

N.M. Oil Cons. DIV-Dist. 2

Form 3160-4
August 1999)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT1301 W. Grand Avenue
Artesia, NM 88210FORM APPROVED
OMB NO. 1004-0137
EXPIRES: NOVEMBER 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
 1. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,
☐ Other

2. Name of Operator

DEVON ENERGY PRODUCTION COMPANY, LP

3. Address

20 North Broadway, Ste 1500
Oklahoma City, OK 73102-8260

3a. Phone No. (include area code)

405-552-8198

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At Surface

A 1254 FNL 330 FEL

At top prod. Interval reported below

At total Depth

D 688 FNL 357 FWL

4. Date Spudded

1/16/2005

15. Date T.D. Reached

2/1/2005

16. Date Completed

3/23/2005

☐ D & A☒ Ready to Prod.

8. Total Depth: MD

8,022

TVD

19. Plug Back T.D.: MD

11624

TVI

20. Depth Bridge Plug Set: MD

TVI

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

CNLD, HRLL

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17 1/2"	13 3/8"/H-40	48#	0	625'		600 sx Poz C, circ 175 sx		0	
12 1/4"	9 5/8"/J-55	40#	0	3860'		1350 sx CI C		0	
8 3/4"	7"/J-55	23&26#	0	8022'		800 sx CI C; circ 67 sx			

4. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 7/8"	7315'							

5. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
DELAWARE	10190	11606	10190', 10899', & 11606'		20	Below CBP
DELAWARE	8066	9482	8066-9482'		20	Producing

7. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10190', 10899', & 11606'	Acidize each zone with 250 gals 7.5% NEFe acid. Frac w/ 60,000# 16/30 Ottawa & RC.
8066-9482'	Acidize with 1000 gals 7.5% NEFe acid. Frac w/ 60,000# 16/30 Ottawa & RC.

8. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
3/23/2005	4/4/2005	24	→	368	289	560			Pumping
Choke Size	Tbg. Press. Flwg SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
0	400	150	→	368	289	560	785		Producing

8a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	
			→						

See instructions and spaces for additional data on reverse side)

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OCD-ARTESIA

ACCEPTED FOR RECORD

Producing

MAY 17 2005

LES BABYAK
PETROLEUM ENGINEER

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas : Oil Ratio	Well Status	

See instructions and spaces for additional data on reverse side)

Disposition of Gas (Sold, used for fuel, vented, etc.)

sold

Summary of Porous Zones (Include Aquifers):

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.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				Rustler	419
				Salado	714
				Base Salt	3655
				Delaware	3902
				Cherry Canyon	4872
				Brushy Canyon	6477

Additional remarks (include plugging procedure):

1/26/05 MIRU PU.

1/01/05 RIH w/ bit to PBTD of 11,351'. Drill out to 11,612'. Circ hole and POOH.

1/02/05 RIH w/ gun and perforate 11,606; 7 holes, 10,899; 7 holes, 10,190; 6 holes. POOH w/ tbg & guns.

1/03/05 RIH w/PPI tool & tbg and acidize zones w/ 250 gals 7.5% NEFe acid each. POOH.

1/05/05 Frac down csg w/ 60,000# 16/30 Ottawa & RC..

1/07/05 RIH w/ bit & tbg to 10,124'. Circ hole clean. POOH.

1/08/05 RIH w/ composite plug. Drill & push CBP to 10,200'. POOH.

1/09/05 RIH w/ 2nd CBP to 10,000' and set CBP. Test plug to 3000# - held good. RIH w/ perforating gun and perforate 8066-8067; 6 holes, 8776-8777; 7 holes, 1481-9482; 7 holes. POOH w/ tbg & guns.

1/10/05 RIH w/ pkr & tbg to 9480' and spot acid up to 8,000'. Pull pkr up to 7996' and set. Acidize w/ 1000 gals 7.5% NEFe acid. POOH w/ tbg & pkr.

1/11/05 Frac w/ 60,000# 16/30 Ottawa & RC.

1/23/05 RU & ran in sub pump. Turn well over to production.

Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7. Other

I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (Please print)

Norvella Adams

Title

Sr. Staff Engineering Technician

Signature

Date

5/9/2005

8 U.S.C Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



McVAY DRILLING CO. INC.
Post Office Box 924
Hobbs, New Mexico 88241
(505) 397-3311
FAX: 39-DRILL

Well Name and Number: Apache 25 Fed # 14

Location: Sec.25, T22S, R30E, Eddy County NM

Operator: Devon

Drilling Contractor: McVay Drilling Company

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

Degrees @ Depth		Degrees @ Depth		Degrees @ Depth	
1/2	179	27 3/4	6775	91 1/2	9363
1/4	426	30 1/2	7087	90	9427
1/4	625	30 3/4	7152	91 3/4	9490
3/4	870	30 1/4	7275	92 3/4	9553
3/4	1726	30	7339	92 1/2	9682
3/4	2078	32 1/4	7540	91 1/2	9745
3/4	2781	40 1/4	7600	90 3/4	9877
1 1/2	3224	55 1/2	7724	89 1/2	9937
3/4	3252	61	7788	92 1/4	10002
1 1/4	3606	67 3/4	7851	91 3/4	10192
1	4178	75 1/2	7913	89 3/4	10383
3/4	4460	82 1/2	7968	89 3/4	10446
1	4758	86 3/4	8059	90 1/4	10640
1/2	5000	89 1/2	8248	90 1/4	10831
1	2020	90 1/4	8374	90 1/4	11021
1/2	5568	91 3/4	8503	91 1/4	11140
3	5985	91 1/4	8694	92	11203
7	6100	88 3/4	8949	90 3/4	11237
12 3/4	6273	88 1/2	9012	91 1/4	11337
16 3/4	6395	88 1/4	9077		
19	6465	89 1/2	9141		
24	6525	91 1/4	9205		

Drilling Contractor: McVay Drilling Company

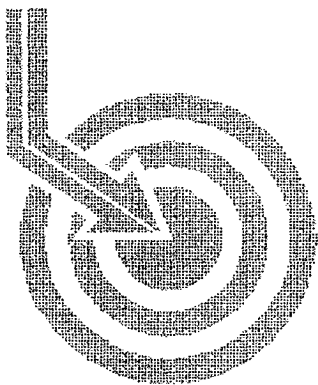
By: Joe Wynn

Subscribed and sworn to before me this 22nd day of February, 2005

Tim Henrichs
Notary Public

My Commission Expires: 8-16-05

Lea County, New Mexico



Scientific Drilling

DEVON ENERGY

Field: Quahada Ridge, SE
Site: Eddy County, NM
Well: Apache 25 Fed. #14
Wellpath: VH - Job #32K0105064
Survey: 01/26/05

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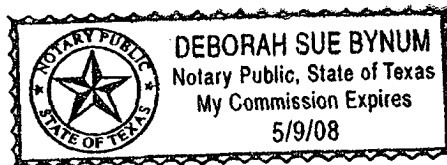
This survey is correct to the best of my knowledge
and is supported by actual field data.

Deborah Sue Bynum.....Company Representative

Notorized this date 7th of February, 2005.

Deborah Sue Bynum
Notary Signature

County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International Survey Report

Company: DEVON ENERGY
Field: Quahada Ridge, SE
Site: Eddy County, NM
Well: Apache 25 Fed. #14
Wellpath: VH - Job #32K0105064

Date: 2/7/2005 Time: 21:58:42 Page: 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,144.75Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 01/26/05
KSRG 0'-5895'
Company: Scientific Drilling Internatio
Tool: Keeper;Keeper Gyro

Start Date: 1/26/2005
Engineer: Gonzales w/P&M
Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.12	102.35	100.00	0.08	-0.02	0.10	0.12	0.10	102.35
200.00	0.11	83.62	200.00	0.20	-0.03	0.30	0.04	0.30	96.49
300.00	0.18	133.37	300.00	0.40	-0.13	0.51	0.14	0.53	104.45
400.00	0.24	133.62	400.00	0.76	-0.38	0.78	0.06	0.87	116.33
500.00	0.23	131.42	500.00	1.16	-0.66	1.08	0.01	1.26	121.53
600.00	0.25	137.63	600.00	1.57	-0.95	1.38	0.03	1.67	124.78
700.00	0.27	147.13	700.00	2.03	-1.31	1.65	0.05	2.11	128.53
800.00	0.38	141.25	799.99	2.59	-1.77	1.99	0.11	2.66	131.73
900.00	0.30	148.76	899.99	3.18	-2.25	2.33	0.09	3.24	134.05
1000.00	0.35	149.32	999.99	3.75	-2.74	2.62	0.05	3.79	136.27
1100.00	0.38	148.01	1099.99	4.39	-3.28	2.95	0.03	4.42	138.04
1200.00	0.51	142.89	1199.99	5.16	-3.92	3.40	0.14	5.19	139.09
1300.00	0.41	144.36	1299.98	5.96	-4.57	3.87	0.10	5.99	139.69
1400.00	0.49	144.87	1399.98	6.75	-5.21	4.33	0.08	6.77	140.26
1500.00	0.55	148.09	1499.98	7.66	-5.96	4.83	0.07	7.67	141.01
1600.00	0.50	144.28	1599.97	8.57	-6.72	5.34	0.06	8.58	141.57
1700.00	0.52	150.89	1699.97	9.46	-7.48	5.81	0.06	9.47	142.14
1800.00	0.60	152.73	1799.96	10.43	-8.34	6.27	0.08	10.43	143.05
1900.00	0.66	161.22	1899.96	11.50	-9.35	6.70	0.11	11.50	144.38
2000.00	0.64	159.37	1999.95	12.59	-10.42	7.08	0.03	12.59	145.80
2100.00	0.68	160.90	2099.94	13.70	-11.50	7.47	0.04	13.71	146.99
2200.00	0.66	164.18	2199.94	14.82	-12.61	7.82	0.04	14.84	148.20
2300.00	0.75	158.45	2299.93	15.99	-13.78	8.22	0.11	16.04	149.18
2400.00	0.73	165.81	2399.92	17.22	-15.00	8.62	0.10	17.30	150.13
2500.00	0.73	163.08	2499.91	18.42	-16.23	8.96	0.03	18.54	151.11
2600.00	0.74	170.11	2599.90	19.61	-17.48	9.25	0.09	19.77	152.10
2700.00	0.78	180.12	2699.90	20.75	-18.79	9.36	0.14	21.00	153.52
2800.00	0.66	191.76	2799.89	21.70	-20.04	9.24	0.19	22.07	155.23
2900.00	0.87	194.91	2899.88	22.58	-21.33	8.93	0.21	23.13	157.28
3000.00	0.85	195.22	2999.87	23.54	-22.78	8.54	0.02	24.33	159.45
3100.00	0.83	175.07	3099.86	24.63	-24.22	8.41	0.29	25.64	160.85
3200.00	1.16	154.04	3199.84	26.26	-25.85	8.91	0.49	27.35	160.98
3300.00	1.15	154.74	3299.82	28.24	-27.67	9.79	0.02	29.35	160.52
3400.00	1.28	147.09	3399.80	30.35	-29.52	10.82	0.21	31.44	159.87
3500.00	1.36	140.22	3499.77	32.65	-31.37	12.19	0.18	33.65	158.77
3600.00	1.64	138.84	3599.74	35.25	-33.35	13.89	0.28	36.13	157.39
3700.00	1.53	131.11	3699.70	37.97	-35.31	15.84	0.24	38.70	155.85
3800.00	1.09	127.36	3799.67	40.18	-36.77	17.60	0.45	40.76	154.42
3900.00	1.01	120.23	3899.66	41.89	-37.79	19.11	0.15	42.35	153.17
4000.00	0.88	116.24	3999.64	43.37	-38.57	20.57	0.15	43.71	151.93
4100.00	0.92	115.33	4099.63	44.74	-39.25	21.98	0.04	44.99	150.75
4200.00	0.95	117.93	4199.62	46.18	-39.98	23.44	0.05	46.35	149.62
4300.00	0.90	119.89	4299.60	47.63	-40.76	24.85	0.06	47.74	148.63
4400.00	0.79	124.88	4399.59	48.99	-41.55	26.10	0.13	49.07	147.87
4500.00	0.65	128.08	4499.59	50.18	-42.29	27.11	0.15	50.24	147.34
4600.00	0.70	126.99	4599.58	51.31	-43.01	28.04	0.05	51.35	146.89
4700.00	0.64	133.07	4699.57	52.44	-43.76	28.94	0.09	52.46	146.52
4800.00	0.63	132.45	4799.57	53.52	-44.51	29.75	0.01	53.54	146.24



Scientific Drilling International

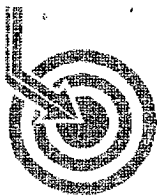
Survey Report

Company: DEVON ENERGY
Field: Quahada Ridge, SE
Site: Eddy County, NM
Well: Apache 25 Fed. #14
Wellpath: VH - Job #32K0105064

Date: 2/7/2005 Time: 21:58:42 Page: 2
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,144.75Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

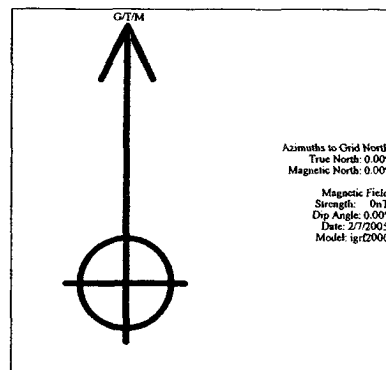
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	0.53	128.07	4899.56	54.50	-45.17	30.52	0.11	54.51	145.95
5000.00	0.58	138.78	4999.56	55.45	-45.83	31.22	0.11	55.46	145.74
5100.00	0.47	127.28	5099.55	56.34	-46.46	31.88	0.15	56.35	145.54
5200.00	0.41	128.61	5199.55	57.08	-46.94	32.49	0.06	57.08	145.31
5300.00	0.47	137.08	5299.55	57.83	-47.46	33.05	0.09	57.83	145.15
5400.00	0.44	128.56	5399.54	58.60	-48.00	33.63	0.07	58.60	144.99
5500.00	0.36	128.47	5499.54	59.27	-48.43	34.17	0.08	59.27	144.80
5600.00	0.19	137.06	5599.54	59.74	-48.75	34.53	0.17	59.74	144.69
5700.00	0.24	141.80	5699.54	60.11	-49.04	34.77	0.05	60.11	144.66
5800.00	0.33	156.07	5799.54	60.61	-49.46	35.02	0.11	60.61	144.70
5895.00	0.45	143.75	5894.54	61.25	-50.01	35.35	0.15	61.25	144.75



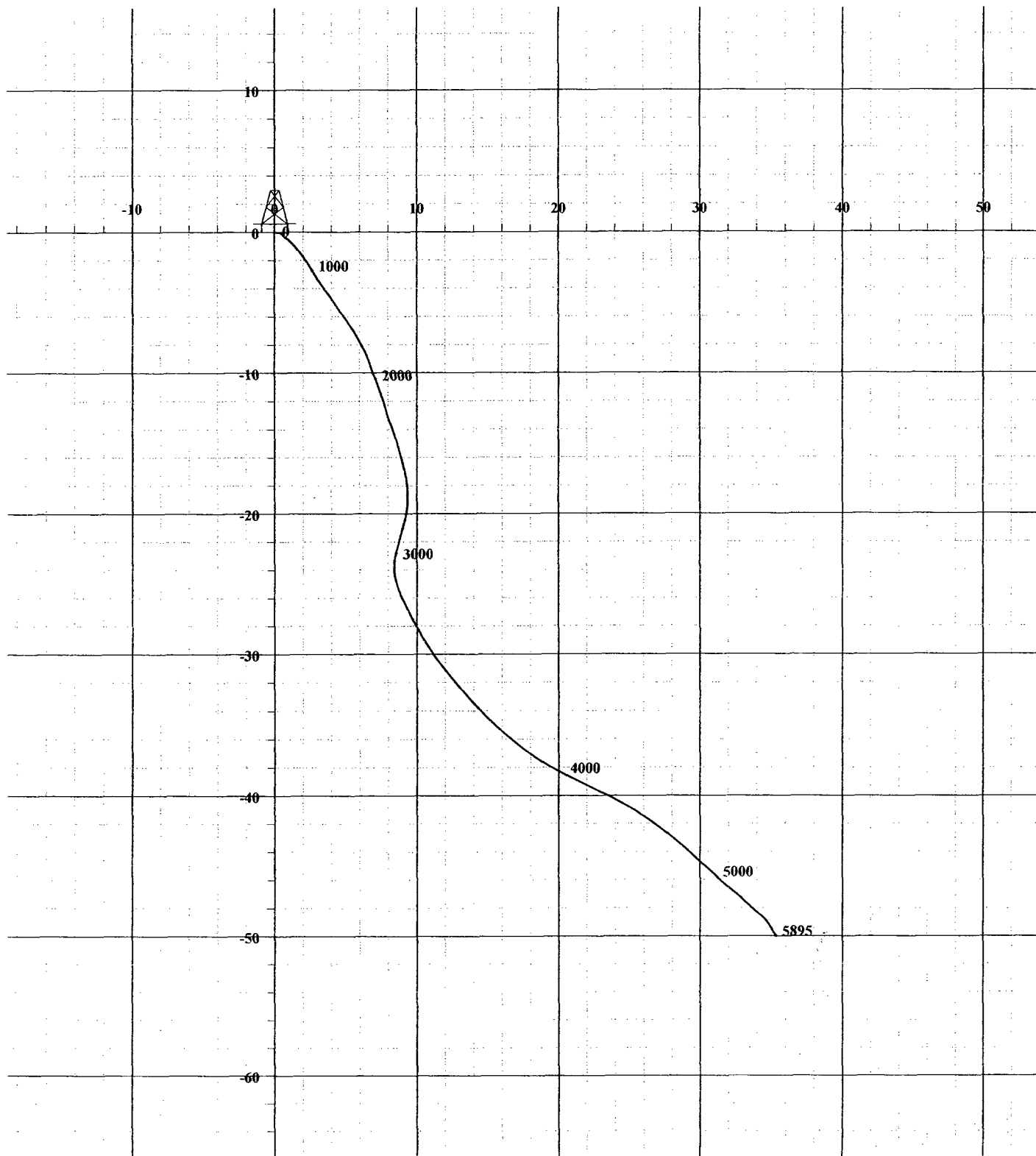
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Field: Quahada Ridge, SE
Site: Eddy County, NM
Well: Apache 25 Fed. #14
Wellpath: VH - Job #32K0105064
Survey: 01/26/05



West(-)/East(+) [10ft/in]

South(-)/North(+) [10ft/in]



PathFinder

Survey Report

Company: Devon Energy	Date: 2/18/2005	Time: 10:48:56	Page: 1
Field: Apache 25 Federal #14	Co-ordinate(NE) Reference: Site: Section 25, T22-S, R30-E		
Site: Section 25, T22-S, R30-E	Vertical (TVD) Reference: SITE 0.0		
Well: Apache '25' Federal #14	Section (VS) Reference: Well (0.00N,0.00E,281.31Azi)		
Wellpath: Original Hole	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: Apache 25 Federal #14

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Site Centre
Geomagnetic Model: igrf2005

Site: Section 25, T22-S, R30-E

Site Position:	Northing: 497559.74 ft	Latitude: 32 22 0.800 N
From: Map	Easting: 656444.81 ft	Longitude: 103 49 35.900 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 3370.00 ft		Grid Convergence: 0.27 deg

Well: Apache '25' Federal #14

Slot Name:

Well Position: +N/-S 0.00 ft	Northing: 497559.74 ft	Latitude: 32 22 0.800 N
+E/-W 0.00 ft	Easting: 656444.81 ft	Longitude: 103 49 35.900 W
Position Uncertainty: 0.00 ft		

Wellpath: Original Hole

Current Datum: SITE	Height 0.00 ft	Drilled From: Surface
Magnetic Data: 1/25/2005		Tie-on Depth: 0.00 ft
Field Strength: 49351 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)		Declination: 8.46 deg
ft	+N/-S ft	Mag Dip Angle: 60.43 deg
		+E/-W Direction deg
0.00	0.00	0.00 281.31

Survey: PathFinder MWD Surveys

Start Date: 1/27/2005

Company: PathFinder Energy Services

Engineer: Ron McIntyre
Tied-to: From: Definitive Path

Survey: PathFinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5895.00	0.45	143.75	5894.54	-50.01	35.35	-44.47	0.00	0.00	0.00	Tie-In to Gyro Begin PathFinder MWD Survey
5985.00	2.99	279.96	5984.50	-49.89	33.25	-42.39	3.70	2.82	151.34	
6043.00	5.10	281.45	6042.35	-49.12	29.23	-38.30	3.64	3.64	2.57	
6100.00	7.03	283.91	6099.03	-47.78	23.36	-32.28	3.42	3.39	4.32	
6157.00	8.88	285.58	6155.48	-45.76	15.74	-24.40	3.27	3.25	2.93	
6215.00	10.99	287.78	6212.61	-42.87	6.16	-14.45	3.70	3.64	3.79	
6273.00	12.84	287.34	6269.35	-39.26	-5.26	-2.54	3.19	3.19	-0.76	
6330.00	14.86	287.95	6324.69	-35.12	-18.26	11.02	3.55	3.54	1.07	
6395.00	16.80	288.39	6387.22	-29.58	-35.10	28.62	2.99	2.98	0.68	
6465.00	18.91	285.93	6453.85	-23.28	-55.61	49.97	3.20	3.01	-3.51	
6525.00	21.10	285.76	6510.23	-17.68	-75.36	70.43	3.65	3.65	-0.28	
6585.00	23.21	285.32	6565.79	-11.62	-97.16	92.99	3.53	3.52	-0.73	
6651.00	25.85	284.61	6625.83	-4.55	-123.63	120.34	4.02	4.00	-1.08	
6708.00	26.82	284.44	6676.92	1.79	-148.11	145.58	1.71	1.70	-0.30	
6775.00	27.79	282.59	6736.45	8.96	-177.99	176.29	1.92	1.45	-2.76	
6838.00	27.52	281.98	6792.25	15.19	-206.56	205.53	0.62	-0.43	-0.97	
6905.00	28.84	281.27	6851.31	21.56	-237.55	237.17	2.03	1.97	-1.06	
6965.00	29.28	281.19	6903.76	27.23	-266.14	266.31	0.74	0.73	-0.13	
7027.00	30.16	281.71	6957.60	33.34	-296.26	297.05	1.48	1.42	0.84	
7087.00	30.60	281.36	7009.36	39.40	-325.99	327.39	0.79	0.73	-0.58	
7152.00	30.69	280.84	7065.28	45.78	-358.50	360.52	0.43	0.14	-0.80	
7213.00	30.69	280.22	7117.74	51.47	-389.11	391.65	0.52	0.00	-1.02	
7275.00	30.34	280.05	7171.15	57.01	-420.10	423.13	0.58	-0.56	-0.27	
7339.00	29.90	279.25	7226.51	62.40	-451.76	455.23	0.93	-0.69	-1.25	

PathFinder Survey Report

Company: Devon Energy	Date: 2/18/2005	Time: 10:48:56	Page: 2
Field: Apache 25 Federal #14	Co-ordinate(NE) Reference: Site: Section 25, T22-S, R30-E		
Site: Section 25, T22-S, R30-E	Vertical (TVD) Reference: SITE 0.0		
Well: Apache '25' Federal #14	Section (VS) Reference: Well (0.00N,0.00E,281.31Azi)		
Wellpath: Original Hole	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: PathFinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
7402.00	30.25	279.69	7281.03	67.59	-482.90	486.78	0.66	0.56	0.70	
7464.00	30.42	279.52	7334.54	72.82	-513.78	518.08	0.31	0.27	-0.27	
7490.00	30.25	278.82	7356.98	74.91	-526.74	531.20	1.51	-0.65	-2.69	
7540.00	32.27	276.79	7399.72	78.42	-552.44	557.10	4.56	4.04	-4.06	
7600.00	40.27	276.18	7448.06	82.41	-587.69	592.43	13.35	13.33	-1.02	
7662.00	48.72	275.48	7492.24	86.80	-630.88	635.65	13.65	13.63	-1.13	
7724.00	55.49	277.50	7530.31	92.36	-679.45	684.37	11.22	10.92	3.26	
7788.00	60.85	279.17	7564.05	100.26	-733.23	738.65	8.66	8.37	2.61	
7851.00	67.71	280.84	7591.37	110.14	-789.08	795.36	11.15	10.89	2.65	
7913.00	75.53	282.59	7610.91	122.10	-846.64	854.15	12.89	12.61	2.82	
7968.00	82.48	283.82	7621.39	134.43	-899.17	908.07	12.83	12.64	2.24	
8059.00	86.70	288.31	7629.98	159.50	-986.18	998.31	6.75	4.64	4.93	
8123.00	87.93	286.99	7632.97	178.88	-1047.10	1061.85	2.82	1.92	-2.06	
8185.00	90.48	285.67	7633.83	196.31	-1106.59	1123.60	4.63	4.11	-2.13	
8248.00	89.60	283.21	7633.79	212.02	-1167.59	1186.50	4.15	-1.40	-3.90	
8312.00	88.99	281.36	7634.58	225.64	-1230.12	1250.48	3.04	-0.95	-2.89	
8376.00	90.92	282.15	7634.63	238.67	-1292.77	1314.47	3.26	3.02	1.23	
8440.00	92.42	281.45	7632.76	251.76	-1355.39	1378.44	2.59	2.34	-1.09	
8503.00	91.80	281.63	7630.44	264.35	-1417.07	1441.40	1.02	-0.98	0.29	
8568.00	91.19	281.89	7628.75	277.59	-1480.69	1506.37	1.02	-0.94	0.40	
8631.00	91.63	280.84	7627.20	290.00	-1542.43	1569.35	1.81	0.70	-1.67	
8694.00	91.36	280.66	7625.55	301.75	-1604.31	1632.33	0.52	-0.43	-0.29	
8758.00	91.01	280.92	7624.23	313.73	-1667.16	1696.31	0.68	-0.55	0.41	
8822.00	90.57	280.22	7623.35	325.47	-1730.07	1760.30	1.29	-0.69	-1.09	
8885.00	90.31	280.13	7622.86	336.60	-1792.08	1823.29	0.44	-0.41	-0.14	
8949.00	88.72	279.61	7623.41	347.57	-1855.12	1887.26	2.61	-2.48	-0.81	
9012.00	88.37	278.90	7625.00	357.70	-1917.28	1950.20	1.26	-0.56	-1.13	
9077.00	88.37	279.08	7626.85	367.85	-1981.46	2015.12	0.28	0.00	0.28	
9141.00	89.43	278.11	7628.08	377.41	-2044.73	2079.04	2.24	1.66	-1.52	
9205.00	91.28	278.46	7627.69	386.63	-2108.05	2142.94	2.94	2.89	0.55	
9266.00	93.56	278.38	7625.11	395.56	-2168.34	2203.81	3.74	3.74	-0.13	
9363.00	91.45	278.38	7620.87	409.68	-2264.21	2300.58	2.18	-2.18	0.00	
9428.00	90.13	277.67	7619.98	418.75	-2328.56	2365.47	2.31	-2.03	-1.09	
9490.00	91.80	277.76	7618.93	427.07	-2389.99	2427.33	2.70	2.69	0.15	
9553.00	92.77	278.11	7616.42	435.76	-2452.34	2490.17	1.64	1.54	0.56	
9618.00	91.71	277.67	7613.88	444.68	-2516.67	2555.01	1.77	-1.63	-0.68	
9682.00	92.51	277.94	7611.52	453.36	-2580.03	2618.84	1.32	1.25	0.42	
9745.00	91.63	275.48	7609.25	460.72	-2642.56	2681.59	4.14	-1.40	-3.90	
9813.00	91.89	274.95	7607.16	466.90	-2710.24	2749.18	0.87	0.38	-0.78	
9877.00	90.84	274.07	7605.63	471.93	-2774.03	2812.71	2.14	-1.64	-1.37	
9939.00	89.52	272.14	7605.44	475.29	-2835.93	2874.07	3.77	-2.13	-3.11	
10002.00	92.33	273.10	7604.42	478.17	-2898.85	2936.33	4.71	4.46	1.52	
10065.00	91.98	273.01	7602.05	481.52	-2961.71	2998.63	0.57	-0.56	-0.14	
10129.00	91.63	272.84	7600.04	484.79	-3025.60	3061.92	0.61	-0.55	-0.27	
10192.00	91.80	272.93	7598.15	487.95	-3088.49	3124.21	0.31	0.27	0.14	
10256.00	92.24	272.93	7595.90	491.22	-3152.37	3187.49	0.69	0.69	0.00	
10320.00	89.78	272.93	7594.77	494.49	-3216.27	3250.79	3.84	-3.84	0.00	
10383.00	89.69	272.75	7595.06	497.62	-3279.19	3313.10	0.32	-0.14	-0.29	
10444.00	89.87	272.40	7595.29	500.36	-3340.13	3373.39	0.65	0.30	-0.57	
10512.00	89.43	271.96	7595.71	502.94	-3408.08	3440.53	0.92	-0.65	-0.65	
10574.00	89.16	271.78	7596.47	504.97	-3470.04	3501.69	0.52	-0.44	-0.29	
10640.00	90.22	272.66	7596.83	507.52	-3535.99	3566.85	2.09	1.61	1.33	
10703.00	90.57	272.75	7596.39	510.50	-3598.92	3629.14	0.57	0.56	0.14	

PathFinder Survey Report

Company: Devon Energy	Date: 2/18/2005	Time: 10:48:56	Page: 3
Field: Apache 25 Federal #14	Co-ordinate(NE) Reference:	Site: Section 25, T22-S, R30-E	
Site: Section 25, T22-S, R30-E	Vertical (TVD) Reference:	SITE 0.0	
Well: Apache '25' Federal #14	Section (VS) Reference:	Well (0.00N,0.00E,281.31Azi)	
Wellpath: Original Hole	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: PathFinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
10767.00	89.52	272.05	7596.34	513.18	-3662.86	3692.37	1.97	-1.64	-1.09	
10831.00	90.22	272.14	7596.49	515.52	-3726.82	3755.54	1.10	1.09	0.14	
10895.00	92.24	272.57	7595.12	518.14	-3790.74	3818.75	3.23	3.16	0.67	
10955.00	91.63	271.96	7593.09	520.51	-3850.66	3877.97	1.44	-1.02	-1.02	
11014.00	90.22	271.34	7592.14	522.21	-3909.63	3936.12	2.61	-2.39	-1.05	
11078.00	91.45	271.96	7591.20	524.06	-3973.59	3999.20	2.15	1.92	0.97	
11140.00	91.36	272.31	7589.68	526.36	-4035.53	4060.39	0.58	-0.15	0.56	
11203.00	91.98	272.57	7587.85	529.05	-4098.45	4122.61	1.07	0.98	0.41	
11274.00	90.22	274.07	7586.48	533.16	-4169.31	4192.90	3.26	-2.48	2.11	
11337.00	91.54	274.16	7585.52	537.68	-4232.14	4255.40	2.10	2.10	0.14	
11404.00	90.48	274.68	7584.34	542.84	-4298.93	4321.90	1.76	-1.58	0.78	
11466.00	91.89	275.30	7583.05	548.23	-4360.68	4383.51	2.48	2.27	1.00	
11529.00	90.75	274.86	7581.60	553.81	-4423.41	4446.12	1.94	-1.81	-0.70	
11592.00	90.04	274.60	7581.17	559.00	-4486.20	4508.71	1.20	-1.13	-0.41	
11658.00	88.99	273.89	7581.73	563.89	-4552.01	4574.20	1.92	-1.59	-1.08	Last PathFinder MWD Survey
11699.00	88.34	273.45	7582.68	566.51	-4592.92	4614.83	1.91	-1.59	-1.07	Bit Projection

Annotation

MD ft	TVD ft	
5895.00	5894.54	Tie-In to Gyro
5985.00	5984.50	Begin PathFinder MWD Surveys
11658.00	7581.73	Last PathFinder MWD Survey
11699.00	7582.68	Bit Projection

Devon Energy

Apache '25' Federal #14 Section 25, T22-S, R30-E Eddy County, New Mexico Final Plot - Planned vs Actual



COMPANY DETAILS

Devon Energy
20 N. Broadway, Ste. 1500
Oklahoma City, OK 73102

Calculation Method: Minimum Curvature
Error System: Systematic Ellipse
Scan Method: Closest Approach 3D
Error Surface: Elliptical Conic
Warning Method: Error Ratio

WELLPATH DETAILS

Original Hole
Rig: McVay #7
Ref. Datum: SITE 0.00R
V. Section Angle: 281.31°
Origin +N/-S: 0.00
Origin +E/-W: 0.00
Starting From TVD: 0.00

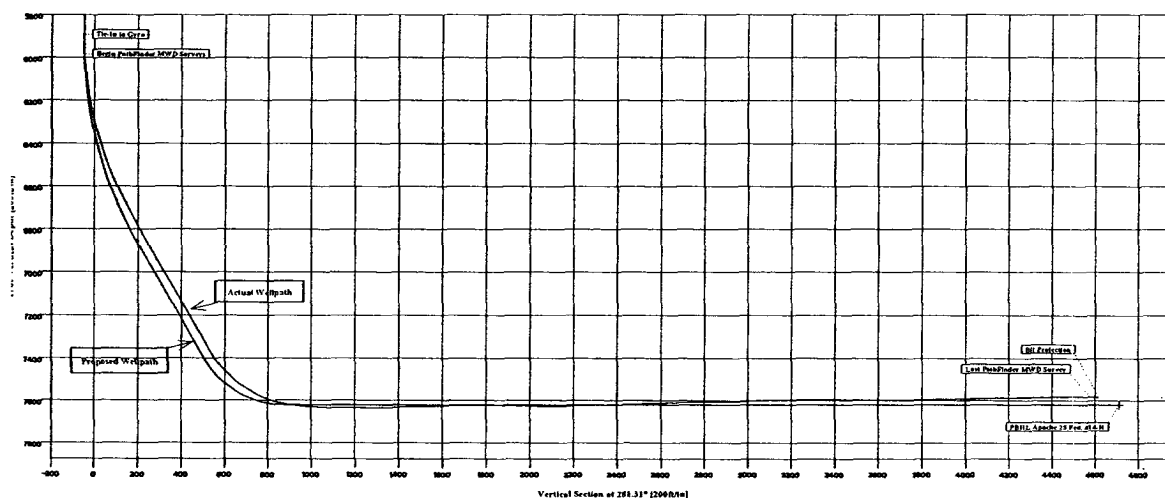
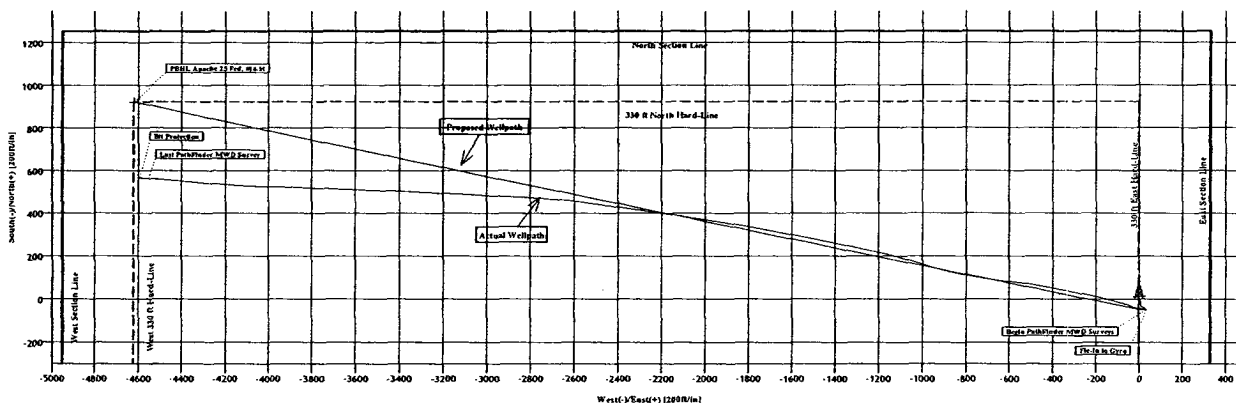
FIELD DETAILS

Apache 25 Federal #14

Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: igr2005
System Datum: Mean Sea Level
Local North: True North

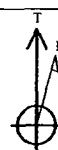
WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Apache '25' Federal #14	0.00	0.00	497559.74	656444.81	32°22'00.800N	103°49'35.900W	N/A



SITE DETAILS

Section 25, T22-S, R30-E
Site Centre Northing: 497559.74
Easting: 656444.81
Ground Level: 3370.00
Positional Uncertainty: 0.00
Convergence: 0.27



Azimuths to True North
Magnetic North: 8.46°
Magnetic Field Strength: 49351nT
Dip Angle: 60.43°
Date: 1/25/2005
Model: igr2005

Survey: Pathfinder 4000 Survey (Apache '25' Federal #14 Original Hole)
Created By: Ben McIsaac Date: 2/18/2005

PathFinder Energy Services

Survey Report

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 281.31 deg.

Page 1
Job No: JWT-0501-0011-WTWT
Date: 2/17/2005
Time: 3:58 pm
Wellpath ID: apache14
Date Created: 1/26/2005
Last Revision: 2/17/2005

Survey Reference: WELLHEAD
Vertical Section Reference: WELLHEAD
Closure Reference: WELLHEAD
TVD Reference: WELLHEAD

Devon
Apache "25" Fed #14
McVay #7
Eddy Co. NM

apache14

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Vertical Section (ft)	TVD (ft)	T O T A L		DLS (dg/100ft)	Build Rate (dg/100ft)	Closure	
					Rectangular	Offsets			Dist.	Dir.
					(ft)	(ft)			(ft)	(deg.)
Keeper Gyro Tie-In										
5895.00	0.45	143.75	-44.47	5894.53	50.02 S	35.35 E	0.00	0.00	61.25@	144.75
Start of Pathfinder MWD Surveys										
5985.00	2.99	279.96	-42.39	5984.49	49.90 S	33.25 E	3.70	2.82	59.96@	146.33
6043.00	5.10	281.45	-38.30	6042.34	49.13 S	29.23 E	3.64	3.64	57.16@	149.25
6100.00	7.03	283.91	-32.28	6099.02	47.78 S	23.36 E	3.42	3.39	53.19@	153.95
6157.00	8.88	285.58	-24.41	6155.47	45.76 S	15.74 E	3.27	3.25	48.39@	161.02
6215.00	10.99	287.78	-14.45	6212.60	42.87 S	6.16 E	3.70	3.64	43.31@	171.83
6273.00	12.84	287.34	-2.54	6269.35	39.26 S	5.26W	3.19	3.19	39.61@	187.63
6330.00	14.86	287.95	11.02	6324.69	35.12 S	18.26W	3.55	3.54	39.59@	207.47
6395.00	16.80	288.39	28.62	6387.22	29.59 S	35.10W	2.99	2.98	45.91@	229.87
6465.00	18.91	285.93	49.97	6453.84	23.28 S	55.61W	3.20	3.01	60.29@	247.28
6525.00	21.10	285.76	70.43	6510.22	17.68 S	75.36W	3.65	3.65	77.41@	256.80
6585.00	23.21	285.32	92.99	6565.79	11.62 S	97.16W	3.53	3.52	97.85@	263.18
6651.00	25.85	284.61	120.33	6625.83	4.56 S	123.63W	4.02	4.00	123.71@	267.89
6708.00	26.82	284.44	145.58	6676.91	1.78 N	148.11W	1.71	1.70	148.12@	270.69
6775.00	27.79	282.59	176.29	6736.44	8.96 N	177.99W	1.92	1.45	178.21@	272.88
6838.00	27.52	281.98	205.53	6792.25	15.18 N	206.56W	0.62	-0.43	207.12@	274.20
6905.00	28.84	281.27	237.16	6851.30	21.55 N	237.55W	2.03	1.97	238.53@	275.18
6965.00	29.28	281.19	266.31	6903.75	27.23 N	266.14W	0.74	0.73	267.53@	275.84
7027.00	30.16	281.71	297.04	6957.60	33.33 N	296.26W	1.48	1.42	298.13@	276.42
7087.00	30.60	281.36	327.39	7009.36	39.40 N	325.99W	0.79	0.73	328.36@	276.89
7152.00	30.69	280.84	360.52	7065.28	45.78 N	358.50W	0.43	0.14	361.41@	277.28
7213.00	30.69	280.22	391.65	7117.74	51.47 N	389.11W	0.52	0.00	392.50@	277.53
7275.00	30.34	280.05	423.12	7171.15	57.01 N	420.10W	0.58	-0.56	423.95@	277.73
7339.00	29.90	279.25	455.23	7226.51	62.39 N	451.76W	0.93	-0.69	456.05@	277.86
7402.00	30.25	279.69	486.78	7281.02	67.59 N	482.90W	0.66	0.56	487.61@	277.97
7464.00	30.42	279.52	518.08	7334.54	72.81 N	513.78W	0.31	0.27	518.91@	278.07
7490.00	30.25	278.82	531.20	7356.98	74.90 N	526.74W	1.51	-0.65	532.04@	278.09
7540.00	32.27	276.79	557.10	7399.72	78.41 N	552.45W	4.56	4.04	557.98@	278.08
7600.00	40.27	276.18	592.43	7448.05	82.40 N	587.69W	13.35	13.33	593.44@	277.98
7662.00	48.72	275.48	635.65	7492.24	86.79 N	630.88W	13.65	13.63	636.82@	277.83
7724.00	55.49	277.50	684.37	7530.30	92.36 N	679.45W	11.22	10.92	685.70@	277.74
7788.00	60.85	279.17	738.65	7564.04	100.26 N	733.23W	8.66	8.37	740.05@	277.79
7851.00	67.71	280.84	795.36	7591.37	110.14 N	789.08W	11.15	10.89	796.73@	277.95
7913.00	75.53	282.59	854.15	7610.90	122.09 N	846.64W	12.89	12.61	855.40@	278.21
7968.00	82.48	283.82	908.07	7621.39	134.42 N	899.17W	12.83	12.64	909.16@	278.50
8059.00	86.70	288.31	998.31	7629.97	159.49 N	986.18W	6.75	4.64	999.00@	279.19

PathFinder Energy Services

Survey Report

Page 2
Date: 2/17/2005
Wellpath ID: apache14

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Vertical Section (ft)	TVD (ft)	T O T A L Rectangular Offsets (ft)		DLS (dg/100ft)	Build Rate (dg/100ft)	Closure Dist. (ft) Dir. (deg.)
8123.00	87.93	286.99	1061.85	7632.97	178.88 N	1047.10W	2.82	1.92	1062.27@ 279.69
8185.00	90.48	285.67	1123.60	7633.83	196.31 N	1106.59W	4.63	4.11	1123.86@ 280.06
8248.00	89.60	283.21	1186.50	7633.78	212.01 N	1167.59W	4.15	-1.40	1186.68@ 280.29
8312.00	88.99	281.36	1250.48	7634.57	225.63 N	1230.12W	3.04	-0.95	1250.64@ 280.39
8376.00	90.92	282.15	1314.47	7634.62	238.67 N	1292.77W	3.26	3.02	1314.62@ 280.46
8440.00	92.42	281.45	1378.44	7632.76	251.75 N	1355.39W	2.59	2.34	1378.57@ 280.52
8503.00	91.80	281.63	1441.40	7630.44	264.34 N	1417.07W	1.02	-0.98	1441.52@ 280.57
8568.00	91.19	281.89	1506.37	7628.74	277.59 N	1480.69W	1.02	-0.94	1506.48@ 280.62
8631.00	91.63	280.84	1569.35	7627.19	290.00 N	1542.43W	1.81	0.70	1569.46@ 280.65
8694.00	91.36	280.66	1632.33	7625.55	301.75 N	1604.31W	0.52	-0.43	1632.44@ 280.65
8758.00	91.01	280.92	1696.31	7624.22	313.72 N	1667.16W	0.68	-0.55	1696.42@ 280.66
8822.00	90.57	280.22	1760.30	7623.34	325.46 N	1730.07W	1.29	-0.69	1760.42@ 280.65
8885.00	90.31	280.13	1823.29	7622.86	336.59 N	1792.08W	0.44	-0.41	1823.41@ 280.64
8949.00	88.72	279.61	1887.26	7623.40	347.56 N	1855.12W	2.61	-2.48	1887.40@ 280.61
9012.00	88.37	278.90	1950.20	7625.00	357.69 N	1917.28W	1.26	-0.56	1950.36@ 280.57
9077.00	88.37	279.08	2015.12	7626.85	367.84 N	1981.46W	0.28	0.00	2015.31@ 280.52
9141.00	89.43	278.11	2079.04	7628.08	377.41 N	2044.73W	2.24	1.66	2079.27@ 280.46
9205.00	91.28	278.46	2142.94	7627.68	386.63 N	2108.06W	2.94	2.89	2143.22@ 280.39
9266.00	93.56	278.38	2203.81	7625.10	395.55 N	2168.34W	3.74	3.74	2204.12@ 280.34
9363.00	91.45	278.38	2300.58	7620.86	409.67 N	2264.21W	2.18	-2.18	2300.97@ 280.26
9428.00	90.13	277.67	2365.47	7619.97	418.75 N	2328.56W	2.31	-2.03	2365.91@ 280.19
9490.00	91.80	277.76	2427.33	7618.92	427.07 N	2389.99W	2.70	2.69	2427.85@ 280.13
9553.00	92.77	278.11	2490.17	7616.41	435.76 N	2452.34W	1.64	1.54	2490.75@ 280.08
9618.00	91.71	277.67	2555.01	7613.87	444.67 N	2516.67W	1.77	-1.63	2555.65@ 280.02
9682.00	92.51	277.94	2618.84	7611.52	453.36 N	2580.04W	1.32	1.25	2619.56@ 279.97
9745.00	91.63	275.48	2681.59	7609.24	460.71 N	2642.56W	4.14	-1.40	2682.42@ 279.89
9813.00	91.89	274.95	2749.18	7607.15	466.89 N	2710.24W	0.87	0.38	2750.17@ 279.77
9877.00	90.84	274.07	2812.71	7605.63	471.92 N	2774.03W	2.14	-1.64	2813.88@ 279.65
9939.00	89.52	272.14	2874.07	7605.43	475.28 N	2835.93W	3.77	-2.13	2875.48@ 279.51
10002.00	92.33	273.10	2936.33	7604.42	478.16 N	2898.85W	4.71	4.46	2938.02@ 279.37
10065.00	91.98	273.01	2998.63	7602.05	481.52 N	2961.72W	0.57	-0.56	3000.60@ 279.23
10129.00	91.63	272.84	3061.92	7600.03	484.78 N	3025.60W	0.61	-0.55	3064.19@ 279.10
10192.00	91.80	272.93	3124.21	7598.15	487.95 N	3088.49W	0.31	0.27	3126.80@ 278.98
10256.00	92.24	272.93	3187.49	7595.89	491.22 N	3152.37W	0.69	0.69	3190.41@ 278.86
10320.00	89.78	272.93	3250.79	7594.76	494.49 N	3216.27W	3.84	-3.84	3254.06@ 278.74
10383.00	89.69	272.75	3313.10	7595.05	497.61 N	3279.19W	0.32	-0.14	3316.73@ 278.63
10444.00	89.87	272.40	3373.39	7595.29	500.35 N	3340.13W	0.65	0.30	3377.40@ 278.52
10512.00	89.43	271.96	3440.53	7595.70	502.94 N	3408.08W	0.92	-0.65	3444.99@ 278.39
10574.00	89.16	271.78	3501.69	7596.47	504.96 N	3470.04W	0.52	-0.44	3506.59@ 278.28
10640.00	90.22	272.66	3566.85	7596.82	507.52 N	3535.99W	2.09	1.61	3572.22@ 278.17
10703.00	90.57	272.75	3629.14	7596.39	510.49 N	3598.92W	0.57	0.56	3634.94@ 278.07
10767.00	89.52	272.05	3692.37	7596.34	513.17 N	3662.86W	1.97	-1.64	3698.63@ 277.98
10831.00	90.22	272.14	3755.54	7596.48	515.51 N	3726.82W	1.10	1.09	3762.30@ 277.88
10895.00	92.24	272.57	3818.75	7595.11	518.14 N	3790.74W	3.23	3.16	3825.99@ 277.78
10955.00	91.63	271.96	3877.97	7593.08	520.51 N	3850.66W	1.44	-1.02	3885.68@ 277.70
11014.00	90.22	271.34	3936.12	7592.13	522.21 N	3909.63W	2.61	-2.39	3944.35@ 277.61
11078.00	91.45	271.96	3999.20	7591.20	524.05 N	3973.59W	2.15	1.92	4008.00@ 277.51
11140.00	91.36	272.31	4060.39	7589.68	526.36 N	4035.53W	0.58	-0.15	4069.71@ 277.43
11203.00	91.98	272.57	4122.61	7587.84	529.04 N	4098.45W	1.07	0.98	4132.45@ 277.36
11274.00	90.22	274.07	4192.90	7586.48	533.15 N	4169.31W	3.26	-2.48	4203.26@ 277.29
11337.00	91.54	274.16	4255.40	7585.51	537.67 N	4232.14W	2.10	2.10	4266.16@ 277.24

PathFinder Energy Services

Survey Report

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Date: 2/17/2005

Wellpath ID: apache14

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Vertical Section (ft)	TVD (ft)	T O T A L Rectangular Offsets (ft) (ft)		DLS (dg/100ft)	Build Rate (dg/100ft)	Closure Dist. Dir. (ft) (deg.)
11404.00	90.48	274.68	4321.90	7584.33	542.83 N	4298.93W	1.76	-1.58	4333.06@ 277.20
11466.00	91.89	275.30	4383.51	7583.05	548.23 N	4360.68W	2.48	2.27	4395.00@ 277.17
11529.00	90.75	274.86	4446.12	7581.60	553.80 N	4423.41W	1.94	-1.81	4457.95@ 277.14
11592.00	90.04	274.60	4508.71	7581.16	559.00 N	4486.20W	1.20	-1.13	4520.89@ 277.10
11658.00	88.99	273.89	4574.20	7581.72	563.88 N	4552.01W	1.92	-1.59	4586.80@ 277.06
Projection at bit									
11699.00	88.34	273.45	4614.83	7582.68	566.51 N	4592.92W	1.91	-1.59	4627.72@ 277.03