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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

August 12, 2014

**WELL WORK PERMIT**

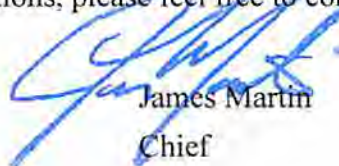
**Re-Work**

This permit, API Well Number: 47-4102573, issued to DOMINION TRANSMISSION 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 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: AW-90  
Farm Name: MARSH, M. C.  
**API Well Number: 47-4102573**  
**Permit Type: Re-Work**  
Date Issued: 08/12/2014

**Promoting a healthy environment.**

**08/15/2014**

## 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

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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 §22-6-20, 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 with 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.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov) within 30 days of commencement of drilling.

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

3      647

1) Well Operator: Dominion Transmission Inc      307048      Lewis      Freeman's Creek      Vadis  
Operator ID      County      District      Quadrangle

2) Operator's Well Number: AW90      3) Elevation: 1002.6

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

5) Proposed Target Formation(s): Gantz      Proposed Target Depth: 2296'

6) Proposed Total Depth: 2345' Feet      Formation at Proposed Total Depth: Gantz

7) Approximate fresh water strata depths: NA

8) Approximate salt water depths: NA

9) Approximate coal seam depths: Pittsburgh-445'- 451', Uniontown-174', Remaining seams un-mineable

10) Approximate void depths,(coal, Karst, other): None

11) Does land contain coal seams tributary to active mine? No mining activities within 30 miles

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)  
Rework well with 3.5" Tubing, cemented to surface to remediate existing 5.5" casing. Acidize Gantz.

13) CASING AND TUBING PROGRAM

	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT	
	TYPE	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor							
Fresh Water							
Coal		7	J55	23		1985	existing
Intermediate		5.5	J55	17		2076	existing CTS
Production		3.5	J55	9.2		2275	205 cu ft CTS
Tubing							
Liners							

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Packers: Kind: \_\_\_\_\_  
Sizes: \_\_\_\_\_  
Depths Set \_\_\_\_\_

B.S. 6-25-14

**AW-90 (I/W Well)**  
**API# 47-041-02573**  
**Lease Name: M. C. Marsh**  
**FKLC Storage, Lewis County, WV**  
**2014 Rework with 3-1/2" Tubing Procedure**

**Purpose:**

Complete TJCO on well to seal outer 5-1/2" x 7" casing annulus, run new 3-1/2" tubing and cement to surface to remediate the corroded outer 5-1/2" casing.

**Well Information:**

10-3/4" Casing set at 177' (pulled)  
 8-5/8" Casing set at 1011' (pulled)  
 7" Casing set at 1985' (year ran 1900)  
 5-1/2" K55 Csg set at 2076' (year ran 1943)  
 5-1/2" Casing was perforated at 1800', 1490' and 1200' (circulated 90sx from 1200' to surface)  
 Gantz Sand 2296'-2323' (open hole completion)  
 5-1/2" N1 Bridge plug set at 2000'  
 Current Well TD: 2345'

**Procedure:**

1. Complete pipeline crossing process, One Call Notification and location construction.
2. Excavate the top joint, plate off 5-1/2" x 7" annulus and install 2" vent line to GL.
3. Install new 7-1/16" 2M x 5-1/2" 8RD TCM Tubing head and existing 7-1/16" 2M valve.
4. Backfill excavation and set 6'x6' cellar box and grating.
5. MIRU service rig, remove master gate, nipple up 7-1/16" 2M x 5M change over spool and 7-1/16" 5M BOP/Diverter on 7-1/16" 2M tubing head and pressure test BOP.
6. PU 2-3/8" drill string and 3-1/8" collars and TIH to N1 plug located at 2000'.
7. Displace 10 ppg brine from the hole using fresh water mixed with KCl or clay stabilizer.
8. Drill out bridge plug and clean well out to TD.
9. MIRU wireline and run caliper/GR log on open hole section to determine open hole volume.
10. Spot sand plug from bottom hole to 25' above top of Gantz (per caliper log) by dumping sand from surface. Confirm top of sand plug with sand line.
11. Clean and inspect threads on 3-1/2" Tubing.
12. Run new 3-1/2" 9.2# J55 10RD non upset tubing to within 20' of the top of the Gantz. Use thread lock on float shoe and bottom 2 joints. Install centralizers on the bottom 3 joints and every third joint to surface. Land 3-1/2" tubing in hanger using 3-1/2" 8rd x 10rd XO pup joint for cement head.
13. Cement 3-1/2" tubing to surface using DTI approved lead and tail cement blends as required by current storage pressure. Pump 15bbls of 6% bentonite gel ahead of cement. Pump 250 excess cement. Catch wet samples from lead and tail blends and confirm density using a pressurized mud scale. Displace cement with fresh water and bump plug to 500psi over displacement pressure. Shut down and check float. Shut in cement head and
14. Nipple down BOP assembly and install wellhead DSA and 3-1/8" 2M master valve

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 WV DGS 24 hrs.  
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08/15/2014

15. RDMO service rig and equipment.
16. Remove cellar coat and wrap the external casing strings and backfill hole.
17. MIRU wire line truck and run bond log.
18. MIRU coiled tubing unit (2" or 1-3/4" coil) Drill out float equipment with mill and motor on fluid. Circulate to bottom to remove sand plug. Spot 250 gal of 15% FE acid across Gantz, soak for 1 hour and unload wellbore with N2. Flow well until dry through a choke to gas buster tank. Record stabilized flow and pressure data.
19. RDMO Coiled tubing unit.
20. Install wellhead assembly and load the 5-1/2" and 3-1/2" annulus with inhibitor from Baker Petrolite.

All reports and field tickets are to be submitted to the Gas Storage Dept – DRS Group at the completion of the job.

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Fink Storage  
AW-90 [REC]  
Permit #47-041-02573  
Elev = 999'[GL]

177' of 10-3/4" csg was set and then pulled during drilling in 1900.

1011' of 8-5/8" csg was pulled during 1964 rework.

Pittsburgh Coal at 445'-451'  
no operator, owner: C. E. Gibson (1956 records)

Pulled 62 joints of 3-1/2" 9.2 lbs/ft 10rd tubing measuring 1870.72' and a Parmaco packer on 4/2/2013. Ran logging suite and set CIBP.

Perfs @ 1197' in 5-1/2" casing per 2013 HRVRT log. Circulated 90sx of Cement to surface in 1962

Perfs @ 1487' in 5-1/2" casing per 2013 HRVRT log.

Perfs @ 1796' in 5-1/2" casing, squeezed 15sx of cement. (estimated top 1545')  
perfs confirmed on 2013 HRVRT log.

7" Csg @ 1985'

N1 drillable bridge plug set at 2000', loaded hole with 10ppg treated brine. 4/4/2013

5 1/2" Csg set in cement @ 2076'[1943]

Gantz  
2296'- 2323'

TD = 2345'

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Well Name & Number:		AW-90		Lease	M. C. Marsh		
County or Parish:		Lewis	State/Prov.	WV	Country:	USA	
Perforations: (MD)		1800', 1490', 1200' in 5 1/2"		(TVD)	2345'		
Angle/Perfs	Angle @KOP and Depth			KOP TVD			
BHP:	BHT:		Completion Fluid:				
FWHP:	FBHP:		FWHT:	FBHT:		Other:	
Date Completed:	12/29/00				RKB:		
Prepared By:	Matt Goralczyk			Last Revision Date:	11/13/13		







4102573W

2. Article Number



7160 3901 9846 3216 5232

3. Service Type **CERTIFIED MAIL**

4. Restricted Delivery? (Extra Fee)  Yes

1. Article Addressed to:

Arthur A. & Elizabeth A. Ruble  
PO Box 125  
Weston, WV 26452-0125

1 of 2  
AW90

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) <i>Katy Stalnaker</i>	B. Date of Delivery <i>6-30-14</i>
C. Signature <i>Katy Stalnaker</i>	<input checked="" type="checkbox"/> Agent Addressee <input type="checkbox"/> Addressee
D. Is delivery address different from item 1? If YES, enter delivery address below:	<input type="checkbox"/> Yes <input type="checkbox"/> No

PS Form 3811, January 2005

Domestic Return Receipt

7160 3901 9846 3216 5232

US Postal Service

**Certified Mail Receipt**

Domestic Mail Only  
No Insurance Coverage Provided

Postage	\$ 1.61
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>



Sent To:

Arthur A. & Elizabeth A. Ruble  
PO Box 125  
Weston, WV 26452-0125

1/2 AW90

PS Form 3800, January 2005

US Postal Service

**Certified Mail Receipt**

2

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Office of Oil and Gas

JUL 14 2014

WV Department of  
Environmental Protection

08/15/2014

2. Article Number



7160 3901 9846 3216 5249

3. Service Type **CERTIFIED MAIL**

4. Restricted Delivery? (Extra Fee)  Yes

1. Article Addressed to:

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) <i>Billy Wien</i>	B. Date of Delivery <i>7-1-14</i>
C. Signature <i>Billy Wien</i>	<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
D. Is delivery address different from item 1? If YES, enter delivery address below: <input type="checkbox"/> Yes <input type="checkbox"/> No	

EASTERN ASSOCIATED COAL CORPORATION  
500 LEE STREET EAST, SUITE 202  
CHARLESTON, WV 25301

*2/2 Aw90*

PS Form 3811, January 2005

Domestic Return Receipt

7160 3901 9846 3216 5249

US Postal Service

**Certified Mail Receipt**

Domestic Mail Only  
No Insurance Coverage Provided

Postage	\$ <i>1.61</i>
Certified Fee	<i>3.30</i>
Return Receipt Fee (Endorsement Required)	<i>2.70</i>
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ <i>7.61</i></b>



Sent To:

*Eastern Associated Coal Corp  
500 Lee St East Suite 202  
Charleston WV 25301*

*2/2 Aw90*

PS Form 3801, January 2005

US Postal Service

**Certified Mail Receipt**

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*4:014*

WV Department of  
Energy & Environmental Protection

08/15/2014

WW-2A1  
(Rev. 1/11)

Operator's Well Number AW90

**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
See 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, replaces, or 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.

Well Operator: Dominion Transmission Inc.  
 By: Its: James D. Blasingame 8/12/14  
 Director of Storage

**EXISTING WELL #AW-90**

**WW-2A1**

**ATTACHMENT**

**LEASE SUMMARY**

AW90

LEASE FK000787:

ORIGINAL LESSOR: M. C. MARSH; CATHERINE & C. E. MARSH

ORIGINAL LESSEE: SOUTH PENN OIL COMPANY

TO: HOPE NATURAL GAS COMPANY BY AGREEMENT DATED 04-01-02, INTEREST IN GAS. RECORDED IN BOOK 0085, PAGE 0122.

TO: SOUTH PENN NATURAL GAS COMPANY BY AGREEMENT DATED 12-28-39, INTEREST IN OIL. RECORDED IN BOOK 0156, PAGE 0570.

TO: HOPE NATURAL GAS COMPANY BY AGREEMENT DATED 03-01-43, INTEREST IN OIL. RECORDING INFORMATION NOT AVAILABLE.

ON 04-01-65, HOPE NATURAL GAS COMPANY AND NEW YORK STATE NATURAL GAS CORPORATION MERGED AND FORMED CONSOLIDATED GAS SUPPLY CORPORATION.

CONSOLIDATED GAS SUPPLY CORPORATION TO CONSOLIDATED GAS TRANSMISSION CORPORATION BY AGREEMENT DATED 03-01-84, EFFECTIVE 01-01-84. RECORDED IN BOOK 0425, PAGE 0127.

BY CORPORATE NAME CHANGE EFFECTIVE 01-01-88, CONSOLIDATED GAS TRANSMISSION CORPORATION IS NOW CNG TRANSMISSION CORPORATION.

AS A RESULT OF A MERGER, CNG TRANSMISSION CORPORATION BECAME DOMINION TRANSMISSION INC., EFFECTIVE 4/11/2000. AMENDED CERTIFICATE OF AUTHORITY WITH THE STATE OF WV DATED 5/10/2000, FILED IN HARRISON COUNTY, DEED BOOK 58, P 362.

ROYALTY INTEREST IS 12.5%

DOMINION TRANSMISSION, INC OWNS 87.5% WORKING INTEREST

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Office of Oil and Gas  
DOMINION TRANSMISSION, INC.  
445 W. MAIN ST.  
CLARKSBURG, WV 26301  
304-669-6230  
JUL 14 2014

WV Department of  
Environmental Protection

WW-2B1  
(5-12)

Well No. AW90

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 contractor chosen to collect sample.

Certified Laboratory Name INDUSTRIAL LAB ANALYSIS, INC  
Sampling Contractor DRA-SURV, INC

Well Operator Dominion Transmission Inc.  
Address 445 West Main St  
Clarksburg, WV 26301  
Telephone 304-669-6230

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 Office 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. I 4 2014

WV Department of  
Environmental Protection

08/15/2014

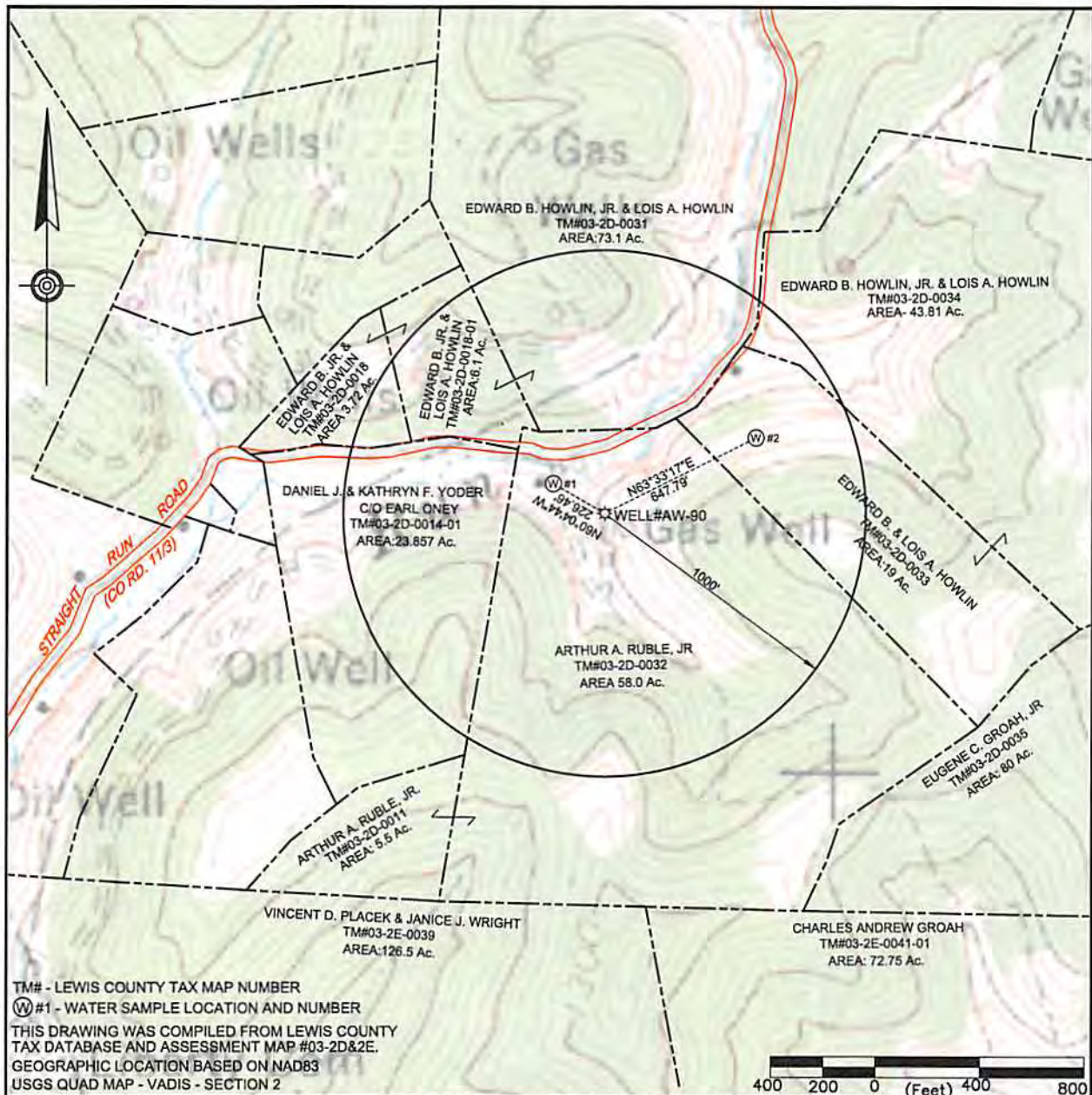
**EXISTING WELL #AW-90**  
**WW-2B1**  
**ATTACHMENT**  
**WATER NOTIFICATION SUMMARY**

- 1) Daniel J. & Katherine F. Yoder c/o Earl Oney - 3113 Sassafras Run Road, Weston, WV 26452
- \* 2) Edward B. & Lois A. Howlin - 2880 Dunkirk Way, Dunkirk, MD 20754-9103
- \* 3) Arthur A. & Elizabeth A. Ruble - PO Box 125, Weston, WV 26452-0125

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DOMINION TRANSMISSION, INC.  
WV Department of  
445 W. MAIN ST.  
Environmental Protection  
CLARKSBURG, WV 26301  
304-669-6230



TM# - LEWIS COUNTY TAX MAP NUMBER  
 W#1 - WATER SAMPLE LOCATION AND NUMBER  
 THIS DRAWING WAS COMPILED FROM LEWIS COUNTY  
 TAX DATABASE AND ASSESSMENT MAP #03-2D&2E.  
 GEOGRAPHIC LOCATION BASED ON NAD83  
 USGS QUAD MAP - VADIS - SECTION 2

**WATER SOURCE MAP**

WATER SAMPLE DATA

*B.S. 6-25-14*

#	TYPE	OWNER NAME	LATITUDE	LONGITUDE	ELEV.	DEPTH	NOTES
1	Drilled Well	Arthur A. Ruble, Jr.	39°05'11.27"	80°40'13.00"	948.8	3.0	Sample obtained from outdoor faucet
2	Spring	Edward B. & Lois A. Howlin	39°05'12.98"	80°40'03.16"	1070.6	N/A	Spring feeding seasonal cabin, less than 1gpm

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 WV Department of  
 Environmental Protection

PROJECT NAME: AW-90  
 OPERATOR: DOMINION TRANSMISSION, INC.  
 API# 47-0041-02573  
 DISTRICT: FREEMANS CREEK RURAL  
 COUNTY: LEWIS  
 STATE: WEST VIRGINIA  
 DATE: APRIL 7, 2014

**DRA-SURV INC.**  
 SURVEYING & ENGINEERING  
 PHONE: (724) 966-2483 FAX: (724) 966-2770  
 P.O. BOX 402  
 405A WEST GEORGE STREET  
 CARMICHAELS, PA 15320

08/15/2014

4102573W



**Dominion**

Dominion Transmission, Inc.  
445 West Main Street, Clarksburg, WV 26301  
Mailing Address: P.O. Box 2450  
Clarksburg, WV 26302-2450

June 26, 2014

**By U.S. Mail, Certified Delivery**  
7160 3901 9846 3216 5232

Arthur A. & Elizabeth A. Ruble  
PO Box 125  
Weston, WV 26452-0125

**GAS STORAGE WELL #: AW-90**  
**DOMINION TRANSMISSION, INC.**

**DISTRICT: Freeman's Creek      COUNTY: Lewis      State: WV**

Dear Arthur & Elizabeth Ruble

On behalf of Dominion Transmission, Inc. (DTI), I wish to advise you that the gas storage well AW-90 is scheduled to be reworked. Therefore, DTI is hereby making a Notice of Application for a Well Work Permit, to the WV DEP Office of Oil & Gas.

You are on record as the surface and Coal owner, on the particular tract of land on which the well is situated. Regulations dictate that DTI provides you with a copy of the permit application. Accordingly, enclosed for your records, please find a copy of the Notice of Application for a Well Work Permit.

Should you have any questions concerning this well work, you may contact our lease and right of way agent, Garry Bourne, at 304.627.3162.

Sincerely,

Matthew E. Goralczyk  
Dominion Transmission, Inc.

1 / 2

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**Dominion**

Dominion Transmission, Inc.  
445 West Main Street, Clarksburg, WV 26301

Mailing Address: P.O. Box 2450  
Clarksburg, WV 26302-2450

June 26, 2014

**By U.S. Mail, Certified Delivery**

7160 3901 9846 3216 5249

Eastern Associated Coal Corporation  
500 Lee Street East, Suite 202  
Charleston, WV 25301

**GAS STORAGE WELL #: AW-90**

**DOMINION TRANSMISSION, INC.**

**DISTRICT: Freeman's Creek      COUNTY: Lewis      State: WV**

Dear Dear Sir or Madam,

On behalf of Dominion Transmission, Inc. (DTI), I wish to advise you that the gas storage well AW-90 is scheduled to be reworked. Therefore, DTI is hereby making a Notice of Application for a Well Work Permit, to the WV DEP Office of Oil & Gas.

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Should you have any questions concerning this well work, you may contact our lease and right of way agent, Garry Bourne, at 304.627.3162.

Sincerely,

Matthew E. Goralczyk  
Dominion Transmission, Inc.

2 / 2

08/15/2014

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Dominion Transmission Inc OP Code 307048

Watershed (HUC 10) Straight Run Quadrangle Vadis 7.5 Section 2

Elevation 999' County Lewis District Freeman's Creek

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 \_\_\_\_\_ No X NO PIT

If so, please describe anticipated pit waste: NA WELL EFFLUENT

Will a synthetic liner be used in the pit? Yes NA No NA If so, what ml.? NA MUST BE CONTAINED.

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 Meadowfill Landfill, Bridgeport, WV)

Will closed loop system be used? NA

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

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

Additives to be used in drilling medium? Potassium Chloride and Gel

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

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

-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 James D. Blasingame

Company Official (Typed Name) James D. Blasingame

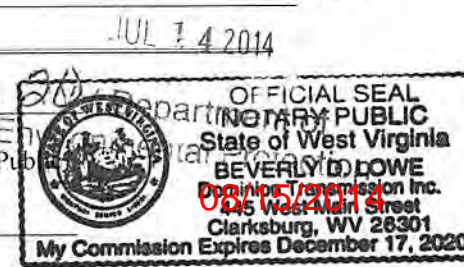
Company Official Title Director of Storage

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Office of Oil and Gas  
JUL 14 2014  
6/24/14 Department of  
Environmental Protection  
Office of Oil and Gas

Subscribed and sworn before me this 24th day of June, 20

Beverly D. Lowe  
Notary Public

My commission expires December 17, 2020



Proposed Revegetation Treatment: Acres Disturbed 0.4 +/- Prevegetation pH \_\_\_\_\_

Lime 3.0 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Hay or Straw Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre
Timothy	3
Orchard Grass	12
White Clover	4

Seed Type	Area II lbs/acre
Timothy	3
Orchard Grass	12
White Clover	4

Attach:  
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Benny Stilleps

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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Office of Oil and Gas

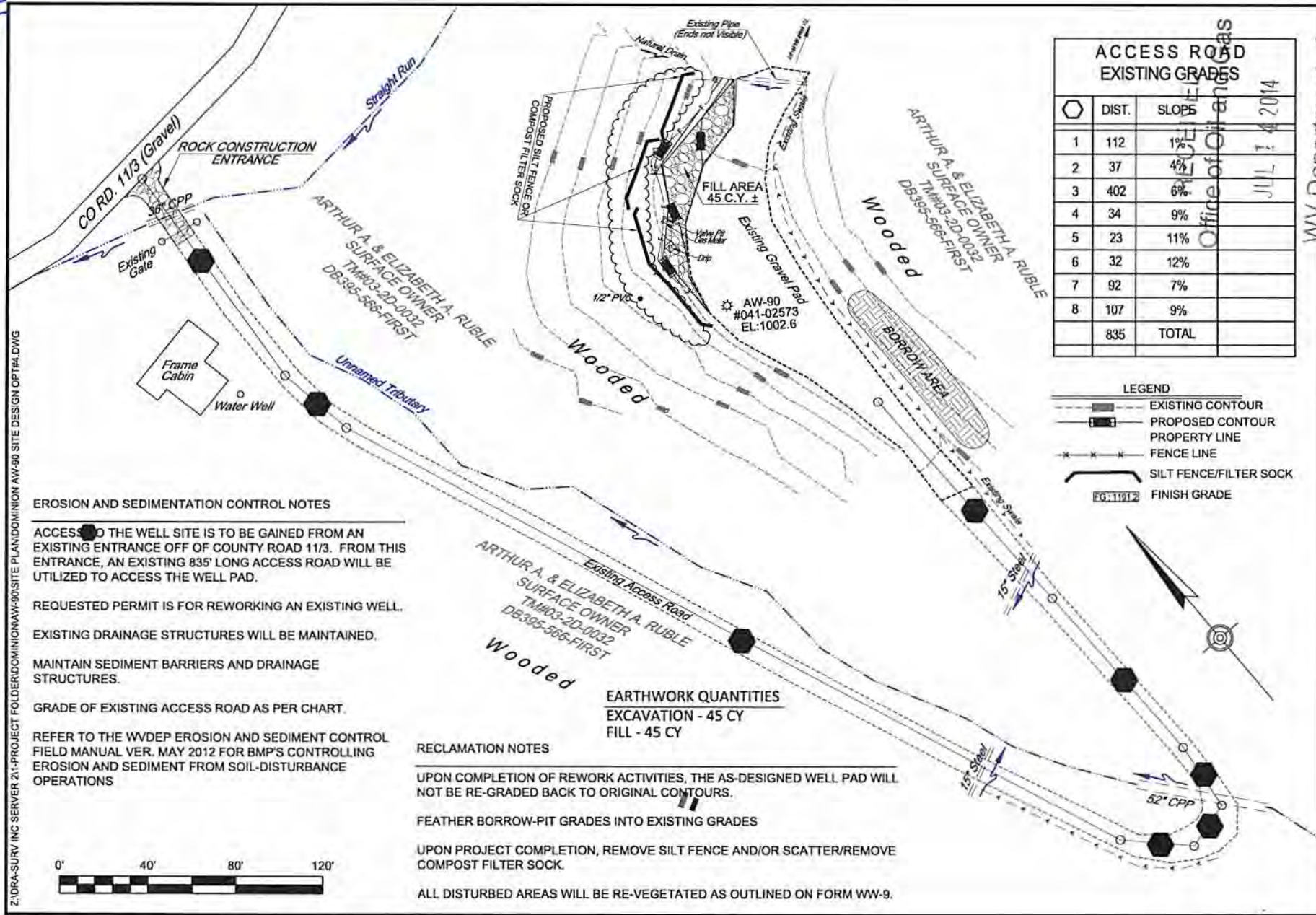
Title: inspector

Date: 6-25-14 JUL 14 2014

Field Reviewed?  Yes  No

WV Department of  
Environmental Protection

41025731



**ACCESS ROAD EXISTING GRADES**

DIST.	SLOPS
1	112 1%
2	37 4%
3	402 6%
4	34 9%
5	23 11%
6	32 12%
7	92 7%
8	107 9%
835 TOTAL	

Office of Oil and Gas  
JUL 14 2014

**LEGEND**

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPERTY LINE
- FENCE LINE
- SILT FENCE/FILTER SOCK
- FINISH GRADE

**EROSION AND SEDIMENTATION CONTROL NOTES**

- ACCESS TO THE WELL SITE IS TO BE GAINED FROM AN EXISTING ENTRANCE OFF OF COUNTY ROAD 11/3. FROM THIS ENTRANCE, AN EXISTING 835' LONG ACCESS ROAD WILL BE UTILIZED TO ACCESS THE WELL PAD.
- REQUESTED PERMIT IS FOR REWORKING AN EXISTING WELL.
- EXISTING DRAINAGE STRUCTURES WILL BE MAINTAINED.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- GRADE OF EXISTING ACCESS ROAD AS PER CHART.
- REFER TO THE WVDEP EROSION AND SEDIMENT CONTROL FIELD MANUAL VER. MAY 2012 FOR BMP'S CONTROLLING EROSION AND SEDIMENT FROM SOIL-DISTURBANCE OPERATIONS

**EARTHWORK QUANTITIES**  
EXCAVATION - 45 CY  
FILL - 45 CY

**RECLAMATION NOTES**

- UPON COMPLETION OF REWORK ACTIVITIES, THE AS-DESIGNED WELL PAD WILL NOT BE RE-GRADED BACK TO ORIGINAL CONTOURS.
- FEATHER BORROW-PIT GRADES INTO EXISTING GRADES
- UPON PROJECT COMPLETION, REMOVE SILT FENCE AND/OR SCATTER/REMOVE COMPOST FILTER SOCK.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.



WV Department of Environmental Protection

Environmental Protection

**DRA-SURV INC.**  
P.O. BOX 402  
485A W. WILSON STREET  
CARRICKPLACE, PA 15120  
PHONE (724) 996-2483 FAX (724) 996-2770

Office of Oil and Gas

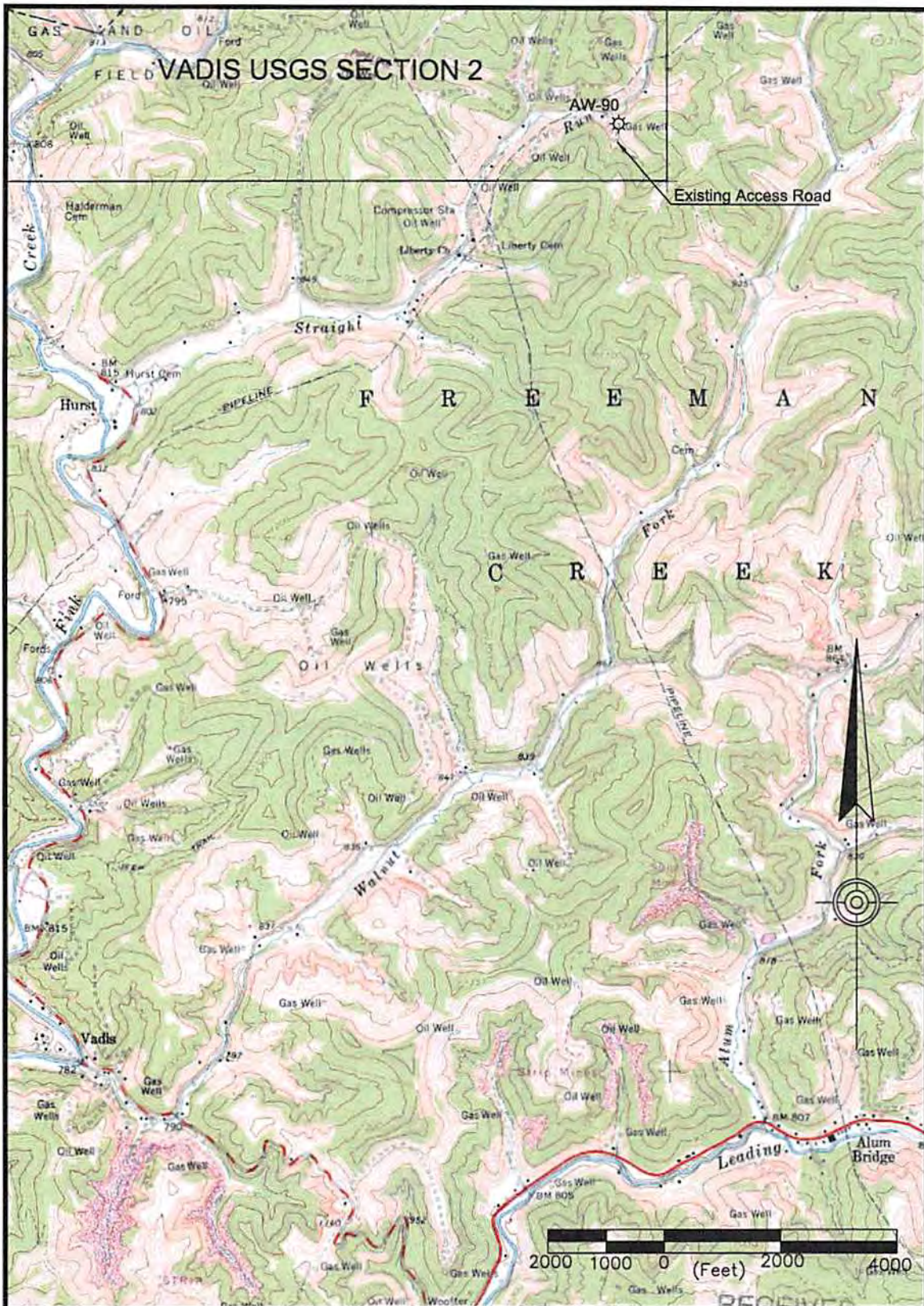
AW-90 EROSION CONTROL PLAN  
FREEMAN'S CREEK RURAL DISTRICT  
LEWIS COUNTY, WEST VIRGINIA  
PREPARED FOR: DOMINION TRANSMISSION, INC.  
CLARKSBURG, WV 26031  
CONTACT: MATT DONALDSON 15041 6377 3314

EROSION AND SEDIMENT CONTROL PLAN

PROJECT NUMBER: \*\*\*\*\*  
PROJECT DATE: 04-12-2014  
PROJECT SCALE: 1" = 40'  
DRAWN BY: DMS  
CHECKED BY: DMS

ES-1


Z:\DRA-SURV\INC\SERVER\211-PROJECT FOLDER\DOMINION\AW-90 SITE DESIGN\OPT#4.DWG

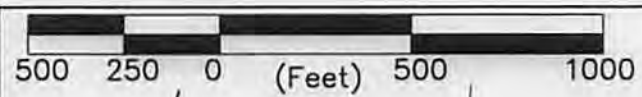


**LOCATION MAP**

RECEIVED  
Office of Oil and Gas

OPERATOR: DOMINION TRANSMISSION, INC.  
 API# 47-0041-02573  
 PROJECT NAME: AW-90  
 FREEMANS CREEK RURAL DISTRICT  
 COUNTY: LEWIS  
 STATE: WEST VIRGINIA  
 QUADRANGLE NAME: VADIS- SECTION 2  
 DATE: APRIL 4, 2014


**DRA-SURV INC.**  
 SURVEYING & ENGINEERING  
 PHONE: (724) 966-2483 FAX: (724) 966-2770  
 P.O. BOX 402  
 405A WEST GEORGE STREET  
 CARMICHAELS, PA 15320



LATITUDE: 39° 07' 30"

WELL REFERENCE TIES

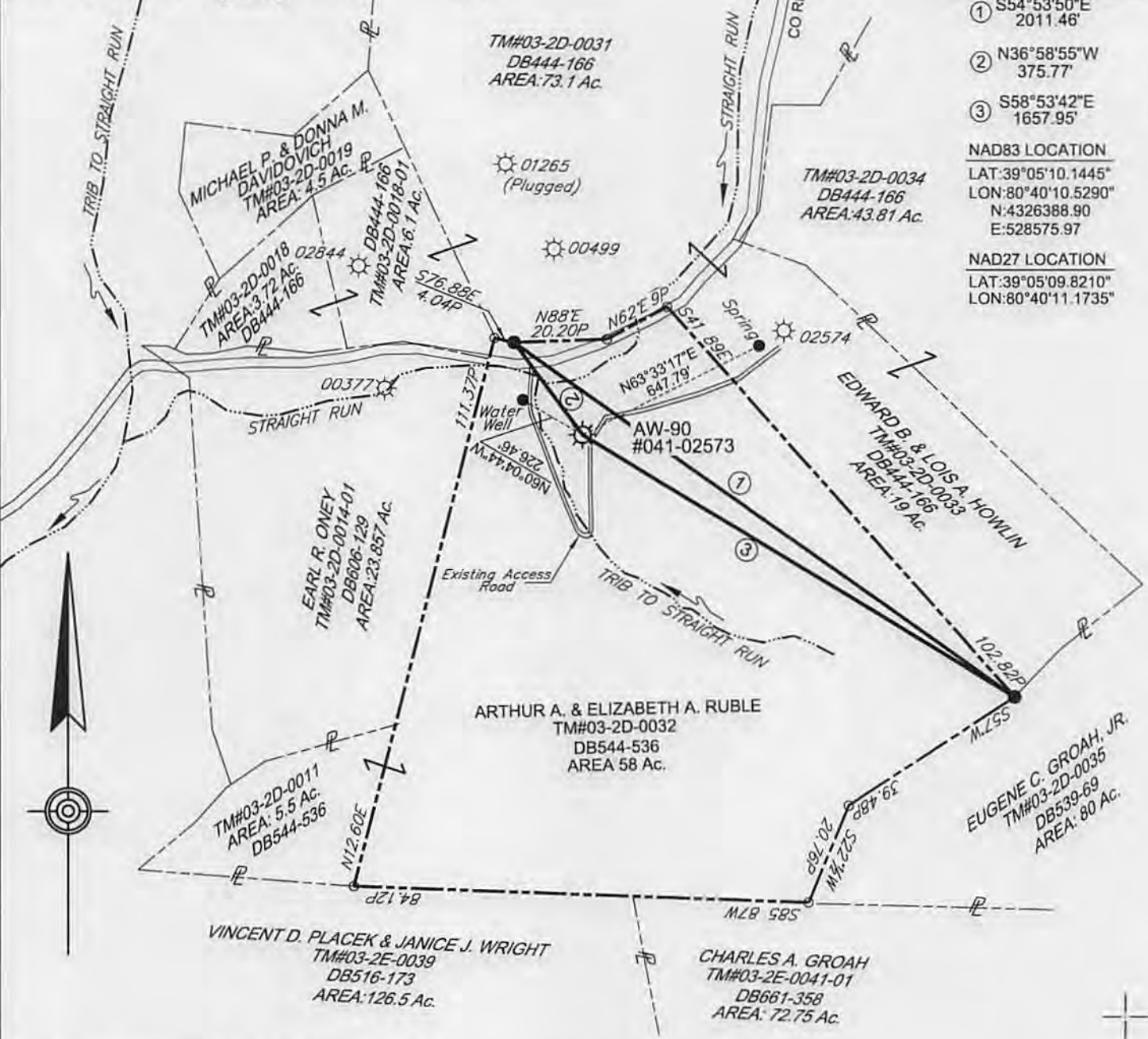
① S54°53'50"E  
2011.46'

② N36°58'55"W  
375.77'

③ S58°53'42"E  
1657.95'

NAD83 LOCATION  
LAT: 39°05'10.1445"  
LON: 80°40'10.5290"  
N: 4326388.90  
E: 528575.97

NAD27 LOCATION  
LAT: 39°05'09.8210"  
LON: 80°40'11.1735"



THIS WELL IS LOCATED IN THE FINK STORAGE FIELD.  
PROPERTY DESCRIBED HEREIN BEING UNDER THE M.C. MARSH LEASE #FK000787

FILE NO. \_\_\_\_\_

DRAWN BY DMS

SCALE 1 INCH = 500 FEET

MIN DEGREE OF ACCURACY 1 IN 2500

PROVEN SOURCE OF ELEVATION SURVEY GRADE GPS

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 DIVISION OF ENVIRONMENTAL PROTECTION

*Jack E. Ferenci*  
P.E. #15580



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
W.V.D.E.P.  
OFFICE OF OIL AND GAS  
601 57TH STREET  
CHARLESTON, WV 25304



**DRA-SURV INC.**  
SURVEYING & ENGINEERING  
PHONE: (724) 966-2483 FAX (724) 966-2770  
P.O. BOX 402  
405A WEST GEORGE STREET  
CARMICHAELS, PA 15320

DATE JULY 29, 2014

OPERATORS WELL NO. AW-90

API WELL NO.  
47 041 02573 W  
STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

IF "GAS", PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: WATERSHED STRAIGHT RUN ELEVATION 1002.6

COUNTY/DISTRICT LEWIS - FREEMANS CREEK RURAL QUADRANGLE VADIS

SURFACE OWNER ARTHUR A. & ELIZABETH A. RUBLE ACREAGE 58 ACRES

OIL & GAS ROYALTY OWNER DOMINION TRANSMISSION, INC. ACREAGE 63 ACRES

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE

PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON

CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY) \_\_\_\_\_

TARGET FORMATION: GANTZ ESTIMATED DEPTH 2345

WELL OPERATOR: DOMINION TRANSMISSION, INC DESIGNATED AGENT MATTHEW E. GORALCZYK

ADDRESS 445 WEST MAIN ST ADDRESS 445 WEST MAIN STREET  
CLARKSBURG, WV 26301 CLARKSBURG, WV 26301

08/15/2014