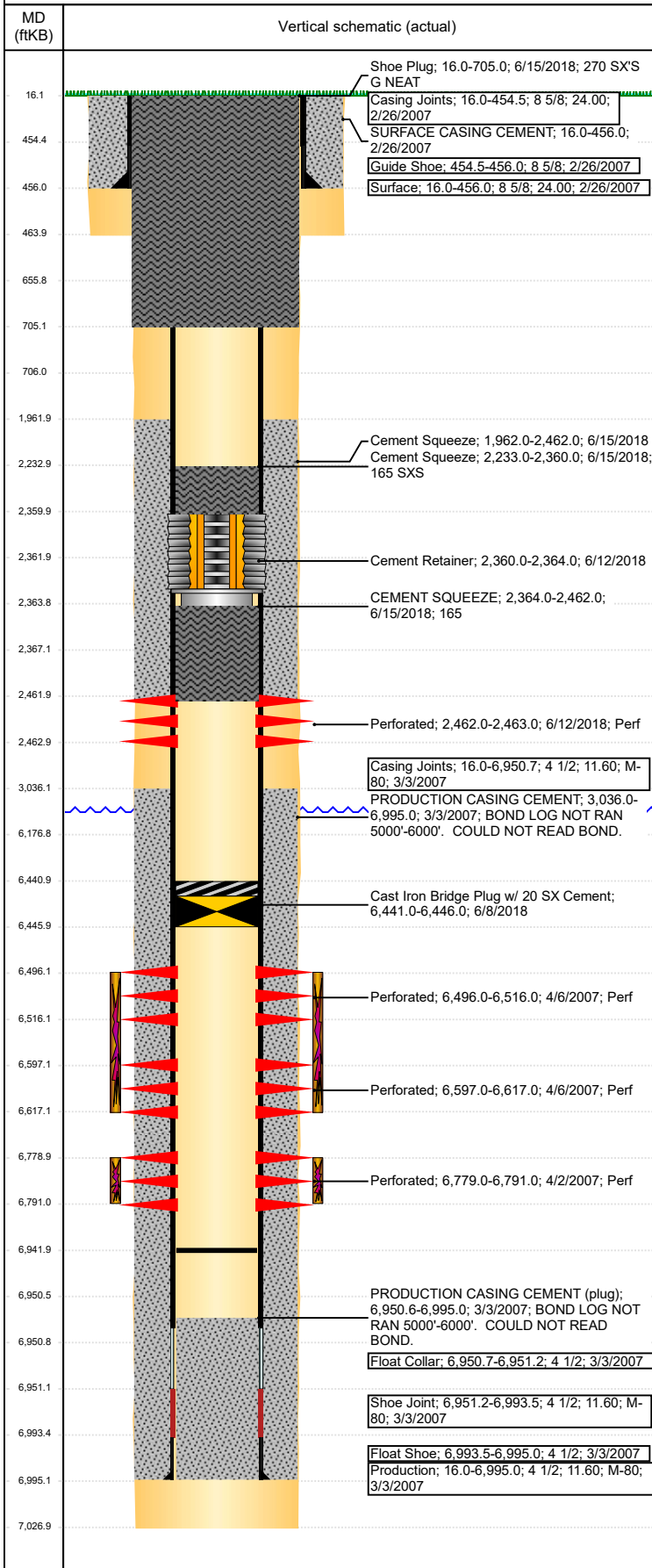


**Well Name: ROTH 24-21**

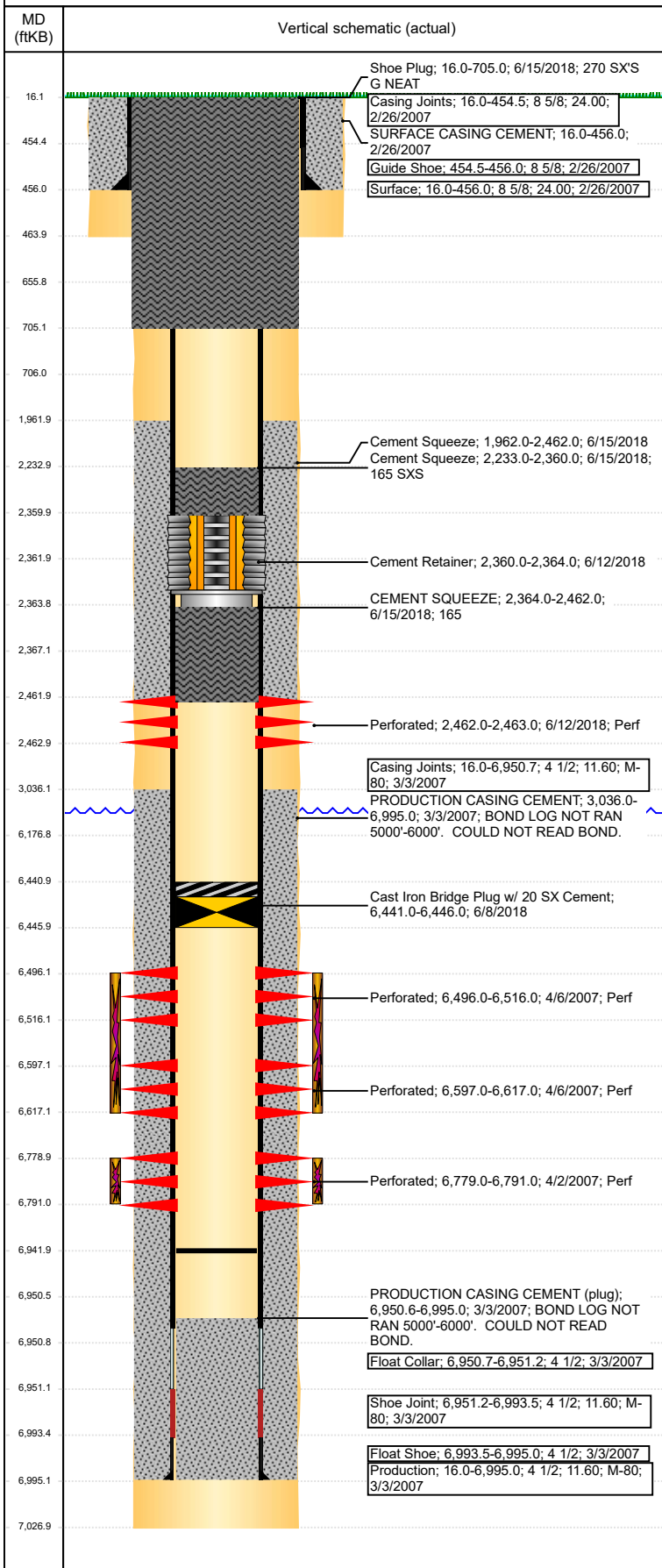
VERTICAL - ORIGINAL HOLE, 7/20/2018 8:34:23 AM



Well Header							
API 05-123-24578		Well Report Center 424407636			Well Configuration Type VERTICAL		
Original KB Elevation (ft) 4,662		KB - GL / MSL (ftKB) 16.00		Spud Date 2/25/2007		P & A Date 6/14/2018	
Production Route Watt - B3-06			Well Production Status PA			SoRT Ignore Yes	
Directions To Well 392/68, east 1/10, south 2/10, w/nw 1/10 into				Actual Latitude (°) 40.47702000		Actual Longitude (°) -104.50037000	
Comment							
Congressional Location							
Quarter 3 NE	Quarter 4 NW	Section 24	Township 6	Twnshp N/S Dir N	Range 64	Range E/W Dir W	
Rig Operator							
Rig Operator OMAR QUINTARA, OPERATOR							
Plug Back Total Depths							
Date	Depth (ftKB)	Method			Com		
9/17/2007	6,942.0	TAG			CLEAN OUT TO LAND TUBING		
Wellbore Sections							
Section Des		Size (in)		Act Top, MD (ftKB)		Act Btm, MD (ftKB)	
SURFACE		12 1/4		16		464	
PRODUCTION		7 7/8		464		7,027	
Zone Statuses							
Zone Name		Status Date			Status		
CODELL		6/11/2018			P&A		
NIOBRARA		6/11/2018			P&A		
Casing Strings							
Surface, 456.0ftKB							
Casing Description Surface	Run Date 2/26/2007	OD (in) 8 5/8	Wt/Len (l... 24.00	Grade	Top, MD (ft... 16.0	MD (ftKB) 456.0	
Production, 6,995.0ftKB							
Casing Description Production	Run Date 3/3/2007	OD (in) 4 1/2	Wt/Len (l... 11.60	Grade M-80	Top, MD (ft... 16.0	MD (ftKB) 6,995.0	
Cement							
Des		Start Date		Top (ftKB)		Btm (ftKB)	
SURFACE CASING CEMENT		2/26/2007		16.0		456.0	
PRODUCTION CASING CEMENT		3/3/2007		3,036.0		6,995.0	
Shoe Plug		6/15/2018		16.0		705.0	
Cement Squeeze		6/15/2018		2,233.0		2,360.0	
CEMENT SQUEEZE		6/15/2018		2,364.0		2,462.0	
Cement Squeeze		6/15/2018		1,962.0		2,462.0	
Proposed Cement							
Des				Top (ftKB)		Btm (ftKB)	
Balance Plug				6,177.0		6,441.0	
Cement Squeeze				1,962.0		2,462.0	
Cement Squeeze				2,233.0		2,362.0	
Cement Squeeze				2,367.0		2,462.0	
Shoe Plug				16.0		656.0	
Shoe Plug				656.0		706.0	
Tubing Strings							
Tubing Description Tubing	Run Date 9/17/2007	String... 2 3/8	ID (in)	Wt (lb/ft)	Grade	Len (ft) 6,740.00	Set De...
Tubing Components							
Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing	2 3/8			218	6,738.40	6,754.4	
Seal Nipple	2 3/8			1	1.10	6,755.5	
Notched collar	2 3/8			1	0.50	6,756.0	
Other In Hole							
Run Date	Des			OD (in)	Top (ftKB)	Btm (ftKB)	
6/8/2018	Cast Iron Bridge Plug w/ 20 SX Cement			3.99	6,441.0	6,446.0	
6/12/2018	Cement Retainer			3.99	2,360.0	2,364.0	
Proposed Other In Hole							
Des				OD (in)	Top (ftKB)	Btm (ftKB)	
Cast Iron Bridge Plug				3.99	6,441.0	6,446.0	

**Well Name: ROTH 24-21**

VERTICAL - ORIGINAL HOLE, 7/20/2018 8:34:25 AM



Proposed Other In Hole						
Des	OD (in)	Top (ftKB)	Btm (ftKB)			
Cement Retainer	3.99	2,362.0	2,367.0			
Logs						
Date	Type	Top, MD (ftKB)	Btm, MD (ftKB)			
3/2/2007	COMPENSATED DENSITY	3,500.0	7,002.0			
3/2/2007	INDUCTION	456.0	7,022.0			
4/2/2007	CBL/CCL/GR	3,000.0	6,928.0			
10/15/2015	GYRO	0.0	6,700.0			
Perforation Data						
Linked Zone	Sum of Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date		
CODELL, ORIGINAL HOLE	6	2,462.00	2,463.00	6/12/2018		
NIOBRARA, ORIGINAL HOLE	40	6,496.00	6,516.00	4/6/2007		
NIOBRARA, ORIGINAL HOLE	80	6,597.00	6,617.00	4/6/2007		
CODELL, ORIGINAL HOLE	48	6,779.00	6,791.00	4/2/2007		
Total (Sum)	174					
Proposed Perforations						
Linked Zone	Sum of En...	Top Depth (ftKB)	Btm (ftKB)	Date		
	0	2,462.00	2,462.00	3/12/2018		
Total (Sum)	0					
Job Supply Amounts						
Supply Item Des	Type	Uni...	Job Category	Total...	Total...	Total...
Daily Cost Breakdown by Category						
Sum of Field Est...	Cost Description	Note				
51,883.00	Downhole					
Sum of Field Est...						
51,883.00						