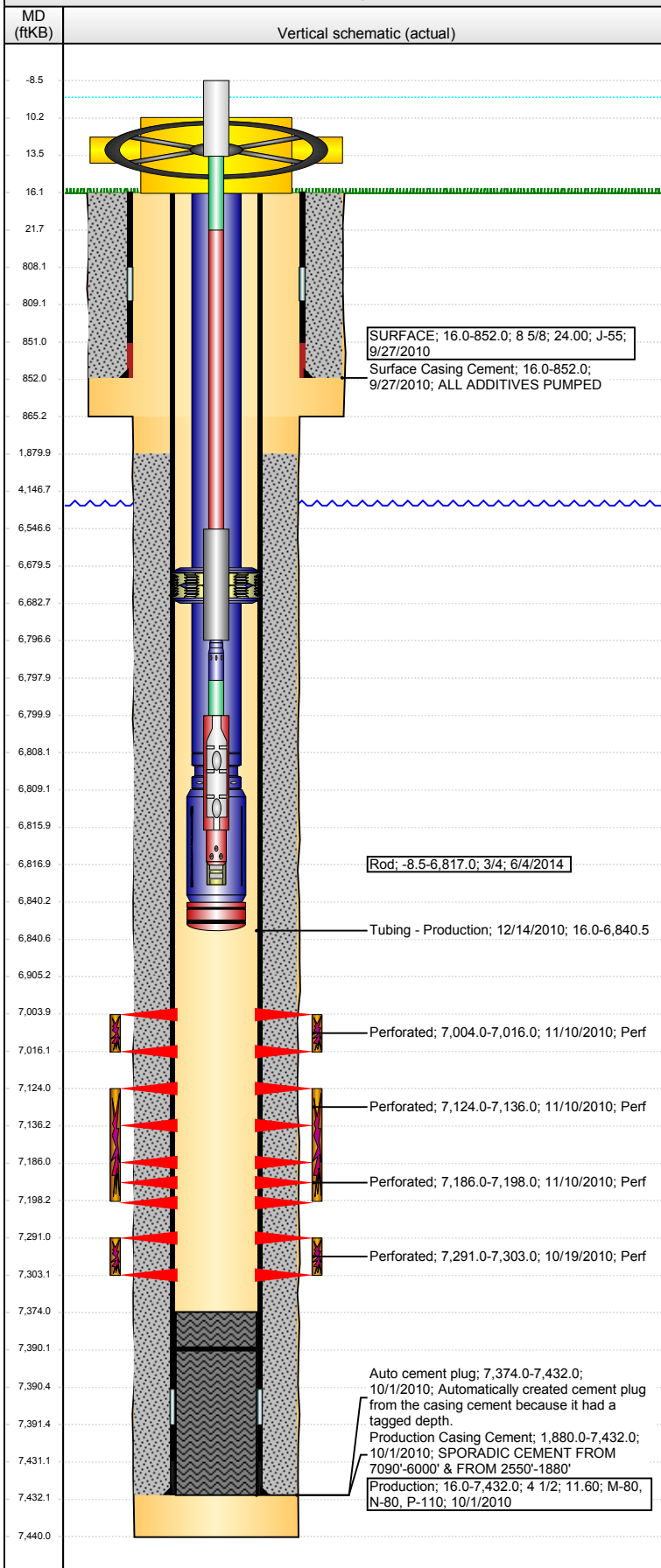


**Well Name: ANTHOLZ PC AB06-16**

VERTICAL - ORIGINAL HOLE, 8/21/2015 9:26:40 AM



## Well Header

API 05-123-32110	Business Unit DJ BASIN	District 15	Well Config VERTICAL
Original KB Elevation (ft) 5,008.00	KB - GL / MSL (ftKB) 16.00	Spud Date 9/26/2010	P & A Date
Comment			

## Directions To Well

HWY 14 & CR 51, NORTH .4, WEST INTO

## Congressional Location

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp N...	Range	Rng E/W Dir
		SE	SE	6	7	N	64	W

## Bottom Hole Location

North-South Distance (ft)	From N or S Line	East-West Distance (ft)	From E or W Line

## Plug Back Total Depths

Date	Depth (ftKB)	Method	Com
10/1/2010	7,390.0	CASING TALLY	FLOAT COLLAR
10/6/2010	7,374.0	CASED HOLE LOG	DEPTH LOGGER
12/13/2010	7,390.0	TAG	DRILL OUT KILL PLUG, 2 CIFTP AND CLEAN DO...

## Wellbore Sections

Section Des	Size (in)	Act Top, MD (ftKB)	Act Btm, MD (ftKB)
SURFACE	12 1/4	16.0	865.0
PRODUCTION	7 7/8	865.0	7,440.0

## Zone Statuses

Zone Name	Status Date	Status	Fluid Type	Job	Prod Method
CODELL	12/17/2010	PR		DRILLING/CO...	
NIOBRARA	12/17/2010	PR		DRILLING/CO...	

## Casing Strings

### SURFACE, 852.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...)	Grade	Top, MD (ft...)	MD (ftKB)
SURFACE	9/27/2010	8 5/8	24.00	J-55	16.0	852.0

### Production, 7,432.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...)	Grade	Top, MD (ft...)	MD (ftKB)
Production	10/1/2010	4 1/2	11.60	M-80	16.0	7,432.0

## Cement

Description	Top Depth (ftKB)	Bottom Depth (ftKB)
Surface Casing Cement	16.0	852.0
Description	Top Depth (ftKB)	Bottom Depth (ftKB)
Production Casing Cement	1,880.0	7,432.0

## Tubing Strings

Tubing Description	Run Date	String...	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Set De...
Tubing - Production	12/14/2010	2 3/8	1.995	4.70	J-55	6,824.48	6,839.0

## Tubing Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing	2 3/8	4.70	J-55	214	6,663.62	6,679.6	
Anchor/catcher	3.99	4.70	J-55	1	3.20	6,682.8	6,681.4
Tubing	2 3/8	4.70	J-55	4	125.13	6,807.9	6,806.5
Landing Collar	2 3/8	4.70	N-80	1	1.20	6,809.1	6,807.7
Mud Anchor	2 7/8	6.50	J-55	1	31.00	6,840.1	6,838.7
Bull Plug	2 7/8	6.50	N-80	1	0.33	6,840.5	6,839.0

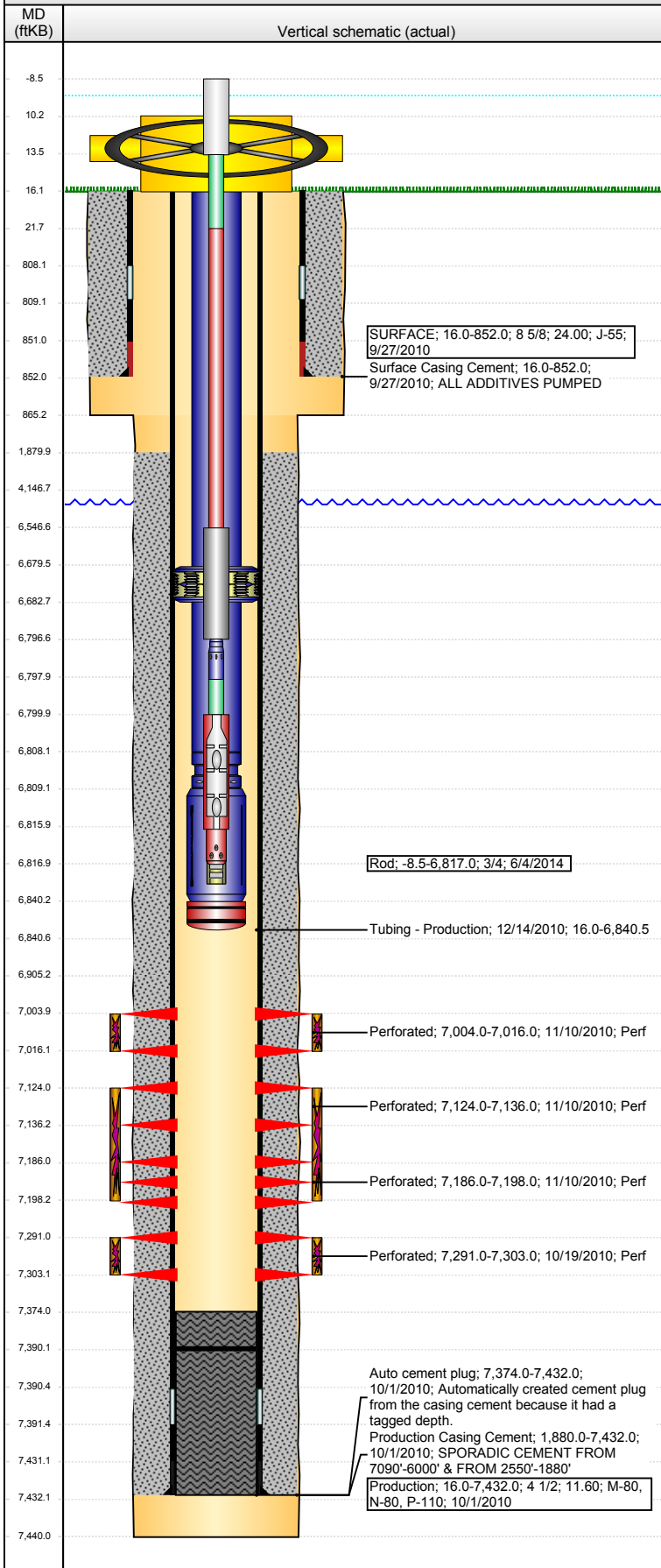
## Rods & Pumps

Rod Description	Run Date	Set Depth (ftKB)
Rod	6/4/2014	6,817.0
Comment		

Item Description	OD Nominal (in)	Joints	Length (ft)
Polished Rod	1 1/4	1	22.00
Item Description	OD Nominal (in)	Joints	Length (ft)
Pony Rod	3/4	1	8.00
Item Description	OD Nominal (in)	Joints	Length (ft)
Sucker Rod	3/4	261	6,525.00
Item Description	OD Nominal (in)	Joints	Length (ft)
Sinker Bar	1 1/4	10	250.00
Item Description	OD Nominal (in)	Joints	Length (ft)
Shear Coupling	3/4	1	1.50
Item Description	OD Nominal (in)	Joints	Length (ft)
Pony Rod	3/4	1	2.00

**Well Name: ANTHOLZ PC AB06-16**

VERTICAL - ORIGINAL HOLE, 8/21/2015 9:26:43 AM



Item Description	OD Nominal (in)	Joints	Length (ft)
RHAC Pump - THD	1 1/4	1	16.00
API Pump Type	Barrel Length (ft)	Seating Assembly Type	
R	16.00	C	
Item Description	OD Nominal (in)	Joints	Length (ft)
Strainer	1	1	1.00

Perforation Data					
Zone	Bnch/St g	Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
NIOBRARA, ORIGINAL HOLE	A	24	7,004.00	7,016.00	11/10/2010
NIOBRARA, ORIGINAL HOLE	B	24	7,124.00	7,136.00	11/10/2010
NIOBRARA, ORIGINAL HOLE	C	24	7,186.00	7,198.00	11/10/2010
CODELL, ORIGINAL HOLE	01	48	7,291.00	7,303.00	10/19/2010

Stimulations & Treatments		
Date	Zone	Primary Job Type
11/10/2010	CODELL, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	

Comment  
(CODELL) CHLORIDES WERE VERY HIGH RANGING FROM 1250-2850 ON TANKS 13-19. CALLED OFFICE AND DECIDED TO PUMP THE CODELL WITH THE GOOD TANKS AND USE THE HIGH CHLORIDE TANKS WITH THE FRESH WATER TANKS ON THE NIOBRARA STAGES. ISIP=2973, 5 MIN=2456 PUMPED CODELL AT 22 BPM. HAD ELECTRONIC ISSUE WITH FRAC PUMP DURING 4LB STG. OPERATIONALLY JOB WENT WELL WITH NO ISSUES TO REPORT. AVG VISC=28.8, PH=10.18, TEMP=69.2, PRESS=3431, RATE=22.8.

Date	Zone	Primary Job Type
11/10/2010	NIOBRARA, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	

Comment  
(NIOBRARA B&C) HAD ISSUES WITH PRESSURE KICK-OUTS ON FRAC PUMPS DURING SLICKWATER PAD. OPERATIONALLY JOB WENT WELL WITH NO ISSUES TO REPORT. AVG VISC=22.4, PH=10.15, TEMP=67.3, PRESS=4404, RATE=52.9.

Date	Zone	Primary Job Type
11/10/2010	NIOBRARA, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	

Comment  
(NIOBRARA A) HAD FRAC PUMP COME OFF-LINE AT START OF 1LB. OPERATIONALLY JOB WENT WELL WITH NO ISSUES TO REPORT. AVD VISC=23.3, PH=10.1, TEMP=65.6, PRESS=4502, RATE=49.1.

Other In Hole				
Run Date	Des	OD (in)	Top (ftKB)	Btm (ftKB)

Logs			
Date	Type	Top, MD (ftKB)	Btm, MD (ftKB)
9/14/2010	SPECTRAL DENSITY/Pe/DSN NEUTRON/SP/ARRAY COMPENSATED TRUE RESISTIVITY	853.0	7,436.0
9/14/2010	SPECTRAL GAMMA RAY	6,825.0	7,402.0
9/14/2010	CBL/CCL/GR	1,527.0	7,373.0