° (1 February, 2005)



Halliburton Sperry-Sun

Gruy Petroleum Management Co.
White City 31 Federal 2 - MWD survey

New Mexico
Eddy County
Sec. 31-T24S-R26E
Data Source:

Meas. Depth (ft)	Incl.	Azm.	Sub-Sea Depth (ft)	Vert. Depth (ft)	Local Northings (ft)	Local Eastings (ft)	Global Northings (ft)	Global Eastings (ft)	Vert. Section (ft)	Dogleg Rate (°/100ft)
0	0	0	-3493	0	0.00 N	0.00 E	426368.70 N	499536.00 E	0	0
200	0.639	330.641	-3293	200	0.97 N	0.55 W	426369.67 N	499535.45 E	-0.7	0.32
400	3.922	346.325	-3093.19	399.81	8.59 N	2.71 W	426377.29 N	499533.29 E	-6.97	1.66
600	3.541	351.869	-2893.61	599.39	21.35 N	5.20 W	426390.05 N	499530.80 E	-17.89	0.26
800	4.02	347.699	-2694.05	798.95	34.32 N	7.57 W	426403.02 N	499528.43 E	-29.05	0.28
1000	4.132	339.568	-2494.55	998.45	47.92 N	11.58 W	426416.62 N	499524.42 E	-40.19	0.29
1200	3.944	340.6	-2295.05	1197.95	61.16 N	16.38 W	426429.86 N	499519.62 E	-50.7	0.1
1400	3.292	341.259	-2095.45	1397.55	73.08 N	20.51 W	426441.78 N	499515.49 E	-60.24	0.33
1600	2.035	336.723	-1895.67	1597.33	81.78 N	23.75 W	426450.48 N	499512.25 E	-67.11	0.64
1800	1.694	333.839	-1695.77	1797.23	87.70 N	26.46 W	426456.40 N	499509.54 E	-71.6	0.18
2000	1.343	324.15	-1495.84	1997.16	92.25 N	29.14 W	426460.95 N	499506.86 E	-74.83	0.22
2200	1.211	311.457	-1295.89	2197.11	95.55 N	32.09 W	426464.25 N	499503.91 E	-76.8	0.16
2400	1.129	285.888	-1095.93	2397.07	97.49 N	35.57 W	426466.19 N	499500.43 E	-77.3	0.26
2600	0.891	269.754	-895.96	2597.04	98.02 N	39.02 W	426466.72 N	499496.98 E	-76.52	0.18
2800	0.699	281.652	-695.98	2797.02	98.26 N	41.77 W	426466.96 N	499494.23 E	-75.72	0.13
3000	0.569	287.949	-496	2997	98.81 N	43.91 W	426467.51 N	499492.09 E	-75.44	0.07
3200	0.633	286.851	-296.01	3196.99	99.44 N	45.91 W	426468.14 N	499490.09 E	-75.28	0.03
3400	0.612	272.053	-96.02	3396.98	99.79 N	48.03 W	426468.49 N	499487.97 E	-74.82	0.08
3600	0.513	230.248	103.97	3596.97	99.26 N	49.79 W	426467.96 N	499486.21 E	-73.67	0.21
3800	0.439	234.891	303.97	3796.97	98.25 N	51.10 W	426466.95 N	499484.90 E	-72.24	0.04
4000	0.396	222.65	503.96	3996.96	97.30 N	52.20 W	426466.00 N	499483.80 E	-70.96	0.05
4200	0.469	217.268	703.95	4196.95	96.14 N	53.16 W	426464.84 N	499482.84 E	-69.52	0.04
4400	0.507	211.802	903.95	4396.95	94.74 N	54.12 W	426463.44 N	499481.88 E	-67.86	0.03
4600	0.441	208.986	1103.94	4596.94	93.31 N	54.96 W	426462.01 N	499481.04 E	-66.23	0.03
4800	0.444	170.263	1303.93	4796.93	91.88 N	55.20 W	426460.58 N	499480.80 E	-64.8	0.15
5000	0.495	164.206	1503.93	4996.93	90.28 N	54.84 W	426458.98 N	499481.16 E	-63.46	0.04

5200	0.562	151.093	1703.92	5196.92	88.59 N	54.13 W	426457.29 N	499481.87 E	-62.15	0.07
5400	0.115	251.91	1903.92	5396.92	87.67 N	53.85 W	426456.37 N	499482.15 E	-61.41	0.3
5600	0.488	265.062	2103.91	5596.91	87.54 N	54.89 W	426456.24 N	499481.11 E	-60.89	0.19
5800	0.174	16.538	2303.91	5796.91	87.75 N	55.65 W	426456.45 N	499480.35 E	-60.81	0.29
6000	1.114	357.005	2503.9	5996.9	89.99 N	55.66 W	426458.69 N	499480.34 E	-62.88	0.48
6200	0.731	342.898	2703.87	6196.87	93.15 N	56.14 W	426461.85 N	499479.86 E	-65.64	0.22
6400	0.558	299.701	2903.86	6396.86	94.85 N	57.36 W	426463.55 N	499478.64 E	-66.76	0.25
6600	1.331	305.757	3103.83	6596.83	96.69 N	60.09 W	426465.39 N	499475.91 E	-67.46	0.39
6800	1.162	287.373	3303.78	6796.78	98.65 N	63.91 W	426467.35 N	499472.09 E	-67.86	0.22
7000	0.295	183.78	3503.77	6996.77	98.74 N	65.88 W	426467.44 N	499470.12 E	-67.22	0.63
7200	1.218	236.931	3703.75	7196.75	97.07 N	67.70 W	426465.77 N	499468.30 E	-64.99	0.53
7400	2.921	202.787	3903.62	7396.62	91.21 N	71.45 W	426459.91 N	499464.55 E	-58.15	1.02
7500	2.83	190.524	4003.49	7496.49	86.44 N	72.89 W	426455.14 N	499463.11 E	-53.19	0.62
7600	2.788	185.636	4103.37	7596.37	81.59 N	73.58 W	426450.29 N	499462.42 E	-48.43	0.24
7700	2.325	189.29	4203.27	7696.27	77.17 N	74.15 W	426445.87 N	499461.85 E	-44.11	0.49
7800	2.264	185.694	4303.19	7796.19	73.20 N	74.67 W	426441.90 N	499461.33 E	-40.23	0.16
7900	1.952	188.633	4403.13	7896.13	69.55 N	75.12 W	426438.25 N	499460.88 E	-36.68	0.33
8000	1.695	194.047	4503.08	7996.08	66.43 N	75.74 W	426435.13 N	499460.26 E	-33.55	0.31
8100	1.545	177.57	4603.04	8096.04	63.65 N	76.04 W	426432.35 N	499459.96 E	-30.86	0.49
8200	1.542	179.306	4703	8196	60.96 N	75.97 W	426429.66 N	499460.03 E	-28.39	0.05
8300	1.374	181.454	4802.97	8295.97	58.42 N	75.98 W	426427.12 N	499460.02 E	-26.02	0.18
8400	1.138	195.324	4902.94	8395.94	56.26 N	76.27 W	426424.96 N	499459.73 E	-23.91	0.38
8500	0.996	193.052	5002.93	8495.93	54.45 N	76.73 W	426423.15 N	499459.27 E	-22.07	0.15
8600	0.866	196.688	5102.91	8595.91	52.88 N	77.14 W	426421.58 N	499458.86 E	-20.45	0.14
8700	0.855	199.569	5202.9	8695.9	51.46 N	77.61 W	426420.16 N	499458.39 E	-18.96	0.04
8800	0.849	209.195	5302.89	8795.89	50.11 N	78.22 W	426418.81 N	499457.78 E	-17.48	0.14
8900	0.644	199.953	5402.88	8895.88	48.93 N	78.78 W	426417.63 N	499457.22 E	-16.18	0.24
9000	0.565	192.864	5502.88	8995.88	47.92 N	79.08 W	426416.62 N	499456.92 E	-15.13	0.11
9100	0.535	235.065	5602.87	9095.87	47.18 N	79.57 W	426415.88 N	499456.43 E	-14.25	0.4
9200	1.16	266.244	5702.86	9195.86	46.84 N	80.96 W	426415.54 N	499455.04 E	-13.43	0.75
9300	1.421	265.515	5802.84	9295.84	46.68 N	83.21 W	426415.38 N	499452.79 E	-12.44	0.26
9400	1.633	262.931	5902.8	9395.8	46.41 N	85.86 W	426415.11 N	499450.14 E	-11.2	0.22
9500	2.112	261.2	6002.75	9495.75	45.95 N	89.09 W	426414.65 N	499446.91 E	-9.58	0.48
9600	1.525	261.298	6102.7	9595.7	45.47 N	92.23 W	426414.17 N	499443.77 E	-7.97	0.59
9687	1.264	260.167	6189.67	9682.67	45.13 N	94.32 W	426413.83 N	499441.68 E	-6.87	0.3
9702	1.1	249.47	6204.67	9697.67	45.05 N	94.62 W	426413.75 N	499441.38 E	-6.69	1.83
9765	1.59	210.84	6267.65	9760.65	44.09 N	95.63 W	426412.79 N	499440.37 E	-5.42	1.59
9828	4.04	193.29	6330.57	9823.57	41.18 N	96.59 W	426409.88 N	499439.41 E	-2.36	4.08
9892	5.33	192.81	6394.36	9887.36	36.08 N	97.77 W	426404.78 N	499438.23 E	2.8	2.02
9955	6.38	194.62	6457.03	9950.03	29.84 N	99.30 W	426398.54 N	499436.70 E	9.17	1.69
10019	8.4	200.37	6520.49	10013.49	22.02 N	101.82 W	426390.72 N	499434.18 E	17.37	3.36

last gyro survey

10080	9.08	205.98	6580.79	10073.79	13.51 N	105.48 W	426382.21 N	499430.52 E	26.62	1.79
10143	9.16	208.39	6642.99	10135.99	4.63 N	110.05 W	426373.33 N	499425.95 E	36.56	0.62
10206	9.71	201.44	6705.14	10198.14	4.72 S	114.37 W	426363.98 N	499421.63 E	46.86	2.01
10270	11.12	190.1	6768.09	10261.09	15.82 S	117.43 W	426352.88 N	499418.57 E	58.3	3.88
10333	11.74	189.26	6829.84	10322.84	28.13 S	119.52 W	426340.57 N	499416.48 E	70.51	1.02
10396	13.41	184.91	6891.33	10384.33	41.74 S	121.18 W	426326.96 N	499414.82 E	83.75	3.05
10459	15.1	179.31	6952.39	10445.39	57.22 S	121.71 W	426311.48 N	499414.29 E	98.33	3.46
10523	14.74	179.92	7014.23	10507.23	73.70 S	121.60 W	426295.00 N	499414.40 E	113.59	0.61
10586	14.83	180.38	7075.14	10568.14	89.78 S	121.64 W	426278.92 N	499414.36 E	128.53	0.23
10649	16.09	176.83	7135.87	10628.87	106.56 S	121.21 W	426262.14 N	499414.79 E	143.95	2.5
10712	17.29	177.25	7196.21	10689.21	124.63 S	120.28 W	426244.07 N	499415.72 E	160.38	1.91
10807	17.15	175.75	7286.95	10779.95	152.69 S	118.56 W	426216.01 N	499417.44 E	185.8	0.49
10903	17.2	174.89	7378.67	10871.67	180.95 S	116.25 W	426187.75 N	499419.75 E	211.18	0.27
10998	17.22	177.63	7469.42	10962.42	208.99 S	114.42 W	426159.71 N	499421.58 E	236.53	0.85
11093	17.56	179.92	7560.08	11053.08	237.37 S	113.81 W	426131.33 N	499422.19 E	262.66	0.8
11188	18.01	184.02	7650.54	11143.54	266.35 S	114.82 W	426102.35 N	499421.18 E	289.95	1.4
11283	17.96	189.67	7740.91	11233.91	295.44 S	118.31 W	426073.26 N	499417.69 E	318.25	1.84
11377	18.25	197.92	7830.27	11323.27	323.74 S	125.28 W	426044.96 N	499410.72 E	347.11	2.74
11473	18.3	202.53	7921.43	11414.43	351.96 S	135.68 W	426016.74 N	499400.32 E	377.18	1.51
11567	13.93	207.77	8011.72	11504.72	375.62 S	146.61 W	425993.08 N	499389.39 E	403.2	4.9
11662	12.73	212.99	8104.16	11597.16	394.52 S	157.64 W	425974.18 N	499378.36 E	424.85	1.79
11758	10.65	215.81	8198.17	11691.17	410.59 S	168.59 W	425958.11 N	499367.41 E	443.83	2.25
11853	9.65	222.05	8291.68	11784.68	423.62 S	179.06 W	425945.08 N	499356.94 E	459.82	1.56
11948	7.74	231.83	8385.59	11878.59	433.49 S	189.42 W	425935.21 N	499346.58 E	472.83	2.54
12042	6.47	250.93	8478.88	11971.88	439.13 S	199.41 W	425929.57 N	499336.59 E	481.78	2.83
12092	5.54	261.89	8528.61	12021.61	440.39 S	204.46 W	425928.31 N	499331.54 E	484.83	2.94
12150	5.54	261.89	8586.34	12079.34	441.18 S	210.00 W	425927.52 N	499326.00 E	487.62	0

last MWD survey
projection to TD

All data is in feet (us) unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to RKB. Northings and Eastings are relative to 2150' FSL/1700' FWL.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from 2150' FSL/1700' FWL and calculated along an Azimuth of 201.800° (Grid).

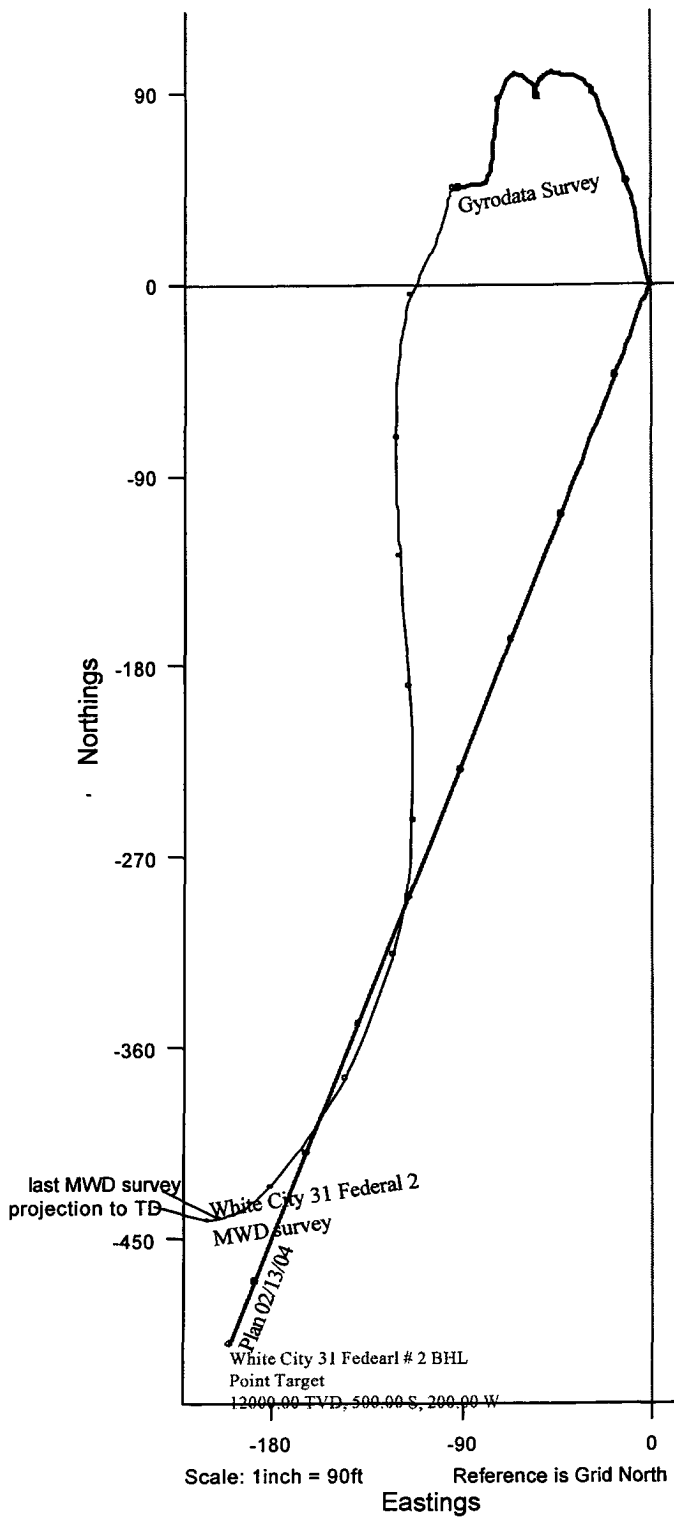
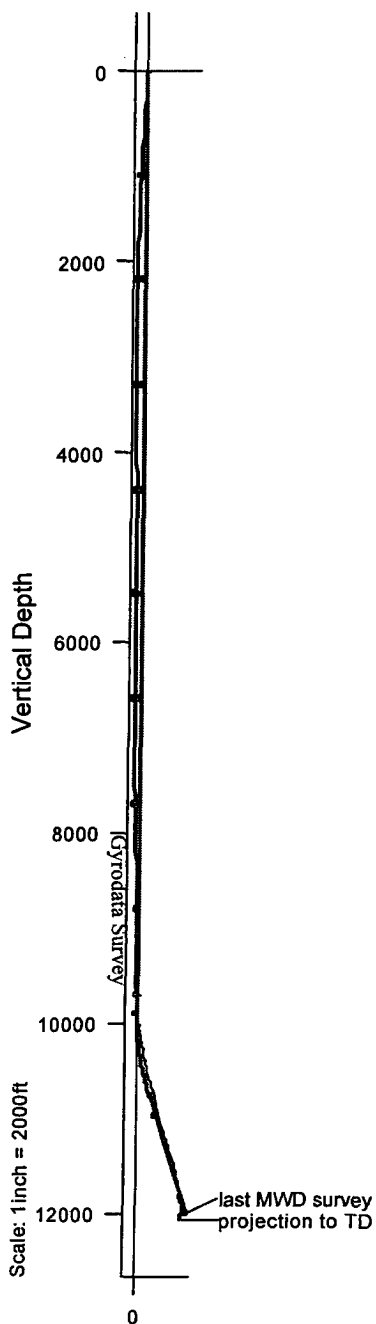
Coordinate astern Zone.

Grid Convergence at Surface is -0.001°.

Based upo ed Depth of 12150.00ft.

The Bottomtion of 205.455° (Grid).

New Mexico
Eddy County
Sec. 31-T24S-R26E
White City 31 Federal 2



Section Azimuth: 201.800° (Grid North)

Vertical Section

Prepared by:
Dennis Cook

Date/Time:
1 February, 2005 - 13:49

Checked:

Approved:

OPERATOR MAGNUM HUNTER RESOURCES
WELL/LEASE WHITE CITY 31 FED #2
COUNTY EDDY, NM

075-0033

C

STATE OF NEW MEXICO
DEVIATION REPORT

200	1/2
696	3 1/2
917	4
1,105	4 1/4
1,268	4
1,362	3 3/4
1,489	3
1,633	2
2,010	1
2,546	1
3,016	1
3,554	1
4,059	1
4,501	1
4,997	1
5,433	1
5,940	1
6,445	1
6,940	1
7,211	1
7,425	2
7,525	2
7,684	1
8,032	1
8,478	1
8,908	1
9,420	1

RECEIVED

FEB 14 2005

MAILROOM

STATE OF TEXAS
COUNTY OF MIDLAND

BY:

Steve Moore

The foregoing instrument was acknowledged before me February 10, 2005, by Steve Moore on behalf of Patterson - UTI Drilling Company, LP, LLLP.

J Robertson
Notary Public for Midland County, Texas
My Commission Expires: 8/23/07

