



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

October 25, 2013

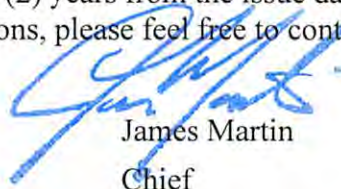
WELL WORK PERMIT
Rework-Secondary Recovery

This permit, API Well Number: 47-10301673, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

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: J. K. FLUHARTY E-18
Farm Name: YELLOW HOUSE SPORTS CLUB
API Well Number: 47-10301673
Permit Type: Rework-Secondary Recovery
Date Issued: 10/25/2013

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.
8. If well work related activities require the use of water obtained by withdrawals from waters of this state in amounts that exceed two hundred ten thousand gallons during any thirty day period, the operator is required to consult, and adhere to, the guidance provided by DEP's Water Withdrawal Guidance Tool prior to any water withdrawals.

**State of West Virginia
Division of Environmental Protection
Section of Oil and Gas**

Well Operator's Report of Well Work

Farm name: YELLOW HOUSE SPORTS CLUB Operator Well No.: J.K. FLUHARTY E-18

LOCATION: Elevation: 1,268 Quadrangle: CENTERPOINT

District: GREEN County: WETZEL
Latitude: 5,050 Feet south of 39 Deg 30 Min 0 Sec.
Longitude: 9,600 Feet west of 80 Deg 40 Min 0 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: RANDAL MICK

Permit Issued: 5/3/95
Well work Commenced: 7/25/95
Well work Completed: 10/18/95

Verbal plugging permission granted on: _____
Rotary _____ Cable _____ Rig _____

Total Depth (feet) 3,262
Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N
Coal Depths (ft): NA

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8-5/8	528'	528'	275 SKS
4 1/2"	3231.95'	3231.05'	170 SKS

OPEN FLOW DATA *Waterflood Injection Well

Producing formation GORDON Pay zone depth (ft) 3093-3155
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after * Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after RECEIVED Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY

By: [Signature] Date: 10/25/2013
4/8/96

Office of Oil and Gas
WV Department of Environmental Protection

Treatment : Perforated Gordon 3124'-3132' (32 Holes) Treated Via 4 1/2 CSG with 300 Gal 15% HCl Acid, 272 BBL Gelled Water & 15,000 LB 20/40 Sand.

Well Log :

Sand & Shale	0	-	1564'
Sand	1564'	-	1648'
Shale	1648'	-	1660'
Sand	1660'	-	1712'
Sand & Shale	1712'	-	2227'
Sand	2227'	-	2276'
Sand & Shale	2276'	-	2238'
Sand	2238'	-	2516'
Sand & Shale	2516'	-	3093'
Gordon	3093'	-	3155'
T.D.	3262'		

Received

SEP 25 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

10/25/2013

Legend

Property Boundary		Diversion	
Road		Spring	
Existing Fence		Wet Spot	
Planned Fence		Drain Pipe	
Stream		Waterway	
Open Ditch		Cross Drain	
Rock		Filter Strip	
North		Pit: Cut Walls	
Buildings		Pit: Compacted Fill Walls	
Water Wells		Area of Land Application of Pit Waste	
Drill Site			

Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 0.3 Ac. Prevegetation pH _____

Area II
Approx. 0.2 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5
 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)
 Mulch Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

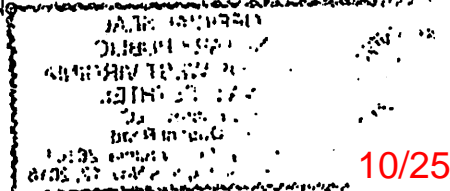
Attach:
 Drawing(s) of road, location, pit and proposed area for land application
 Photocopied section of involved 7.5' topographic sheet.

Plan approved by: [Signature]
 Comments: _____

Title: Oil + Gas Inspector Date: 8-12-13

Field Reviewed? Yes No

G.I. YERGENIS
 OIL & GAS INSPECTOR



10/25/2013

RECLAMATION PLAN FOR:

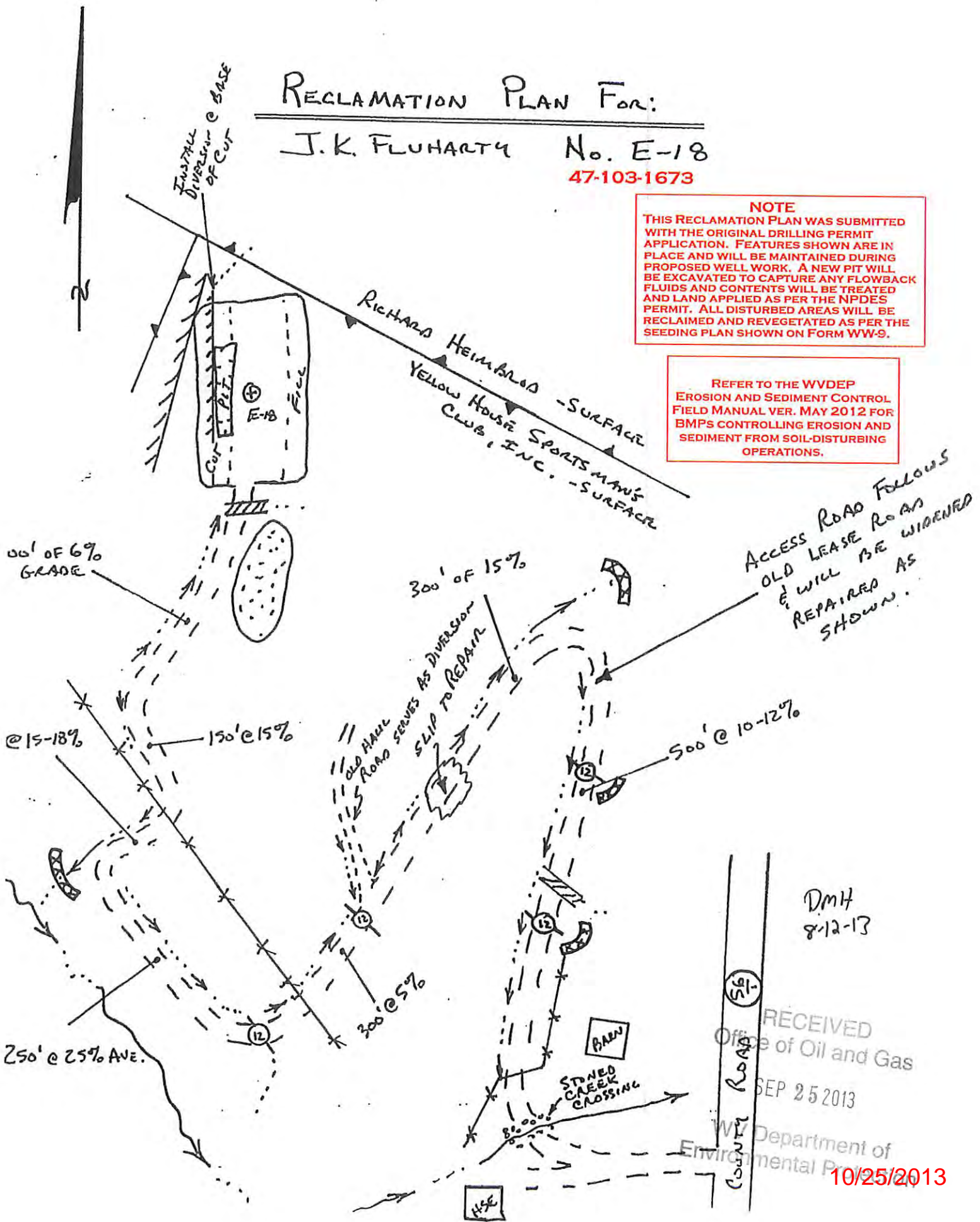
J.K. FLUHARTY No. E-18

47-103-1673

NOTE

THIS RECLAMATION PLAN WAS SUBMITTED WITH THE ORIGINAL DRILLING PERMIT APPLICATION. FEATURES SHOWN ARE IN PLACE AND WILL BE MAINTAINED DURING PROPOSED WELL WORK. A NEW PIT WILL BE EXCAVATED TO CAPTURE ANY FLOWBACK FLUIDS AND CONTENTS WILL BE TREATED AND LAND APPLIED AS PER THE NPDES PERMIT. ALL DISTURBED AREAS WILL BE RECLAIMED AND REVEGETATED AS PER THE SEEDING PLAN SHOWN ON FORM WW-9.

REFER TO THE WVDEP EROSION AND SEDIMENT CONTROL FIELD MANUAL VER. MAY 2012 FOR BMPs CONTROLLING EROSION AND SEDIMENT FROM SOIL-DISTURBING OPERATIONS.



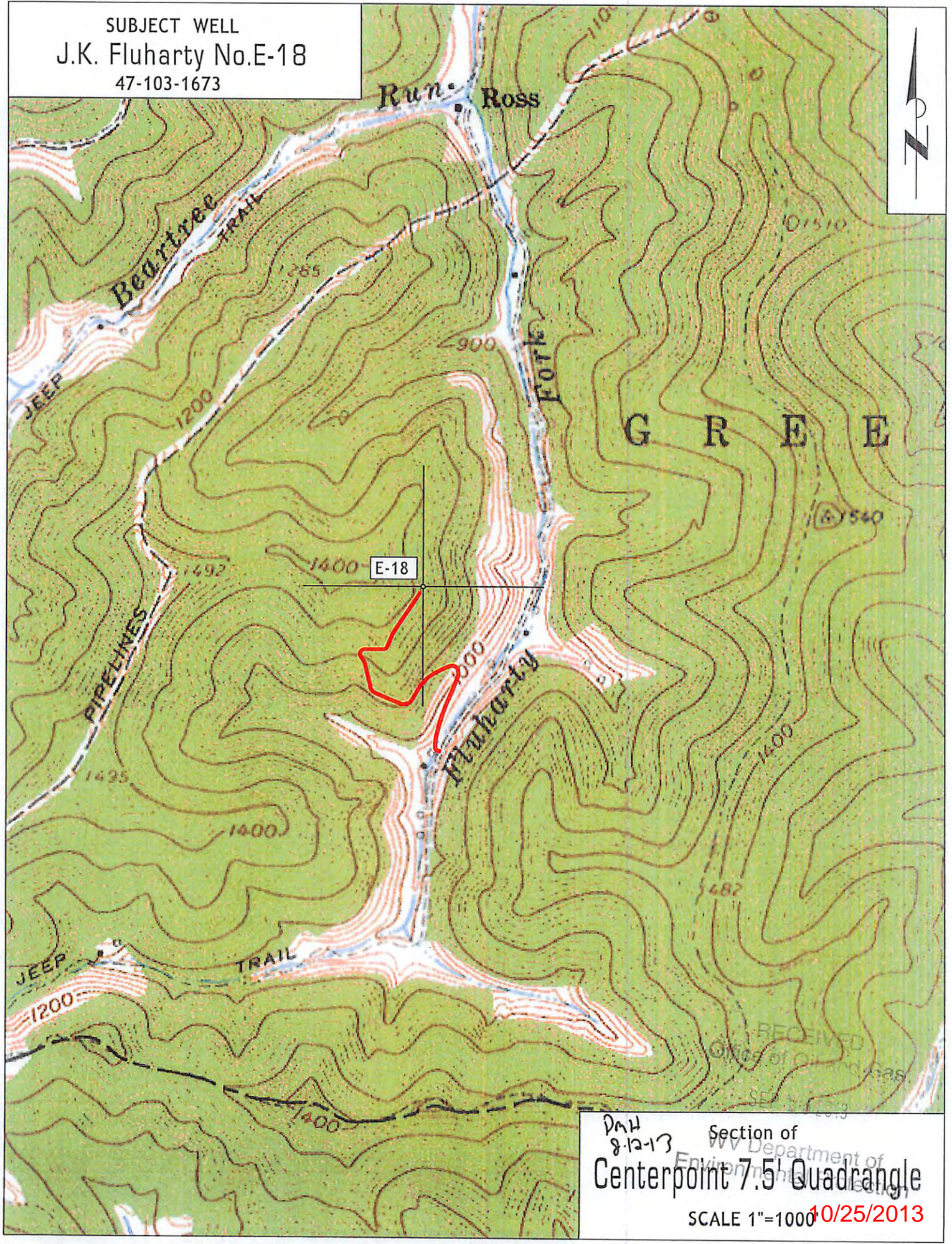
DMH
8-12-13

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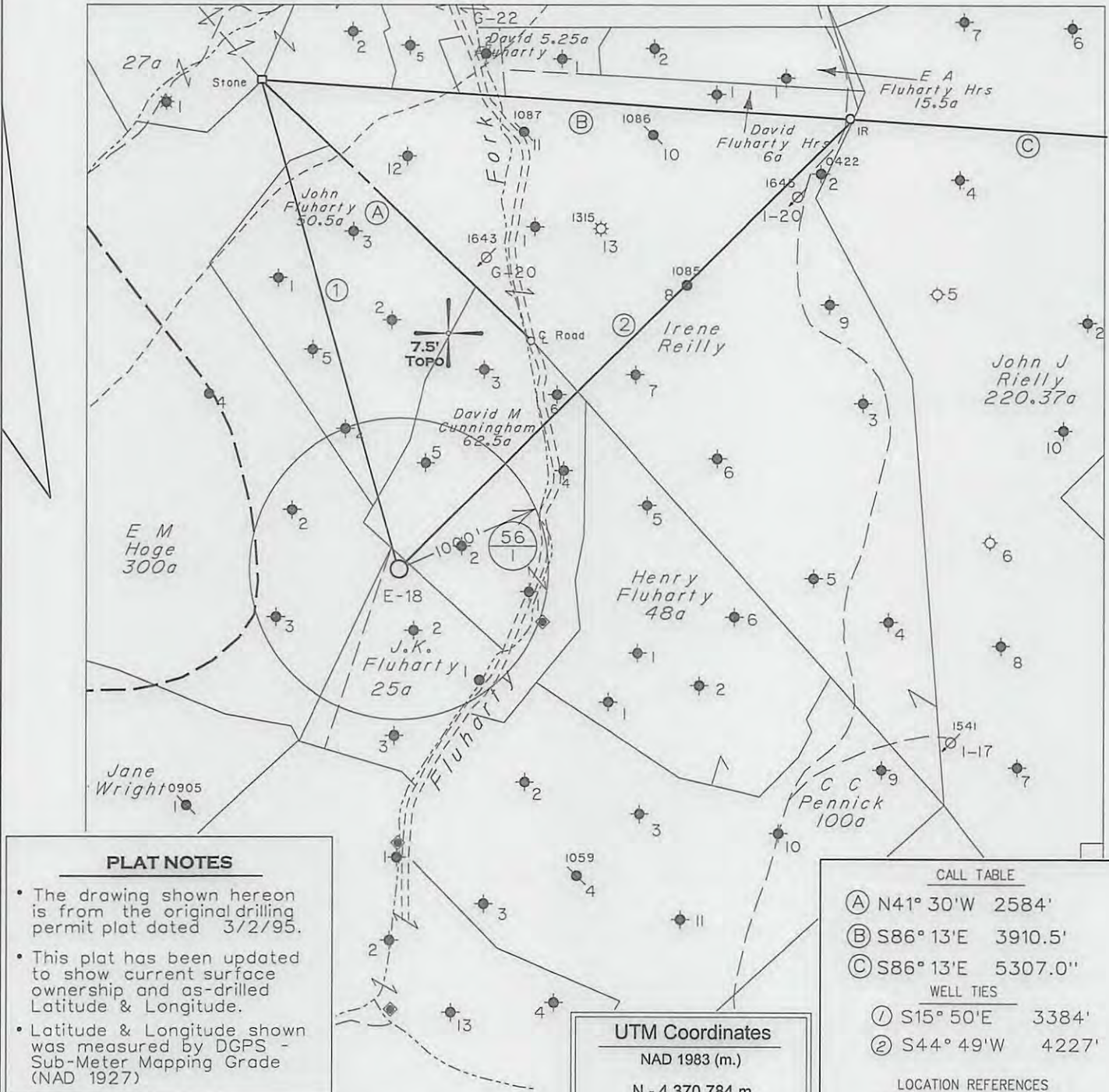
WV Department of
Environmental Protection

10/25/2013

SUBJECT WELL
J.K. Fluharty No.E-18
47-103-1673



DWH
8-12-13
Section of
Centerpoint 7.5' Quadrangle
SCALE 1"=1000
10/25/2013



PLAT NOTES

- The drawing shown hereon is from the original drilling permit plat dated 3/2/95.
- This plat has been updated to show current surface ownership and as-drilled Latitude & Longitude.
- Latitude & Longitude shown was measured by DGPS - Sub-Meter Mapping Grade (NAD 1927)

UTM Coordinates

NAD 1983 (m.)
 N - 4,370,784 m.
 E - 525,757 m.

CALL TABLE

- (A) N41° 30'W 2584'
- (B) S86° 13'E 3910.5'
- (C) S86° 13'E 5307.0"

WELL TIES

- (1) S15° 50'E 3384'
- (2) S44° 49'W 4227'

LOCATION REFERENCES

Existing Well

— DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. _____
 MAP NO. _____ N _____ S _____ E _____ W _____
 SCALE _____ 1" = 1000'
 MINIMUM DEGREE OF ACCURACY _____ Sub-Meter
 PROVEN SOURCE OF ELEVATION WVDEP Records

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES

(SIGNED) *[Signature]*
 TIMOTHY P. ROUSH PS 793



WEST VIRGINIA
 Division of Environmental Protection
 Office of Oil and Gas
 601 57th Street
 Charleston, West Virginia 25304



DATE July 19, 2013
 FARM J.K. Fluharty No.E-18
 API WELL NO. 47-103-01673 RS

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION X WASTE DISPOSAL ___ HORIZONTAL ___
 (IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 1,268' WATERSHED Fluharty Fork
 DISTRICT Green COUNTY Wetzel
 QUADRANGLE Centerpoint 7.5'

SURFACE OWNER Yellow House Sportsman's Club ACREAGE 25 Ac.
 OIL & GAS ROYALTY OWNER HG Energy, LLC LEASE ACREAGE P/O 240 Ac. **10/25/2013**
 LEASE NO. Fee 2831-00

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

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Gordon ESTIMATED DEPTH 3,262'
 WELL OPERATOR HG Energy, LLC DESIGNATED AGENT Mike Kirsch
 ADDRESS 5260 Dupont Road ADDRESS 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101

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HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

CK#2324 650⁰⁰

July 25, 2013

Mr. Jeff McLaughlin
WVDEP
Division of Oil & Gas
601 57th Street
Charleston, West Virginia 25304

RE: J. K. Fluharty No. E-18 (47-103-1673)
Green District, Wetzel County
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, Mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate the above-captioned liquid injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

Diane C White

Diane C. White

Enclosures

cc: Yellow House Sportsman's Club - Certified
Derek Haught - Inspector

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Office of Oil and Gas

SEP 25 2013

WV Department of
Environmental Protection

10/25/2013