

Results of Directional Survey

API number:	30-025-29611		
OGRID:		Operator:	XTO ENERGY INC
		Property:	NORTH VACUUM ABO UNIT # 301

surface	ULSTR:	O	03	T	17S	R	34E
			790	FSL	1980	FEL	

BH Loc	ULSTR:	I	03	T	17S	R	34E
			1634	FSL	357	FEL	

	MD	N/S	E/W	VD
	8500	34.97	9.67	8500
TOP PERFS/OH	8500	34.97	9.67	8500.00
	8513	35.60	10.04	8512.50
	10353	810.29	1573.49	8681.90
BOT PERFS/OH	10413	844.09	1623.05	8682.02
	10368	818.74	1585.88	8681.93

NEXT TO LAST	10353	810.29	1573.49	8681.90
LAST READING	10368	818.74	1585.88	8681.93
TD	10413	844.09	1623.05	8682.02

Surface Location	790	FS	1980	FE
Projected BHL	1634	FS	357	FE
Location of				
Top Perfs/OH	825	FS	1970	FE
Bottom Perfs/OH	1634	FS	357	FE

SUMMARY of Subsurface Locations

Surface Location	O-03-17S-34E	790	FS	1980	FE	Vert. Depth
Top Perfs/OH	O-03-17S-34E	825	FS	1970	FE	8500.00
Bottom Perfs/OH	I-03-17S-34E	1634	FS	357	FE	8682.02
Projected TD	I-03-17S-34E	1634	FS	357	FE	8682.02

SUR:O-3-17s-34e, 790/S & 1980/E
BHL: I - 3-17s-34e, 1634/S & 357/E
API # 30-025-29611

XTO

North Vacuum Abo

NVAU #301H

NVAU #301H

OH

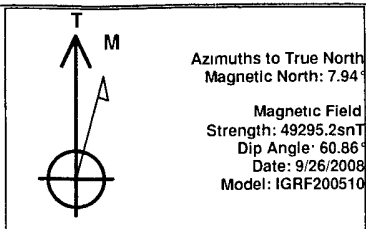
Survey: MWD #1

End of Well Report

07 October, 2008



PROJECT DETAILS: North Vacuum Abo
 Metric System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level
 Local North: No north reference data is available

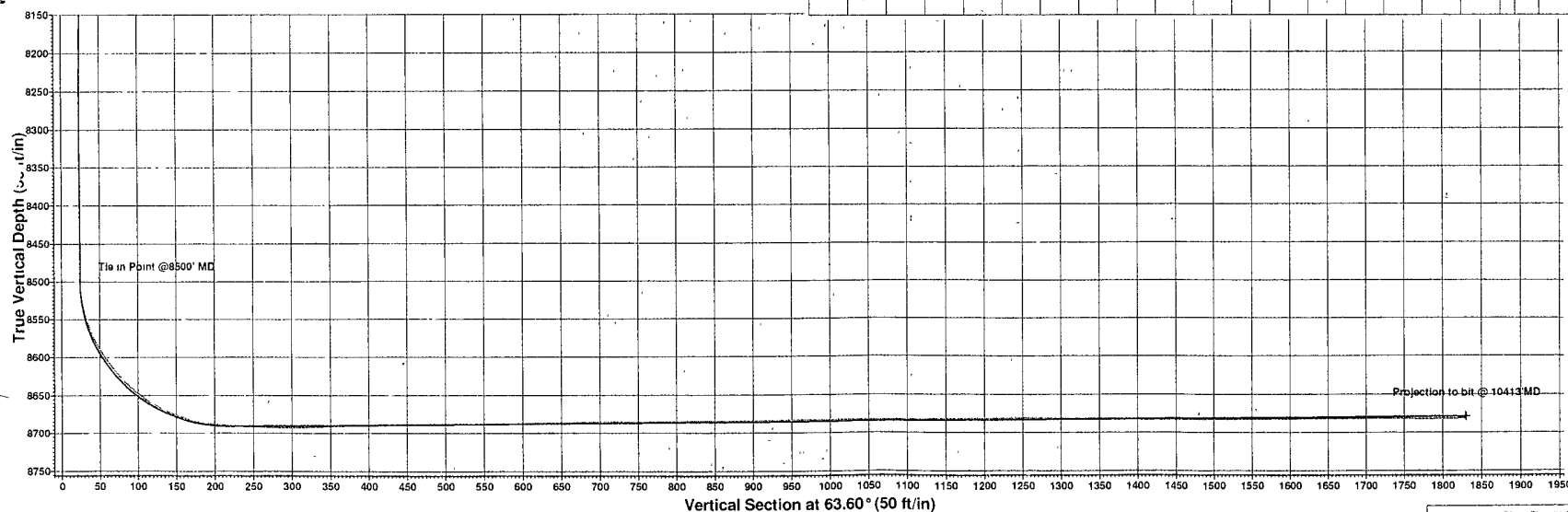
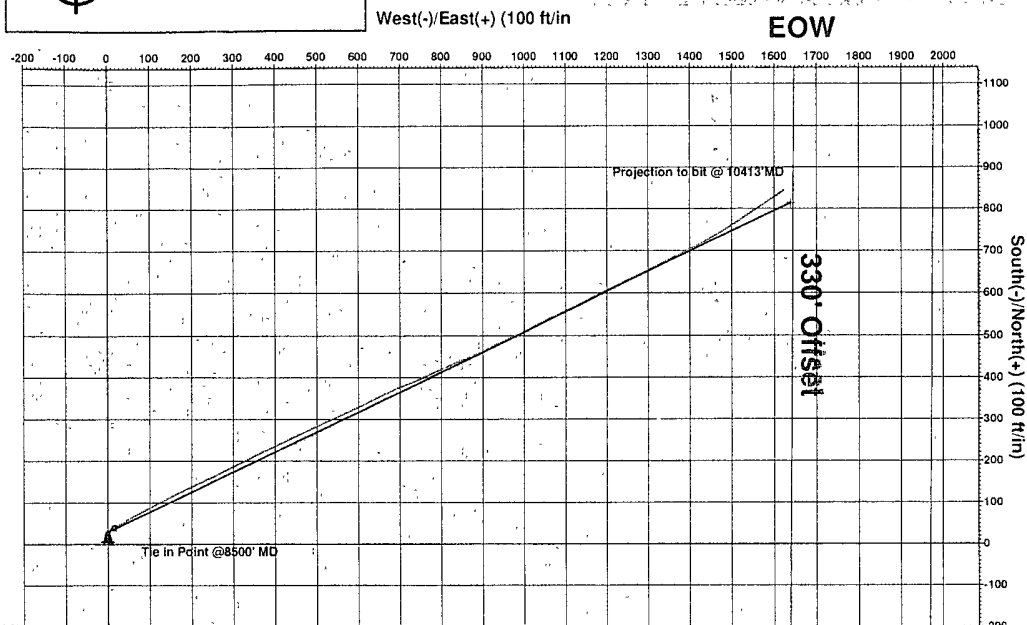


Sec	MD	Inc	Azi	TVD	SECTION DETAILS						
					+N-S	+E-W	Dleg	TFace	VSec	Target	
1	8500.00	0.17	71.24	8499.53	34.97	9.67	0.00	0.00	24.21		
2	8802.35	90.42	64.46	8690.90	118.27	184.16	29.85	-6.78	217.54		
3	8861.75	90.42	64.46	8690.46	143.88	237.75	0.01	0.00	276.93		
4	10415.00	90.42	64.46	8679.00	813.59	1639.16	0.00	0.00	1829.97	PBHL OH (#301)	

WELL DETAILS NVAU #301H									
Ground Elevation		4055.00							
RKB Elevation		WELL @ 4067.00ft (CC Forbes 61)							
Rig Name		CC Forbes 61							
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot			
0.00	0.00	677024.800	741812.700	32°51'31.486 N	103°32'45.102 W				

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N-S	+E-W	Northing	Easting	Shape Point
PBHL OH (#301)	8679.00	813.59	1639.16	677850.592	743445.747	

Project: North Vacuum Abo
 Site: NVAU #301H
 Well: NVAU #301H
 Wellbore: OH
 Plan: Plan #1 (NVAU #301H/OH)



Plan: Plan #1 (NVAU #301H/OH)			
Created By	Nate Bingham	Date	13 24, October 07 2008
Checked		Date	

End of Well Report

Company: XTO
Project: North Vacuum Abo
Site: NVAU #301H
Well: NVAU #301H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NVAU #301H
TVD Reference: WELL @ 4067.00ft (CC Forbes 61)
MD Reference: WELL @ 4067.00ft (CC Forbes 61)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single user database

Project	North Vacuum Abo		
Map System:	US State Plane 1927 (Exact solution)		System Datum: Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	NVAU #301H		
Site Position:		Northing: 677,024.800 ft	Latitude: 32° 51' 31.486 N
From: Map		Easting: 741,812.700 ft	Longitude: 103° 32' 45.102 W
Position Uncertainty: 0.00 ft		Slot Radius: "	Grid Convergence: 0.43 °

Well	NVAU #301H		
Well Position +N/-S	0.00 ft	Northing: 677,024.800 ft	Latitude: 32° 51' 31.486 N
+E/-W	0.00 ft	Easting: 741,812.700 ft	Longitude: 103° 32' 45.102 W
Position Uncertainty	0.00 ft	Wellhead Elevation: ft	Ground Level: 4,055.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/26/2008	7.94	60.86	49,295

Design	OH			
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	63.60

End of Well Report

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Survey Program		Date 10/7/2008		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100 00	8,500 00	GYRO (OH)	Gyro	GYRO
8,513 00	10,413 00	MWD #1 (OH)	MWD	MWD - Standard

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,500 00	0 17	71.24	8,499 53	4,432 53	34 97	9 67	24 21	0.00	677,059 84	741,822 11
Tie in Point @8500' MD										
8,513.00	6 30	29 70	8,512.50	4,445.50	35 60	10.04	24.82	47 49	677,060.47	741,822.47
8,545 00	16 30	59 60	8,543 86	4,476.86	39 41	14 80	30.78	35 23	677,064.32	741,827.20
8,576 00	25 00	57.00	8,572.84	4,505.84	45 19	24.06	41.65	28.21	677,070 17	741,836.43
8,608 00	33 70	58.70	8,600 71	4,533.71	53 50	37 35	57 24	27 31	677,078.58	741,849.65
8,640.00	41 80	61 20	8,625.99	4,558 99	63.27	54 31	76 77	25 76	677,088 47	741,866.53
8,671.00	51.10	61.20	8,647 33	4,580.33	74 08	73.97	99.20	30 00	677,099.43	741,886.12
8,703 00	60 70	62.20	8,665.25	4,598 25	86 62	97.28	125 65	30.11	677,112.14	741,909 33
8,735 00	70 80	62 00	8,678.37	4,611 37	100 25	123 03	154 78	31.57	677,125.97	741,934.98
8,767 00	79 70	63.60	8,686 51	4,619.51	114.37	150 53	185.69	28.23	677,140.29	741,962 37
8,799 00	87 10	64 10	8,690 19	4,623.19	128 37	179 05	217 45	23 18	677,154.51	741,990.78
8,831 00	88 20	65 10	8,691.50	4,624 50	142.09	207.93	249 42	4 64	677,168.43	742,019 56
8,862 00	88.40	65.40	8,692.42	4,625 42	155.06	236 07	280.39	1 16	677,181 62	742,047 61
8,894 00	91 80	63.60	8,692 36	4,625 36	168.83	264.95	312 38	12.02	677,195 60	742,076 38
8,926 00	92 20	63.30	8,691.25	4,624 25	183 13	293.55	344 36	1 56	677,210.11	742,104.88
8,957 00	90.50	62.80	8,690.52	4,623.52	197.17	321.18	375 35	5.72	677,224 36	742,132.40
8,989 00	91 50	63 70	8,689 96	4,622.96	211.57	349 75	407.35	4.20	677,238.98	742,160.86
9,021 00	90 90	64.50	8,689 29	4,622 29	225 55	378 53	439.34	3 12	677,253.17	742,189 53
9,053 00	90 90	64 50	8,688 78	4,621 78	239 32	407 41	471 33	0 00	677,267 15	742,218 31
9,084 00	90 10	64.40	8,688 51	4,621.51	252 69	435 37	502 33	2 60	677,280 73	742,246 18

End of Well Report

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Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single user database

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
9,116.00	89.80	64.60	8,688.54	4,621.54	266.47	464.26	534.32	1.13	677,294.72	742,274.96
9,148.00	90.10	64.60	8,688.57	4,621.57	280.19	493.16	566.32	0.94	677,308.67	742,303.76
9,179.00	92.30	66.00	8,687.92	4,620.92	293.14	521.32	597.29	8.41	677,321.82	742,331.82
9,211.00	91.20	64.90	8,686.94	4,619.94	306.43	550.41	629.26	4.86	677,335.33	742,360.81
9,243.00	90.80	65.30	8,686.38	4,619.38	319.91	579.43	661.24	1.77	677,349.02	742,389.73
9,274.00	91.20	65.00	8,685.84	4,618.84	332.93	607.56	692.23	1.61	677,362.25	742,417.76
9,306.00	89.40	62.60	8,685.68	4,618.68	347.06	636.27	724.22	9.37	677,376.59	742,446.36
9,338.00	89.90	64.20	8,685.87	4,618.87	361.38	664.88	756.22	5.24	677,391.13	742,474.86
9,369.00	90.90	66.90	8,685.65	4,618.65	374.21	693.09	787.20	9.29	677,404.17	742,502.98
9,401.00	91.60	68.40	8,684.96	4,617.96	386.38	722.68	819.11	5.17	677,416.56	742,532.48
9,433.00	89.40	66.10	8,684.68	4,617.68	398.75	752.19	851.04	9.95	677,429.15	742,561.89
9,465.00	91.00	66.90	8,684.57	4,617.57	411.51	781.53	883.00	5.59	677,442.13	742,591.14
9,496.00	90.70	65.80	8,684.11	4,617.11	423.95	809.92	913.96	3.68	677,454.77	742,619.44
9,528.00	91.10	66.50	8,683.60	4,616.60	436.88	839.19	945.92	2.52	677,467.93	742,648.61
9,560.00	89.70	65.80	8,683.38	4,616.38	449.82	868.45	977.89	4.89	677,481.09	742,677.77
9,591.00	91.30	66.80	8,683.11	4,616.11	462.28	896.84	1,008.85	6.09	677,493.76	742,706.06
9,623.00	89.50	64.00	8,682.89	4,615.89	475.60	925.93	1,040.83	10.40	677,507.29	742,735.05
9,655.00	90.90	66.00	8,682.77	4,615.77	489.12	954.93	1,072.82	7.63	677,521.03	742,763.95
9,687.00	89.20	62.90	8,682.75	4,615.75	502.92	983.79	1,104.81	11.05	677,535.04	742,792.71
9,718.00	91.50	66.40	8,682.56	4,615.56	516.19	1,011.80	1,135.80	13.51	677,548.52	742,820.62
9,750.00	90.40	63.90	8,682.03	4,615.03	529.64	1,040.83	1,167.78	8.53	677,562.18	742,849.55
9,782.00	90.50	65.30	8,681.77	4,614.77	543.36	1,069.74	1,199.77	4.39	677,576.12	742,878.35
9,813.00	91.30	65.30	8,681.29	4,614.29	556.31	1,097.90	1,230.76	2.58	677,589.29	742,906.42
9,845.00	89.30	64.40	8,681.12	4,614.12	569.91	1,126.86	1,262.75	6.85	677,603.10	742,935.28
9,909.00	90.00	64.20	8,681.51	4,614.51	597.66	1,184.53	1,326.74	1.14	677,631.28	742,992.74
9,940.00	89.20	63.80	8,681.73	4,614.73	611.25	1,212.39	1,357.74	2.89	677,645.08	743,020.50
9,972.00	88.40	64.00	8,682.40	4,615.40	625.33	1,241.12	1,389.73	2.58	677,659.37	743,049.12

End of Well Report

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Wellbore: OH
Design: OH

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North Reference: True
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Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,004.00	89.60	64.20	8,682.96	4,615.96	639.30	1,269.90	1,421.72	3.80	677,673.56	743,077.80
10,035.00	90.10	64.70	8,683.04	4,616.04	652.67	1,297.87	1,452.72	2.28	677,687.14	743,105.67
10,067.00	90.30	63.60	8,682.93	4,615.93	666.63	1,326.67	1,484.72	3.49	677,701.30	743,134.36
10,099.00	90.20	63.50	8,682.79	4,615.79	680.88	1,355.32	1,516.72	0.44	677,715.77	743,162.90
10,130.00	90.40	62.90	8,682.62	4,615.62	694.86	1,382.99	1,547.71	2.04	677,729.95	743,190.47
10,162.00	90.80	62.50	8,682.29	4,615.29	709.53	1,411.42	1,579.71	1.77	677,744.84	743,218.79
10,194.00	90.20	61.10	8,682.01	4,615.01	724.65	1,439.62	1,611.69	4.76	677,760.17	743,246.88
10,226.00	90.10	59.10	8,681.93	4,614.93	740.60	1,467.36	1,643.63	6.26	677,776.33	743,274.50
10,257.00	90.50	57.90	8,681.76	4,614.76	756.80	1,493.79	1,674.51	4.08	677,792.72	743,300.80
10,289.00	90.10	56.50	8,681.60	4,614.60	774.13	1,520.69	1,706.31	4.55	677,810.25	743,327.57
10,321.00	89.80	55.40	8,681.62	4,614.62	792.05	1,547.20	1,738.02	3.56	677,828.37	743,353.95
10,353.00	89.20	55.10	8,681.90	4,614.90	810.29	1,573.49	1,769.68	2.10	677,846.80	743,380.11
10,368.00	90.60	56.30	8,681.93	4,614.93	818.74	1,585.88	1,784.54	12.29	677,855.35	743,392.43
10,413.00	90.60	56.30	8,681.46	4,614.46	843.71	1,623.32	1,829.17	0.00	677,880.59	743,429.68

Projection to bit @ 10413'MD

End of Well Report

Company: XTO
Project: North Vacuum Abo
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Well: NVAU #301H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NVAU #301H
TVD Reference: WELL @ 4067.00ft (CC Forbes 61)
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North Reference: True
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Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL OH (#301)	0 00	0 00	8,679.00	813 59	1,639.16	677,850.592	743,445 747	32° 51' 39.536 N	103° 32' 25 886 W
- survey misses by 33 94ft at 10409 49ft MD (8681 49 TVD, 841 76 N, 1620 40 E) - Point									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,500 00	8,499 53	34 97	9 67	Tie in Point @8500' MD
10,413 00	8,681 46	843 71	1,623 32	Projection to bit @ 10413'MD

Checked By: _____ Approved By: _____ Date: _____