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**west virginia** department of environmental protection

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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

March 05, 2013

**WELL WORK PERMIT**

**Horizontal 6A Well**

This permit, API Well Number: 47-5101605, issued to TRANS ENERGY, INC., 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.

Please be advised that form WR-35, well operators report of well work, is to be submitted to this office within 90 days of completion of drilling, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: GOSHORN 4H  
Farm Name: TIMOTHY JAMES HUBBS TRUST  
**API Well Number: 47-5101605**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 03/05/2013

**Promoting a healthy environment.**

# PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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

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1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the fill material shall be within plus or minus 2% (unless soil test results show a greater range of moisture content is appropriate and 95% compaction can still be achieved) of the optimum moisture content as determined by the standard proctor density test, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort. Each lift must meet 95 % compaction of the optimum density based on results from the standard proctor density test of the actual soils used in specific engineered fill sites. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
3. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
4. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
5. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.

WW - 6B  
(1/12)

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**W.VA. CODE §22-6A - WELL WORK PERMIT APPLICATION**

1) Well Operator: Trans Energy Inc.

494481575	Marshall	Liberty	Cameron
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Operator ID County District Quadrangle

2) Operator's Well Number: Goshorn 4H Well Pad Name: Goshorn

3 Elevation, current ground: 1308' Elevation, proposed post-construction: 1308'

4) Well Type: (a) Gas  Oil   
 Other   
 (b) If Gas: Shallow  Deep   
 Horizontal

5) Existing Pad? Yes or No: Yes

6) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):  
Marcellus Shale, 7200', 60' thickness and 3000 psi

7) Proposed Total Vertical Depth: 7200'

8) Formation at Total Vertical Depth: Marcellus Shale

9) Proposed Total Measured Depth: 12,700

10) Approximate Fresh Water Strata Depths: 150', 280'

11) Method to Determine Fresh Water Depth: Information received from the Marshall County Health Dept.

12) Approximate Saltwater Depths: 1500'

13) Approximate Coal Seam Depths: 1033'

14) Approximate Depth to Possible Void (coal mine, karst, other): 1035' Bailey Mine

15) Does land contain coal seams tributary or adjacent to, active mine? yes

16) Describe proposed well work: Drill and Complete horizontal well in the Marcellus Shale, lateral to be approximately 5500' in length  
If Mine void is encounter, please see attached letter

17) Describe fracturing/stimulating methods in detail:  
A water fracture treatment is proposed a mixture of sand and water will be used to stimulate the Marcellus Shale

18) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): 4.00 acres

19) Area to be disturbed for well pad only, less access road (acres): 2.85 acres

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February 15, 2013

Ms. Laura Cooper  
West Virginia DEP  
601 57<sup>th</sup> Street  
Charleston, WV 25304

Re: Void Encounter  
Goshorn 4H  
5101605 11/19/2012  
Wednesday 2/13/2013

Dear Laura,

In follow up to the above email, referencing Item 2, Bailey Mine, if encountered we will run casing no deeper than 50' beyond the void and set a basket as the ceiling and at the bottom and grout/cement, and we will notify the inspector immediately.

We are also adding additional language as per the state; that we will to go **at least 30'** beyond. (§22-6-20 "When a well is drilled through the horizon of a coal bed from which the coal has been removed, the hole shall be drilled at least thirty feet below the coal bed...")

Once you have reviewed and would have any questions regarding this permit please feel free contact me at 304-684-7053 ext. 26 or Leslie Gearhart at ext. 32

As always thank you for your help in these matters.

Sincerely yours,

**Trans Energy Incorporated**

Debra A. Martin  
Land Administrator

DM/dm

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20)

CASING AND TUBING PROGRAM

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill -up (Cu. Ft.)
Conductor	20	New	J-55	94	40'	40'	✓ To Surface
Fresh Water	13-3/8	New	J-55	54.5	1100'	1100'	✓ To Surface
Coal							
Intermediate	9 5/8	New	J-55	36	3000'	3000'	✓ To Surface
Production	5 1/2	New	P-110	20		12700'	✓ To Surface
Tubing							
Liners							

DH 9-27-12

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield
Conductor	20	26	0.438	1530	Type I	✓ 13 cu ft/sk
Fresh Water	13-3/8	17-1/2	0.38	2730	Type I	✓ 1.25 cu ft/sk
Coal						
Intermediate	9-5/8	12-1/2	.352	3520	Type I	✓ 1.26 cu ft/sk
Production	5-1/2	8-3/4	.361	12630	Poz H Class H	✓ 1.18 cu ft/sk
Tubing						
Liners						

PACKERS

Kind:	N/A				<b>RECEIVED</b> Office of Oil & Gas OCT 01 2012
Sizes:					
Depths Set:					

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21) Describe centralizer placement for each casing string.

Fresh water string - 1 centralizer every 160'

Intermediate string - 1 centralizer every 100' from 3300' to 900'

Production string - 1 centralizer every 80' from TD to above ROP (7000')

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

22) Describe all cement additives associated with each cement type.

Standard Type I cement - retarder and fluid loss (surface and intern)

Class H in lateral - retarder and fluid loss and free water additive

✓ Type 1 +2% CaCl<sub>2</sub> + Y4# Flake - Surface Cement mixed @ 15.6 ppg CaCl<sub>2</sub>, Flake (cellophane flake)

Type 1 + 1% CaCl<sub>2</sub> + Y4# Flake - Intermediate Cement mixed @ 15.6 ppg.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

23) Proposed borehole conditioning procedures.

Before cement casing mud will be thinned and all gas will be circulated out of the mud before cementing

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\*Note: Attach additional sheets as needed.

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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 Trans Energy Inc. OP Code 494481575

Watershed Left Fork of Maggoty Run Quadrangle Cameron

Elevation 1308' County Marshall District Liberty

Description of anticipated Pit Waste: N/A

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a synthetic liner be used in the pit?  No Pit  If so, what mil.? N/A

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 All frac fluids will be flowed back into storage containers and Buckeye Water Service Company will haul to an approved water disposal facilities)

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Freshwater mud until reaching Marcellus then synthetic  
-If oil based, what type? Synthetic, petroleum, etc. synthetic

Additives to be used? See Attached

Will closed loop system be used?  Yes

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. All cuttings will be hauled to approved landfill

-If left in pit and plan to solidify what medium will be used? Cement, lime, No Pit

-Landfill or offsite name/permit number? Short Creek Landfill SWF-1034

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 Leslie Gearhart

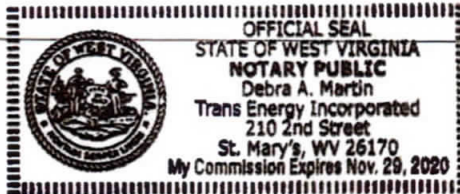
Company Official (Typed Name) Leslie Gearhart

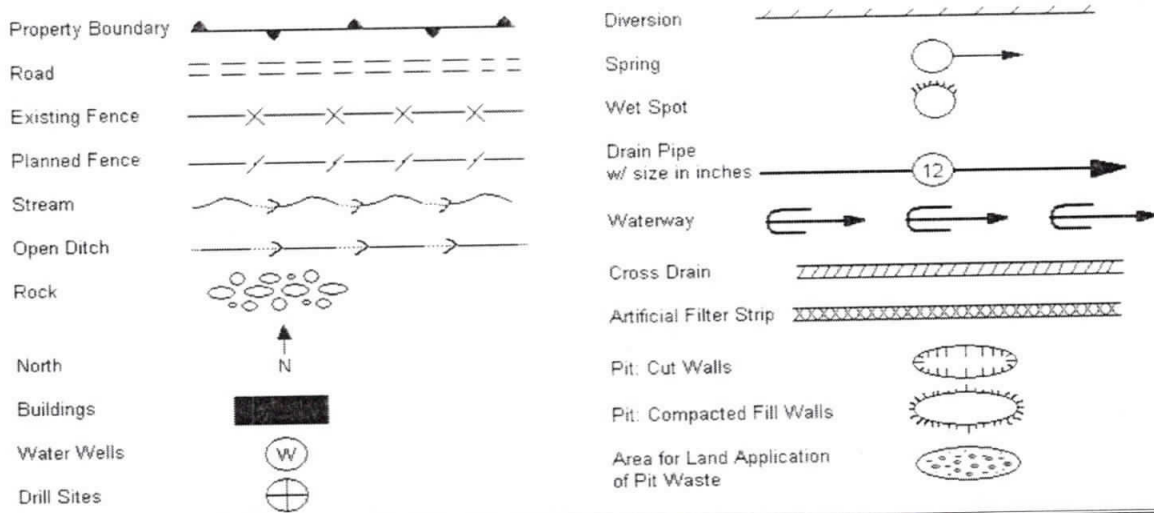
Company Official Title VP-Operations

Subscribed and sworn before me this 15th day of September, 2013

Debra A. Martin Debra A. Martin Notary Public

My commission expires 11/29/2020





Proposed Revegetation Treatment: Acres Disturbed Location 2.85 Road - 1.15 = Total 4.00 Prevegetation pH \_\_\_\_\_

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
Meadow Mix	100	Meadow Mix	100
Oats or Rye	50	Oats or Rye	50

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: Oil + Gas Inspector

Date: 9-27-12

Field Reviewed?  Yes  No

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51-01605

09/26/2012

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# TRANS ENERGY INC.

DMH  
9-27-12

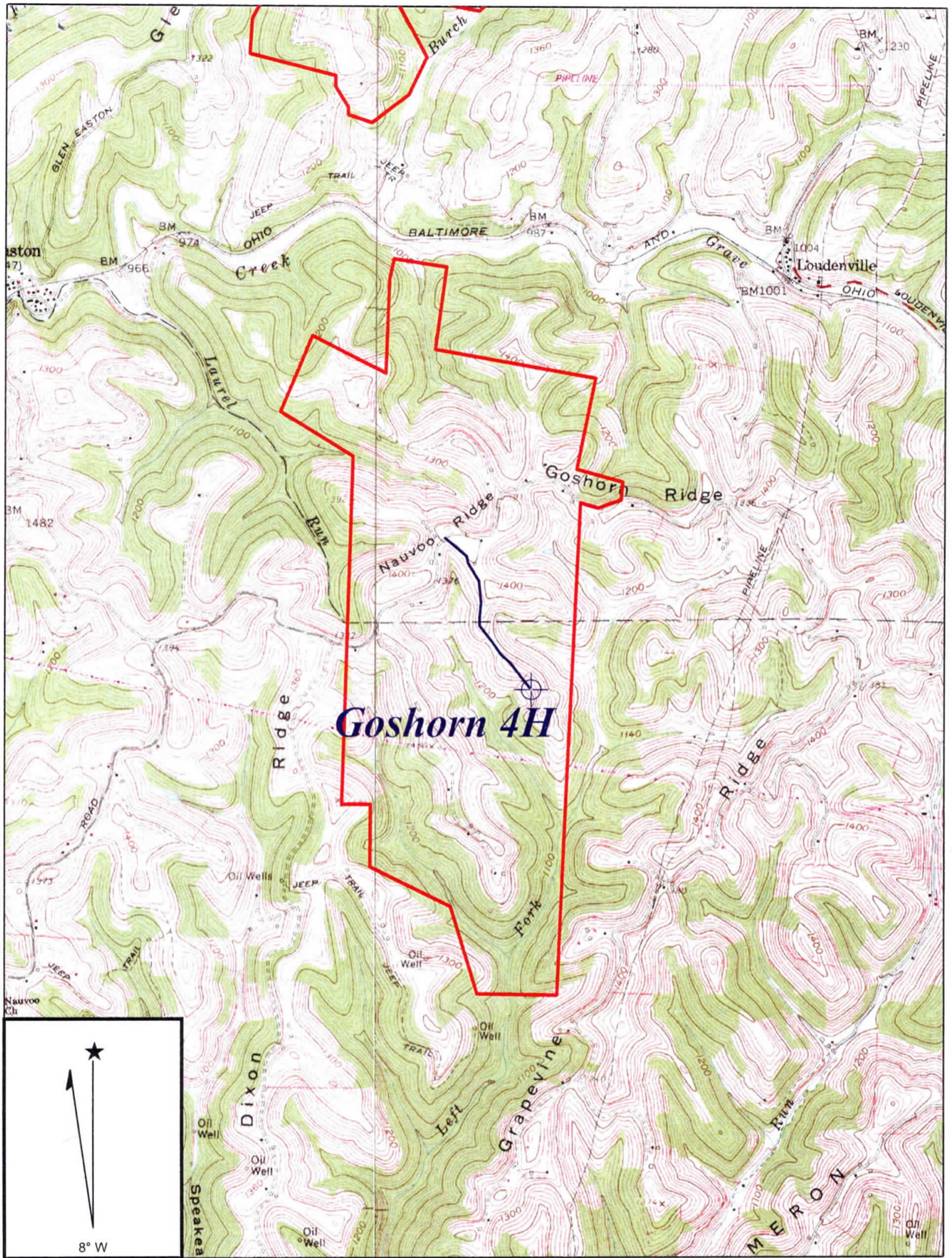
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WELL SITE SAFETY PLAN  
Goshorn 4H

WV Department of  
Environmental Protection



Copyright (C) 1997, Maptech, Inc.

51-01605 H6A

CAMERON QUADRANGLE

SCALE 1" = 2000'

**TRANS ENERGY, INC.**

WELL: GOSHORN 4H  
 GOSHORN RIDGE LLC 937 ACRE LEASE

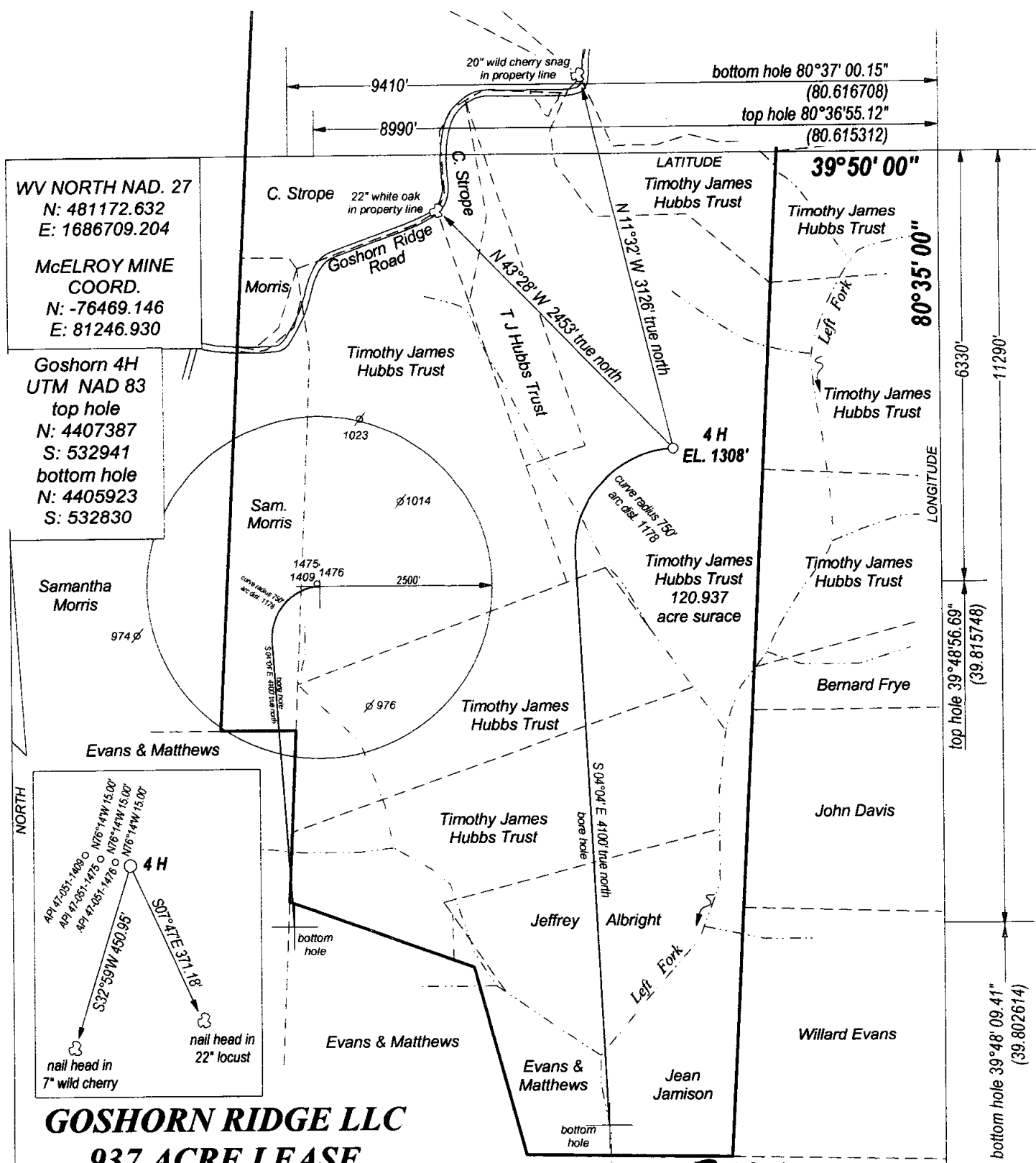
LIBERTY DISTRICT    MARSHALL COUNTY    WEST VIRGINIA

FARM NAME: TIMOTHY JAMES HUBBS TRUST

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WV NORTH NAD. 27  
 N: 481172.632  
 E: 1686709.204

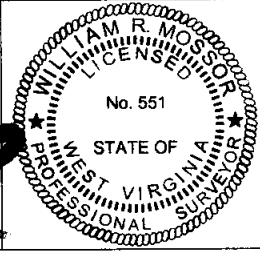
McELROY MINE  
 COORD.  
 N: -76469.146  
 E: 81246.930

Goshorn 4H  
 UTM NAD 83  
 top hole  
 N: 4407387  
 S: 532941  
 bottom hole  
 N: 4405923  
 S: 532830

**GOSHORN RIDGE LLC  
 937 ACRE LEASE**

FILE NO. GOSHORN RIDGE  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE  
 OF ACCURACY 1:200  
 PROVEN SOURCE  
 OF ELEVATION GPS  
OBSERVATION

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 ENERGY.  
 (SIGNED) *[Signature]*  
 PROFESSIONAL SURVEYOR: 551



STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 DIVISION OF OIL AND GAS

DATE JULY 27TH, 2012  
 OPERATORS WELL NO. GOSHORN 4H

**API 47 - 051 - 0160** #6A  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF GAS) PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW

LOATION: ELEVATION 1308' WATER SHED LEFT FORK OF MAGGOTY RUN  
 DISTRICT LIBERTY COUNTY MARSHALL QUADRANGLE CAMERON

SURFACE OWNER TIMOTHY JAMES HUBBS TRUST ACREAGE 120.937  
 OIL & GAS ROYALTY GOSHORN RIDGE LLC LEASE AC. 937

PROPOSED WORK: DRILL  CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_  
 FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_  
 PERFORATE NEW FORMATION \_\_\_  
 OTHER PHYSICAL CHANGE IN WELL \_\_\_  
 PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_

TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 7200'

WELL OPERATOR TRANS ENERGY, INC. DESIGNATED AGENT LOREN BAGLEY  
 ADDRESS P. O. BOX 393 ADDRESS P. O. BOX 393  
ST. MARYS, WV 26170 ST. MARYS, WV 26170

FORM WV-6

COUNTY NAME  
 PERMIT

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE CERTIFICATION**

Date of Notice Certification: \_\_\_\_\_

API No. 47- 51 - 01605  
Operator's Well No. Goshorn 4H  
Well Pad Name: Goshorn

**Notice has been given:**

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>532941</u>
County: <u>Marshall</u>	Northing: <u>4407387</u>
District: <u>Liberty</u>	Public Road Access: <u>Co Rt 62 Goshorn Ridge Road</u>
Quadrangle: <u>Cameron</u>	Generally used farm name: <u>Goshorn</u>
Watershed: <u>Left Fork of Maggoty Run</u>	

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

\*PLEASE CHECK ALL THAT APPLY

- 1. NOTICE OF SEISMIC ACTIVITY or  NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or  NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or  NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or  
 WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

**OOG OFFICE USE ONLY**

- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

**Required Attachments:**

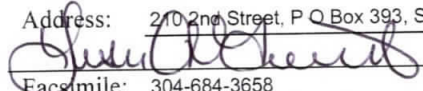
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

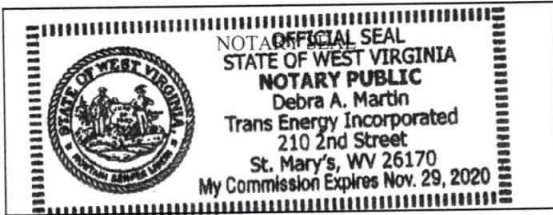
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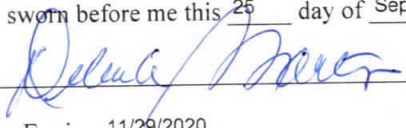
**Certification of Notice is hereby given:**

THEREFORE, I Leslie Gearhart, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, 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 and imprisonment.

Well Operator: Trans Energy Inc.  
By: Leslie Gearhart  
Its: VP - Operations  
Telephone: 304-684-7053

Address: 210 2nd Street, P O Box 393, St. Marys, WV 26170  
  
Facsimile: 304-684-3658  
Email: debbiemartin@transenergyinc.com and lesliegearhart@transenergyinc.com



Subscribed and sworn before me this 25 day of September 2012.  
Debra A. Martin  Notary Public  
My Commission Expires 11/29/2020

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the statistical analysis performed.

3. The third part of the document presents the results of the study, including a comparison of the different methods and techniques used. It discusses the strengths and weaknesses of each method and provides a summary of the findings.

4. The final part of the document concludes the study and provides a summary of the key findings. It also discusses the implications of the results and suggests areas for further research.

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 9/27/12 Date Permit Application Filed: \_\_\_\_\_

Notice of:

- PERMIT FOR ANY WELL WORK       CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE       REGISTERED MAIL       METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b), no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner.

Notice is hereby provided to:

SURFACE OWNER(s) ✓  
Name: Timothy James Tubbs Trust  
Address: RR 5 Box 576  
Cameron, WV 26033  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE ✓  
Name: Consol/Leatherwood Inc. c/o Doug Puglin CNX  
Address: 1000 Consol Drive  
Cannonsburg, PA 15317  
 COAL OPERATOR  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: Same as above  
Address: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

WATER PURVEYOR(s)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments/Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary

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Office of Oil & Gas  
OCT 01 2012

WV Department of  
Environmental Protection

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

**This Notice Shall Include:**

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall also include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Water Well Testing:**

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well.

**Water Testing Laboratories:**

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments.

**Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.



**Written Comment:**

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

**Time Limits and Methods for Filing Comments.**

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

**Comment Requirements**

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

**Permit Denial or Condition**

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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WW-6A  
(1-12)

API NO. 47- 51-01605  
OPERATOR WELL NO. Goshorn 4H  
Well Pad Name: Goshorn

**Notice is hereby given by:**

Well Operator: Trans Energy Inc.  
Telephone: 304-684-7053  
Email: debbiemartin@transenergyinc.com and lesiegearnart@transenergyinc.com

Address: 210 2nd Street, P O Box 393, St. Marys, WV 26170  
Facsimile: 304-684-3658

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at [deprivacyofficer@wv.gov](mailto:deprivacyofficer@wv.gov).

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WV Department of  
Environmental Protection

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF PLANNED OPERATION**

**Notice Time Requirement:** notice shall be provided no later than the **filing date of permit application.**  
**Date of Notice:** \_\_\_\_\_ **Date Permit Application Filed:** \_\_\_\_\_

**Delivery method pursuant to West Virginia Code § 22-6A-16(c)**

- CERTIFIED MAIL  HAND
- RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

**Notice is hereby provided to the SURFACE OWNER(s)**

(at the address listed in the records of the sheriff at the time of notice):

Name: <u>Timothy James Hubbs Trust</u>	Name: _____
Address: <u>RR 5 Box 576</u>	Address: _____
<u>Cameron, WV 26033</u>	_____

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>532941</u>	_____
County: <u>Marshall</u>		Northing: <u>4407387</u>	_____
District: <u>Liberty</u>	Public Road Access: <u>Co Rt 62 Goshorn Ridge Road</u>		_____
Quadrangle: <u>Cameron</u>	Generally used farm name: <u>Goshorn</u>		_____
Watershed: <u>Left Fork of Maggoty Run</u>			

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: <u>Trans Energy Inc.</u>	Address: <u>210 2nd Street, P O Box 393, St. Marys, WV 26170</u>
Telephone: <u>304-684-7053</u>	_____
Email: <u>debbiemartin@transenergyinc.com and lesliegearthart@transenergyinc.com</u>	Facsimile: <u>304-684-3658</u>

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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51-01605  
app rec. 10-19-12



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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION SEP 12 2012

## Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin  
Governor

WV Department of  
Environmental Protection  
Paul A. Mattox, Jr., P. E.  
Secretary of Transportation/  
Commissioner of Highways

September 7, 2012

James A. Martin, Chief  
Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Subject: DOH Permit for the Goshorn 4H Well Site, Marshall County

Dear Dr. Martin,

This well site will be accessed from a Permit to be requested by Trans Energy, Inc. for access to the State Road for a well site located between Marshall County Route 62 SLS & 25/1 SLS. A DOH permit to enter upon State Right of Way for a commercial driveway is to applied for and approved before beginning site work.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

A handwritten signature in blue ink that reads "Gary K. Clayton".

Gary K. Clayton  
Regional Maintenance Engineer  
Central Office Oil & Gas Coordinator

Cc: Leslie Gearhart  
P.O. Box 393  
St. Marys, WV 26170  
TransEnergy, Inc.  
CH, CHH, OM, D-4  
File



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**

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Very Truly Yours,

Gary K. Clayton  
Regional Maintenance Engineer  
Central Office Oil & Gas Coordinator

Cc: Leslie Gearhart  
P.O. Box 393  
St. Marys, WV 26170  
TransEnergy, Inc.  
CH, CHH, OM, D-4  
File

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Attachment V - Planned Additives to be used in Fracturing or Stimulations

Product Name	Product Use	Chemical Name	CAS Number
ALPHA 1427	Biocide	Didecyl Dimethyl Ammonium Chloride	007173-51-1
		Ethanol	000064-17-5
		Glutaraldehyde (Pentanediol)	000111-30-8
		Quaternary Ammonium Compound	068424-85-1
		Water	007732-18-5
BF-7L	Buffer	Potassium Carbonate	000584-08-7
ClayCare	Clay Stabilizer	Choline Chloride	000067-48-1
		Water	007732-18-5
Enzyme G-I	Breaker	No Hazardous Components	NONE
ENZYME G-NE	Breaker	No Hazardous Components	NONE
FRW-18	Friction Reducer	Petroleum Distillate Hydrotreated Light	064742-47-8
GW-3LDF	Gel	Petroleum Distillate Blend	N/A-014
		Polysaccharide Blend	N/A-021
SCALETROL 720	Scale Inhibitor	Diethylene Glycol	000111-46-6
		Ethylene Glycol	000107-21-1
XLW-32	Crosslinker	Boric Acid	010043-35-3
		Methanol (Methyl Alcohol)	000067-56-1
APB01 (AMMONIUM PERSUFATE BREAKER)	Breaker	Ammonium Persulfate	007727-54-0
B05 (LOW PH BUFFER)	Buffer	Acetic acid	000064-19-7
BXL03 Borate XL Delayed High Temp	Crosslinker	No Hazardous Components	NONE
FRW-200	Friction Reducer	No Hazardous Components	NONE
HVG01 (TURQUOISE-1 BULK)	Gelling Agent	Petroleum Distillate Hydrotreated Light	064742-47-8
KCLS-4	Clay Stabilizer	No Hazardous Components	NONE
LTB-1	Breaker	Ammonium Persulfate	N/A
		Ethanol	000064-17-5

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EC6110A	Biocide	Glutaraldehyde (Pentanediol)	000111-30-8
		Quaternary Ammonium Compounds	N/A-063
EC6629A	Biocide	No Hazardous Components	NONE
WBK-133 OXIDIZER	Breaker	Ammonium Persulfate	007727-54-0
WBK-134	Breaker	Ammonium Persulfate	007727-54-0
		Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7
WCS-631LC	Clay Stabilizer	Proprietary Non Hazardous Salt	N/A-229
		Water	007732-18-5
WFR-55LA	Friction Reducer	No Hazardous Components	NONE
WGA-15L	Gel	Petroleum Distillate Hydrotreated Light	064742-47-8
WPB-584-L	Buffer	Potassium Carbonate	000584-08-7
		Potassium Hydroxide	001310-58-3
WXL-101LE	Crosslinker	No Hazardous Components	NONE
WXL-101LM	Crosslinker	Petroleum Distillate Hydrotreated Light	064742-47-8
		Water	007732-18-5
WXL-105L	Crosslinker	Ethylene Glycol	000107-21-1
		Boric Acid	010043-35-3
		Ethanolamine	000141-43-5
B244 Green-Cide 25G	Biocide	Glutaraldehyde	111-30-8
L071 Temporary Clay Stabilizer	Clay Stabilizer	Cholinium Chloride	67-48-1
Breaker J218	Breaker	Diammonium Peroxidisulphate	7727-54-0
EB-Clean* J475 Breaker		Diammonium Peroxidisulphate	7727-54-0
Friction Reducer B315	Friction Reducer	Distillates (petroleum), Hydrotreated light Aliphatic Alcohol Glycol Ether	64742-47-8 Proprietary
Friction Reducer J609		Ammonium Sulfate	7783-20-2
Water Gelling Agent J580	Gel	Carbohydrate Polymer	Proprietary
Scale Inhibitor B317	Scale Inhibitor	Trisodium ortho phosphate Ethane-1, 2-diol	7601-54-9 107-21-1
Borate Crosslinker J532	Crosslinker	Aliphatic polyol Sodium tetraborate decahydrate	Proprietary 1303- 96-4
Crosslinker J610		Aliphatic polyol Potassium hydroxide	Proprietary 1310- 58-3

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