



INTEQ

Job Number:	4535930	Dir. Coordinator	Colby Baxter	MWD Coordinator:	
Well Name:	Howard	Drilling Engineer:		MWD Operator 1	Austin Small
Company:	Anadarko E&P Company LP	Dir. Driller 1:	Johnny Ray McCown	MWD Operator 2	
Field:	Weld County	Dir. Driller 2:	Scott Sanford	MWD Trainee:	
County/Parish/Blk:	Weld	Dir. Driller Trainee:	Declan Welleke	Other:	
Job Start Date:	3/26/2012	# Motor Failures:	0	# MWD Failures:	0
Job End Date:	4/12/2012	Comments:		Comments:	

[illegible]

Operational Synopsis:



BOTTOM HOLE ASSEMBLY

BHA #: 1

INTEQ

Company: Anadarko E&P Company LP Well Name & No.: Howard 10C-29HZ
Field: Weld County Rig Contractor & No.: Xtreme Coil Drilling Xtreme 2
County/Block/Par.: Weld

Date	Depth	
3/27/2012	16	In
3/28/2012	1166	Out

BIT DATA

No.	Bit Size	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum. Footage	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngth
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
1	13 1/2	BHI	Q605	7029781	6x15	3	1150	6.75	1166	2	2	BT	N	X	I	WT	TD	1.00

BHA DESCRIPTION

Item No.	Component Description	Vendor	Serial No.	Gauge OD	OD	ID	Fishing Neck	Top Connection	Bottom Connection	Comp. Length	Total Length
2	8" M1XL (motor), 1.5	BHI	5873A		8		1.57	4 1/2 IF	6 5/8 Reg	37.57	38.57
3	6 3/4" NaviGamma	BHI	DHP1175325		6 7/8	3 1/4		4 1/2 IF	4 1/2 IF	36.09	74.66
4	6 3/4" NMDC	BHI	11923454		6 7/8	3 1/4		4 1/2 IF	4 1/2 IF	30.74	105.40
5	6 1/2" Filter Sub	BHI	12004196		6 7/8	3		4 1/2 IF	4 1/2 IF	6.30	111.70
6	6 3/4" X-Over Sub	BHI	SD102572		6 5/8	2 7/8		4 1/2 XH	4 1/2 IF	2.72	114.42
7	6 1/2" Drill Collars (3 jts)	Rig			6 1/2	2 1/4		4 1/2 XH	4 1/2 XH	92.18	206.60
8	4 1/2" HWDP (?? stds)	Rig			6 1/4	2 7/8		4 1/2 XH	4 1/2 XH		206.60

STABILIZER DATA

Item	Stabilizer Description	Spiral	Bld Lgth	Bld Wth	Gge Lgth	Gge In	Gge Out

DRILL PIPE DATA

Drillpipe	Grade	OD	ID	Wt./ft	Conn.	Lgth
Upper				0.0		*****
Lower				0.0		0.00

BHA WEIGHT DATA

BHA Weight	In Air	In Mud
Total	0	0
Lower	0	0

RUN SUMMARY

Mode	Footage:	Drig Hrs	Circ Hrs	ROP	WOB (Klbs)	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding		0.00	*****							
Rotating	1150	6.75	*****	170.4	9	64	9	506	477	1435
Total	1150	6.75	1.20	170.4	9	64	9	506	477	1435

Survey Sensor to Bit: 55.21 Gamma Sensor to Bit: _____ Motor Bit to Bend: 9.16 Motor Bit to Stabilizer: _____
Center of Clamp-on to Center of UBHS: _____ Mud Type: WBM Mud Weight 8.4 Hrs in Hole: 48
Objective For Running BHA: _____ Avg Temp: _____ Max Temp: _____

Surface section

BHA Results:

Good run the BHA performed as expected.

Reason for POOH:

TD Surface section.

BHI Directional Drillers: Johnny Ray McCown Scott SanfordBHI Job #: 4535930



BOTTOM HOLE ASSEMBLY

BHA #: 2

INTEQ

Company: Anadarko E&P Company LP Well Name & No.: Howard 10C-29HZ
Field: Weld County Rig Contractor & No.: Xtreme Coil Drilling Xtreme 2
County/Block/Par.: Weld

Date	Depth	
3/29/2012	1166	In
4/1/2012	7299	Out

BIT DATA

No.	Bit Size	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum. Footage	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngth
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
2	8 3/4	Varel	VM513	4004371	5x15	2"	6133	22.18	7299	1	1	WT	A	X	I	NO	BHA	1.00

BHA DESCRIPTION

Item No.	Component Description	Vendor	Serial No.	Gauge OD	OD	ID	Fishing Neck	Top Connection	Bottom Connection	Comp. Length	Total Length
2	6 3/4" M1XL-RF Motor (motor	BHI	10330851	7 5/8	6 9/16		1.64	4 1/2 XH	4 1/2 REG	32.12	33.12
3	6 3/4" X-Over Sub	BHI	SD40294		6 1/2	2 13/16		4 1/2 IF	4 1/2 XH	2.62	35.74
4	6 3/4" NaviGamma	BHI	DHP1175325		6 7/8	3 1/4		4 1/2 IF	4 1/2 IF	36.09	71.83
5	6 3/4" NMDC	BHI	11923454		6 7/8	3 1/4		4 1/2 IF	4 1/2 IF	30.74	102.57
6	6 1/2" Filter Sub	BHI	12004196		6 7/8	3		4 1/2 IF	4 1/2 IF	6.30	108.87
7	6 3/4" X-Over Sub	BHI	SD102572		6 5/8	2 7/8		4 1/2 XH	4 1/2 IF	2.72	111.59
8	6 1/2" Drill Collars (3 jts)	Rig			6 1/2	2 1/4		4 1/2 XH	4 1/2 XH	92.18	203.77
9	4 1/2" HWDP (15stds)	Rig			6 1/4	2 7/8	19in	4 1/2 XH	4 1/2 XH	1379.40	1583.17
10	X-Over / XH to XT39	Rig			6 9/16	2 7/8		XT-39 B	4 1/2 XH P	2.55	1585.72

STABILIZER DATA

Item	Stabilizer Description	Spiral	Bld Lgth	Bld Wth	Gge Lgth	Gge In	Gge Out
2	UBHS	Slick				7 5/8	

DRILL PIPE DATA

Drillpipe	Grade	OD	ID	Wt./ft	Conn.	Lgth
Upper				0.0		*****
Lower				0.0		0.00

BHA WEIGHT DATA

BHA Weight	In Air	In Mud
Total	0	0
Lower	0	0

RUN SUMMARY

Mode	Footage:	Drig Hrs	Circ Hrs	ROP	WOB (Klbs)	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding	1019	8.05	*****	126.6	9			539	372	2339
Rotating	5114	14.13	*****	361.9	17	63	14	538	1152	3110
Total	6133	22.18	10.10	276.5	14	63	14	538	850	2811

Survey Sensor to Bit: 52.38 Gamma Sensor to Bit: Motor Bit to Bend: 6.93 Motor Bit to Stabilizer:
Center of Clamp-on to Center of UBHS: Mud Type: WBM Mud Weight 8.4 Hrs in Hole: 76
Objective For Running BHA: Avg Temp: 93.68966 Max Temp: 153

Near Vertical Tangent Section

BHA Results:

A lot of sliding in the Tangent. Assembly wanted to drop out to vertical the whole way. Steering wasn't an issue until late in the section. Then it was hard to hold a tool face with any kind of differential. Landed 7' south and 16' west of proposed k/o

Reason for POOH:

TD Section.

BHI Directional Drillers: Johnny Ray McCown Scott Sanford

BHI Job #: 4535930



BOTTOM HOLE ASSEMBLY

BHA #: 3

INTEQ

Company: Anadarko E&P Company LP Well Name & No.: Howard 10C-29HZ
Field: Weld County Rig Contractor & No.: Xtreme Coil Drilling Xtreme 2
County/Block/Par.: Weld

Date	Depth	
4/1/2012	7299	In
4/1/2012	7524	Out

BIT DATA

No.	Bit Size	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum. Footage	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngth
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
3	8 3/4	Securit	FXD55M	11975875	2x18/3x16	3	225	2.45	7524	0	0	NO	A	X	I	NO	BHA	1.00

BHA DESCRIPTION

Item No.	Component Description	Vendor	Serial No.	Gauge OD	OD	ID	Fishing Neck	Top Connection	Bottom Connection	Comp. Length	Total Length
2	6 1/2" XP (.33revs) (motor), 2	BHI	10211485	8 1/4	6 1/2		1.99	4 1/2 XH	4 1/2 Reg	23.56	24.56
3	6 3/4" X-Over Sub	BHI	SD40294		6 1/2	2 13/16		4 1/2 IF	4 1/2 XH	2.62	27.18
4	6 3/4" NMDC Pony Flex	BHI	SD43457		6 13/16	2 7/8	36	4 1/2 IF	4 1/2 IF	10.12	37.30
5	6 3/4" NaviGamma MWD (2)	BHI	DHP 6006		6 3/4	3 1/4		4 1/2 IF	4 1/2 IF	36.15	73.45
6	6 3/4" NMDC Flex	BHI	SD44352		6 11/16	2 7/8	36	4 1/2 IF	4 1/2 IF	29.35	102.80
7	6 1/2" Filter Sub	BHI	12004196		6 7/8	3		4 1/2 IF	4 1/2 IF	6.30	109.10
8	6 3/4" X-Over Sub	BHI	SD102572		6 5/8	2 7/8		4 1/2 XH	4 1/2 IF	2.72	111.82
9	4 1/2" HWDP (15stds)	Rig			6 1/4	2 7/8	19in	4 1/2 XH	4 1/2 XH	1379.40	1491.22
10	X-Over / XH to XT39	Rig			6 9/16	2 7/8		XT-39 B	4 1/2 XH P	2.55	1493.77

STABILIZER DATA

Item	Stabilizer Description	Spiral	Bld Lgth	Bld Wth	Gge Lgth	Gge In	Gge Out
2	UBHS	Kick Pac				8 1/4	

DRILL PIPE DATA

Drillpipe	Grade	OD	ID	Wt./ft	Conn.	Lgth
Upper				0.0		*****
Lower				0.0		0.00

BHA WEIGHT DATA

BHA Weight	In Air	In Mud
Total	0	0
Lower	0	0

RUN SUMMARY

Mode	Footage:	Drig Hrs	Circ Hrs	ROP	WOB (Klbs)	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding	199	2.22	*****	89.6	12			520	350	2100
Rotating	26	0.23	*****	113.0	12	20	11	520	550	2300
Total	225	2.45	1.72	91.8	12	20	11	520	430	2180

Survey Sensor to Bit: 53.99 Gamma Sensor to Bit: 50.61 Motor Bit to Bend: 6.90 Motor Bit to Stabilizer: 4.21
Center of Clamp-on to Center of UBHS: _____ Mud Type: WBM Mud Weight 8.4 Hrs in Hole: 20
Objective For Running BHA: _____ Avg Temp: 180 Max Temp: 180

Drill Curve Section

BHA Results:

Unable to achieve desired build rates due to bit.

Reason for POOH:

Dial motor up to 2.5 AKO change out PDC bit for a Mill tooth bit.

BHI Directional Drillers: Barry Combs Johnny McCownBHI Job #: 4535930



BOTTOM HOLE ASSEMBLY

BHA #: 4

INTEQ

Company: Anadarko E&P Company LP Well Name & No.: Howard 10C-29HZ
Field: Weld County Rig Contractor & No.: Xtreme Coil Drilling Xtreme 2
County/Block/Par.: Weld

Date	Depth	
4/2/2012	7524	In
4/4/2012	8332	Out

BIT DATA

No.	Bit Size	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum. Footage	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngth
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
4	8 3/4	BHI	8 3/4 GT-1	5203761	5x14		808	27.65	8332	8	8	LC	A	8	4/16"	WT	TD	1.00

BHA DESCRIPTION

Item No.	Component Description	Vendor	Serial No.	Gauge OD	OD	ID	Fishing Neck	Top Connection	Bottom Connection	Comp. Length	Total Length
2	6 1/2" XP (.33revs) (motor), 2	BHI	12015905	8 1/4	6 1/2		1.99	4 1/2 XH	4 1/2 Reg	23.60	24.60
3	6 3/4" X-Over Sub	BHI	SD40294		6 1/2	2 13/16		4 1/2 IF	4 1/2 XH	2.62	27.22
4	6 3/4" NMDC Pony Flex	BHI	SD43457		6 13/16	2 7/8	36	4 1/2 IF	4 1/2 IF	10.12	37.34
5	6 3/4" NaviGamma MWD (2)	BHI	DHP 6006		6 3/4	3 1/4		4 1/2 IF	4 1/2 IF	36.15	73.49
6	6 3/4" NMDC Flex	BHI	SD44352		6 11/16	2 7/8	36	4 1/2 IF	4 1/2 IF	29.35	102.84
7	6 1/2" Filter Sub	BHI	12004196		6 7/8	3		4 1/2 IF	4 1/2 IF	6.30	109.14
8	6 3/4" X-Over Sub	BHI	SD102572		6 5/8	2 7/8		4 1/2 XH	4 1/2 IF	2.72	111.86
9	4 1/2" HWDP (15stds)	Rig			6 1/4	2 7/8	19in	4 1/2 XH	4 1/2 XH	1379.40	1491.26
10	X-Over / XH to XT39	Rig			6 9/16	2 7/8		XT-39 B	4 1/2 XH P	2.55	1493.81

STABILIZER DATA

Item	Stabilizer Description	Spiral	Bld Lgth	Bld Wth	Gge Lgth	Gge In	Gge Out
2	UBHS	Kickpad				8 1/4	

DRILL PIPE DATA

Drillpipe	Grade	OD	ID	Wt./ft	Conn.	Lgth
Upper				0.0		*****
Lower				0.0		0.00

BHA WEIGHT DATA

BHA Weight	In Air	In Mud
Total	0	0
Lower	0	0

RUN SUMMARY

Mode	Footage:	Drig Hrs	Circ Hrs	ROP	WOB (Klbs)	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding	517	15.62	*****	33.1	17			518	308	2683
Rotating	291	12.03	*****	24.2	21	16	15	513	414	3091
Total	808	27.65	9.08	29.2	19	16	15	515	359	2878

Survey Sensor to Bit: 53.95 Gamma Sensor to Bit: 50.57 Motor Bit to Bend: 6.91 Motor Bit to Stabilizer: _____
Center of Clamp-on to Center of UBHS: _____ Mud Type: WBM Mud Weight 8.4 Hrs in Hole: 51.5
Objective For Running BHA: _____ Avg Temp: 172.1739 Max Temp: 180

Drill Curve Section

BHA Results:

BHA performed as designed, bit came out of hole missing two cones

Reason for POOH:

TD Curve Section

BHI Directional Drillers: Barry Combs Johnny McCownBHI Job #: 4535930



BOTTOM HOLE ASSEMBLY

BHA #: 5

INTEQ

Company: Anadarko E&P Company LP Well Name & No.: Howard 10C-29HZ
Field: Weld County Rig Contractor & No.: Xtreme Coil Drilling Xtreme 2
County/Block/Par.: Weld

Date	Depth	
4/6/2012	8332	In
4/7/2012	8487	Out

BIT DATA

No.	Bit Size	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum. Footage	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngth
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
5	6 1/8	Securit	FXD54	11897585	5x14	2	155	1.5	8487	0	0	NO	A	X	I	PN	BHA	0.75

BHA DESCRIPTION

Item No.	Component Description	Vendor	Serial No.	Gauge OD	OD	ID	Fishing Neck	Top Connection	Bottom Connection	Comp. Length	Total Length
2	4 3/4" XL (1.03revs) (motor),	BHI	10032657	5 7/8"	5		1.3	3 1/2 IF	3 1/2 Reg	30.88	31.63
16	X-Over / 3-1/2 IF to XT-39	BHI	105750		5	2 3/4		XT-39 B	3 1/2 IF P	1.21	32.84
17	4" Drill Pipe (61stds)	Rig			5 1/8	2 9/16	17in	XT-39	XT-39	5202.64	5235.48
18	4" HWDP (15stds)	Rig			5 3/16	2 9/16	24in	XT-39	XT-39	1379.72	6615.20

STABILIZER DATA

Item	Stabilizer Description	Spiral	Bld Lgth	Bld Wth	Gge Lgth	Gge In	Gge Out
2	Clamp-On	Slick	19"		19"	5 7/8"	
2	UBHS	Straight	7 1/2"	1 1/2"	4 1/2"	5 7/8"	

DRILL PIPE DATA

Drillpipe	Grade	OD	ID	Wt./ft	Conn.	Lgth
Upper				0.0		*****
Lower				0.0		0.00

BHA WEIGHT DATA

BHA Weight	In Air	In Mud
Total	0	0
Lower	0	0

RUN SUMMARY

Mode	Footage:	Drig Hrs	Circ Hrs	ROP	WOB (Klbs)	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding		0.00	*****							
Rotating	155	1.50	*****	103.3	5	50	5	300	350	1600
Total	155	1.50	2.00	103.3	5	50	5	300	350	1600

Survey Sensor to Bit: 68.49 Gamma Sensor to Bit: 63.81 Motor Bit to Bend: 6.31 Motor Bit to Stabilizer: 3.48
Center of Clamp-on to Center of UBHS: 18.82 Mud Type: WBM Mud Weight 8.4 Hrs in Hole: 16
Objective For Running BHA: Avg Temp: 172 Max Temp: 172

Clean Out Run

BHA Results:

Good run. One nozzle plugged.

Reason for POOH:

Change BHA

BHI Directional Drillers: Barry Combs Johnny McCownBHI Job #: 4535930



BOTTOM HOLE ASSEMBLY

BHA #: 6

INTEQ

Company: Anadarko E&P Company LP Well Name & No.: Howard 10C-29HZ
Field: Weld County Rig Contractor & No.: Xtreme Coil Drilling Xtreme 2
County/Block/Par.: Weld

Date	Depth	
4/7/2012	8487	In
4/9/2012	11610	Out

BIT DATA

No.	Bit Size	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum. Footage	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngth
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
5rr1	6 1/8	Securit	FXD54	11897585	5x14	2	3123	24.27	11610	0	1	WT	S	X	I	NO	BHA	0.75

BHA DESCRIPTION

Item No.	Component Description	Vendor	Serial No.	Gauge OD	OD	ID	Fishing Neck	Top Connection	Bottom Connection	Comp. Length	Total Length
2	4 3/4" XL (1.03revs) (motor),	BHI	10032657	5 7/8"	5		1.3	3 1/2 IF	3 1/2 Reg	30.88	31.63
3	4 3/4" NMDC Pony	BHI	48734		4 5/8	2 1/2		3 1/2 IF	3 1/2 IF	10.93	42.56
4	4 3/4" NM Stabilizer	BHI	SD28183	5 7/8"	4 7/8	2 1/4		3 1/2 IF	3 1/2 IF	6.23	48.79
5	4 3/4" Stop Sub / X-Over Bott	BHI	10369034		5			T-2	3 1/2 IF	1.94	50.73
6	4 3/4" AziTrak	BHI	10638317		5			T-2	T-2	23.19	73.92
7	4 3/4" Modular Stabilizer	BHI	11903849	5 7/8"	5		1.5	T-2	T-2	3.09	77.01
8	4 3/4" BCPM	BHI	10557013		5			T-2	T-2	10.97	87.98
9	4 3/4" LithoTrak	BHI	11850401		5			T-2	T-2	16.69	104.67
10	4 3/4" Modular Stabilizer	BHI	11855246	5 7/8"	5			T-2	T-2	3.22	107.89
11	4 3/4" StarTrak	BHI	11682397	5 3/4"	5			T-2	T-2	9.81	117.70
12	4 3/4" Stop Sub / X-Over Top	BHI	12052199		5			3 1/2 IF	T-2	3.05	120.75
13	4 3/4" NM Stabilizer	BHI	SD25425	5 7/8"	4 7/8	2 1/4		3 1/2 IF	3 1/2 IF	5.62	126.37
14	4 3/4" NMDC	BHI	40865		4 5/8	2 1/4		3 1/2 IF	3 1/2 IF	28.87	155.24
15	4 3/4" Filter Sub	BHI	143-170		4 5/8	2 3/4		3 1/2 IF	3 1/2 IF	5.71	160.95
16	X-Over / 3-1/2 IF to XT-39	BHI	105750		5	2 3/4		XT-39 B	3 1/2 IF P	1.21	162.16
17	4" Drill Pipe (61stds)	Rig			5 1/8	2 9/16	17in	XT-39	XT-39	5202.64	5364.80
18	4" HWDP (15stds)	Rig			5 3/16	2 9/16	24in	XT-39	XT-39	1379.72	6744.52

STABILIZER DATA

Item	Stabilizer Description	Spiral	Bld Lgth	Bld Wth	Gge Lgth	Gge In	Gge Out
2	Clamp-On	Slick	19"		19"	5 7/8"	
2	UBHS	Straight	7 1/2"	1 1/2"	4 1/2"	5 7/8"	
4	4 3/4" NM Stabilizer	Yes	18"	2"	14"	5 7/8"	
7	4 3/4" Modular Stabilizer	Yes	11"	2"	6"	5 7/8"	
10	4 3/4" Modular Stabilizer	Yes	11 1/2"	2 1/4"	6"	5 7/8"	
11	Density	Yes	10 1/2"	2 1/2"	6"	5 3/4"	

DRILL PIPE DATA

Drillpipe	Grade	OD	ID	Wt./ft	Conn.	Lgth
Upper				0.0		*****
Lower				0.0		0.00

BHA WEIGHT DATA

BHA Weight	In Air	In Mud
Total	0	0
Lower	0	0

RUN SUMMARY

Mode	Footage:	Drig Hrs	Circ Hrs	ROP	WOB (Klbs)	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding	207	6.87	*****	30.1	17			300	329	2697
Rotating	2916	17.40	*****	167.6	10	69	16	300	630	2969
Total	3123	24.27	10.43	128.7	12	69	16	300	533	2881

Survey Sensor to Bit: 68.74 Gamma Sensor to Bit: 65.06 Motor Bit to Bend: 6.31 Motor Bit to Stabilizer: 3.48
Center of Clamp-on to Center of UBHS: 18.83 Mud Type: WBM Mud Weight 9.6 Hrs in Hole: 59.01667
Objective For Running BHA: Avg Temp: 199.9153 Max Temp: 214

Lateral Section Assembly

BHA Results:

Good run. Following target put BHA in the Carlisle. Unable to slide. POOH to remove StarTrak and LithoTrak.

Reason for POOH:

BHA Change

BHI Directional Drillers: Barry Combs Johnny McCownBHI Job #: 4535930



BOTTOM HOLE ASSEMBLY

BHA #: 7

INTEQ

Company: Anadarko E&P Company LP

Well Name & No.: Howard 10C-29HZ

Field: Weld County

Rig Contractor & No.: Xtreme Coil Drilling Xtreme 2

County/Block/Par.: Weld

Date	Depth	
4/9/2012	11610	In
4/12/2012	12351	Out

BIT DATA

No.	Bit Size	Mfr	Type	Serial No.	Noz. or TFA	Gauge Length	Cum. Footage	Cum. Hours	Depth Out	DULL CONDITION								Comp. Lngth
										IR	OR	DC	LOC	B/S	G/16	OC	RPLD	
5rr1	6 1/8	Securit	FXD54	11897585	5x14	2	741	23.25	12351	1	1	WT	A	X	I	NO	TD	0.75

BHA DESCRIPTION

Item No.	Component Description	Vendor	Serial No.	Gauge OD	OD	ID	Fishing Neck	Top Connection	Bottom Connection	Comp. Length	Total Length
2	4 3/4 M1XL (1.03revs) (motor	BHI	10225407	5 7/8	4 7/8		1.28	3 1/2 IF	3 1/2 REG	30.80	31.55
3	4 3/4" NMDC Pony	BHI	48734		4 5/8	2 1/2		3 1/2 IF	3 1/2 IF	10.93	42.48
4	4 3/4" NM Stabilizer	BHI	SD28183	5 7/8"	4 7/8	2 1/4		3 1/2 IF	3 1/2 IF	6.23	48.71
5	4 3/4" Stop Sub / X-Over Bott	BHI	10369034		5			T-2	3 1/2 IF	1.94	50.65
6	4 3/4" AziTrak	BHI	10638317		5			T-2	T-2	23.19	73.84
7	4 3/4" Modular Stabilizer	BHI	11903849	5 7/8"	5		1.5	T-2	T-2	3.09	76.93
8	4 3/4" BCPM	BHI	10557013		5			T-2	T-2	10.97	87.90
9	4 3/4" Stop Sub / X-Over Top	BHI	12052199		5			3 1/2 IF	T-2	3.05	90.95
10	4 3/4" NMDC	BHI	40865		4 5/8	2 1/4		3 1/2 IF	3 1/2 IF	28.87	119.82
11	4 3/4" Filter Sub	BHI	143-170		4 5/8	2 3/4		3 1/2 IF	3 1/2 IF	5.71	125.53
12	X-Over / 3-1/2 IF to XT-39	BHI	105750		5	2 3/4		XT-39 B	3 1/2 IF P	1.21	126.74
13	4" Drill Pipe (61stds)	Rig			5 1/8	2 9/16	17in	XT-39	XT-39	5202.64	5329.38
14	4" HWDP (15stds)	Rig			5 3/16	2 9/16	24in	XT-39	XT-39	1379.72	6709.10

STABILIZER DATA

Item	Stabilizer Description	Spiral	Bld Lgth	Bld Wth	Gge Lgth	Gge In	Gge Out
2	Clamp-On	Slick			19"	5 7/8	
2	UBHS	Straigh	7 1/2"	1 1/2"	3"	5 7/8	
4	4 3/4" NM Stabilizer	Yes	18"	2"	4 1/2"	5 7/8"	
7	4 3/4" Modular Stabilizer	Yes	11"	2"	6"	5 7/8"	

DRILL PIPE DATA

Drillpipe	Grade	OD	ID	Wt./ft	Conn.	Lgth
Upper				0.0		*****
Lower				0.0		0.00

BHA WEIGHT DATA

BHA Weight	In Air	In Mud
Total	0	0
Lower	0	0

RUN SUMMARY

Mode	Footage:	Drig Hrs	Circ Hrs	ROP	WOB (Klbs)	Rot RPM	Rot Tq	Flow Rate	Avg Diff	SPP
Sliding	17	6.02	*****	2.8	7			270	120	2525
Rotating	724	17.23	*****	42.0	6	49	19	293	275	3111
Total	741	23.25	21.02	31.9	6	49	19	290	256	3038

Survey Sensor to Bit: 68.74 Gamma Sensor to Bit: 65.06 Motor Bit to Bend: 6.31 Motor Bit to Stabilizer: 3.48

Center of Clamp-on to Center of UBHS: 18.82 Mud Type: WBM Mud Weight 10.5 Hrs in Hole: 70.75

Objective For Running BHA: Avg Temp: 217 Max Temp: 220

Drill lateral from 11610ft-TD

BHA Results:

Good run. Able to build out of Carlisle back into the Codell. High torque was stalling rotary so TD was called 38ft early.

Reason for POOH:

TD Well

BHI Directional Drillers: Barry Combs

BHI Job #: 4535930