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

June 19, 2013

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4500861, issued to TOP DRILLING CORPORATION, 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 penalities 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: 3
Farm Name: WEST VIRGINIA DOH
API Well Number: 47-4500861
Permit Type: Plugging
Date Issued: 06/19/2013

Promoting a healthy environment.

4500861 P

WW-4B
Rev. 2/01

1) Date May 21, 2013
2) Operator's Well No. 3
3) API Well No. 47- 045 - 00861

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil _____/ Gas X / Liquid injection _____/ Waste disposal _____/
(If "Gas, Production X or Underground storage ____) Deep ____/ Shallow____

5) Location: Elevation 742' Watershed Guyandote River
District Logan 02 County Logan 45 Quadrangle Logan 442

6) Well Operator Top Drilling Corporation
Address 107 Lancaster St, Suite 301
Marietta, OH 45750

7) Designated Agent BRIAN HAUGHT
Address 12864 STAUNTON TPKE
SMITHVILLE, WV 26178

8) Oil and Gas Inspector to be notified
Name Ralph Triplett
Address 5539 McClellan HWY
Branchland, WV 25506

9) Plugging Contractor
Name Top Drilling Corporation
Address 107 Lancaster Sreet, #301
Marietta, OH 45750

10) Work Order: The work order for the manner of plugging this well is as follows:

See Attached Well Bore Schematic

RDT
05/30/13

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WV Dept. of Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Ralph D. Triplett Date 05/30/13

4500861P

TDC Top Drilling Corporation

Well Name: Cole & Crane #3

API Number: 47-045-00861

Plugging Procedures:

- Obtain Plugging Permit from State of WV
- Obtain Plugging Bond from State of WV (if necessary)
- Mobilize equipment and Move Rig #5 and all support equipment onto location, Rig Up.
- Move 250 Bbl Water tank onto location and fill with fresh water
- Safety Meeting – verify rig is properly rigged up and drill pit fully prepared
- Trip drill pipe into well bore and verify current total depth (approximately 16')
- Clean out well bore down to original TD of 2,196'
- ★ Trip drill pipe out of well bore and remove drill bit and hammer, trip drill pipe back into well bore
- Move in and rig up third party cement/gel trucks and equipment
- Safety Meeting – Verify all workers and equipment prepared to commence cement and gel operations
- Spot Bentonite Gel Spacer of approximate 1,200'
- Spot initial cement plug from 2196' to 1900' to plug potential producing zone
- Pull drill pipe back up to 1530' (50' below depth of change in original wellbore)
- Spot secondary cement plug from 1530' to 1430' to plug casing change zone
- Pull drill pipe back up to 600' depth (approximate level of top of bentonite gel)
- Spot final cement plug sealing off any coal seams and water bearing formations back to surface
- Remove Drill pipe and grout in the top of the wellbore
- Rig down third party cement and gel truck and equipment
- Rig down Rig #5 and move off of location
- Remove the majority of fluids from drill pit and dispose of waste fluids and cuttings appropriately
- Provide Monument for Vecellio & Grogan to place at well location once earthwork has been completed

★ WE MAKE NO RECOMMENDATIONS ABOUT HAMMER USE.
JWM

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WV Dept. of Environmental Protection

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TDC Top Drilling Corporation

Wellbore Schematic

Well Plugging Schematic

Well: Cole & Crane #3
API: 47-045-00861

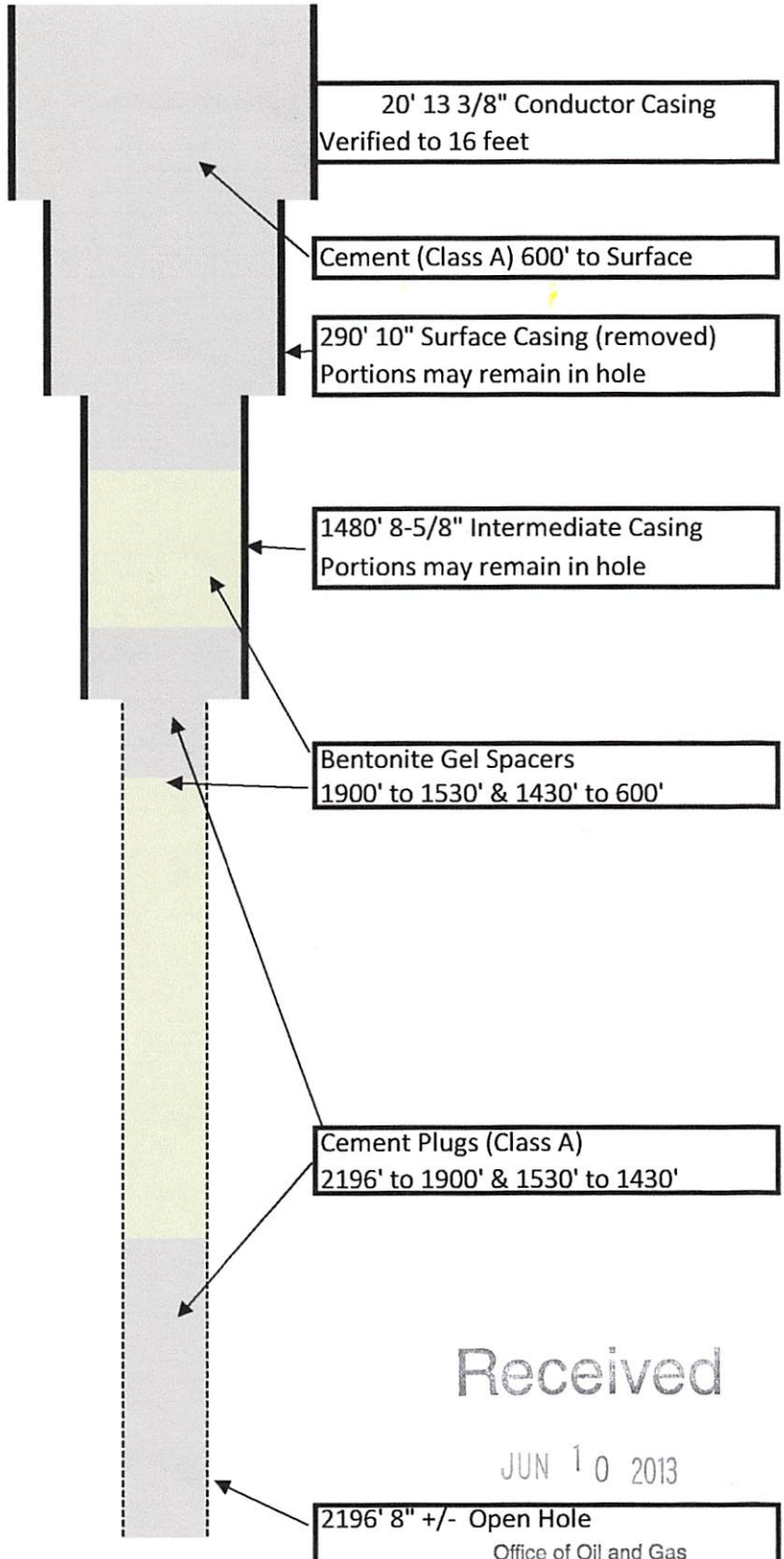
Current Status
Contracted to Plug Well for Vecellio & Grogan - DOH road construction Contractors

Action Items
Plug Well per state inspectors recommendations as shown

Frac Date: Unknown

Record TD 2196'

Elevation 741'



Perforations:
None
Potential Shot Hole
In Big Lime/Big Injun Sand
From 1,978 2,196

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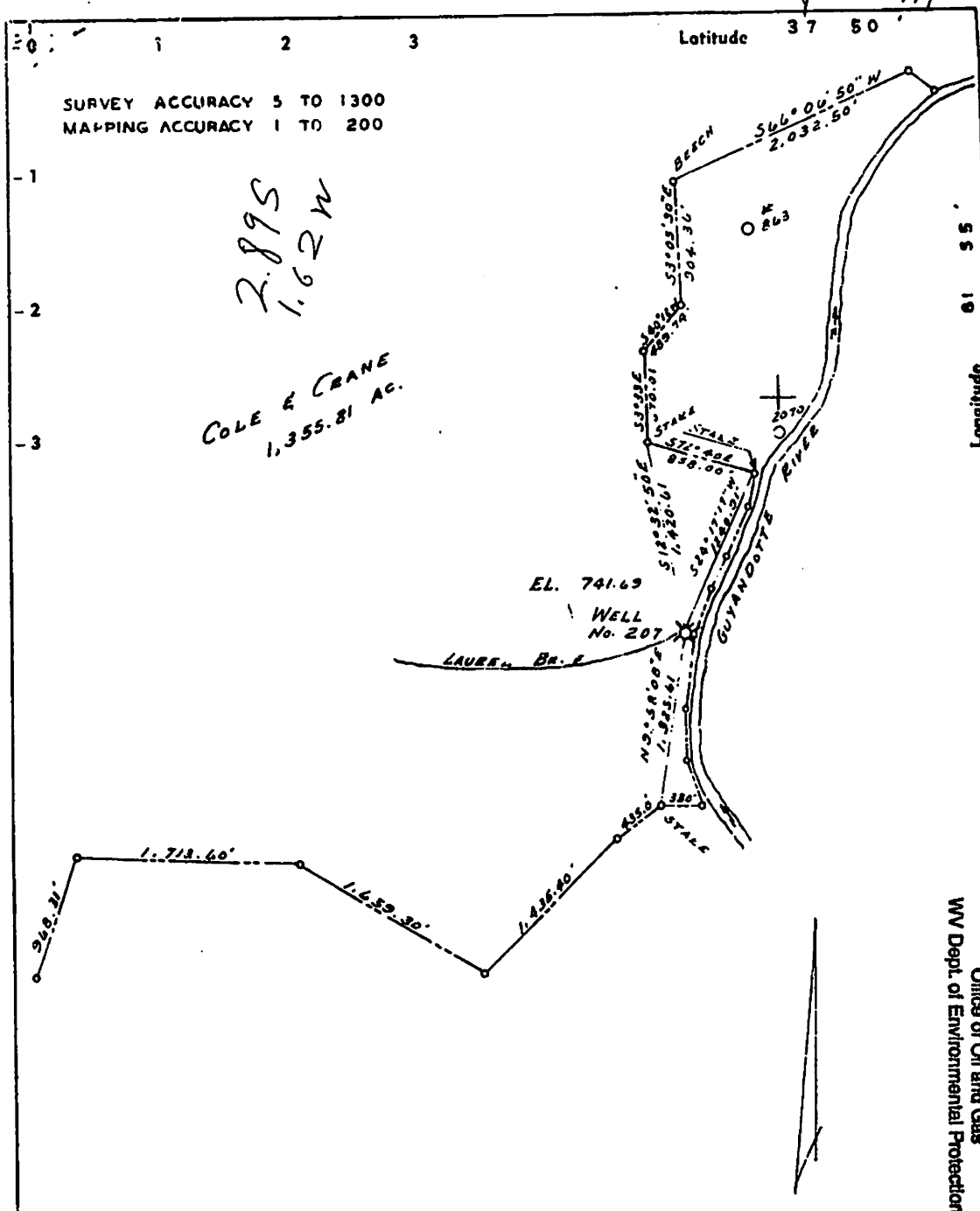

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New Location . ☒
Drill Deeper . . . . ☐
Redrill . . . . . ☐
Abandonment . . . . . ☐

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

Company R.W. ADAMS
Address Box 1966 LOGAN, W.VA.
Farm COLE & CRANE
Tract Acres 1,355.81 Lease No.
Well (Farm) No. 207 Serial No.
Elevation (Spirit Level) 741.69
Quadrangle LOGAN SW
County LOGAN District LOGAN
Engineer Sam A. Miniaci
Engineer's Registration No. 2873
File No. 126 Drawing No.
Date 7-24-65 Scale 1" = 1000'

ALLEN BLUEPRINT & SUPPLY CO

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

WELL LOCATION MAP

FILE NO. Log-861

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

· · Denotes one inch spaces on border line of original tracing.

4500861P

Form OG-10

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Rotary ☐
Spudder ☐
Cable Tools ☒
Storage ☐

Quadrangle
Permit No. LOG-861

Oil or Gas Well Gas (KIND)

Company R. W. Adams & Associates
Address 1700 Broadway, Denver, Col. 80202
Farm Cole & Crane Acres 1355.81
Location (waters)
Well No. 3 Elev. 741.69'
District Logan County Logan
The surface of tract is owned in fee by
Address
Mineral rights are owned by
Address
Drilling commenced August 11, 1965
Drilling completed December 21, 1965
Date Shot From To
With
Open Flow /10ths Water in Inch
/10ths Merc. in Inch
Volume Show Cu. Ft.
Rock Pressure lbs. hrs.
Oil bbls., 1st 24 hrs.
WELL ACIDIZED (DETAILS)
WELL FRACTURED (DETAILS)

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
13 3/8		20'	
10		290'	Size of
8 5/8		1480' cemented with 23 Bags Cement	
6 5/8			Depth set
5 3/16			
4½			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Attach copy of cementing record.
CASING CEMENTED SIZE No. Ft. Date
Amount of cement used (bags)
Name of Service Co.
COAL WAS ENCOUNTERED AT FEET INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

RESULT AFTER TREATMENT (Initial open Flow or bbls.)
ROCK PRESSURE AFTER TREATMENT HOURS
Fresh Water Feet Salt Water Feet
Producing Sand Depth

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Soil			0	5			
Sand			5	95	F. Water	60'	
Slate			95	120			
Sand			120	170			
Slate			170	205	F. Water	185'	
Sand			205	244			
Slate & Shells			244	270			
Sand			270	325			
Slate & Shells			325	367			
Sand			367	415			
Slate & Shells			415	472			
Sand			472	499			
Slate & Shells			499	518			
Coal			518	520			
Slate & Shells			520	545			
Sand			545	600			
Slate			600	622			
Sand			622	840			
Slate & Shells			840	860			
Sand			860	875			
Slate & Shells			875	910			
Sand			910	953			
Slate			953	975			
Sand			975	995			
Slate			995	1002			
Sand			1002	1100			
Slate			1100	1110			
Sand			1110	1193			

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Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime			1193	1254			
Sand			1254	1376			
Lime			1376	1388			
Slate & Shells			1388	1520			
Sand			1520	1550			
Slate & Shells			1550	1562			
Red Rock			1562	1573			
Slate & Shells			1573	1580			
Red Rock			1580	1590			
Slate & Shells			1590	1636			
Red Rock			1636	1650			
Slate & Shells			1650	1758			
Sand			1758	1778			
Lime			1778	1850			
Slate & Shells			1850	1890			
Lime			1890	1898			
Sand			1898	1938			
Slate			1938	1948			
Lime			1948	1973			
Slate			1973	1978			
Big [illegible] Lime			1978	2192	Show of Gas @ 2140'		
Big Injun			2192	2196 TD			

Well Shut in with 2" x 8" Swedge

Plan to Plug - Will use 50' cement plugs on all coal and water zones.

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WV Dept. of Environmental Protection

Date July 23, 19 68

APPROVED R. W. Adams & Associates, Owner

By Ray C Ray, Agent
(Title)

CK# 10088
$100.00

4500861 P

WW-4A
Revised 6-07

1) Date: May 21st, 2013
2) Operator's Well Number
#3

3) API Well No.: 47 - 045 - 00861

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: WVDOT - DOH
Address: ATTN: CHRIS COLLINS
801 MADISON AVE
HUNTINGTON, WV 25712-0880
(b) Name
Address
(c) Name
Address

5) (a) Coal Operator
Name: NA
Address
(b) Coal Owner(s) with Declaration
Name: West Virginia DOH
Address: ATTN: CHRIS COLLINS
801 MADISON AVE
HUNTINGTON, WV 25712-0880
Name
Address
(c) Coal Lessee with Declaration
Name: NA
Address

6) Inspector: Ralph Triplett
Address: 5539 McClellan HWY
Branchland, WV 25506
Telephone: 304-389-0350

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.

NOTARY PUBLIC OFFICIAL SEAL
ROBERT J. HAUGHT
State of West Virginia
My Commission Expires March 23, 2019
118 Crestwood Dr. Parkersburg, WV 26104

Well Operator: Top Drilling Corporation
By:
Its: Vice President of Operations
Address: 107 Lancaster St, Suite 301
Marietta, OH 45750
Telephone: (740) 373 6900

Subscribed and sworn before me this 29th day of MAY, 2013
Notary Public
My Commission Expires MARCH 23, 2019

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 deprivacyoffier@wv.gov.

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JUN 10 2013
Office of Oil and Gas
WV Department of Environmental Protection

4500861 P

WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 045 - 00861
Operator's Well No. # 3

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Top Drilling Corporation OP Code _____

Watershed Guyandote River Quadrangle Logan SW

Elevation 742' County Logan District Logan

Description of anticipated Pit Waste: Drill Cuttings /Drilling Fluids

Will a synthetic liner be used in the pit? Yes.

Proposed Disposal Method For Treated Pit Wastes:

_____ Land Application
X Underground Injection (UIC Permit Number UIC2D0859721)
_____ Reuse (at API Number _____)
_____ Off Site Dispposal (Supply form WW-9 for disposal location)
_____ Other (Explain _____

Proposed Work For Which Pit Will Be Used:

_____ Drilling _____ Swabbing
_____ Workover X Plugging
X Other (Explain Well Bore Clean Out

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 _____

Company Official (Typed Name) Brian Haught

Company Official Title Vice President of Operations

Subscribed and sworn before me this 29th day of MAY, 2013

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JUN 10 2013
WV Dept. of Oil & Gas
WV Dept. of Environmental Protection

_____ Notory Public

My commission expires MARCH 23, 2019

NOTARY PUBLIC OFFICIAL SEAL
ROBERT J. HAUGHT
State of West Virginia
My Commission Expires March 23, 2019
118 Crestwood Dr. Parkersburg, WV 26104

4500861 P

Form WW-9

Operator's Well No. # 3

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells W
Drill site

Diversion
Spring
Wet Spot
Drain Pipe with size in inches 12
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 2 +/- Prevegetation pH 5.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 600 lbs/acre (500 lbs minimum)

Mulch 90 Bales Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Pasture Mix	100	Pasture Mix	100

Attach:
Drawing(s) of road, location,pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Ralph D. Triplett

Comments:

Office of Oil and Gas
WV Dept. of Environmental Protection

Title: District Inspector Date: May 30, 2013

Field Reviewed? (✓) Yes ( ) No

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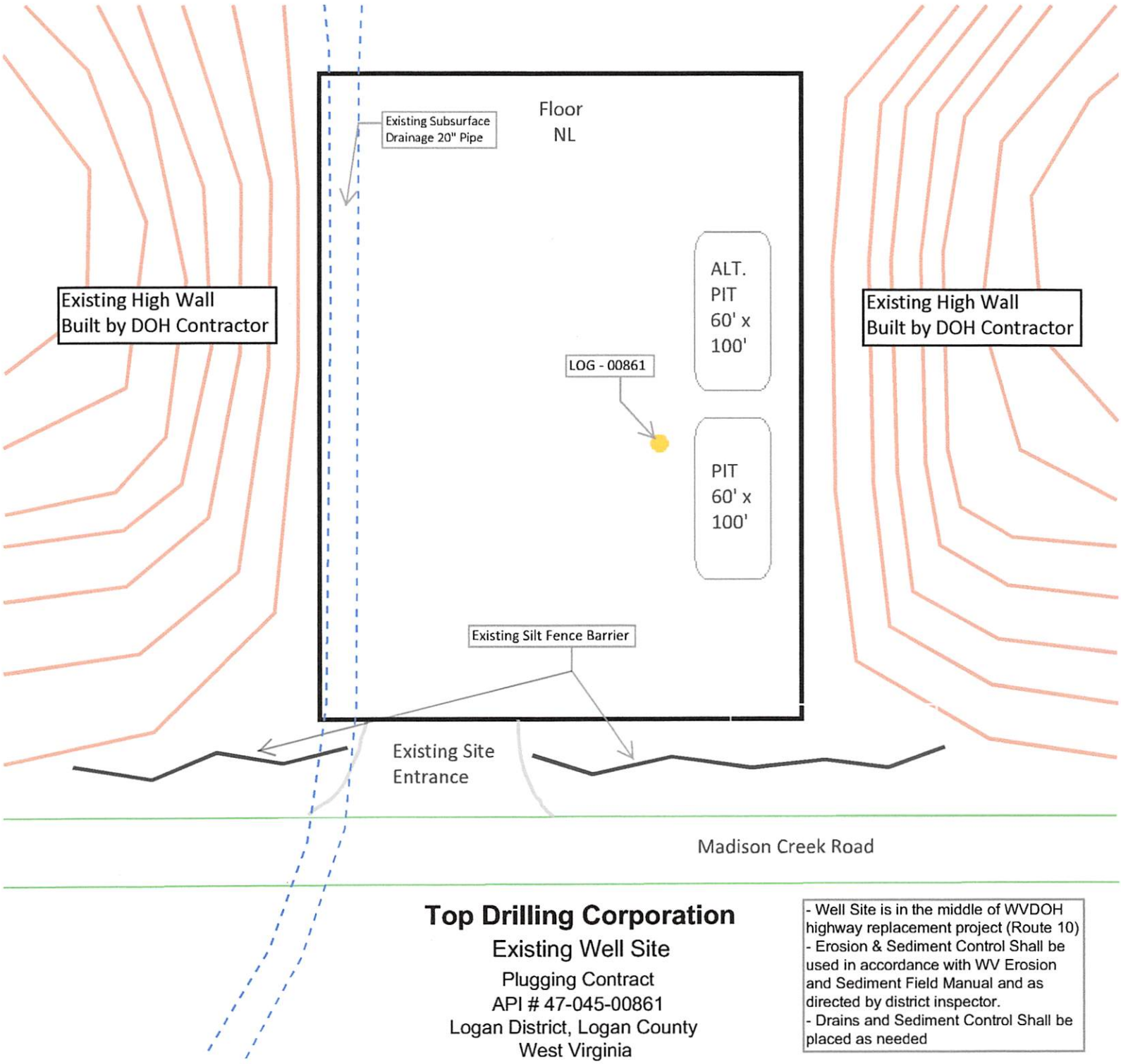

Top Drilling Corporation

Existing Well Site

Plugging Contract
API # 47-045-00861
Logan District, Logan County
West Virginia

- Well Site is in the middle of WVDOH highway replacement project (Route 10)
- Erosion & Sediment Control Shall be used in accordance with WV Erosion and Sediment Field Manual and as directed by district inspector.
- Drains and Sediment Control Shall be placed as needed

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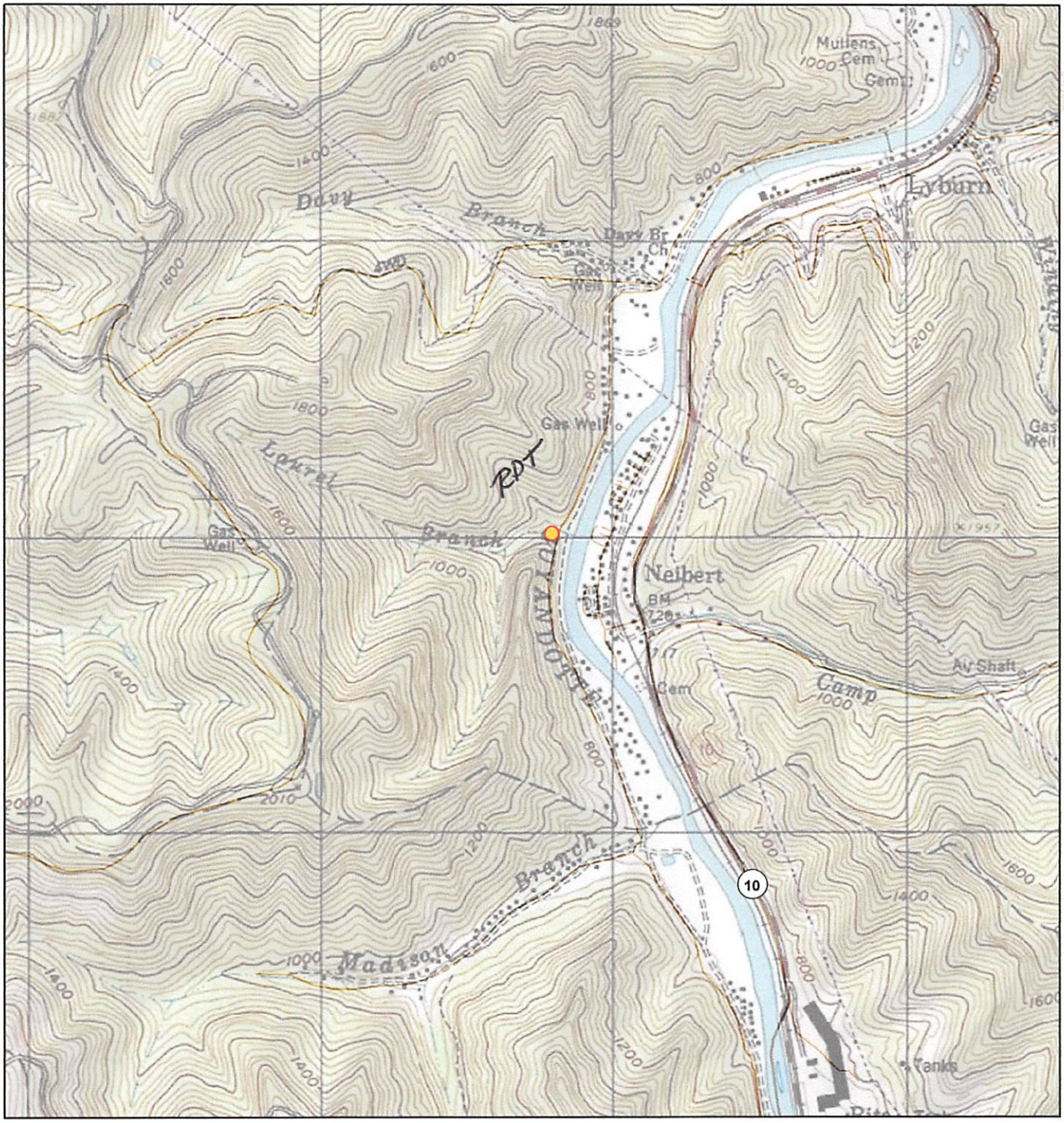

Logan Quadrangle

Top Drilling Corporation

Cole & Crane
API - 47-045-00861

Logan District Logan County West Virginia

0 250 500 1,000 Feet

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WV Dept. of Environmental Protection

4500861P

WW-7
8-30-06

West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-045-00861 **WELL NO.:** 3

FARM NAME: Cole & Crane

RESPONSIBLE PARTY NAME: Top Drilling Corporation

COUNTY: Logan **DISTRICT:** Logan

QUADRANGLE: Logan

SURFACE OWNER: West Virginia DOH

ROYALTY OWNER: West Virginia DOH

UTM GPS NORTHING: 4183024.337

UTM GPS EASTING: 416822.109 **GPS ELEVATION:** 213.85M/701.61 FT

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS X: Post Processed Differential _____

Real-Time Differential XX

Mapping Grade GPS ____: Post Processed Differential _____

Real-Time Differential _____

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4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Signature	Title	Date
	V.P. of Operations	5/29/13

4500861P

OP-77-A (02-98)

Record No. _____

State of West Virginia

Department of Environmental Protection

This is to acknowledge that the well: API no.	47-045-00861		
District	Logan		
Well No	#3	Farm name	Cole & Crane

Is hereby transferred To:

The transferee	Company: Top Drilling Corporation
Code #	Address 107 Lancaster St. Suite 301, Marietta, OH 45750

Transfer approval and responsibility for any noncompliance matter not resolved in this document will be addressed in the thirty day circular that will be issued after review of your application for transfer, or as otherwise set forth by agreement with the Chief.

The transferee has registered and designated an agent on form OP-1, which is on file with the Office of Oil and Gas. The agent is:

Designated agent (name) Brian Haught

Address: 12864 Staunton TPKE Smithville, WV 26178

The transferee has bonded the said well by (check one):

Securities ☐ Cash ☑ Surety bond ☐ Letter of credit ☐

Identified by:

Amount:	5,000	Effective date :	
Issuing authority:		Id. No:	

Transferee: Top Drilling Corporation

By: _____

Its: Vice President of Operations

Taken, subscribed and sworn before me this 13 day of June 2013

Notary Public _____

My Comission Expires March 23 2019