



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

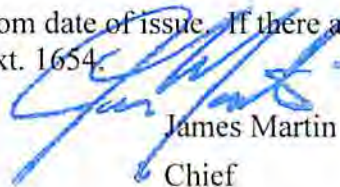
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1501177, 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 #106
Farm Name: KING, JAMES SR.
API Well Number: 47-1501177
Permit Type: Plugging
Date Issued: 04/28/2014

Promoting a healthy environment.

05/02/2014

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.

1501177P

WW-4B
Rev. 2/01

1) Date January 30, 2014
2) Operator's
Well No. J.B. Casto # 106
3) API Well No. 47-015 - 0177

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 1167' 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!

100 ft plug at bottom of surface pipe also.
- 6% gel between all plugs -

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

Work order approved by inspector

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2/4/14
Water Department of
Environmental Protection

05/02/2014

(2014)

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

Well Name : J.B. Casto # 106

Permit Number: 47-015-01177

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. (BUP 2146' - 1896')
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. (1217' - 1117')
13. Displace cement through casing with gel water. (Set 100' plug 2' bottom OK)
14. Pull 4 ½" casing to 100 feet below surface. (5/8" casg - 50' in 50' out (316' - 216'))
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.

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PERFORATIONS: 2084' - 2006' OK gain

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Otter
Permit No. Cla-1177

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

Company PENNZOIL COMPANY
Address P. O. Box 1588, Parkersburg, W. Va.
Farm J. B. Casto Acres 260
Location (waters) Granny's Creek
Well No. 106 Elev. 1184.89
District Henry County Clay
The surface of tract is owned in fee by _____
Mr. Ray E. King
Address Ovapa, W. Va. 25150
Mineral rights are owned by Kanawha Banking &
Trust Co. Address P. O. Box 393, Charleston,
W. Va.
Agt. for Roane Land Co., et al Aug. 3, 1976
Drilling Commenced _____
Drilling Completed Aug. 7, 1976
Initial open flow _____ cu. ft. _____ bbls.
Final production _____ cu. ft. per day _____ bbls.
Well open _____ hrs. before test _____ RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10"			
9 5/8			
8 5/8	266	266	150 sks.
7			
5 1/2			
4 1/2	2162	2162	50 sks.
3			
2			
Liners Used			

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
Silt & Sand			0	245		
Sand			245	290		
Shale			290	378		
Sand			378	500		
Shale			500	518		
Sand			518	535		
Silt & Shale			535	566		
Sand			566	730		
Silt			730	760		
Silt & Sand			760	844		
Sand			844	948		
Silt & Sand			948	1068		
Sand			1068	1133		
Shale			1133	1170		
Sand			1170	1208		
Shale			1208	1324		
Sand			1324	1395		
Shale			1395	1448		
Silt & Sand			1448	1653		
Shale			1653	1684		
Salt Sand			1684	1818		
Shale			1818	1900		
Little Lime			1900	1929		
Blue Monday			1929	1974		

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* 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
Big Lime			1974	2012		
Loyalhanna			2012	2084		
Big Injun			2084	2108		
Shale & Silt			2108	2142		
Squaw			2142	2155		
Shale			2155	2170		
Total Depth				2170		

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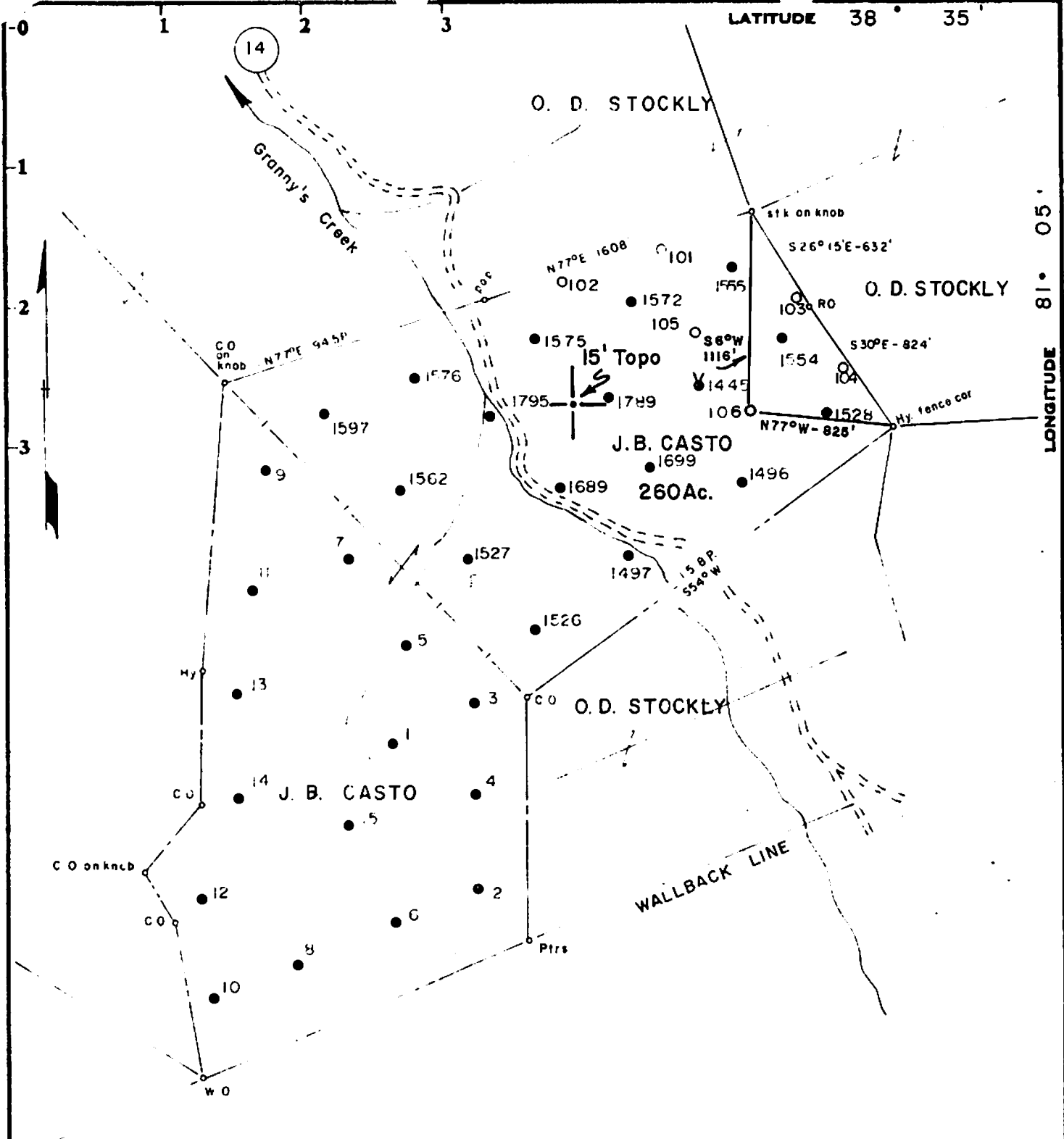
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APPROVED Pennzoil Company Owner

By Curtis A. Lucas FEB 20 2014

(Title) Department of
Environmental Protection

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SURFACE- R E KING
OVAPA, W VA

Minimum Error of Closure 1 in 200

Source of Elevation J. B. CASTO # 105, elev. 1220.02

Fracture Water Injection
 New Location
 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	Acre	260	Lease No. 46485-up
Well Farm No.	106	Serial No.	
Elevation (Spirit Level)	1184.89		
Quadrangle	OTTER 15'		
County	CLAY	District	HENRY
Surveyor	CURTIS A. LUCAS		
Surveyor's Registration No.	275		
File No.	1626	Drawing No.	
Date	6-28-76	Scale	1" = 800'

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

WELL LOCATION MAP

FILE NO. 05/02/2014

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

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

BRUNING 44131 271-8

Office of Oil and Gas
 FEB 20 2014
 Environmental Protection

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McCullough®

GAMMA RAY LOG

FILING NO.

HGR-83736

PENNZOIL CO.
PETROLEUM SURV. DEPT.
P.O. BOX 2000
CINCINNATI, OHIO 45201

COMPANY PENNZOIL CO.

WELL J.B. CASTO #106

FIELD HENRY DIST

COUNTY CLAY STATE W. VA.

LOCATION:

GRANNYS CREEK
OTTERS QUAD. 15'

OTHER SERVICES:

	SEC.	TWP.	RGE.	ELEVATIONS:
PERMANENT DATUM	GL			KB. 1192.89'
LOG MEASURED FROM	KB			DF. 1191.89'
DRILLING MEASURED FROM	KB			GL. 1184.89'
DATE	12-20-76			
RUN NO.	ONE			
TYPE LOG	GAMMA RAY			
DEPTH-DRILLER	2170'			
DEPTH-LOGGER	2146'			
BOTTOM LOGGED INTERVAL	2144'			
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 NO.	BORE HOLE RECORD			CASING RECORD			
	BIT	FROM	TO	SIZE	WGT.	FROM	TO
1	7-7/8"	266'	1390'	8-5/8"		0	266'
	6-3/4"	1390'	2170'	4-1/2"		0	TD

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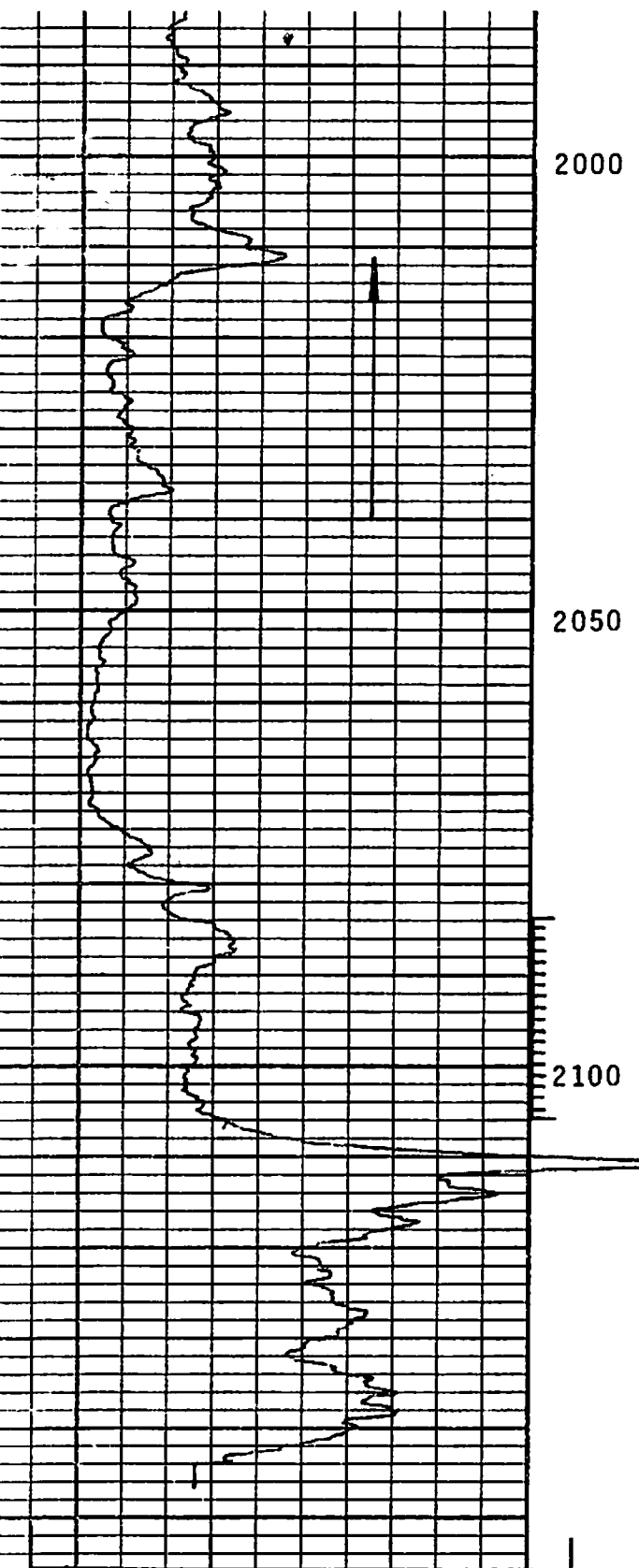
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WV Department of Environmental Protection 05/02/2014

THIS HEADING AND LOG CONFORMS TO API RECOMMENDED STANDARD PRACTICE RP-33 (4)

FOLD HERE

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0 42 84 126 158
 API UNITS

LOG BOTTOM - 2144'

PENNZOIL COMPANY
 J.B. CASTO #106
 HENRY DIST. FIELD
 CLAY COUNTY, WEST VIRGINIA

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WW-4A
Revised 6-07

1) Date: January 30, 2014
2) Operator's Well Number
J.B. Casto # 106
3) API Well No.: 47 - 015 - 01177

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

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FEB 20 2014

Subscribed and sworn before me this 30th day of January, 2014
Elysebeth R. Seib
 My Commission Expires 2-29-16
 Notary Public

WV Department of Environmental Protection
 FEB 20 2014

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 depprivacyofficer@wv.gov.

05/02/2014

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7009 3410 0002 0831 7346

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Postage	\$	
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

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

Postmark Here: FEB 14 2014

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 - 01177
Operator's Well No. J.B. Casto # 106

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 1167' 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
- Workover
- Other (Explain _____)
- Swabbing
- Plugging

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

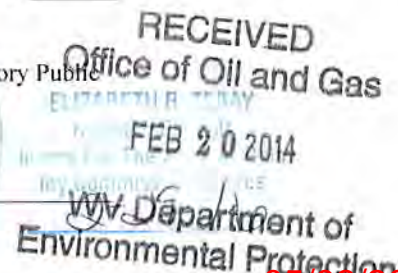
Subscribed and sworn before me this 30th day of January, 2014

Elizabeth R. Sebay

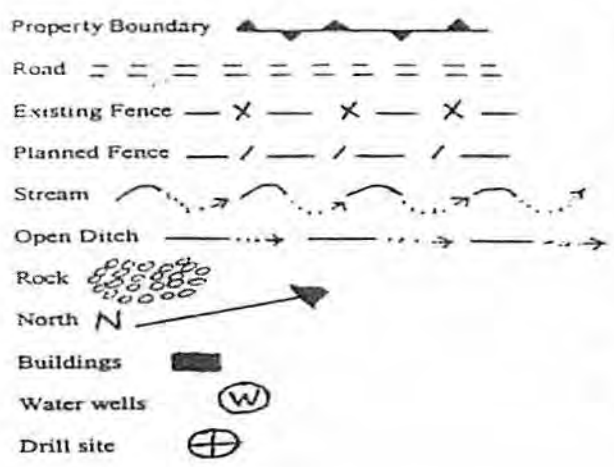
Notary Public



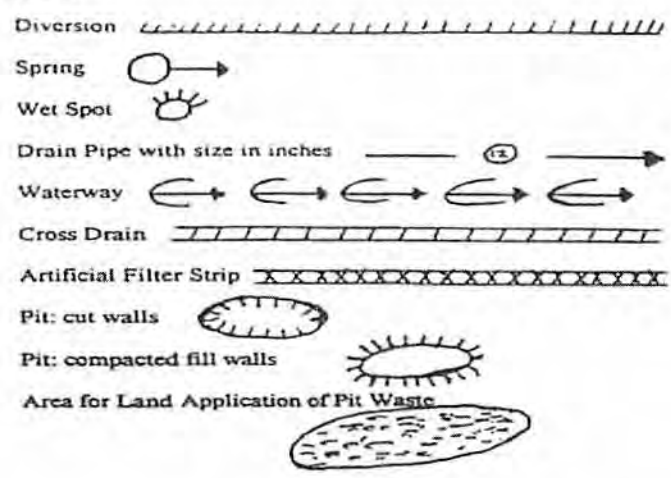
My commission expires 2-29-16



05/02/2014



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 (X) No

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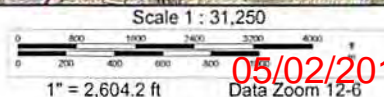
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Data Zoom 12-6

1501177A

WW-7
8-30-06



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

API: 47-015-01177 WELL NO.: 106

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: 4266031

UTM GPS EASTING: 0487276 GPS ELEVATION: 1167'

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 : Post Processed Differential

Real-Time Differential

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 Smethzer
Signature

Geologist
Title

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1/16/14
Date: 1/16/2014
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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 -81.146006999874 [>>]	x (easting)	0487276
lat 38.5426044335356 [<<]	y (northing)	4266031
	zone	17
	hemisphere	<input checked="" type="radio"/> N <input type="radio"/> S

J. B. CASTO # 106

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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