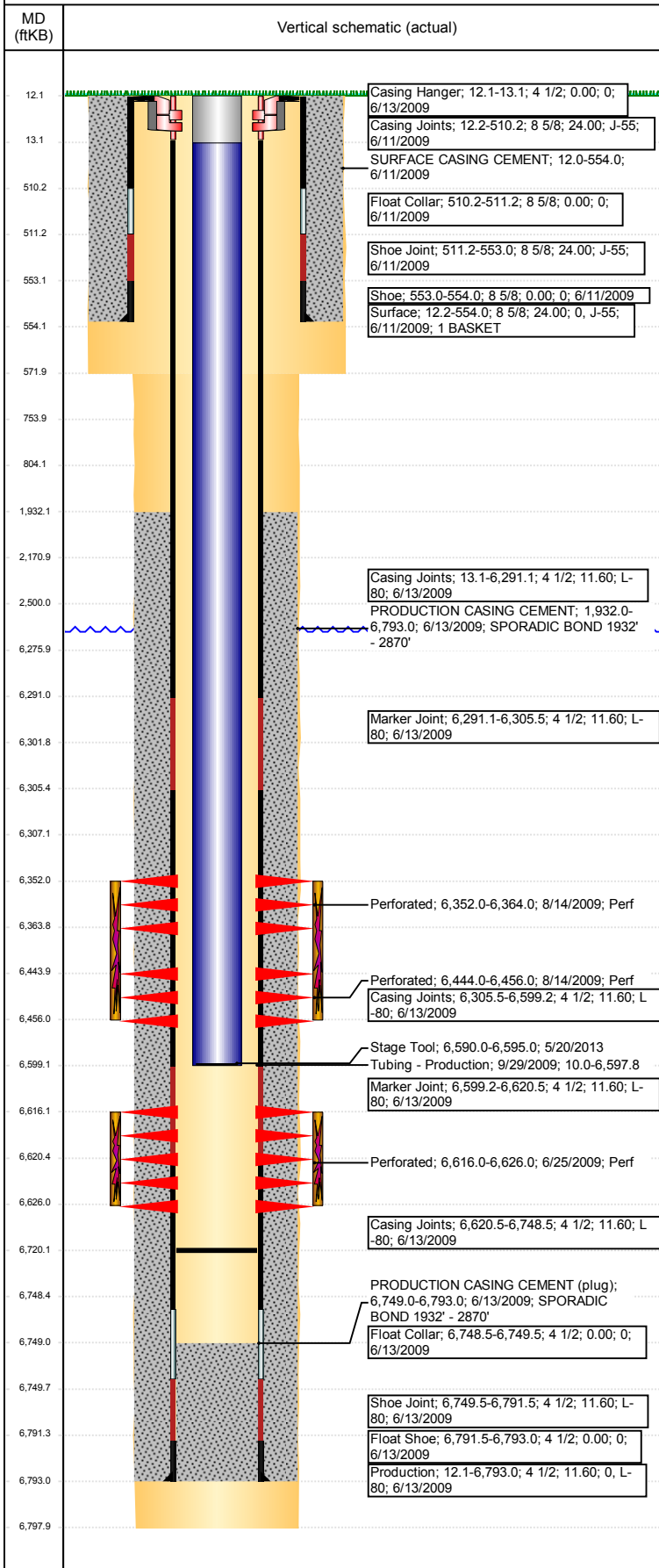


Well Name: WELLS RANCH BB12-04

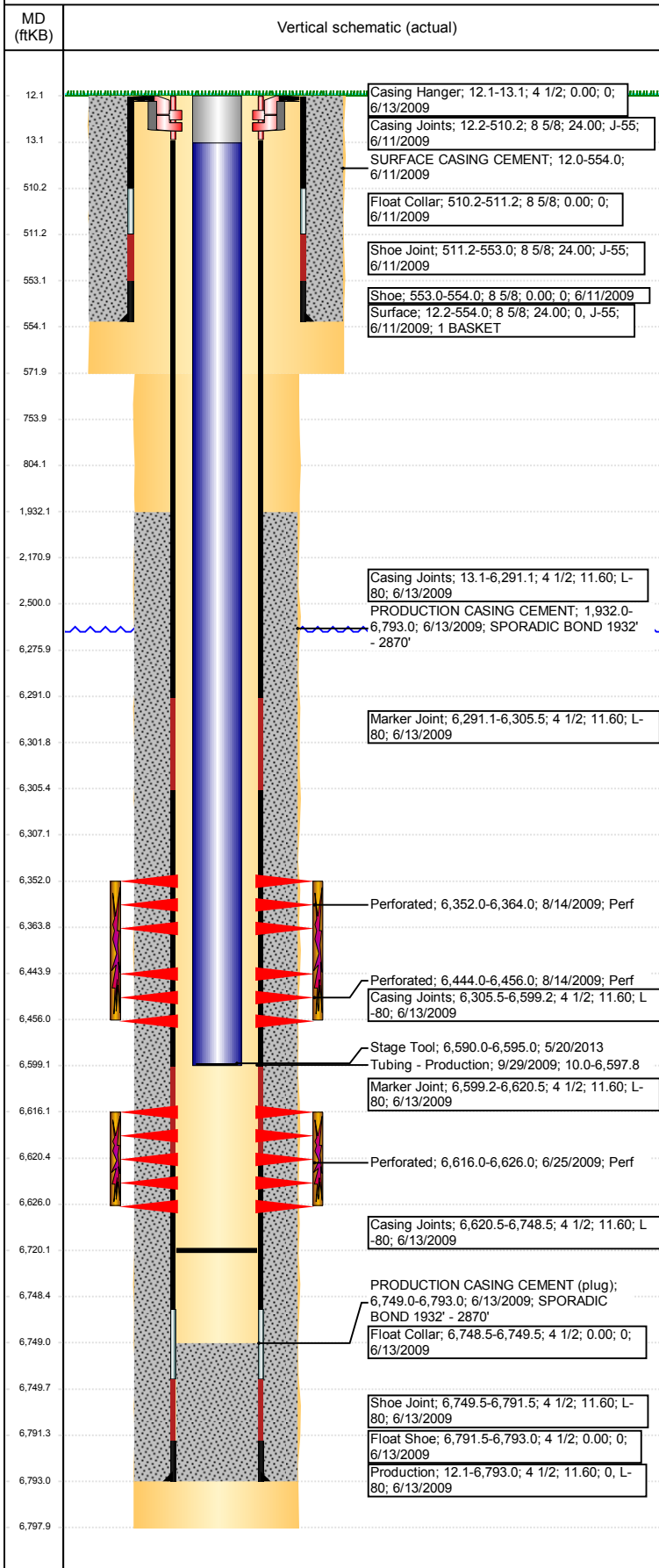
VERTICAL - ORIGINAL HOLE, 10/5/2017 9:52:02 AM



Well Header							
API 05-123-30153	Business Unit DJ BASIN		District 15		Well Config VERTICAL		
Original KB Elevation (ft) 4,690	KB - GL / MSL (ftKB) 12.00		Spud Date 6/11/2009		P & A Date		
Comment							
Directions To Well Wells Ranch BB12-04; WCR 67 & 68, E .2, S 2.75, past cow camp, E/SE 2.5, S 1, W .5, NW Into location.							
Congressional Location							
Quarter 3 NW	Quarter 4 NW	Section 12	Township 5	Twntshp N/S Dir N	Range 63	Range E/W Dir 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			
6/13/2009	6,749.0	CASING TALLY		TOP OF FLOAT COLLAR			
6/23/2009	6,735.0	CASED HOLE LOG		DEPTH LOGGER ON CBL			
7/27/2009	6,746.0	TUBING TALLY					
9/29/2009	6,720.0	TUBING TALLY		DRILL CIFT/ W/ CUTRITE BIT AND N2, CHASE D...			
Wellbore Sections							
Section Des		Size (in)		Act Top, MD (ftKB)		Act Btm, MD (ftKB)	
SURFACE		12 1/4		12		572	
PRODUCTION		7 7/8		572		6,798	
Zone Statuses							
Zone Name	Status Date	Status	Fluid Type	Job	Prod Method		
NIOBRARA	8/16/2009	PR	Water	DRILLING/CO...	Flowing		
NIOBRARA	2/1/2010	PR					
NIOBRARA	2/14/2016	PR					
CODELL	8/16/2009	PR	Water	DRILLING/CO...	Flowing		
CODELL	2/1/2010	PR					
Casing Strings							
Surface, 554.0ftKB							
Casing Description Surface	Run Date 6/11/2009	OD (in) 8 5/8	Wt/Len (l...) 24.00	Grade J-55	Top, MD (ft...) 12.2	MD (ftKB) 554.0	
Production, 6,793.0ftKB							
Casing Description Production	Run Date 6/13/2009	OD (in) 4 1/2	Wt/Len (l...) 11.60	Grade L-80	Top, MD (ft...) 12.1	MD (ftKB) 6,793.0	
Cement							
Description SURFACE CASING CEMENT				Top Depth (ftKB) 12.0		Bottom Depth (ftKB) 554.0	
Description PRODUCTION CASING CEMENT				Top Depth (ftKB) 1,932.0		Bottom Depth (ftKB) 6,793.0	
Description PA Plug				Top Depth (ftKB) 6,276.0		Bottom Depth (ftKB) 6,302.0	
Description PA Plug				Top Depth (ftKB) 2,171.0		Bottom Depth (ftKB) 2,500.0	
Description PA Plug				Top Depth (ftKB) 12.2		Bottom Depth (ftKB) 804.0	
Description PA Plug				Top Depth (ftKB) 12.2		Bottom Depth (ftKB) 754.0	
Tubing Strings							
Tubing Description Tubing - Production	Run Date 9/29/2009	String... 2 3/8	ID (in) 2.00	Wt (lb/ft) 4.70	Grade J-55	Len (ft) 6,587.80	Set De... 6,593.4
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	1	10.00	20.0	
Tubing	2 3/8	4.70	J-55	215	6,575.87	6,595.9	
Pump Seating	2 3/8			1	1.10	6,597.0	6,592.6
Nipple							
Cutrite Blade Bit	3 7/8			1	0.83	6,597.8	6,593.4
Other In Hole							
Run Date	Des			OD (in)	Top (ftKB)	Btm (ftKB)	
9/12/2017	Cast Iron Bridge Plug			4	6,302.0	6,307.0	

Well Name: WELLS RANCH BB12-04

VERTICAL - ORIGINAL HOLE, 10/5/2017 9:52:03 AM



Logs			
Date	Type	Top, MD (ftKB)	Btm, MD (ftKB)
6/13/2009	Caliper/Comp. Density/Neutron/GR/SP/ML	2,600.0	6,798.0
6/13/2009	DIL/GR/SP/Caliper	554.0	6,798.0
6/23/2009	CBL/CCL/GR	1,638.0	6,728.0
7/27/2009	GYRO	12.0	6,700.0
7/28/2009	CCL/GR	5,000.0	6,742.0

Perforation Data					
Linked Zone	Bnch/St g	Sum of Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
NIOBRARA, ORIGINAL HOLE	A	24	6,352.00	6,364.00	8/14/2009
NIOBRARA, ORIGINAL HOLE	B	24	6,444.00	6,456.00	8/14/2009
CODELL, ORIGINAL HOLE		40	6,616.00	6,626.00	6/25/2009
Total (Sum)		88			

Stimulation Intervals		
Start Date	Primary Job Type	
8/14/2009	DRILLING/COMPLETION - ORIGINAL	
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	
Comment		
(CODELL): REVERSE STEP RATE RESULTS. PO 11 NWB 260 PSI WB 268 PSI PPF 295 PSI FOR A TOTAL OF 823 PSI OF FRICTION. PRE JOB 5 MINUTE OF 2587 PSI, CONCURRENT WELL HAD A PRE JOB 5 MINUTE OF 2498 PSI. RAISED TREATMENT RATE TO 22 BPM. DROPPED RATE DOWN TO 18 BPM, CONCURRENT WELL NOT GOING NEGATIVE. TREATMENT WENT WELL. AVG VISC 28 CPS AVG TEMP 73F AVG PH 10.09. POST JOB 5 MINUTE OF 3077 PSI.		
Start Date	Primary Job Type	
8/14/2009	DRILLING/COMPLETION - ORIGINAL	
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	
Comment		
(NIOBRARA): TREATMENT WENT WELL. RAISED TREATMENT RATE TO 60 BPM DUE TO LOW PRESSURE AT 50 BPM. AVG VISC 24 CPS AVG TEMP 82F AVG PH 10.05. POST JOB 5 MINUTE OF 3050 PSI.		