



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

January 08, 2014

WELL WORK PERMIT
Vertical Well

This permit, API Well Number: 47-8510083, issued to HAUGHT ENERGY CORPORATION, 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 completion of permitted well work, 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: W 1644
Farm Name: ADKINS, JAMES ,. ET AL
API Well Number: 47-8510083
Permit Type: Vertical Well
Date Issued: 01/08/2014

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. 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 § 22-6-20, 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. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.

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65000

WW - 2B
(Rev. 8/10)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

85 04 393

1) Well Operator: Haught Energy Corporation 494494463 Ritchie Union Harrisville
Operator ID County District Quadrangle

2) Operator's Well Number: W-1644 3) Elevation: 1010'

4) Well Type: (a) Oil or Gas
(b) If Gas: Production / Underground Storage _____
Deep _____ / Shallow

5) Proposed Target Formation(s): Benson/ Alexander Proposed Target Depth: 5700'
6) Proposed Total Depth: 5800' Feet Formation at Proposed Total Depth: Eik
7) Approximate fresh water strata depths: 144'
8) Approximate salt water depths: 1284'

9) Approximate coal seam depths: None Noted in Offset Wells

10) Approximate void depths, (coal, Karst, other): None Noted in Offset Wells

11) Does land contain coal seams tributary to active mine? No

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Drill new Oil & Gas Well. Stimulate with Nitrogen and or Foam fracturing methods including approximately 700,000 SCF Nitrogen Per Stage and or approximately 250 Barrels water to create 70-80 quality foam.

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13) CASING AND TUBING PROGRAM

WV Department of Environmental Protection

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13-3/8"	R-2	43.6#	30'	30'	Grout to Surface
Fresh Water	9-5/8"	R-3	26#	300'	300'	To Surface
Coal	NA	NA	NA	NA	NA	NA
Intermediate	7"	R-3	17#	2000'	2000'	To Surface
Production	4-1/2"	R-3	9.5#	5800'	5800'	250 Sacks, 2000' Fillup
Tubing	NA	NA	NA	NA	NA	NA
Liners	NA	NA	NA	NA	NA	NA

Packers: Kind: NA
Sizes: NA
Depths Set NA

Handwritten: 12-11-13

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Ritchie

Operator Haught Energy Corporation

Operator's Well Number W-1644

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Signature

Date

Company Name
By
Its

Date

Signature

Date

*No Coal Operators Located on property

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WV Department of
Environmental Protection

WW-2A1
(Rev. 1/11)

Operator's Well Number W-1644

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Haught Family Trust	Whittle Corporation	1/8	245/680

Whittle Corporation is a wholly owned subsidiary of Haught Energy Corporation and as owner of Whittle Corporation, Haught Energy Corporation has full right to drill and complete an oil and gas well on the above property with leases taken and agreements put into place by Whittle Corporation. (Agreement Attached)

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

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Well Operator:
By: Its:

Haught Energy Corporation
Warren R. Haught
Agent
WV Department of
Environmental Protection

AGREEMENT

THIS AGREEMENT, Made this 1st day of December, 2010, by and between Whittle Corporation, HC 68 Box 14, Smithville, WV 26178 as party of the First part and Haught Energy Corporation, HC 68 Box 14, Smithville, WV 26178 as Party of the second part.

WHEREAS:

Haught Energy Corporation is the parent company of Whittle Corporation.

WITNESSETH:

Whittle Corporation gives Haught Energy Corporation the right to operate and develop any leases that are owned by Whittle Corporation within the State of West Virginia.

IN WITNESS WHEREOF, the Parties have caused this Assignment to be properly executed the day and year first above written.

Whittle Corporation

Warren R. Haught
Name: Warren R. Haught

Title: President

Haught Energy Corporation

B. Douglas Haught
Name: B. Douglas Haught

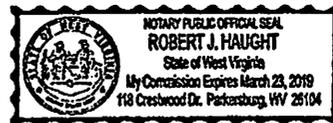
Title: President

STATE OF WEST VIRGINIA

COUNTY OF RITCHIE

BE IT KNOWN, that on this 1st day of December, 2010, before me, the undersigned authority, personally came and appeared WARREN R. HAUGHT appearing herein in his capacity as the PRESIDENT of WHITTLE CORPORATION, to me personally know to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

[Signature]
NOTARY PUBLIC

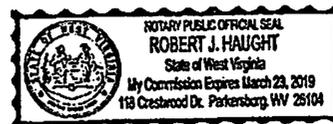


STATE OF WEST VIRGINIA

COUNTY OF RITCHIE

BE IT KNOWN, that on this 1st day of December, 2010, before me, the undersigned authority, personally came and appeared B. DOUGLAS HAUGHT appearing herein in his capacity as PRESIDENT of HAUGHT ENERGY CORPORATION, to me personally know to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

[Signature]
NOTARY PUBLIC



This Document Prepared by:

Whittle Corporation
HC 68 Box 14
Smithville, WV 26178

WW-2B1
(5-12)

Well No. W-1644

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Microbac Laboratories
Sampling Contractor 158 Starlight Dr, Marietta, OH 45750

Well Operator Haught Energy Corporation
Address 12864 Staunton TPKE
Smithville, WV 26178
Telephone 304-477-3333

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

No water wells within 1000 feet of proposed location, will sample water source within 2,000 feet of well bore
Surfaces owners Contacted:
James T. & Mary Lou Adkins
PO Box 235
Harrisville, WV 26362

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8510083

WW-9
(5/13)

Page _____ of _____
API Number 47 -085 - _____
Operator's Well No. W-1644 _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Haught Energy Corporation OP Code 494494463

Watershed (HUC 10) Moyers Run Quadrangle Harrisville

Elevation 1010' County Ritchie District Union

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

Will a pit be used for drill cuttings? Yes X ^{20 mil} No _____

If so, please describe anticipated pit waste: Drilling Water/ Fluid

Will a synthetic liner be used in the pit? Yes X No _____ If so, what ml.? 20 mil

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 _____)

Will closed loop system be used? No

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air

-If oil based, what type? Synthetic, petroleum, etc. NA

Additives to be used in drilling medium? TD 200 Drilling Soap

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in Pit

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) Lime

-Landfill or offsite name/permit number? NA

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 Warren R. Haught

Company Official (Typed Name) Warren Haught

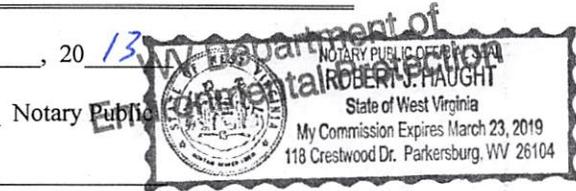
Company Official Title Agent

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Subscribed and sworn before me this 9th day of DECEMBER, 20 13

[Signature]



My commission expires MARCH 23, 2019

Form WW-9

Operator's Well No. W-1644

Proposed Revegetation Treatment: Acres Disturbed 2.5 AC Prevegetation pH 5.5

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

Seed Type	Area I	lbs/acre
Pasture Mix		100
(Orchard Grass, Rye Grass, Timothy, Clover)		

Seed Type	Area II	lbs/acre
Pasture Mix		100
(Orchard Grass, Rye Grass, Timothy, Clover)		

Attach:
 Drawing(s) of road, location, pit and proposed area for land application.
 Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: David W. Cannon

Comments: preserve mulch all oil area maintain all 695 and ref

Title: oil/gas inspector

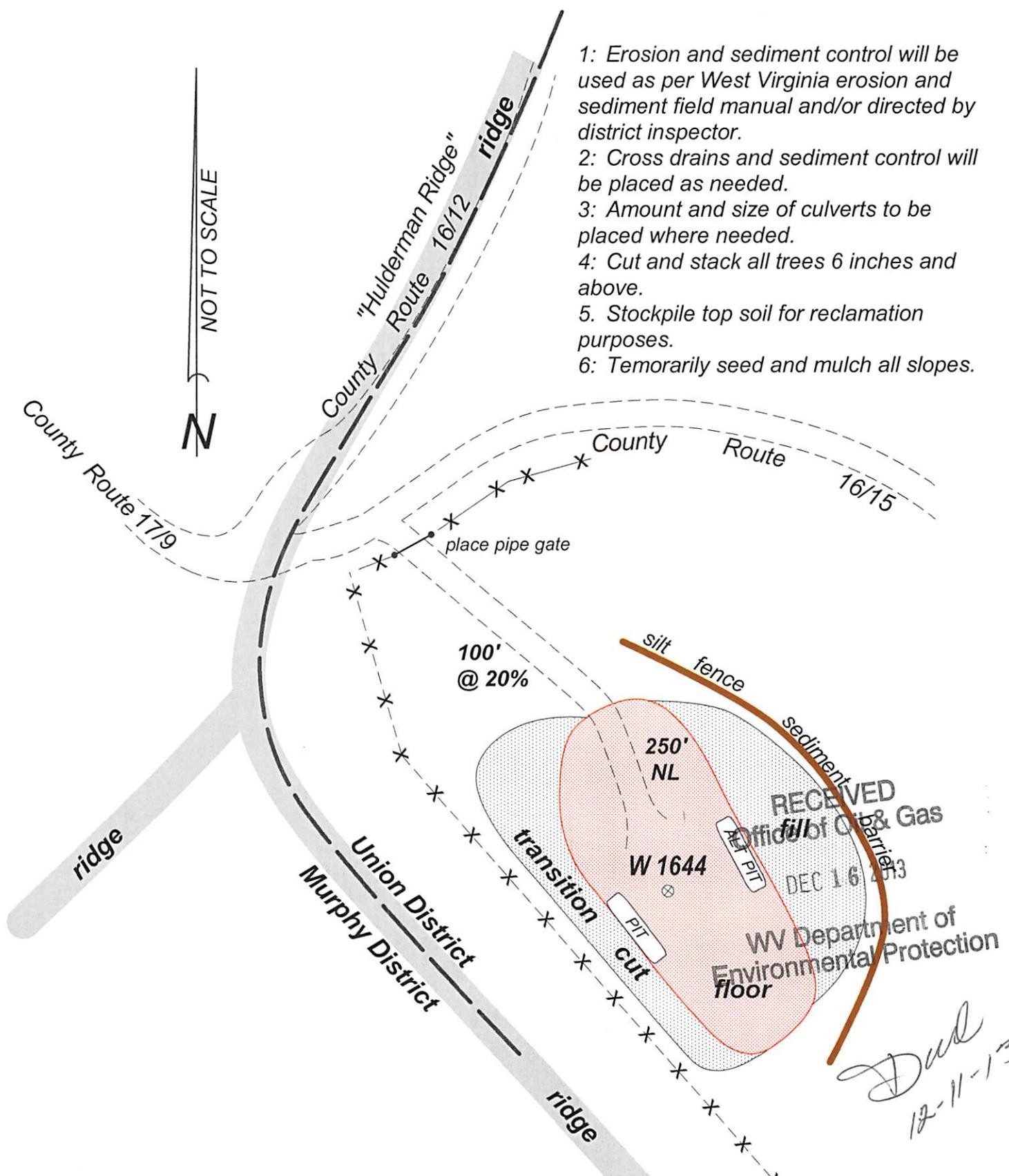
Date: 12-11-13

Field Reviewed? Yes No

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 Environmental Protection

Haught Energy, Inc. Well: W 1644

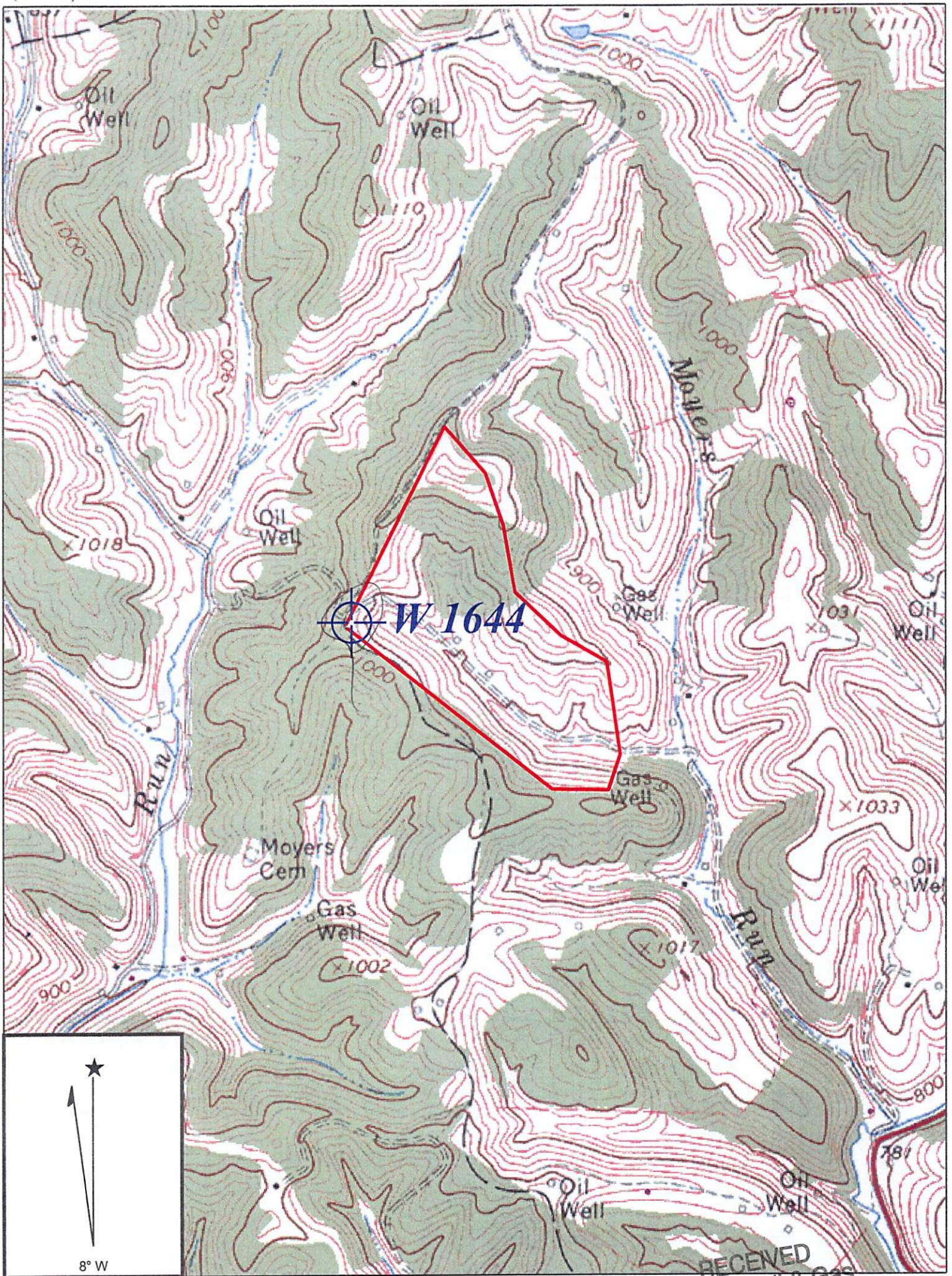
Haught Family Trust & Spruce Creek 83 Acre Lease Union District Ritchie County West Virginia



- 1: Erosion and sediment control will be used as per West Virginia erosion and sediment field manual and/or directed by district inspector.
- 2: Cross drains and sediment control will be placed as needed.
- 3: Amount and size of culverts to be placed where needed.
- 4: Cut and stack all trees 6 inches and above.
- 5: Stockpile top soil for reclamation purposes.
- 6: Temporarily seed and mulch all slopes.

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Dad
12-11-13



Copyright (C) 1997, Maptech, Inc.

HARRISVILLE QUADRANGLE

SCALE 1" = 1000'

HAUGHT ENERGY

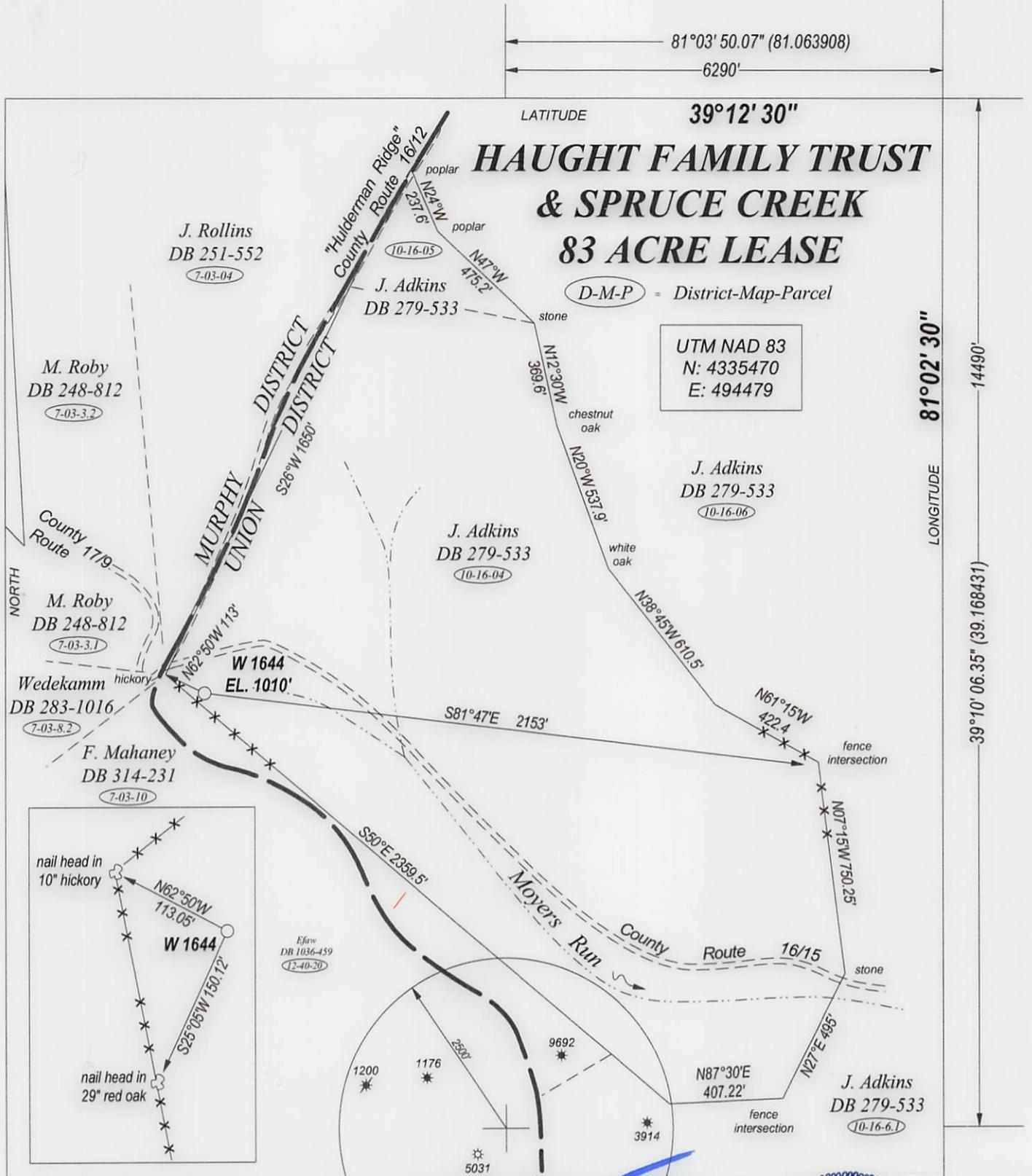
WELL: W-1644

HAUGHT FAMILY TRUST & SPRUCE GROVE CHURCH 83 ACRE UNIT

UNION DISTRICT RITCHIE COUNTY WEST VIRGINIA

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 12-11-13
 DEC 16 2013

WV Department of Environmental Protection



81°03' 50.07" (81.063908)
6290'

LATITUDE 39°12' 30"

HAUGHT FAMILY TRUST & SPRUCE CREEK 83 ACRE LEASE

(D-M-P) = District-Map-Parcel

UTM NAD 83
N: 4335470
E: 494479

LONGITUDE 81°02' 30"

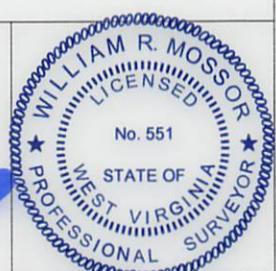
14490'

39°10' 06.35" (39.168431)

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
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) _____
PROFESSIONAL SURVEYOR: 551



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

DATE NOVEMBER 19TH, 2013
OPERATORS WELL NO. W 1644

API 47 - 085 - 10093
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1010' WATER SHED MOYERS RUN
DISTRICT UNION COUNTY RITCHIE QUADRANGLE HARRISVILLE

SURFACE OWNER JAMES ADKINS, ET AL ACREAGE 80
OIL & GAS ROYALTY HAUGHT FAMILY TRUST & SPRUCE GROVE LEASE AC. 83

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 BENSON / ALEXANDER ESTIMATED DEPTH 5500' TO 5700'

WELL OPERATOR HAUGHT ENERGY CORP. DESIGNATED AGENT WARREN HAUGHT
ADDRESS HC 68, BOX 14 ADDRESS HC 68, BOX 14
SMITHVILLE, WV 26178 SMITHVILLE, WV 26178

FORM WW - 6

COUNTY NAME
PREMIT