



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

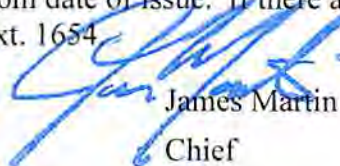
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1502255, 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 #134
Farm Name: KING, JAMES SR.
API Well Number: 47- 1502255
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.

WW-4B
Rev. 2/01

1) Date January 30, 2014
2) Operator's
Well No. J.B. Casto # 134
3) API Well No. 47-015 - 0255

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 1433' 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!
to gel between all plug

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

Work order approved by inspector



RECEIVED
Office of Oil and Gas
FEB 20 2014
Date WV Department of Environmental Protection

(2014)

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

Well Name : J.B. Casto # 134

Permit Number: 47-015-02255

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 2400' - 2150')
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. (1483' - 1383')
13. Displace cement through casing with gel water.
14. Pull 4 ½" casing to 100 feet below surface. (200 - 600)
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.

BLEW 1433'

ELEV. PLUG

Set plug bottom of surface casg - 200 - 600

8 5/8" CASING SEAT PLUG

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.

RECEIVED
 Office of Oil and Gas
 FEB 20 2014
 W. Department of
 Environmental Protection

BLEW 1433'
2400'



150 2255A

WR-35

Date August 5, 1986
Operator's Well No. 134
Farm J. B. Casto
API No. 47 - 015 - 2255-Li

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

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

WELL TYPE: Oil / Gas / Liquid Injection X / Waste Disposal /
(If "Gas," Production / Underground Storage / Deep / Shallow /)

LOCATION: Elevation: 1435.74' Watershed Granny's Creek
District: Henry County Clay Quadrangle Newton 7.5'

COMPANY Pennzoil Company
ADDRESS P.O. Box 1588, Parkersburg, WV 26102
DESIGNATED AGENT James A. Crews
ADDRESS P.O. Box 1588, Parkersburg, WV 26102
SURFACE OWNER Ray King
ADDRESS Ovapa, W.Va. 25150
MINERAL RIGHTS OWNER Kanawha Banking & Trust Co.
ADDRESS P.O. Box 393, Charleston, WV
OIL AND GAS INSPECTOR FOR THIS WORK Craig
Duckworth ADDRESS Box 107, Davisson Rt.
PERMIT ISSUED 11-16-84 Gassaway, WV
DRILLING COMMENCED 12-5-84
DRILLING COMPLETED 12-13-84
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Ca. ft.
Size 20-16 Cord			
18-10"			
9 5/8	653	653	350 sks
8 5/8			
7	2252	2252	125 sks.
5 1/2			
4 1/2			
3			
2			
Linings used			

GEOLOGICAL TARGET FORMATION Big Injun Depth 2353 feet
Depth of completed well 2400 feet Rotary X / Cable Tools
Water surface depth: Fresh 200 feet; Salt 2000 (est) feet
Coal seam depths: Is coal being mined in the area? X

OPEN FLOW DATA
Producing formation WIW Pay zone depth feet
Gas: Initial open flow mcf/d Oil: Initial open flow bbl/d
Final open flow mcf/d Final open flow bbl/d
Time of open flow between initial and final tests hours
Static rock pressure psig (surface measurement) after hours shut in
(If applicable due to multiple completion--)
Second producing formation Pay zone depth 05/02/2014 feet
Gas: Initial open flow mcf/d Oil: Initial open flow bbl/d
Final open flow mcf/d Oil: Final open flow bbl/d
Time of open flow between initial and final tests hours
Static rock pressure psig (surface measurement) after hours shut in

RECEIVED
Office of Oil and Gas
EER 20 2014
WV Department of Environmental Protection

WELL LOG

REMARKS
 Including indication of all the
 and salt water, coal, oil and a

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Sand and Shale			0	156	
Sand			193	193	
Shale			232	232	
Shale			232	2171	
Sand, Shale			232	2171	
Little Lime			2171	2193	
Blue Monday			2193	2210	
Pencil Cave			2210	2247	
Big Lime			2247	2346	
Keener			2346	2353	
Big Injun			2353	2376	
Pocono Shale			2376	2400	
Total Depth				2400	

(Attach separate sheets as necessary)

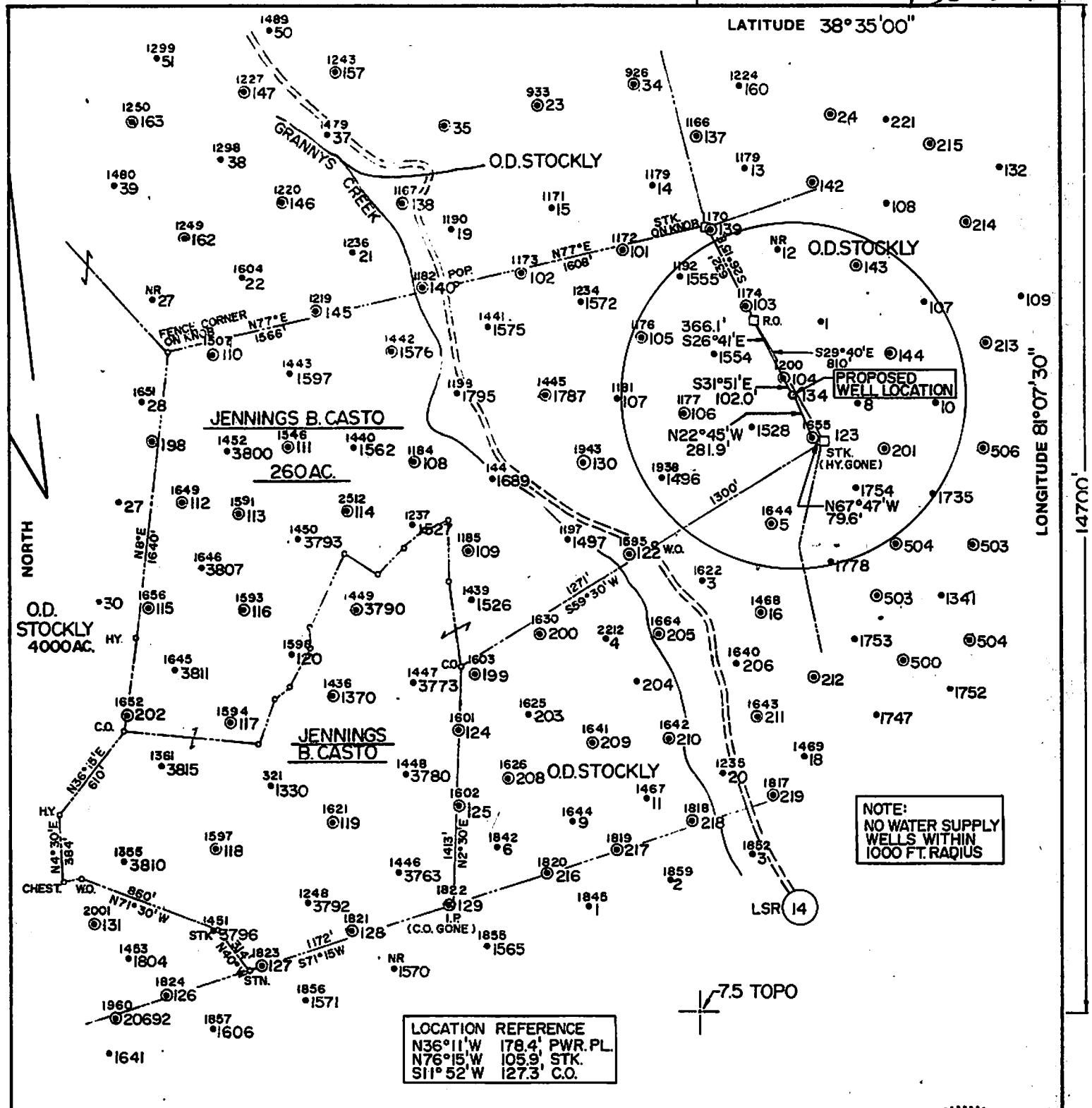
Pennzoil Company
 Well Operator

By: *Justin A. Brown*
 Date: 9-4-86

RECEIVED
 Office of Oil and Gas

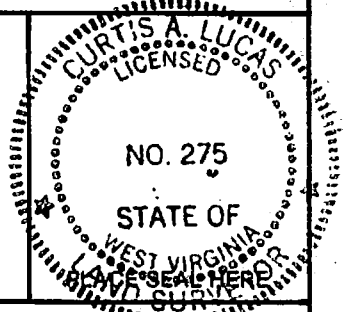
FEB 20 2014

Note: Regulation 2.02(c) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic record of all formations, including
 detected geophysical records in the drilling of a well."
 Environmental Protection



FILE NO. 1626
 MAP 83 SQS S62 W31
 SCALE 1"=800'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION B.M. AT J.B. CASTO
 WELL NO. 123

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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 DEPARTMENT OF MINES.
 (SIGNED) Curtis A. Lucas
 CURTIS A. LUCAS LLS 275



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE OCT. 30
 FARM JENNINGS B. CASTO NO. 134
 API WELL NO.

47 - 015
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION X WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 1435.74' WATER SHED GRANNYS CREEK
 DISTRICT HENRY COUNTY CLAY
 QUADRANGLE NEWTON 7.5'

SURFACE OWNER RAY KING ACREAGE 77.32
 OIL & GAS ROYALTY OWNER KANAWHA BANKING & TRUST LEASE ACREAGE 666
 LEASE NO. 46485-00

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ___

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION BIG INJUN ESTIMATED DEPTH 2500'
 WELL OPERATOR PENNZOIL COMPANY DESIGNATED AGENT JAMES A. CREWS
 ADDRESS P.O. BOX 1588 ADDRESS P.O. BOX 1588
PARKERSBURG W V 26101 PARKERSBURG, W.V. 26101

RECEIVED
 Office of Oil and Gas
 FEB 20 2014
 RECEIVED
 OCT 30 1984

FILE

Schlumberger

LITHO DENSITY-GR



COMPANY: PENNZOIL COMPANY
 WELL: J. B. CASTO #134 - WIW
 FIELD: GRANNY'S CREEK
 COUNTY: CLAY
 STATE: WEST VIRGINIA
 NATION: USA
 LOCATION: HENRY DISTRICT
 NEWTON QUADRANGLE
 SEC: TWP: RGE:

PERMANENT DATUM:	GL	ELEVATIONS-
ELEV. OF PERM. DATUM:	1436.0 F	KB: 1444.0 F
LOG MEASURED FROM:	RKB	DF: 1443.0 F
8.0 F ABOVE PERM. DATUM		GL: 1436.0 F
DRLG. MEASURED FROM:	RKB	

DATE: 13 DEC 84
 RUN NO: 1

DEPTH-DRILLER: 2400.0 F
 DEPTH-LOGGER: 2400.0 F
 BTM. LOG INTERVAL: 2397.0 F
 TOP LOG INTERVAL: 2251.0 F
 CASING-DRILLER: 2252 F
 CASING-LOGGER: 2251 F
 CASING: 7
 BIT SIZE: 6 1/4

RECEIVED
 Office of Oil and Gas
 FEB 20 2014
 WV Department of
 Environmental Protection
 05/02/2014

2200

50-2255 P



LR

CSG

IBCASTO
#134

2300

DENSITY POROSITY

GRAIN DENSITY
2.71 grams/cc

DENSITY CALIPER

BULK DENSITY

GAMMA RAY

TENSION

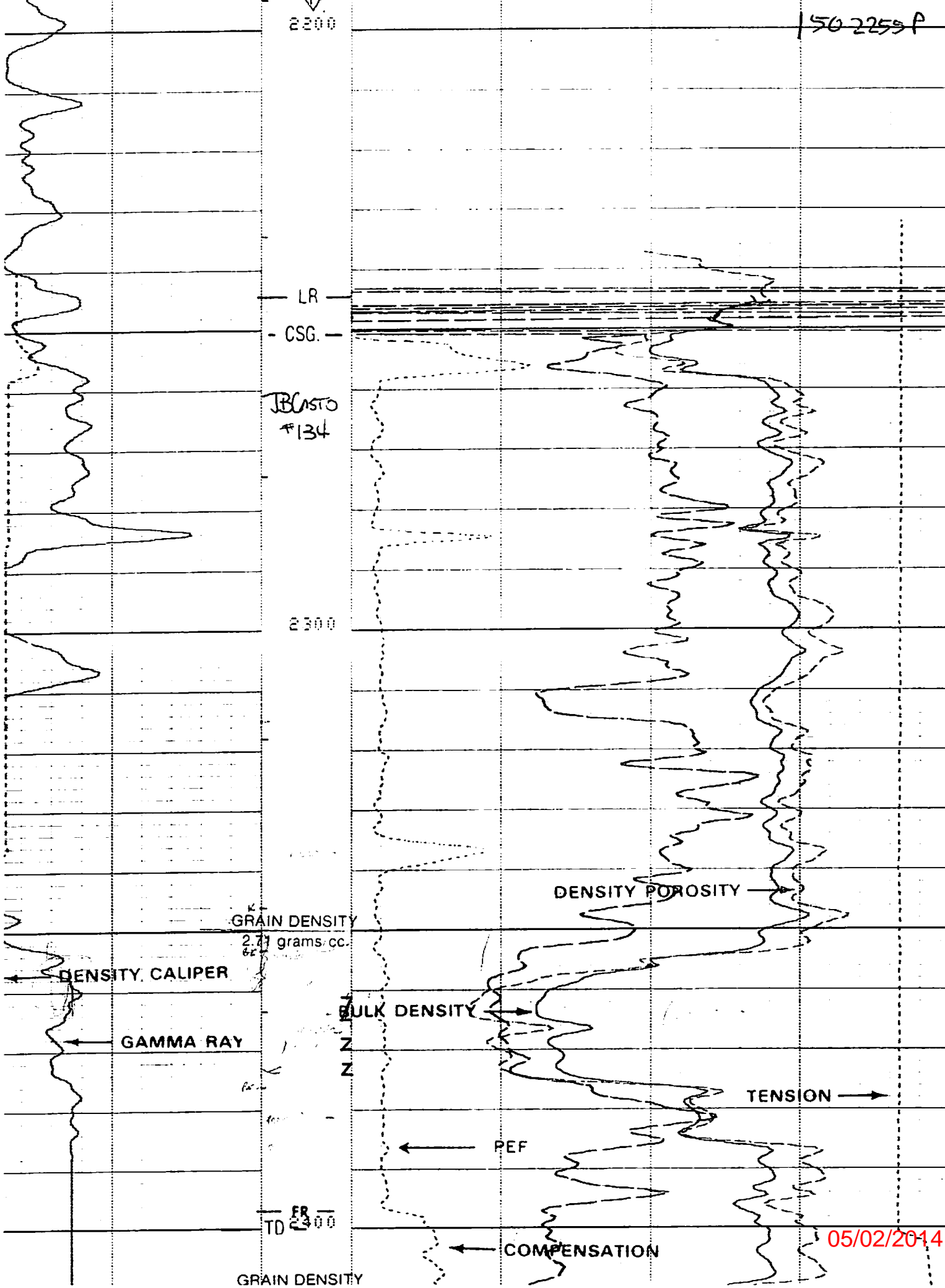
PEF

FR
TD 2300

COMPENSATION

GRAIN DENSITY

05/02/2014



150 2255P

WW-4A
Revised 6-07

1) Date: January 30, 2014
2) Operator's Well Number
J.B. Casto # 134

3) API Well No.: 47 - 015 - 02255

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 *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. Ruby Notary Public

My Commission Expires 2-29-16

RECEIVED
Office of Oil and Gas
FEB 10 2014
West Virginia 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 depprivacyofficer@wv.gov.

05/02/2014

1502255p

7009 1430 0002 0831 7146

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$	
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
To	James King Sr.	
Street	4192 Ovapa Rd	
City	Ovapa, WV 25164	
Restrictions		

5

✓

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

RECEIVED
Office of Oil and Gas
FEB 20 2014
WV Department of Environmental Protection
05/02/2014

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 1433' 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*

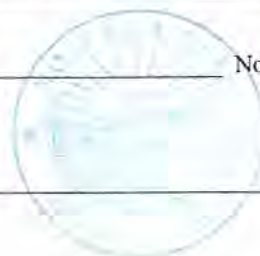
Company Official (Typed Name) Rocky Roberts

Company Official Title Senior V.P. Appalachian Operations

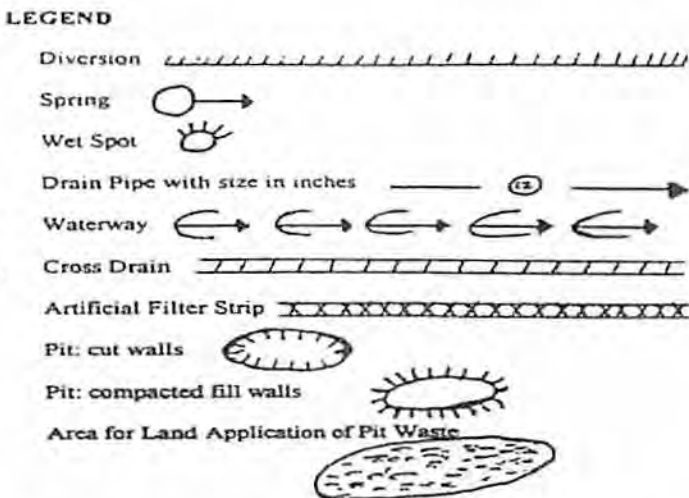
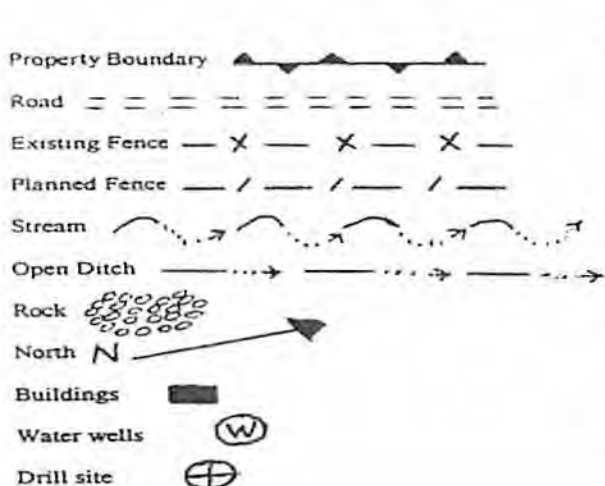
Subscribed and sworn before me this 30th day of January, 2014

Elyzabeth R. Juby Notary Public

My commission expires 2-29-16



RECEIVED
Office of Oil and Gas
FEB 20 2014
WV Department of
Environmental Protection
05/02/2014



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.

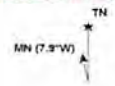
Plan Approved by: [Signature]
 Comments: _____

Title: Inspector Date: 2/4/14

Field Reviewed? () Yes () No



Data use subject to license.
 © DeLorme. XMap® 7.
 www.delorme.com



Scale 1 : 31,250
 1" = 2,604.3 feet
 Data Zoom 12-6

RECEIVED
 Office of Oil and Gas
 FEB 20 2014

Tennessee Department of Environment & Protection
 05/02/2014

1502255P



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 -81.143850617090	>>	x (easting) 0487464
lat 38.543057705665	<<	y (northing) 4266081
		zone 17
		hemisphere <input checked="" type="radio"/> N <input type="radio"/> S

J.B. Casto # 134

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](#))

RECEIVED
Office of Oil and Gas
FEB 20 2014
WV Department of
Environmental Protection

05/02/2014

1/13/2014