



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

PERMIT MODIFICATION APPROVAL

June 12, 2013

NOBLE ENERGY, INC.
333 TECHNOLOGY DRIVE, SUITE 110
CANONSBURG, PA 15317

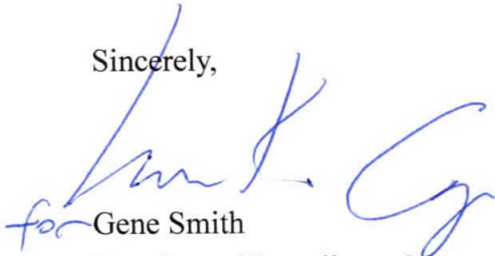
Re: Permit Modification Approval for API Number 5101626 , Well #: MNDS9BHS
extended surface casing and shortened intermediate casing

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,


for Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas



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NOBLE ENERGY, INC.
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CANONSBURG, PA 15317

Re: Permit Modification Approval for API Number 5101626 , Well #: MNDS9BHS
shortened intermediate casing

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

for Gene Smith

Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas



Dee Swiger
Regulatory Analyst

June 10, 2013
West Virginia Department of Environmental Protection
Office of Oil and Gas,
601 57th Street, SE
Charleston, WV 25304

Re: Drilling Permit Modifications – Well “MNDS9BHS / MNDS9CHS / MND9DHS/ MNDS9EHS /MNDS9FHS”

Dear Gene and Bill,

Gene per our conversation this morning, Please find modification for the above listed permits. We would like to extend the surface casing to 1200' on each well and the Intermediate casing to 2500' or 100' below the Big Injuin. These wells are located in Marshall County, WV.

If any further information or correspondence is required, please contact me at Office (724)820-3061 Cell 412-310-8967 or Dswiger@nobleenergyinc.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dee Swiger', written over the typed name.

Dee Swiger

DS/

Enclosure(s):

AP: 47-51-01626

20)

CASING AND TUBING PROGRAM

LKC
6-12-13

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill -up (Cu. Ft.)
Conductor	20"	N	LS	52	40'	40'	CTS / 15.6 ppg Yield 1.2
Fresh Water	13 3/8"	N	J55	54.5	1200'	1200'	CTS / 15.6 ppg Yield 1.2
Coal	13 3/8"	N	J55	54.5	1200'	1200'	CTS / 15.6 ppg Yield 1.2
Intermediate	9 5/8"	N	J55	36.0	2500' or 100' below Big Injain	2500' or 100' below Big Injain	CTS / 15.6 ppg Yield 1.19
Production	5 1/2"	N	P110	20.0	16756'	16756'	14.8 ppg yield 1.27 TOC 200' above 9.625 shoe
Tubing							
Liners							

We would like to drill through all the freshwater and coal bearing zones before running casing. we plan to drill no more than 100' below the deepest freshwater and/or coal bearing zone(s) and run casing which will be circulated with cement to the surface.

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield
Conductor	20"	26"	.5		Type 1	1.2
Fresh Water	13 3/8"	17 1/2"	.380	2730	Type 1	1.2
Coal	13 3/8"	17 1/2"	.380	2730	Type 1	1.2
Intermediate	9 5/8"	12 3/8"	.352	3520	Class A	1.19
Production	5 1/2"	8 3/4" & 8 1/2"	.361	12,630	Class A	1.27
Tubing						
Liners						

PACKERS

Kind:				
Sizes:				
Depths Set:				

Received
JUN 12 2013
Office of Oil and Gas
WV Dept. of Environmental Protection