



WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33019  
Name: Rosewood Resources, Inc.  
Address 1: 2101 CEDAR SPRINGS RD, STE 1500  
Address 2: \_\_\_\_\_  
City: DALLAS State: TX Zip: 75201 + \_\_\_\_\_  
Contact Person: Tom Roelfs  
Phone: (214) 849-9300  
CONTRACTOR: License # 33532  
Name: Advanced Drilling Technologies LLC  
Wellsite Geologist: Steven VonFeldt  
Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well     Re-Entry     Workover
- Oil     WSW     SWD     SIOW
- Gas     D&A     ENHR     SIGW
- OG     GSW     Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic     Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening     Re-perf.     Conv. to ENHR     Conv. to SWD
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled    Permit #: \_\_\_\_\_
- Dual Completion    Permit #: \_\_\_\_\_
- SWD    Permit #: \_\_\_\_\_
- ENHR    Permit #: \_\_\_\_\_
- GSW    Permit #: \_\_\_\_\_

11/10/2011    02/06/2012    03/21/2012  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 15-181-20589-01-00

Spot Description: \_\_\_\_\_

NE NE NE SE Sec. 18 Twp. 7 S. R. 39  East  West  
2329 Feet from  North /  South Line of Section  
217 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE     NW     SE     SW

County: Sherman

Lease Name: Foust-Ihrig Well #: 43-18H

Field Name: \_\_\_\_\_

Producing Formation: Niobrara

Elevation: Ground: 3570 Kelly Bushing: 3582

Total Depth: 1920 Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: 336 Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 5000 ppm Fluid volume: 200 bbls

Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

Rec'd 7-3-12

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
  - Confidential Release Date: \_\_\_\_\_
  - Wireline Log Received
  - Geologist Report Received
  - UIC Distribution
- ALT  I  II  III Approved by: Deanna Gerron Date: 07/26/2012

Operator Name: Rosewood Resources, Inc. Lease Name: Foust-Ihrig Well #: 43-18H  
 Sec. 18 Twp. 7 S. R. 39  East  West County: Sherman

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional Sheets)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Niobrara	1846	KB
Electric Log Run	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Submitted Electronically (If no, Submit Copy)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				
Gamma Ray				

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	9.625	32	336	Neat	110	
Intermediate	8.625	7	17	1332.29	Neat	90	

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing				
___ Plug Back TD	-			
___ Plug Off Zone	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	1882 to 1902		

TUBING RECORD:		Size: 2.875	Set At: 1907.15	Packer At:	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. 04/19/2012		Producing Method: <input checked="" type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
		17			

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input checked="" type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, Submit ACO-18.)	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled (Submit ACO-5) (Submit ACO-4) <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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### Summary of Changes

Lease Name and Number: Foust-Ihrig 43-18H

API/Permit #: 15-181-20589-01-00

Doc ID: 1088765

Correction Number: 1

Approved By: Deanna Garrison

Field Name	Previous Value	New Value
API	15-181-20573-01-00	15-181-20589-01-00
Approved Date	07/03/2012	07/26/2012

# Directional Drilling Report

**Drilling Report Number:** DDR-0005

**Customer:** Advanced Drilling Technologies

**Address:** Advanced Drilling Technologies, LLC  
529 North Albany Street  
Suite 1250  
Yuma, CO 80759

**Well Name:** Foust-Ihrig 43-18H

**Date:** 07/02/2012

AnTech Ltd  
Unit 7, Newbery Centre  
Airport Business Park  
Exeter. EX5 2UL. UK

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[www.antech.co.uk](http://www.antech.co.uk)  
[www.coiledtubingdrilling.com](http://www.coiledtubingdrilling.com)



# Summary

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<b>Customer:</b>	Advanced Drilling Technologies	<b>Local Co-ordinate Reference:</b>	GPS
<b>Project:</b>	Polaris Operational Trials	<b>TVD Reference:</b>	Minimum Curvature Calculation
<b>Site:</b>	Foust-Ihrig	<b>MD Reference:</b>	Pason Bit Depth
<b>Well:</b>	Foust-Ihrig 43-18H	<b>North Reference:</b>	Gyro True North
<b>Bit &amp; Nozzle Size:</b>	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32", 6 x 9/32")	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Drill Motor:</b>	Hunting 5", 7/8, 4.5, 0.46RPG	<b>Tool Used:</b>	Polaris
<b>Motor Bend Angle:</b>	2.77 & 1.15	<b>Tool Name:</b>	Yellow & Green Tools

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**Well**

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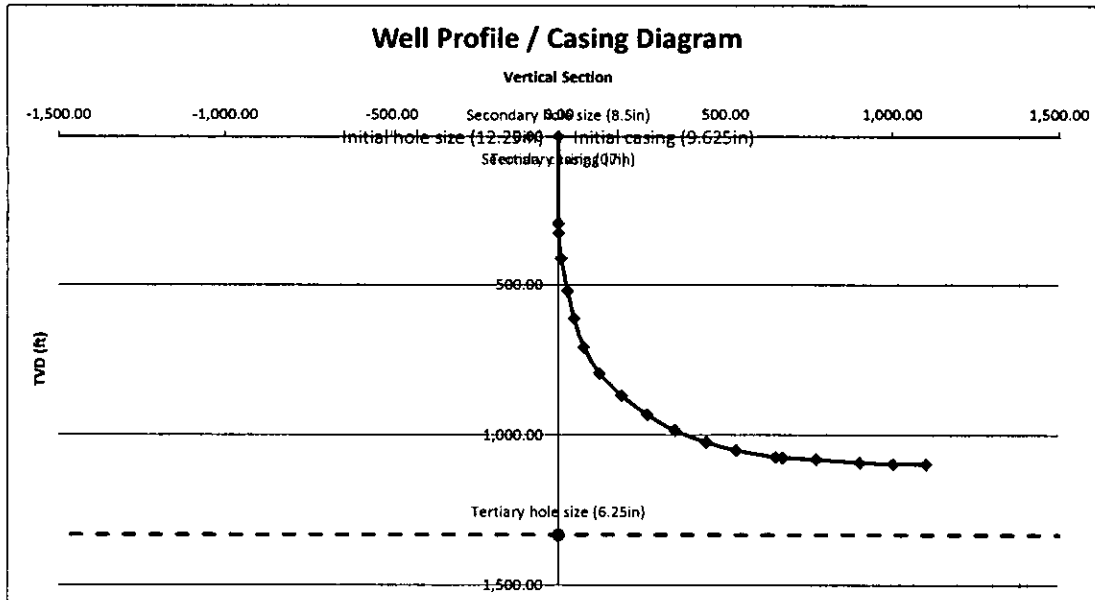
Northing [ft]:	Deviation In Azimuth Direction [ft]:	1102.96
Easting [ft]:	Maximum Inclination:	90.4
SHL Latitude:	Survey Inclination Error:	±0.15
SHL Longitude:	Survey Azimuth Error:	±3
	Deviation from Plan at Zone Entry [ft]:	80.5
	Deviation from Plan at TD [ft]:	

# Casing Diagram

<b>Customer:</b>	Advanced Drilling Technologies	<b>Motor Bend Angle:</b>	2.77 & 1.15
<b>Project:</b>	Polaris Operational Trials	<b>Local Co-ordinate Reference:</b>	GPS
<b>Site:</b>	Foust-Ihrig	<b>TVD Reference:</b>	Minimum Curvature Calculation
<b>Well:</b>	Foust-Ihrig 43-18H	<b>MD Reference:</b>	Pason Bit Depth
<b>Bit &amp; Nozzle Size:</b>	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32", 6 x 9/32")	<b>North Reference:</b>	Gyro True North
<b>Drill Motor:</b>	Hunting 5", 7/8, 4.5, 0.46RPG	<b>Survey Calculation Method:</b>	Minimum Curvature

Depth (ft)	Hole Size (in)	Casing				Cement	Completion Comments
		Size (in)	Weight (ppf)	Grade	Thread		
336	12.25	9.625	29.3	J-55		Neat	
1332	8.5	7	17	J-55		Neat	

	Diameter (in)	Start Depth (TVD)	End Depth (TVD)
Initial hole size	12.25		336.0
Initial casing	9.63		336.0
Secondary hole size	8.50		1332.0
Secondary casing	7.00		1332.0
Tertiary hole size	6.25	1332.0	1920.0
Tertiary casing			





# Well Data

<b>Customer:</b>	Advanced Drilling Technologies	<b>Motor Bend Angle:</b>	2.77 & 1.15
<b>Project:</b>	Polaris Operational Trials	<b>Local Co-ordinate Reference:</b>	GPS
<b>Site:</b>	Foust-Ihrig	<b>TVD Reference:</b>	Minimum Curvature Calculation
<b>Well:</b>	Foust-Ihrig 43-18H	<b>MD Reference:</b>	Pason Bit Depth
<b>Bit &amp; Nozzle Size:</b>	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32", 6 x 9/32")	<b>North Reference:</b>	Gyro True North
<b>Drill Motor:</b>	Hunting 5", 7/8, 4.5, 0.46RPG	<b>Survey Calculation Method:</b>	Minimum Curvature

### Formation Tops

Name	TVD [ft]	Data Points Direction	Distance [ft]	Dip distance (x) (Dip=1/x)
TOP BIZ	1069		3000	66.67
BOTTOM BIZ	1099		3000	66.67

## Well Plan Data

Customer:	Advanced Drilling Technologies	Motor Bend Angle:	2.77 & 1.15
Project:	Polaris Operational Trials	Local Co-ordinate Reference:	GPS
Site:	Foust-Ihrig	TVD Reference:	Minimum Curvature Calculation
Well:	Foust-Ihrig 43-18H	MD Reference:	Pason Bit Depth
Bit & Nozzle Size:	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32", 6 x 9/32")	North Reference:	Gyro True North
Drill Motor:	Hunting 5", 7/8, 4.5, 0.46RPG	Survey Calculation Method:	Minimum Curvature

Final Bearing / Azimuth for section view (°)	207.88
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**Projected TD Survey**

Measured Depth ft	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity "/100ft	Reference	Description	Section
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	RKB	tie point	0
130.00	0.00	0.00	390.00	0.00	0.00	0.00	0.00	XOP	build	1
400.00	0.03	207.88	400.00	-0.06	-0.03	0.07	8.30		build	1-2
500.00	9.33	207.88	499.54	-7.73	-4.09	8.75	8.30		build	1-2
600.00	17.43	207.88	596.78	-28.02	-14.82	31.70	8.30		build	1-2
700.00	25.73	207.88	689.69	-60.50	-32.01	68.44	8.30		build	1-2
800.00	34.03	207.88	776.32	-104.50	-55.28	118.22	8.30		build	1-2
900.00	42.33	207.88	854.85	-159.09	-84.16	179.98	8.30		build	1-2
1000.00	50.63	207.88	923.66	-223.13	-118.04	252.43	8.30		build	1-2
1100.00	58.93	207.88	981.28	-295.28	-156.21	334.05	8.30		build	1-2
1200.00	67.23	207.88	1,026.51	-374.02	-197.87	423.14	8.30		build	1-2
1300.00	75.53	207.88	1,058.41	-457.72	-242.14	517.82	8.30		build	1-2
1329.74	78.00	207.88	1,065.23	-483.32	-255.69	546.79	8.30		End build	2
1350.00	78.00	207.88	1,069.43	-500.82	-264.95	566.59	0.00	Top of BIX Change Bit	straight	3
1400.00	81.29	207.88	1,078.42	-544.29	-287.94	615.76	6.58		build	3-4
1500.00	87.87	207.88	1,087.86	-632.24	-334.47	715.26	6.58		build	3-4
1519.30	89.14	207.88	1,088.36	-649.30	-343.49	734.56	6.58		build	4
1702.53	89.14	207.88	1,091.11	-811.24	-429.17	917.77	0.00		straight	4-5
1800.00	89.14	207.88	1,092.58	-897.39	-474.74	1,015.22	0.00		straight	4-5
1900.00	89.14	207.88	1,094.08	-985.77	-521.50	1,115.21	0.00		straight	4-5
2000.00	89.14	207.88	1,095.58	-1,074.15	-568.25	1,215.20	0.00		straight	4-5
2100.00	89.14	207.88	1,097.08	-1,162.53	-615.01	1,315.19	0.00		straight	4-5
2200.00	89.14	207.88	1,098.58	-1,250.92	-661.77	1,415.18	0.00		straight	4-5
2300.00	89.14	207.88	1,100.08	-1,339.30	-708.52	1,515.17	0.00		straight	4-5
2400.00	89.14	207.88	1,101.58	-1,427.68	-755.28	1,615.16	0.00		straight	4-5
2500.00	89.14	207.88	1,103.08	-1,516.07	-802.04	1,715.15	0.00		straight	4-5
2600.00	89.14	207.88	1,104.58	-1,604.45	-848.80	1,815.13	0.00		straight	4-5
2700.00	89.14	207.88	1,106.09	-1,692.83	-895.55	1,915.12	0.00	TD	End straight	5



## Drilling Data

<b>Customer:</b>	Advanced Drilling Technologies	<b>Motor Bend Angle:</b>	2.77 & 1.15
<b>Project:</b>	Polaris Operational Trials	<b>Local Co-ordinate Reference:</b>	GPS
<b>Site:</b>	Foust-Ihrig	<b>TVD Reference:</b>	Minimum Curvature Calculation
<b>Well:</b>	foust-Ihrig 43-18H	<b>MD Reference:</b>	Pason Bit Depth
<b>Bit &amp; Nozzle Size:</b>	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32"), 6 x 9/32")	<b>North Reference:</b>	Gyro True North
<b>Drill Motor:</b>	Hunting 5", 7/8, 4.5, 0.46RPG	<b>Survey Calculation Method:</b>	Minimum Curvature

Final Bearing / Azimuth for section view [°]	207.88
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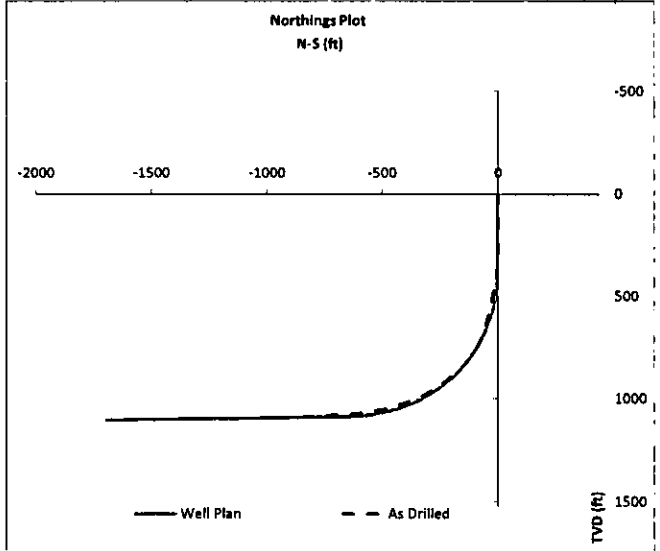
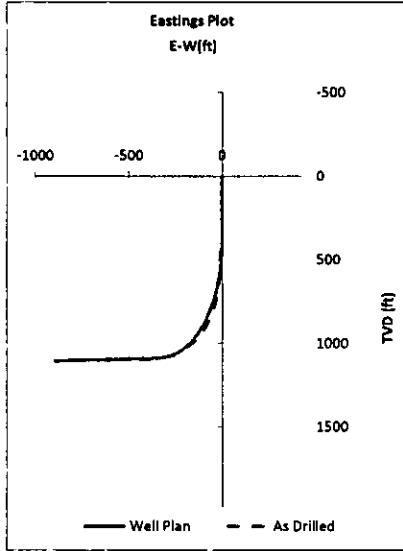
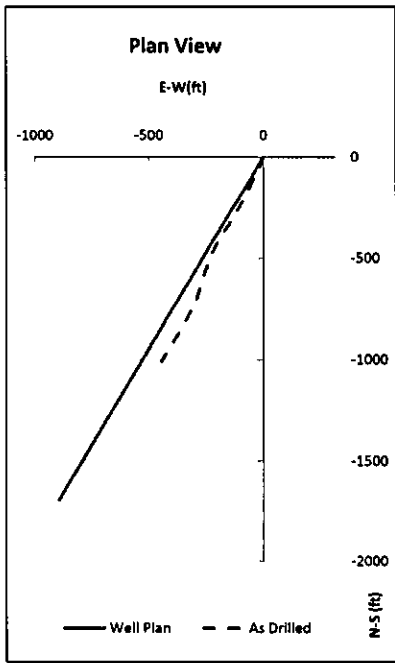
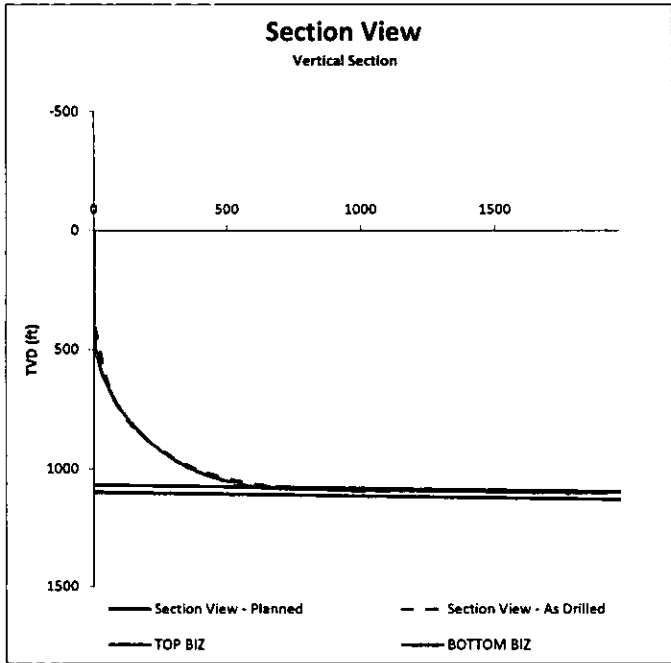
### Actual Survey Data

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity "/100ft	Reference	Description	Time	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		Vertical	12:46	31/01/2012
293.00	323.00	0.00	0.00	293.00	0.00	0.00	0.00	0.00	Tag Cement	Vertical	13:45	
325.00	355.00	1.53	240.80	325.00	-0.07	-0.42	0.43	4.78	KO	Build/Rotate	16:46	
419.00	449.00	8.90	196.75	409.62	-6.56	-3.44	7.41	9.82		Build/Rotate	17:34	
523.00	553.00	11.70	203.89	520.79	-25.43	-10.55	27.53	2.70		Rotate	18:45	
619.00	649.00	12.98	191.89	610.68	-44.11	-15.35	47.04	3.11		Rotate	19:52	
719.00	749.00	20.87	205.44	706.31	-71.22	-26.35	75.93	8.84		Build/Rotate	21:07	
819.00	849.00	26.64	201.99	793.71	-115.22	-45.35	123.83	15.86		Build/Rotate	22:24	
919.00	949.00	46.94	204.87	868.17	-176.21	-71.96	190.34	10.48		Build/Rotate	23:44	
1019.00	1049.00	51.42	204.87	932.04	-245.95	-104.29	267.15	6.68		Build/Rotate	02:27	01/02/2012
1119.00	1149.00	62.85	210.22	984.66	-321.13	-143.71	351.82	10.28		Build/Rotate	04:03	
1214.00	1244.00	73.71	208.84	1,022.81	-402.39	-189.71	444.87	9.84		Build/Rotate	05:41	
1310.00	1340.00	74.07	199.39	1,049.73	-484.50	-226.45	534.81	9.76				04/02/2012
1410.00	1440.00	81.74	197.34	1,072.80	-596.13	-263.47	651.76	8.23		build	22:15	
1451.00	1481.00	86.83	193.21	1,074.53	-616.32	-268.98	672.46	24.51		build	23:18	
1553.00	1583.00	86.47	193.41	1,080.49	-713.99	-297.58	773.52	6.10		build	06:56	05/02/2012
1684.00	1714.00	74.70	208.44	1,090.60	-833.14	-350.72	903.95	7.15		build	09:06	
1784.00	1814.00	10.40	208.41	1,094.87	-920.78	-398.60	1,003.36	5.70		build	10:54	
1884.00	1914.00	88.20	208.45	1,096.09	-1,008.53	-446.54	1,102.96	2.20		Straight	01:55	06/02/2012



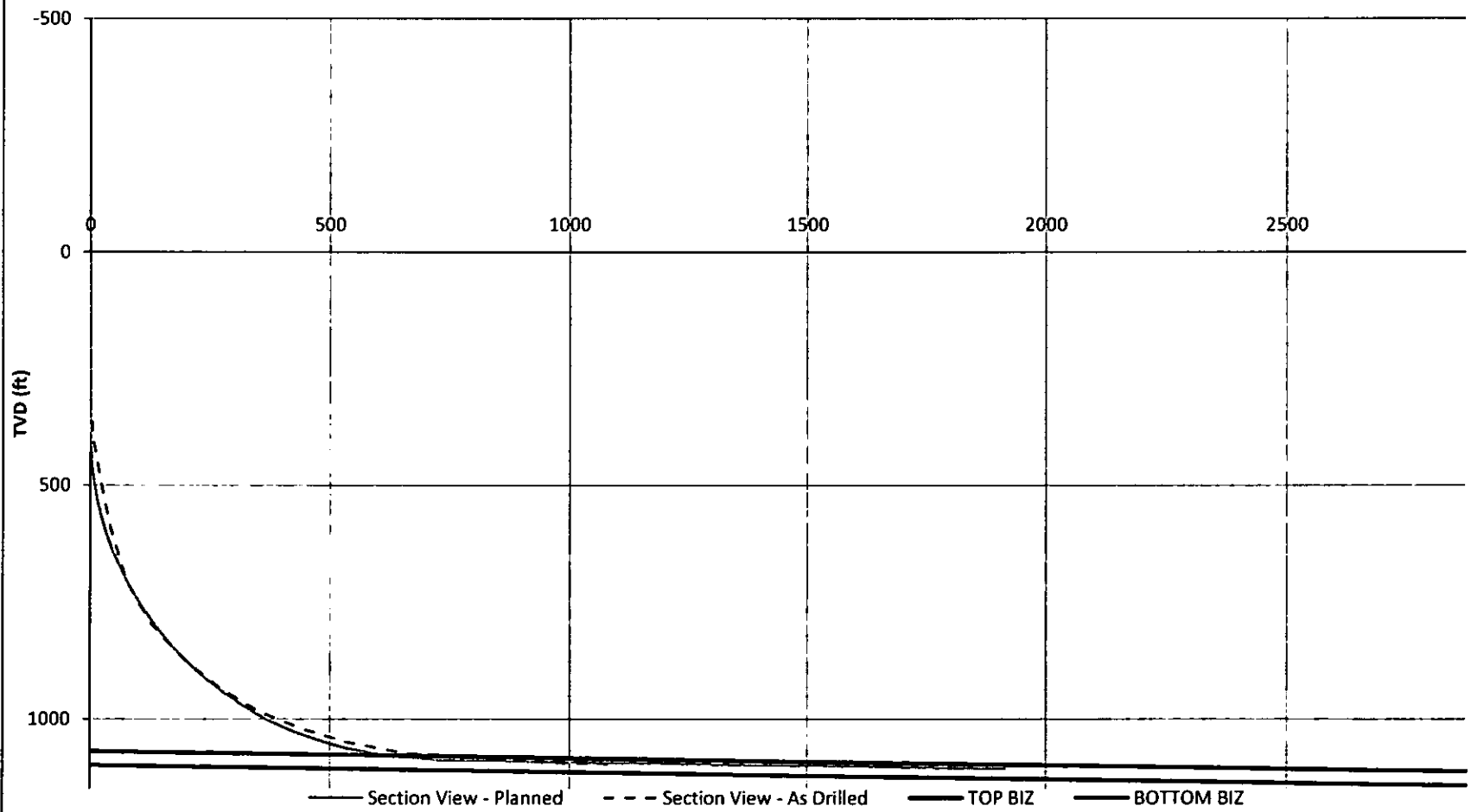
# Summary Well Plots

<b>Customer:</b>	Advanced Drilling Technologies	<b>Motor Bend Angle:</b>	2.77 & 1.15
<b>Project:</b>	Polaris Operational Trials	<b>Local Co-ordinate Reference:</b>	GPS
<b>Site:</b>	Foust-Ihrig	<b>TVD Reference:</b>	Minimum Curvature Calculation
<b>Well:</b>	Foust-Ihrig 43-18H	<b>MD Reference:</b>	Pason Bit Depth
<b>Bit &amp; Nozzle Size:</b>	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32", 6 x 9/32")	<b>North Reference:</b>	Gyro True North
<b>Drill Motor:</b>	Hunting 5", 7/8, 4.5, 0.46RPG	<b>Survey Calculation Method:</b>	Minimum Curvature



# Section View

Vertical Section

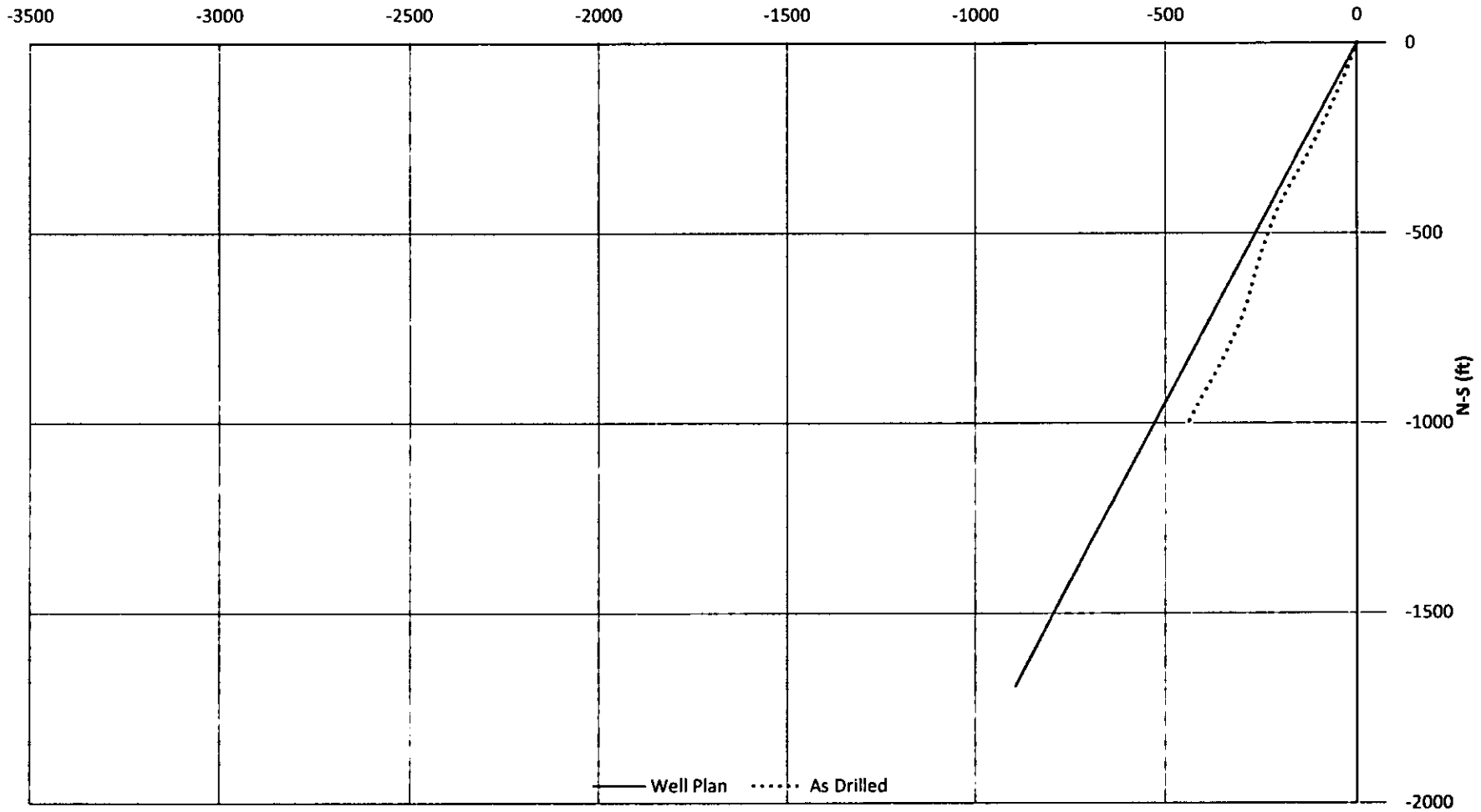


**AnTech™**

# Plan Plot

E-W(ft)

**ADVANCED  
DRILLING**

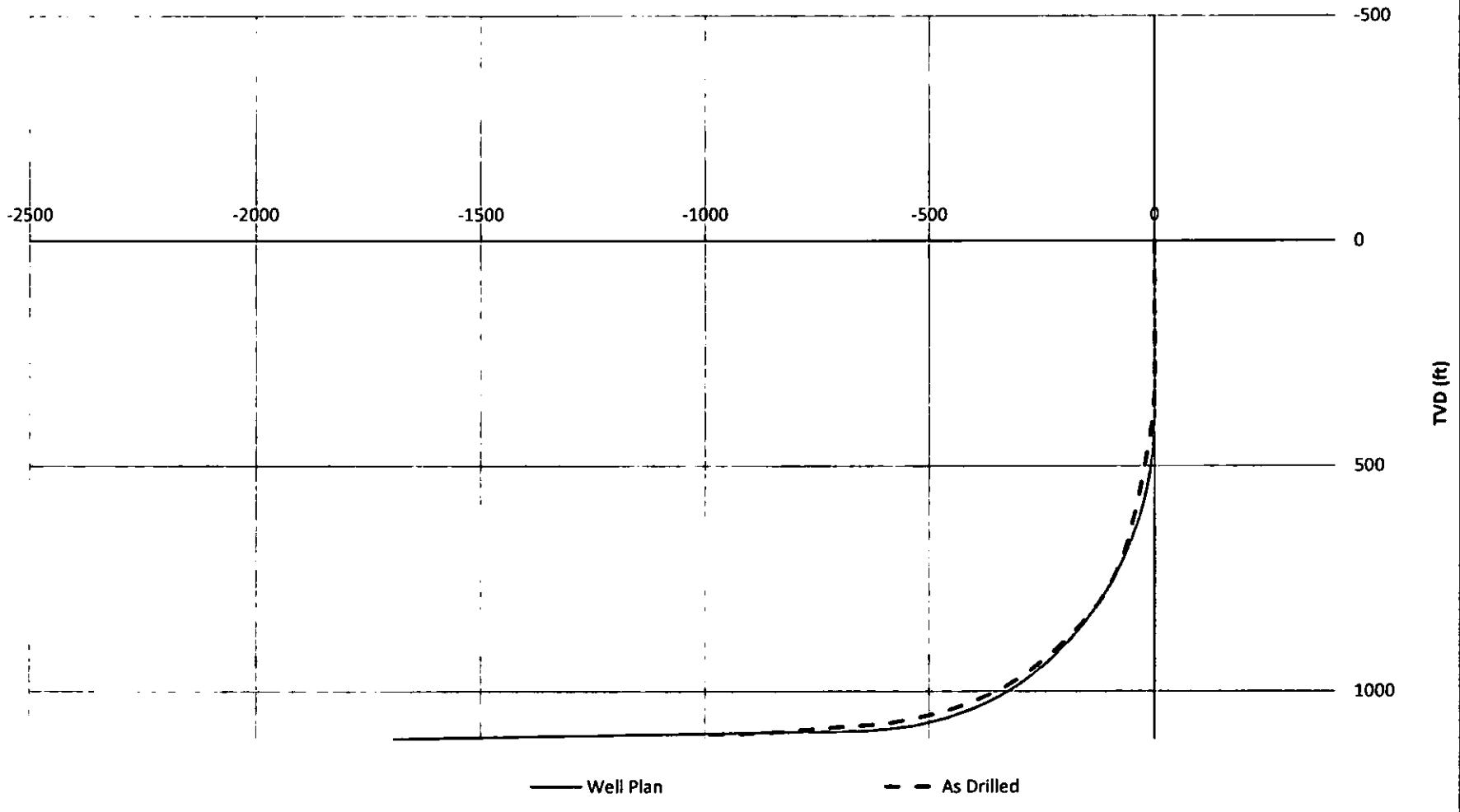


**AnTech**

# Northings Plot

**ADVANCED  
DRILLING**

N-S (ft)



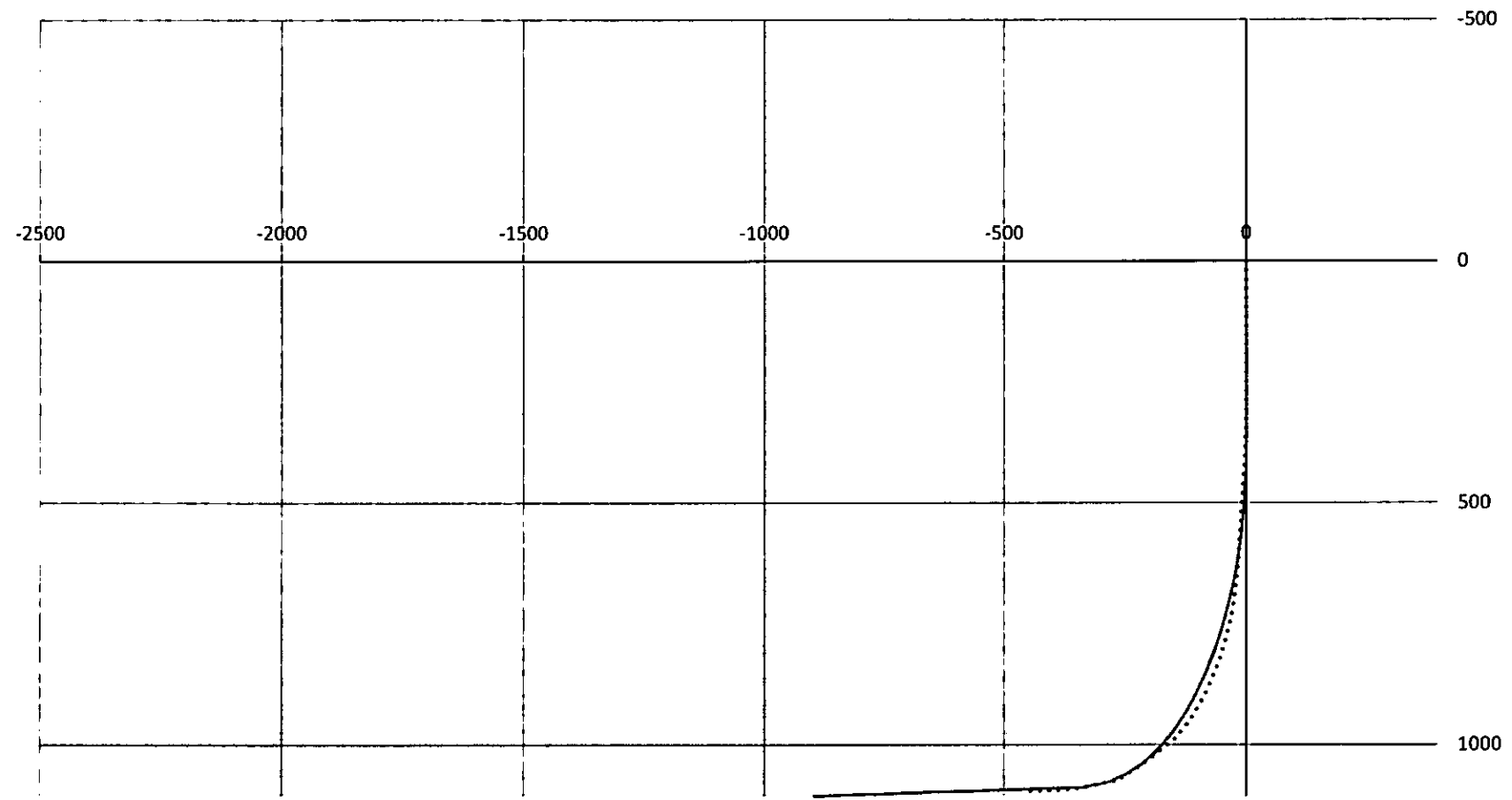
AnTech™

# Eastings Plot

ADVANCED  
DRILLING  
TECHNOLOGIES

E-W(ft)

TVD (ft)



— Well Plan

..... As Drilled

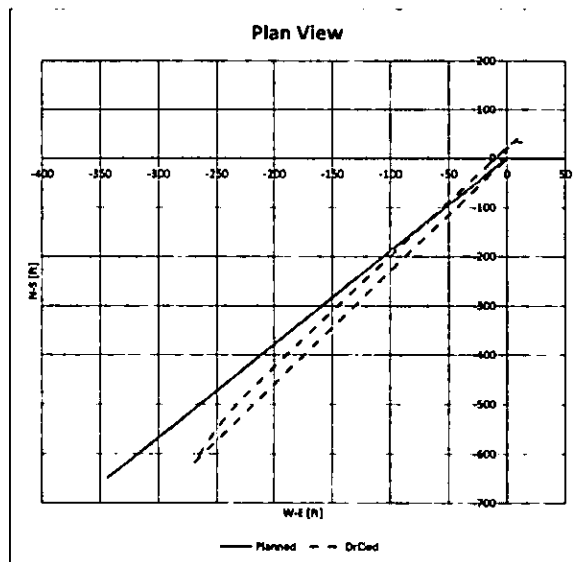
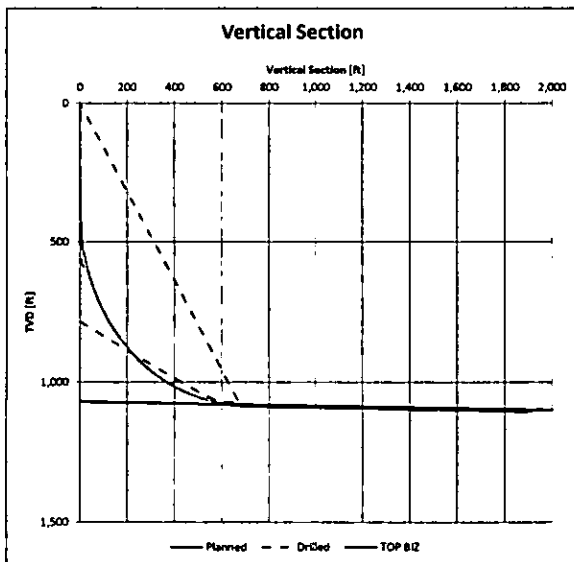
## Directional Drilling Morning Report

DATE: 27/01/2012  
TIME: 12:12

Customer:	Advanced Drilling Technologies	Motor Bend Angle:	2.77 & 1.15
Project:	Polaris Operational Trials	Local Co-ordinate Reference:	GPS
Site:	Foust-Ihrig	TVD Reference:	Minimum Curvature Calculation
Well:	Foust-Ihrig 43-18H	MD Reference:	Pason Bit Depth
Bit & Nozzle Size:	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32", 6 x 1	North Reference:	Gyro True North
Drill Motor:	Hunting 5", 7/8, 4.5, 0.46RPG	Survey Calculation Method:	Minimum Curvature

### Event Log

Time	Date	Measured Depth [ft]	Description	Inclination	Azimuth	Pump Rate [GPM]	Mud Weight [PPG]
23:25	26/01/2012	0.00	Rigged up ready to RIH	N/A	N/A	158.00	
00:51	27/01/2012	60.00	RIH	N/A	N/A	158.00	8.30
02:07		336.00	Tag Cement - Rotate orienter to drill straight to 390	N/A	N/A	300.00	
03:11		390.00	3 Surveys to orient and confirm toolface (at 244.89 deg) - build	1.41	N/A	300.00	
04:00		435.00	Survey - build (tool face at 227.70)	3.47	N/A	300.00	
04:40		485.00	Survey - build (tool face at 255) for 100ft	4.33	N/A	300.00	
06:05		585.00	Survey - build	15.02	10.43	300.00	
06:35		535.00	Survey - pull pack 50ft and re survey	4.91	71.19	300.00	
07:18		605.00	RIH, drill on 40ft straight and survey	14.66	6.42	300.00	
07:58		635.00	Build right (toolface at 90), 30ft and survey	15.02	10.43	300.00	
09:09		675.00	Set toolface to 180 deg, build 40ft	15.71	26.51	300.00	
09:43		715.00	Set toolface to 180 deg, build 40ft	10.42	37.00	300.00	
10:18		755.00	Set toolface to 180 deg, build 40ft	7.54	78.13	300.00	
11:13		795.00	Survey - build too small POOH	4.55	13.98	300.00	
			POOH. Cement to surface				





Drilling Log

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity "/100ft	Reference	Description	Time	Date
-30.00	0.00	0.00	0.00	-30.00	0.00	0.00	0.00	0.00		KB		
306.00	336.00	0.00	0.00	306.00	0.00	0.00	0.00	0.00	Tag Cement	Straight		
405.00	435.00	3.47	227.70	404.94	-2.02	-2.22	3.00	3.51	0	Build		
455.00	485.00	4.13	251.46	454.83	-3.61	-5.04	6.20	3.38		Build	04:47	
555.00	585.00	12.42	18.84	554.10	5.44	-4.93	7.49	15.47		Build	06:05	
575.00	605.00	14.64	4.42	573.82	6.32	-0.88	6.38	19.02		Straight	07:18	
605.00	635.00	15.02	10.43	602.65	17.39	-1.89	17.30	4.25		Straight	07:55	
645.00	675.00	15.71	26.51	641.42	23.42	4.34	-22.91	7.63		Build	09:09	
685.00	715.00	18.42	37.00	680.73	33.18	4.25	-31.32	9.16		Build	09:43	
725.00	755.00	7.54	76.13	719.89	14.43	14.35	-37.15	15.60		Build	10:18	
765.00	795.00	4.55	13.98	760.03	42.05	9.17	-41.55	8.10		POOH	00:00	



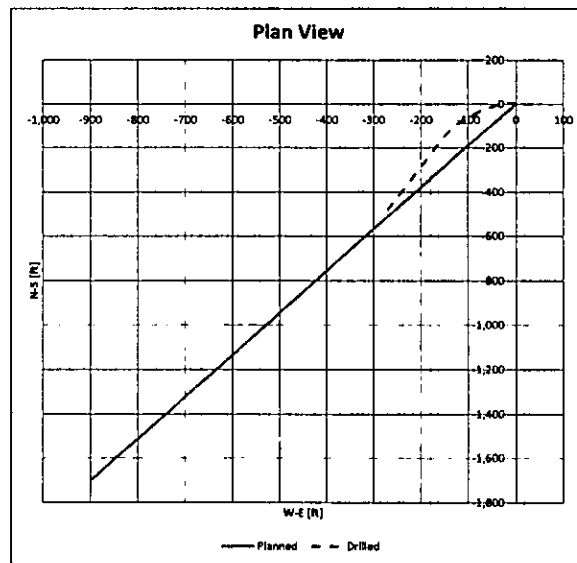
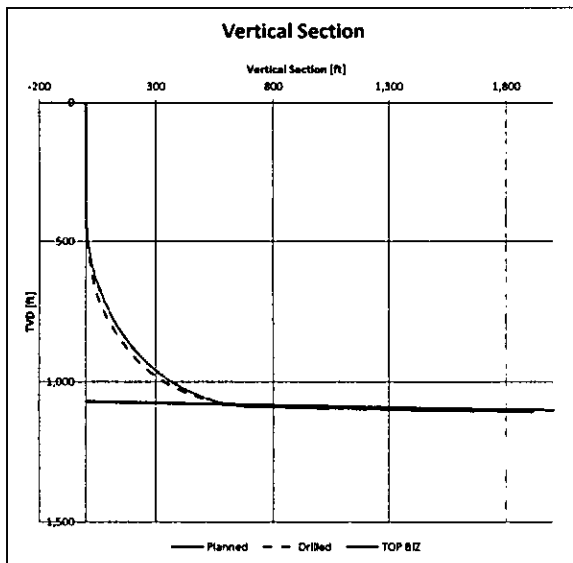
## Directional Drilling Morning Report

DATE: 29/01/2012  
TIME: 05:00

Customer:	Advanced Drilling Technologies	Motor Bend Angle:	2.77 & 1.15
Project:	Polaris Operational Trials	Local Co-ordinate Reference:	GPS
Site:	Foust-Ihrig	TVD Reference:	Minimum Curvature Calculation
Well:	Foust-Ihrig 43-18H	MD Reference:	Pason Bit Depth
Bit & Nozzle Size:	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32"), 6 x 1	North Reference:	Gyro True North
Drill Motor:	Hunting 5", 7/8, 4.5, 0.46RPG	Survey Calculation Method:	Minimum Curvature

**Event Log**

Time	Date	Measured Depth [ft]	Description	Inclination	Azimuth	Pump Rate [GPM]	Mud Weight [PPG]
05:45	28/01/2012	0.00	Rigged up ready to RIH				
06:00		0.00	RIH				8.70
06:30		390.00	RIH - Zero				8.70
06:47		398.00	Tag Cement				8.70
07:21		394.00	Initial surveys and KO - toolface @ 216.88	1.04	216.88	285.00	8.70
07:54		435.00	Survey and build 40ft - toolface @ 201.53	2.70	201.53	291.00	8.70
09:00		475.00	Survey and build 40ft - toolface @ 13.95	2.31	302.57	259.00	8.70
09:45		510.00	Survey	4.21	294.31	290.00	8.70
10:35		550.00	Survey	9.92	284.11	290.00	8.70
12:00		680.00	Survey	16.60	242.31	300.00	8.70
12:53		731.00	Survey	23.71	234.03	300.00	8.70
13:53		825.00	Survey	36.22	224.51	300.00	8.70
15:00		925.00	Survey	42.03	213.90	300.00	8.70
16:20		1025.00	Survey	51.67	197.54	310.00	8.70
17:21		1125.00	Survey	60.27	200.39	310.00	8.70
19:10		1225.00	Survey	67.00	200.00	310.00	8.70
19:40		1300.00	Azimuth capabilities lost. Continue drilling build inclination. Re-survey this point and at 1400 MD w	76.00	200.00	300.00	8.70
20:10		1330.00		76.00	200.00	300.00	8.70
21:30		1409.00	Intermediate TD	76.00	200.00	280.00	8.70
21:30			Wiper trip back to casing before POOH and rig down				
04:00	29/01/2012		Drilling new hole during wiper. PDOM. Cement back to surface				





Drilling Log

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity °/100ft	Reference	Description	Time	Date
360.00	350.00	0.00	0.00	360.00	0.00	0.00	0.00	0.00		Vertical	06:30	28/01/2012
405.00	435.00	2.70	346.00	404.98	1.03	-0.26	1.06	6.00		Build	12:57	
445.00	475.00	2.31	302.57	444.95	2.38	-1.16	2.65	4.72		Build	09:09	
490.00	520.00	4.21	294.32	489.87	3.55	-3.43	4.94	4.34		Build	09:45	
525.00	555.00	9.92	284.12	524.59	4.81	-7.53	8.94	16.64		Build	10:35	
650.00	680.00	16.60	242.11	646.45	-0.88	-33.87	33.88	9.02		Build	12:00	
701.00	731.00	23.71	234.03	694.31	-10.30	-48.64	49.72	14.99		Build	12:53	
795.00	825.00	36.22	224.51	775.62	-41.35	-83.56	93.23	14.20		Build	13:53	
895.00	925.00	42.03	213.90	853.26	-90.30	-123.02	152.61	8.88		Build	15:00	
995.00	1025.00	51.67	197.54	921.81	-155.87	-153.70	218.91	15.29		Build	16:20	
1095.00	1125.00	60.27	200.39	977.73	-234.13	-180.70	295.75	8.92		Build	17:21	
1195.00	1225.00	67.00	200.00	1022.11	-318.17	-211.61	382.11	6.74		Build	19:10	
1270.00	1300.00	76.00	200.00	1045.89	-384.94	-235.91	451.48	12.00		Straight	19:40	
1300.00	1330.00	76.00	200.00	1053.14	-412.29	-245.86	480.04	0.00		Straight	20:10	
1379.00	1409.00	76.00	200.00	1072.26	-484.32	-272.08	555.52	0.00		Straight	00:00	







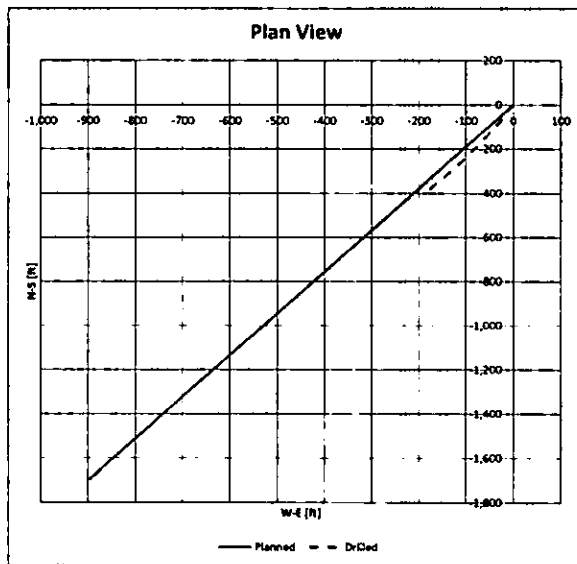
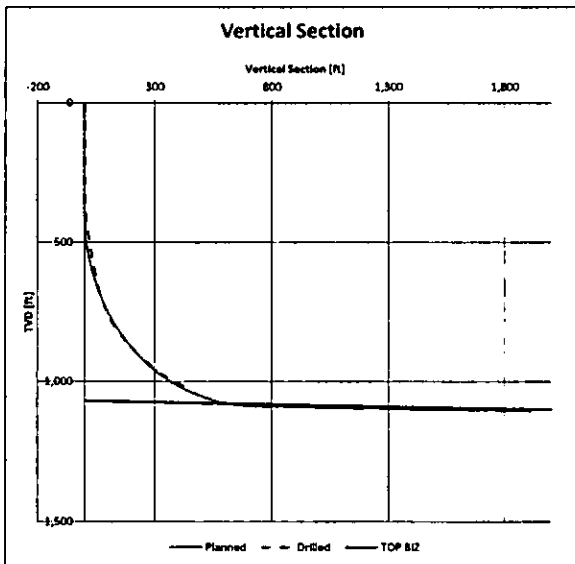
# Directional Drilling Morning Report

DATE: 01/02/2012  
 TIME: 05:50

Customer:	Advanced Drilling Technologies	Motor Bend Angle:	2.77 & 1.15
Project:	Polaris Operational Trials	Local Co-ordinate Reference:	GPS
Site:	Foust-Ihrig	TVD Reference:	Minimum Curvature Calculation
Well:	Foust-Ihrig 43-18H	MD Reference:	Pason Bit Depth
Bit & Nozzle Size:	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32", 6 x 1	North Reference:	Gyro True North
Drill Motor:	Hunting 5", 7/8, 4.5, 0.46RPG	Survey Calculation Method:	Minimum Curvature

Event Log

Time	Date	Bit Depth (ft)	Description	Inclination	Azimuth	Pump Rate (GPM)	Mud Weight (PPG)
12:25	31/01/2012	0.00	Rigged up ready to RH	N/A	N/A	192.00	8.90
13:45		323.00	Tag cement - drill straight to 355 ft.				
14:08		355.00	Take initial surveys. Set toolface @ 260.8 deg., KD to 440ft from 16:46.	1.53	N/A	308.00	
17:34		440.00	Survey - 15ft slide to one rotation build to 553ft.	8.90	196.75		8.70
18:45		553.00	Survey - rotate straight for 100ft.	11.70	203.59	303.00	
19:52		645.00	Survey - Build at 60 deg for 15ft then one rotation. Repeat till 745 ft	12.98	191.59	306.00	
21:07		745.00	Survey - Build 70ft at 10 deg then straight for 30ft	20.87	205.66		
22:24		845.00	Survey - Build at 30 deg for 15 ft, then one rotation. Repeat until 945ft	36.64	201.98	303.00	
23:44		945.00	Survey - Build at 35 deg for for 15 ft, then one rotation. Repeat until 1045 ft	46.94	204.87	303.00	8.60
02:27	01/02/2012	1045.00	Survey - Build at 35 deg for for 15 ft, then one rotation. Repeat until 1145 ft	53.62	204.41	292.00	
04:03		1145.00	Survey - Build at 15 deg for for 15 ft, then one rotation. Repeat until 1245 ft	62.85	210.21	287.00	8.90
05:41		1246.00	Survey - Rotate while maintaining Inclination as per well plan	72.71	208.85		





Drilling Log

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity "/100ft	Reference	Description	Time	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		Vertical	12:46	11/01/2012
293.00	323.00	0.00	0.00	293.00	0.00	0.00	0.00	0.00	Tag Cement	Vertical	13:45	
325.00	355.00	1.53	260.00	325.00	-0.07	-0.42	0.43	4.78	KD	Build/Rotate	16:46	
410.00	440.00	8.90	196.75	409.62	-6.56	-3.44	7.41	9.82		Build/Rotate	17:34	
523.00	553.00	11.70	203.59	520.79	-25.43	-10.55	27.53	2.70		Rotate	18:45	
615.00	645.00	12.98	193.59	610.68	-44.13	-16.36	47.04	3.11		Rotate	19:52	
715.00	745.00	20.87	205.64	706.31	-71.22	-26.35	75.93	8.84		Build/Rotate	21:07	
815.00	845.00	36.64	203.98	793.71	-115.22	-45.35	123.83	15.86		Build/Rotate	22:24	
915.00	945.00	46.94	204.87	866.17	-176.21	-71.96	190.34	10.48		Build/Rotate	23:44	
1015.00	1045.00	53.62	204.87	932.04	-245.95	-104.29	267.15	6.68		Build/Rotate	02:27	01/02/2012
1115.00	1145.00	62.85	210.21	984.66	-321.33	-143.72	351.82	10.28		Build/Rotate	04:03	
1214.00	1244.00	72.71	208.86	1022.81	-402.39	-189.72	444.67	9.84		Build/Rotate	05:41	



Drilling Log

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity %/100ft	Reference	Description	Time	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
293.00	323.00	0.00	0.00	293.00	0.00	0.00	0.00	0.00	Tag Cement	Vertical	12.46	11/01/2012
325.00	355.00	1.53	260.80	325.00	-0.07	-0.42	0.41	4.78	KD	Build/Rotate	14.46	
410.00	440.00	8.90	196.75	409.62	-6.56	-3.44	7.41	9.82		Build/Rotate	17.34	
523.00	553.00	11.70	203.59	520.79	-25.43	-10.55	27.53	2.70		Rotate	18.45	
635.00	645.00	12.88	191.59	610.68	-44.11	-14.34	47.04	3.11		Rotate	19.52	
715.00	745.00	20.87	205.66	706.31	-71.22	-24.35	75.93	8.84		Build/Rotate	21.07	
815.00	845.00	36.64	201.98	793.71	-115.22	-45.35	123.83	15.86		Build/Rotate	22.24	
915.00	945.00	44.84	204.47	868.17	-174.21	-71.96	190.34	10.48		Build/Rotate	23.46	
1015.00	1045.00	53.62	204.87	932.04	-245.95	-104.29	267.15	6.68		Build/Rotate	02.27	01/02/2012
1115.00	1145.00	62.85	210.21	984.66	-323.13	-143.73	383.82	10.28		Build/Rotate	04.03	
1216.00	1246.00	72.71	208.86	1022.81	-402.19	-189.73	444.87	9.84		Build/Rotate	05.41	
1319.00	1349.00	74.42	204.19	1049.15	-487.01	-213.78	540.21	4.54		Rotate	07.43	
1375.00	1405.00	78.20	205.75	1062.33	-539.63	-259.41	598.74	3.05	IN TD In Zone	Rotate	08.53	





Drilling Log

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity <sup>°</sup> /100ft	Reference	Description	Time	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
293.00	323.00	0.00	0.00	293.00	0.00	0.00	0.00	0.00	Tag Cement	Vertical	12:46	11/01/2012
328.00	358.00	1.53	260.00	325.00	-0.07	-0.42	0.43	4.79	KD	Build/Rotate	16:46	
410.00	440.00	6.90	196.79	409.62	-6.96	-3.44	7.41	9.82		Build/Rotate	17:34	
823.00	853.00	11.70	203.59	820.79	-25.43	-10.55	27.53	2.70		Rotate	18:45	
815.00	845.00	12.98	181.59	810.68	-44.11	-16.26	47.04	3.11		Rotate	19:52	
715.00	745.00	20.87	208.66	706.31	-71.22	-26.38	75.93	8.84		Build/Rotate	21:07	
818.00	848.00	16.64	203.98	793.71	-119.22	-45.35	123.83	15.86		Build/Rotate	22:24	
919.00	949.00	46.94	204.87	868.17	-174.21	-71.96	190.34	10.48		Build/Rotate	23:44	
1015.00	1045.00	53.62	204.87	932.04	-245.96	-104.29	247.18	6.68		Build/Rotate	02:27	01/02/2012
1115.00	1145.00	62.85	210.21	984.66	-321.13	-143.71	351.82	10.28		Build/Rotate	04:03	
1216.00	1246.00	72.71	208.66	1022.81	-402.39	-189.72	444.87	9.84		Build/Rotate	05:41	
1313.00	1343.00	75.46	212.45	1049.41	-482.61	-237.27	537.78	4.55		Straight	03:09	01/02/2012



Drilling Log

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity "/100ft	Reference	Description	Time	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		Vertical	12:46	31/01/2012
293.00	323.00	0.00	0.00	293.00	0.00	0.00	0.00	0.00	Tag Cement	Vertical	13:46	
325.00	355.00	1.53	260.80	325.00	-0.07	-0.42	0.43	4.78	KD	Build/Rotate	16:46	
410.00	440.00	8.90	196.75	409.62	-6.86	-3.44	7.41	9.82		Build/Rotate	17:34	
523.00	553.00	11.70	203.59	520.79	-25.43	-10.55	27.53	2.70		Rotate	18:45	
615.00	645.00	12.98	191.59	610.68	-44.11	-16.36	47.04	3.11		Rotate	19:52	
715.00	745.00	20.87	205.66	706.31	-71.27	-26.35	75.93	8.84		Build/Rotate	21:07	
815.00	845.00	34.54	201.98	793.71	-115.22	-45.35	123.83	15.86		Build/Rotate	22:24	
915.00	945.00	46.94	204.67	868.17	-176.21	-71.96	190.34	10.45		Build/Rotate	23:44	
1015.00	1045.00	53.62	204.87	932.04	-245.95	-104.29	267.15	6.68		Build/Rotate	02:27	01/02/2012
1115.00	1145.00	62.85	210.21	986.66	-321.13	-143.71	351.82	10.28		Build/Rotate	04:03	
1216.00	1246.00	72.71	208.86	1022.81	-402.39	-189.71	444.87	9.84		Build/Rotate	05:41	
1313.00	1343.00	75.46	212.45	1049.41	-482.61	-237.27	537.78	4.85		Straight	03:09	03/02/2012
1410.00	1440.00	77.50	214.79	1072.09	-563.13	-289.49	611.40	3.15		Build/Rotate	04:48	
1525.00	1555.00	80.56	222.97	1094.03	-648.90	-360.32	742.22	7.47		Build/Rotate	06:45	

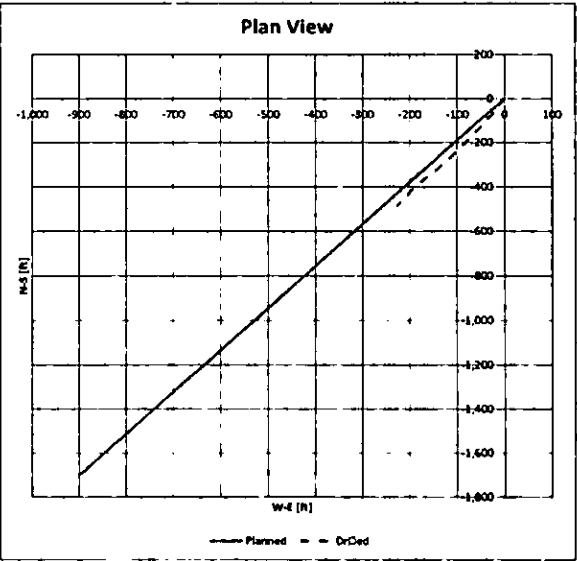
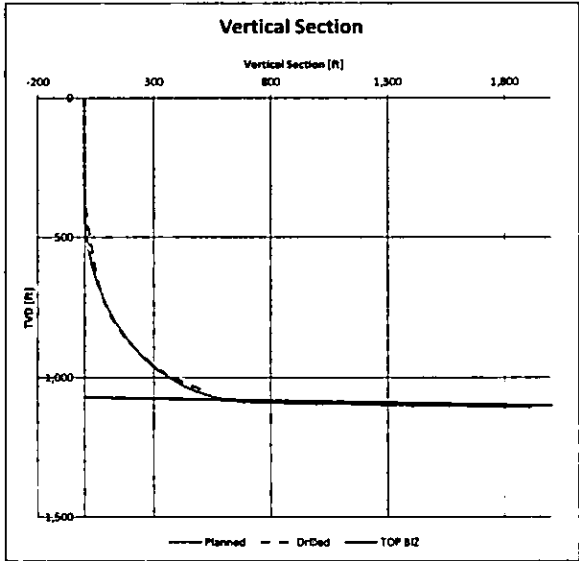


# Directional Drilling Morning Report

DATE: 05/02/2012  
 TIME: 03:25

Customer:	Advanced Drilling Technologies	Motor Bend Angle:	2.77 & 1.15
Project:	Polaris Operational Trials	Local Co-ordinate Reference:	GPS
Site:	Foust-Ihrig	TVD Reference:	Minimum Curvature Calculation
Well:	Foust-Ihrig 43-18H	MD Reference:	Pason Bit Depth
Bit & Nozzle Size:	8.5" PDC (6 x 10/32"), 6.25" PDC (3 x 12/32", 6 x 1	North Reference:	Gyro True North
Drill Motor:	Hunting 5", 7/8, 4.5, 0.46RPG	Survey Calculation Method:	Minimum Curvature

Event Log							
Time	Date	Bit Depth (ft)	Description	Inclination	Azimuth	Pump Rate (GPM)	Mud Weight (PPG)
16:30	04/02/2012	0.00	Rig up				
17:20		49.00	RIH				
20:00			Rotate through casing to 1340ft				
20:43		1340.00	Survey	74.07	199.39		
21:28		1410.00	Survey	76.61	198.21		
21:35		1415.00	Tag cement. Drill build to 1450ft				
22:15		1458.00	Survey	83.74	197.35		
23:18		1481.00	Cannot rotate tool while drilling. Survey.	86.83	193.21		
23:25			POOH. Reduce motor bend to 1.5				
03:15	05/02/2012	0.00	Rigged up ready to RIH				
05:21		1480.00	Re-survey on bottom to confirm position	86.42	194.87		
05:22		1486.00	30% straight, Set toolface to 100 deg and drill 40ft then rotate 35ft				





Drilling Log

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity "/100ft	Reference	Description	Time	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		Vertical	12:46	31/01/2012
293.00	323.00	0.00	0.00	293.00	0.00	0.00	0.00	0.00	Tag Cement	Vertical	13:45	
325.00	355.00	1.53	269.80	325.00	-0.07	-0.42	0.43	4.78	EO	Build/Rotate	16:46	
410.00	440.00	8.90	196.75	409.62	-6.56	-3.44	7.41	9.82		Build/Rotate	17:34	
523.00	553.00	11.70	203.59	520.79	-23.43	-10.55	27.53	2.70		Rotate	18:45	
616.00	646.00	12.98	191.59	610.68	-44.11	-16.36	47.04	3.11		Rotate	19:52	
715.00	745.00	20.87	205.44	706.31	-71.22	-26.35	75.93	8.84		Build/Rotate	21:07	
815.00	845.00	16.64	201.98	793.71	-115.22	-45.35	123.83	15.88		Build/Rotate	22:24	
915.00	945.00	46.94	204.87	866.17	-174.21	-71.96	190.34	10.48		Build/Rotate	23:44	
1015.00	1045.00	53.62	204.87	932.04	-245.85	-104.29	247.15	6.68		Build/Rotate	02:27	01/02/2012
1115.00	1145.00	42.85	210.21	984.44	-321.13	-143.71	351.83	10.23		Build/Rotate	04:03	
1216.00	1246.00	72.71	208.88	1022.81	-482.39	-189.71	448.87	9.84		Build/Rotate	05:41	
1310.00	1340.00	74.87	199.39	1049.73	-484.50	-236.45	534.81	9.76		6.00	0.00	04/02/2012
1430.00	1460.00	83.74	197.34	1072.40	-596.13	-263.47	651.76	8.23		Build	22:15	
1451.00	1481.00	86.83	193.21	1074.53	-616.32	-268.98	672.46	24.51		Build	23:18	



Drilling Log

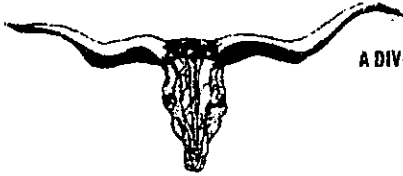
Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity "/100ft	Reference	Description	Time	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		Vertical	12:44	11/01/2012
293.00	323.00	0.00	0.00	293.00	0.00	0.00	0.00	0.00	Tay Cement	Vertical	13:45	
325.00	355.00	1.53	260.80	325.00	-0.07	-0.42	0.43	4.78	KO	Build/Rotate	16:46	
410.00	440.00	6.90	196.75	409.62	-6.56	-3.44	7.41	9.82		Build/Rotate	17:14	
523.00	553.00	11.70	203.59	520.79	-25.43	-10.55	27.63	2.70		Rotate	18:45	
615.00	645.00	12.98	191.59	610.68	-44.11	-16.36	47.04	1.11		Rotate	19:52	
715.00	745.00	20.87	205.66	708.31	-71.22	-26.35	75.93	8.84		Build/Rotate	21:07	
815.00	845.00	36.44	201.98	793.71	-115.22	-45.35	123.83	15.86		Build/Rotate	22:24	
915.00	945.00	46.94	204.87	868.17	-174.21	-71.96	190.34	10.48		Build/Rotate	23:44	
1015.00	1045.00	53.62	204.87	932.04	-245.95	-104.29	247.15	6.68		Build/Rotate	02:27	01/02/2012
1115.00	1145.00	62.85	210.21	984.66	-323.33	-143.71	351.82	10.28		Build/Rotate	04:03	
1214.00	1244.00	72.71	208.86	1022.81	-402.39	-149.71	444.87	9.84		Build/Rotate	05:41	
1310.00	1340.00	74.07	199.39	1049.73	-484.90	-226.45	534.81	5.76		0.00	0.00	04/02/2012
1430.00	1460.00	83.74	197.34	1072.80	-596.33	-263.47	651.78	8.23		Build	22:15	
1451.00	1481.00	88.83	193.21	1074.53	-616.32	-268.98	672.46	24.51		Build	23:18	
1553.00	1583.00	86.47	199.43	1080.49	-713.99	-297.58	773.82	6.10		Build	04:56	05/03/2012
1684.00	1714.00	84.70	208.65	1090.40	-833.14	-350.72	903.95	7.15		Build	09:06	
1784.00	1814.00	90.40	208.65	1094.87	-920.78	-398.60	1003.34	5.70		Build	10:54	
1884.00	1914.00	88.20	208.65	1096.09	-1008.53	-446.54	1102.86	2.20		Straight	01:55	06/02/2012





Drilling Log

Measured Depth ft	Bit Depth ft (MD +30 ft)	Inclination Angle degrees	Azimuth degrees	True Vertical Depth ft	North/South ft	East/West ft	Vertical Section ft	Dogleg Severity "/100ft	Reference	Description	Time	Date
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		Vertical	12:46	11/01/2012
293.00	323.00	0.00	0.00	293.00	0.00	0.00	0.00	0.00	Tag Cement	Vertical	13:45	
325.00	355.00	1.53	268.80	325.00	-0.07	-0.42	0.43	4.78	KD	Build/Rotate	16:46	
410.00	440.00	8.90	196.75	409.62	-6.56	-3.44	7.41	9.82		Build/Rotate	17:34	
523.00	553.00	11.70	203.59	520.79	-25.43	-10.55	27.53	2.70		Rotate	18:45	
615.00	645.00	12.98	191.59	610.68	-44.11	-16.36	47.04	3.11		Rotate	19:52	
715.00	745.00	20.87	205.66	706.31	-71.22	-24.38	75.93	8.84		Build/Rotate	21:07	
815.00	845.00	26.64	201.98	793.71	-115.22	-45.39	123.83	15.86		Build/Rotate	22:24	
915.00	945.00	46.94	204.87	868.17	-176.21	-71.96	190.34	10.49		Build/Rotate	23:44	
1015.00	1045.00	53.62	204.67	932.04	-248.95	-104.29	267.15	6.64		Build/Rotate	03:27	01/02/2012
1115.00	1145.00	62.85	210.71	984.66	-321.13	-143.71	351.82	10.29		Build/Rotate	04:03	
1216.00	1246.00	72.71	208.86	1022.83	-402.39	-188.73	464.87	9.84		Build/Rotate	05:41	
1310.00	1340.00	74.07	199.39	1049.73	-484.50	-226.65	534.81	9.76		0.00	0.00	04/02/2012
1430.00	1460.00	81.74	197.34	1072.80	-596.13	-263.47	681.76	8.23		build	22:15	
1481.00	1481.00	86.83	193.21	1074.53	-616.32	-268.90	672.46	24.51		build	23:18	
1583.00	1583.00	86.47	199.43	1080.49	-713.99	-297.80	773.52	6.10		build	04:56	05/02/2012
1684.00	1724.00	84.70	209.65	1090.60	-833.14	-350.72	903.95	7.15		build	09:06	
1784.00	1814.00	90.40	208.65	1094.87	-920.78	-390.60	1003.36	5.70		build	10:54	
1884.00	1914.00	88.20	208.65	1094.09	-1008.53	-448.84	1102.96	2.20		Drstraight	01:55	06/02/2012



A DIVISION OF ADVANCED DRILLING TECHNOLOGIES, LLC.

**LONGHORN CEMENTING CO.**

P.O. BOX 203 YUMA, COLORADO 80758  
Phone: 970-848-0799 Fax: 970-848-0798

FIELD SERVICE TICKET  
AND INVOICE

DATE 2/1/12 TICKET NO. 2585

DATE OF JOB	DISTRICT	NEW WELL <input checked="" type="checkbox"/>	OLD WELL <input type="checkbox"/>	PROD <input type="checkbox"/>	INJ <input type="checkbox"/>	WIDW <input type="checkbox"/>	CUSTOMER ORDER NO.:
CUSTOMER <u>ROSEW 8010</u>		LEASE <u>FOWE T-1 HRIG 43-164</u>				WELL NO.	
ADDRESS		COUNTY		STATE			
CITY		STATE		SERVICE CREW <u>UAN</u>			
AUTHORIZED BY		EQUIPMENT <u>112</u>					
TYPE JOB <u>J. A. P. M. W. R. H. T. H.</u>	DEPTH FT.	CEMENT DATA: SACKS <input type="checkbox"/>	BRAND	TYPE	% GEL	SAND DATA: SACKS <input type="checkbox"/>	ADDEXES
SIZE HOLE: <u>4.5</u>	DEPTH FT. <u>41</u>	TRUCK CALLED		DATE AM TIME			
SIZE & WT. CASTING <u>7"</u>	DEPTH FT.	ARRIVED AT JOB		AM			
SIZE & WT. D PIPE OR TUBING	DEPTH FT.	START OPERATION		AM			
TOP PLUGS <u>1</u>	TYPE <u>ANCH</u>	FINISH OPERATION		PM			
<u>PATD 1348</u>		RELEASED		AM			
		MILES FROM STATION TO WELL		PM			
	MAX DEPTH <u>1347</u> FT.	SACKS CEMENT TREATED WITH <u>2.1</u> GAL OF <u>W. 8</u>		MAX PRESSURE <u>1400</u> PSI.			

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).  
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only these terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without written consent of an officer of Advanced Drilling Technologies, LLC.

SIGNED: \_\_\_\_\_  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM / PRICE REF. NUMBER	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
001-3	DEPTH CHARGE		1		1500.00
100-1	MILEAGE		190	10.95	1953.00
200-1	CEMENT		97	17.50	1697.50
	7" PLUG + BEVEL				
300-1	7" CENTRALIZER		7	36.44	255.08
	10 BAGS WATER				
	20 BAGS CEMENT @ 14.8 PPG				
	56 BAGS DISP WATER				
	BUMP TOP PLUG 500 OVER DIE F PROCESSING				

ACID DATA:		
GALLONS	%	ADDITIVES
HCL		
HCL		

SERVICE & EQUIPMENT	% TAX ON \$
MATERIALS	% TAX ON \$

SUB TOTAL

TOTAL 5314.08

SERVICE REPRESENTATIVE <u>[Signature]</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>[Signature]</u>
FIELD SERVICE ORDER NO.	(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)



KANSAS CORPORATION COMMISSION 1085026  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

Form Must Be Typed

Form must be Signed

All blanks must be Filled

**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # 33019  
Name: Rosewood Resources, Inc.  
Address 1: 2101 CEDAR SPRINGS RD, STE 1500  
Address 2: \_\_\_\_\_  
City: DALLAS State: TX Zip: 75201 + \_\_\_\_\_  
Contact Person: Tom Roelfs  
Phone: ( 214 ) 849-9300  
CONTRACTOR: License # 33532  
Name: Advanced Drilling Technologies LLC  
Wellsite Geologist: Steven VonFeldt  
Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well     Re-Entry     Workover
- Oil     WSW     SWD     SIOW
- Gas     D&A     ENHR     SIGW
- OG     GSW     Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic     Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening     Re-perf.     Conv. to ENHR     Conv. to SWD
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled    Permit #: \_\_\_\_\_
- Dual Completion    Permit #: \_\_\_\_\_
- SWD    Permit #: \_\_\_\_\_
- ENHR    Permit #: \_\_\_\_\_
- GSW    Permit #: \_\_\_\_\_

<u>11/10/2011</u>	<u>02/06/2012</u>	<u>03/21/2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-181-20573-01-00

Spot Description: \_\_\_\_\_

NE NE NE SE Sec. 18 Twp. 7 S. R. 39  East  West  
2329 Feet from  North /  South Line of Section  
217 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE     NW     SE     SW

County: Sherman

Lease Name: Foust-Ihrig Well #: 43-18H

Field Name: \_\_\_\_\_

Producing Formation: Niobrara

Elevation: Ground: 3570 Kelly Bushing: 3582

Total Depth: 1920 Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: 336 Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_  
feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

(Data must be collected from the Reserve Pit)

Chloride content: 5000 ppm Fluid volume: 200 bbls

Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: Deanna Gantico Date: 07/03/2012



1085026

Operator Name: Rosewood Resources, Inc. Lease Name: Foust-Ihrig Well #: 43-18H  
 Sec. 18 Twp. 7 S. R. 39  East  West County: Sherman

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional Sheets)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Niobrara	1846	KB
Electric Log Run	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Submitted Electronically (If no, Submit Copy)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				
Gamma Ray				

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	9.625	32	336	Neat	110	
Intermediate	8.625	7	17	1332.29	Neat	90	

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
— Perforate				
— Protect Casing	-			
— Plug Back TD				
— Plug Off Zone	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	1882 to 1902		

TUBING RECORD:	Size: <u>2.875</u>	Set At: <u>1907.15</u>	Packer At:	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>04/19/2012</u>	Producing Method: <input checked="" type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity
		17		

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input checked="" type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, Submit ACO-18.)	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled (Submit ACO-5) <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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