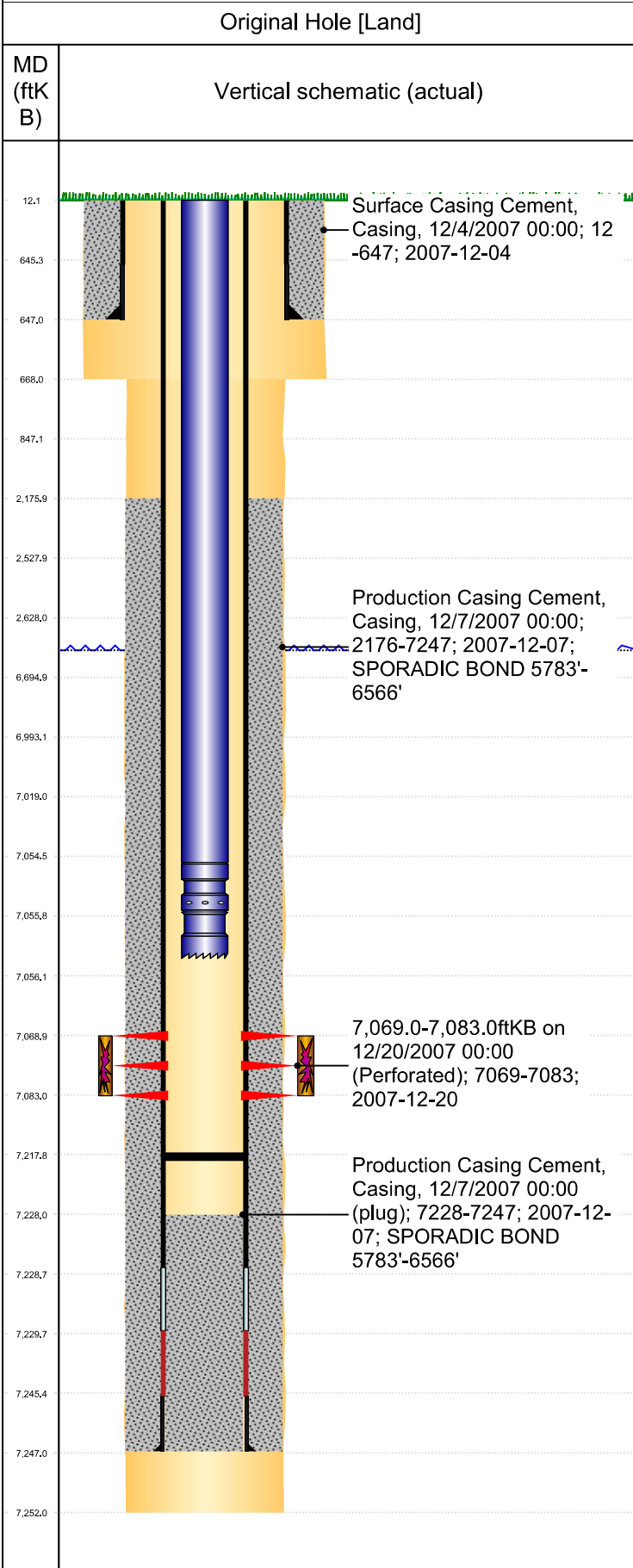




PA Wellbore For State - Vertical

Well Name: LETTERLY USX AB23-13



Well Header					
Surface UWI	0512326439	Business Unit	Rockies	Gov Auth Dist	Prod Tree Loc
Orig. KB to Gnd (ft)	12.00	Original Spud Date	12/3/2007	Abandon Date	Well Sub-Status
				TA (AT SURFACE)	High... N
Comment					
SPECIAL DIRECTIONAL SURVEY LOG READINGS REQUIRED! SEE LOG SECTION FOR DETAILS.					
Geologic Horizons					
Formation Name	FOXHILLS-BASE PROD	Final Top MD (ftKB)	559.8		
Formation Name	UPPER PIERRE AQUIFER-TOP PROD	Final Top MD (ftKB)	720.0		
Formation Name	UPPER PIERRE AQUIFER-BASE PROD	Final Top MD (ftKB)	1,738.0		
Formation Name	A SAND-TOP PROD	Final Top MD (ftKB)	2,648.0		
Formation Name	A SAND-BASE PROD	Final Top MD (ftKB)	3,148.2		
Formation Name	PARKMAN-TOP PROD	Final Top MD (ftKB)	3,735.0		
Formation Name	PARKMAN-BASE PROD	Final Top MD (ftKB)	4,185.5		
Formation Name	SUSSEX-TOP PROD	Final Top MD (ftKB)	4,291.9		
Formation Name	SUSSEX-BASE PROD	Final Top MD (ftKB)	4,681.1		
Formation Name	SHANNON-TOP PROD	Final Top MD (ftKB)	5,124.3		
Formation Name	SHANNON-BASE PROD	Final Top MD (ftKB)	5,213.0		
Formation Name	NIOBRARA-TOP PROD	Final Top MD (ftKB)	6,770.7		
Formation Name	INTRA SHARON SPGS MK	Final Top MD (ftKB)	6,790.4		
Formation Name	NIO A CHALK	Final Top MD (ftKB)	6,818.6		
Formation Name	NIO A MARL	Final Top MD (ftKB)	6,836.9		
Formation Name	NIO B CHALK	Final Top MD (ftKB)	6,877.4		
Formation Name	NIO C CHALK	Final Top MD (ftKB)	6,945.6		
Formation Name	NIO C MARL	Final Top MD (ftKB)	6,991.2		
Formation Name	NIO B MARL	Final Top MD (ftKB)	6,912.0		
Formation Name	NIO D CHALK	Final Top MD (ftKB)	7,017.2		
Formation Name	NIO FT HAYS	Final Top MD (ftKB)	7,044.8		
Formation Name	CODELL	Final Top MD (ftKB)	7,070.1		
Formation Name	CARLILE	Final Top MD (ftKB)	7,084.2		
Formation Name	GREENHORN	Final Top MD (ftKB)	7,148.0		
Surface Location (Congressional)					
Qtr 3	Qtr 4	Section	Twshp	Twsh...	Range
SW	SW	23	7	N	64
Rng E/...	Latitude (°)	Longitude (°)			
W	40.552822833	-104.524482505			
Wellbore Sections					
Section Des	Hole Size (in)	Top Depth (ftKB)	Btm Depth (ftKB)		
SURFACE	12 1/4	12.0	668.0		
PRODUCTION	7 7/8	668.0	7,252.0		
Casing Strings					
Csg Des	Run Date	OD (in)	Wt/Len (lb/ft)	Grade	Top Depth (MD) (ftKB)
Surface	12/4/2007	8 5/8	24.00	J-55	12
Production Casing	12/7/2007	4 1/2	11.60	M-80	12
Set Depth (MD) (ftKB)	7247				
Cement					
Des	Start Date	Top (ftKB)	Btm (ftKB)		
Surface Casing Cement	12/4/2007	12.0	647.0		
Production Casing Cement	12/7/2007	2,176.0	7,247.0		



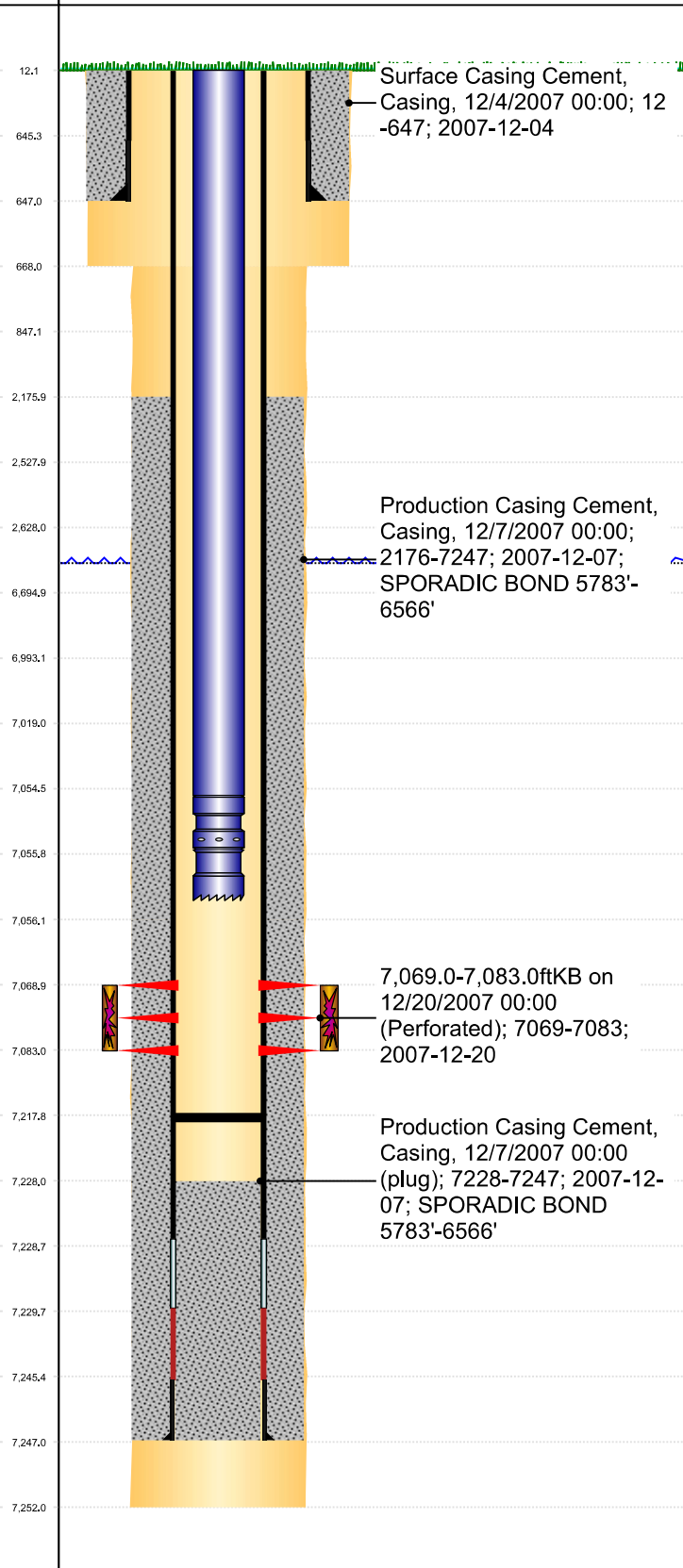
PA Wellbore For State - Vertical

Well Name: LETTERLY USX AB23-13

Original Hole [Land]

MD
(ftK
B)

Vertical schematic (actual)



Stim/Frac Summary

Min Top Depth (ftKB)	Max Btm Depth (ftKB)
7,069.0	7,083.0

Perforations

Linked Zone	Date	Top Depth (ftKB)	Bottom Depth (ftKB)
CODELL, Original Hole	12/20/2007 00:00	7,069.0	7,083.0

Other In Hole

Run Date	Des	Make	OD (in)	Top (ftKB)	Btm (ftKB)

Logs

Date	Type	Depth Top (MD) (ftKB)	Btm (ftKB)
12/7/2007	Caliper/Comp.Density/Neutron/GR/SP/ML	2,900	7,231.0
12/7/2007	DIL/GR/SP/Caliper	647	7,251.0
12/18/2007	CBL/CCL/GR	1,990	7,124.0
2/23/2013	GYRO	12	700.0

Wellbore Plug Back Total Depths

Date	Type	Com	PBTD (ftKB)
12/18/2007	FILL	DEPTH LOGGER ON CBL	7,129
12/19/2007	FILL	TAGGED FILL	7,218