



Weatherford

30-025-4118

Devon Energy
Thistle Unit 46H
Lea County, New Mexico

Section 5

Weatherford Final Daily Activity Reports

NOV 14 2013

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 1 - 2013/07/19

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
 DIR Supervisor: Kevin Moss, Rene Rosas
 MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft

KB ELEV: 3685 ft

START DEPTH: 5285.0 ft

END DEPTH: 5285.0 ft

PROGRESS: 0.0 ft

AVG. ROP.: 0.0 ft/hr

DAILY COST: USD\$0.00

PREVIOUS COST: USD\$0.00

TOTAL COST: USD\$0.00

WORK STATUS: Standby

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-07:00	Travel To Job	7.00	0	n/a	19:30-19:45	Shallow Pulse Check - GOOD	0.25	5285	1
07:00-18:00	Standby - Test BOP	11.00	0	n/a	19:45-24:00	RIH With New BHA	4.25	5285	1
18:00-19:30	Handle Directional Tools	1.50	5285	1			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 0.00

TIME DRILL: 0.00

MOTOR REAM: 0.00

CIRC: 0.25

MOTOR HRS: 0.25

ORIENTING HRS: 0.00

ROTATING HRS: 0.00

ROTARY DRILL: 0.00

ROTARY DRILL: 0.00

DRILL HRS: 0.00

ROTARY DRILL: 0.00

MOTOR HRS: 0.25

TRIP: 4.25

OTHER: 19.50

TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:

WOB SLIDING (HI): 0 lbf

WOB SLIDING (LO): 0 lbf

RPM (ROTARY):

RPM (MOTOR):

STRING WEIGHT 0 lbs

WOB ROTATE (HI): 0 lbf

WOB ROTATE (LO): 0 lbf

DRAG UP: 0 lbf

DRAG DN: 0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1

MANFCT.: WFT C

SETTING: 1.5 °

MANFCT: Hughes

IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / BHA

HOLE SIZE: 8.75 in

STABILIZER: 8 1/2

KICKPAD: No

BIT TYPE: PDC Bit

SECTION TYPE: Build & Hold

SERIAL#: 675-1609

SIZE: 6 3/4" (171mm)

TYPE: T607X

SURVEY TYPE: Positive Pulse MWD

MODEL: QLE 7850

LOBE CFG.: 7/8

MTR HRS THIS DAY: 0.25

NOZZLES: 0.773 in² TFA

MTR HRS TO DATE: 0.25

PUMP PARAMETERS

PRESSURE ON BTM: 0

PUMP 1: TYPE: PZ-11

PUMP 2: TYPE: PZ-11

PUMP 3: TYPE:

PRESSURE OFF BTM: 0

EFF.: 100.0%

EFF.: 95.0%

EFF.: 100.0%

SPM: 0.00

SPM: 0.00

SPM: 0.00

TOTAL FLOW RATE: 0.00 gal/min

LINER: 0.00 in

LINER: 0.00 in

LINER: 0.00 in

STROKE VOL.: 0.0000 gal/stk

STROKE VOL.: 0.0000 gal/stk

STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE:

DENSITY: 0 lb/gal

LIQUID BASE:

VISC: 0 sec/qt

GEL 0/10: 0.00 lb/100 ft²

WTR LOSS: 0 cc/30min

SAND: 0

LIQUID RATE: 0 gal/min

PV: 0 cP

SOLIDS: 0

GAS TYPE:

YP: 0 lb/100 ft²

OIL: 0

pH: 0

TEMP: 0 °F

GAS RATE: 0 cu ft/min

COMMENTS:

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Day 2 - 2013/07/20**Drilling Services**
v4.2.2674**FILE #:** 4030046
JOB TYPE: Horizontal
RIG & NO: H & P 416**WELL NAME:** Thistle Unit #46H
COMPANY: Devon Energy Corp
SURFACE LOCATION: Lea County**SERVICE CO.:** Weatherford Directional Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Delaware Basin / New Mexico / USA**Company Man:** Jeff Foster, Jack Pierce
DIR Supervisor: Kevin Moss, Rene Rosas
MWD Supervisor: Dave Latch, Ryan Broadfoot, Robin Feys**GROUND ELEV:** 3660 ft **START DEPTH:** 5285.0 ft **PROGRESS:** 2059.0 ft **DAILY COST:** USD\$0.00
KB ELEV: 3685 ft **END DEPTH:** 7344.0 ft **AVG. ROP.:** 126.1 ft/hr **PREVIOUS COST:** USD\$0.00
TOTAL COST: USD\$0.00**WORK STATUS:** Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	RIH With New BHA	0.25	5285	1	12:15-12:30	Circ & Accumulate Surveys - 6052' 7.85-101.34	0.25	6116	1
00:15-00:30	Other - See Comments - CSG TEST/ GOOD	0.25	5285	1	12:30-13:15	Rotating With Motor - WOB/17 RPM/20	0.75	6210	1
00:30-01:30	Drill Out Fit, Shoe & Cmmt	1.00	5285	1	13:15-13:30	Circ & Accumulate Surveys - 6146' 7.12/103.00	0.25	6210	1
01:30-02:00	Rotating With Motor - WOB/12k RPM/50	0.50	5295	1	13:30-13:45	Orienting With Motor - 10' -25L	0.25	6220	1
02:00-02:30	Circulating - See Comments - F. I. T.	0.50	5295	1	13:45-14:00	Rotating With Motor	0.25	6305	1
02:30-03:05	Rotating With Motor - WOB/15k RPM/50	0.58	5423	1	14:00-14:15	Circ & Accumulate Surveys - 6241' 8.58/97.33	0.25	6305	1
03:05-03:20	Circ & Accumulate Surveys - 5359' 3.37/108.07	0.25	5423	1	14:15-14:45	Rotating With Motor - WOB/19 RPM/50	0.50	6399	1
03:20-03:45	Orienting With Motor - 15' 85 MTF	0.42	5438	1	14:45-15:00	Circ & Accumulate Surveys - 6335' 7.85/95.68	0.25	6399	1
03:45-03:50	Rotating With Motor - WOB/16k RPM/50	0.08	5454	1	15:00-15:15	Orienting With Motor - 18' 35R	0.25	6417	1
03:50-04:05	Circ & Accumulate Surveys - 5390' 3.12/110.59	0.25	5454	1	15:15-15:30	Rotating With Motor - WOB/19 RPM/50	0.25	6494	1
04:05-04:30	Orienting With Motor - 15' 85 MTF	0.42	5469	1	15:30-15:45	Circ & Accumulate Surveys - 6430' 9.31/101.88	0.25	6494	1
04:30-04:40	Rotating With Motor - WOB/16k RPM/50	0.17	5486	1	15:45-16:15	Rotating With Motor - WOB/19 RPM/50	0.50	6588	1
04:40-04:50	Circ & Accumulate Surveys - 5422' 3.91/99.91	0.17	5486	1	16:15-16:30	Circ & Accumulate Surveys - 6524' 9.38/103.10	0.25	6588	1
04:50-05:30	Rotating With Motor - WOB/16k RPM/50	0.67	5580	1	16:30-16:45	Rotating With Motor - WOB/19K RPM/50	0.25	6682	1
05:30-05:45	Circ & Accumulate Surveys - 5516' 5.88/94.40	0.25	5580	1	16:45-17:00	Circ & Accumulate Surveys - 6618' 8.81/102.22	0.25	6682	1
05:45-06:00	Orienting With Motor - 15' 40R	0.25	5595	1	17:00-17:30	Rotating With Motor - WOB/19K RPM/50	0.50	6777	1
06:00-06:15	Rotating With Motor - WOB/16K RPM/50	0.25	5644	1	17:30-17:45	Circ & Accumulate Surveys - 6713' 8.58/102.55	0.25	6777	1
06:15-06:30	Circ & Accumulate Surveys - 5580' 6.41/97.16	0.25	5644	1	17:45-18:15	Rotating With Motor - WOB/19 RPM/50	0.50	6871	1
06:30-07:15	Rotating With Motor - WOB/16 RPM/50	0.75	5738	1	18:15-18:30	Circ & Accumulate Surveys - 6807' 7.93/101.29	0.25	6871	1
07:15-07:30	Circ & Accumulate Surveys - 5674' 6.76/98.66	0.25	5738	1	18:30-19:15	Rotating With Motor - WOB/19 RPM/50	0.75	6965	1
07:30-07:45	Orienting With Motor - 15' 20R	0.25	5753	1	19:15-19:30	Circ & Accumulate Surveys - 6901'	0.25	6965	1
07:45-08:15	Rotating With Motor	0.50	5833	1	19:30-20:00	Orienting With Motor - 12' 10L	0.50	6977	1
08:15-08:30	Circ & Accumulate Surveys - 5769' 7.74/96.33	0.25	5833	1	20:00-20:45	Rotating With Motor - WOB/19 RPM/50	0.75	7060	1
08:30-08:45	Orienting With Motor - 20' 60R	0.25	5853	1	20:45-21:00	Circ & Accumulate Surveys - 6996'	0.25	7060	1
08:45-09:30	Rotating With Motor - WOB/17 RPM/50	0.75	5927	1	21:00-21:30	Orienting With Motor - 15' 5L	0.50	7060	1
09:30-09:45	Circ & Accumulate Surveys - 5863' 8.39/97.92	0.25	5927	1	21:30-22:00	Rotating With Motor - WOB/19 RPM/50	0.50	7154	1
09:45-10:00	Orienting With Motor - 15' 75R	0.25	5942	1	22:00-22:15	Circ & Accumulate Surveys - 7090' 9.25/98.95	0.25	7154	1
10:00-10:45	Rotating With Motor - WOB/17 RPM/50	0.75	6022	1	22:15-22:45	Rotating With Motor - WOB/23 RPM/50	0.50	7249	1
10:45-11:00	Circ & Accumulate Surveys - 5958' 8.59/109.11	0.25	6022	1	22:45-23:00	Circ & Accumulate Surveys - 7185' 8.85/100.52	0.25	7249	1
11:00-11:15	Orienting With Motor - 10' -80L	0.25	6032	1	23:00-23:45	Rotating With Motor - WOB/23 RPM/50	0.75	7344	1
11:15-12:15	Rotating With Motor - WOB/17 RPM/50	1.00	6116	1	23:45-24:00	Circ & Accumulate Surveys - 7280 8.37/99.33	0.25	7344	1

TIME SUMMARY (hrs):

MOTOR DRILL: 16.33	ORIENTING HRS: 3.58
TIME DRILL: 0.00	ROTATING HRS: 12.75
MOTOR REAM: 0.00	
CIRC: 7.17	ROTARY DRILL: 0.00
MOTOR HRS: 23.50	DRILL HRS: 16.33

ROTARY DRILL: 0.00
MOTOR HRS: 23.50
TRIP: 0.25
OTHER: 0.25
TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 11000 ft-lb	STRING WEIGHT 0 lbs
WOB SLIDING (HI): 15000 lbf	WOB ROTATE (HI): 23000 lbf
WOB SLIDING (LO): 5000 lbf	WOB ROTATE (LO): 10000 lbf
RPM (ROTARY): 50 rpm	DRAG UP: 0 lbf
RPM (MOTOR): 164.64 rpm	DRAG DN: 0 lbf

— **BHA / MOTOR / BIT INFORMATION:** —

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 2 - 2013/07/20

BHA: 1 HOLE SIZE: 8.75 in SECTION TYPE: Build & Hold SURVEY TYPE: Positive Pulse MWD
MANFCT.: WFT C STABILIZER: 8 1/2 SERIAL#: 675-1609 MODEL: QLE 7850 LOBE CFG.: 7/8
SETTING: 1.5° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 23.5 MTR HRS TO DATE: 23.75
MANFCT: Hughes BIT TYPE: PDC Bit TYPE: T607X NOZZLES: 0.773 in² TFA
IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / BHA

PUMP PARAMETERS

PRESSURE ON BTM: 2200	PRESSURE OFF BTM: 1700	TOTAL FLOW RATE: 580.59 gal/min
PUMP 1: TYPE: PZ-11	EFF.: 100.0% SPM: 66.00	LINER: 6.50 in STROKE VOL.: 4.5112 gal/stk
PUMP 2: TYPE: PZ-11	EFF.: 95.0% SPM: 66.00	LINER: 6.50 in STROKE VOL.: 4.5112 gal/stk
PUMP 3: TYPE:	EFF.: 100.0% SPM: 0.00	LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt	VISC: 0 sec/qt	WTR LOSS: 0 cc/30min	PV: 0 cP	YP: 0 lb/100 ft ²	pH: 0
DENSITY: 0 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

00:45 Tagged cement @ 5239'
They will drill thru cement and then drill 10' of formation, F.I. Test , then resume back to drilling.

Midnight depth 7344'

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 3 - 2013/07/21

FILE #: 4030046
 JOB TYPE: Horizontal
 RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H
 COMPANY: Devon Energy Corp
 SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services
 SURVEY TYPE: Positive Pulse MWD
 FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
 DIR Supervisor: Kevin Moss, Rene Rosas
 MWD Supervisor: Dave Latch, Ryan Broadfoot, Robin Feys

GROUND ELEV: 3660 ft START DEPTH: 7344.0 ft PROGRESS: 1388.0 ft DAILY COST: USD\$0.00
 KB ELEV: 3685 ft END DEPTH: 8732.0 ft AVG. ROP.: 68.5 ft/hr PREVIOUS COST: USD\$0.00
 TOTAL COST: USD\$0.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	Orienting With Motor - 13' 5R	0.50	7357	1	10:45-11:00	Circ & Accumulate Surveys - 8036' 9.130/102.04	0.25	8100	1
00:30-01:00	Rotating With Motor - WOB/23 RPM/50	0.50	7438	1	11:00-12:00	Rotating With Motor	1.00	8195	1
01:00-01:15	Circ & Accumulate Surveys - 7374' 9.05/99.22	0.25	7438	1	12:00-12:15	Circ & Accumulate Surveys - 8131' 8.43/102.74	0.25	8195	1
01:15-01:45	Rotating With Motor - WOB/23 RPM/50	0.50	7533	1	12:15-13:15	Orienting With Motor - 18' -25L	1.00	8203	1
01:45-02:00	Circ & Accumulate Surveys - 7374' 8.70/98.95	0.25	7533	1	13:15-14:45	Rotating With Motor - WOB/22K RPM/50	1.50	8289	1
02:00-03:00	Rotating With Motor - WOB/24 RPM/50	1.00	7627	1	14:45-15:00	Circ & Accumulate Surveys - 8225' 8.68/100.76	0.25	8289	1
03:00-03:15	Circ & Accumulate Surveys - 7563' 8.42/99.68	0.25	7627	1	15:00-16:00	Rotating With Motor - WOB/22 RPM/50	1.00	8364	1
03:15-04:00	Orienting With Motor - 18' 5R	0.75	7645	1	16:00-16:15	Rig Service	0.25	8364	1
04:00-04:45	Rotating With Motor - WOB/24 RPM/50	0.75	7722	1	16:15-16:30	Circ & Accumulate Surveys - 8320' 8.14/100.88	0.25	8364	1
04:45-05:00	Circ & Accumulate Surveys - 7658' 9.56/100.83	0.25	7722	1	16:30-18:00	Orienting With Motor - 20' -35L	1.50	8402	1
05:00-05:45	Rotating With Motor - WOB/24 RPM/50	0.75	7816	1	18:00-18:45	Rotating With Motor - WOB/22 RPM/50	0.75	8478	1
05:45-06:00	Circ & Accumulate Surveys - 7752' 8.68/102.32	0.25	7816	1	18:45-19:00	Circ & Accumulate Surveys - 8414' 880/99.91	0.25	8478	1
06:00-07:00	Rotating With Motor - WOB/24 RPM/50	1.00	7911	1	19:00-19:50	Orienting With Motor - 10' HS	0.83	8488	1
07:00-07:15	Circ & Accumulate Surveys - 7847' 8.32/102.34	0.25	7911	1	19:50-21:00	Rotating With Motor - WOB/22 RPM/50	1.17	8573	1
07:15-08:15	Orienting With Motor - 16' -20L	1.00	7911	1	21:00-21:15	Circ & Accumulate Surveys - 8509'	0.25	8573	1
08:15-09:00	Rotating With Motor	0.75	8005	1	21:15-22:15	Orienting With Motor - 20' HS	1.00	8593	1
09:00-09:15	Circ & Accumulate Surveys - 7941' 8.34/101.44	0.25	8005	1	22:15-23:00	Rotating With Motor - WOB/22 RPM/50	0.75	8667	1
09:15-09:45	Orienting With Motor - 20' -30L	0.50	8025	1	23:00-23:15	Circ & Accumulate Surveys - 8603'	0.25	8667	1
09:45-10:45	Rotating With Motor	1.00	8100	1	23:15-24:00	Rotating With Motor - WOB/22 RPM/50	0.75	8732	1

TIME SUMMARY (hrs):

MOTOR DRILL: 20.25 ORIENTING HRS: 7.08
 TIME DRILL: 0.00 ROTATING HRS: 13.17
 MOTOR REAM: 0.00
 CIRC: 3.50 ROTARY DRILL: 0.00
 MOTOR HRS: 23.75 DRILL HRS: 20.25

ROTARY DRILL: 0.00
 MOTOR HRS: 23.75
 TRIP: 0.00
 OTHER: 0.25
 TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 13500 ft-lb STRING WEIGHT: 220000 lbs
 WOB SLIDING (HI): 25000 lbf WOB ROTATE (HI): 33000 lbf
 WOB SLIDING (LO): 5000 lbf WOB ROTATE (LO): 10000 lbf
 RPM (ROTARY): 50 rpm DRAG UP: 240000 lbf
 RPM (MOTOR): 164.64 rpm DRAG DN: 208000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1 HOLE SIZE: 8.75 in SECTION TYPE: Build & Hold SURVEY TYPE: Positive Pulse MWD
 MANFCT.: WFT C STABILIZER: 8 1/2 SERIAL#: 675-1609 MODEL: QLE 7850 LOBE CFG.: 7/8
 SETTING: 1.5 ° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 23.75 MTR HRS TO DATE: 47.5
 MANFCT: Hughes BIT TYPE: PDC Bit TYPE: T607X NOZZLES: 0.773 in² TFA
 IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / BHA



Weatherford

Daily Activity Report

Drilling Services

v4.2.2674

Day 3 - 2013/07/21

PUMP PARAMETERS

PRESSURE ON BTM: 2200		PRESSURE OFF BTM: 1775		TOTAL FLOW RATE: 596.26 gal/min	
PUMP 1:	TYPE: PZ-11	EFF.: 100.0%	SPM: 66.00	LINER: 6.50 in	STROKE VOL.: 4.7486 gal/stk
PUMP 2:	TYPE: PZ-11	EFF.: 95.0%	SPM: 66.00	LINER: 6.50 in	STROKE VOL.: 4.5112 gal/stk
PUMP 3:	TYPE:	EFF.: 100.0%	SPM: 0.00	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Brine or Salt	VISC: 0 sec/qt	WTR LOSS: 0 cc/30min	PV: 0 cP	YP: 0 lb/100 ft ²	pH: 0
DENSITY: 0 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

Midnight Depth: 7,344' - 8,734'

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 4 - 2013/07/22**FILE #:** 4030046**JOB TYPE:** Horizontal**RIG & NO:** H & P 416**WELL NAME:** Thistle Unit #46H**COMPANY:** Devon Energy Corp**SURFACE LOCATION:** Lea County**SERVICE CO.:** Weatherford Directional Services**SURVEY TYPE:** Positive Pulse MWD**FIELD / LOCATION:** Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
DIR Supervisor: Kevin Moss, Rene Rosas
MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft**KB ELEV:** 3685 ft**START DEPTH:** 8732.0 ft**END DEPTH:** 9722.0 ft**PROGRESS:** 990.0 ft**AVG. ROP.:** 46.6 ft/hr**DAILY COST:** USD\$0.00**PREVIOUS COST:** USD\$0.00**TOTAL COST:** USD\$0.00**WORK STATUS:** Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Rotating With Motor - WOB/32 RPM/50	0.25	8762	1	10:45-12:30	Rotating With Motor - WOB/26 RPM/50	1.75	9330	1
00:15-00:30	Circ & Accumulate Surveys - 8698' 8.92/101.22	0.25	8762	1	12:30-12:45	Circ & Accumulate Surveys - 9266' 8.26/96.69	0.25	9330	1
00:30-00:40	Rotating With Motor - WOB/28 RPM/50	0.17	8772	1	12:45-14:15	Orienting With Motor - 25' -10L	1.50	9355	1
00:40-01:20	Orienting With Motor - 20' @ 25L	0.67	8792	1	14:15-15:15	Rotating With Motor - WOB/27 RPM/50	1.00	9424	1
01:20-02:00	Rotating With Motor - WOB/32 RPM/50	0.67	8856	1	15:15-15:30	Circ & Accumulate Surveys - 9360' 8.46/92.13	0.25	9424	1
02:00-02:15	Circ & Accumulate Surveys - 8792' 10.24/100.55	0.25	8856	1	15:30-16:45	Orienting With Motor - 22' 30R	1.25	9456	1
02:15-03:25	Rotating With Motor - WOB/25 RPM/50	1.17	8951	1	16:45-18:00	Rotating With Motor - WOB/28 RPM/50	1.25	9519	1
03:25-03:40	Circ & Accumulate Surveys - 8887'	0.25	8951	1	18:00-18:15	Circ & Accumulate Surveys - 9455' 8.77/95.56	0.25	9519	1
03:40-04:40	Orienting With Motor - 13' 55L/60L	1.00	8964	1	18:15-18:25	Rotating With Motor - WOB/28 RPM/50	0.17	9529	1
04:40-05:45	Rotating With Motor - WOB/22 RPM/50	1.08	9046	1	18:25-19:45	Orienting With Motor - 24' 30R	1.33	9553	1
05:45-06:00	Circ & Accumulate Surveys - 8982'	0.25	9046	1	19:45-21:00	Rotating With Motor - WOB/28 RPM/50	1.25	9614	1
06:00-07:30	Rotating With Motor - WOB/26 RPM/50	1.50	9141	1	21:00-21:15	Circ & Accumulate Surveys - 9550' 8.66/96.27	0.25	9614	1
07:30-07:45	Circ & Accumulate Surveys - 9077' 8.34/99.80	0.25	9141	1	21:15-23:00	Rotating With Motor - WOB/28 RPM/50	1.75	9708	1
07:45-09:00	Orienting With Motor - 20' -30L	1.25	9161	1	23:00-23:15	Circ & Accumulate Surveys - 9644'	0.25	9708	1
09:00-10:30	Rotating With Motor - WOB/26 RPM/50	1.50	9235	1	23:15-23:30	Rotating With Motor - WOB/28 RPM/50	0.25	9718	1
10:30-10:45	Circ & Accumulate Surveys - 9171' 9.00/95.73	0.25	9235	1	23:30-24:00	Orienting With Motor - 4' 15R	0.50	9722	1

TIME SUMMARY (hrs):

MOTOR DRILL: 21.25 **ORIENTING HRS:** 7.50
TIME DRILL: 0.00 **ROTATING HRS:** 13.75
MOTOR REAM: 0.00
CIRC: 2.75 **ROTARY DRILL:** 0.00
MOTOR HRS: 24.00 **DRILL HRS:** 21.25

ROTARY DRILL: 0.00
MOTOR HRS: 24.00
TRIP: 0.00
OTHER: 0.00
TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 12500 ft-lb **STRING WEIGHT** 265000 lbs
WOB SLIDING (HI): 18000 lbf **WOB ROTATE (HI):** 35000 lbf
WOB SLIDING (LO): 5000 lbf **WOB ROTATE (LO):** 20000 lbf
RPM (ROTARY): 50 rpm **DRAG UP:** 295000 lbf
RPM (MOTOR): 164.64 rpm **DRAG DN:** 240000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1 **HOLE SIZE:** 8.75 in **SECTION TYPE:** Build & Hold **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: WFT C **STABILIZER:** 8 1/2 **SERIAL#:** 675-1609 **MODEL:** QLE 7850 **LOBE CFG.:** 7/8
SETTING: 1.5° **KICKPAD:** No **SIZE:** 6 3/4" (171mm) **MTR HRS THIS DAY:** 24 **MTR HRS TO DATE:** 71.5
MANFCT.: Hughes **BIT TYPE:** PDC Bit **TYPE:** T607X **NOZZLES:** 0.773 in² TFA
IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / BHA

PUMP PARAMETERS

PRESSURE ON BTM: 2350 **PRESSURE OFF BTM:** 2000 **TOTAL FLOW RATE:** 605.29 gal/min
PUMP 1: TYPE: PZ-11 **EFF.:** 100.0% **SPM:** 67.00 **LINER:** 6.50 in **STROKE VOL.:** 4.7486 gal/stk
PUMP 2: TYPE: PZ-11 **EFF.:** 95.0% **SPM:** 67.00 **LINER:** 6.50 in **STROKE VOL.:** 4.5112 gal/stk
PUMP 3: TYPE: **EFF.:** 100.0% **SPM:** 0.00 **LINER:** 0.00 in **STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: FRESH WATER **VISC:** 0 sec/qt **WTR LOSS:** 0 cc/30min **PV:** 0 cP **YP:** 0 lb/100 ft² **pH:** 0
DENSITY: 0 lb/gal **GEL 0/10:** 0.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 0 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min



Weatherford

Daily Activity Report

Drilling Services

v4.2.2674

Day 4 - 2013/07/22

COMMENTS:

Midnight depth: 8732' - 9,722'

Sliding: From 9718' - 9722' the motor stalled out 7 times with no more than 15/18k. Rop for that last hour was 8'/10' per hour. I couldn't slide more without stacking out on weight and getting hung up.

Rotation: The torque spikes from 9,800 -16,000 lbs and the ROP is down to around 45'/50' per hour. The differential bounces around from 275 / 1100 PSI.

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services
v4.2.2674

Day 5 - 2013/07/23

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
 DIR Supervisor: Kevin Moss, Rene Rosas
 MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft START DEPTH: 9722.0 ft PROGRESS: 328.0 ft DAILY COST: USD\$0.00
 KB ELEV: 3685 ft END DEPTH: 10050.0 ft AVG. ROP.: 43.7 ft/hr PREVIOUS COST: USD\$0.00
 TOTAL COST: USD\$0.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	Orienting With Motor - 4' 15R	0.50	9726	1	17:45-18:45	Orienting With Motor - 25' 10R	1.00	9828	2
00:30-02:00	Rotating With Motor - WOB/28 RPM/50	1.50	9803	1	18:45-19:30	Rotating With Motor - WOB/21k RPM/50	0.75	9898	2
02:00-02:15	Circulating - Pump sweep	0.25	9803	1	19:30-19:45	Circ & Accumulate Surveys - 9833' 8.96/105.03	0.25	9898	2
02:15-02:30	Circ & Accumulate Surveys - 9739' 7.25/100.40	0.25	9803	1	19:45-20:45	Orienting With Motor - 10' 10L	1.00	9908	2
02:30-03:00	Circ Bottoms Up	0.50	9803	1	20:45-21:45	Rotating With Motor - WOB/21k RPM/50	1.00	9992	2
03:00-08:00	Change Bit And Motor	5.00	9803	1	21:45-22:00	Circ & Accumulate Surveys - 9929'	0.25	9992	2
08:00-08:30	Rig Service	0.50	9803	1	22:00-22:15	Circ & Accumulate Surveys - 9929' 9.18/104.71	0.25	9992	2
08:30-09:30	Change Bit And Motor	1.00	9803	1	22:15-22:30	Rotating With Motor - WOB/21k RPM/50	0.25	10002	2
09:30-09:45	Shallow Pulse Check	0.25	9803	1	22:30-23:30	Orienting With Motor - 15' 60L	1.00	10017	2
09:45-17:45	RIH With New BHA	8.00	9803	2	23:30-24:00	Rotating With Motor - WOB/21k RPM/50	0.50	10050	2

TIME SUMMARY (hrs):

MOTOR DRILL: 7.50	ORIENTING HRS: 0.50	ROTARY DRILL: 0.00	ROTARY TORQUE: 17500 ft-lb	STRING WEIGHT: 295000 lbs
TIME DRILL: 0.00	ROTATING HRS: 1.50	MOTOR HRS: 9.50	WOB SLIDING (HI): 25000 lbf	WOB ROTATE (HI): 22000 lbf
MOTOR REAM: 0.00		TRIP: 8.00	WOB SLIDING (LO): 10000 lbf	WOB ROTATE (LO): 15000 lbf
CIRC: 2.00	ROTARY DRILL: 0.00	OTHER: 6.50	RPM (ROTARY): 50 rpm	DRAG UP: 305000 lbf
MOTOR HRS: 9.50	DRILL HRS: 7.50	TOTAL HRS: 24.00	RPM (MOTOR): 164.64 rpm	DRAG DN: 278000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1 HOLE SIZE: 8.75 in SECTION TYPE: Build & Hold SURVEY TYPE: Positive Pulse MWD
 MANFCT.: WFT C STABILIZER: 8 1/2 SERIAL#: 675-1609 MODEL: QLE 7850 LOBE CFG.: 7/8
 SETTING: 1.5 ° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 3.25 MTR HRS TO DATE: 74.75
 MANFCT: Hughes BIT TYPE: PDC Bit TYPE: T607X NOZZLES: 0.773 in² TFA
 IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / BHA

BHA: 2 HOLE SIZE: 8.75 in SECTION TYPE: Build & Hold SURVEY TYPE: Positive Pulse MWD
 MANFCT.: WFT C STABILIZER: 8 1/2 SERIAL#: 675-4178 MODEL: QLE 7850 LOBE CFG.: 7/8
 SETTING: 2.38 ° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 6.25 MTR HRS TO DATE: 6.25
 MANFCT: Security BIT TYPE: PDC Bit TYPE: MM66DC NOZZLES: 0.66 in² TFA
 IADC BIT GRADE: 1 / 2 / CT / G / X / I / NO / TD

PUMP PARAMETERS

PRESSURE ON BTM: 2350 PRESSURE OFF BTM: 2000 TOTAL FLOW RATE: 605.29 gal/min
 PUMP 1: TYPE: PZ-11 EFF.: 100.0% SPM: 67.00 LINER: 6.50 in STROKE VOL.: 4.7486 gal/stk
 PUMP 2: TYPE: PZ-11 EFF.: 95.0% SPM: 67.00 LINER: 6.50 in STROKE VOL.: 4.5112 gal/stk
 PUMP 3: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: FRESH WATER VISC: 0 sec/qt WTR LOSS: 0 cc/30min PV: 0 cP YP: 0 lb/100 ft² pH: 0
 DENSITY: 0 lb/gal GEL 0/10: 0.00 lb/100 ft² SAND: 0 SOLIDS: 0 OIL: 0 TEMP: 0 °F
 LIQUID BASE: Water LIQUID RATE: 0 gal/min GAS TYPE: GAS RATE: 0 cu ft/min

COMMENTS:

Rotation: The torque spikes from 9,800 -16,000 lbs and the ROP is down to around 45'/50' per hour. The differential bounces around from 275 / 1100 PSI.



Daily Activity Report

Drilling Services
v4.2.2674

Day 5 - 2013/07/23

@ 2AM 9803' Companyman called and decided to POOH.idnight Depth was 9722'

On rotation the ROP is averaging around 45/65 per hour with the Diff spiking and staull outs. We cant put more than 18/22k on the bit .Could be change in formation.

18:00 9810' 10% Chert ,30%LS,60%SHALE

20:30 9900' 40% Chert ,60% LS

23:30 10,000' 40%,50% Chert,LS ,20%SHALE

Ending Depth : 9,803' - 10,050'

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services
v4.2.2674

Day 6 - 2013/07/24

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
 DIR Supervisor: Kevin Moss, Rene Rosas
 MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft START DEPTH: 10050.0 ft PROGRESS: 674.0 ft DAILY COST: USD\$0.00
 KB ELEV: 3685 ft END DEPTH: 10724.0 ft AVG. ROP.: 47.3 ft/hr PREVIOUS COST: USD\$0.00
 TOTAL COST: USD\$0.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	Rotating With Motor - WOB/21k RPM/50	0.50	10087	2	08:00-08:15	Circ & Accumulate Surveys - 10,402' 9.10/97.34	0.25	10465	2
00:30-00:45	Circ & Accumulate Surveys - 10024 9.28/102.20	0.25	10087	2	08:15-10:00	Rotating With Motor - WOB/26K RPM/50	1.75	10465	2
00:45-02:00	Rotating With Motor - WOB/21k RPM/50	1.25	10182	2	10:00-10:15	Circ & Accumulate Surveys - 10496' 8.28/98.11	0.25	10465	2
02:00-02:15	Circ & Accumulate Surveys - 10119' 8.51/104.93	0.25	10182	2	10:15-12:00	Orienting With Motor - 13' 20R	1.75	10472	2
02:15-02:25	Rotating With Motor - WOB/21k RPM/50	0.17	10192	2	12:00-13:45	Rotating With Motor	1.75	10654	2
02:25-03:40	Orienting With Motor - 25' 30/35L	1.25	10217	2	13:45-14:00	Circ & Accumulate Surveys - 10,591' 8.10-102.72	0.25	10654	2
03:40-04:30	Rotating With Motor - WOB/26k RPM/50	0.83	10276	2	14:00-16:00	Rotating With Motor - WOB/26K RPM/50	2.00	10724	2
04:30-04:45	Circ & Accumulate Surveys - 10213' 9.69/99.28	0.25	10276	2	16:00-16:15	Circ & Accumulate Surveys - 10,661' 7.41-101.29	0.25	10724	2
04:45-06:00	Rotating With Motor	1.25	10370	2	16:15-17:30	Circ Bottoms Up	1.25	10724	2
06:00-06:15	Circ & Accumulate Surveys - 10307' 9.75/97.62	0.25	10370	2	17:30-24:00	POOH To Change BHA	6.50	10724	2
06:15-08:00	Rotating With Motor - WOB/26K RPM/50	1.75	10465	2			0.00		

TIME SUMMARY (hrs):				DRILLING PARAMETERS:			
MOTOR DRILL: 14.25	ORIENTING HRS: 3.00	ROTARY DRILL: 0.00	ROTARY TORQUE: 12800 ft-lb	STRING WEIGHT	275000 lbs		
TIME DRILL: 0.00	ROTATING HRS: 11.25	MOTOR HRS: 17.50	WOB SLIDING (HI): 18000 lbf	WOB ROTATE (HI):	27000 lbf		
MOTOR REAM: 0.00		TRIP: 6.50	WOB SLIDING (LO): 10000 lbf	WOB ROTATE (LO):	18000 lbf		
CIRC: 3.25	ROTARY DRILL: 0.00	OTHER: 0.00	RPM (ROTARY): 50 rpm	DRAG UP:	302000 lbf		
MOTOR HRS: 17.50	DRILL HRS: 14.25	TOTAL HRS: 24.00	RPM (MOTOR): 164.64 rpm	DRAG DN:	245000 lbf		

BHA / MOTOR / BIT INFORMATION:

BHA: 2 HOLE SIZE: 8.75 in SECTION TYPE: Build & Hold SURVEY TYPE: Positive Pulse MWD
 MANFCT.: WFT C STABILIZER: 8 1/2 SERIAL#: 675-4178 MODEL: QLE 7850 LOBE CFG.: 7/8
 SETTING: 2.38 ° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 17.5 MTR HRS TO DATE: 23.75
 MANFCT: Security BIT TYPE: PDC Bit TYPE: MM66DC NOZZLES: 0.66 in² TFA
 IADC BIT GRADE: 1 / 2 / CT / G / X / I / NO / TD

PUMP PARAMETERS

PRESSURE ON BTM: 2300 PRESSURE OFF BTM: 2050 TOTAL FLOW RATE: 605.29 gal/min
 PUMP 1: TYPE: PZ-11 EFF.: 100.0% SPM: 67.00 LINER: 6.50 in STROKE VOL.: 4.7486 gal/stk
 PUMP 2: TYPE: PZ-11 EFF.: 95.0% SPM: 67.00 LINER: 6.50 in STROKE VOL.: 4.5112 gal/stk
 PUMP 3: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: FRESH WATER VISC: 0 sec/qt WTR LOSS: 0 cc/30min PV: 0 cP YP: 0 lb/100 ft² pH: 0
 DENSITY: 0 lb/gal GEL 0/10: 0.00 lb/100 ft² SAND: 0 SOLIDS: 0 OIL: 0 TEMP: 0 °F
 LIQUID BASE: Water LIQUID RATE: 0 gal/min GAS TYPE: GAS RATE: 0 cu ft/min

COMMENTS:

Starting Depth: 10,050' - 10,724'

CUSTOMER SIGNATURE:

**Weatherford™**

Daily Activity Report

Drilling Services
v4.2.2674

Day 7 - 2013/07/25

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
 DIR Supervisor: Kevin Moss, Rene Rosas
 MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft START DEPTH: 10724.0 ft PROGRESS: 356.0 ft DAILY COST: USD\$0.00
 KB ELEV: 3685 ft END DEPTH: 11080.0 ft AVG. ROP.: 48.6 ft/hr PREVIOUS COST: USD\$0.00
 TOTAL COST: USD\$0.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:30	Handle Directional Tools - MM/Scribe/Program	1.50	10724	3	17:00-17:30	Orienting With Motor - 31' -50L	0.50	10873	3
01:30-02:00	Rig Service - Chng Dies on ST80	0.50	10724	3	17:30-17:45	Circ & Accumulate Surveys - 10,815' 15.31/70.29	0.25	10873	3
02:00-02:15	Shallow Pulse Check - GOOD	0.25	10724	3	17:45-18:50	Orienting With Motor - 31' 60L	1.08	10904	3
02:15-05:00	RIH With New BHA - BHA #3	2.75	10724	3	18:50-19:00	Circ & Accumulate Surveys - 10848' 18.61/64.52	0.17	10904	3
05:00-08:00	Slip And Cut	3.00	10724	3	19:00-19:30	Orienting With Motor - 32' 50L	0.50	10936	3
08:00-11:30	RIH	3.50	10724	3	19:30-19:45	Circ & Accumulate Surveys - 10878' 20.62/58.30	0.25	10936	3
11:30-13:45	Circulating - See Comments - Cir Trip Gas	2.25	10724	3	19:45-20:30	Orienting With Motor - 31' 35L	0.75	10967	3
13:45-14:30	Orienting With Motor - 23' -60L	0.75	10747	3	20:30-20:45	Circ & Accumulate Surveys - 10909' 22.18/50.02	0.25	10967	3
14:30-14:45	Circ & Accumulate Surveys - 10,689' 7.06-/103.82	0.25	10747	3	20:45-21:30	Orienting With Motor - 32' 25L	0.75	10999	3
14:45-15:15	Orienting With Motor - 32' -60L	0.50	10747	3	21:30-21:45	Circ & Accumulate Surveys - 10941' 24.92/45.53	0.25	10999	3
15:15-15:30	Circ & Accumulate Surveys - 10,721' 7.30/99.63	0.25	10747	3	21:45-22:15	Orienting With Motor - 32' 30L	0.50	11031	3
15:30-16:00	Orienting With Motor - 31' -60L	0.50	10810	3	22:15-22:30	Circ & Accumulate Surveys - 10973' 27.40/45.05	0.25	11031	3
16:00-16:15	Circ & Accumulate Surveys - 10,752' 9.32/90.02	0.25	10752	3	22:30-23:00	Orienting With Motor - 31' 60L	0.50	11062	3
16:15-16:30	Orienting With Motor - 32' -55L	0.25	10842	3	23:00-23:15	Circ & Accumulate Surveys - 11004' 28.42/48.48	0.25	11062	3
16:30-16:45	Rig Service	0.25	10842	3	23:15-24:00	Orienting With Motor - 18' 50L	0.75	11080	3
16:45-17:00	Circ & Accumulate Surveys - 10,784' 12.07/76.78	0.25	10842	3			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 7.33 ORIENTING HRS: 7.33
 TIME DRILL: 0.00 ROTATING HRS: 0.00
 MOTOR REAM: 0.00
 CIRC: 5.17 ROTARY DRILL: 0.00
 MOTOR HRS: 12.50 DRILL HRS: 7.33

ROTARY DRILL: 0.00
 MOTOR HRS: 12.50
 TRIP: 6.25
 OTHER: 5.25
 TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 0 ft-lb STRING WEIGHT: 0 lbs
 WOB SLIDING (HI): 45000 lbf WOB ROTATE (HI): 0 lbf
 WOB SLIDING (LO): 25000 lbf WOB ROTATE (LO): 0 lbf
 RPM (ROTARY): 0 rpm DRAG UP: 308000 lbf
 RPM (MOTOR): 183 rpm DRAG DN: 246000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 3 HOLE SIZE: 8.75 in SECTION TYPE: Curve SURVEY TYPE: Positive Pulse MWD
 MANFCT.: National STABILIZER: 8 1/2" (219mm) SERIAL#: 675-24X-322 MODEL: LE7861 LOBE CFG.: 7/8
 SETTING: 2.38 ° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 12.5 MTR HRS TO DATE: 12.5
 MANFCT: Hughes BIT TYPE: PDC Bit TYPE: DPD505 NOZZLES: 0.55 in² TFA
 IADC BIT GRADE: 2 / 2 / CT / G / X / I / NO / BHA

PUMP PARAMETERS

PRESSURE ON BTM: 2800 PRESSURE OFF BTM: 2450 TOTAL FLOW RATE: 632.39 gal/min
 PUMP 1: TYPE: PZ-11 EFF.: 100.0% SPM: 70.00 LINER: 6.50 in STROKE VOL.: 4.7486 gal/stk
 PUMP 2: TYPE: PZ-11 EFF.: 95.0% SPM: 70.00 LINER: 6.50 in STROKE VOL.: 4.5112 gal/stk
 PUMP 3: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: FRESH WATER VISC: 29 sec/qt WTR LOSS: 0 cc/30min PV: 0 cP YP: 0 lb/100 ft² pH: 9
 DENSITY: 8.7 lb/gal GEL 0/10: 0.00 lb/100 ft² SAND: 0 SOLIDS: 0 OIL: 0 TEMP: 0 °F
 LIQUID BASE: Water LIQUID RATE: 0 gal/min GAS TYPE: GAS RATE: 0 cu ft/min



Daily Activity Report

Drilling Services
v4.2.2674

Day 7 - 2013/07/25

COMMENTS: _____

CUSTOMER SIGNATURE: _____

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 8 - 2013/07/26

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
 DIR Supervisor: Kevin Moss, Rene Rosas
 MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft

KB ELEV: 3685 ft

START DEPTH: 11080.0 ft

END DEPTH: 11283.0 ft

PROGRESS: 203.0 ft

AVG. ROP.: 67.7 ft/hr

DAILY COST: USD\$0.00

PREVIOUS COST: USD\$0.00

TOTAL COST: USD\$0.00

WORK STATUS: Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Orienting With Motor - 13' 50L	0.25	11093	3	04:00-04:30	Orienting With Motor - 32' 10L	0.50	11283	3
00:15-00:30	Circ & Accumulate Surveys - 11035' 30.43/47.20	0.25	11093	3	04:30-04:45	Circ & Accumulate Surveys - 11225' 45.80/28.70	0.25	11283	3
00:30-01:00	Orienting With Motor - 32' 30L	0.50	11125	3	04:45-06:00	Circ Bottoms Up - POOH	1.25	11283	3
01:00-01:15	Circ & Accumulate Surveys - 11067' 31.69/42.85	0.25	11125	3	06:00-07:00	POOH To Change Mtr Set - TOP OF CURVE	1.00	11283	3
01:15-01:30	Orienting With Motor - 31' 30L	0.25	11156	3	07:00-08:00	Circulating - SPOT 200BBS Pill	1.00	11283	3
01:30-01:45	Circ & Accumulate Surveys - 11098' 34.38/38.80	0.25	11156	3	08:00-17:45	POOH To Change Mtr Set	9.75	11283	3
01:45-02:15	Orienting With Motor - 32' 30L	0.50	11188	3	17:45-18:15	Handle Directional Tools	0.50	11283	3
02:15-02:25	Circ & Accumulate Surveys - 11130' 37.48/35.51	0.17	11188	3	18:15-18:30	Shallow Pulse Check - GOOD	0.25	11283	3
02:25-02:50	Orienting With Motor - 32' 25L	0.42	11220	3	18:30-22:15	RIH - CONTINUE	3.75	11283	3
02:50-03:10	Circ & Accumulate Surveys - 11162' 40.10/32.90	0.33	11220	3	22:15-23:30	Rig Repair - WRK on ST 80's	1.25	11283	3
03:10-03:45	Orienting With Motor - 31' 15L	0.58	11251	3	23:30-24:00	RIH	0.50	11283	3
03:45-04:00	Circ & Accumulate Surveys - 11193' 43.51/29.87	0.25	11251	3			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 3.00	ORIENTING HRS: 3.00	ROTARY DRILL: 0.00	ROTARY TORQUE: 0 ft-lb	STRING WEIGHT 0 lbs
TIME DRILL: 0.00	ROTATING HRS: 0.00	MOTOR HRS: 7.25	WOB SLIDING (HI): 48000 lbf	WOB ROTATE (HI): 0 lbf
MOTOR REAM: 0.00		TRIP: 15.00	WOB SLIDING (LO): 20000 lbf	WOB ROTATE (LO): 0 lbf
CIRC: 4.25	ROTARY DRILL: 0.00	OTHER: 1.75	RPM (ROTARY): 0 rpm	DRAG UP: 308000 lbf
MOTOR HRS: 7.25	DRILL HRS: 3.00	TOTAL HRS: 24.00	RPM (MOTOR): 184 rpm	DRAG DN: 246000 lbf

DRILLING PARAMETERS:

BHA / MOTOR / BIT INFORMATION:

BHA: 3	HOLE SIZE: 8.75 in	SECTION TYPE: Curve	SURVEY TYPE: Positive Pulse MWD
MANFCT.: National	STABILIZER: 8 1/2" (219mm)	SERIAL#: 675-24X-322	MODEL: LE7861
SETTING: 2.38 °	KICKPAD: No	SIZE: 6 3/4" (171mm)	LOBE CFG.: 7/8
MANFCT: Hughes	BIT TYPE: PDC Bit	TYPE: DPD505	MTR HRS THIS DAY: 7.25
IADC BIT GRADE: 2 / 2 / CT / G / X / / / NO / BHA			MTR HRS TO DATE: 19.75
			NOZZLES: 0.55 in ² TFA

PUMP PARAMETERS

PRESSURE ON BTM: 2800	PRESSURE OFF BTM: 2450	TOTAL FLOW RATE: 632.39 gal/min
PUMP 1: TYPE: PZ-11	EFF.: 100.0%	SPM: 70.00
PUMP 2: TYPE: PZ-11	EFF.: 95.0%	SPM: 70.00
PUMP 3: TYPE:	EFF.: 100.0%	SPM: 0.00
	LINER: 6.50 in	STROKE VOL.: 4.7486 gal/stk
	LINER: 6.50 in	STROKE VOL.: 4.5112 gal/stk
	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: FRESH WATER	VISC: 29 sec/qt	WTR LOSS: 0 cc/30min	PV: 0 cP	YP: 0 lb/100 ft ²	pH: 9
DENSITY: 8.7 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

We will be POOH to dial up the motor.

Motor output started off at 11.5's & then started dropping to 8-9 Degrees when reaching 30-40 degrees of Inc. It was decided to TOH to dial up the motor.

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 9 - 2013/07/27

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
 DIR Supervisor: Kevin Moss, Rene Rosas
 MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft

KB ELEV: 3685 ft

START DEPTH: 11283.0 ft

END DEPTH: 11560.0 ft

PROGRESS: 277.0 ft

AVG. ROP.: 19.8 ft/hr

DAILY COST: USD\$0.00

PREVIOUS COST: USD\$0.00

TOTAL COST: USD\$0.00

WORK STATUS: Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-02:15	RIH - CONTINUE	2.25	11283	4	11:30-13:15	Orienting With Motor - 32' -30L	1.75	11472	4
02:15-03:15	Circ Sample - CIR GAS OUT	1.00	11314	4	13:15-13:30	Circ & Accumulate Surveys - 11414' 71.42/25.68	0.25	11472	4
03:15-04:45	Orienting With Motor - 31' 10L	1.50	11314	4	13:30-14:00	Orienting With Motor - 16' -35L	0.50	11488	4
04:45-05:00	Circ & Accumulate Surveys - 11256' 48.68/27.43	0.25	11314	4	14:00-17:15	Rig Repair	3.25	11488	4
05:00-06:45	Orienting With Motor - 32' -15L	1.75	11346	4	17:15-18:30	Orienting With Motor - 15' 35L	1.25	11503	4
06:45-07:00	Circ & Accumulate Surveys - 11288' 53.18/27.05	0.25	11346	4	18:30-18:45	Circ & Accumulate Surveys - 11445' 776.17/24.29	0.25	11503	4
07:00-08:30	Orienting With Motor - 31' -20L	1.50	11377	4	18:45-20:45	Orienting With Motor - 32' 35L	2.00	11535	4
08:30-08:45	Circ & Accumulate Surveys - 11,319' 58.18/26.54	0.25	11377	4	20:45-21:00	Circ & Accumulate Surveys - 11477' 81.44/22.46	0.25	11535	4
08:45-09:30	Orienting With Motor - 32' -25L	0.75	11409	4	21:00-22:30	Orienting With Motor - 25' 75L	1.50	11560	4
09:30-09:45	Circ & Accumulate Surveys - 11351' 61.40' 27.45	0.25	11409	4	22:30-23:00	POOH To Change BHA	0.50	11560	4
09:45-11:15	Orienting With Motor - 31' -25L	1.50	11440	4	23:00-24:00	Circ & Condition Mud - PMP 200 BBLS	1.00	11560	4
11:15-11:30	Circ & Accumulate Surveys - 11382' 66.33' 26.05	0.25	11440	4			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 14.00
 TIME DRILL: 0.00
 MOTOR REAM: 0.00
 CIRC: 4.00
 MOTOR HRS: 18.00

ORIENTING HRS: 14.00
 ROTATING HRS: 0.00
 ROTARY DRILL: 0.00
 DRILL HRS: 14.00

ROTARY DRILL: 0.00
 MOTOR HRS: 18.00
 TRIP: 2.75
 OTHER: 3.25
 TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 0 ft-lb
 WOB SLIDING (HI): 50000 lbf
 WOB SLIDING (LO): 20000 lbf
 RPM (ROTARY): 0 rpm
 RPM (MOTOR): 184 rpm

STRING WEIGHT 0 lbs
 WOB ROTATE (HI): 0 lbf
 WOB ROTATE (LO): 0 lbf
 DRAG UP: 311000 lbf
 DRAG DN: 238000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 4 HOLE SIZE: 8.75 in SECTION TYPE: Curve SURVEY TYPE: Positive Pulse MWD
 MANFCT.: National STABILIZER: No SERIAL#: 675-24X-322 MODEL: LE7861 LOBE CFG.:7/8
 SETTING: 2.6 ° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 18 MTR HRS TO DATE: 37.75
 MANFCT: Hughes BIT TYPE: Tri-Cone Bit TYPE: VGD-38CH NOZZLES: 14, 14, 14, n/a: 0.451 in² TFA
 IADC BIT GRADE: 1 / 1 / NO / A / E / 1 / NO / TD

PUMP PARAMETERS

PRESSURE ON BTM: 2250 PRESSURE OFF BTM: 1950 TOTAL FLOW RATE: 630.00 gal/min
 PUMP 1: TYPE: PZ-11 EFF.: 100.0% SPM: 71.00 LINER: 6.50 in STROKE VOL.: 4.7486 gal/stk
 PUMP 2: TYPE: PZ-11 EFF.: 95.0% SPM: 71.00 LINER: 6.50 in STROKE VOL.: 4.5112 gal/stk
 PUMP 3: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: FRESH WATER VISC: 29 sec/qt WTR LOSS: 0 cc/30min PV: 0 cP YP: 0 lb/100 ft² pH: 9.5
 DENSITY: 8.8 lb/gal GEL 0/10: 0.00 lb/100 ft² SAND: 0 SOLIDS: 0 OIL: 0 TEMP: 0 °F
 LIQUID BASE: Water LIQUID RATE: 630 gal/min GAS TYPE: GAS RATE: 0 cu ft/min

COMMENTS:

22:30 Depth: 11,560'

We will be pulling out of the hole to pick up the Lateral BHA and finish soft landing the curve.

CUSTOMER SIGNATURE:

**Weatherford®**

Daily Activity Report

Drilling Services
v4.2.2674

Day 10 - 2013/07/28

FILE #: 4030046
JOB TYPE: Horizontal
RIG & NO: H & P 416WELL NAME: Thistle Unit #46H
COMPANY: Devon Energy Corp
SURFACE LOCATION: Lea CountySERVICE CO.: Weatherford Directional Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: Delaware Basin / New Mexico / USACompany Man: Jeff Foster, Jack Pierce
DIR Supervisor: Kevin Moss, Rene Rosas
MWD Supervisor: Dave Latch, Ryan BroadfootGROUND ELEV: 3660 ft START DEPTH: 11560.0 ft PROGRESS: 348.0 ft DAILY COST: USD\$0.00
KB ELEV: 3685 ft END DEPTH: 11908.0 ft AVG. ROP.: 53.5 ft/hr PREVIOUS COST: USD\$0.00
TOTAL COST: USD\$0.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-14:00	POOH To Change BHA	14.00	11560	4	19:00-19:30	Rotating With Motor	0.50	11704	5
14:00-15:45	Circulating - See Comments - Trip Gas	1.75	11560	5	19:30-19:45	Circ & Accumulate Surveys - 11634'	0.25	11704	5
15:45-16:00	Orienting With Motor - 17' -70L	0.25	11577	5	19:45-20:15	Orienting With Motor - 30' 30I	0.50	11734	5
16:00-16:15	Circ & Accumulate Surveys - 11507' 87.24/20.42	0.25	11577	5	20:15-20:45	Orienting With Motor - 14' 50L	0.50	11748	5
16:15-17:00	Orienting With Motor - 15' -130L	0.75	11592	5	20:45-21:15	Rotating With Motor - WOB/23 RPM/60	0.50	11798	5
17:00-17:30	Rotating With Motor - WOB/35K RPM/20	0.50	11609	5	21:15-21:30	Circ & Condition Hole - 11728'	0.25	11798	5
17:30-17:45	Circ & Accumulate Surveys - 11,539' 89.93/16.78	0.25	11609	5	21:30-22:00	Orienting With Motor - 30' 10I	0.50	11828	5
17:45-18:30	Orienting With Motor - 15' 50I	0.75	11624	5	22:00-22:30	Rotating With Motor - WOB/26K RPM/60	0.50	11893	5
18:30-18:45	Rotating With Motor	0.25	11641	5	22:30-23:00	Circ & Accumulate Surveys - 11823' 87.76/7.34	0.50	11893	5
18:45-19:00	Circ & Accumulate Surveys - 11571' 89.3/13.89	0.25	11641	5	23:00-24:00	Orienting With Motor - 15' 10I	1.00	11908	5

TIME SUMMARY (hrs):

MOTOR DRILL: 6.50 ORIENTING HRS: 0.00
 TIME DRILL: 0.00 ROTATING HRS: 0.00
 MOTOR REAM: 0.00
 CIRC: 3.50 ROTARY DRILL: 0.00
 MOTOR HRS: 10.00 DRILL HRS: 6.50

ROTARY DRILL: 0.00
 MOTOR HRS: 10.00
 TRIP: 14.00
 OTHER: 0.00
 TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 17300 ft-lb STRING WEIGHT: 0 lbs
 WOB SLIDING (HI): 20000 lbf WOB ROTATE (HI): 25000 lbf
 WOB SLIDING (LO): 15000 lbf WOB ROTATE (LO): 20000 lbf
 RPM (ROTARY): 60 rpm DRAG UP: 0 lbf
 RPM (MOTOR): 185.6 rpm DRAG DN: 0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 4 HOLE SIZE: 8.75 in SECTION TYPE: Curve SURVEY TYPE: Positive Pulse MWD
 MANFCT.: National STABILIZER: No SERIAL#: 675-24X-322 MODEL: LE7861 LOBE CFG.: 7/8
 SETTING: 2.6 ° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 0 MTR HRS TO DATE: 37.75
 MANFCT: Hughes BIT TYPE: Tri-Cone Bit TYPE: VGD-38CH NOZZLES: 14, 14, 14, n/a: 0.451 in² TFA
 IADC BIT GRADE: 1 / 1 / NO / A / E / 1 / NO / TD

BHA: 5 HOLE SIZE: 8.75 in SECTION TYPE: Lateral 1 SURVEY TYPE: Positive Pulse MWD
 MANFCT.: Baker STABILIZER: 8 1/4 SERIAL#: 2015895 MODEL: 8.25 NB STBLZR LOBE CFG.: 7/8
 SETTING: 1.5 ° KICKPAD: No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 10 MTR HRS TO DATE: 10
 MANFCT: Security BIT TYPE: PDC Bit TYPE: MM66DC NOZZLES: 0.663 in² TFA
 IADC BIT GRADE: 1 / 1 / NO / A / X / 1 / NO / ?

PUMP PARAMETERS

PRESSURE ON BTM: 3350 PRESSURE OFF BTM: 2900 TOTAL FLOW RATE: 632.39 gal/min
 PUMP 1: TYPE: PZ-11 EFF.: 100.0% SPM: 70.00 LINER: 6.50 in STROKE VOL.: 4.7486 gal/stk
 PUMP 2: TYPE: PZ-11 EFF.: 95.0% SPM: 70.00 LINER: 6.50 in STROKE VOL.: 4.5112 gal/stk
 PUMP 3: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Water VISC: 0 sec/qt WTR LOSS: 0 cc/30min PV: 0 cP YP: 0 lb/100 ft² pH: 0
 DENSITY: 0 lb/gal GEL 0/10: 0.00 lb/100 ft² SAND: 0 SOLIDS: 0 OIL: 0 TEMP: 0 °F
 LIQUID BASE: Water LIQUID RATE: 0 gal/min GAS TYPE: GAS RATE: 0 cu ft/min

COMMENTS:

We will pull out of the hole, laydown tools and do some rig repairs(drawworks) before picking up our tools.



Daily Activity Report

Drilling Services
v4.2.2674

Day 10 - 2013/07/28

CUSTOMER SIGNATURE: _____

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 11 - 2013/07/29**FILE #:** 4030046**JOB TYPE:** Horizontal**RIG & NO:** H & P 416**WELL NAME:** Thistle Unit #46H**COMPANY:** Devon Energy Corp**SURFACE LOCATION:** Lea County**SERVICE CO.:** Weatherford Directional Services**SURVEY TYPE:** Positive Pulse MWD**FIELD / LOCATION:** Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
DIR Supervisor: Kevin Moss, Rene Rosas
MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft**KB ELEV:** 3685 ft**START DEPTH:** 11908.0 ft**END DEPTH:** 13061.0 ft**PROGRESS:** 1153.0 ft**AVG. ROP.:** 57.6 ft/hr**DAILY COST:** USD\$0.00**PREVIOUS COST:** USD\$0.00**TOTAL COST:** USD\$0.00**WORK STATUS:** Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:50	Orienting With Motor - 48' 10L	1.83	11956	5	12:15-14:30	Orienting With Motor - 54' 170R	2.25	12515	5
01:50-02:20	Rotating With Motor - WOB/26K RPM/60	0.50	11988	5	14:30-14:45	Rotating With Motor - WOB/27 RPM/50	0.25	12556	5
02:20-02:35	Circ & Accumulate Surveys - 11918' 88.53/5.70	0.25	11988	5	14:45-15:00	Circ & Accumulate Surveys - 12,486' 93.08/1.53	0.25	12556	5
02:35-03:45	Orienting With Motor - 50' 5L	1.17	12038	5	15:00-15:45	Rotating With Motor - WOB/27 RPM/60	0.75	12651	5
03:45-04:10	Rotating With Motor - WOB/26K RPM/60	0.42	12083	5	15:45-16:00	Circ & Accumulate Surveys - 12,581' 91.54/2.80	0.25	12651	5
04:10-04:25	Circ & Accumulate Surveys - 12013' 89.16/2.42	0.25	12083	5	16:00-16:45	Orienting With Motor - 32' 180	0.75	12745	5
04:25-05:30	Orienting With Motor - 95' HS	1.08	12177	5	16:45-17:00	Rotating With Motor	0.25	12745	5
05:30-05:45	Circ & Accumulate Surveys - 12107' 90.35/358.14	0.25	12177	5	17:00-17:15	Rig Service	0.25	12745	5
05:45-06:15	Rotating With Motor	0.50	12209	5	17:15-17:30	Circ & Accumulate Surveys - 12,675' 89.86/3.03	0.25	12745	5
06:15-06:30	Circ & Accumulate Surveys - 12139' 91.40/355.62	0.25	12209	5	17:30-18:15	Rotating With Motor - WOB/25 RPM/50	0.75	12840	5
06:30-06:45	Rotating With Motor - WOB/26K RPM/60	0.25	12226	5	18:15-18:30	Circ & Accumulate Surveys - 12770' 90.42/2.73	0.25	12840	5
06:45-07:30	Orienting With Motor - 31' 90R	0.75	12255	5	18:30-19:15	Orienting With Motor - 17' 180 GTF	0.75	12857	5
07:30-07:45	Rotating With Motor - WOB/26K RPM/50	0.25	12272	5	19:15-19:45	Rotating With Motor - WOB/27 RPM/50	0.50	12934	5
07:45-08:00	Circ & Accumulate Surveys - 12202' 92.31/353.43	0.25	12272	5	19:45-20:00	Circ & Accumulate Surveys - 12864' 91.19/3.86	0.25	12934	5
08:00-09:30	Orienting With Motor - 32' 110R	1.50	12335	5	20:00-20:30	Work on Pumps	0.50	12934	5
09:30-10:15	Rotating With Motor - WOB/26 RPM/50	0.75	12367	5	20:30-23:00	Orienting With Motor - 55' 130L	2.50	12989	5
10:15-10:30	Circ & Accumulate Surveys - 12,297' 95.26/356.12	0.25	12367	5	23:00-23:15	Rotating With Motor - WOB/27 RPM/50	0.25	13029	5
10:30-11:30	Orienting With Motor - 52' 160R	1.00	12419	5	23:15-23:30	Circ & Accumulate Surveys - 12959' 89.79/5.17	0.25	12989	5
11:30-12:00	Rotating With Motor	0.50	12461	5	23:30-24:00	Rotating With Motor - WOB/27 RPM/50	0.50	13061	5
12:00-12:15	Circ & Accumulate Surveys - 12391' 95.61/358.74	0.25	12461	5			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 20.00 **ORIENTING HRS:** 13.58
TIME DRILL: 0.00 **ROTATING HRS:** 6.42
MOTOR REAM: 0.00 **TRIP:** 0.00
CIRC: 3.25 **ROTARY DRILL:** 0.00 **OTHER:** 0.75
MOTOR HRS: 23.25 **DRILL HRS:** 20.00 **TOTAL HRS:** 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 27000 ft-lb **STRING WEIGHT** 0 lbs
WOB SLIDING (HI): 40000 lbf **WOB ROTATE (HI):** 29000 lbf
WOB SLIDING (LO): 15000 lbf **WOB ROTATE (LO):** 15000 lbf
RPM (ROTARY): 60 rpm **DRAG UP:** 0 lbf
RPM (MOTOR): 182.7 rpm **DRAG DN:** 0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 5 **HOLE SIZE:** 8.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Baker **STABILIZER:** 8 1/4 **SERIAL#:** 2015895 **MODEL:** 8.25 NB STBLZR **LOBE CFG.:** 7/8
SETTING: 1.5° **KICKPAD:** No **SIZE:** 6 3/4" (171mm) **MTR HRS THIS DAY:** 23.25 **MTR HRS TO DATE:** 33.25
MANFCT: Security **BIT TYPE:** PDC Bit **TYPE:** MM66DC **NOZZLES:** 0.663 in² TFA
IADC BIT GRADE: 1 / 1 / NO / A / X / I / NO / ?



Weatherford

Daily Activity Report

Drilling Services
v4.2.2674

Day 11 - 2013/07/29

PUMP PARAMETERS

PRESSURE ON BTM: 3575		PRESSURE OFF BTM: 3100		TOTAL FLOW RATE: 677.57 gal/min	
PUMP 1:	TYPE: PZ-11	EFF.: 100.0%	SPM: 75.00	LINER: 6.50 in	STROKE VOL.: 4.7486 gal/stk
PUMP 2:	TYPE: PZ-11	EFF.: 95.0%	SPM: 75.00	LINER: 6.50 in	STROKE VOL.: 4.5112 gal/stk
PUMP 3:	TYPE:	EFF.: 100.0%	SPM: 0.00	LINER: 0.00 in	STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Water	VISC: 27 sec/qt	WTR LOSS: 0 cc/30min	PV: 0 cP	YP: 0 lb/100 ft ²	pH: 8
DENSITY: 8.8 lb/gal	GEL 0/10: 0.00 lb/100 ft ²	SAND: 0	SOLIDS: 0	OIL: 0	TEMP: 0 °F
LIQUID BASE: Water		LIQUID RATE: 0 gal/min	GAS TYPE:		GAS RATE: 0 cu ft/min

COMMENTS:

MIDNIGHT DEPTH: 11,908' - 13216'

We will POOH to check scribe of the motor, possibly over torqued in the hole. Tool Faces held do not reflect toolfaces calculated.

CUSTOMER SIGNATURE: _____

**Weatherford®**

Daily Activity Report

Drilling Services
v4.2.2674

Day 12 - 2013/07/30

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce

DIR Supervisor: Kevin Moss, Rene Rosas, Sean Clawson

MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft

START DEPTH: 13061.0 ft

PROGRESS: 157.0 ft

DAILY COST: USD\$0.00

KB ELEV: 3685 ft

END DEPTH: 13218.0 ft

AVG. ROP.: 75.5 ft/hr

PREVIOUS COST: USD\$0.00

TOTAL COST: USD\$0.00

WORK STATUS: Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Orienting With Motor - 23' 50L	0.25	13084	5	04:30-05:00	Work Stuck Pipe	0.50	13218	5
00:15-00:45	Rotating With Motor - We will POOH to chec	0.50	13124	5	05:00-08:00	Circ & Condition Hole - Clean Cycle	3.00	13218	5
00:45-01:00	Circ & Accumulate Surveys - 13054' 88.46/4.95	0.25	13124	5	08:00-16:00	POOH To Check Tools	8.00	13218	5
01:00-02:00	Orienting With Motor - 39' 50L	1.00	13163	5	16:00-17:30	Wait On Orders	1.50	13218	5
02:00-02:20	Rotating With Motor - We will POOH to chec	0.33	13218	5	17:30-19:00	Handle Directional Tools	1.50	13218	6
02:20-02:35	Circ & Accumulate Surveys - 13148' 84.11/2.69	0.25	13218	5	19:00-19:30	Shallow Test Tools - GOOD/m/u bit.	0.50	13218	6
02:35-04:00	Circ & Condition Mud	1.42	13218	5	19:30-22:00	RIH - New Motor	2.50	13218	6
04:00-04:30	POOH To Check Tools	0.50	13218	5	22:00-24:00	Slip And Cut	2.00	13218	6

TIME SUMMARY (hrs):

MOTOR DRILL: 2.08

ORIENTING HRS: 1.25

ROTARY DRILL: 0.00

TIME DRILL: 0.00

ROTATING HRS: 0.83

MOTOR HRS: 7.00

MOTOR REAM: 0.00

TRIP: 11.00

OTHER: 6.00

CIRC: 4.92

ROTARY DRILL: 0.00

TOTAL HRS: 24.00

MOTOR HRS: 7.00

DRILL HRS: 2.08

DRILLING PARAMETERS:

ROTARY TORQUE: 22500 ft-lb

STRING WEIGHT 269000 lbs

WOB SLIDING (HI): 50000 lbf

WOB ROTATE (HI): 28000 lbf

WOB SLIDING (LO): 30000 lbf

WOB ROTATE (LO): 23000 lbf

RPM (ROTARY): 50 rpm

DRAG UP: 322000 lbf

RPM (MOTOR): 194.93 rpm

DRAG DN: 225000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 5

HOLE SIZE: 8.75 in

SECTION TYPE: Lateral 1

SURVEY TYPE: Positive Pulse MWD

MANFCT.: Baker

STABILIZER: 8 1/4

SERIAL#: 2015895

MODEL: 8.25 NB STBLZR

LOBE CFG.:7/8

SETTING: 1.5°

KICKPAD:No

SIZE: 6 3/4" (171mm)

MTR HRS THIS DAY: 7

MTR HRS TO DATE:40.25

MANFCT: Security

BIT TYPE:PDC Bit

TYPE: MM66DC

NOZZLES:0.663 in² TFA

IADC BIT GRADE: 1 / 1 / NO / A / X / 1 / NO / ?

BHA: 6

HOLE SIZE: 8.75 in

SECTION TYPE: Lateral 1

SURVEY TYPE: Positive Pulse MWD

MANFCT.: Baker

STABILIZER: 8.25

SERIAL#: 10167329

MODEL:

LOBE CFG.:6/7

SETTING: 1.5°

KICKPAD:No

SIZE: 6 3/4" (171mm)

MTR HRS THIS DAY: 0

MTR HRS TO DATE:0

MANFCT: Security

BIT TYPE:PDC Bit

TYPE: MM66DC

NOZZLES:0.663 in² TFA

IADC BIT GRADE: 1 / 3 / CT / G / X / 1 / NO / TD

PUMP PARAMETERS

PRESSURE ON BTM: 3575

PRESSURE OFF BTM:3100

TOTAL FLOW RATE: 677.57 gal/min

PUMP 1: TYPE: PZ-11

EFF.: 100.0%

SPM: 75.00

LINER: 6.50 in

STROKE VOL.: 4.7486 gal/stk

PUMP 2: TYPE: PZ-11

EFF.: 95.0%

SPM: 75.00

LINER: 6.50 in

STROKE VOL.: 4.5112 gal/stk

PUMP 3: TYPE:

EFF.: 100.0%

SPM: 0.00

LINER: 0.00 in

STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Water

VISC: 27 sec/qt

WTR LOSS: 0 cc/30min

PV: 0 cP

YP: 0 lb/100 ft²

pH: 8

DENSITY: 8.8 lb/gal

GEL 0/10: 0.00 lb/100 ft²

SAND: 0

SOLIDS: 0

OIL: 0

TEMP: 0 °F

LIQUID BASE: Water

LIQUID RATE: 0 gal/min

GAS TYPE:

GAS RATE: 0 cu ft/min

COMMENTS:

We will POOH to check scribe of the motor, possibly over torqued in the hole. Tool Faces held do not reflect toolfaces calculated.

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 13 - 2013/07/31**FILE #:** 4030046**JOB TYPE:** Horizontal**RIG & NO:** H & P 416**WELL NAME:** Thistle Unit #46H**COMPANY:** Devon Energy Corp**SURFACE LOCATION:** Lea County**SERVICE CO.:** Weatherford Directional Services**SURVEY TYPE:** Positive Pulse MWD**FIELD / LOCATION:** Delaware Basin / New Mexico / USA**Company Man:** Jeff Foster, Jack Pierce**DIR Supervisor:** Kevin Moss, Rene Rosas, Sean Clawson**MWD Supervisor:** Dave Latch, Ryan Broadfoot**GROUND ELEV:** 3660 ft**KB ELEV:** 3685 ft**START DEPTH:** 13218.0 ft**END DEPTH:** 14166.0 ft**PROGRESS:** 948.0 ft**AVG. ROP.:** 70.2 ft/hr**DAILY COST:** USD\$0.00**PREVIOUS COST:** USD\$0.00**TOTAL COST:** USD\$0.00**WORK STATUS:** Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-03:45	RIH - New Motor	3.75	13218	6	15:00-15:15	Circ & Accumulate Surveys - 13622' 90.21/359.13	0.25	13692	6
03:45-05:30	Circulating - Trip Gas	1.75	13218	6	15:15-15:30	Rig Service	0.25	13692	6
05:30-08:15	Orienting With Motor - 95' -10L	2.75	13313	6	15:30-16:15	Rotating With Motor	0.75	13787	6
08:15-08:30	Circ & Accumulate Surveys - 13,243' 86.57/1.82	0.25	13313	6	16:15-16:30	Circ & Accumulate Surveys - 13717' 91.19/359.53	0.25	13787	6
08:30-10:30	Orienting With Motor - 63' -20L	2.00	13376	6	16:30-17:15	Rotating With Motor	0.75	13882	6
10:30-10:45	Rotating With Motor - WOB/26K RPM50	0.25	13408	6	17:15-17:30	Circ & Accumulate Surveys - 13812' 91.40/359.58	0.25	13882	6
10:45-11:00	Circ & Accumulate Surveys - 13338' 91.96/359.62	0.25	13408	6	17:30-17:45	Circ & Accumulate Surveys - 13906' 91.68/0.29	0.25	13976	6
11:00-11:30	Rotating With Motor	0.50	13471	6	17:45-19:00	Rotating With Motor	1.25	13976	6
11:30-11:45	Circ & Accumulate Surveys - 13401' 94.27/359.63	0.25	13471	6	19:00-20:00	Orienting With Motor - 20' @ 145L	1.00	13996	6
11:45-13:00	Orienting With Motor - 49' -160L	1.25	13520	6	20:00-21:00	Rotating With Motor - WOB 22 RPM 50	1.00	14071	6
13:00-13:15	Rotating With Motor	0.25	13566	6	21:00-21:15	Circ & Accumulate Surveys - 14001' 90.91/358.28	0.25	14071	6
13:15-13:30	Circ & Accumulate Surveys - 13496' 91.26/359.20	0.25	13566	6	21:15-22:15	Rotating With Motor - WOB 22 RPM 50	1.00	14166	6
13:30-14:00	Rotating With Motor	0.50	13597	6	22:15-22:30	Circ & Accumulate Surveys - 14096' 91.75/359.96	0.25	14166	6
14:00-14:45	Circ & Accumulate Surveys - 13,527' 90.07/358.95	0.75	13597	6	22:30-24:00	POOH - See Comments - 10401' work on pumps	1.50	14166	6
14:45-15:00	Rotating With Motor - WOB/26 RPM/50	0.25	13692	6			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 13.50
TIME DRILL: 0.00
MOTOR REAM: 0.00
CIRC: 5.00
MOTOR HRS: 18.50

ORIENTING HRS: 7.00
ROTATING HRS: 6.50
ROTARY DRILL: 0.00
DRILL HRS: 13.50

ROTARY DRILL: 0.00
MOTOR HRS: 18.50
TRIP: 5.25
OTHER: 0.25
TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 22000 ft-lb
WOB SLIDING (HI): 50000 lbf
WOB SLIDING (LO): 15000 lbf
RPM (ROTARY): 50 rpm
RPM (MOTOR): 195 rpm

STRING WEIGHT 315000 lbs
WOB ROTATE (HI): 22000 lbf
WOB ROTATE (LO): 15000 lbf
DRAG UP: 370000 lbf
DRAG DN: 200000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 6
MANFCT.: Baker
SETTING: 1.5°
MANFCT: Security
IADC BIT GRADE: 1 / 3 / CT / G / X / 1 / NO / TD

HOLE SIZE: 8.75 in
STABILIZER: 8.25
KICKPAD: No
BIT TYPE: PDC Bit

SECTION TYPE: Lateral 1
SERIAL#: 10167329
SIZE: 6 3/4" (171mm)
TYPE: MM66DC

SURVEY TYPE: Positive Pulse MWD
MODEL:
MTR HRS THIS DAY: 18.5
NOZZLES: 0.663 in² TFA

LOBE CFG.: 6/7
MTR HRS TO DATE: 18.5

PUMP PARAMETERS

PRESSURE ON BTM: 2107
PUMP 1: TYPE: PZ-11
PUMP 2: TYPE: PZ-11
PUMP 3: TYPE:

PRESSURE OFF BTM: 1713
EFF.: 100.0%
EFF.: 95.0%
EFF.: 100.0%

SPM: 113.00
SPM: 0.00
SPM: 0.00

LINER: 6.50 in
LINER: 6.50 in
LINER: 0.00 in

TOTAL FLOW RATE: 536.59 gal/min
STROKE VOL.: 4.7486 gal/stk
STROKE VOL.: 4.5112 gal/stk
STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Water
DENSITY: 0 lb/gal
LIQUID BASE: Water

VISC: 0 sec/qt
GEL 0/10: 0.00 lb/100 ft²

WTR LOSS: 0 cc/30min
SAND: 0
LIQUID RATE: 0 gal/min

PV: 0 cP
SOLIDS: 0
GAS TYPE:

YP: 0 lb/100 ft²
OIL: 0
GAS RATE: 0 cu ft/min

pH: 0
TEMP: 0 °F

COMMENTS:



Daily Activity Report

Drilling Services
v4.2.2674

Day 13 - 2013/07/31

CUSTOMER SIGNATURE: _____



Weatherford

Daily Activity Report

Drilling Services

v4.2.2674

Day 14 - 2013/08/01

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
DIR Supervisor: Kevin Moss, Sean Clawson
MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft START DEPTH: 14166.0 ft PROGRESS: 94.0 ft DAILY COST: USD\$0.00
KB ELEV: 3685 ft END DEPTH: 14260.0 ft AVG. ROP.: 41.8 ft/hr PREVIOUS COST: USD\$0.00
TOTAL COST: USD\$0.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPH	BHA	TIME	DAILY ACTIVITY	HRS	DPH	BHA
00:00-01:15	POOH - See Comments - 10401' work on pumps	1.25	14166	6	21:15-21:45	Circulating - See Comments - Trip Gas out	0.50	14166	6
01:15-18:15	Circulating - See Comments - Work on #2 pump	17.00	14166	6	21:45-23:30	Orienting With Motor - 45' @ 160L	1.75	14211	6
18:15-20:45	RIH	2.50	14166	6	23:30-24:00	Rotating With Motor - WOB 22 RPM 50	0.50	14260	6
20:45-21:15	Wash To Bottom - 2 Joints	0.50	14166	6			0.00		

TIME SUMMARY (hrs):					DRILLING PARAMETERS:				
MOTOR DRILL:	2.25	ORIENTING HRS:	1.75	ROTARY DRILL:	0.00	ROTARY TORQUE:	22500 ft-lb	STRING WEIGHT	315000 lbs
TIME DRILL:	0.00	ROTATING HRS:	0.50	MOTOR HRS:	20.25	WOB SLIDING (HI):	60000 lbf	WOB ROTATE (HI):	24000 lbf
MOTOR REAM:	0.00			TRIP:	3.75	WOB SLIDING (LO):	15000 lbf	WOB ROTATE (LO):	15000 lbf
CIRC:	18.00	ROTARY DRILL:	0.00	OTHER:	0.00	RPM (ROTARY):	50 rpm	DRAG UP:	370000 lbf
MOTOR HRS:	20.25	DRILL HRS:	2.25	TOTAL HRS:	24.00	RPM (MOTOR):	193 rpm	DRAG DN:	200000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 6 HOLE SIZE: 8.75 in SECTION TYPE: Lateral 1 SURVEY TYPE: Positive Pulse MWD
MANFCT.: Baker STABILIZER: 8.25 SERIAL#: 10167329 MODEL: LOBE CFG.:6/7
SETTING: 1.5 ° KICKPAD:No SIZE: 6 3/4" (171mm) MTR HRS THIS DAY: 20.25 MTR HRS TO DATE:38.75
MANFCT: Security BIT TYPE:PDC Bit TYPE: MM66DC NOZZLES:0.663 in² TFA
IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / TD

PUMP PARAMETERS

PRESSURE ON BTM: 2983 PRESSURE OFF BTM: 2645 TOTAL FLOW RATE: 623.36 gal/min
PUMP 1: TYPE: PZ-11 EFF.: 100.0% SPM: 69.00 LINER: 6.50 in STROKE VOL.: 4.7486 gal/stk
PUMP 2: TYPE: PZ-11 EFF.: 95.0% SPM: 69.00 LINER: 6.50 in STROKE VOL.: 4.5112 gal/stk
PUMP 3: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 in STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE: Water VISC: 28 sec/qt WTR LOSS: 0 cc/30min PV: 0 cP YP: 0 lb/100 ft² pH: 9
DENSITY: 8.9 lb/gal GEL 0/10: 0.00 lb/100 ft² SAND: 0 SOLIDS: 0 OIL: 0 TEMP: 0 °F
LIQUID BASE: Water LIQUID RATE: 0 gal/min GAS TYPE: GAS RATE: 0 cu ft/min

COMMENTS:

Short Tripped to the top of the curve to work on #2 Pump.

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 15 - 2013/08/02**FILE #:** 4030046**JOB TYPE:** Horizontal**RIG & NO:** H & P 416**WELL NAME:** Thistle Unit #46H**COMPANY:** Devon Energy Corp**SURFACE LOCATION:** Lea County**SERVICE CO.:** Weatherford Directional Services**SURVEY TYPE:** Positive Pulse MWD**FIELD / LOCATION:** Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
DIR Supervisor: Kevin Moss, Sean Clawson
MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft**KB ELEV:** 3685 ft**START DEPTH:** 14260.0 ft**END DEPTH:** 15381.0 ft**PROGRESS:** 1121.0 ft**AVG. ROP.:** 55.4 ft/hr**DAILY COST:** USD\$0.00**PREVIOUS COST:** USD\$0.00**TOTAL COST:** USD\$0.00**WORK STATUS:** Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Circ & Accumulate Surveys - 14190' 89.37/359.56	0.25	14260	6	08:45-11:30	Orienting With Motor - 31' -30L	2.75	14859	6
00:15-01:15	Rotating With Motor - WOB 22 RPM 50	1.00	14355	6	11:30-12:15	Rotating With Motor	0.75	14922	6
01:15-01:30	Circ & Accumulate Surveys - 14285' 89.72/0.13	0.25	14355	6	12:15-12:30	Circ & Accumulate Surveys - 14852' 89.09/0.03	0.25	14922	6
01:30-02:15	Rotating With Motor - WOB 22 RPM 50	0.75	14449	6	12:30-15:45	Orienting With Motor - 31' -30L	3.25	14946	6
02:15-02:30	Circ & Accumulate Surveys - 14379' 89.86/0.62	0.25	14449	6	15:45-16:30	Rotating With Motor	0.75	15016	6
02:30-03:30	Rotating With Motor - WOB 22 RPM 50	1.00	14544	6	16:30-16:45	Rig Service	0.25	15016	6
03:30-03:45	Circ & Accumulate Surveys - 14474' 90.49/0.93	0.25	14544	6	16:45-17:15	Circ & Accumulate Surveys - 14946' 90.42/358.97	0.50	15016	6
03:45-05:00	Orienting With Motor - 32' @ 140L	1.25	14576	6	17:15-19:00	Orienting With Motor - -20L	1.75	15048	6
05:00-05:30	Rotating With Motor - WOB 22 RPM 50	0.50	14639	6	19:00-20:00	Rotating With Motor - WOB 22 RPM 50	1.00	15111	6
05:30-05:45	Circ & Accumulate Surveys - 14569' 87.83/0.58	0.25	14639	6	20:00-20:15	Circ & Accumulate Surveys - 15041' 92.66/358.84	0.25	15111	6
05:45-06:30	Rotating With Motor	0.75	14733	6	20:15-21:15	Rotating With Motor	1.00	15206	6
06:30-06:45	Rig Service	0.25	14733	6	21:15-21:30	Circ & Accumulate Surveys - 15136' 93.42/358.81	0.25	15206	6
06:45-07:00	Circ & Accumulate Surveys - 14663' 88.04/67	0.25	14733	6	21:30-22:30	Orienting With Motor - 20' @ 160L	1.00	15226	6
07:00-08:00	Orienting With Motor - 7' -30L	1.00	14733	6	22:30-23:15	Rotating With Motor	0.75	15300	6
08:00-08:30	Rotating With Motor - Pump Lube & Beads	0.50	14828	6	23:15-23:30	Circ & Accumulate Surveys - 15230' 91.75/358.59	0.25	15300	6
08:30-08:45	Circ & Accumulate Surveys - 14758' 88.04/54	0.25	14828	6	23:30-24:00	Rotating With Motor	0.50	15381	6

TIME SUMMARY (hrs):

MOTOR DRILL: 20.25 **ORIENTING HRS:** 11.00
TIME DRILL: 0.00 **ROTATING HRS:** 9.25
MOTOR REAM: 0.00 **TRIP:** 0.00
CIRC: 3.25 **ROTARY DRILL:** 0.00
MOTOR HRS: 23.50 **DRILL HRS:** 20.25 **TOTAL HRS:** 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 22500 ft-lb **STRING WEIGHT** 264000 lbs
WOB SLIDING (HI): 60000 lbf **WOB ROTATE (HI):** 22000 lbf
WOB SLIDING (LO): 20000 lbf **WOB ROTATE (LO):** 15000 lbf
RPM (ROTARY): 50 rpm **DRAG UP:** 284000 lbf
RPM (MOTOR): 193 rpm **DRAG DN:** 194000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 6 **HOLE SIZE:** 8.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Baker **STABILIZER:** 8.25 **SERIAL#:** 10167329 **MODEL:** **LOBE CFG.:** 6/7
SETTING: 1.5° **KICKPAD:** No **SIZE:** 6 3/4" (171mm) **MTR HRS THIS DAY:** 23.5 **MTR HRS TO DATE:** 62.25
MANFCT: Security **BIT TYPE:** PDC Bit **TYPE:** MM66DC **NOZZLES:** 0.663 in² TFA
IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / TD

PUMP PARAMETERS

PRESSURE ON BTM: 3125 **PRESSURE OFF BTM:** 2675 **TOTAL FLOW RATE:** 632.39 gal/min
PUMP 1: TYPE: PZ-11 **EFF.:** 100.0% **SPM:** 70.00 **LINER:** 6.50 in **STROKE VOL.:** 4.7486 gal/stk
PUMP 2: TYPE: PZ-11 **EFF.:** 95.0% **SPM:** 70.00 **LINER:** 6.50 in **STROKE VOL.:** 4.5112 gal/stk
PUMP 3: TYPE: **EFF.:** 100.0% **SPM:** 0.00 **LINER:** 0.00 in **STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: Water **VISC:** 29 sec/qt **WTR LOSS:** 0 cc/30min **PV:** 0 cP **YP:** 0 lb/100 ft² **pH:** 10
DENSITY: 9 lb/gal **GEL 0/10:** 0.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 0 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min



Daily Activity Report

Drilling Services
v4.2.2674

Day 15 - 2013/08/02

COMMENTS:

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services

v4.2.2674

Day 16 - 2013/08/03**FILE #:** 4030046**JOB TYPE:** Horizontal**RIG & NO:** H & P 416**WELL NAME:** Thistle Unit #46H**COMPANY:** Devon Energy Corp**SURFACE LOCATION:** Lea County**SERVICE CO.:** Weatherford Directional Services**SURVEY TYPE:** Positive Pulse MWD**FIELD / LOCATION:** Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce
DIR Supervisor: Kevin Moss, Sean Clawson
MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft**KB ELEV:** 3685 ft**START DEPTH:** 15381.0 ft**END DEPTH:** 15868.0 ft**PROGRESS:** 487.0 ft**AVG. ROP.:** 67.2 ft/hr**DAILY COST:** USD\$0.00**PREVIOUS COST:** USD\$0.00**TOTAL COST:** USD\$0.00**WORK STATUS:** Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Rotating With Motor	0.25	15394	6	06:00-06:15	Rotating With Motor	0.25	15679	6
00:15-00:30	Circ & Accumulate Surveys - 15324' 92.10/358.51	0.25	15394	6	06:15-06:30	Circ & Accumulate Surveys - 15,609' 91.19/359.12	0.25	15679	6
00:30-01:45	Orienting With Motor - 15' @ 170R	1.25	15409	6	06:30-07:15	Rotating With Motor	0.75	15774	6
01:45-02:30	Rotating With Motor	0.75	15489	6	07:15-07:30	Circ & Accumulate Surveys - 15704' 90.07/359.71	0.25	15774	6
02:30-02:45	Circ & Accumulate Surveys - 15419' 91.05/358.74	0.25	15489	6	07:30-08:30	Rotating With Motor	1.00	15868	6
02:45-03:45	Rotating With Motor	1.00	15584	6	08:30-08:45	Circ & Accumulate Surveys - 15798' 90.98/359.76	0.25	15868	6
03:45-04:00	Circ & Accumulate Surveys - 15514' 91.61/359.14	0.25	15584	6	08:45-15:00	Circulating - See Comments - Clean Hole	6.25	15868	6
04:00-04:30	Rotating With Motor	0.50	15616	6	15:00-24:00	POOH, Lay Down DP	9.00	15868	6
04:30-06:00	Orienting With Motor - 30' @ 170R	1.50	15646	6			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 7.25 **ORIENTING HRS:** 2.75
TIME DRILL: 0.00 **ROTATING HRS:** 4.50
MOTOR REAM: 0.00
CIRC: 7.75 **ROTARY DRILL:** 0.00
MOTOR HRS: 15.00 **DRILL HRS:** 7.25

ROTARY DRILL: 0.00
MOTOR HRS: 15.00
TRIP: 0.00
OTHER: 9.00
TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE: 25000 ft-lb **STRING WEIGHT** 278000 lbs
WOB SLIDING (HI): 60000 lbf **WOB ROTATE (HI):** 25000 lbf
WOB SLIDING (LO): 20000 lbf **WOB ROTATE (LO):** 15000 lbf
RPM (ROTARY): 50 rpm **DRAG UP:** 382000 lbf
RPM (MOTOR): 193 rpm **DRAG DN:** 165000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 6 **HOLE SIZE:** 8.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Baker **STABILIZER:** 8.25 **SERIAL#:** 10167329 **MODEL:** **LOBE CFG.:** 6/7
SETTING: 1.5° **KICKPAD:** No **SIZE:** 6 3/4" (171mm) **MTR HRS THIS DAY:** 15 **MTR HRS TO DATE:** 77.25
MANFCT: Security **BIT TYPE:** PDC Bit **TYPE:** MM66DC **NOZZLES:** 0.663 in² TFA
IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / TD

PUMP PARAMETERS

PRESSURE ON BTM: 3500 **PRESSURE OFF BTM:** 3100 **TOTAL FLOW RATE:** 695.63 gal/min
PUMP 1: TYPE: PZ-11 **EFF.:** 100.0% **SPM:** 77.00 **LINER:** 6.50 in **STROKE VOL.:** 4.7486 gal/stk
PUMP 2: TYPE: PZ-11 **EFF.:** 95.0% **SPM:** 77.00 **LINER:** 6.50 in **STROKE VOL.:** 4.5112 gal/stk
PUMP 3: TYPE: **EFF.:** 100.0% **SPM:** 0.00 **LINER:** 0.00 in **STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: Water **VISC:** 0 sec/qt **WTR LOSS:** 0 cc/30min **PV:** 0 cP **YP:** 0 lb/100 ft² **pH:** 0
DENSITY: 0 lb/gal **GEL 0/10:** 0.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 0 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

TD @ 15,868 MD

Circulating Hole.

CUSTOMER SIGNATURE:

**Weatherford**

Daily Activity Report

Drilling Services
v4.2.2674

Day 17 - 2013/08/04

FILE #: 4030046

JOB TYPE: Horizontal

RIG & NO: H & P 416

WELL NAME: Thistle Unit #46H

COMPANY: Devon Energy Corp

SURFACE LOCATION: Lea County

SERVICE CO.: Weatherford Directional Services

SURVEY TYPE: Positive Pulse MWD

FIELD / LOCATION: Delaware Basin / New Mexico / USA

Company Man: Jeff Foster, Jack Pierce

DIR Supervisor: Kevin Moss, Sean Clawson

MWD Supervisor: Dave Latch, Ryan Broadfoot

GROUND ELEV: 3660 ft

KB ELEV: 3685 ft

START DEPTH: 15868.0 ft

END DEPTH: 15868.0 ft

PROGRESS: 0.0 ft

AVG. ROP.: 0.0 ft/hr

DAILY COST: USD\$0.00

PREVIOUS COST: USD\$0.00

TOTAL COST: USD\$0.00

WORK STATUS: Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPH	BHA	TIME	DAILY ACTIVITY	HRS	DPH	BHA
00:00-07:45	POOH, Lay Down DP	7.75	15868	6	08:30-24:00	Released	15.50	15868	6
07:45-08:30	Lay Down Directional Tools	0.75	15868	6			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL: 0.00

TIME DRILL: 0.00

MOTOR REAM: 0.00

CIRC: 0.00

MOTOR HRS: 0.00

ORIENTING HRS: 0.00

ROTATING HRS: 0.00

ROTARY DRILL: 0.00

ROTARY DRILL: 0.00

DRILL HRS: 0.00

ROTARY DRILL: 0.00

MOTOR HRS: 0.00

TRIP: 0.00

OTHER: 24.00

TOTAL HRS: 24.00

DRILLING PARAMETERS:

ROTARY TORQUE:

WOB SLIDING (HI): 0 lbf

WOB SLIDING (LO): 0 lbf

RPM (ROTARY):

RPM (MOTOR):

STRING WEIGHT 0 lbs

WOB ROTATE (HI): 0 lbf

WOB ROTATE (LO): 0 lbf

DRAG UP: 0 lbf

DRAG DN: 0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 6

MANFCT.: Baker

SETTING: 1.5 °

MANFCT: Security

IADC BIT GRADE: 1 / 3 / CT / G / X / I / NO / TD

HOLE SIZE: 8.75 in

STABILIZER: 8.25

KICKPAD: No

BIT TYPE: PDC Bit

SECTION TYPE: Lateral 1

SERIAL#: 10167329

SIZE: 6 3/4" (171mm)

TYPE: MM66DC

SURVEY TYPE: Positive Pulse MWD

MODEL:

MTR HRS THIS DAY: 0

NOZZLES: 0.663 in² TFA

LOBE CFG: 6/7

MTR HRS TO DATE: 77.25

PUMP PARAMETERS

PRESSURE ON BTM: 0

PUMP 1: TYPE: PZ-11

PUMP 2: TYPE: PZ-11

PUMP 3: TYPE:

PRESSURE OFF BTM: 0

EFF.: 100.0%

EFF.: 95.0%

EFF.: 100.0%

SPM: 0.00

SPM: 0.00

SPM: 0.00

TOTAL FLOW RATE: 0.00 gal/min

LINER: 0.00 in

LINER: 0.00 in

LINER: 0.00 in

STROKE VOL.: 0.0000 gal/stk

STROKE VOL.: 0.0000 gal/stk

STROKE VOL.: 0.0000 gal/stk

MUD RECORD

MUD TYPE:

DENSITY: 0 lb/gal

LIQUID BASE:

VISC: 0 sec/qt

GEL 0/10: 0.00 lb/100 ft²

WTR LOSS: 0 cc/30min

SAND: 0

LIQUID RATE: 0 gal/min

PV: 0 cP

SOLIDS: 0

GAS TYPE:

YP: 0 lb/100 ft²

OIL: 0

pH: 0

TEMP: 0 °F

GAS RATE: 0 cu ft/min

COMMENTS:

TOH to lay down Directional Tools & RIH with liner.

Released.

CUSTOMER SIGNATURE: