



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

October 09, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8504375, issued to RITCHIE PETROLEUM CORP., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: 1
Farm Name: SMITH, HARLIE
API Well Number: 47-8504375
Permit Type: Plugging
Date Issued: 10/09/2015

Promoting a healthy environment.

10/09/2015

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

Harley Smith No.1

47-085-4375

CASING	LEFT IN WELL	CEMENT	TOC (EST.)
8 5/8"	250'	CTS	0
4 1/2"	2,929'	270 sks	1,400'
TD	2,912'		

FORMATIONS	DEPTHS	COMPLETED
Fifth Sand	2,852' - 2,870'	Yes
Gordon	2,740' - 2,754'	
Berea	2,560' - 2,568'	
Lower Weir	2,380' - 2,402'	Yes
Upper Weir	2,176' - 2,222'	
Squaw	1,976' - 2,074'	
Big Injun	1,903' - 1,976'	
Keener	1,876' - 1,903'	
Big Lime	1,836' - 1,876'	
Maxton	1,722' - 1,754'	

MANNER OF PLUGGING

Plug 1	2,900' - 2,800'
Plug 2	2,425' - 2,325'
Free point, cut & pull 4 1/2" casing @ 1,400' (Estimated TOC)	
Plug 3	1,450' - 1,350'
Plug 4	1,075' - 975'
Plug 5	300' - 200'
Plug 6	100' - Surface

Fill well-bore with 6% gel between cement plugs

Erect Monument with API Number

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SEP 01 2015

WV Department of
Environmental Protection

Dull
10/09/2015

8504375P

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date Jan. 29, 19 80

FORM IV-35
(Obverse)

Operator's
Well No. 1

[08-78,

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

API Well No. 17-085-2-4375
State County Permit

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal
(If "Gas", Production X / Underground storage / Deep / Shallow X)
LOCATION: Elevation: 1025' Watershed: Hughesa Run
District: Clay County: Ritchie Quadrangle: Ellenboro

WELL OPERATOR North Hills Investment Co., Smith #1 DESIGNATED AGENT Walter C. Crane
Address 212 E. Pierpoint Street Address 212 E. Pierpoint Street
Harrisville, W. Va. 26362 Harrisville, W. Va. 26362

PERMITTED WORK: Drill X / Convert / Drill deeper / Redrill / Fracture or stimulate
Plug off old formation / Perforate new formation
Other physical change in well (specify)

PERMIT ISSUED ON Aug. 24, 19 79

OIL & GAS INSPECTOR FOR THIS WORK:

(IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED

Name Paul Goodnight
Address Smithville, W. Va.

GEOLOGICAL TARGET FORMATION: Fifth Sand Depth 2,900'
Depth of completed well, 2,930' feet Rotary X / Cable Tools
Water strata depth: Fresh, 80' feet; salt, feet.
Coal seam depths: Is coal being mined in the area?
Work was commenced Sept. 5, 19 79, and completed Sept. 9, 19 79

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic Feet)	REMARKS	
	Size	Grade	Weight per ft	New	Used	For drilling			Left in well
Conductor	8 5/8			X		250'	250'	60 sks	Winds
Fresh water									
Coal									Sizes
Intermediate									
Production	4 1/2		10.5	X		2,929	2,929	270 sacks	Positive set
Tubing									
Liners									Perforations:
									The

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OPEN FLOW DATA

OIL & GAS DIVISION
DEPT. OF MINES

Producing formation Fifth Sand Pay zone depth 2,852' - 2,870'

Gas: Initial open flow, Mcf/d Oil: Initial open flow, bbl/d
Final open flow, 85,000 Mcf/d Final open flow, bbl/d

Time of open flow between initial and final tests, hours

Static rock pressure, 1150 psig (surface measurement) after 2h hours shut in

(If applicable due to multiple completion--)

Second producing formation Weir Sand Pay zone depth 2368' - 2383'

Gas: Initial open flow, Mcf/d Oil: Initial open flow, bbl/d
Final open flow, 90,000 Mcf/d Final open flow, bbl/d

Time of open flow between initial and final tests, 2h hours

Static rock pressure, 1150 psig (surface measurement) after hours shut in

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Department of Mines, Oil and Gas
SEP 01 2015
Department of Environment & Protection

10/09/2015

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perforated zones 2,839 - 2,847' 10 shots Fifth Sand; Weir Sand 2368 - 2383
Well fractured with 27,500# sand and 600 bbls. water, Fifth Sand
Weir Sand fractured with 27,000 lbs. sand and 600 bbls. water

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Maxon Sandstone			1722	1754	
Big Lime			1836	1876	
Keener Sandstone			1876	1903	
Big Injun	buff, tan	Shaly	1903	1976	
Squaw	buff, tan	Shaly	1976	2074	
Upper Weir	grey	Silty	2176	2222	
Lower Weir	grey	Shaly	2380	2402	
Berea	light grey	Shaly	2560	2568	
Gordon	grey	Silty	2740	2754	
Fifth sand	grey	Shaly	2852	2870	
TD				2912	

(Attach separate sheets to complete as necessary)

North Hills Investment Company
Well Operator

By *Travis R. Quinn*

Its Agent

NOTE: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

WW-4A
Revised 6-07

1) Date: August 17, 2015
2) Operator's Well Number
Harley Smith No.1

3) API Well No.: 47 - 085 - 04375

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Steven & Darrel Lipscomb</u> <i>WAIVER</i>	Name <u>NA</u>
Address <u>115 Sarah Jane Lane</u>	Address _____
<u>Pennsboro, WV 26415</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>NA</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>David Cowan</u>	(c) Coal Lessee with Declaration
Address <u>1597 Devil Hole Road</u>	Name <u>NA</u>
<u>Harrisville, WV 26362-7543</u>	Address _____
Telephone <u>304-389-3509</u>	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

	Well Operator <u>Ritchie Petroleum Corporation</u>	By: <u>J.W. Shepherd</u> Jarrett W. Shepherd
	Address _____	Designated Agent _____
	_____	P.O. Box 545 _____
	_____	Pennsboro, WV 26415 _____
	_____	304-659-2123 _____

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Office of Oil and Gas

AUG 30 2015

Subscribed and sworn before me this 31 day of August 2015
Jodi L Jones Notary Public
My Commission Expires May 19, 2023

WV Department of
Environmental Protection

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

SURFACE OWNER WAIVER

Operator's Well
Number

Harley Smith No.1

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.


VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

**FOR EXECUTION BY A NATURAL PERSON
ETC.**

FOR EXECUTION BY A CORPORATION,



 Signature

Date 8-27-15 Name _____
 By _____
 Its _____

 Signature

 Date

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 Office of Oil and Gas
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 WV Department of
 Environmental Protection

10/09/2015

WW-9
(2/15)

API Number 47 - 085 - 04375
Operator's Well No. Harley Smith No.1

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Ritchie Petroleum Corporation OP Code 308319

Watershed (HUC 10) Husher's Run Quadrangle Ellenboro 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: Fluids encountered in plugging subject well

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. _____

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

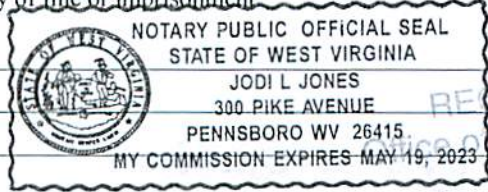
-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]
Company Official (Typed Name) Jarrett W. Shepherd
Company Official Title Designated Agent



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Office of Oil and Gas

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Subscribed and sworn before me this 31 day of August, 20 15

[Signature]

Notary Public

WV Department of Environmental Protection

My commission expires May 19, 2023

Ritchie Petroleum Corporation

Proposed Revegetation Treatment: Acres Disturbed ~0.5 Prevegetation pH 6.0

Lime 2 Tons/acre or to correct to pH _____

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Straw 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: retain all cut areas seed, fertilizer, mulch

Title: air/gas inspector Date: 8-25-15

Field Reviewed? () Yes () No

Ritchie Petroleum Corporation

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Lime 2 Tons/acre or to correct to pH _____

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

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Plan Approved by:

[Signature]

Comments:

retain all cut areas seed, fertilizer, mulch

Title: air gas inspector

Date: 8-25-15

Field Reviewed? Yes No

