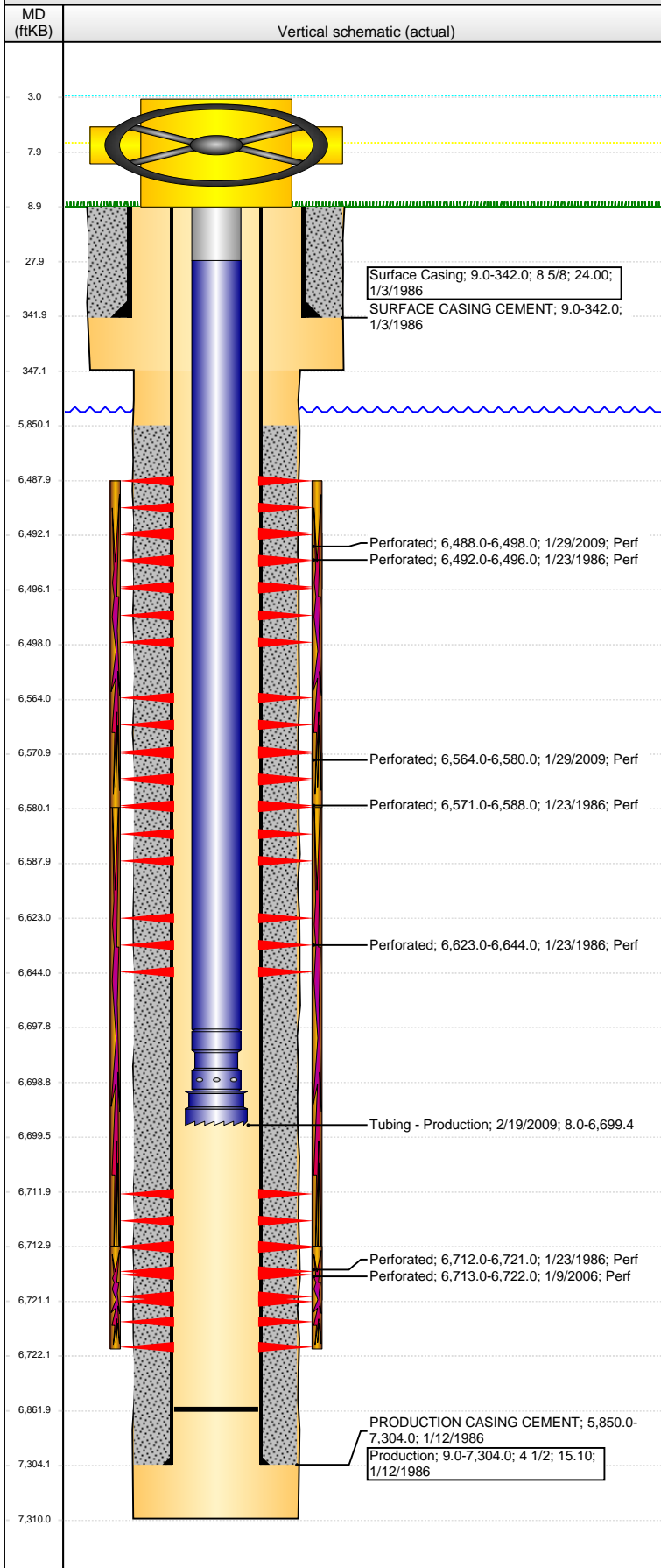


Well Name: WATKINS 18-02

VERTICAL - ORIGINAL HOLE, 2/2/2016 3:15:14 PM



Well Header

API 05-123-12934	Business Unit DJ BASIN	District 15	Well Config VERTICAL
Original KB Elevation (ft) 4,653.00	KB - GL / MSL (ftKB) 9.00	Spud Date 1/3/1986	P & A Date

Comment

ABORTED 1ST REFRAC COULD NOT BREAK DWN & PKR FAILURE; 1/2006

Directions To Well

RD 46 & 61, S 3/10, SE 2/10 TO TANK BATTERY, E 1/10, S 0.2, SE 0.1 INTO.

Congressional Location

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp N...	Range	Rng E/W Dir
		SE	SW	18	4	N	63	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
1/17/1986	7,177.0	CASED HOLE LOG	DEPTH IS THE DEPTH LOGGER ON CBL
2/19/2009	6,862.0	TUBING TALLY	CLEAN OUT SAND PLUG W/ 225 JTS

Wellbore Sections

Section Des	Size (in)	Act Top, MD (ftKB)	Act Btm, MD (ftKB)
SURFACE	12 1/4	9.0	347.0
PRODUCTION	7 7/8	347.0	7,310.0

Zone Statuses

Zone Name	Status Date	Status	Fluid Type	Job	Prod Method
CODELL	1/25/1986	PR		DRILLING/CO...	
CODELL	2/15/2006	PR		RE-FRAC, 1/6/...	
CODELL	1/28/2009	SI		RE-FRAC, 1/27...	
CODELL	2/23/2009	PR		RE-FRAC, 1/27...	
NIOBRARA	1/25/1986	PR		DRILLING/CO...	
NIOBRARA	2/12/2009	PR		RE-FRAC, 1/27...	
NIOBRARA	2/23/2009	PR		RE-FRAC, 1/27...	

Casing Strings

Surface Casing, 342.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...	Grade	Top, MD (ft...	MD (ftKB)
Surface Casing	1/3/1986	8 5/8	24.00		9.0	342.0

Production, 7,304.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...	Grade	Top, MD (ft...	MD (ftKB)
Production	1/12/1986	4 1/2	15.10		9.0	7,304.0

Cement

Description	Top Depth (ftKB)	Bottom Depth (ftKB)
SURFACE CASING CEMENT	9.0	342.0
Description	Top Depth (ftKB)	Bottom Depth (ftKB)
PRODUCTION CASING CEMENT	5,850.0	7,304.0

Tubing Strings

Tubing Description	Run Date	String...	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Set De...
Tubing - Production	2/6/2006	2 3/8	1.995	4.70	J-55	6,690.00	
Tubing Description	Run Date	String...	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Set De...
Tubing - Production	2/19/2009	2 3/8	1.995	4.70	J-55	6,691.35	

Tubing Components

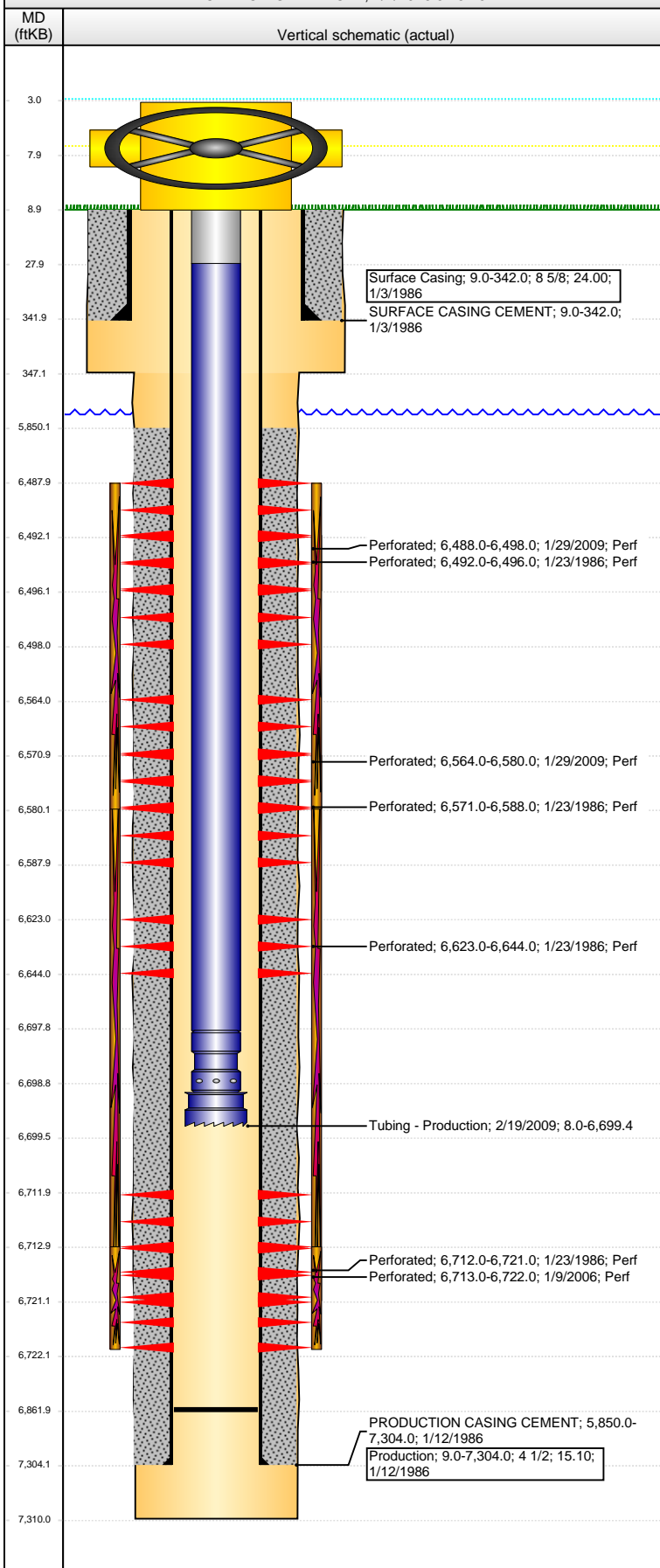
Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing Pup Joint	2 3/8	4.70	J-55	2	20.00	28.0	
Tubing	2 3/8	4.70	J-55	219	6,669.85	6,697.9	
Pump Seating Nipple	2 3/8			1	1.10	6,699.0	
Notched collar	3 1/16			1	0.40	6,699.4	

Perforation Data

Zone	Bnch/St g	Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
NIOBRARA, ORIGINAL HOLE	A	40	6,488.00	6,498.00	1/29/2009
NIOBRARA, ORIGINAL HOLE	A	2	6,492.00	6,496.00	1/23/1986
NIOBRARA, ORIGINAL HOLE	B	64	6,564.00	6,580.00	1/29/2009
NIOBRARA, ORIGINAL HOLE	B	2	6,571.00	6,588.00	1/23/1986
NIOBRARA, ORIGINAL HOLE	C	6	6,623.00	6,644.00	1/23/1986

Well Name: WATKINS 18-02

VERTICAL - ORIGINAL HOLE, 2/2/2016 3:15:16 PM



Perforation Data					
Zone	Bnch/St g	Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
CODELL, ORIGINAL HOLE		4	6,712.00	6,721.00	1/23/1986
CODELL, ORIGINAL HOLE		36	6,713.00	6,722.00	1/9/2006

Stimulations & Treatments			
Date	Zone	Primary Job Type	
1/24/1986	NIOBRARA-CODELL, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL	
Technical Result	Tech Result Details		Tech Result Note

Comment			
Date	Zone	Primary Job Type	
2/2/2006	CODELL, ORIGINAL HOLE	RE-FRAC	
Technical Result	Tech Result Details		Tech Result Note

Comment			
ABORTED 1ST ATTEMPT. NO-ENTRY & PKR FAILURE			
Date	Zone	Primary Job Type	
2/11/2009	NIOBRARA, ORIGINAL HOLE	RE-FRAC	
Technical Result	Tech Result Details		Tech Result Note

Success
According to Plan

Comment
(NIOBRARA): HAD TO SWAP CHEMICALS FROM THE CHEM ADD TO THE BLENDER THE CHEM ADD TRACTOR WOULD NOT RUN TREATMENT WENT WELL WE COULD ONLY GET 37 BPM SO WE CHANGED THE BREAKER SCHEDULE AVG VISC 24.1 CPS AVG TEMP 69.1F AVG PH 10.12 POST JOB 5 MINUTE OF 3720 PS

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

Logs			
Date	Type	Top, MD (ftKB)	Btm, MD (ftKB)
1/12/1986	INDUCTION	336.0	7,316.0
1/17/1986	SONIC CEMENT BOND	5,800.0	7,170.0