

#### 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 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: 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	, 2014
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 Well Type: Oil \_\_\_\_/ Gas \_\_\_/ Liquid injection X\_/ Waste disposal (If "Gas, Production X or Underground storage \_\_\_\_) Deep \_\_\_\_/ Shallow X Watershed Grannys Creek 5) Location: Elevation 1221'GPS 02 \_\_ Quadrangle Newton County Clay 15 District Henry 6) Well Operator Triad Hunter, LLC 7) Designated Agent Kim Arnold Address 125 Putnam Street Address P.O. Box 154 Waverly, W.V. 26184 Marietta, Ohio 45750 Oil and Gas Inspector to be notified Plugging Contractor Name Ed Gainer Name N/A Address P.O.Box 821 Address Spencer, W.V. 25276 10) Work Order: The work order for the manner of plugging this well is as follows: See changes ! ( SEE ATTACHED SHEET ) 6 /2 gel between all plugs

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

Office of Oil and Gas

Work order approved by inspector

Date

2 FEB 20 2014

WV Department of Environmental Protection 05/02/2014

#### (2014)

#### 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. BAP (2196' - 1946')

6. Pull 2 3/8" tubing OOH.

ELW. 1221

7. RIH with casing cutter tool, check depth of 1st plug and find 4 1/2" 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.), 1/4 lb. flocele/sk.,no CaCl.

10. Displace cement through casing with gel water.

11. Pull 4 1/2" 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. (1271 - 1171')

430-330 85/8 "CASING SING

13. Displace cement through casing with gel water.

14. Pull 4 1/2" casing to 100 feet below surface.

15. (Surface Plug) Mix/Pump 30 sacks of Class A cement, (35.4 cu. ft.), 1/2 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.	<b>Bottom Hole</b>	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 30	RECEIVED
4.	Surface Plug	100 ft.	Class A	30 C	Office of Oil and Gas
5.	Totals:			110 sacks	129.8 cu. ft.
				140	FEB 2 0 2014

PERFORATE: 2136'-2162 (26 HOLES)

WV Department of Environmental Protection



### STATE OF WEST VIRGINIA DEPARTMENT OF MINES

## Oil and Gas Division

### WELL RECORD

Quadrangie		
rermit No.	Cla-1176	
Company_	PENNZOIL COMPANY Casing and O. Box 1588, Parkersburg, W. Va. 26101	T

Rotary\_X Oil Cable\_ Gas\_ Recycling\_ Comb. Water FloodX Storage\_ Disposal\_ (Kind)

15011768

Company PENNZOIL COMPANY Address P. O. Box 1588, Parkersburg, W. Va. 2	26101 Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Farm J. B. Casto Acres 260  Location (waters) Granny's Crk.  Well No. 105 Elev 1220.02'  District Henry County Clay	Size 20-16 Cond.			
The surface of tract is owned in fee by	13-10"			
Mr. Ray E. King	9 5/8			
Address Ovapa, W. Va. 25150	8 5/8	381	381	250 sks.
Mineral rights are owned by Kanawha Banking &	7			
	5 1/2			
Roane Land Co. et al July 29, 1976 W. Va.	4 1/2	2211'	22111	50 sks.
Drilling Completed August 3, 1976	3			
Initial open flow cu. ft bbls.	2			
Final production cu. ft. per daybbls.	Liners Used		4	
Well openhrs. before test RP.			1	
Well treatment details:	Attach copy of c	ementing reco	ord.	

Water Injection Well

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

Formation C	olor	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water * Remarks
Shale			0	80	
Sand		4	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	05/02/2014
Shale			1226	1356	
Sand			1356	1450	RECEIVED
Shale		-	1450	1492	Office of Oil and Gas
Salt Sand			1492	1867	Office of Off and Gas
Shale			1867	1951	FFD 0 0 0004
Little Lime			1951	1982	FEB 2 0 2014

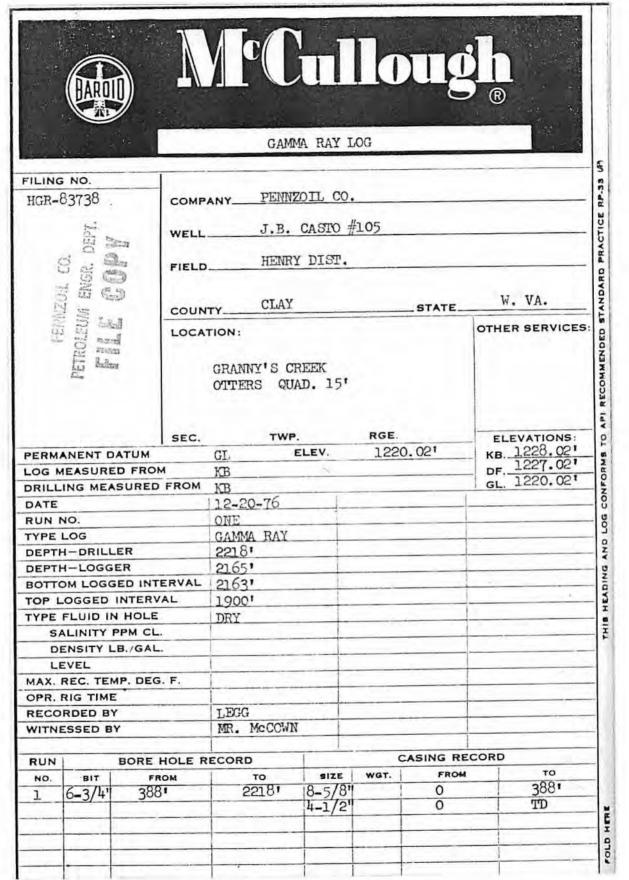
(over)

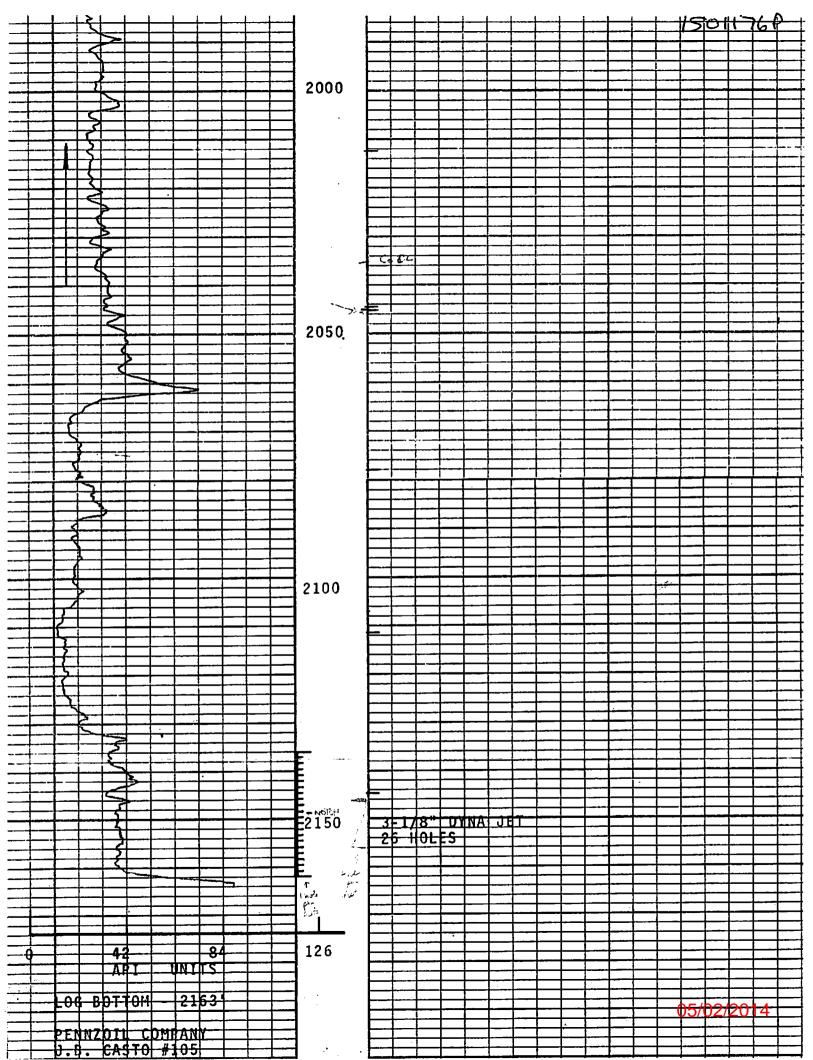
Formation Color Hard or Soft	Top Fcct	Bottom Feet	Oil, Gas or Water * Remarks
Blue Monday Big Lime Loyalhanna Big Injun Shale Squaw Upper Pocono Shale	1982 2022 2064 2132 2162 2194 2212	2022 2064 2132 2162 2194 2212 2218	
Total Depth P.B.D.		2218 2196	
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			07/00/004

APPROVED Pennzoil Company Oil and Gas

By Caurtin Q- SEB 202014

(Tille)WV Department of Environmental Protection





WW-4A Revised 6-07 1) Date: January 30, 2014
2) Operator's Well Number
J.B. Casto # 105

3) API Well No.: 47 -

- 01176

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

	NOTICE	FAPPLICATIO	ON TO PLUG A	AND ABANDON A WELL
<ol><li>Surface Ow</li></ol>	ner(s) to be served:	(5)	(a) Coal Operato	or
(a) Name	James King Sr.	V	Name	N/A
Address	4192 Ovapa Road		Address	All and the second seco
	Ovapa, W.V. 25164			
(b) Name			(b) Coal Ov	Owner(s) with Declaration
Address			Name	N/A
			Address	
(c) Name			Name	
Address	-		Address	
Address			- Address	<del></del>
6) Inspector	Ed Gainer		(c) Coal Le	essee with Declaration
Address	P.O. Box 821		Name	N/A
-12/02/2/2020	Spencer, W.V. 25276		Address	
Telephone	(304) 389-7582			
well (2) The The reason However, Take notic accompan Protection the Applic	its and the plugging wo plat (surveyor's map) sh n you received these docum you are not required to take that under Chapter 22-6 of ying documents for a permit, with respect to the well at	rk order; and nowing the well location tents is that you have right any action at all. of the West Virginia Cost to plug and abandon a the location described of the mailed by registered	ghts regarding the appli de, the undersigned well well with the Chief of to the attached Applicat dor certified mail or de	ch sets out the parties involved in the work and describes the elication which are summarized in the instructions on the reverses side. The operator proposes to file or has filed this Notice and Application and the Office of Oil and Gas, West Virginia Department of Environmental ation and depicted on the attached Form WW-6. Copies of this Notice, delivered by hand to the person(s) named above (or by publication in
		Well Operator By: Its: Address Telephone	Triad Hunter, LLC Rocky Roberts Senior V.P. Appalac 125 Putnam Street Marietta, Ohio 4575 (740 ) 374-2940	achian Operations
Subscribed and	I sworn before me t	his 30th d	lay of Janu	Notary Public of Oil and Gas
wry Commission	H-Expires		22/1	An one
Oil and Gas Priv	acy Notice			FEB 2 HANT O
The Office of Oil	and Gas processes yo	our personal inforn	nation, such as nar	ame, address and phone number, as a part of our of

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our pregulatory 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 requirements of the normation of the



J. B. Casto	#	105	47-015-1176
10	#	106	47-015-1177
it	#	123	47-015-1655
u	#	130	47-015-1943
il	#	134	47-015-2255

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WV Departrogro 2/2014 Environmental Protection WW-9 Rev. 5/08

	Page	1	of 2	
API Number 47 -	015	- 4	01176	
Operator's Well N	O. J.B.	Casto # 1	05	

# 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

	Triad Hunter, LLC			OP Code	
Watershed_Gran	nys Creek		Quadrangle	Newton	
Elevation 1221	' GPS	County_Clay		District	Henry
Description of an	ticipated Pit Waste:	No Pit; fluids will be se	parated at Ovapa	Facility; oil stor	red and salt water re-injected.
Will a synthetic li	ner be used in the pit	?" No Pit ",			
Proposed Dispose	al Method For Treated	d Pit Wastes:			
	Land Applie				
		d Injection (UIC Perm	nit Number		)
	Reuse (at A				
	Off Site Dis	spposal (Supply form W	VW-9 for disposal	location)	
	Other (Exp	lain			
Proposed Work F	or Which Pit Will Be	: Used:			
	Drilling		Swabbi	-	
	Workover		Pluggir	ıg	
	Other (Exp	lain			
on August 1, 200	5, by the Office of Oi	il and Gas of the West \	Virginia Departmen	nt of Environm	ATER POLLUTION PERMIT i
on August 1, 200 provisions of the aw or regulation I certify application form obtaining the infocenalties for subr Company Officia	5, by the Office of Office of Office of Office of Office on lead to enforcement of the and all attachments ormation, I believe nitting false information of Isignature    [ (Typed Name) Response of Office of	il and Gas of the West Vole by law. Violations and action.  w that I have personal thereto and that, bas	Virginia Department of any term or construct of any term or construct and ed on my inquiry true, accurate, arbility of fine or im	nt of Environmendition of the gram familiar with of those indicated complete.	ental Protection. I understand the eneral permit and/or other application the information submitted or ividuals immediately responsible am aware that there are significant.
on August 1, 200 provisions of the aw or regulation I certify application form obtaining the infocenalties for subr Company Officia Company Officia	5, by the Office of Oipermit are enforceal can lead to enforcem under penalty of la and all attachments formation, I believe nitting false informat I Signature Royal (Typed Name) Royal Title Senior	il and Gas of the West Vole by law. Violations June action.  w that I have personal is thereto and that, bas that the information is ion, including the possion, ocky Roberts  V.P. Appalach	Virginia Department of any term or construct of any term or construct and ed on my inquiry true, accurate, arbility of fine or im	nt of Environmendition of the gram familiar will of those indeed complete. In prisonment.	ental Protection. I understand the eneral permit and/or other application the information submitted or ividuals immediately responsible am aware that there are significant.

	LEGEND
Property Boundary	Diversion control of the Control of
Road $= = = = = = = = = = = = = = = = = = =$	Spring
Existing Fence — X — X — X —	Wet Spot
Planned Fence///	Drain Pipe with size in inches (3
Stream	Waterway C+ C+ C+
Open Ditch	Artificial Filter Strip XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
North N	Pit: cut walls
Buildings (	Pit: compacted fill walls
Water wells	Area for Land Application of Pit Waste
Drill site	
Proposed Revegetation Treatment: Acres Disturbed _ Lime Two (2) Tons/acre or to corr	One (1) Prevegetation pH 5.5
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 Photocopied section of involved 7.5' topographic shee	V-124 1.7 1
Plan Approved by:  Comments:	
Title: Inspector	Date: 2 4 14 Office of Oil and Gas
Field Reviewed? () Yes	( No FEB 2 0 2014
	WV Department of Environment of Envi



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MN (7.9"W)

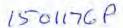
WV Department of Environmental 05.02.2014



# West Virginia Department of Environmental Protection Office of Oil and Gas

## WELL LOCATION FORM: GPS

API: 47-015-01176	Locarion		
FARM NAME: J.B. Cas	sto		
RESPONSIBLE PARTY NAI	ME: Triad H	unter, LLC	
COUNTY: Clay		DISTRICT: Henry	/
QUADRANGLE: Newto			
SURFACE OWNER: Jam			
ROYALTY OWNER: Kar	nawha Ban	king and Trust	Co. et al
UTM GPS NORTHING: 42			
UTM GPS EASTING: 048		GPS ELEVATION:	1221'
the following requirements:  1. Datum: NAD 1983, height above mean s 2. Accuracy to Datum 3. Data Collection Met Survey grade GPS: Po	sea level (MSL) – – 3.05 meters thod:		Altitude:
	eal-Time Different		
Mapping Grade GPS X:			
	Real-Time Differ	rential X	
4. Letter size copy of I the undersigned, hereby certif belief and shows all the information prescribed by the Office of Oil	y this data is corre ation required by I		vledge and
Bon lmother	Geolo	gist 1	/16/14
Signature		Title	Date





# 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 <u>Coordinate and Datum Transformations tool</u>.

Geographic (degrees decimal)		To/From		UTM	J.B. CA5+0#105	
lon	-81.147007755627	>>	x (easting)	0487189		
lat	38.5438017848360	<<	y (northing)	4266164		
			zone	17		
			hemisphere	●N ⊕S		

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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