



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

April 28, 2014

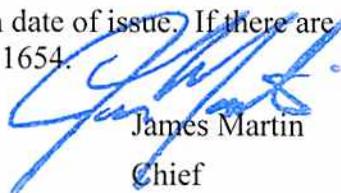
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1501176, issued to TRIAD HUNTER, LLC, 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: J.B. CASTO #105
Farm Name: KING, JAMES SR.
API Well Number: 47-1501176
Permit Type: Plugging
Date Issued: 04/28/2014

Promoting a healthy environment.

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.

1) Date January 30, 20 14
2) Operator's
Well No. J.B. Casto # 105
3) API Well No. 47-015 - 01176

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 ___ / Liquid injection X / Waste disposal ___ /
(If "Gas, Production X or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1221' GPS Watershed Grannys Creek
District Henry 02 County Clay 15 Quadrangle Newton 512

6) Well Operator Triad Hunter, LLC 7) Designated Agent Kim Arnold
Address 125 Putnam Street Address P.O. Box 154
Marietta, Ohio 45750 Waverly, W.V. 26184

8) Oil and Gas Inspector to be notified Name Ed Gainer
Address P.O.Box 821
Spencer, W.V. 25276
9) Plugging Contractor Name N/A
Address _____

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

(SEE ATTACHED SHEET)

See changes!
6 1/2 gal gel between all plugs

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

Work order approved by inspector _____



Date 21 FEB 20 2014

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Plugging Procedure Attachment (Wells with 8 5/8" Casing)

Well Name : J.B. Casto # 105

Permit Number: 47-015-01176

District: Henry

County: Clay

MIIRU service rig and flowback tank; blow well down.

1. Pull tubing and rods OOH.
2. Check total depth with sandpump; clean out hole below bottom perforation.
3. Run 2 3/8" tubing below bottom perforation.
4. (Bottom Hole Plug) Mix/Pump 20 sacks Class A cement,(23.6 cu. ft.), ¼ lb.flocele/sk., no CaCl.
5. Displace cement through tubing with gel water. *BHP (2196' - 1946')*
6. Pull 2 3/8" tubing OOH.
7. RIH with casing cutter tool, check depth of 1st plug and find 4 ½" cement top (free pipe).
8. Cut-off 4 ½" casing just above the cement top, break circulation, and pull one jt. of casing OOH.
9. (Cut Plug) Mix/Pump 30 sacks Class A cement, (35.4 cu. ft.), ¼ lb. flocele/sk.,no CaCl.
10. Displace cement through casing with gel water.
11. Pull 4 ½" casing up to the subsea elevation depth.
12. (Elevation Plug) Mix/Pump 30 sacks of Class A cement,(35.4 cu. ft.), ¼ lb. flocele/sk., no CaCl. *Elev. Plug (1271' - 1171')*
13. Displace cement through casing with gel water. *set in casing shoe*
14. Pull 4 ½" casing to 100 feet below surface. *430-330 8 5/8" casing shoe*
15. (Surface Plug) Mix/Pump 30 sacks of Class A cement,(35.4 cu. ft.), ¼ lb. flocele/sk., no CaCl.
16. Circulate cement to surface.
17. Pull remaining joints of 4 ½" casing OOH. Top load annulus with Class A cement to surface.
18. Weld a three foot monument pipe on to the existing casing. Fill monument pipe with cement and attach identification plate to monument pipe.
19. RDMO service rig and supporting equipment.
20. Reclaim well site and lease road.

Plug Summary

(Plug Name)	(Thickness)	(Cement Type)	(Sacks)	(Cubic Feet)
1. Bottom Hole	250 ft.	Class A	20	23.6
2. Cut Plug	100 ft.	Class A	30	35.4
3. Elevation Plug	100 ft.	Class A	30	35.4
4. Surface Plug	100 ft.	Class A	30	35.4
5. Totals:			110 sacks	129.8 cu. ft.

140

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PERFORATE : 2136' - 2162 (26 HOLES)

WV Department of
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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Rotary Oil _____
Cable _____ Gas _____
Recycling _____ Comb. _____
Water Flood Storage _____
Disposal _____ (Kind) _____

Quadrangle Otter

Permit No. Cl-1176

Company <u>PENNZOIL COMPANY</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P. O. Box 1588, Parkersburg, W. Va. 26101</u>				
Farm <u>J. B. Casto</u> Acres <u>260</u>	Size			
Location (waters) <u>Granny's Crk.</u>	<u>20-16</u>			
Well No. <u>105</u> Elev. <u>1220.02'</u>	Cond.			
District <u>Henry</u> County <u>Clay</u>	<u>13-10"</u>			
The surface of tract is owned in fee by _____	<u>9 5/8</u>			
<u>Mr. Ray E. King</u>	<u>8 5/8</u>	<u>381</u>	<u>381</u>	<u>250 sks.</u>
Address <u>Ovapa, W. Va. 25150</u>	<u>7</u>			
Mineral rights are owned by <u>Kanawha Banking &</u>	<u>5 1/2</u>			
<u>Trust Co., Agt. Address P.O. Box 393, Charleston,</u>	<u>4 1/2</u>	<u>2211'</u>	<u>2211'</u>	<u>50 sks.</u>
<u>for Roane Land Co. et al July 29, 1976 W. Va.</u>	<u>3</u>			
Drilling Commenced _____	<u>2</u>			
Drilling Completed <u>August 3, 1976</u>	Liners Used			
Initial open flow _____ cu. ft. _____ bbls.				
Final production _____ cu. ft. per day _____ bbls.				
Well open _____ hrs. before test _____ RP.				

Well treatment details:

Attach copy of cementing record.

Water Injection Well

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Big Injun and Squaw Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			0	80		
Sand			80	118		
Shale			118	234		
Sand			234	262		
Shale			262	314		
Sand			314	338		
Shale			338	442		
Sand			442	580		
Shale			580	620		
Sand			620	770		
Shale			770	836		
Sand			836	862		
Shale			862	894		
Sand			894	998		
Sandy Shale			998	1042		
Sand			1042	1174		
Shale			1174	1216		
Sand			1216	1226		
Shale			1226	1356		
Sand			1356	1450		
Shale			1450	1492		
Salt Sand			1492	1867		
Shale			1867	1951		
Little Lime			1951	1982		

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(over)

* Indicates Electric Log tops in the remarks section.

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Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Blue Monday			1982	2022		
Big Lime			2022	2064		
Loyalhanna			2064	2132		
Big Injun			2132	2162		
Shale			2162	2194		
Squaw			2194	2212		
Upper Pocono Shale			2212	2218		
Total Depth				2218		
P.B.D.				2196		

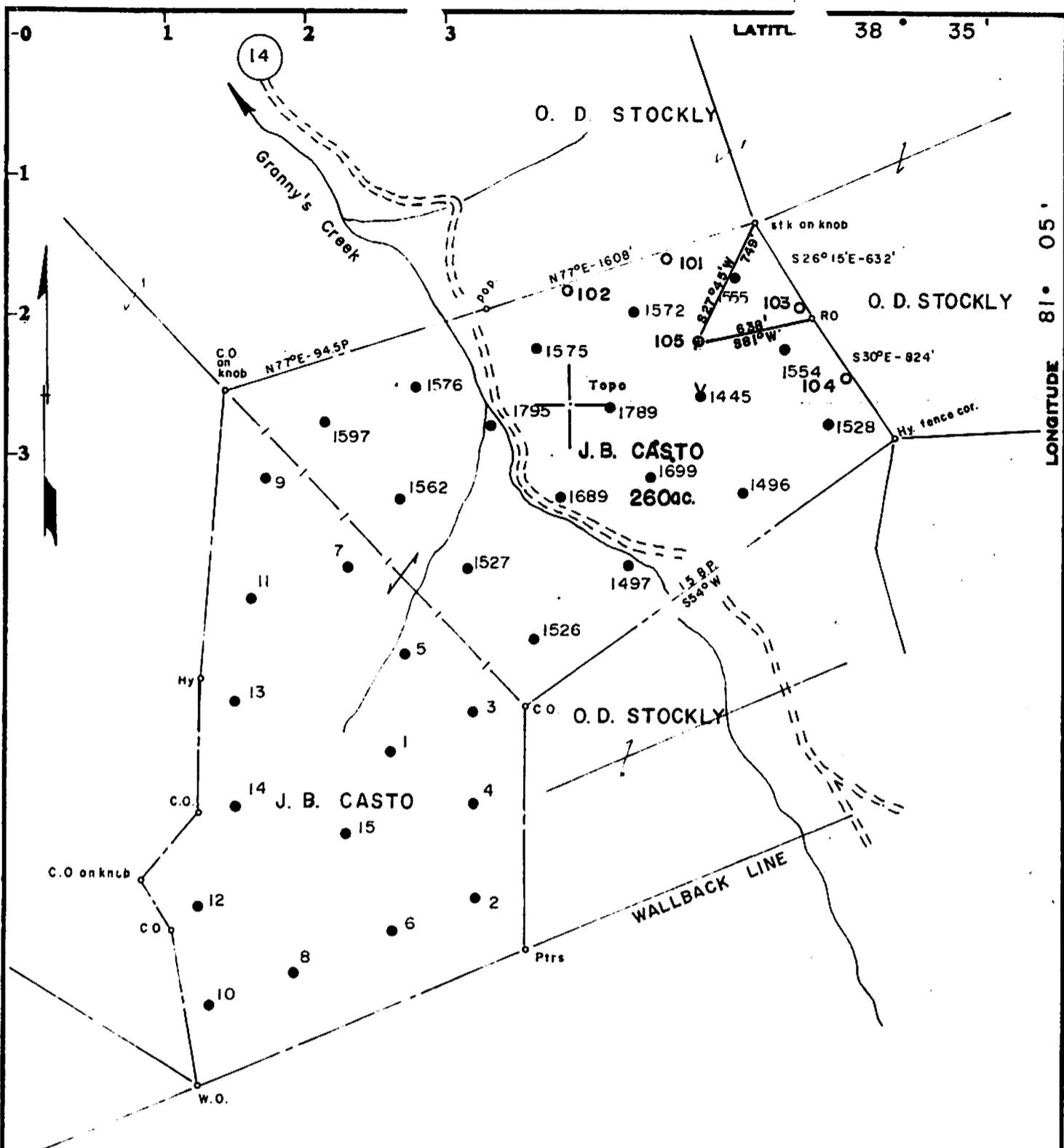
Date Nov. 29 RECEIVED

APPROVED Pennzoil Company Office of Oil and Gas

By Laurita A. [Signature] FEB 20 2014

(Title) Eng. Dept.
 WV Department of
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SURFACE - R. E. KING
OVAPA, W VA

Minimum Error of Closure 1 in 200

Source of Elevation O. D. STOCKLY 15, Elev. 1226.00

Fracture

New Location Water Injection

Drill Deeper

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.

Signed: *Curtis A. Lucas*

Map No. 83 Squares: N S 62 E W 31, 32

Company PENNZOIL COMPANY

Address P. O. Box 1588, Parkersburg, W. Va. 26101

Farm J. B. CASTO

Tract Acres 260 Lease No. 46485-up

Well (Farm) No. 105 Serial No. _____

Elevation (Spirit Level) 1220.02

Quadrangle OTTER 15'

County CLAY District HENRY

Surveyor CURTIS A. LUCAS

Surveyor's Registration No. 275

File No. 1626 Drawing No. _____

Date June 24, 1976 Scale 1" = 800'

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

WELL LOCATION MAP

FILE NO. _____

+ 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.

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

WV Department of Environmental Protection

BRUNING 44 131 27198



McCullough®

GAMMA RAY LOG

FILING NO.

HGR-83738

PENNZOIL CO.
 PETROLEUM ENGR. DEPT.
FILE COPY

COMPANY PENNZOIL CO.

WELL J.B. CASTO #105

FIELD HENRY DIST.

COUNTY CLAY STATE W. VA.

LOCATION:

GRANNY'S CREEK
 OTTERS QUAD. 15'

OTHER SERVICES:

SEC. TWP. RGE.

ELEVATIONS:

PERMANENT DATUM GL ELEV. 1220.02'

KB. 1228.02'

LOG MEASURED FROM KB

DF. 1227.02'

DRILLING MEASURED FROM KB

GL. 1220.02'

DATE 12-20-76

RUN NO. ONE

TYPE LOG GAMMA RAY

DEPTH-DRILLER 2218'

DEPTH-LOGGER 2165'

BOTTOM LOGGED INTERVAL 2163'

TOP LOGGED INTERVAL 1900'

TYPE FLUID IN HOLE DRY

SALINITY PPM CL.

DENSITY LB./GAL.

LEVEL

MAX. REC. TEMP. DEG. F.

OPR. RIG TIME

RECORDED BY LEGG

WITNESSED BY MR. McCOWN

RUN BORE HOLE RECORD CASING RECORD

RUN NO.	BIT	BORE HOLE RECORD		SIZE	WGT.	CASING RECORD	
		FROM	TO			FROM	TO
1	6-3/4"	388'	2218'	8-5/8"		0	388'
				4-1/2"		0	TD

THIS HEADING AND LOG CONFORMS TO API RECOMMENDED STANDARD PRACTICE RP-33 (P)

FOLD HERE

2000

2050

2100

2150

126

C&G

3 1/8" DYNA JET
25 HOLES

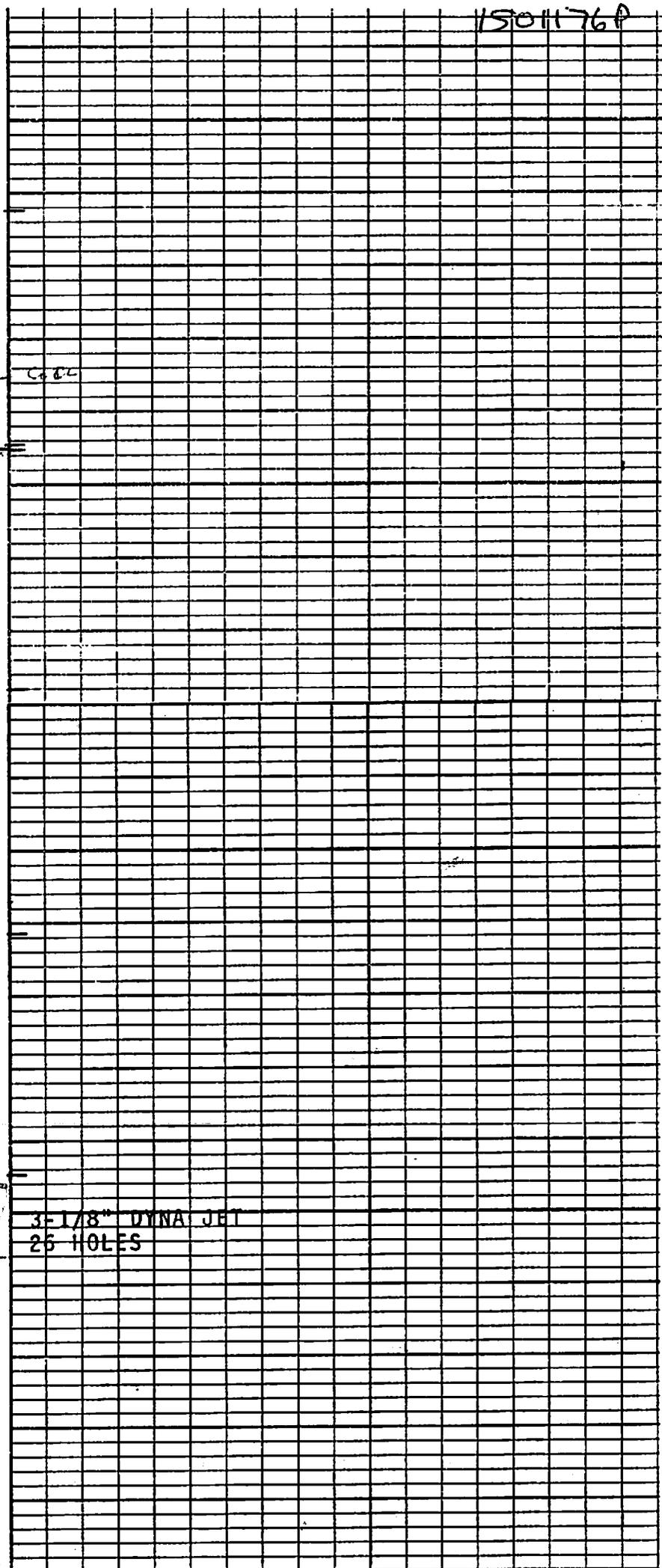
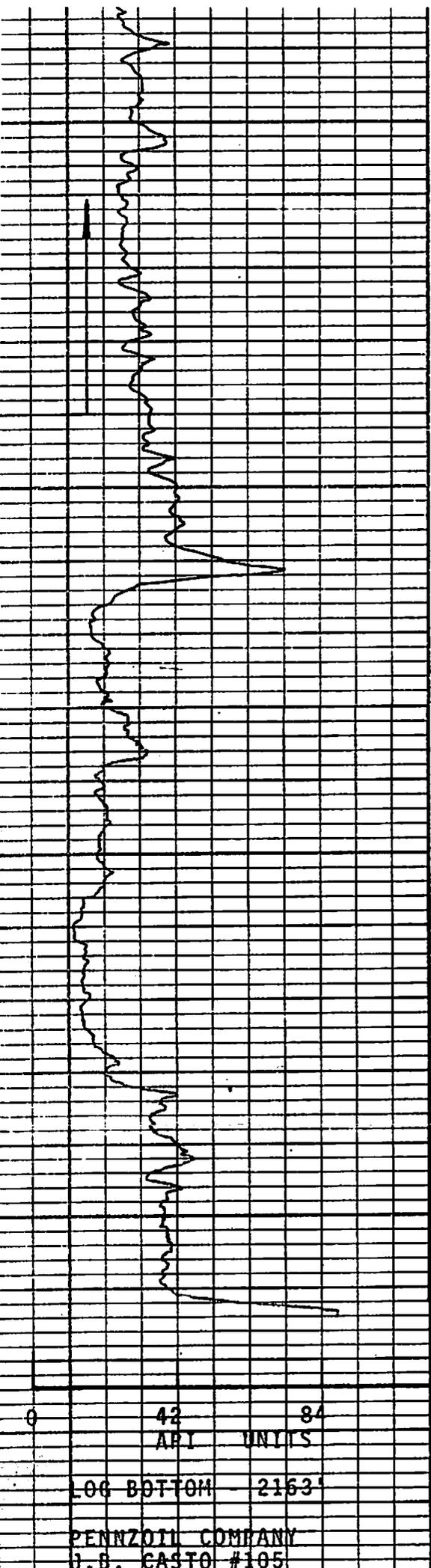
NOISE

1
1/2
1/4
1/8

0 42 84
ART UNITS

LOG BOTTOM 2163'

PENNZOIL COMPANY
J.B. CASTO #105



1501176A

WW-4A
Revised 6-07

1) Date: January 30, 2014
2) Operator's Well Number
J.B. Casto # 105

3) API Well No.: 47 - 015 - 01176

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>James King Sr.</u>		Name <u>N/A</u>
Address <u>4192 Ovapa Road</u>		Address _____
<u>Ovapa, W.V. 25164</u>		_____
(b) Name _____		(b) Coal Owner(s) with Declaration
Address _____		Name <u>N/A</u>
_____		Address _____
(c) Name _____		Name _____
Address _____		Address _____
_____		_____
6) Inspector <u>Ed Gainer</u>		(c) Coal Lessee with Declaration
Address <u>P.O. Box 821</u>		Name <u>N/A</u>
<u>Spencer, W.V. 25276</u>		Address _____
Telephone <u>(304) 389-7582</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 Triad Hunter, LLC
 By: Rocky Roberts
 Its: Senior V.P. Appalachian Operations
 Address 125 Putnam Street
Marietta, Ohio 45750
 Telephone (740) 374-2940

Subscribed and sworn before me this 30th day of January, 2014
Elizabeth R. Tebay
 My Commission Expires 2-29-16
 Notary Public
 Office of Oil and Gas
 State of Ohio
 My Commission Expires
FEB 29 2016

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 privacy policy or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Restricted Delivery Fee (Endorsement Required)		

To: James King Sr.
 4192 Ovapa Rd
 Ovapa, WV 25164

PS Form 3800, August 2013 Instructions

7009 1410 0002 0631 7146

MARIETTA, WV
 FEB 14 2014
 Postmark Here
 USPS

5

J. B. Casto # 105 47-015-1176
 " # 106 47-015-1177
 " # 123 47-015-1655
 " # 130 47-015-1943
 " # 134 47-015-2255

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WW-9
Rev. 5/08

Page 1 of 2
API Number 47-015 - 01176
Operator's Well No. J.B. Casto # 105

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 Triad Hunter, LLC OP Code _____

Watershed Grannys Creek Quadrangle Newton

Elevation 1221' GPS County Clay District Henry

Description of anticipated Pit Waste: No Pit; fluids will be separated at Ovapa Facility; oil stored and salt water re-injected.

Will a synthetic liner be used in the pit? "No Pit"

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 _____)

Proposed Work For Which Pit Will Be Used:

- Drilling Swabbing
- Workover Plugging
- Other (Explain _____)

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 Rocky Roberts

Company Official (Typed Name) Rocky Roberts

Company Official Title Senior V.P. Appalachian Operations

Subscribed and sworn before me this 30th day of January, 2014

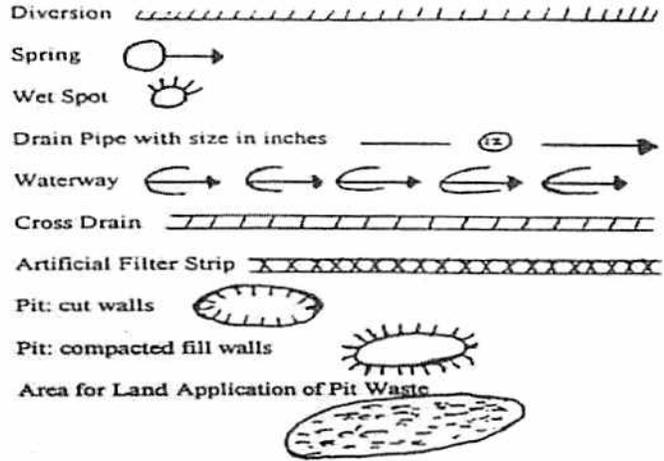
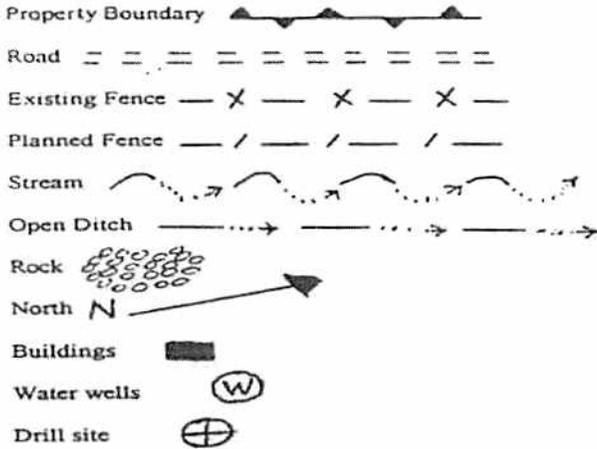
Elizabeth R. Leby



My commission expires 2-29-16

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NOTARY PUBLIC
FEB 20 2014
WV Department of Environmental Protection

LEGEND



Proposed Revegetation Treatment: Acres Disturbed One (1) Prevegetation pH 5.5
 Lime Two (2) Tons/acre or to correct to pH 6.5
 Fertilizer (10-20-20 or equivalent) 600 lbs/acre (500 lbs minimum)
 Mulch 90 - 100 bales/acre Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	30%		
Rye (Annual & BT)	35%		
Timothy (Climax)	25%		
Clover Med. Red)	10%		

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:

Comments: _____

Title: Inspector Date: 2/4/14

Field Reviewed? () Yes () No

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 www.delorme.com



Scale 1 : 31,250
 WV Department of:
 Environmental Protection

WW-7
8-30-06



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

API: 47-015-01176 WELL NO.: 105

FARM NAME: J.B. Casto

RESPONSIBLE PARTY NAME: Triad Hunter, LLC

COUNTY: Clay DISTRICT: Henry

QUADRANGLE: Newton

SURFACE OWNER: James King Sr.

ROYALTY OWNER: Kanawha Banking and Trust Co. et al

UTM GPS NORTHING: 4266164

UTM GPS EASTING: 0487189 GPS ELEVATION: 1221'

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 ____: Post Processed Differential ____

Real-Time Differential ____

Mapping Grade GPS X: Post Processed Differential ____

Real-Time Differential X

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.

Ben Smith
Signature

Geologist
Title

1/16/14
Date

1501176P



Chuck Taylor Toolbox

Geographic/UTM Coordinate Converter

You can convert between geographic coordinates and Universal Transverse Mercator (UTM) coordinates using this form.

Note: This is a JavaScript-powered form. If you have difficulties using this form, check your browser's settings to make sure you have enabled JavaScript.

Programmers: The JavaScript source code in this document may be copied and reused without restriction.

If you have a Java 1.1-compliant browser, and especially if you need to use an ellipsoid model other than WGS84, you may want to try the [Coordinate and Datum Transformations tool](#).

Geographic (degrees decimal)	To/From	UTM
lon <input type="text" value="-81.147007755627"/>	[>>]	x (easting) <input type="text" value="0487189"/>
lat <input type="text" value="38.543801784836"/>	[<<]	y (northing) <input type="text" value="4266164"/>
		zone <input type="text" value="17"/>
		hemisphere <input checked="" type="radio"/> N <input type="radio"/> S

J.B. Casto #105

Geographic coordinates are entered and displayed in decimal degrees. Negative numbers indicate West longitudes and South latitudes. UTM coordinates are entered and displayed in meters. The ellipsoid model used for computations is WGS84.

Chuck Taylor -- ([Copyright](#)) -- ([Contact](#))

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