

BLACK RAVEN ENERGY

Date: 9/9/2011
Prepared by: David Kunovic
Lease Roll SWD
Well Number 843-18-21
API 05-095-06310
Location NENW Section 18, T8N-R43W
BHL
Field Amherst
Unit
County Phillips
State Colorado
GL 3702
KB 3714
Spud Date 7/16/2011
Completion date 7/24/2011
First gas sales

WI
NRI
Surface
Mineral

SURVEYS:
500 1.32
1000 1.83
2000 2.62
2500 2.03
3500 0.10
3800 0.1

Geological tops
Surface
Pierre Shale 430
Sharron Springs 2368
Niobrara Chalk 2387
Ft Hays 2786
Carlile 2860
D Sand 3228
J Sand 3330
Skull Creek 3448
Dakota 3572

A-sect Wellhead Inc LM-70 8 5/8 x 5 1/2 1500# Screw on mandrel
B-sect R&M LM-45 5 1/2 x 2 7/8 1500# Screw on mandrel
Tree

Surface Cement
Cement w/ 200 sacks Type I NEAT CMT
Circulate 14 bbls to pit

Producing ZONE SWD well Dakota Formation

Hole Size 12"
Surf Casing 8 5/8" 24 lb.
Shoe 476.00

Hole Size 7 7/8"
Prod csg 5 1/2" 15.5 lb.

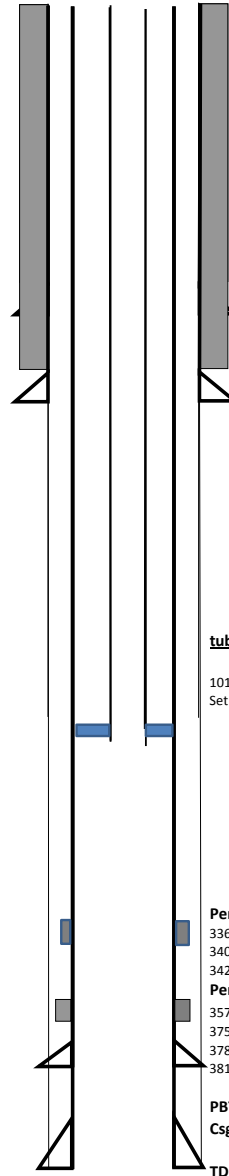
TOC 2138 CBL

Cement Design
366 sacks @ 13.8# and 34 sacks @ 14#
Bison Cementers

Stimulation Treatment

Comments

Date **Completion history**



tubing detail

101 joints 2 7/8" J-55 4.7# J55
Set injection packer at 3308'

Perforations J sand (correlated to Pulsed Neutron Log)

3360-3366 6 spf
3400-3418 6 spf
3427-3438 6 spf

Perforations Dakota sand

3572-3580 6 spf
3750-3770 6 spf
3784-3794 6 spf
3814-3822 6 spf

PBTD 3,864.00
Csg shoe 3,876.00

TD