SUR: N-10-18s-33e, 660/S & 1980/W
BHL: C-10-18s-33e, 4566/S & 1792/W
API # 30-025-39599

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NOV 23 2010
HOBBSOCD

End of Well Recap
FOR

Devon Energy
Cockburn Fed #4
Lea Co, NM

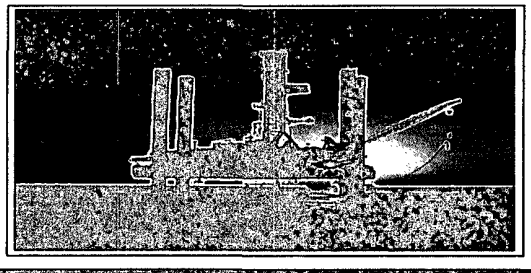
Proposal No. 02291-433-21

Presented By:

Terry Morgan
Regional Manager

Aaron Pullin
Well Planner

Bureau of Land Management
RECEIVED
NOV 10 2010
Carlsbad Field Office
Carlsbad, N.M.



GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

SUR: N-10-18s-33e, 660/S & 1980/W
BHL: C-10-18s-33e, 4566/S & 1792/W
API # 30-025-39599

Overlay Well & Survey Report

devon

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NOV 23 2010
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Devon Energy

Lea County
Sec 10 - T18S - R33E
Cockburn Fed #4

Wellbore #1

Survey: MWD Survey

Standard Survey Report

30 August, 2010

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

devon

Project: Lea County
Site: Sec 10 - T18S - R33E
Well: Cockburn Fed #4
Wellbore: Wellbore #1
Design: Plan #4

WELL DETAILS: Cockburn Fed #4

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	639685.67	750463.47	32° 45' 24.066 N	103° 39' 11.045 W

SHL: 660' FSL / 1980' FWL
BHL: 660' FNL / 1980' FWL

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

G T M

Azimuths to Grid North
Total Correction: 7.39°

Magnetic Field
Strength: 49072.0snT
Dip Angle: 60.71°
Date: 2010/08/10
Model: IGRF200510

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Cockburn Fed #4 PBHL	9070.2	3960.0	0.0	643645.66	750463.47	32° 46' 3.249 N	103° 39' 10.747 W

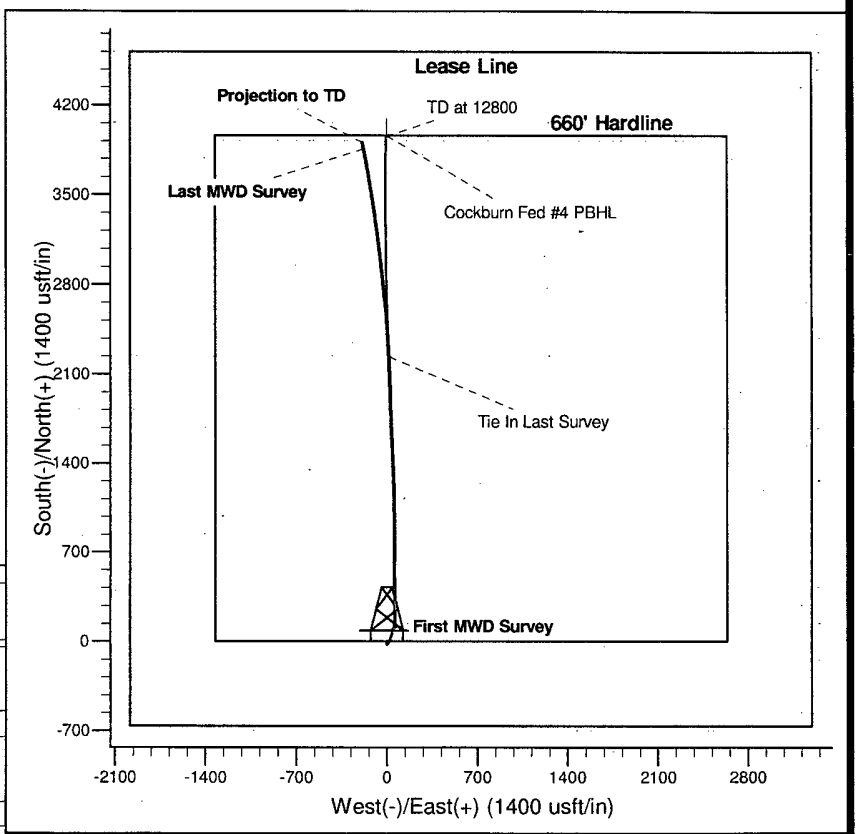
- plan misses target center by 8.6usft at 12800.0usft MD (9070.2 TVD, 3952.5 N, -4.1 E)

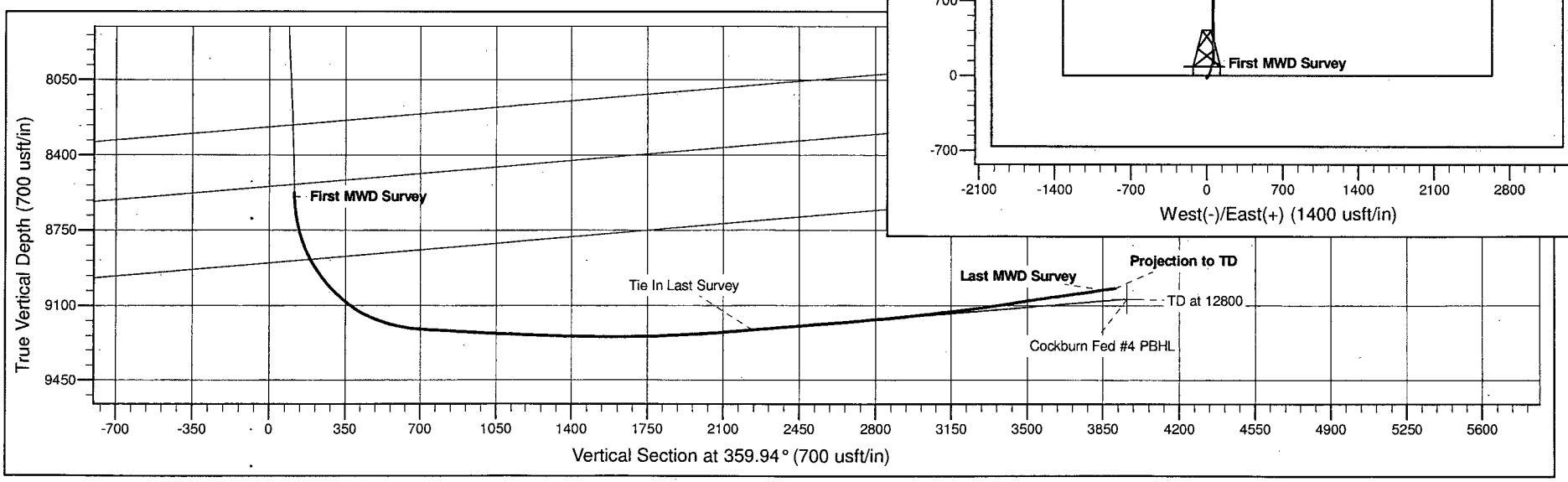
PLAN DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
11076.0	94.70	357.50	9216.0	2235.1	17.8	0.00	0.00	2235.0	
12800.0	95.00	1.04	9070.2	3952.5	-4.1	0.21	84.99	3952.5	

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
9216.0	11076.0	94.70	357.50	2235.1	17.8	2235.0	0.0	Tie In Last Survey
9070.2	12800.0	95.00	1.04	3952.5	-4.1	3952.5	1717.8	TD at 12800





Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Sec 10 - T18S - R33E
Project:	Lea County	**TVD Reference:**	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 10 - T18S - R33E	**MD Reference:**	WELL @ 0.0usft (Original Well Elev)
Well:	Cockburn Fed #4	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Project Lea County

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

Site Sec 10 - T18S - R33E

Site Position:		**Northing:**	639,685.67 usft	**Latitude:**	32° 45' 24.066 N
From:	Map	**Easting:**	750,463.46 usft	**Longitude:**	103° 39' 11.045 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well Cockburn Fed #4

Well Position	**+N/-S**	0.0 usft	**Northing:**	639,685.67 usft	**Latitude:**	32° 45' 24.066 N
	+E/-W	0.0 usft	**Easting:**	750,463.46 usft	**Longitude:**	103° 39' 11.045 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	0.0 usft

Wellbore Wellbore #1

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	2010/08/10	7.76	60.71	49,072

Design Wellbore #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	358.80

Survey Program **Date** 2010/08/30

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
100.0	8,577.0	Gyro Survey (Wellbore #1)		
8,597.0	12,773.0	MWD Survey (Wellbore #1)		

Survey

Measured Depth (usft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Vertical Section (usft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**
8,577.0	2.21	50.21	8,574.6	113.5	59.1	112.2	0.00	0.00	0.00
8,597.0	2.50	54.90	8,594.5	114.0	59.8	112.7	1.74	1.45	23.45
First MWD Survey									
8,629.0	4.90	18.90	8,626.5	115.7	60.8	114.4	10.09	7.50	-112.50
8,660.0	7.00	8.60	8,657.3	118.8	61.5	117.5	7.57	6.77	-33.23
8,692.0	8.80	6.20	8,689.0	123.1	62.0	121.8	5.72	5.63	-7.50
8,724.0	11.10	4.00	8,720.5	128.6	62.5	127.3	7.28	7.19	-6.88
8,755.0	13.70	3.10	8,750.8	135.3	62.9	133.9	8.41	8.39	-2.90
8,787.0	16.80	3.30	8,781.7	143.7	63.4	142.3	9.69	9.69	0.63
8,819.0	19.80	2.60	8,812.0	153.7	63.9	152.4	9.40	9.38	-2.19

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Sec 10 - T18S - R33E
Project:	Lea County	**TVD Reference:**	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 10 - T18S - R33E	**MD Reference:**	WELL @ 0.0usft (Original Well Elev)
Well:	Cockburn Fed #4	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,851.0	22.70	2.40	8,841.9	165.3	64.4	163.9	9.07	9.06	-0.63
8,882.0	26.00	1.90	8,870.1	178.1	64.9	176.7	10.67	10.65	-1.61
8,914.0	29.00	1.70	8,898.5	192.9	65.4	191.4	9.38	9.38	-0.63
8,946.0	31.80	1.20	8,926.1	209.0	65.8	207.6	8.79	8.75	-1.56
8,977.0	34.90	0.20	8,952.0	226.1	66.0	224.6	10.16	10.00	-3.23
9,009.0	37.80	359.00	8,977.7	245.0	65.8	243.6	9.33	9.06	-3.75
9,041.0	40.70	358.40	9,002.5	265.3	65.4	263.9	9.14	9.06	-1.88
9,072.0	43.70	358.10	9,025.5	286.1	64.7	284.7	9.70	9.68	-0.97
9,104.0	46.60	358.30	9,048.1	308.8	64.0	307.4	9.07	9.06	0.63
9,136.0	48.20	357.30	9,069.7	332.3	63.1	330.9	5.50	5.00	-3.13
9,168.0	50.80	359.30	9,090.5	356.6	62.4	355.2	9.41	8.13	6.25
9,199.0	54.50	358.30	9,109.3	381.3	61.9	379.9	12.21	11.94	-3.23
9,232.0	58.90	357.90	9,127.4	408.8	61.0	407.4	13.37	13.33	-1.21
9,262.0	63.20	358.60	9,141.9	435.0	60.2	433.7	14.48	14.33	2.33
9,295.0	66.10	359.00	9,156.1	464.9	59.5	463.5	8.86	8.79	1.21
9,327.0	68.30	358.60	9,168.5	494.3	58.9	493.0	6.97	6.88	-1.25
9,358.0	71.50	0.10	9,179.1	523.5	58.6	522.1	11.28	10.32	4.84
9,390.0	74.90	0.40	9,188.4	554.1	58.7	552.7	10.66	10.63	0.94
9,422.0	77.00	0.20	9,196.1	585.1	58.9	583.8	6.59	6.56	-0.63
9,454.0	79.30	0.50	9,202.7	616.4	59.1	615.1	7.25	7.19	0.94
9,485.0	81.80	0.40	9,207.8	647.0	59.3	645.6	8.07	8.06	-0.32
9,517.0	84.70	0.30	9,211.5	678.8	59.5	677.4	9.07	9.06	-0.31
9,549.0	86.30	0.40	9,214.1	710.7	59.7	709.3	5.01	5.00	0.31
9,580.0	86.80	0.40	9,215.9	741.6	59.9	740.2	1.61	1.61	0.00
9,612.0	86.90	0.70	9,217.7	773.6	60.2	772.1	0.99	0.31	0.94
9,644.0	87.00	359.90	9,219.4	805.5	60.4	804.1	2.52	0.31	-2.50
9,675.0	86.80	0.10	9,221.1	836.5	60.4	835.0	0.91	-0.65	0.65
9,707.0	86.60	0.00	9,222.9	868.4	60.4	867.0	0.70	-0.63	-0.31
9,739.0	86.50	359.70	9,224.8	900.4	60.3	898.9	0.99	-0.31	-0.94
9,770.0	86.60	359.40	9,226.7	931.3	60.1	929.9	1.02	0.32	-0.97
9,802.0	86.90	359.40	9,228.5	963.3	59.8	961.8	0.94	0.94	0.00
9,834.0	86.90	359.20	9,230.2	995.2	59.4	993.8	0.62	0.00	-0.63
9,866.0	87.40	358.80	9,231.8	1,027.2	58.8	1,025.7	2.00	1.56	-1.25
9,897.0	87.50	358.90	9,233.2	1,058.1	58.2	1,056.7	0.46	0.32	0.32
9,929.0	87.40	358.80	9,234.6	1,090.1	57.5	1,088.7	0.44	-0.31	-0.31
9,961.0	87.40	358.60	9,236.1	1,122.1	56.8	1,120.6	0.62	0.00	-0.63
9,993.0	87.70	358.60	9,237.5	1,154.0	56.0	1,152.6	0.94	0.94	0.00
10,024.0	88.00	358.30	9,238.6	1,185.0	55.2	1,183.6	1.37	0.97	-0.97
10,056.0	87.80	358.20	9,239.8	1,216.9	54.2	1,215.5	0.70	-0.63	-0.31
10,088.0	88.10	358.10	9,240.9	1,248.9	53.2	1,247.5	0.99	0.94	-0.31
10,120.0	88.30	358.10	9,241.9	1,280.9	52.1	1,279.5	0.63	0.63	0.00
10,151.0	88.10	358.10	9,242.9	1,311.8	51.1	1,310.5	0.65	-0.65	0.00
10,183.0	88.10	357.70	9,244.0	1,343.8	49.9	1,342.5	1.25	0.00	-1.25

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Sec 10 - T18S - R33E
Project:	Lea County	**TVD Reference:**	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 10 - T18S - R33E	**MD Reference:**	WELL @ 0.0usft (Original Well Elev)
Well:	Cockburn Fed #4	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,215.0	88.30	357.80	9,245.0	1,375.8	48.7	1,374.4	0.70	0.63	0.31
10,246.0	88.40	357.70	9,245.9	1,406.7	47.5	1,405.4	0.46	0.32	-0.32
10,278.0	88.50	357.70	9,246.7	1,438.7	46.2	1,437.4	0.31	0.31	0.00
10,310.0	88.70	357.50	9,247.5	1,470.7	44.8	1,469.4	0.88	0.63	-0.63
10,342.0	88.80	357.30	9,248.2	1,502.6	43.4	1,501.4	0.70	0.31	-0.63
10,373.0	88.80	357.70	9,248.9	1,533.6	42.0	1,532.4	1.29	0.00	1.29
10,405.0	89.50	357.60	9,249.3	1,565.5	40.7	1,564.4	2.21	2.19	-0.31
10,437.0	89.60	357.30	9,249.6	1,597.5	39.3	1,596.3	0.99	0.31	-0.94
10,469.0	90.60	357.60	9,249.5	1,629.5	37.9	1,628.3	3.26	3.13	0.94
10,500.0	91.40	357.50	9,249.0	1,660.4	36.6	1,659.3	2.60	2.58	-0.32
10,532.0	91.60	358.00	9,248.2	1,692.4	35.3	1,691.3	1.68	0.63	1.56
10,564.0	92.00	357.90	9,247.2	1,724.4	34.2	1,723.3	1.29	1.25	-0.31
10,595.0	91.90	358.10	9,246.1	1,755.3	33.1	1,754.3	0.72	-0.32	0.65
10,627.0	91.80	358.00	9,245.1	1,787.3	32.0	1,786.2	0.44	-0.31	-0.31
10,659.0	92.60	358.00	9,243.8	1,819.3	30.9	1,818.2	2.50	2.50	0.00
10,691.0	92.70	357.80	9,242.4	1,851.2	29.7	1,850.2	0.70	0.31	-0.63
10,722.0	92.80	357.80	9,240.9	1,882.1	28.5	1,881.1	0.32	0.32	0.00
10,754.0	92.80	358.30	9,239.3	1,914.1	27.4	1,913.1	1.56	0.00	1.56
10,786.0	93.00	358.30	9,237.7	1,946.0	26.5	1,945.1	0.63	0.63	0.00
10,817.0	93.30	358.20	9,236.0	1,977.0	25.5	1,976.0	1.02	0.97	-0.32
10,849.0	93.60	358.20	9,234.1	2,008.9	24.5	2,007.9	0.94	0.94	0.00
10,881.0	93.90	358.60	9,232.0	2,040.8	23.6	2,039.9	1.56	0.94	1.25
10,913.0	94.10	358.60	9,229.7	2,072.7	22.9	2,071.8	0.63	0.63	0.00
10,945.0	94.70	358.30	9,227.3	2,104.6	22.0	2,103.7	2.10	1.88	-0.94
10,976.0	94.90	358.30	9,224.7	2,135.5	21.1	2,134.6	0.65	0.65	0.00
11,008.0	94.90	358.30	9,222.0	2,167.4	20.1	2,166.5	0.00	0.00	0.00
11,040.0	95.30	358.20	9,219.1	2,199.2	19.2	2,198.3	1.29	1.25	-0.31
11,076.0	94.70	357.50	9,216.0	2,235.1	17.8	2,234.2	2.56	-1.67	-1.94
11,103.0	94.20	357.70	9,213.9	2,262.0	16.7	2,261.1	1.99	-1.85	0.74
11,135.0	94.40	357.00	9,211.5	2,293.8	15.2	2,293.0	2.27	0.63	-2.19
11,167.0	94.90	357.50	9,208.9	2,325.7	13.7	2,324.9	2.21	1.56	1.56
11,198.0	95.20	357.30	9,206.2	2,356.5	12.3	2,355.8	1.16	0.97	-0.65
11,230.0	94.50	357.00	9,203.4	2,388.4	10.7	2,387.6	2.38	-2.19	-0.94
11,262.0	94.20	355.80	9,201.0	2,420.2	8.7	2,419.5	3.85	-0.94	-3.75
11,294.0	94.10	356.10	9,198.7	2,452.1	6.4	2,451.4	0.99	-0.31	0.94
11,325.0	94.70	355.60	9,196.3	2,482.9	4.2	2,482.3	2.52	1.94	-1.61
11,357.0	94.90	355.50	9,193.6	2,514.7	1.7	2,514.1	0.70	0.63	-0.31
11,389.0	95.10	355.00	9,190.9	2,546.5	-0.9	2,545.9	1.68	0.63	-1.56
11,420.0	94.80	354.90	9,188.2	2,577.2	-3.6	2,576.7	1.02	-0.97	-0.32
11,452.0	93.90	354.50	9,185.8	2,609.0	-6.6	2,608.6	3.08	-2.81	-1.25
11,484.0	94.40	354.50	9,183.4	2,640.8	-9.6	2,640.4	1.56	1.56	0.00
11,515.0	94.80	354.80	9,181.0	2,671.5	-12.5	2,671.2	1.61	1.29	0.97
11,547.0	95.20	353.90	9,178.2	2,703.3	-15.7	2,703.0	3.07	1.25	-2.81

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Sec 10 - T18S - R33E
Project:	Lea County	**TVD Reference:**	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 10 - T18S - R33E	**MD Reference:**	WELL @ 0.0usft (Original Well Elev)
Well:	Cockburn Fed #4	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,579.0	95.80	353.60	9,175.1	2,734.9	-19.1	2,734.7	2.09	1.88	-0.94
11,611.0	95.30	353.90	9,172.0	2,766.6	-22.6	2,766.4	1.82	-1.56	0.94
11,643.0	94.80	354.60	9,169.2	2,798.3	-25.8	2,798.2	2.68	-1.56	2.19
11,674.0	95.20	354.20	9,166.5	2,829.0	-28.8	2,829.0	1.82	1.29	-1.29
11,706.0	95.50	353.90	9,163.5	2,860.7	-32.1	2,860.8	1.32	0.94	-0.94
11,738.0	95.90	353.90	9,160.3	2,892.4	-35.5	2,892.5	1.25	1.25	0.00
11,770.0	96.00	353.80	9,157.0	2,924.0	-38.9	2,924.2	0.44	0.31	-0.31
11,801.0	96.10	353.50	9,153.7	2,954.7	-42.3	2,954.9	1.01	0.32	-0.97
11,833.0	96.40	353.20	9,150.3	2,986.3	-46.0	2,986.6	1.32	0.94	-0.94
11,865.0	96.80	353.00	9,146.6	3,017.8	-49.8	3,018.2	1.40	1.25	-0.63
11,897.0	97.50	352.90	9,142.6	3,049.3	-53.7	3,049.8	2.21	2.19	-0.31
11,928.0	97.40	353.20	9,138.6	3,079.8	-57.4	3,080.4	1.01	-0.32	0.97
11,960.0	96.00	353.40	9,134.8	3,111.4	-61.1	3,112.0	4.42	-4.38	0.63
11,992.0	96.30	353.20	9,131.4	3,143.0	-64.9	3,143.7	1.12	0.94	-0.63
12,023.0	96.60	352.70	9,127.9	3,173.6	-68.6	3,174.3	1.87	0.97	-1.61
12,055.0	97.00	352.60	9,124.1	3,205.1	-72.7	3,205.9	1.29	1.25	-0.31
12,087.0	97.10	352.50	9,120.2	3,236.6	-76.8	3,237.5	0.44	0.31	-0.31
12,119.0	97.50	352.30	9,116.1	3,268.0	-81.0	3,269.0	1.40	1.25	-0.63
12,151.0	97.90	351.90	9,111.9	3,299.4	-85.4	3,300.5	1.76	1.25	-1.25
12,183.0	98.30	351.70	9,107.4	3,330.8	-89.9	3,332.0	1.39	1.25	-0.63
12,214.0	98.50	351.70	9,102.8	3,361.1	-94.3	3,362.4	0.65	0.65	0.00
12,246.0	98.70	351.60	9,098.0	3,392.4	-98.9	3,393.8	0.70	0.63	-0.31
12,278.0	98.80	351.10	9,093.2	3,423.7	-103.7	3,425.1	1.58	0.31	-1.56
12,310.0	99.00	351.00	9,088.2	3,454.9	-108.6	3,456.5	0.70	0.63	-0.31
12,341.0	99.50	350.90	9,083.2	3,485.2	-113.4	3,486.8	1.64	1.61	-0.32
12,373.0	99.20	351.00	9,078.0	3,516.3	-118.4	3,518.1	0.99	-0.94	0.31
12,405.0	98.10	351.10	9,073.2	3,547.6	-123.3	3,549.4	3.45	-3.44	0.31
12,437.0	98.40	350.90	9,068.6	3,578.9	-128.2	3,580.8	1.12	0.94	-0.63
12,468.0	98.50	350.40	9,064.1	3,609.1	-133.2	3,611.1	1.63	0.32	-1.61
12,500.0	98.20	350.40	9,059.4	3,640.3	-138.5	3,642.4	0.94	-0.94	0.00
12,532.0	97.60	350.20	9,055.0	3,671.6	-143.8	3,673.8	1.97	-1.88	-0.63
12,563.0	97.90	350.00	9,050.9	3,701.8	-149.1	3,704.2	1.16	0.97	-0.65
12,595.0	98.20	349.80	9,046.4	3,733.0	-154.7	3,735.5	1.12	0.94	-0.63
12,626.0	98.40	349.70	9,041.9	3,763.2	-160.1	3,765.8	0.72	0.65	-0.32
12,658.0	98.70	349.20	9,037.1	3,794.3	-165.9	3,797.0	1.81	0.94	-1.56
12,690.0	98.90	349.10	9,032.2	3,825.4	-171.9	3,828.2	0.70	0.63	-0.31
12,722.0	98.90	348.60	9,027.3	3,856.4	-178.0	3,859.3	1.54	0.00	-1.56
Last MWD Survey									
12,773.0	98.90	348.60	9,019.4	3,905.8	-188.0	3,908.9	0.00	0.00	0.00
Projection to TD - Cockburn Fed #4 PBHL									

Company:	Devon Energy	**Local Co-ordinate Reference:**	Site Sec 10 - T18S - R33E
Project:	Lea County	**TVD Reference:**	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 10 - T18S - R33E	**MD Reference:**	WELL @ 0.0usft (Original Well Elev)
Well:	Cockburn Fed #4	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,597.0	8,594.5	114.0	59.8	First MWD Survey
12,722.0	9,027.3	3,856.4	-178.0	Last MWD Survey
12,773.0	9,019.4	3,905.8	-188.0	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

GREAT WHITE

DIRECTIONAL SERVICES, L.L.C.

Daily Reports

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	11-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	
Rig	**Patterson 41**	**Report #**	1	**Last Csg. Set**	
Well	**Cockburn**	**Midn't Depth**		**Total PDM Hrs**	

			Bit #	**1**					
BHA #	**1**		Size			**BHA#**	**1**	**BHA#**	
PDM Serial#			Make			**Item**	**Length**	**Item**	**Length**
Drl hrs			Type						
Cir hrs.			Depth In						
Cum. Drl. Hrs			Depth Out						
Cum. Cir. Hrs			**Total Footage**						
Bent Sub			Hours						
Bent Hous			**ROP**						
Depth In			Nozzles (TFA)						
Depth Out			T/B/G						
WOB Rotating			**Mud Type**						
Pad/Stab OD			Weight						
GPM			Viscosity						
PSI off BTTM			PV/YP						
PSI on BTTM			PH			**TOTAL =**		**TOTAL =**	
Hook Load			Water Loss			**BHA Run Tally**			
P/U Weight			Solid Content			**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight			Sand Content						
MWD Temp.			Chlorides						

Time Log			**Operation details and comments**	**Rot. Ftg.**	**Slide Ftg.**
From	**To**	**Hours**			
0000	2400	24.00	Travel to rig and rig up		
2400					
Total Hours=		24.00			

Motor Inventory	
Clean	
Dirty	
Comments:	

Directional Charges	
Operating Package	$5,300
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$5,300
Cum Total	$5,300

Great White Represenatives	
Directional Driller's :	Kevin Kleypas
	Jerry woodfin
Mwd Engineers:	Chris Nelson
	Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	12-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	
Rig	**Patterson 41**	**Report #**	2	**Last Csg. Set**	
Well	**Cockburn**	**Midn't Depth**		**Total PDM Hrs**	

			Bit #	**1**					
BHA #	**1**		Size			**BHA#**	**1**	**BHA#**	
PDM Serial#			Make			**Item**	**Length**	**Item**	**Length**
Drl hrs			Type						
Cir hrs.			Depth In						
Cum. Drl. Hrs			Depth Out						
Cum. Cir. Hrs			**Total Footage**						
Bent Sub			Hours						
Bent Hous			**ROP**						
Depth In			Nozzles (TFA)						
Depth Out			T/B/G						
WOB Rotating			**Mud Type**						
Pad/Stab OD			Weight						
GPM			Viscosity						
PSI off BTTM			PV/YP						
PSI on BTTM			PH			**TOTAL =**		**TOTAL =**	
Hook Load			Water Loss			**BHA Run Tally**			
P/U Weight			Solid Content			**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight			Sand Content						
MWD Temp.			Chlorides						

Time Log			**Operation details and comments**	**Rot. Ftg.**	**Slide Ftg.**
From	**To**	**Hours**			
0000	2400	24.00	Wait on rig		
2400					
Total Hours=		24.00			

Motor Inventory	
Clean	
Dirty	

Comments:

Directional Charges	
Operating Package	$5,300
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$5,300
Cum Total	$10,600

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	13-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	
Rig	**Patterson 41**	**Report #**	3	**Last Csg. Set**	
Well	**Cockburn**	**Midn't Depth**		**Total PDM Hrs**	

			Bit #	**1**					
BHA #	**1**		Size	8 3/4		**BHA#**	**1**	**BHA#**	
PDM Serial#	650-184		Make	sec		**Item**	**Length**	**Item**	**Length**
Drl hrs			Type	tri cone		Bit	1		
Cir hrs.			Depth In	8600		motor	22.11		
Cum. Drl. Hrs			Depth Out			ubho	2.46		
Cum. Cir. Hrs			**Total Footage**			monel	30.28		
Bent Sub			Hours			monel	30.77		
Bent Hous	2.12		**ROP**						
Depth In	8600		Nozzles (TFA)	3 15s					
Depth Out			T/B/G						
WOB Rotating			**Mud Type**	brine					
Pad/Stab OD			Weight	9.1					
GPM	314		Viscosity	28					
PSI off BTTM	960		PV/YP						
PSI on BTTM	885		PH	9		**TOTAL =**	86.62	**TOTAL =**	
Hook Load	175K		Water Loss			**BHA Run Tally**			
P/U Weight	180K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight	170K		Sand Content						
MWD Temp.			Chlorides	79000 PPM					

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	700	7.00	Wait on rig		
700	900	2.00	Pick up tools		
900	1600	7.00	TIH		
1600	2400	8.00	Relog gamma		
2400					
Total Hours=		24.00			

Motor Inventory	
Clean	
Dirty	
Comments:	

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$19,550

Great White Represenatives	
Directional Driller's :	Kevin Kleypas
	Jerry woodfin
Mwd Engineers:	Chris Nelson
	Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	14-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	222
Rig	**Patterson 41**	**Report #**	4	**Last Csg. Set**	
Well	**Cockburn**	**Midn't Depth**	8822	**Total PDM Hrs**	13.5

			Bit #	**1**					
BHA #	**1**		Size	8 3/4		**BHA#**	**1**	**BHA#**	
PDM Serial#	650-184		Make	sec		**Item**	**Length**	**Item**	**Length**
Drl hrs			Type	tri cone		Bit	1		
Cir hrs.			Depth In	8600		motor	22.11		
Cum. Drl. Hrs			Depth Out			ubho	2.46		
Cum. Cir. Hrs			**Total Footage**			monel	30.28		
Bent Sub			Hours			monel	30.77		
Bent Hous	2.12		**ROP**						
Depth In	8600		Nozzles (TFA)	3 15s					
Depth Out			T/B/G						
WOB Rotating			**Mud Type**	brine					
Pad/Stab OD			Weight	9.1					
GPM	314		Viscosity	28					
PSI off BTTM	960		PV/YP						
PSI on BTTM	885		PH	9		**TOTAL =**	86.62	**TOTAL =**	
Hook Load	175K		Water Loss			**BHA Run Tally**			
P/U Weight	180K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight	170K		Sand Content			**57**	**165**		222
MWD Temp.			Chlorides	79000 PPM		**3**	**10.5**		13.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	1000	10.00	Relog gamma		
1000	1030	0.50	Service Rig		
1030	1130	1.00	Silde F/ 8600 - 8618 (wob 35 gpm 384 tfo HS)		18
1130	1230	1.00	Rotate F/ 8618-8632 (wob 30 gpm 384 rpm 35)	14	
1230	1400	1.50	Silde F/ 8632 - 8650 (wob 35 gpm 384 tfo HS)		18
1400	1430	0.50	Rotate F/ 8650-8664 (wob 30 gpm 384 rpm 35)	14	
1430	1500	0.50	Silde F/ 8664 - 8680 (wob 35 gpm 384 tfo HS)		16
1500	1530	0.50	Rotate F/ 8680-8695 (wob 30 gpm 384 rpm 35)	15	
1530	1700	1.50	Silde F/ 8695 - 8720 (wob 35 gpm 384 tfo HS)		25
1700	1730	0.50	Rotate F/ 8720-8727 (wob 30 gpm 384 rpm 35)	7	
1730	1900	1.50	Silde F/ 8727 - 8752 (wob 35 gpm 384 tfo HS)		25
1900	1930	0.50	Rotate F/ 8752-8759 (wob 30 gpm 384 rpm 35)	7	
1930	2400	4.50	Silde F/ 8759-8822 (wob 35 gpm 384 tfo HS)		63
2400					
Total Hours=		24.00		57	165

Motor Inventory	
Clean	
Dirty	
Conuments:	
Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$28,500

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	15-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	285
Rig	**Patterson 41**	**Report #**	5	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	9107	**Total PDM Hrs**	37.5

			Bit #	**1**					
BHA #	**1**		Size	8 3/4		**BHA#**	**1**	**BHA#**	
PDM Serial#	650-184		Make	sec		**Item**	**Length**	**Item**	**Length**
Drl hrs			Type	tri cone		Bit	1		
Cir hrs.			Depth In	8600		motor	22.11		
Cum. Drl. Hrs			Depth Out			ubho	2.46		
Cum. Cir. Hrs			**Total Footage**			monel	30.28		
Bent Sub			Hours			monel	30.77		
Bent Hous	2.12		**ROP**						
Depth In	8600		Nozzles (TFA)	3 15s					
Depth Out			T/B/G						
WOB Rotating			**Mud Type**	brine					
Pad/Stab OD			Weight	9.1					
GPM	314		Viscosity	28					
PSI off BTTM	960		PV/YP						
PSI on BTTM	885		PH	9		**TOTAL =**	86.62	**TOTAL =**	
Hook Load	175K		Water Loss			**BHA Run Tally**			
P/U Weight	180K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight	170K		Sand Content			**57**	**450**		507
MWD Temp.			Chlorides	79000 PPM		**3**	**34.5**		37.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	2400	24.00	Silde F/ 8822-9107 (wob 35 gpm 384 tfo HS)		**285**
2400					
Total Hours=		24.00			285

Motor Inventory	
Clean	
Dirty	

Comments:

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$37,450

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	16-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	50
Rig	**Patterson 41**	**Report #**	6	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	9157	**Total PDM Hrs**	44

			Bit #	**1**					
BHA #	**1**		Size	8 3/4		**BHA#**	**1**	**BHA#**	
PDM Serial#	650-184		Make	sec		**Item**	**Length**	**Item**	**Length**
Drl hrs			Type	tri cone		Bit	1		
Cir hrs.			Depth In	8600		motor	22.11		
Cum. Drl. Hrs			Depth Out			ubho	2.46		
Cum. Cir. Hrs			**Total Footage**			monel	30.28		
Bent Sub			Hours			monel	30.77		
Bent Hous	2.12		**ROP**						
Depth In	8600		Nozzles (TFA)	3 15s					
Depth Out			T/B/G						
WOB Rotating			**Mud Type**	brine					
Pad/Stab OD			Weight	9.1					
GPM	314		Viscosity	28					
PSI off BTTM	960		PV/YP						
PSI on BTTM	885		PH	9		**TOTAL =**	86.62	**TOTAL =**	
Hook Load	175K		Water Loss			**BHA Run Tally**			
P/U Weight	180K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight	170K		Sand Content			**57**	**500**		557
MWD Temp.			Chlorides	79000 PPM		**3**	**41**		44

Time Log			**Operation details and comments**	**Rot. Ftg.**	**Slide Ftg.**
From	**To**	**Hours**			
0000	630	6.50	Silde F/ 9107-9157 (wob 35 gpm 384 tfo HS)		50
630	1500	8.50	toh		
1500	1700	2.00	change bha		
1700	2230	5.50	TIH		
2230	2400	1.50	Ream to bottom		
2400					
Total Hours=		24.00			50

Motor Inventory	
Clean	
Dirty	

Comments:

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$46,400

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	17-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	205
Rig	**Patterson 41**	**Report #**	7	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	9362	**Total PDM Hrs**	23.5

BHA #	**1**		**Bit #**	**1**		**BHA#**	**1**	**BHA#**	
PDM Serial#	650-184		Size	8 3/4		**Item**	**Length**	**Item**	**Length**
Drl hrs			Make	sec		Bit	1		
Cir hrs.			Type	tri cone		motor	22.11		
Cum. Drl. Hrs			Depth In	8600		ubho	2.46		
Cum. Cir. Hrs			Depth Out			monel	30.28		
Bent Sub			**Total Footage**			monel	30.77		
Bent Hous	2.12		Hours						
Depth In	8600		**ROP**						
Depth Out			Nozzles (TFA)	3 15s					
WOB Rotating			T/B/G						
Pad/Stab OD			**Mud Type**	brine					
GPM	314		Weight	9.1					
PSI off BTTM	960		Viscosity	28					
PSI on BTTM	885		PV/YP						
Hook Load	175K		PH	9		**TOTAL =**	86.62	**TOTAL =**	
P/U Weight	180K		Water Loss			**BHA Run Tally**			
S/O Weight	170K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
MWD Temp.			Sand Content			**35**	**170**		205
			Chlorides	79000 PPM		**2**	**21.5**		23.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	30	0.50	Ream to bottom		
30	1630	16.00	Silde F/ 9157-9287 (wob 35 gpm 384 tfo HS)		130
1630	1700	0.50	Rotate F/ 9287-9298 (wob 30 gpm 384 rpm 35)	11	
1700	1930	2.50	Silde F/ 9298-9313 (wob 35 gpm 384 tfo HS)		15
1930	2030	1.00	Rotate F/ 9313-9330 (wob 30 gpm 384 rpm 35)	17	
2030	2330	3.00	Silde F/ 9330-9355 (wob 35 gpm 384 tfo HS)		25
2330	2400	0.50	Rotate F/ 9355-9362 (wob 30 gpm 384 rpm 35)	7	
2400					
Total Hours=		24.00		35	170

Motor Inventory	
Clean	
Dirty	
Comments:	

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$55,350

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	18-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	246
Rig	**Patterson 41**	**Report #**	8	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	9619	**Total PDM Hrs**	47.5

BHA #	**1**		**Bit #**	**1**	
PDM Serial#	650-184		Size	8 3/4	
Drl hrs			Make	sec	
Cir hrs.			Type	tri cone	
Cum. Drl. Hrs			Depth In	8600	
Cum. Cir. Hrs			Depth Out		
Bent Sub			**Total Footage**		
Bent Hous	2.12		Hours		
Depth In	8600		**ROP**		
Depth Out			Nozzles (TFA)	3 15s	
WOB Rotating			T/B/G		
Pad/Stab OD			**Mud Type**	brine	
GPM	314		Weight	9.1	
PSI off BTTM	960		Viscosity	28	
PSI on BTTM	885		PV/YP		
Hook Load	175K		PH	9	
P/U Weight	180K		Water Loss		
S/O Weight	170K		Solid Content	0.05%	
MWD Temp.			Sand Content		
			Chlorides	79000 PPM	

BHA#	**2**	**BHA#**	
Item	**Length**	**Item**	**Length**
Bit	1		
motor	22.82		
ubho	2.46		
monel	30.28		
monel	30.77		
TOTAL =	87.33	**TOTAL =**	

BHA Run Tally			
Rotate	**Slide**	**Circulate**	**Total**
195	**256**		451
15.5	**32**		47.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	230	2.50	Silde F/ 9362-9382 (wob 35 gpm 384 tfo HS)		20
230	330	1.00	Rotate F/ 9382-9393 (wob 30 gpm 384 rpm 35)	11	
330	600	2.50	Silde F/ 9393-9408 (wob 35 gpm 384 tfo HS)		15
600	730	1.50	Rotate F/ 9408-9425 (wob 30 gpm 384 rpm 35)	17	
730	900	1.50	Silde F/ 9425-9437 (wob 35 gpm 384 tfo HS)		12
900	1030	1.50	Rotate F/ 9437-9457 (wob 30 gpm 384 rpm 35)	20	
1030	1200	1.50	Silde F/ 9457-9472 (wob 35 gpm 384 tfo HS)		15
1200	1300	1.00	Rotate F/ 9472-9489 (wob 30 gpm 384 rpm 35)	12	
1300	1400	1.00	Silde F/ 9489-9501 (wob 35 gpm 384 tfo HS)		12
1400	1530	1.50	Rotate F/ 9501-9520 (wob 30 gpm 384 rpm 35)	19	
1530	1700	1.50	Silde F/ 9520-9532 (wob 35 gpm 384 tfo HS)		12
1700	2400	7.00	Rotate F/ 9532-9619 (wob 30 gpm 384 rpm 35)	81	
2400					
Total Hours=		24.00		160	86

Motor Inventory	
Clean	
Dirty	

Comments:

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$64,300

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	19-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	
Rig	**Patterson 41**	**Report #**	9	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	9619	**Total PDM Hrs**	47.5

BHA #	**2**		**Bit #**	**2**		**BHA#**	**2**	**BHA#**	
PDM Serial#	650-184		Size	8 3/4		**Item**	**Length**	**Item**	**Length**
Drl hrs			Make	sec		Bit	1		
Cir hrs.			Type	tri cone		motor	22.82		
Cum. Drl. Hrs			Depth In	8600		ubho	2.46		
Cum. Cir. Hrs			Depth Out			monel	30.28		
Bent Sub			**Total Footage**			monel	30.77		
Bent Hous	2.12		Hours						
Depth In	8600		**ROP**						
Depth Out			Nozzles (TFA)	3 15s					
WOB Rotating			T/B/G						
Pad/Stab OD			**Mud Type**	brine					
GPM	314		Weight	9.1					
PSI off BTTM	960		Viscosity	28					
PSI on BTTM	885		PV/YP						
Hook Load	175K		PH	9		**TOTAL =**	87.33	**TOTAL =**	
P/U Weight	180K		Water Loss			**BHA Run Tally**			
S/O Weight	170K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
MWD Temp.			Sand Content			**195**	**256**		451
			Chlorides	79000 PPM		**15.5**	**32**		47.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	600	6.00	POOH		
600	730	1.50	CHANGE BIT & MOTOR		
730	1500	7.50	TIH		
1500	2400	9.00	WORK STUCK PIPE		
2400					
Total Hours=		24.00			

Motor Inventory	
Clean	
Dirty	
Comments:	

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$73,250

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	20-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	492
Rig	**Patterson 41**	**Report #**	10	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	10111	**Total PDM Hrs**	20

			Bit #	**3**					
BHA #	**3**		Size	8 3/4		**BHA#**	**3**	**BHA#**	
PDM Serial#	650-152		Make	smith		**Item**	**Length**	**Item**	**Length**
Drl hrs			Type	pdc		Bit	1		
Cir hrs.			Depth In	9619		motor	22.92		
Cum. Drl. Hrs			Depth Out			ubho	2.46		
Cum. Cir. Hrs			**Total Footage**			monel	30.28		
Bent Sub			Hours			monel	30.77		
Bent Hous	1.83		**ROP**						
Depth In	9619		Nozzles (TFA)						
Depth Out			T/B/G						
WOB Rotating			**Mud Type**	brine					
Pad/Stab OD			Weight	9.1					
GPM	314		Viscosity	28					
PSI off BTTM	960		PV/YP						
PSI on BTTM	885		PH	9		**TOTAL =**	87.43	**TOTAL =**	
Hook Load	175K		Water Loss			**BHA Run Tally**			
P/U Weight	180K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight	170K		Sand Content			**492**			492
MWD Temp.	120		Chlorides	79000 PPM		**20**			20

Time Log			**Operation details and comments**	**Rot. Ftg.**	**Slide Ftg.**
From	**To**	**Hours**			
0000	400	4.00	REAM TO BOTTOM		
400	2400	20.00	Rotate F/ 9619-10111 (wob 30 gpm 384 rpm 35)	492	
2400					
Total Hours=		24.00		492	

Motor Inventory	
Clean	
Dirty	
Comments:	

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$82,200

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	21-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	488
Rig	**Patterson 41**	**Report #**	11	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	10599	**Total PDM Hrs**	20

BHA #	**3**		**Bit #**	**3**	
PDM Serial#	650-152		Size	8 3/4	
Drl hrs			Make	smith	
Cir hrs.			Type	pdc	
Cum. Drl. Hrs			Depth In	9619	
Cum. Cir. Hrs			Depth Out		
Bent Sub			**Total Footage**		
Bent Hous	1.83		Hours		
Depth In	9619		**ROP**		
Depth Out			Nozzles (TFA)		
WOB Rotating			T/B/G		
Pad/Stab OD			**Mud Type**	brine	
GPM	314		Weight	9.1	
PSI off BTTM	960		Viscosity	28	
PSI on BTTM	885		PV/YP		
Hook Load	175K		PH	9	
P/U Weight	180K		Water Loss		
S/O Weight	170K		Solid Content	0.05%	
MWD Temp.	120		Sand Content		
			Chlorides	79000 PPM	

BHA#	**3**	**BHA#**	
Item	**Length**	**Item**	**Length**
Bit	1		
motor	22.92		
ubho	2.46		
monel	30.28		
monel	30.77		
TOTAL =	87.43	**TOTAL =**	

BHA Run Tally

Rotate	**Slide**	**Circulate**	**Total**
960	**20**		980
42.5	**1.5**		44

Time Log			***Operation details and comments***	**Rot. Ftg.**	***Slide Ftg.***
From	**To**	**Hours**			
0000	1200	12.00	Rotate F/ 10111-10377 (wob 30 gpm 384 rpm 35)	**266**	
1200	1230	0.50	Silde F/ 10377-10387 (wob 35 gpm 384 tfo HS)		**10**
1230	1700	4.50	Rotate F/ 10387-10472 (wob 30 gpm 384 rpm 35)	**85**	
1700	1800	1.00	Silde F/ 10472-10482 (wob 35 gpm 384 tfo HS)		**10**
1800	2400	6.00	Rotate F/ 10482-10599 (wob 30 gpm 384 rpm 35)	**117**	
2400					
Total Hours=		24.00		468	20

Motor Inventory

Clean	
Dirty	

Comments:

Directional Charges

Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$91,150

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	22-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	412
Rig	**Patterson 41**	**Report #**	12	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	11011	**Total PDM Hrs**	68

			Bit #	**3**					
BHA #	**3**		Size	8 3/4		**BHA#**	**3**	**BHA#**	
PDM Serial#	650-152		Make	smith		**Item**	**Length**	**Item**	**Length**
Drl hrs			Type	pdc		Bit	1		
Cir hrs.			Depth In	9619		motor	22.92		
Cum. Drl. Hrs			Depth Out			ubho	2.46		
Cum. Cir. Hrs			**Total Footage**			monel	30.28		
Bent Sub			Hours			monel	30.77		
Bent Hous	1.83		**ROP**						
Depth In	9619		Nozzles (TFA)						
Depth Out			T/B/G						
WOB Rotating			**Mud Type**	brine					
Pad/Stab OD			Weight	9.1					
GPM	314		Viscosity	28					
PSI off BTTM	960		PV/YP						
PSI on BTTM	885		PH	9		**TOTAL =**	87.43	**TOTAL =**	
Hook Load	175K		Water Loss			**BHA Run Tally**			
P/U Weight	180K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight	170K		Sand Content			**1365**	**27**		1392
MWD Temp.	120		Chlorides	79000 PPM		**65.5**	**2.5**		68

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	1400	14.00	Rotate F/ 10599-10821 (wob 30 gpm 384 rpm 35)	222	
1400	1500	1.00	Silde F/ 10821-10828 (wob 35 gpm 384 tfo HS)		7
1500	2400	9.00	Rotate F/ 10828-11011 (wob 30 gpm 384 rpm 35)	183	
2400					
Total Hours=		24.00		405	7

Motor Inventory	
Clean	
Dirty	

Comments:

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$100,100

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE

Daily Drilling Report

Report Date:	23-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	413
Rig	**Patterson 41**	**Report #**	13	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	11424	**Total PDM Hrs**	92

			Bit #	**3**					
BHA #	**3**		Size	8 3/4		**BHA#**	**3**	**BHA#**	
PDM Serial#	650-152		Make	smith		**Item**	**Length**	**Item**	**Length**
Drl hrs			Type	pdc		Bit	1		
Cir hrs.			Depth In	9619		motor	22.92		
Cum. Drl. Hrs			Depth Out			ubho	2.46		
Cum. Cir. Hrs			**Total Footage**			monel	30.28		
Bent Sub			Hours			monel	30.77		
Bent Hous	1.83		**ROP**						
Depth In	9619		Nozzles (TFA)						
Depth Out			T/B/G						
WOB Rotating			**Mud Type**	brine					
Pad/Stab OD			Weight	9.1					
GPM	314		Viscosity	28					
PSI off BTTM	960		PV/YP						
PSI on BTTM	885		PH	9		**TOTAL =**	87.43	**TOTAL =**	
Hook Load	175K		Water Loss			**BHA Run Tally**			
P/U Weight	180K		Solid Content	0.05%		**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight	170K		Sand Content			**1758**	**47**		1805
MWD Temp.	120		Chlorides	79000 PPM		**86**	**6**		92

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	300	3.00	Rotate F/ 11011-11075 (wob 30 gpm 384 rpm 35)	**64**	
300	430	1.50	Silde F/ 11075-11085 (wob 35 gpm 384 tfo 180)		**10**
430	1300	8.50	Rotate F/ 11085-11233 (wob 30 gpm 384 rpm 35)	**148**	
1300	1500	2.00	Silde F/ 11233-11243 (wob 35 gpm 384 tfo 180)		**10**
1500	2400	9.00	Rotate F/ 11243-11424 (wob 30 gpm 384 rpm 35)	**181**	
2400					
Total Hours=		24.00		393	20

Motor Inventory	
Clean	
Dirty	

Comments:

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$109,050

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	24-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	127
Rig	**Patterson 41**	**Report #**	14	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	11551	**Total PDM Hrs**	104.5

BHA #	**3**	**4**	**Bit #**	**3**	**4**
PDM Serial#	650-152	650-270	Size	8 3/4	8 3/4
Drl hrs	104.5		Make	smith	smith
Cir hrs.			Type	pdc	pdc
Cum. Drl. Hrs			Depth In	9619	11551
Cum. Cir. Hrs			Depth Out	11551	
Bent Sub			**Total Footage**	1932	-11551
Bent Hous	1.83	1.83	Hours	104.5	
Depth In	9619	11551	**ROP**	18.49	
Depth Out	11551		Nozzles (TFA)		
WOB Rotating			T/B/G		
Pad/Stab OD			**Mud Type**	brine	
GPM	314	314	Weight	9.1	
PSI off BTTM	960	960	Viscosity	28	
PSI on BTTM	885	885	PV/YP		
Hook Load	175K	175K	PH	9	
P/U Weight	180K	180K	Water Loss		
S/O Weight	170K	170K	Solid Content	0.05%	
MWD Temp.	120	120	Sand Content		
			Chlorides	79000 PPM	

BHA#	**3**	**BHA#**	**4**
Item	**Length**	**Item**	**Length**
Bit	1	Bit	1
motor	22.92	motor	23.63
ubho	2.46	ubho	2.46
monel	30.28	monel	30.28
monel	30.77	monel	30.77
TOTAL =	87.43	**TOTAL =**	88.14

BHA Run Tally

Rotate	**Slide**	**Circulate**	**Total**
1875	**57**		1932
96	**8.5**		104.5

Time Log			**Operation details and comments**	**Rot. Ftg.**	**Slide Ftg.**
From	**To**	**Hours**			
0000	230	2.50	Silde F/ 11424-11434 (wob 35 gpm 384 tfo 180)		10
230	1230	10.00	Rotate F/ 11434-11551 (wob 30 gpm 384 rpm 35)	117	
1230	1900	6.50	POOH		
1900	2100	2.00	CHANGE BIT & MOTOR		
2100	2400	3.00	TIH		
2400					
Total Hours=		24.00		117	10

Motor Inventory

Clean	
Dirty	

Comments:

Directional Charges

Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$118,000

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	25-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	317
Rig	**Patterson 41**	**Report #**	15	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	11868	**Total PDM Hrs**	15.5

BHA #	**3**	**4**	**Bit #**	**3**	**4**
PDM Serial#	650-152	650-270	Size	8 3/4	8 3/4
Drl hrs	104.5		Make	smith	smith
Cir hrs.			Type	pdc	pdc
Cum. Drl. Hrs			Depth In	9619	11551
Cum. Cir. Hrs			Depth Out	11551	
Bent Sub			**Total Footage**	1932	-11551
Bent Hous	1.83	1.83	Hours	104.5	
Depth In	9619	11551	**ROP**	18.49	
Depth Out	11551		Nozzles (TFA)		
WOB Rotating			T/B/G		
Pad/Stab OD			**Mud Type**	brine	
GPM	314	314	Weight	9.1	
PSI off BTTM	960	960	Viscosity	28	
PSI on BTTM	885	885	PV/YP		
Hook Load	175K	175K	PH	9	
P/U Weight	180K	180K	Water Loss		
S/O Weight	170K	170K	Solid Content	0.05%	
MWD Temp.	120	120	Sand Content		
			Chlorides	79000 PPM	

BHA#	**3**	**BHA#**	**4**
Item	**Length**	**Item**	**Length**
Bit	1	Bit	1
motor	22.92	motor	23.63
ubho	2.46	ubho	2.46
monel	30.28	monel	30.28
monel	30.77	monel	30.77
TOTAL =	87.43	**TOTAL =**	88.14

BHA Run Tally

Rotate	**Slide**	**Circulate**	**Total**
307	**10**		317
14	**1.5**		15.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	830	8.50	TIH		
830	1200	3.50	Rotate F/ 11551-11614 (wob 30 gpm 384 rpm 35)	**63**	
1200	1330	1.50	Silde F/ 11614-11624 (wob 35 gpm 384 tfo 180)		**10**
1330	2400	10.50	Rotate F/ 11624-11868 (wob 30 gpm 384 rpm 35)	**244**	
2400					
Total Hours=		24.00		307	10

Motor Inventory

Clean	
Dirty	

Comments:

Directional Charges

Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$126,950

Great White Represenatives

Directional Driller's : Kevin Kleypas
Jerry woodfin

Mwd Engineers: Chris Nelson
Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	26-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	434
Rig	**Patterson 41**	**Report #**	16	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	12302	**Total PDM Hrs**	39.5

			Bit #		**4**				
BHA #		**4**	Size		8 3/4	**BHA#**		**BHA#**	**4**
PDM Serial#		650-270	Make		smith	**Item**	**Length**	**Item**	**Length**
Drl hrs			Type		pdc	Bit		Bit	1
Cir hrs.			Depth In		11551	motor		motor	23.63
Cum. Drl. Hrs			Depth Out			ubho		ubho	2.46
Cum. Cir. Hrs			**Total Footage**		-11551	monel		monel	30.28
Bent Sub			Hours			monel		monel	30.77
Bent Hous		1.83	**ROP**						
Depth In		11551	Nozzles (TFA)						
Depth Out			T/B/G						
WOB Rotating			**Mud Type**		brine				
Pad/Stab OD			Weight		9.1				
GPM		314	Viscosity		28				
PSI off BTTM		960	PV/YP						
PSI on BTTM		885	PH		9	**TOTAL =**		**TOTAL =**	88.14
Hook Load		175K	Water Loss			**BHA Run Tally**			
P/U Weight		180K	Solid Content		0.05%	**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight		170K	Sand Content			**731**	**20**		751
MWD Temp.		120	Chlorides		79000 PPM	**36.5**	**3**		39.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	330	3.50	Rotate F/ 11868-11932 (wob 30 gpm 384 rpm 35)	**64**	
330	500	1.50	Silde F/ 11932-11942 (wob 35 gpm 384 tfo 180)		**10**
500	2400	19.00	Rotate F/ 11942-12302 (wob 30 gpm 384 rpm 35)	**360**	
2400					
Total Hours=		24.00		424	10

Motor Inventory	
Clean	
Dirty	
Comments:	

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$135,900

Great White Represenatives	
Directional Driller's :	Kevin Kleypas
	Jerry woodfin
Mwd Engineers:	Chris Nelson
	Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	27-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	328
Rig	**Patterson 41**	**Report #**	17	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**	12630	**Total PDM Hrs**	63.5

			Bit #		4				
BHA #		4	Size		8 3/4	**BHA#**		**BHA#**	4
PDM Serial#		650-270	Make		smith	**Item**	**Length**	**Item**	**Length**
Drl hrs			Type		pdc	Bit		Bit	1
Cir hrs.			Depth In		11551	motor		motor	23.63
Cum. Drl. Hrs			Depth Out			ubho		ubho	2.46
Cum. Cir. Hrs			**Total Footage**		-11551	monel		monel	30.28
Bent Sub			Hours			monel		monel	30.77
Bent Hous		1.83	**ROP**						
Depth In		11551	Nozzles (TFA)						
Depth Out			T/B/G						
WOB Rotating			**Mud Type**		brine				
Pad/Stab OD			Weight		9.1				
GPM		314	Viscosity		28				
PSI off BTTM		960	PV/YP						
PSI on BTTM		885	PH		9	**TOTAL =**		**TOTAL =**	88.14
Hook Load		175K	Water Loss			**BHA Run Tally**			
P/U Weight		180K	Solid Content		0.05%	**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight		170K	Sand Content			**848**	**40**		888
MWD Temp.		120	Chlorides		79000 PPM	**57**	**6.5**		63.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	530	5.50	Rotate F/ 12302- 12376(wob 30 gpm 384 rpm 35)	74	
530	730	2.00	Silde F/ 12376-12386 (wob 35 gpm 384 tfo 180)		10
730	1500	7.50	Rotate F/ 12386- 12503(wob 30 gpm 384 rpm 35)	117	
1500	1630	1.50	Silde F/ 12503-12513 (wob 35 gpm 384 tfo 180)		10
1630	2400	7.50	Rotate F/ 12513-12630 (wob 30 gpm 384 rpm 35)	117	
2400					
Total Hours=		24.00		308	20

Motor Inventory	
Clean	
Dirty	
Comments:	

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$144,850

Great White Represenatives	
Directional Driller's :	Kevin Kleypas
	Jerry woodfin
Mwd Engineers:	Chris Nelson
	Justin Warnack

Operator Representatives

Paul

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

Daily Drilling Report

Report Date:	28-Aug-10				
Company	**Devon**	**Job #**	02291-433-22	**Ftg. Last 24 Hrs**	
Rig	**Patterson 41**	**Report #**	18	**Last Csg. Set**	2900
Well	**Cockburn**	**Midn't Depth**		**Total PDM Hrs**	63.5

			Bit #		**4**				
BHA #		**4**	Size		8 3/4	**BHA#**		**BHA#**	**4**
PDM Serial#		650-270	Make		smith	**Item**	**Length**	**Item**	**Length**
Drl hrs		74.5	Type		pdc	Bit		Bit	1
Cir hrs.			Depth In		11551	motor		motor	23.63
Cum. Drl. Hrs			Depth Out		12773	ubho		ubho	2.46
Cum. Cir. Hrs			**Total Footage**		1222	monel		monel	30.28
Bent Sub			Hours		74.5	monel		monel	30.77
Bent Hous		1.83	**ROP**		16.40				
Depth In		11551	Nozzles (TFA)						
Depth Out		12773	T/B/G						
WOB Rotating			**Mud Type**		brine				
Pad/Stab OD			Weight		9.1				
GPM		314	Viscosity		28				
PSI off BTTM		960	PV/YP						
PSI on BTTM		885	PH		9	**TOTAL =**		**TOTAL =**	88.14
Hook Load		175K	Water Loss			**BHA Run Tally**			
P/U Weight		180K	Solid Content		0.05%	**Rotate**	**Slide**	**Circulate**	**Total**
S/O Weight		170K	Sand Content			**848**	**40**		888
MWD Temp.		120	Chlorides		79000 PPM	**68**	**6.5**		74.5

Time Log			**Operation details and comments**	**Rot.**	**Slide**
From	**To**	**Hours**		**Ftg.**	**Ftg.**
0000	1100	11.00	Rotate F/ 12630-12773(wob 30 gpm 384 rpm 35)	**143**	
1100	1500	4.00	circulate		
1500	1800	3.00	short trip		
1800	2400	6.00	toh		
2400					
Total Hours=		24.00		143	

Motor Inventory	
Clean	
Dirty	
Comments:	

Directional Charges	
Operating Package	$8,950
Gamma	
Motor LIH Coverage	
MWD LIH Coverage	
Accomadations	
Float Valve	
Motor Inspection	
XP Motor	
Daily Total	$8,950
Cum Total	$153,800

Great White Represenatives	
Directional Driller's :	Kevin Kleypas
	Jerry woodfin
Mwd Engineers:	Chris Nelson
	Justin Warnack

Operator Representatives

Paul

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

BHA's & Slide/Rotate Reports

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

BHA Data Sheet

Job #	02291-433-22	BHA #:	1	Hole Size :	8 3/4	Motor Run#	1
Customer:	Devon	Date In:	2010/08/13	Date Out:	2010/08/16	Motor OD:	6 1/2
Well:	Cockburn	Depth In:	8600	Depth Out:	9157	Total Ftg.:	557.00
Well Loc.:	loco hills	Slide.Hrs.:	41	Slide Ftg.:	500	Slide.ROP:	12.10
Co./St.:	lea/nm	Rot.Hrs.:	3	Rot.Ftg.:	57	Rot.ROP:	19.00
Rig :	Patterson 41	Drlg Hrs.:	44	Slide WOB:	35	Avg.ROP:	12.66
DD:	Kevin Kleypas	Circ.Hrs.:		Rot. WOB:	30	Steering%:	89.77%
DD:	Jerry woodfin	D&C Hrs:	44	Avg. Tq.:		Rotate%:	10.23%
MWD:	Chris Nelson	Rot/Stat.:		Avg. RPM :	40	GPM:	381
MWD:	Justin Warnack	ABH Set:	1.83	Incl. In:	2.5	SPP On:	1320
Mud :	*Fresh*	Mud PV:		Mud YP:		Incl.Out:	46.6	SPP Off:	1200
Mud Wt.:		Chloride:		BHT F.:		Azimuth In :	50.4	Delta P:	120
Mud Vis.:		Sand % :		Solid %:		Azimuth Out :	358.3	Avg.DLS:	

Item	Description	Vendor	S/N	F/N	Stab. OD	OD	ID	Connection	Length	Cum.
1	Bit					8 3/4			1.00	1.00
2	Motor	GW	650-184	6 3/8		6 3/8			22.11	23.11
3	UBHO	GW	6018	6 1/8		6 1/2	2 7/8		2.46	25.57
4	Monel	GW	65111	6 5/16		6 5/16	2 7/8		30.28	55.85
5	Monel	GW	65129	6 1/2		6 1/2	2 7/8		30.77	86.62
6										
7										
8										
9										
10										
								Total BHA Length =		86.62

BHA Weights : Wt in Air = 8184 lb Wt in Mud = 8184 lb

BHA Exp. Behavior	BHA acted as expected
BHA Act. Behavior	

Comments / Reason for Trip	bit	Accumulative PDM Hrs.	47
Failure? Y or N	Failure Type	n/a	
Bit Grade	inner 1 outer 2 / in guage		

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

Motor Run Report

Job Number	02291-433-22	BHA # :	1
PDM Company	Great White		
Motor O.D.	6 1/2"	Motor Run # :	1
Power Section			
Serial Number	650-184		
Customer	Devon		
Well Name	Cockburn		
Rig Name	Patterson 41		
County / State	lea/nm		
Location			
Date In	13-Aug		
Date Out	16-Aug		
Total Days Run	3		
Hole Size	8 3/4		
Stabilizer Size			
Adj. Bend Set	2.12		
Depth In	8600		
Depth Out	9157		
Footage Drilled	557		
ROP	12.66		
Drill Hours	44.00		
Circulating Hours			
Total Run Hours	44		
Rotating Feet	57		
Rotating Hours	3.00		
Rotating ROP	19.00		
Slide Feet	500		
Slide Hours	41.00		
Slide ROP	12.20		

Failure - Y/N :	n	Failure Type:	n/a
Trip-Reason For :	bit		

GPM :	314	Delta P :	200
Mud Wt. :		Inclination :	
Mud Vis. :		WOB :	
Mud Cl. :		BHT :	
Mud Type :	Water Based	RPM :	

Directional Hand #1: Kevin Kleypas

MWD Hand #1: Chris Nelson

Directional Hand #2: Jerry Woodfin

MWD Hand #2: Justn Warnack

Comments:

Bit Grade:

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

BHA Data Sheet

Job #	02291-433-22	BHA #:	2	Hole Size :	8 3/4	Motor Run#	2
Customer:	Devon	Date In:	2010/08/16	Date Out:	2010/08/18	Motor OD:	6 1/2
Well:	Cockburn	Depth In:	9157	Depth Out:	9619	Total Ftg.:	462.00
Well Loc.:	loco hills	Slide.Hrs.:	32	Slide Ftg.:	256	Slide.ROP:	12.10
Co./St.:	lea/nm	Rot.Hrs.:	15.5	Rot.Ftg.:	195	Rot.ROP:	12.58
Rig :	Patterson 41	Drlg Hrs.:	47.5	Slide WOB:	35	Avg.ROP:	9.73
DD:	Kevin Kleypas	Circ.Hrs.:		Rot. WOB:	30	Steering%:	55.41%
DD:	Jerry woodfin	D&C Hrs:	47.5	Avg. Tq.:		Rotate%:	42.21%
MWD:	Chris Nelson	Rot/Stat.:		Avg. RPM :	40	GPM:	381
MWD:	Justin Warnack	ABH Set:	1.83	Incl. In:	2.5	SPP On:	1320
Mud :	*Fresh*	Mud PV:		Mud YP:		Incl.Out:	46.6	SPP Off:	1200
Mud Wt.:		Chloride:		BHT F.:		Azimuth In :	50.4	Delta P:	120
Mud Vis.:		Sand % :		Solid %:		Azimuth Out :	358.3	Avg.DLS:	

Item	Description	Vendor	S/N	F/N	Stab. OD	OD	ID	Connection	Length	Cum.
1	Bit					8 3/4			1.00	1.00
2	Motor	GW	650-208	6 3/8		6 3/8			22.82	23.82
3	UBHO	GW	6018	6 1/8		6 1/2	2 7/8		2.46	26.28
4	Monel	GW	65111	6 5/16		6 5/16	2 7/8		30.28	56.56
5	Monel	GW	65129	6 1/2		6 1/2	2 7/8		30.77	87.33
6										
7										
8										
9										
10										
								Total BHA Length =		87.33

BHA Weights : Wt in Air = 8261 lb Wt in Mud = 8261 lb

BHA Exp. Behavior	BHA acted as expected
BHA Act. Behavior	

Comments / Reason for Trip	bit	Accumulative PDM Hrs.	47
Failure? Y or N	Failure Type	n/a	
Bit Grade	inner 1 outer 2 / in guage		

GREAT WHITE

Motor Run Report

Job Number	02291-433-22	BHA # :	3
PDM Company	Great White		
Motor O.D.	6 1/2"	Motor Run # :	3
Power Section			
Serial Number	650-208		
Customer	Devon		
Well Name	Cockburn		
Rig Name	Patterson 41		
County / State	lea/nm		
Location			
Date In	16-Aug		
Date Out	18-Aug		
Total Days Run	2		
Hole Size	8 3/4		
Stabilizer Size			
Adj. Bend Set	2.12		
Depth In	9157		
Depth Out	9619		
Footage Drilled	462		
ROP	9.73		
Drill Hours	47.50		
Circulating Hours			
Total Run Hours	47.5		
Rotating Feet	195		
Rotating Hours	15.50		
Rotating ROP	12.58		
Slide Feet	256		
Slide Hours	32.00		
Slide ROP	8.00		

Failure - Y/N :	n	Failure Type:	n/a
Trip-Reason For :	bit		

GPM :	314	Delta P :	200
Mud Wt. :		Inclination :	
Mud Vis. :		WOB :	
Mud Cl. :		BHT :	
Mud Type :	Water Based	RPM :	

Directional Hand #1: Kevin Kleypas

MWD Hand #1: Chris Nelson

Directional Hand #2: Jerry Woodfin

MWD Hand #2: Justn Warnack

Comments:

Bit Grade:

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

BHA Data Sheet

Job #	02291-433-22	BHA #:	3	Hole Size :	8 3/4	Motor Run#	3
Customer:	Devon	Date In:	2010/08/18	Date Out:	2010/08/24	Motor OD:	6 1/2
Well:	Cockburn	Depth In:	9619	Depth Out:	11551	Total Ftg.:	1932.00
Well Loc.:	loco hills	Slide.Hrs.:	8.5	Slide Ftg.:	57	Slide.ROP:	12.10
Co./St.:	lea/nm	Rot.Hrs.:	96	Rot.Ftg.:	1875	Rot.ROP:	19.53
Rig :	Patterson 41	Drlg Hrs.:	104.5	Slide WOB:	30	Avg.ROP:	18.49
DD:	Kevin Kleypas	Circ.Hrs.:		Rot. WOB:	25	Steering%:	2.95%
DD:	Jerry woodfin	D&C Hrs:	104.5	Avg. Tq.:		Rotate%:	97.05%
MWD:	Chris Nelson	Rot/Stat.:		Avg. RPM :	40	GPM:	381
MWD:	Justin Warnack	ABH Set:	1.83	Incl. In:	2.5	SPP On:	1320
Mud :	*Fresh*	Mud PV:		Mud YP:		Incl.Out:	46.6	SPP Off:	1200
Mud Wt.:		Chloride:		BHT F.:		Azimuth In :	50.4	Delta P:	120
Mud Vis.:		Sand % :		Solid %:		Azimuth Out :	358.3	Avg.DLS:	

Item	Description	Vendor	S/N	F/N	Stab. OD	OD	ID	Connection	Length	Cum.
1	Bit					8 3/4			1.00	**1.00**
2	Motor	GW	650-152	6 3/8		6 3/8			22.82	**23.82**
3	UBHO	GW	6018	6 1/8		6 1/2	2 7/8		2.46	**26.28**
4	Monel	GW	65111	6 5/16		6 5/16	2 7/8		30.28	**56.56**
5	Monel	GW	65129	6 1/2		6 1/2	2 7/8		30.77	**87.33**
6										
7										
8										
9										
10										

Total BHA Length = 87.33

BHA Weights : Wt in Air = 8261 lb Wt in Mud = 8261 lb

BHA Exp. Behavior BHA acted as expected

BHA Act. Behavior

Comments / Reason for Trip: bit

Accumulative PDM Hrs. 47

Failure? Y or N | Failure Type | n/a

Bit Grade | inner 1 outer 2 / in guage

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

Motor Run Report

Job Number	02291-433-22	BHA # :	3
PDM Company	Great White		
Motor O.D.	6 1/2"	Motor Run # :	3
Power Section			
Serial Number	650-152		
Customer	Devon		
Well Name	Cockburn		
Rig Name	Patterson 41		
County / State	lea/nm		
Location			
Date In	18-Aug		
Date Out	24-Aug		
Total Days Run	6		
Hole Size	8 3/4		
Stabilizer Size			
Adj. Bend Set	1.83		
Depth In	9619		
Depth Out	11551		
Footage Drilled	1932		
ROP	18.49		
Drill Hours	104.50		
Circulating Hours			
Total Run Hours	104.5		
Rotating Feet	1875		
Rotating Hours	96.00		
Rotating ROP	19.53		
Slide Feet	57		
Slide Hours	8.50		
Slide ROP	6.71		

Failure - Y/N :	n	Failure Type:	n/a
Trip-Reason For :	bit		

GPM :	314	Delta P :	200
Mud Wt. :		Inclination :	
Mud Vis. :		WOB :	
Mud Cl. :		BHT :	
Mud Type :	Water Based	RPM :	

Directional Hand #1: Kevin Kleypas

MWD Hand #1: Chris Nelson

Directional Hand #2: Jerry Woodfin

MWD Hand #2: Justn Warnack

Comments:

Bit Grade:

GREAT WHITE DIRECTIONAL SERVICES, L.L.C.

BHA Data Sheet

Job #	02291-433-22	BHA #:	4	Hole Size :	8 3/4	Motor Run#	4
Customer:	Devon	Date In:	2010/08/24	Date Out:	2010/08/28	Motor OD:	6 1/2
Well:	Cockburn	Depth In:	11551	Depth Out:	12773	Total Ftg.:	1222.00
Well Loc.:	loco hills	Slide.Hrs.:	6.5	Slide Ftg.:	40	Slide.ROP:	12.10
Co./St.:	lea/nm	Rot.Hrs.:	68	Rot.Ftg.:	848	Rot.ROP:	12.47
Rig :	Patterson 41	Drlg Hrs.:	74.5	Slide WOB:	100k	Avg.ROP:	16.40
DD:	Kevin Kleypas	Circ.Hrs.:		Rot. WOB:	25	Steering%:	3.27%
DD:	Jerry woodfin	D&C Hrs:	74.5	Avg. Tq.:		Rotate%:	69.39%
MWD:	Chris Nelson	Rot/Stat.:		Avg. RPM :	40	GPM:	381
MWD:	Justin Warnack	ABH Set:	1.83	Incl. In:	2.5	SPP On:	1320
Mud :	*Fresh*	Mud PV:		Mud YP:		Incl.Out:	46.6	SPP Off:	1200
Mud Wt.:		Chloride:		BHT F.:		Azimuth In :	50.4	Delta P:	120
Mud Vis.:		Sand % :		Solid %:		Azimuth Out :	358.3	Avg.DLS:	

Item	Description	Vendor	S/N	F/N	Stab. OD	OD	ID	Connection	Length	Cum.
1	Bit					8 3/4			1.00	1.00
2	Motor	GW	650-270	6 3/8		6 3/8			23.63	24.63
3	UBHO	GW	6018	6 1/8		6 1/2	2 7/8		2.46	27.09
4	Monel	GW	65111	6 5/16		6 5/16	2 7/8		30.28	57.37
5	Monel	GW	65129	6 1/2		6 1/2	2 7/8		30.77	88.14
6										
7										
8										
9										
10										
								Total BHA Length =		88.14

BHA Weights : Wt in Air = 8349 lb Wt in Mud = 8349 lb

BHA Exp. Behavior	BHA acted as expected
BHA Act. Behavior	
Comments / Reason for Trip	bit
Accumulative PDM Hrs.	47
Failure? Y or N	
Failure Type	n/a
Bit Grade	inner 1 outer 2 / in guage

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

Motor Run Report

Job Number	02291-433-22	BHA # :	4
PDM Company	Great White		
Motor O.D.	6 1/2"	Motor Run # :	4
Power Section			
Serial Number	650-152		
Customer	Devon		
Well Name	Cockburn		
Rig Name	Patterson 41		
County / State	lea/nm		
Location			
Date In	24-Aug		
Date Out	28-Aug		
Total Days Run	4		
Hole Size	8 3/4		
Stabilizer Size			
Adj. Bend Set	1.83		
Depth In	11551		
Depth Out	12773		
Footage Drilled	1222		
ROP	16.40		
Drill Hours	74.50		
Circulating Hours	4		
Total Run Hours	78.5		
Rotating Feet	848		
Rotating Hours	68.00		
Rotating ROP	12.47		
Slide Feet	40		
Slide Hours	6.50		
Slide ROP	6.15		

Failure - Y/N :	n	Failure Type:	n/a
Trip-Reason For :	bit		

GPM :	314	Delta P :	200
Mud Wt. :		Inclination :	
Mud Vis. :		WOB :	
Mud Cl. :		BHT :	
Mud Type :	Water Based	RPM :	

Directional Hand #1: Kevin Kleypas

MWD Hand #1: Chris Nelson

Directional Hand #2: Jerry Woodfin

MWD Hand #2: Justn Warnack

Comments:

Bit Grade:

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

Slide Data Sheet

Company: DEVON **Date:** 11-Aug thru 19-Aug

Well Name: COCKBURN FED 4H **Bit to Survey:** 35 Ft.

Co. Rep. : Paul smith **Page:** 1 of 2

BHA #	Surevy Depth	Incl. Degree	Azimuth Degree	Depth From	Depth To	Feet	Drill O/R	Tool Face or RPM	Drill Hrs.	WOB 1000#	PU,SO & ROT WT	Pump SPM	Flow Rate	Pressure OFF/ON	Comments
1				8600	8618	18	O	HS	1.00	35	200k,195,190	110	381	1100/1150	
1				8618	8632	14	R	35	1.00	35	200k,195,190	110	381	1100/1150	
1	8597	2.5	54.9	8632	8650	18	O	HS	1.50	35	200k,195,190	110	381	1100/1150	
1				8650	8664	14	R	35	0.50	35	200k,195,190	110	381	1100/1150	
1	8629	4.9	18.9	8664	8680	16	O	HS	0.50	35	200k,195,190	110	381	1100/1150	
1				8680	8695	15	R	35	0.50	35	200k,195,190	110	381	1100/1150	
1	8660	7	8.6	8695	8720	25	O	HS	1.50	35	200k,195,190	110	381	1100/1150	
1				8720	8727	7	R	35	0.50	35	200k,195,190	110	381	1100/1150	
1	8692	8.8	6.2	8727	8752	25	O	HS	1.50	35	200k,195,190	110	381	1100/1150	
1				8752	8759	7	R	35	0.50	35	200k,195,190	110	381	1100/1150	
1	8724	11.1	4	8759	9157	398	O	HS	35.00	35	200k,195,190	110	381	1100/1150	
2	9104	46.6	358.3	9157	9287	130	O	HS	16.00	35	200k,195,190	110	381	1100/1150	
2				9287	9298	11	R	35	0.50	35	200k,195,190	110	381	1100/1150	
2	9262	63.2	358.6	9298	9313	15	O	HS	2.50	35	200k,195,190	110	381	1100/1150	
2				9313	9330	17	R	35	1.00	35	200k,195,190	110	381	1100/1150	
2	9295	66.1	359	9330	9355	25	O	HS	3.00	35	200k,195,190	110	381	1100/1150	
2				9355	9362	7	R	35	0.50	35	200k,195,190	110	381	1100/1150	
2	9327	68.3	358.6	9362	9382	20	O	HS	2.50	35	200k,195,190	110	381	1100/1150	
2				9382	9393	11	R	35	1.00	35	200k,195,190	110	381	1100/1150	
2	9358	71.5	0.1	9393	9408	15	O	HS	2.50	35	200k,195,190	110	381	1100/1150	
2				9408	9425	17	R	35	1.50	35	200k,195,190	110	381	1100/1150	
2	9390	74.9	0.4	9425	9437	12	O	HS	1.50	35	200k,195,190	110	381	1100/1150	
2				9437	9457	20	R	35	1.50	35	200k,195,190	110	381	1100/1150	
2	9422	77	0.2	9457	9472	15	O	HS	1.50	35	200k,195,191	110	381	1100/1151	
2				9472	9489	17	R	35	1.00	35	200k,195,192	110	381	1100/1152	
2	9454	79.3	0.5	9489	9501	12	O	HS	1.00	35	200k,195,193	110	381	1100/1153	
2				9501	9520	19	R	35	1.50	35	200k,195,194	110	381	1100/1154	
2	9485	81.8	0.4	9520	9532	12	O	HS	1.50	35	200k,195,195	110	381	1100/1155	
2	9580	86.8	0.4	9532	9619	87	R	35	7.00	35	200k,195,196	110	381	1100/1156	

Sliding Data : Footage= 756 Hrs= 73 Ft/Hr= 10.3561644
Rotating Data: Footage= 263 Hrs= 18.5 Ft/Hr= 14.2162162
Great White Directional Sup.

GREAT WHITE
DIRECTIONAL SERVICES, L.L.C.

Slide Data Sheet

Company: DEVON **Date:** 20-Aug thru

Well Name: COCKBURN FED 4H **Bit to Survey:** 35 Ft.

Co. Rep. : Paul smith **Page:** 2 of 2

BHA #	Surevy Depth	Incl. Degree	Azimuth Degree	Depth From	Depth To	Feet	Drill O/R	Tool Face or RPM	Drill Hrs.	WOB 1000#	PU,SO & ROT WT	Pump SPM	Flow Rate	Pressure OFF/ON	Comments
3	9612	86.9	0.7	9619	10377	758	R	35	32.00	20	200k,195,190	110	381	1100/1150	
3	10342	88.8	357.3	10377	10387	10	O	HS	0.50	20	200k,195,190	110	381	1100/1150	
3	10405	89.5	357.6	10387	10472	85	R	35	4.50	20	200k,195,190	110	381	1100/1150	
3	10437	89.6	357.3	10472	10482	10	O	HS	1.00	20	200k,195,190	110	381	1100/1150	
3	10469	90.6	357.6	10482	10821	339	R	35	20.00	20	200k,195,190	110	381	1100/1150	
3	10786	93	358.3	10821	10828	7	O	HS	1.00	20	200k,195,190	110	381	1100/1150	
3	10817	93.3	358.2	10828	11075	247	R	35	12.00	20	200k,195,190	110	381	1100/1150	
3	11040	95.3	358.2	11075	11085	10	O	180	1.50	20	200k,195,190	110	381	1100/1150	
3	11076	94.7	358.3	11085	11233	148	R	35	9.00	20	200k,195,190	110	381	1100/1150	
3	11198	95.2	357.3	11233	11243	10	O	180	2.00	20	200k,195,190	110	381	1100/1150	
3	11357	94.9	355.5	11243	11424	181	R	35	9.00	20	200k,195,190	110	381	1100/1150	
3	11389	95.1	355	11424	11434	10	O	180	2.50	20	200k,195,190	110	381	1100/1150	
3	11515	94.8	354.8	11434	11551	117	R	35	10.00	20	200k,195,190	110	381	1100/1150	
4	11547	95.2	353.9	11551	11614	63	R	35	3.50	20	200k,195,190	110	381	1100/1150	
4	11579	95.8	353.6	11614	11624	10	O	180	1.50	20	200k,195,190	110	381	1100/1150	
4	11611	95.3	353.9	11624	11932	308	R	35	14.00	20	200k,195,190	110	381	1100/1150	
4	11897	97.5	352.9	11932	11942	10	O	180	1.50	20	200k,195,190	110	381	1100/1150	
4	11928	97.4	353.2	11942	12376	434	R	35		20	200k,195,190	110	381	1100/1150	
4	12341	99.5	350.9	12376	12386	10	O	180		20	200k,195,190	110	381	1100/1150	
4	12405	98.1	351.1	12386	12503	117	R	35		20	200k,195,190	110	381	1100/1150	
4	12468	98.5	350.4	12503	12513	10	O	180		20	200k,195,190	110	381	1100/1150	
4				12513		-12513	R			20	200k,195,190	110	381	1100/1150	
4										20	200k,195,190	110	381	1100/1150	
4										20	200k,195,191	110	381	1100/1151	
4										20	200k,195,192	110	381	1100/1152	
4										20	200k,195,193	110	381	1100/1153	
4										20	200k,195,194	110	381	1100/1154	
4											200k,195,195	110	381	1100/1155	
4											200k,195,196	110	381	1100/1156	

Sliding Data : Footage= 97 Hrs= 11.5 Ft/Hr= 8.43478261
Rotating Data: Footage= -9716 Hrs= 114 Ft/Hr= -85.2280702
Great White Directional Sup.