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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. Huffinan, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

May 06, 2013

**WELL WORK PERMIT**  
**Horizontal 6A Well**

This permit, API Well Number: 47-6900164, issued to CHESAPEAKE APPALACHIA, L.L.C., 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.

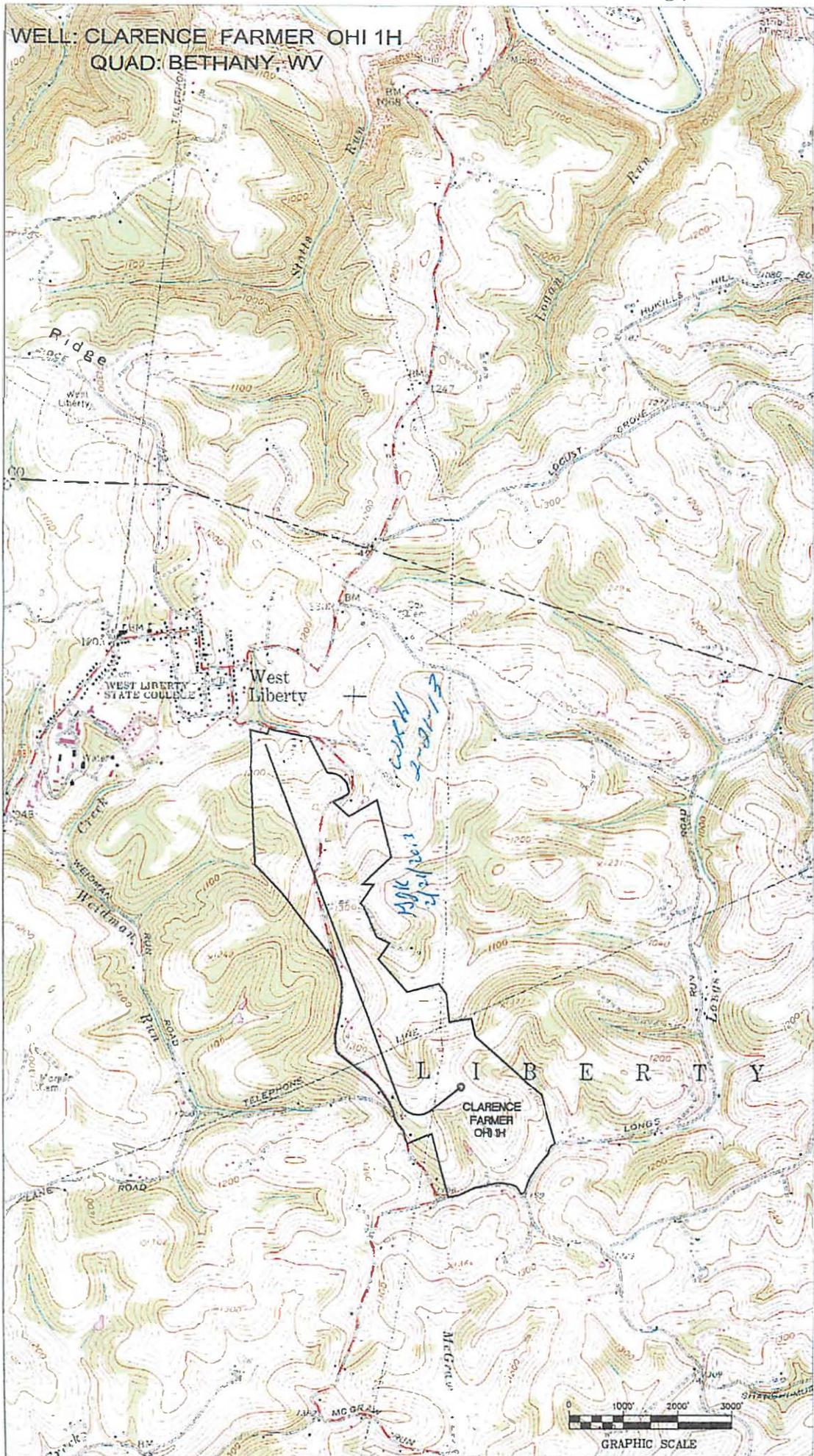
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

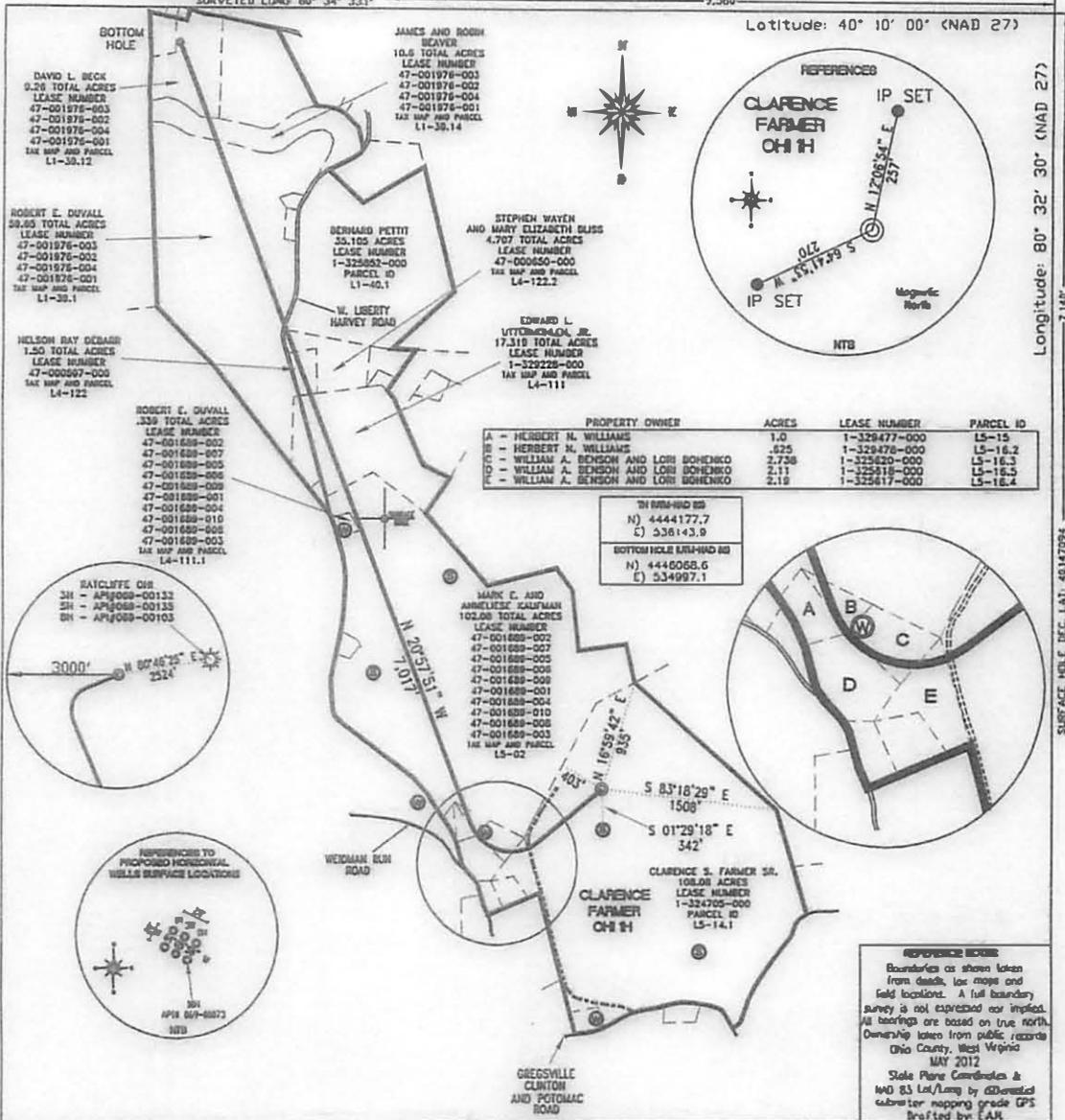
James Martin  
Chief

Operator's Well No: CLARENCE FARMER OHI 1H  
Farm Name: FARMER, CLARENCE S. SR. & CI  
**API Well Number: 47-6900164**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/06/2013

**Promoting a healthy environment.**

WELL: CLARENCE FARMER OHI 1H  
QUAD: BETHANY, WV





FILE #: CHE 039  
DRAWING #: 2073  
SCALE: 1"=1200'  
MINIMUM DEGREE OF ACCURACY: 1/200  
PROVEN SOURCE SUBMETER MAPPING OF ELEVATION: 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 AND THE REGULATIONS ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *[Signature]*  
L.L.S. #2124: Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

DATE: MARCH 11, 2013

OFFICE OF OIL & GAS  
601 5TH STREET  
CHARLESTON, WV 25304

OPERATOR'S WELL #: CLARENCE FARMER OH 1 H

Well Type:  Oil  Waste Disposal  Production  Deep  Gas  Liquid Injection  Storage  Shallow

API WELL #: 47 69 00164 HGA  
STATE COUNTY PERMIT

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,330'

COUNTY/DISTRICT: OHIO/LIBERTY QUADRANGLE: BETHANY WV.

SURFACE OWNER: CLARENCE S. FARMER SR. AND CHARLETTIE FARMER ACREAGE: 108.08 +/-

OIL & GAS ROYALTY OWNER: CLARENCE S. FARMER SR. AND CHARLETTIE FARMER ACREAGE: 374.56 +/-

LEASE NUMBERS: \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
PLUG OFF FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,330' TMD: 13,811'

WELL OPERATOR: CHESAPEAKE APPALACHIA, LLC. DESIGNATED AGENT: ERIC B. GILLESPIE

ADDRESS: PO BOX 18496 ADDRESS: PO BOX 6070

CITY: OKLAHOMA CITY STATE: OK ZIP CODE: 73154-0496 CHARLESTON STATE: WV ZIP CODE: 25301



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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  
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Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

May 06, 2013

**WELL WORK PERMIT**  
**Horizontal 6A Well**

This permit, API Well Number: 47-6900165, issued to CHESAPEAKE APPALACHIA, L.L.C., 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.

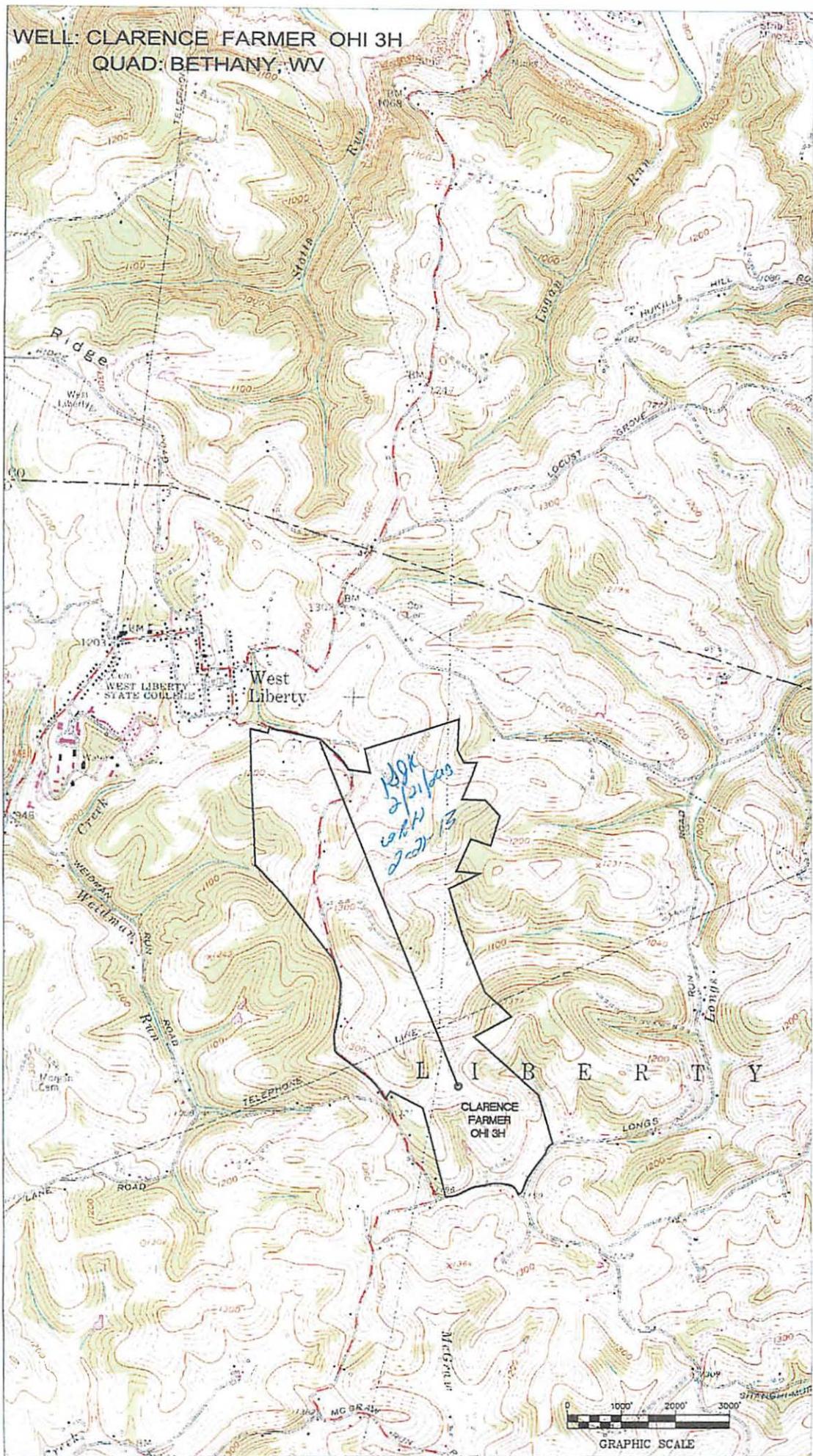
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

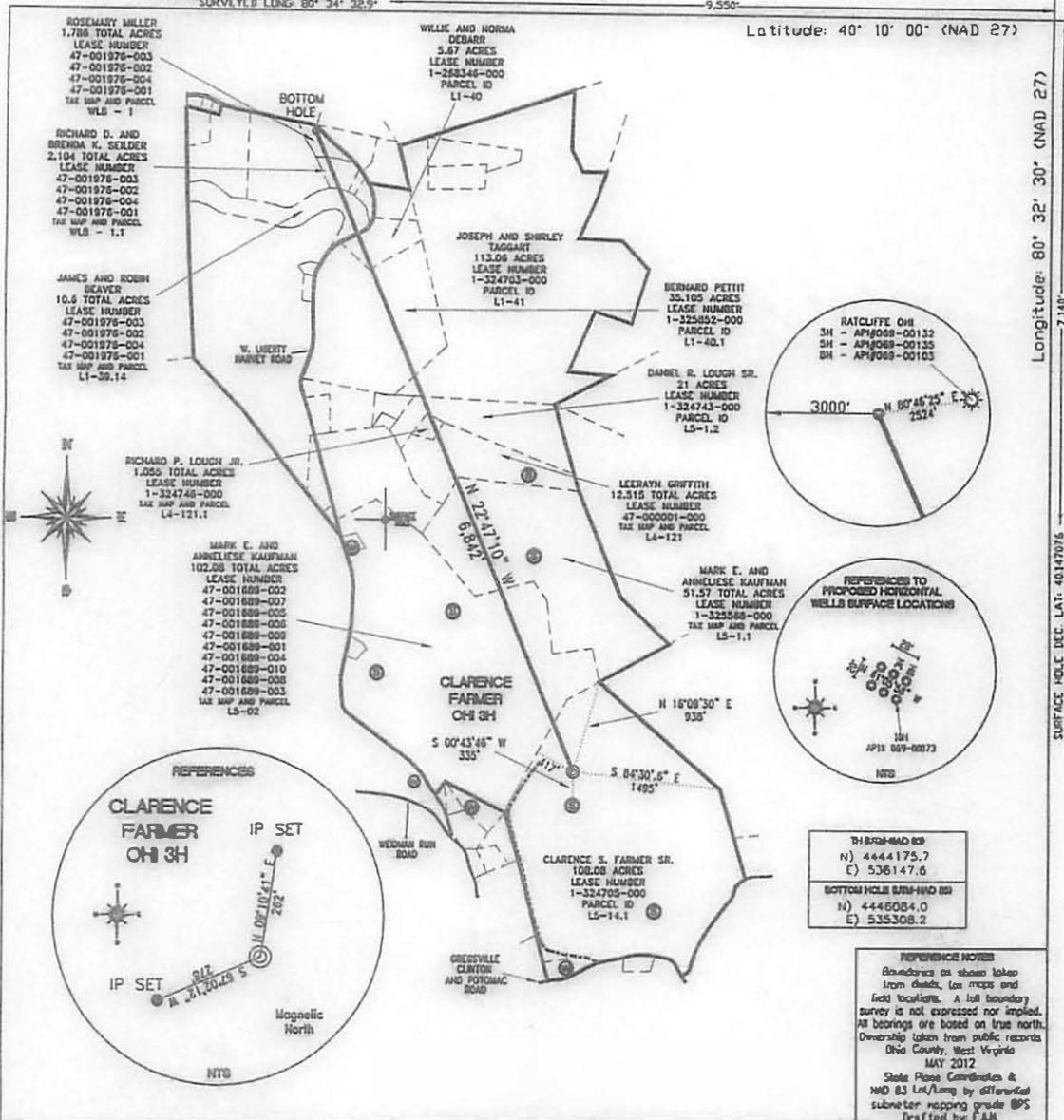
James Martin  
Chief

Operator's Well No: CLARENCE FARMER OHI 3H  
Farm Name: FARMER, CLARENCE S. SR. & C1  
**API Well Number: 47-6900165**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/06/2013

**Promoting a healthy environment.**

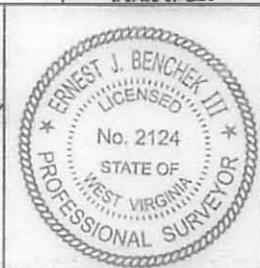
WELL: CLARENCE FARMER OHI 3H  
QUAD: BETHANY WV





FILE #: CHE 039  
 DRAWING #: 2074  
 SCALE: 1"=1400'  
 MINIMUM DEGREE OF ACCURACY: 1/200  
 PROVEN SOURCE SUBMETER MAPPING OF ELEVATION: GRADE GPS

I, THE  
 PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.  
 Signed: [Signature]  
 L.L.S. #2124: Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WYDEP  
 OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304

DATE: MARCH 13, 2013  
 OPERATOR'S WELL #: CLARENCE FARMER OHI 3H  
 API WELL #: 47 69 00165 H6A  
 STATE COUNTY PERMIT

Well Type:  Oil  Waste Diposal  Production  Deep  Gas  Liquid Injection  Storage  Shallow

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,330'  
 COUNTY/DISTRICT: OHIO/LIBERTY QUADRANGLE: BETHANY WV.  
 SURFACE OWNER: CLARENCE S. FARMER SR. AND CHARLOTTE FARMER ACREAGE: 108.08 +/-  
 OIL & GAS ROYALTY OWNER: CLARENCE S. FARMER SR. AND CHARLOTTE FARMER ACREAGE: 464.82 +/-  
 LEASE NUMBERS: \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORM  
 WELL OPERATOR: CHESAPEAKE APPALACHIA, LLC. ESTIMATED DEPTH: TVD: 6,330' TMD: 12,967'  
 ADDRESS: PO BOX 18496 DESIGNATED AGENT: ERIC B. GILLESPIE  
 CITY: OKLAHOMA CITY STATE: OK ZIP CODE: 73154-0496 CITY: CHARLESTON STATE: WV ZIP CODE: 25301



west virginia department of environmental protection

Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
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Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

May 07, 2013

**WELL WORK PERMIT**

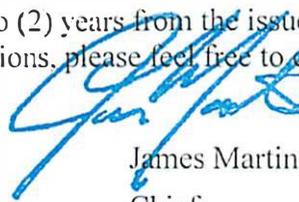
**Horizontal 6A Well**

This permit, API Well Number: 47-5101622, issued to CHESAPEAKE APPALACHIA, L.L.C., 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.

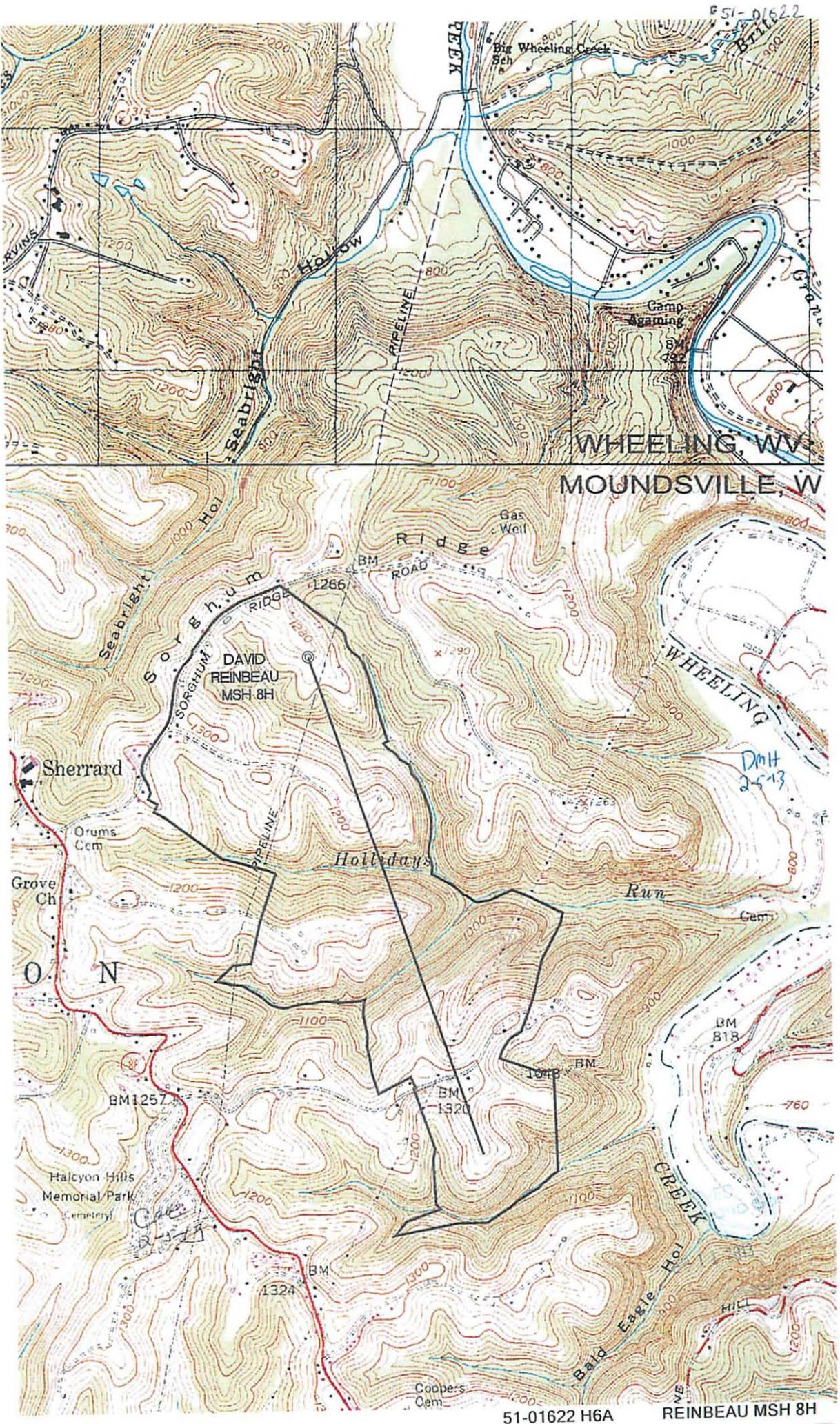
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: REINBEAU MSH  
Farm Name: REINBEAU, SHELLY A. AND DAV  
**API Well Number: 47-5101622**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/07/2013

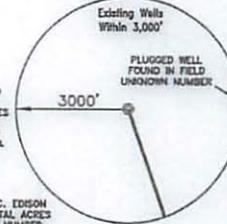
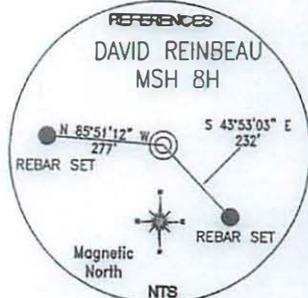
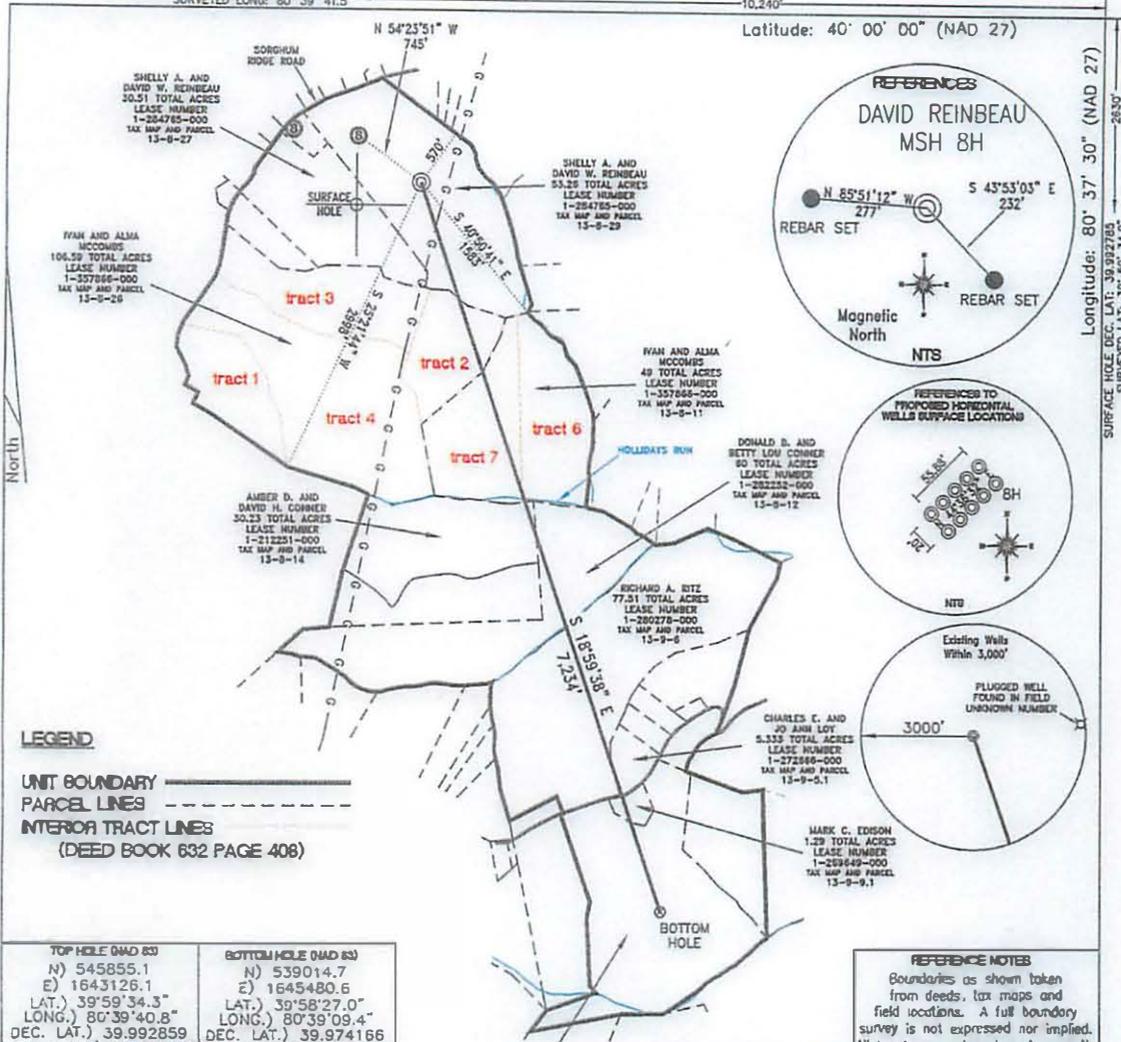
Promoting a healthy environment.



SURFACE HOLE DEC. LONG: 80.661529  
 SURVEYED LONG: 80° 39' 41.5"

Latitude: 40° 00' 00" (NAD 27)

Longitude: 80° 37' 30" (NAD 27)



**LEGEND**  
 UNIT BOUNDARY  
 PARCEL LINES  
 INTERIOR TRACT LINES  
 (DEED BOOK 632 PAGE 408)

|  |   |
|--|---|
| TOP HOLE (NAD 83)<br>N) 545855.1<br>E) 1643126.1<br>LAT.) 39°59'34.3"<br>LONG.) 80°39'40.8"<br>DEC. LAT.) 39.992859<br>DEC. LONG.) 80.661330 | BOTTOM HOLE (NAD 83)<br>N) 539014.7<br>E) 1645480.6<br>LAT.) 39°58'27.0"<br>LONG.) 80°39'09.4"<br>DEC. LAT.) 39.974166<br>DEC. LONG.) 80.652614 |
| TOP HOLE (NAD 27)<br>N) 545818.5<br>E) 1674561.4<br>LAT.) 39°59'34.0"<br>LONG.) 80°39'41.5"<br>DEC. LAT.) 39.992785<br>DEC. LONG.) 80.661529 | BOTTOM HOLE (NAD 27)<br>N) 538978.0<br>E) 1676916.0<br>LAT.) 39°58'26.7"<br>LONG.) 80°39'10.1"<br>DEC. LAT.) 39.974091<br>DEC. LONG.) 80.652813 |

|  |   |
|--|---|
| TH (UTM-NAD 83)<br>N) 4427019.6<br>E) 528911.8 | BOTTOM HOLE (UTM-NAD 83)<br>N) 4424947.6<br>E) 529664.0 |
|--|---|

**REFERENCE NOTES**  
 Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records MARSHALL County, West Virginia NOVEMBER 2012  
 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS  
 Drafted by: E.A.M.

FILE #: CHE 112  
 DRAWING #: 2131  
 SCALE: 1" = 1400'  
 MINIMUM DEGREE OF ACCURACY: 1/200  
 PROVEN SOURCE: SUBMETER MAPPING  
 OF ELEVATION: 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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.  
 Signed: \_\_\_\_\_  
 L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 WYDEP  
 OFFICE OF OIL & GAS  
 601 5TH STREET  
 CHARLESTON, WV 25304

DATE: JANUAR 15, 2013  
 OPERATOR'S WELL #: DAVID REINBEAU MSH 8H  
 API WELL #: 47 51 01622 HGA  
 STATE COUNTY PERMIT

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,260'  
 COUNTY/DISTRICT: MARSHALL/UNION QUADRANGLE: MOUNDSVILLE, WV

SURFACE OWNER: SHELLY A. AND DAVID W. REINBEAU ACREAGE: 53.26 +/-  
 OIL & GAS ROYALTY OWNER: SHELLY A. AND DAVID W. REINBEAU ACREAGE: 431.01 +/-  
 LEASE NUMBERS: \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,327' TMD: 13,356'  
 WELL OPERATOR: CHESAPEAKE APPALACHIA, LLC. DESIGNATED AGENT: ERIC GILLESPIE  
 ADDRESS: PO BOX 18496 ADDRESS: PO BOX 6070  
 CITY: OKLAHOMA CITY STATE: OK ZIP CODE: 73154-0496 CIT: CHARLESTON STATE: WV ZIP CODE: 25 01



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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

May 07, 2013

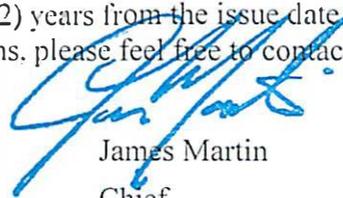
**WELL WORK PERMIT**  
**Horizontal 6A Well**

This permit, API Well Number: 47-5101623, issued to CHESAPEAKE APPALACHIA, L.L.C., 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.

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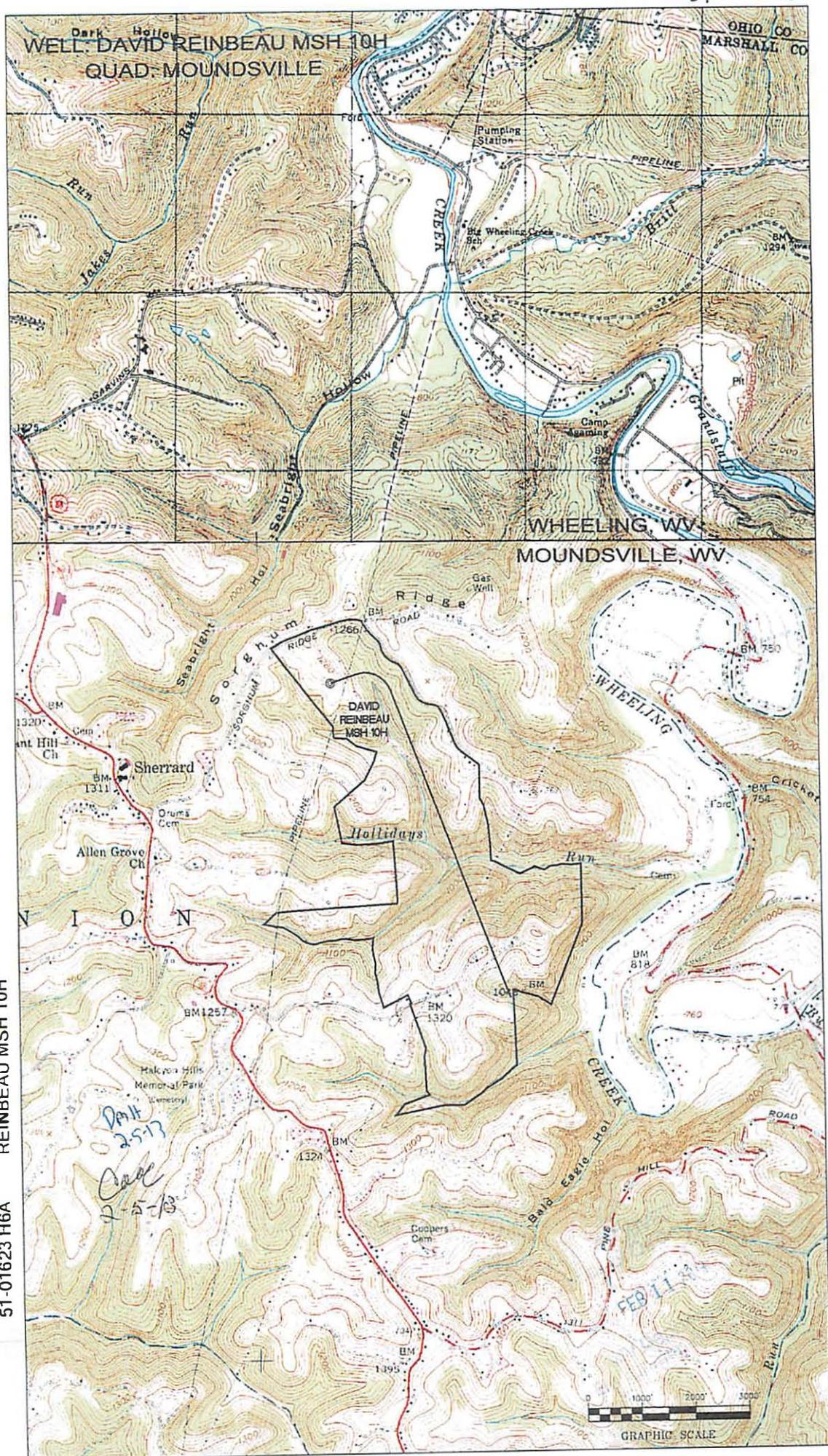


James Martin  
Chief

Operator's Well No: REINBEAU MSH 10H  
Farm Name: REINBEAU, SHELLY A. AND DAV  
**API Well Number: 47-5101623**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/07/2013

**Promoting a healthy environment.**

51-01623



51-01623 H6A REINBEAU MSH 10H

*DMH  
2-5-13  
Call  
2-5-13*







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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

May 07, 2013

**WELL WORK PERMIT**  
**Horizontal 6A Well**

This permit, API Well Number: 47-5101630, issued to CHESAPEAKE APPALACHIA, L.L.C., 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.

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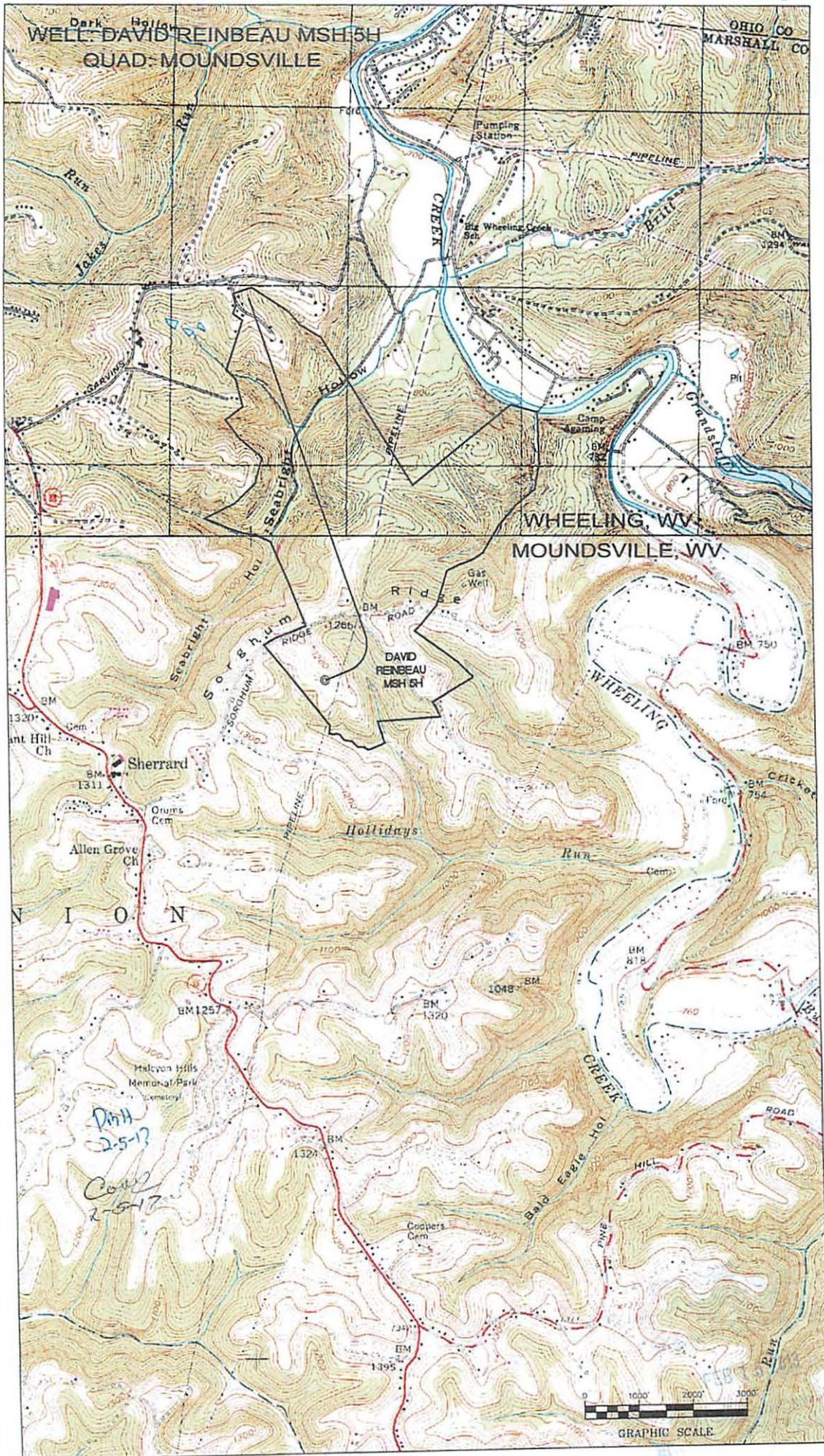
In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

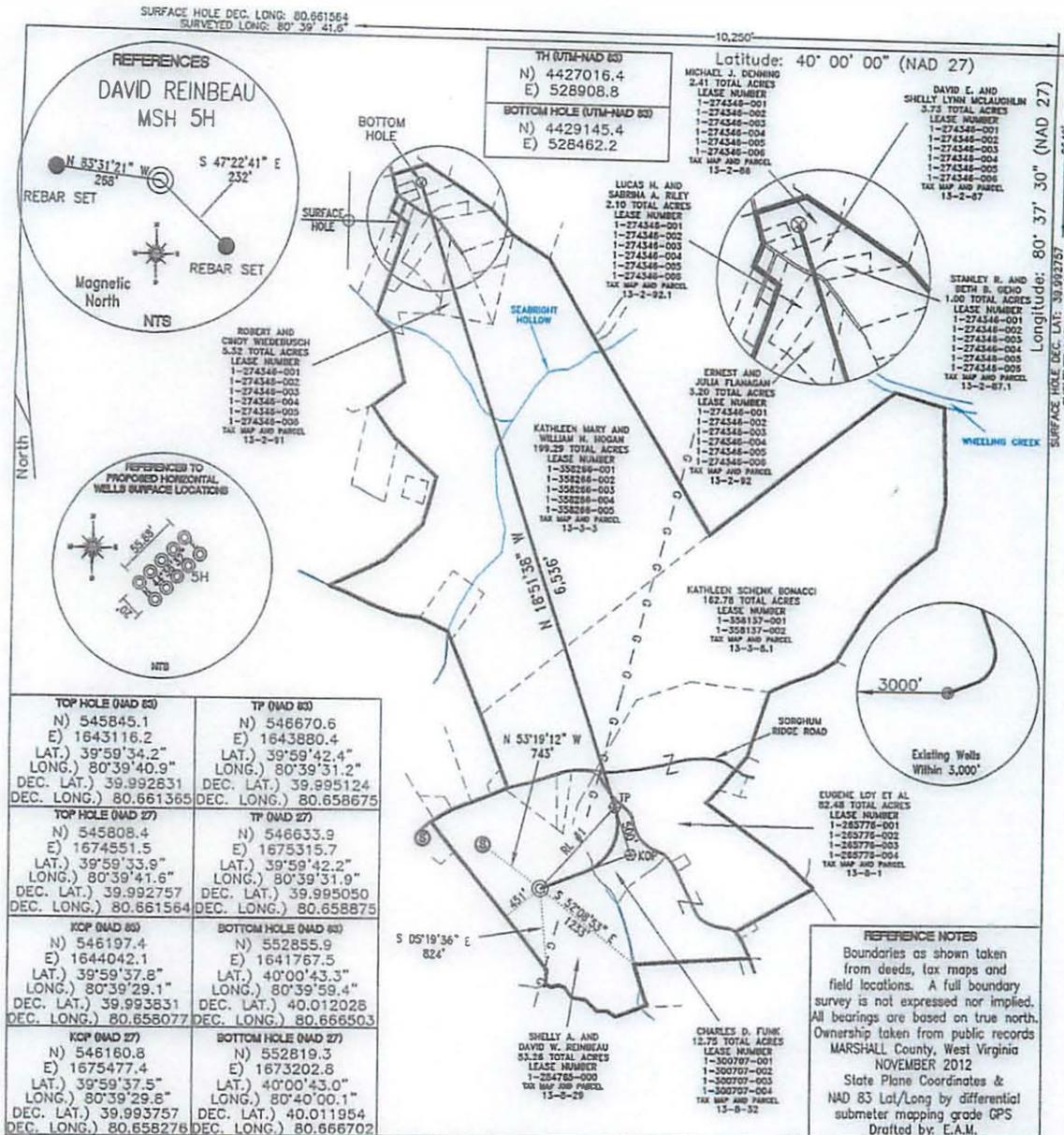
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: REINBEAU MSH 5H  
Farm Name: REINBEAU, SHELLY A. AND DAV  
**API Well Number: 47-5101630**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/07/2013

**Promoting a healthy environment.**





|   |  |
|---|--|
| <b>TOP HOLE (NAD 83)</b><br>N) 545845.1<br>E) 1643116.2<br>LAT.) 39°59'34.2"<br>LONG.) 80°39'40.9"<br>DEC. LAT.) 39.992831<br>DEC. LONG.) 80.661365 | <b>TP (NAD 83)</b><br>N) 546670.6<br>E) 1643880.4<br>LAT.) 39°59'42.4"<br>LONG.) 80°39'31.2"<br>DEC. LAT.) 39.995124<br>DEC. LONG.) 80.658675          |
| <b>TOP HOLE (NAD 27)</b><br>N) 545808.4<br>E) 1674551.5<br>LAT.) 39°59'33.9"<br>LONG.) 80°39'41.6"<br>DEC. LAT.) 39.992757<br>DEC. LONG.) 80.661564 | <b>TP (NAD 27)</b><br>N) 546633.9<br>E) 1675315.7<br>LAT.) 39°59'42.2"<br>LONG.) 80°39'31.9"<br>DEC. LAT.) 39.995050<br>DEC. LONG.) 80.658875          |
| <b>KCP (NAD 83)</b><br>N) 546197.4<br>E) 1644042.1<br>LAT.) 39°59'37.8"<br>LONG.) 80°39'29.1"<br>DEC. LAT.) 39.993831<br>DEC. LONG.) 80.658077      | <b>BOTTOM HOLE (NAD 83)</b><br>N) 552855.9<br>E) 1641767.5<br>LAT.) 40°00'43.3"<br>LONG.) 80°39'59.4"<br>DEC. LAT.) 40.012028<br>DEC. LONG.) 80.666503 |
| <b>KCP (NAD 27)</b><br>N) 546180.8<br>E) 1675477.4<br>LAT.) 39°59'37.5"<br>LONG.) 80°39'29.8"<br>DEC. LAT.) 39.993757<br>DEC. LONG.) 80.658276      | <b>BOTTOM HOLE (NAD 27)</b><br>N) 552819.3<br>E) 1673202.8<br>LAT.) 40°00'43.0"<br>LONG.) 80°40'00.1"<br>DEC. LAT.) 40.011954<br>DEC. LONG.) 80.666702 |

FILE #: CHE 112  
 DRAWING #: 2132  
 SCALE: 1" = 1400'  
 MINIMUM DEGREE OF ACCURACY: 1/200  
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING 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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: \_\_\_\_\_

L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

DATE: JANUARY 9, 2013

OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304

OPERATOR'S WELL #: DAVID REINBEAU MSH 5H

Well Type:  Oil  Waste Diposal  Production  Deep  Gas  Liquid Injection  Storage  Shallow

API WELL #: 47 51 01630 H6A  
 STATE COUNTY PERMIT

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,260'

COUNTY/DISTRICT: MARSHALL/UNION QUADRANGLE: MOUNDSVILLE, WV

SURFACE OWNER: SHELLY A. AND DAVID W. REINBEAU ACREAGE: 53.26 +/-

OIL & GAS ROYALTY OWNER: SHELLY A. AND DAVID W. REINBEAU ACREAGE: 523.00 +/-

LEASE NUMBERS: \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,327' TMD: 13,263'

WELL OPERATOR: CHESAPEAKE APPALACHIA, LLC. DESIGNATED AGENT: ERIC GILLESPIE

ADDRESS: PO BOX 16496 ADDRESS: PO BOX 6070

CITY: OKLAHOMA CITY STATE: OK ZIP CODE: 73154-0496 CITY: CHARLESTON STATE: WV ZIP CODE: 25301



---

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

May 08, 2013

**WELL WORK PERMIT**

**Horizontal 6A Well**

This permit, API Well Number: 47-1706255, issued to ANTERO RESOURCES APPALACHIAN 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.

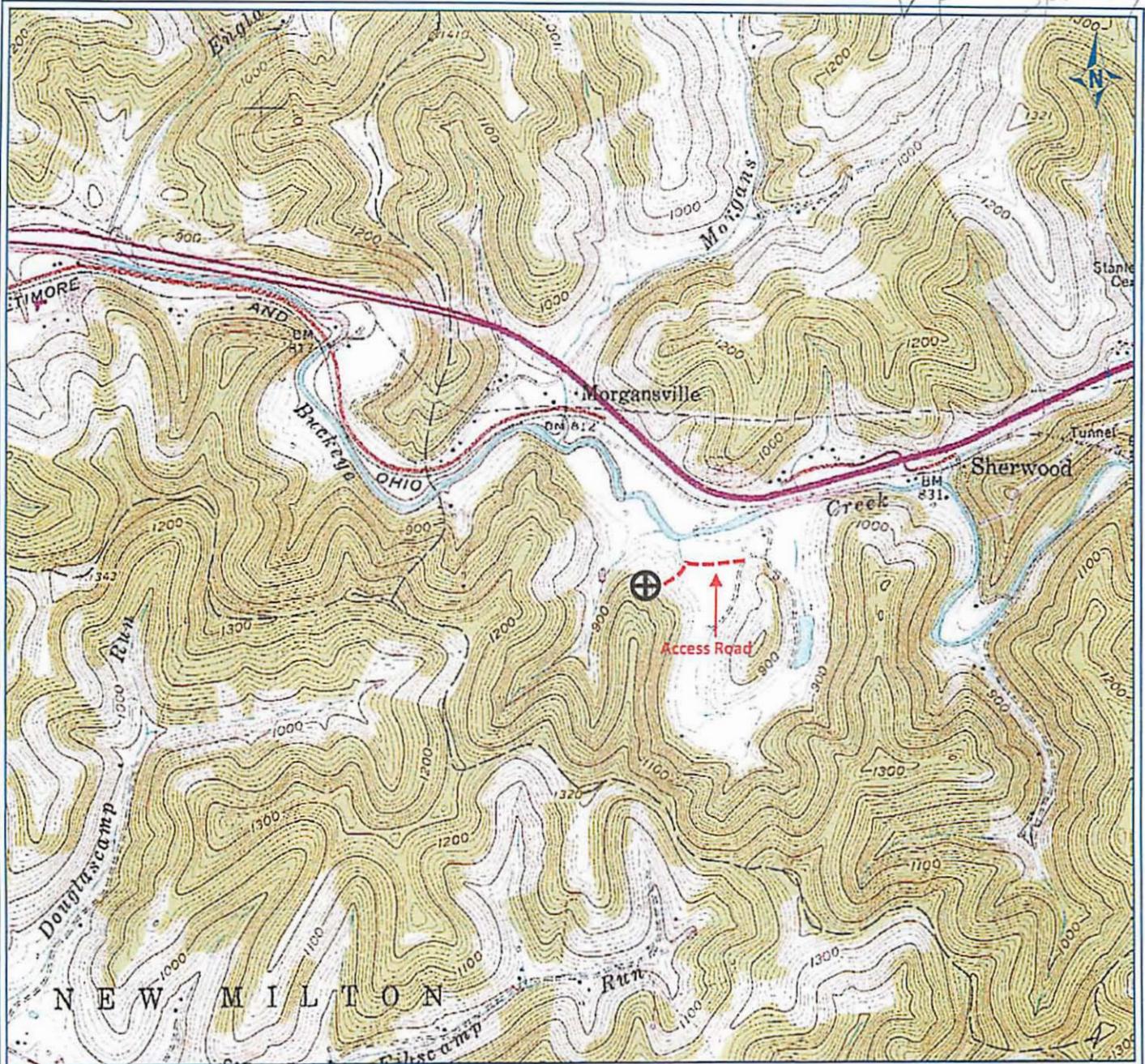
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: CONNIE UNIT 1 H  
Farm Name: POWELL, DENNIS H. & MELLIE  
**API Well Number: 47-1706255**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/08/2013

**Promoting a healthy environment.**

17-06255 ✓ Plot spotted 1/21



PETRA 3/1/2012 1:17:00 PM

**17-06255 H6A CONNIE UNIT 1H  
ANTERO RESOURCES**

**FARM NAME: POWELL**

**Antero Resources Corporation**

**APPALACHIAN BASIN**

**Connie Unit 1H**

**Doddridge County**

REMARKS  
**QUADRANGLE: SMITHBURG  
WATERSHED: BUCKEYE CREEK  
DISTRICT: GRANT**



March 1, 2012





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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

May 08, 2013

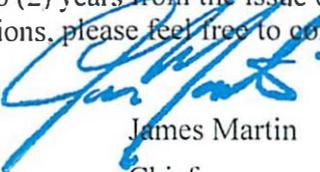
**WELL WORK PERMIT**  
**Horizontal 6A Well**

This permit, API Well Number: 47-8510036, issued to ANTERO RESOURCES APPALACHIAN 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.

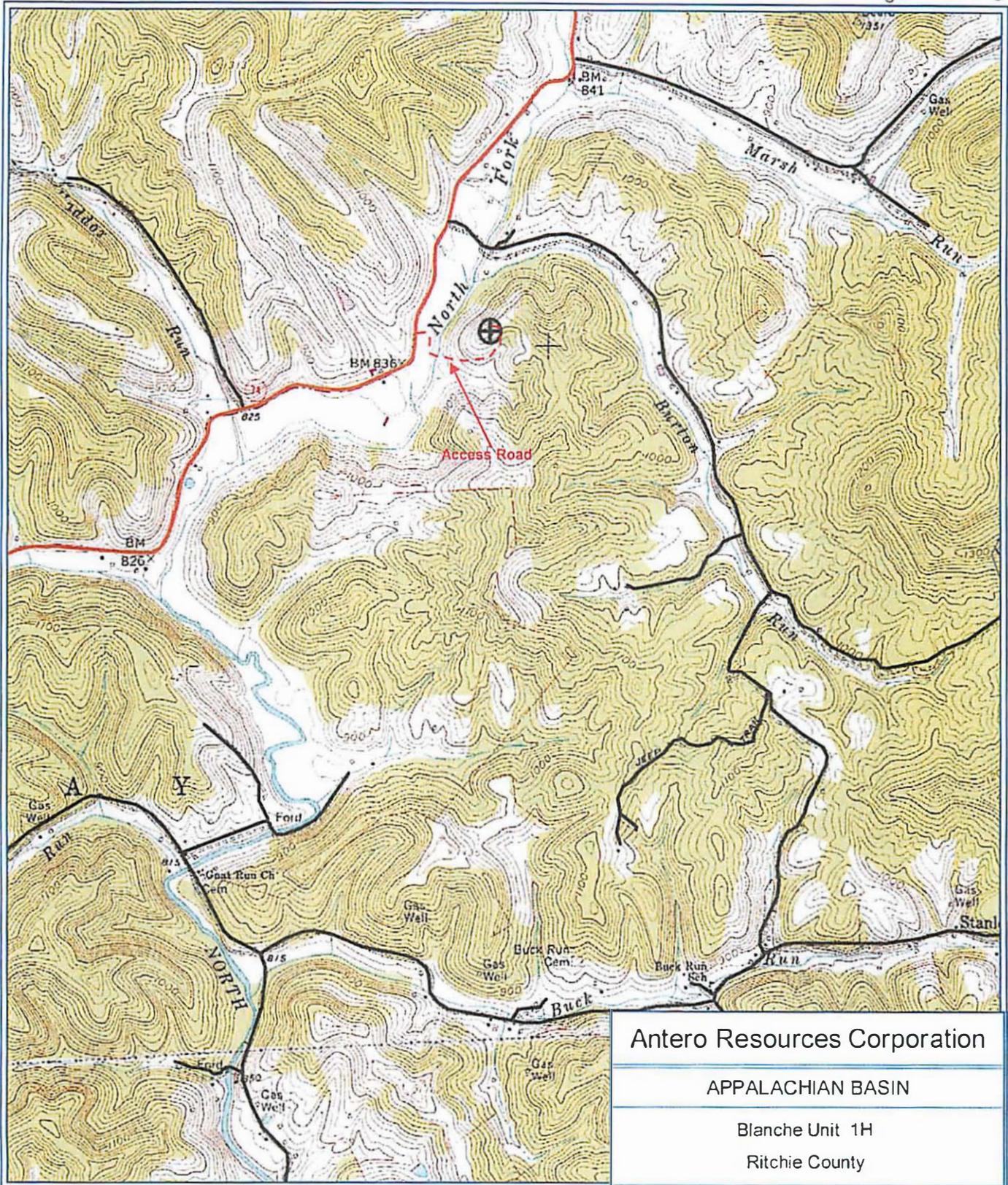
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: BLANCHE UNIT 1H  
Farm Name: ANNIE B. HAYMOND, ET AL  
**API Well Number: 47-8510036**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/08/2013

Promoting a healthy environment.



PETRA 1/26/2012 9:12:58 AM

Antero Resources Corporation

APPALACHIAN BASIN

Blanche Unit 1H

Ritchie County

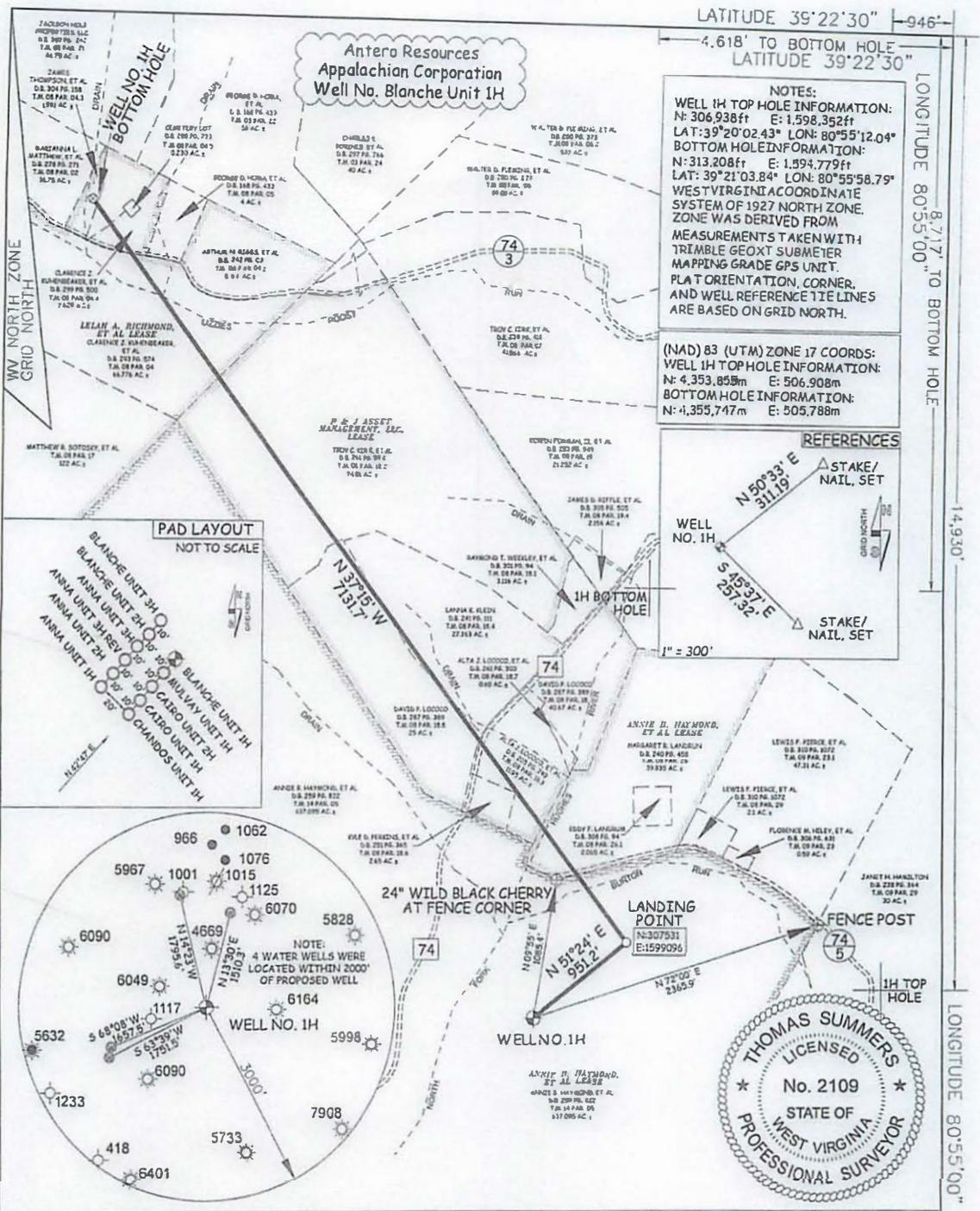


REMARKS  
 QUADRANGLE: PENNSBORO  
 WATERSHED: NORTH FORK HUGHES RIVER  
 DISTRICT: CLAY

Date: 01/26/2012

**85-10036 H6A BLANCHE UNIT 1H  
 ANTERO RESOURCES**

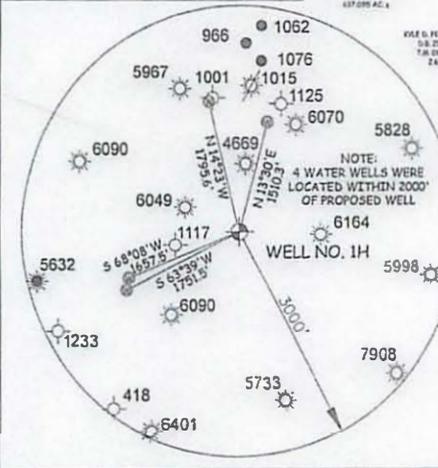
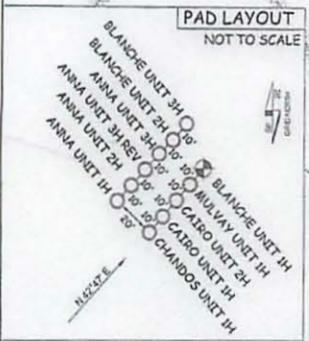
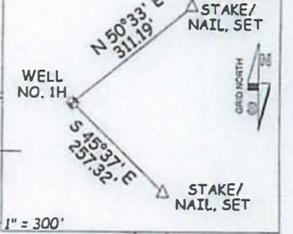
**FARM NAME: HAYMOND**



**NOTES:**  
 WELL 1H TOP HOLE INFORMATION:  
 N: 306,938ft E: 1,598,352ft  
 LAT: 39°20'02.43" LON: 80°55'12.04"  
 BOTTOM HOLE INFORMATION:  
 N: 313,208ft E: 1,594,779ft  
 LAT: 39°21'03.84" LON: 80°55'58.79"  
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:  
 WELL 1H TOP HOLE INFORMATION:  
 N: 4,353,859m E: 506,908m  
 BOTTOM HOLE INFORMATION:  
 N: 4,355,747m E: 505,788m

**REFERENCES**



|   |  |   |  |  |  |
|---|--|---|--|--|--|
| JOB # 13-001WA<br>DRAWING # BLANCHE 1H<br>SCALE 1" = 1000'<br>MINIMUM DEGREE OF ACCURACY SUBMETER<br>PROVEN SOURCE OF ELEV. SUBMETER MAPPING 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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.   |  | <b>LEGEND</b><br>- - - - - Surface Owner Boundary Lines +/-<br>- - - - - Interior Surface Tracts +/-<br>x - x - x Existing Fence<br>Rebar, Found<br>THOMAS SUMMERS P.S. 2109 |  |
| STATE OF WEST VIRGINIA<br>DEPARTMENT OF ENERGY<br>DIVISION OF OIL AND GAS<br>WELL TYPE: OIL ___ GAS <input checked="" type="checkbox"/> LIQUID INJECTION ___ WASTE DISPOSAL ___<br>(IF "GAS") PRODUCTION <input checked="" type="checkbox"/> STORAGE DEEP ___ SHALLOW <input checked="" type="checkbox"/><br>LOCATION: ELEVATION 971' WATERSHED NORTH FORK HUGHES RIVER<br>QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE |  | STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS<br>WILLLOW LAND SURVEYING PLLC<br>266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415  |  | DATE 03/07/13<br>OPERATOR'S WELL# BLANCHE UNIT #1H<br>API WELL # 47 - 085 10036 HG<br>STATE COUNTY PERMIT  |  |
| SURFACE OWNER ANNIE B. HAYMOND, ET AL ACREAGE 637.095 ACRES +/-<br>OIL & GAS ROYALTY OWNER ANNIE B. HAYMOND, ET AL; ANNIE B. HAYMOND, ET AL LEASE ACREAGE 700 ACRES+; 32 ACRES+;<br>P & J ASSET MANAGEMENT, LLC; LELAH A. RICHMOND, ET AL 199.7 ACRES+; 78 ACRES+   |  | PROPOSED WORK: DRILL <input checked="" type="checkbox"/> CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE <input checked="" type="checkbox"/><br>PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION <input checked="" type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ___ PLUG & ABANDON CLEAN OUT & REPLUG<br>TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,600' TVD 14,000' MD |  | COUNTY NAME<br>PERMIT  |  |
| WELL OPERATOR ANTERO RESOURCES APPALACHIAN CORP. DESIGNATED AGENT CT CORPORATION SYSTEM<br>ADDRESS 1625 17TH STREET DENVER, CO 80202 ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313   |  |   |  |  |  |



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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. Huffinan, Cabinet Secretary  
www.dep.wv.gov

May 10, 2013

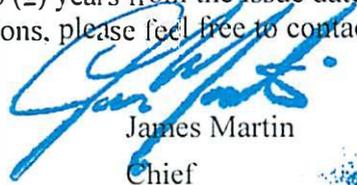
**WELL WORK PERMIT**  
**Horizontal 6A Well**

This permit, API Well Number: 47-8510029, issued to ANTERO RESOURCES APPALACHIAN 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.

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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

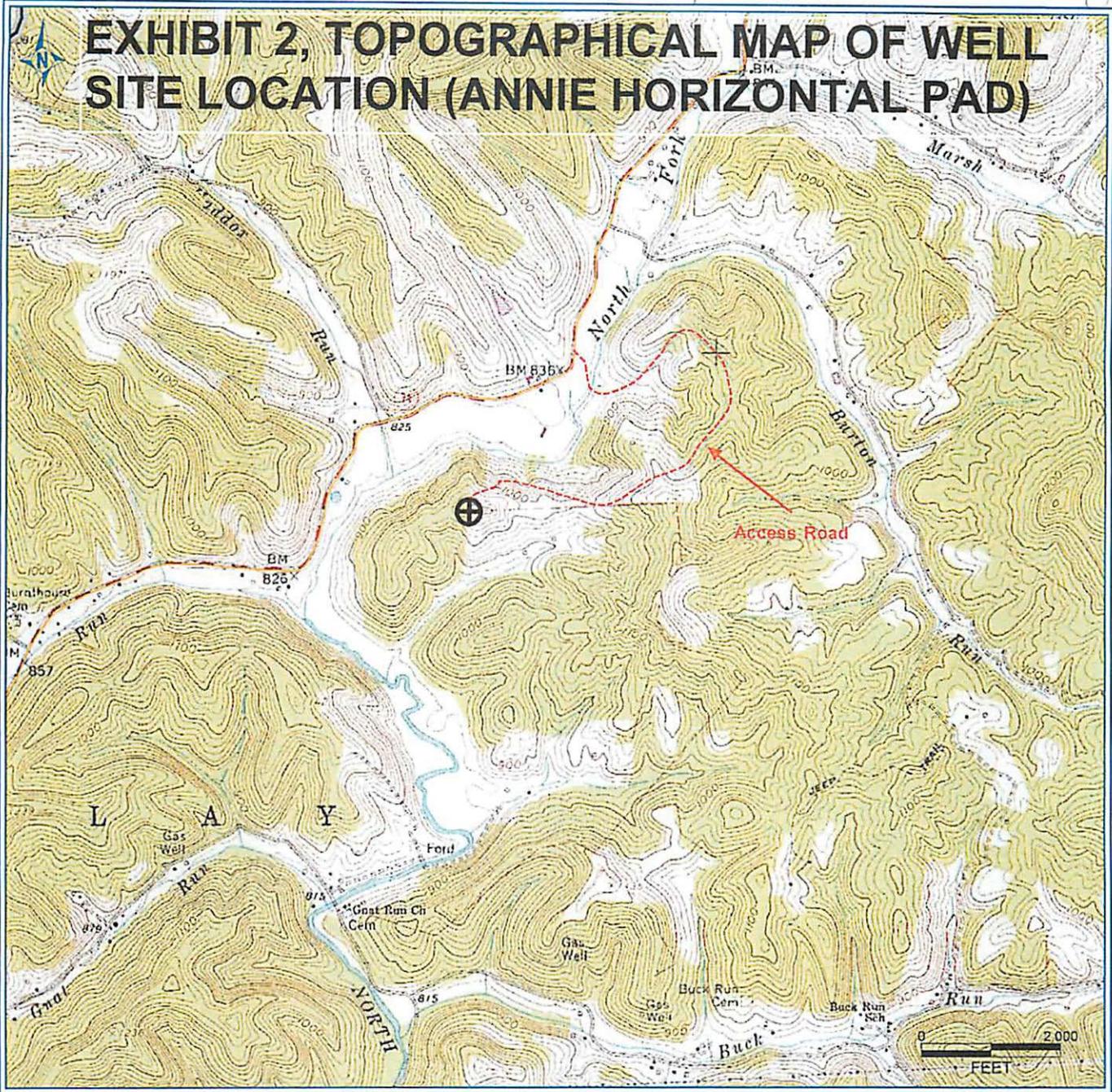
Operator's Well No: BELLE UNIT 3H  
Farm Name: ANNIE HAYMOND (LIFE) ET AL  
**API Well Number: 47-8510029**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/10/2013

**Promoting a healthy environment.**

8510029

VCP

# EXHIBIT 2, TOPOGRAPHICAL MAP OF WELL SITE LOCATION (ANNIE HORIZONTAL PAD)



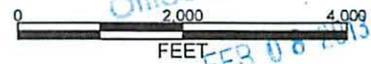
PETRA 6/26/2012 4:38:51 PM

Antero Resources Corporation

APPALACHIAN BASIN

Annie Horizontal Pad

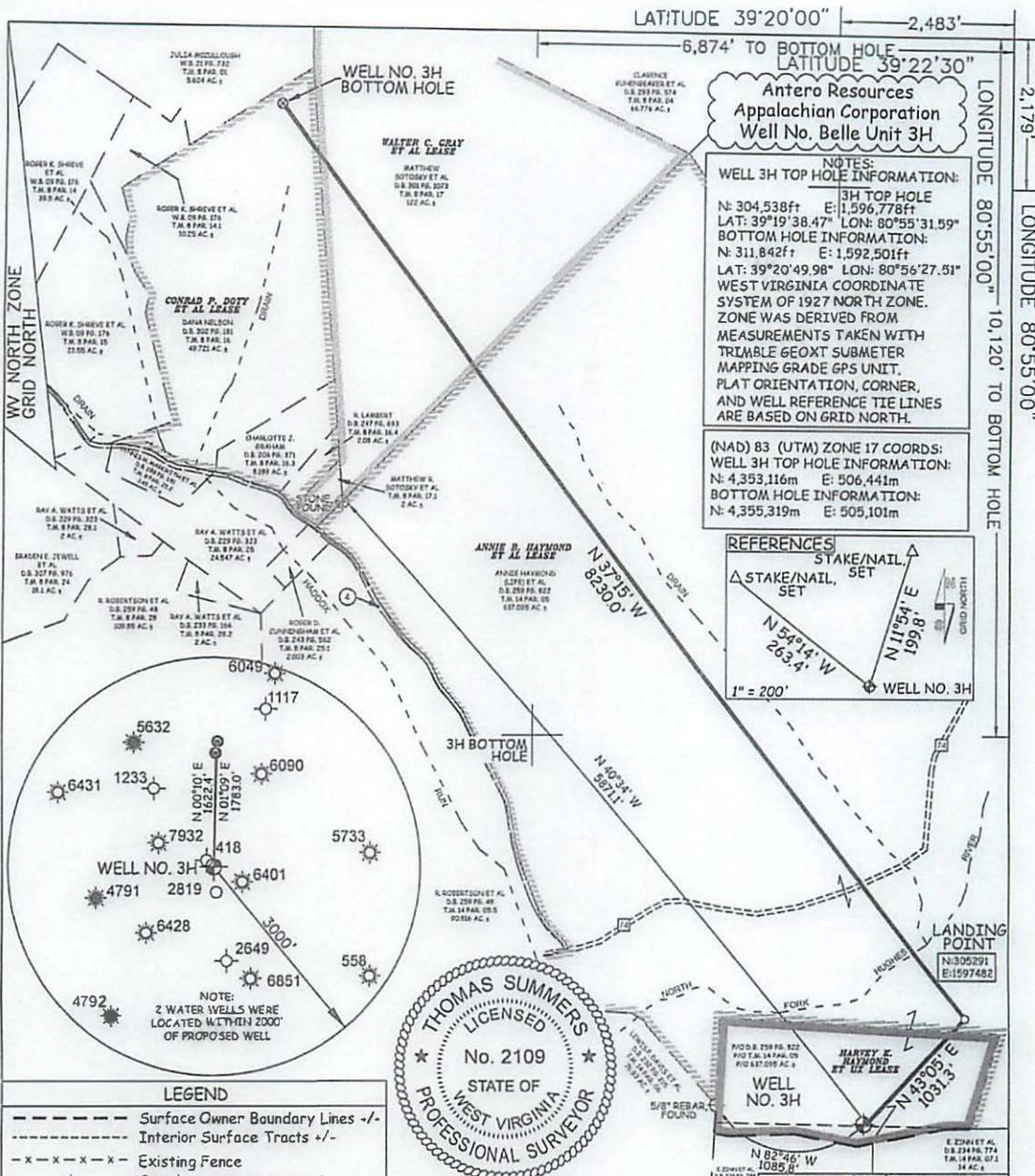
Ritchie County



Quadrangle: Pennsboro  
Watershed: North Fork Hughes  
District: Clay

Date: 1/30/2013

RECEIVED  
Office of Oil and Gas  
FEB 08 2013  
West Virginia Department of Environmental Protection



LATITUDE 39°20'00" 2,483'  
6,874' TO BOTTOM HOLE  
LATITUDE 39°22'30"  
LONGITUDE 80°55'00" 2,179" LONGITUDE 80°55'00"  
10,120' TO BOTTOM HOLE

**Antero Resources  
Appalachian Corporation  
Well No. Belle Unit 3H**

**NOTES:**  
WELL 3H TOP HOLE INFORMATION:  
N: 304,538ft E: 1,596,778ft  
LAT: 39°19'38.47" LON: 80°55'31.59"  
BOTTOM HOLE INFORMATION:  
N: 311,842ft E: 1,592,501ft  
LAT: 39°20'49.98" LON: 80°56'27.51"  
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 3H TOP HOLE INFORMATION:  
N: 4,353,116m E: 506,441m  
BOTTOM HOLE INFORMATION:  
N: 4,355,319m E: 505,101m

**REFERENCES**  
STAKE/NAIL SET  
STAKE/NAIL SET  
N 54°14' W 263.4'  
N 11°54' E 199.8'  
1" = 200'

**LEGEND**  
--- Surface Owner Boundary Lines +/-  
- - - Interior Surface Tracts +/-  
- x - x - Existing Fence  
⊕ Found monument, as noted

**THOMAS SUMMERS LICENSED**  
No. 2109  
STATE OF WEST VIRGINIA  
PROFESSIONAL SURVEYOR

**STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
WILLOW LAND SURVEYING PLLC  
266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415

**THOMAS SUMMERS P.S. 2109**  
DATE 01/29/13  
OPERATOR'S WELL# BELLE UNIT #3H  
API WELL # 47 - 085 - 10029 H6A  
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS  
WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
LOCATION: ELEVATION 1,004' WATERSHED NORTH FORK HUGHES RIVER  
QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE  
SURFACE OWNER ANNIE HAYMOND (LIFE) ET AL ACREAGE 637.095 ACRES +/-  
OIL & GAS ROYALTY OWNER HARVEY K. HAYMOND ET AL; ANNIE HAYMOND ET AL; LEASE ACRES 33 ACRES+; 639.06 ACRES+;  
WALTER C. GRAY ET AL; CONRAD P. DOTY ET AL

PROPOSED WORK: DRILL  CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
STIMULATE  PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION   
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_  
PLUG & ABANDON \_\_\_ CLEAN OUT & REPLUG \_\_\_ ESTIMATED DEPTH 6,500' TVD 16,100' MD  
TARGET FORMATION MARCELLUS  
WELL OPERATOR ANTERO RESOURCES APPALACHIAN CORP. DESIGNATED AGENT DIANNA STAMPER  
ADDRESS 1625 17TH STREET ADDRESS 5400 D BIG TYLER ROAD  
DENVER, CO 80202 CHARLESTON, WV 25313

FORM WW-6



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

May 09, 2013

**WELL WORK PERMIT**

**Horizontal 6A Well**

This permit, API Well Number: 47-8510028, issued to ANTERO RESOURCES APPALACHIAN 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.

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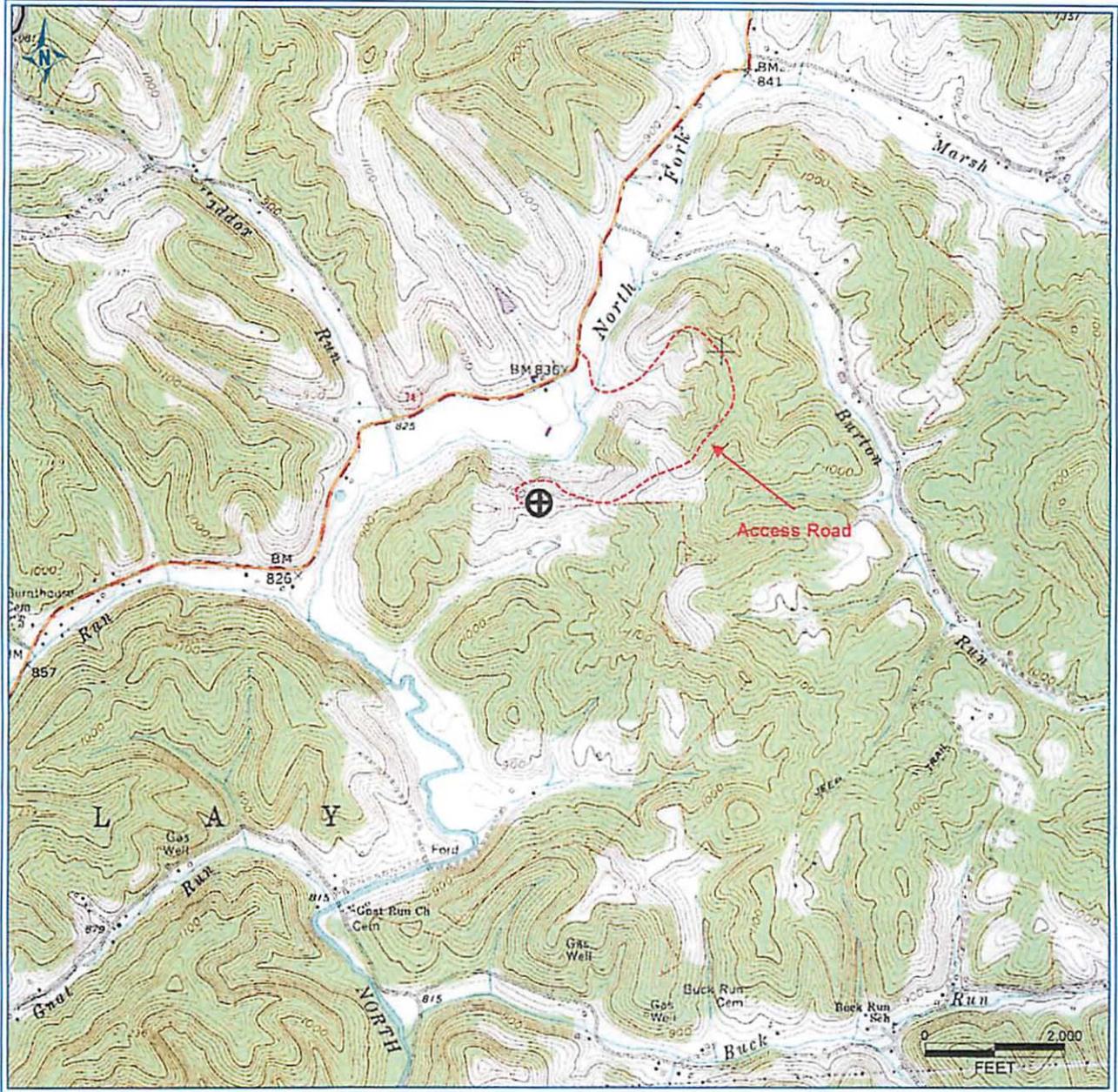
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: BELLE UNIT 2H  
Farm Name: ANNIE HAYMOND (LIFE) ET AL  
**API Well Number: 47-8510028**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/09/2013

Promoting a healthy environment.

85-10028 ✓  
Plot 110  
SP 110  
C/P



PETRA 6/26/2012 4:38:51 PM

85-10028 H6A  
ANTERO RESOURCES

BELLE UNIT 2H

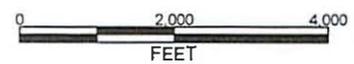
Pad Name: Annie Horizontal

Antero Resources Corporation

APPALACHIAN BASIN

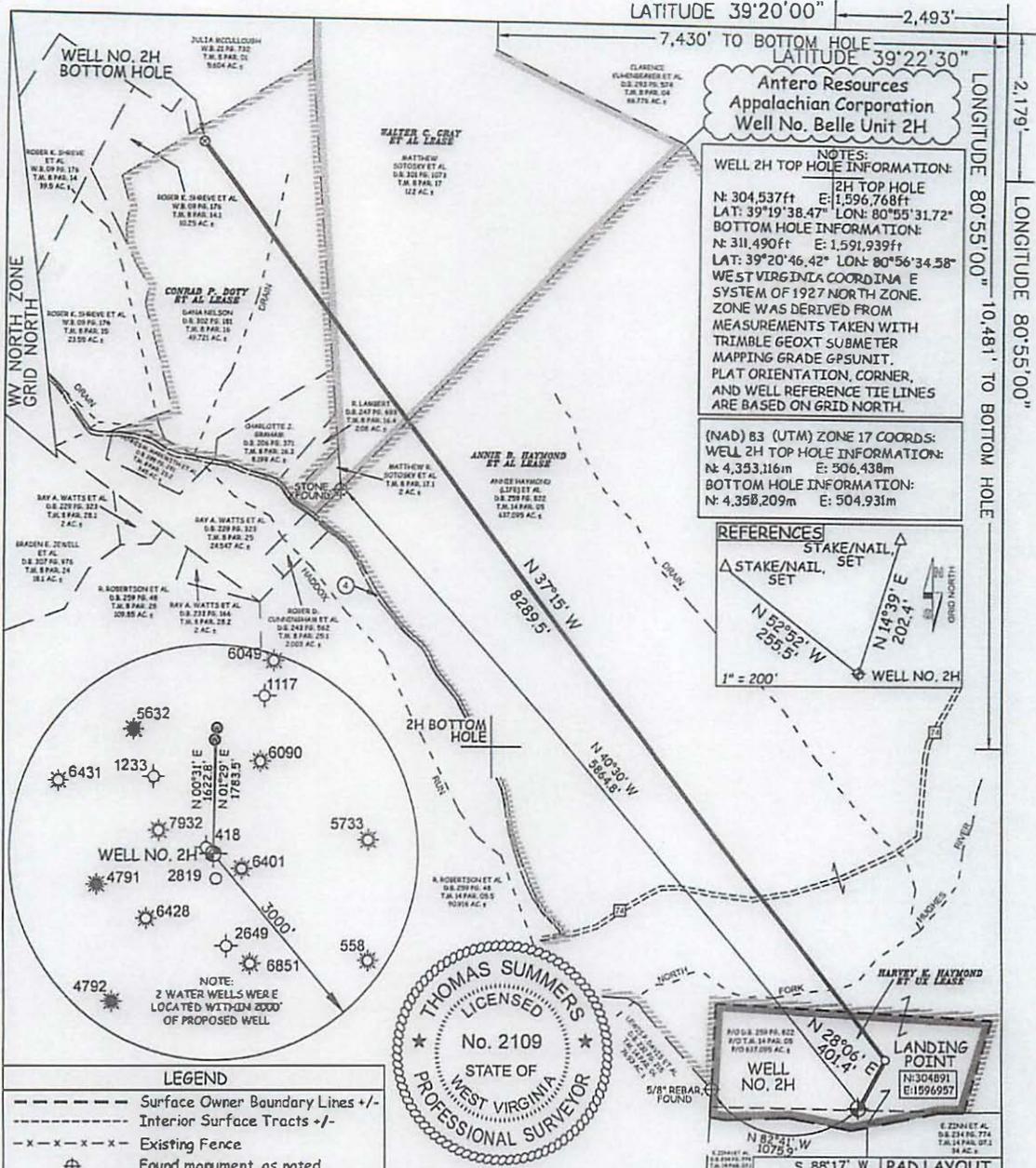
Belle Unit 2H

Ritchie County



Quadrangle: Pennsboro  
Watershed: North Fork Hughes  
District: Clay

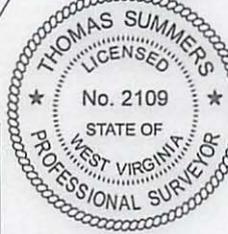
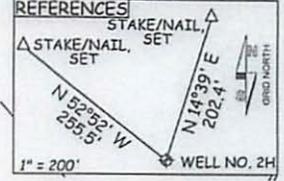
Date: 1/30/2013



**Antero Resources  
Appalachian Corporation  
Well No. Belle Unit 2H**

**NOTES:**  
WELL 2H TOP HOLE INFORMATION:  
2H TOP HOLE  
N: 304,537ft E: 1,596,768ft  
LAT: 39°19'38.47" LON: 80°55'31.72"  
BOTTOM HOLE INFORMATION:  
N: 311,490ft E: 1,591,939ft  
LAT: 39°20'46.42" LON: 80°56'34.58"  
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 2H TOP HOLE INFORMATION:  
N: 4,353.116m E: 506,438m  
BOTTOM HOLE INFORMATION:  
N: 4,358.209m E: 504,931m



**LEGEND**  
 - - - - - Surface Owner Boundary Lines +/-  
 - - - - - Interior Surface Tracts +/-  
 - x - x - Existing Fence  
 ⊕ Found monument, as noted

JOB # 12-160WA  
 DRAWING # BELLE2H  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY SUBMETER  
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING 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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
 WILLOW LAND SURVEYING PLLC  
 266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415



THOMAS SUMMERS P.S. 2109  
 DATE 01/29/13  
 OPERATOR'S WELL# BELLE UNIT #2H  
 API WELL # 47 - 085 - 10028 H6A  
 STATE COUNTY PERMIT

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

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1,004' WATERSHED NORTH FORKHUGHES RIVER  
 QUADANGLE PENNSBORO 7.5 DISTRICT CLAY COUNTY RITCHIE  
 SURFACE OWNER ANNIE HAYMOND (LIFE) ET AL ACREAGE 637.095 ACRES +/-  
 OIL & GAS ROYALTY OWNER HARVEY K. HAYMOND ET UX; ANNIE HAYMOND ET AL; LEASE ACREAGE 33 ACRES+; 639.06 ACRES+;  
 WALTER C. GRAY ET AL; CONRAD P. DOTY ET AL 124 ACRES+; 60 ACRES+;  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
 STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FOR ATION X  
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_  
 PLUG & ABANDON \_\_\_ CLEAN OUT & REPLUG \_\_\_ ESTIMATED DEPTH 6,600' TVD 16,100' MD  
 TARGET FORMATION MARCELLUS  
 WELL OPERATOR ANTERO RESOURCES APPALACHIAN CORP. DESIGNATED AGENT DIANNA STAMPER  
 ADDRESS 1625 17TH STREET ADDRESS 5400 D BIG TYLER ROAD  
 DENVER, CO 80202 CHARLESTON, WV 25313



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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](http://www.dep.wv.gov)

May 09, 2013

**WELL WORK PERMIT**  
**Horizontal 6A Well**

This permit, API Well Number: 47-8510027, issued to ANTERO RESOURCES APPALACHIAN 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.

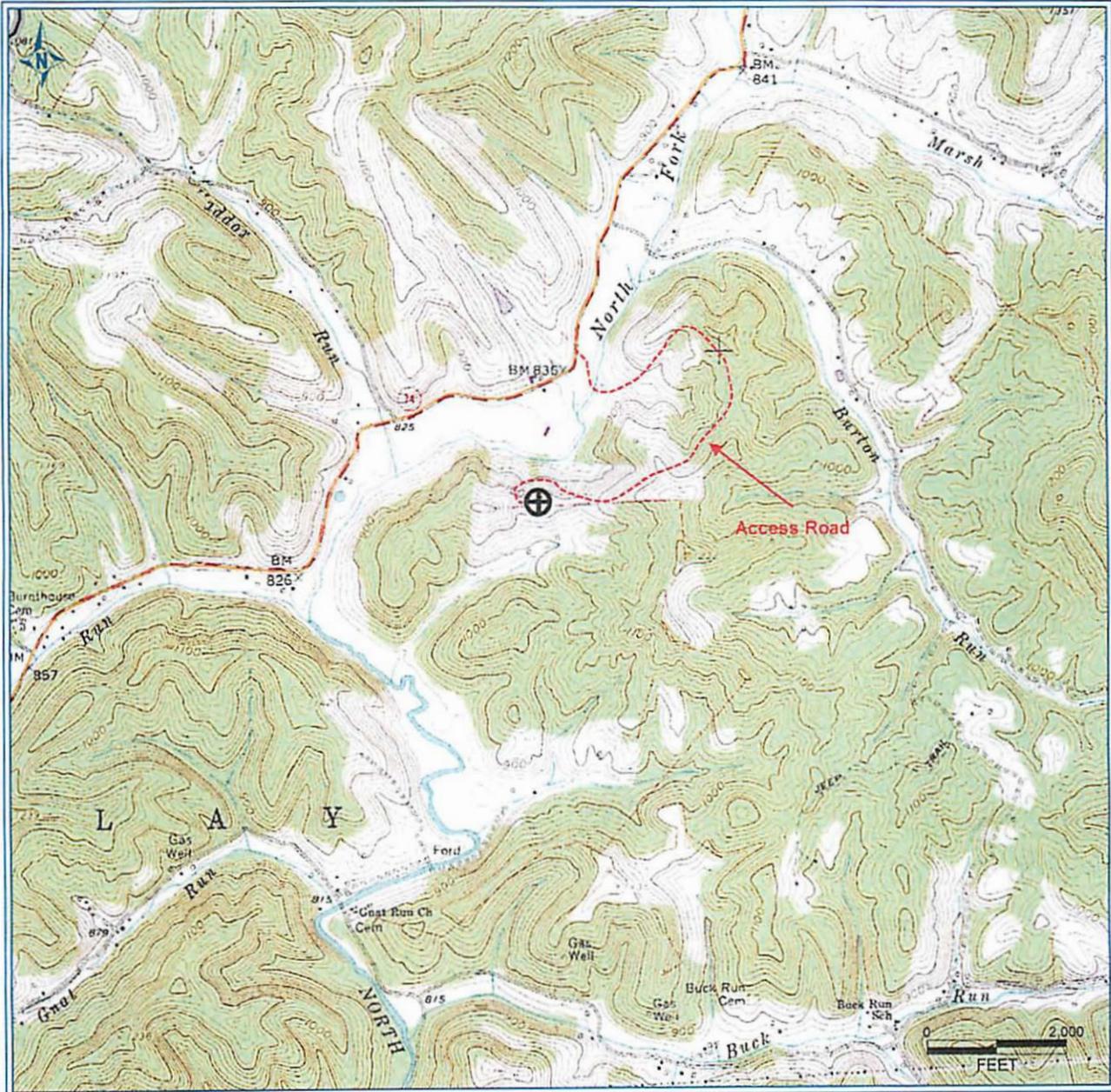
In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

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: BELLE UNIT 1H  
Farm Name: ANNIE HAYMOND (LIFE) ET AL  
**API Well Number: 47-8510027**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/09/2013

**Promoting a healthy environment.**



PETRA 6/26/2012 4:38:51 PM

85-10027 H6A  
 ANTERO RESOURCES BELLE UNIT 1H

Pad Name: Annie Horizontal

Antero Resources Corporation

APPALACHIAN BASIN

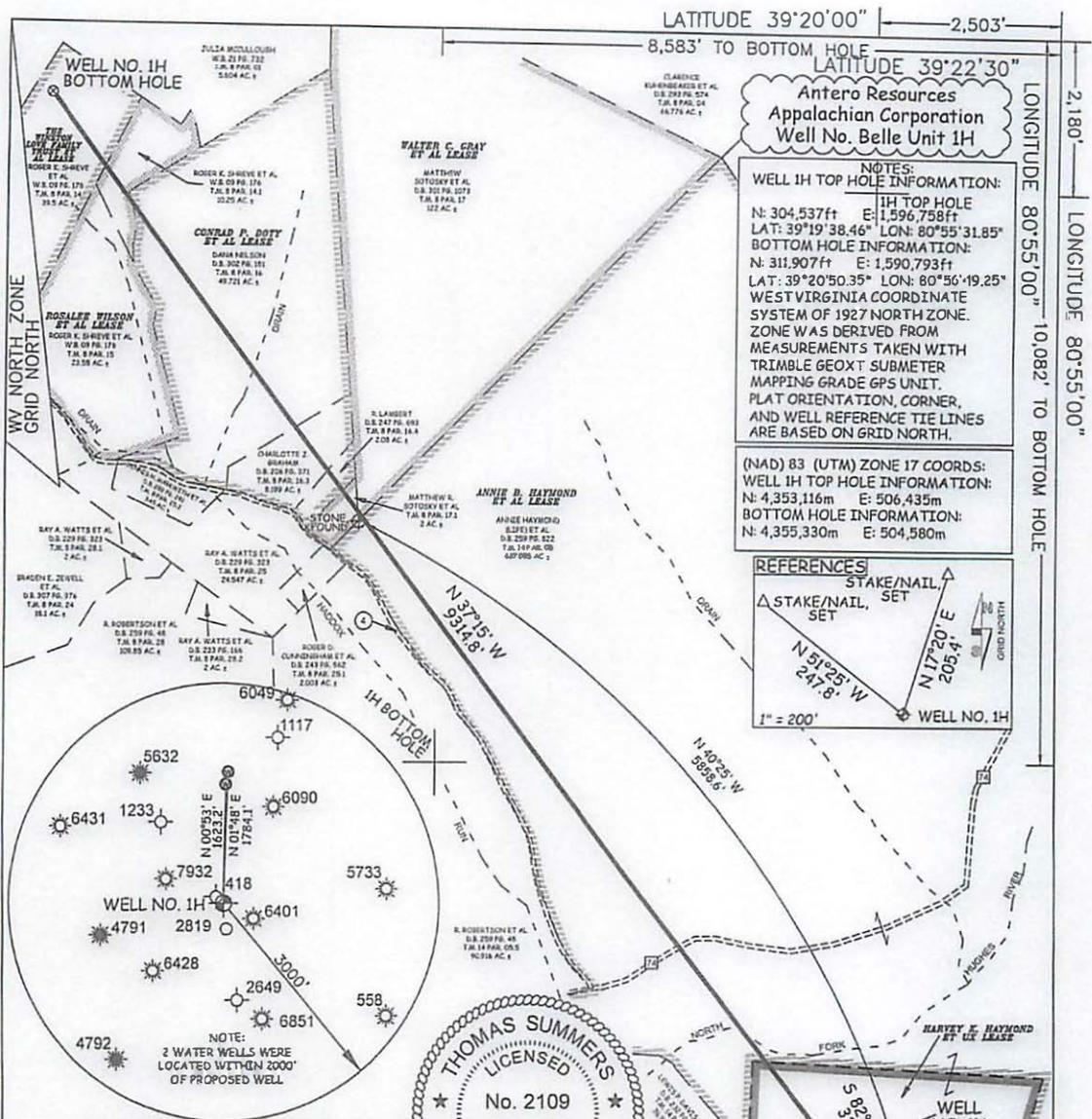
Belle Unit 1H

Ritchie County



Quadrangle: Pennsboro  
 Watershed: North Fork Hughes  
 District: Clay

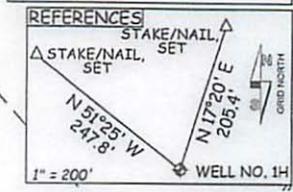
Date: 1/30/2013



**Antero Resources  
Appalachian Corporation  
Well No. Belle Unit 1H**

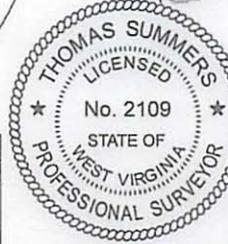
**NOTES:**  
WELL 1H TOP HOLE INFORMATION:  
N: 304,537ft E: 1,596,758ft  
LAT: 39°19'38.46" LON: 80°55'31.85"  
BOTTOM HOLE INFORMATION:  
N: 311,907ft E: 1,590,793ft  
LAT: 39°20'50.35" LON: 80°56'19.25"  
WEST VIRGINIA COORDINATE  
SYSTEM OF 1927 NORTH ZONE.  
ZONE WAS DERIVED FROM  
MEASUREMENTS TAKEN WITH  
TRIMBLE GEOXT SUBMETER  
MAPPING GRADE GPS UNIT.  
PLAT ORIENTATION, CORNER,  
AND WELL REFERENCE TIE LINES  
ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 4,353,116m E: 506,435m  
BOTTOM HOLE INFORMATION:  
N: 4,355,330m E: 504,580m



**LEGEND**

- Surface Owner Boundary Lines +/-
- - - Interior Surface Tracts +/-
- x - x - Existing Fence
- ⊕ Found monument, as noted



JOB # 12-160WA  
DRAWING # BELLE1H  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING 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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WILLOW LAND SURVEYING PLLC  
266 MUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415

THOMAS SUMMERS P.S. 2109  
DATE 01/29/13  
OPERATOR'S WELL # BELLE UNIT #1H  
API WELL # 47 - 085 - 10027467  
STATE COUNTY PERMIT

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

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
(IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1,004' WATERSHED NORTH FORK HUGHES RIVER  
QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE

SURFACE OWNER ANNIE HAYMOND (LIFE) ET AL ACREAGE 637.095 ACRES +/-  
OIL & GAS ROYALTY OWNER HARVEY K. HAYMOND ET UX; ANNIE HAYMOND ET AL; WALTER C. GRAY ET AL; LEASE ACREAGE 33 ACRES +/-; 639.06 ACRES +/-; 124 ACRES +/-; CONRAD P. DOTY ET AL; ROSALEE WILSON ET AL; THE WINSTON LOVE FAMILY TRUST ET AL 60 ACRES +/-; 23.55 ACRES +/-; 39.5 ACRES +/-

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION   
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
PLUG & ABANDON  CLEAN OUT & REPLUG  ESTIMATED DEPTH 6,600' TVD 15,200' MD  
TARGET FORMATION MARCELLUS

WELL OPERATOR ANTERO RESOURCES APPALACHIAN CORP. DESIGNATED AGENT DIANNA STAMPER  
ADDRESS 1625 17TH STREET ADDRESS 5400 D BIG TYLER ROAD  
DENVER, CO 80202 CHARLESTON, WV 25313



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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

May 07, 2013

**WELL WORK PERMIT**

**Vertical Well**

This permit, API Well Number: 47-2105759, issued to HILDRETH, ROY G., JR. & SON, 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.

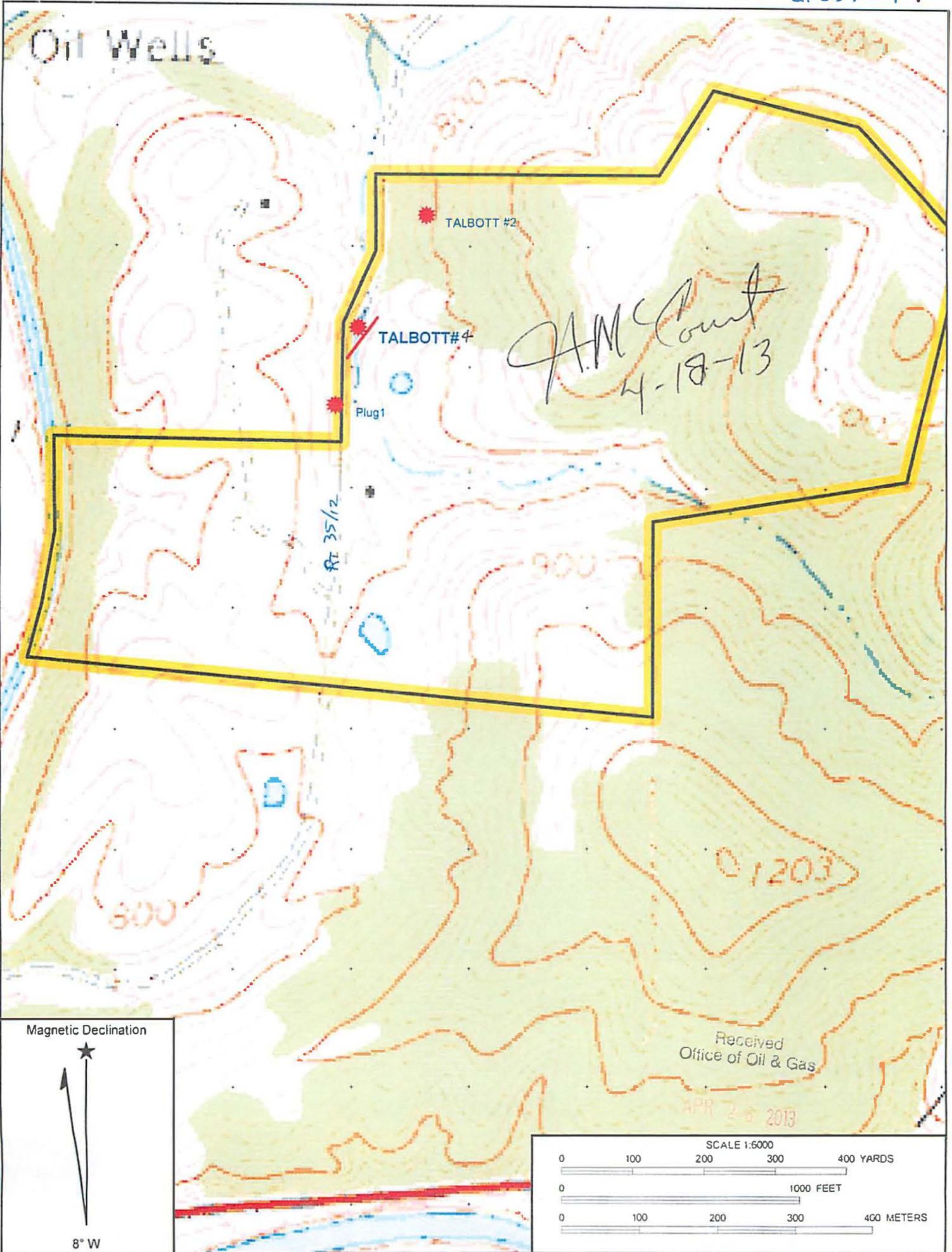
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

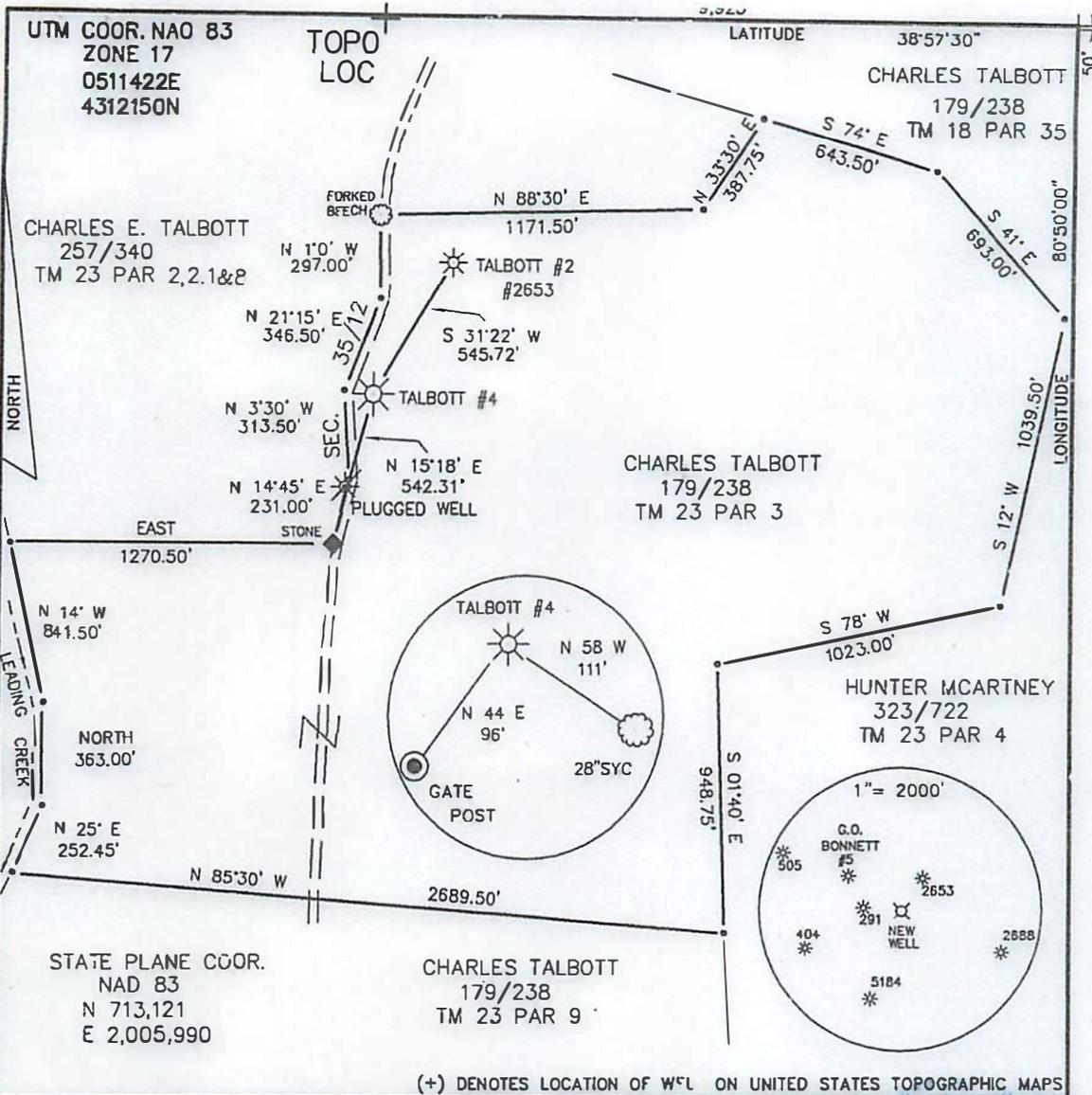
James Martin  
Chief

Operator's Well No: TALBOTT WOLFE #4  
Farm Name: TALBOTT, CHARLES E.  
**API Well Number: 47- 2105759**  
**Permit Type: Vertical Well**  
Date Issued: 05/07/2013

Promoting a healthy environment.

# Oil Wells





(+) DENOTES LOCATION OF WCL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. 13-5  
 SCALE 1"=500'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION 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 DEPARTMENT OF ENERGY.  
 (SIGNED) \_\_\_\_\_  
 R.P.E. \_\_\_\_\_ L.L.S. 851



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE 2/26, 20 13  
 OPERATOR'S WE NO. TALBOTT #4  
 API WELL NO. 47-021-05759  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 745 WATER SHED LEADING CREEK  
 DISTRICT DeKALB COUNTY GILMER  
 QUADRANGLE GLENVILLE

SURFACE OWNER CHARLES E. TALBOTT ACREAGE 128.75  
 OIL & GAS ROYALTY OWNER JANE V. RIGGS & OTHERS LEASE ACREAGE 128.75  
 LEASE NO. \_\_\_\_\_

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

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_

TARGET FORMATION BIG INJUN ESTIMATED DEPTH 1900  
 WELL OPERATOR ROY G. HILDRETH & SON DESIGNATED AGENT ROY G. HILDRETH JR.  
 ADDRESS PO. BOX 1007 ADDRESS PO. BOX 1007  
SPENCER, WV 25276 SPENCER, WV 25276



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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

May 06, 2013

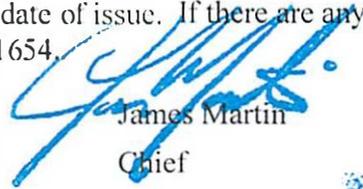
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-3902373, issued to VIKING 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

  
James Martin  
Chief

Operator's Well No: HOLMES MORTON

Farm Name: MORTON, D. H.

**API Well Number: 47-3902373**

**Permit Type: Plugging**

Date Issued: 05/06/2013

**Promoting a healthy environment.**



438,492 E  
4,264,859 N  
UTM 17, NAD 83

WW-7  
8-30-06

MAY 1



West Virginia Department of Environmental Protection  
Office of Oil and Gas  
**WELL LOCATION FORM: GPS**

API: 47-039-02373 WELL NO.: Holmes Morton  
FARM NAME: Holmes Morton  
RESPONSIBLE PARTY NAME: Viking Energy Corp.  
COUNTY: Kanawha DISTRICT: Poca  
QUADRANGLE: Kenna  
SURFACE OWNER: Dana & Patricia Page  
ROYALTY OWNER: Cabot Oil and Gas  
UTM GPS NORTHING: 4264803  
UTM GPS EASTING: 438402 GPS ELEVATION: 945'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- 1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- 2. Accuracy to Datum – 3.05 meters
- 3. Data Collection Method:

Survey grade GPS  : Post Processed Differential

Real-Time Differential

Mapping Grade GPS  : Post Processed Differential

Real-Time Differential

- 4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

*Eva Pinkerton*  
Signature

Operations Manager  
Title

4/29/13  
Date



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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. Hullinan, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

May 06, 2013

HARD ROCK EXPLORATION, INC.  
2034 MARTINS BRANCH ROAD  
CHARLESTON, WV 25312

Re: Permit Modification Approval for API Number 8704726 , Well #: HR-476

**Additional Pit necessary for backfill**

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

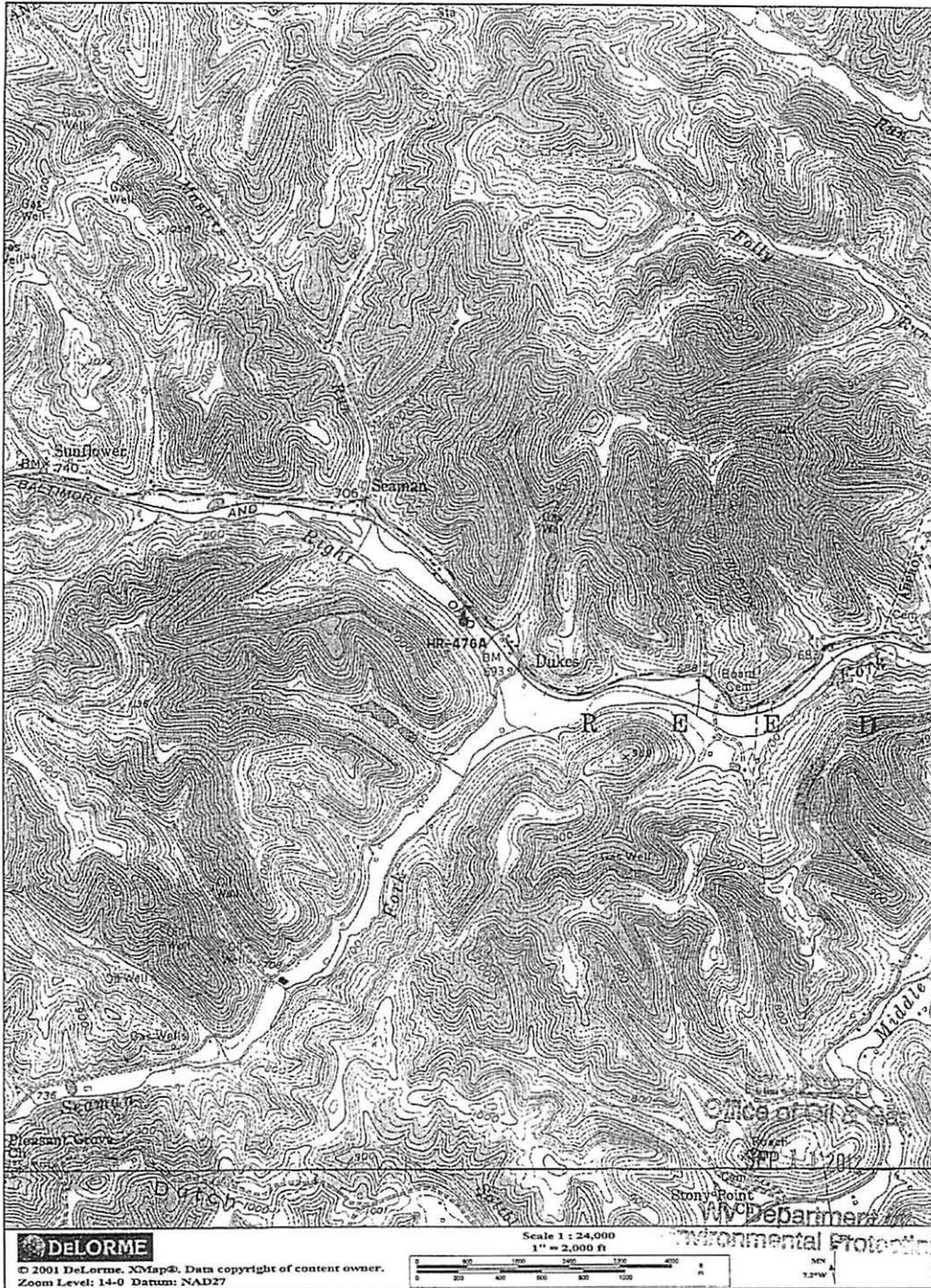
Sincerely,

A handwritten signature in blue ink that reads "Gene Smith" with a small "g.m." below it.

Gene Smith  
Regulatory/Compliance Manager  
Office of Oil and Gas

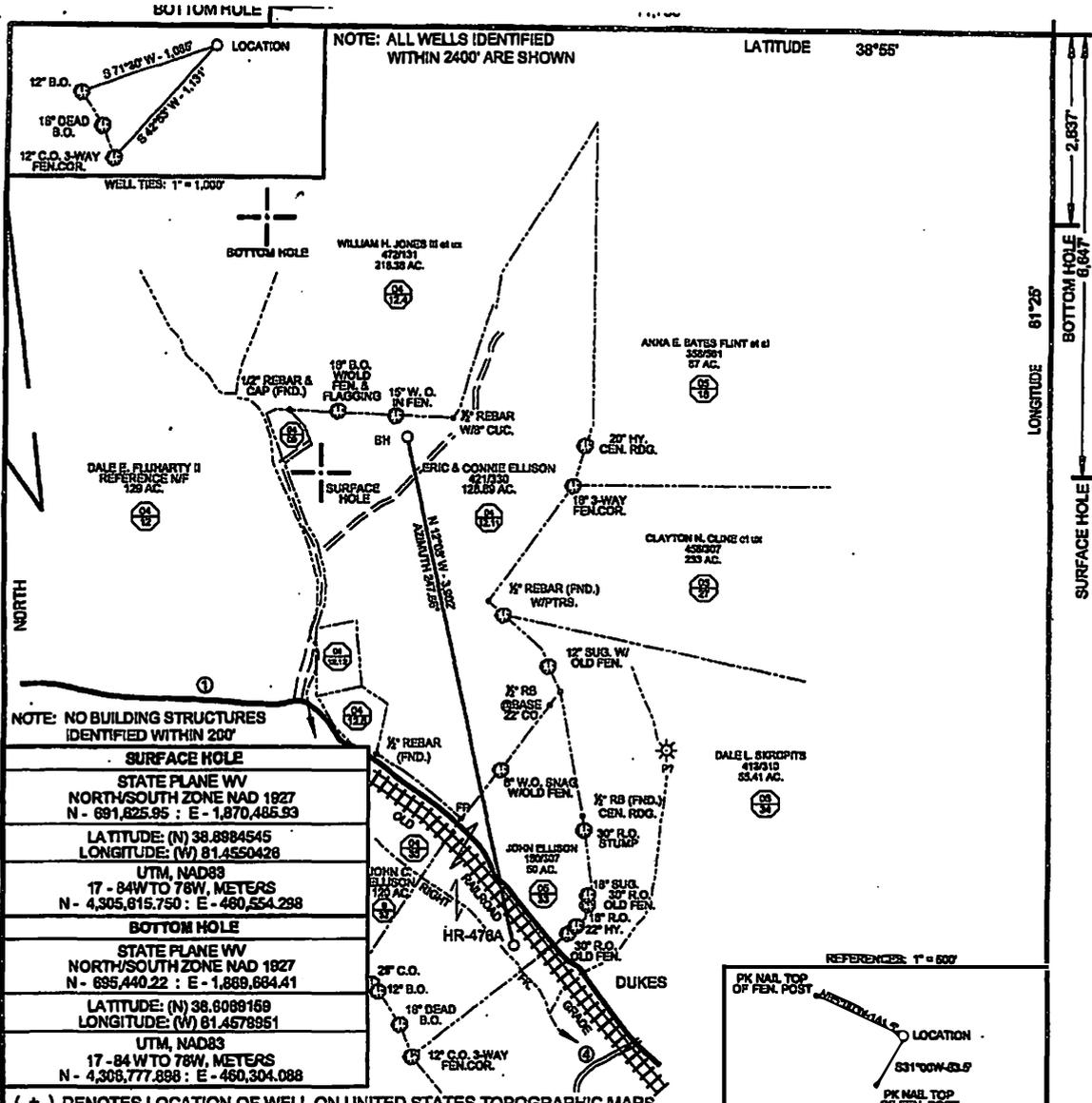
Promoting a healthy environment.

01-04-26



87-4726 MOD

Received  
Office of Oil & Gas



NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

| SURFACE HOLE  |  |
|---|--|
| STATE PLANE WV NORTH/SOUTH ZONE NAD 1927<br>N - 691,825.95 : E - 1,870,486.93 |  |
| LATITUDE: (N) 38.8984545<br>LONGITUDE: (W) 81.4550428                         |  |
| UTM, NAD83<br>17 - 84W TO 78W, METERS<br>N - 4,305,615.750 : E - 480,554.298  |  |
| BOTTOM HOLE   |  |
| STATE PLANE WV NORTH/SOUTH ZONE NAD 1927<br>N - 695,440.22 : E - 1,869,684.41 |  |
| LATITUDE: (N) 38.8089169<br>LONGITUDE: (W) 81.4578951                         |  |
| UTM, NAD83<br>17 - 84W TO 78W, METERS<br>N - 4,305,777.898 : E - 480,304.088  |  |

( + ) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. HR-478A.DGN  
 DRAWING NO. HR-478  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION MAPPING 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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) Paul E. Miller  
 R.P.E. \_\_\_\_\_ L.L.S. 647



STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OIL AND GAS DIVISION

DATE AUGUST 27, 20 12  
 OPERATOR'S WELL NO. HR-478A  
 API WELL NO. \_\_\_\_\_

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

LOCATION: ELEVATION 888' WATER SHED RIGHT FORK OF REEDY CREEK  
 DISTRICT REEDY COUNTY ROANE

QUADRANGLE REEDY, WV 7.5'

SURFACE OWNER JOHN ELLISON ACREAGE 50  
 OIL & GAS ROYALTY OWNER Ellison, John LEASE ACREAGE 179.99  
 LEASE NO. \_\_\_\_\_

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

PLUG AND ABANDON  CLEAN OUT AND REPLUG

TARGET FORMATION LOWER HURON ESTIMATED DEPTH 7425' MD; 925'  
 WELL OPERATOR HARD ROCK EXPLORATION, INC. DESIGNATED AGENT JAMES L. STEPHENS  
 ADDRESS 1244 MARTINS BR. RD., CHARLESTON, WV 25312 ADDRESS SAME

FORM WW-6

COUNTY NAME  
 PERMIT



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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](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

May 06, 2013

HARD ROCK EXPLORATION, INC.  
2034 MARTINS BRANCH ROAD  
CHARLESTON, WV 25312

Re: Permit Modification Approval for API Number 8704727 . Well #: HR-490A

**Additional Pit for Backfill**

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith  
Regulatory/Compliance Manager  
Office of Oil and Gas

Promoting a healthy environment.



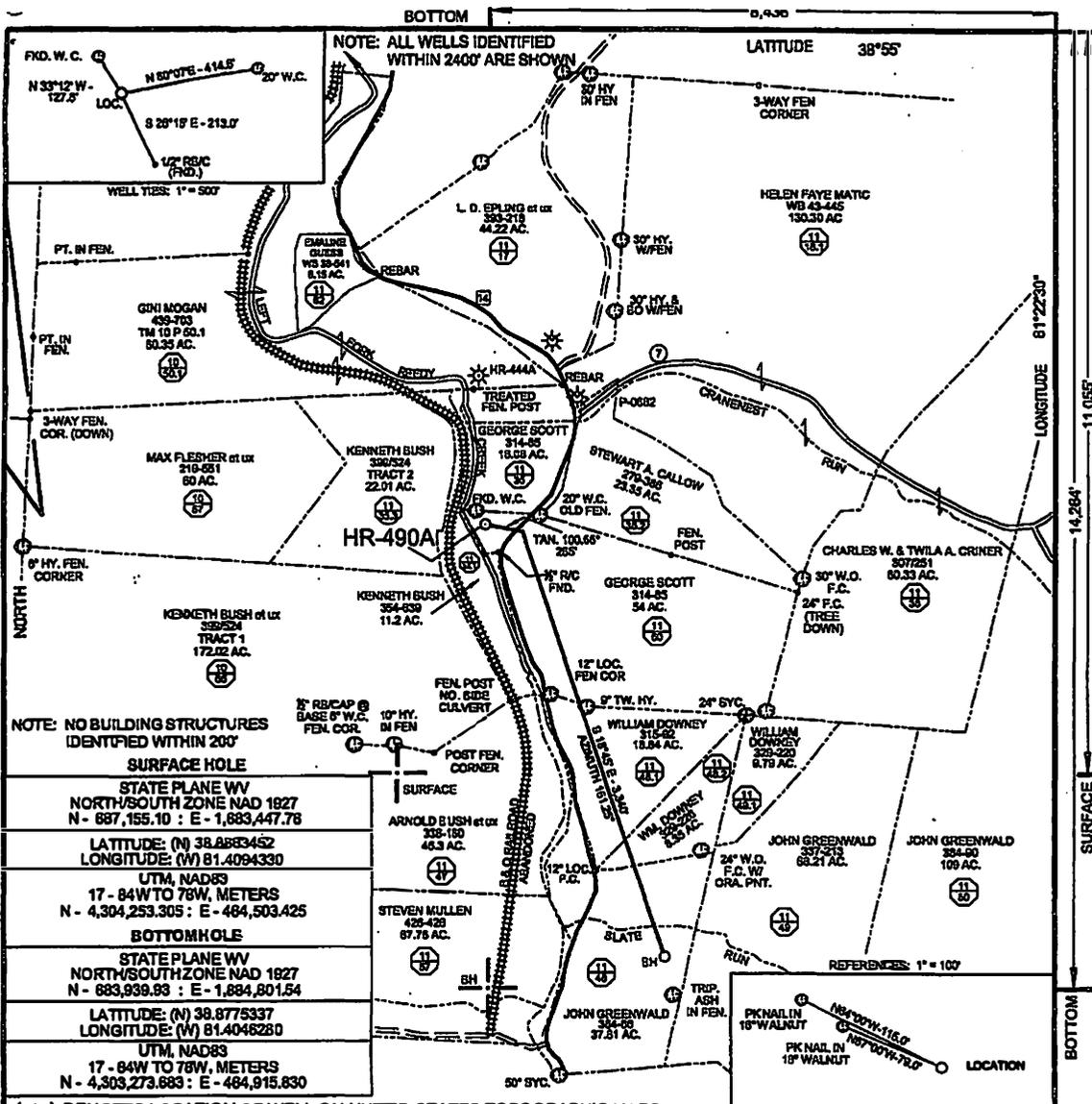
Scale 1:24,000  
 1 inch = 2,000 feet  
 0 500 1,000 2,000 3,000 4,000 Feet  
 0 125 250 500 750 1,000 Meters

RECEIVED  
 OFFICE OF OIL & GAS  
 JUL 10 29 P 2 26  
 ENVIRONMENTAL PROTECTION



87-04727 MOD

Received  
 Office of Oil & Gas



NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN

NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

**SURFACE HOLE**  
 STATE PLANE WV  
 NORTH/SOUTH ZONE NAD 1927  
 N - 887,155.10 : E - 1,693,447.78  
 LATITUDE: (N) 38.8883452  
 LONGITUDE: (W) 81.4094330  
 UTM, NAD83  
 17 - 84W TO 76W, METERS  
 N - 4,304,253.305 : E - 464,503.425

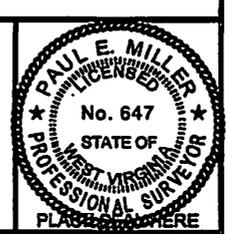
**BOTTOM HOLE**  
 STATE PLANE WV  
 NORTH/SOUTH ZONE NAD 1927  
 N - 683,939.93 : E - 1,684,601.54  
 LATITUDE: (N) 38.8775337  
 LONGITUDE: (W) 81.4048280  
 UTM, NAD83  
 17 - 84W TO 76W, METERS  
 N - 4,303,273.693 : E - 464,915.630

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. HR-490A.DGN  
 DRAWING NO. HR-490A  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION MAPPING 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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) *Paul E. Miller*  
 R.P.E. \_\_\_\_\_ L.L.S. 647



STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OIL AND GAS DIVISION

DATE OCTOBER 12, 20 12  
 OPERATOR'S WELL NO. HR-490A  
 API WELL NO. \_\_\_\_\_

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

LOCATION: ELEVATION 882' WATER SHED LEFT FORK OF REEDY CREEK  
 DISTRICT REEDY COUNTY ROANE  
 QUADRANGLE REEDY, WV 7.5'

SURFACE OWNER GEORGE SCOTT ACREAGE 54  
 OIL & GAS ROYALTY OWNER Fletcher, Wilson, Reedy, Milburn, Pappas, Dr. Pappas, Jr. LEASE ACREAGE 384  
 LEASE NO. \_\_\_\_\_

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

PLUG AND ABANDON  CLEAN OUT AND REPLUG

TARGET FORMATION LOWER HURON ESTIMATED DEPTH 7400' MD; 4260' TVD  
 WELL OPERATOR HARD ROCK EXPLORATION, INC. DESIGNATED AGENT JAMES L. STEPHENS  
 ADDRESS 1244 MARTINS BR. RD., CHARLESTON, WV 25312 ADDRESS SAME

FORM WVS-9

COUNTY NAME  
PERMIT

Received  
Office of Oil & Gas



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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](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

May 08, 2013

CNX GAS COMPANY LLC  
ONE ENERGY DRIVE  
JANE LEW, WV26378

Re: Permit Modification Approval for API Number 103239 , Well #: PI-L13FHS

**Modified WW-9**

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith  
Regulatory/Compliance Manager  
Office of Oil and Gas

Topo Quad: Philippi 7.5'

Scale: 1" = 2000'

County: Barbour

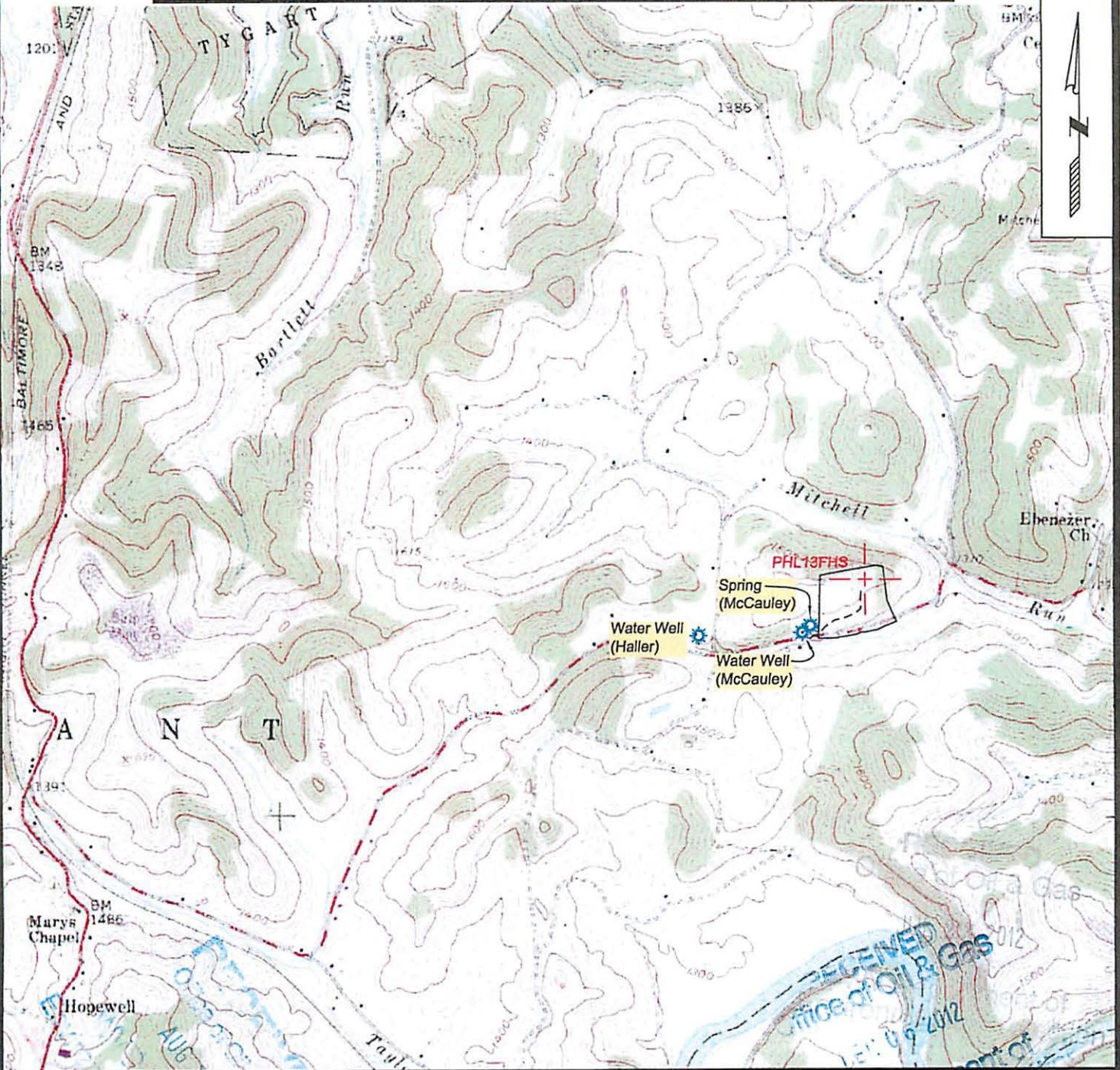
Date: June 28, 2012

District: Pleasant

Project No: 156-10-P-10

# Water

## PROPOSED CNX Gas Company LLC WELL NO. PHL13FHS



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**

P.O. BOX 438  
 BIRCH RIVER, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

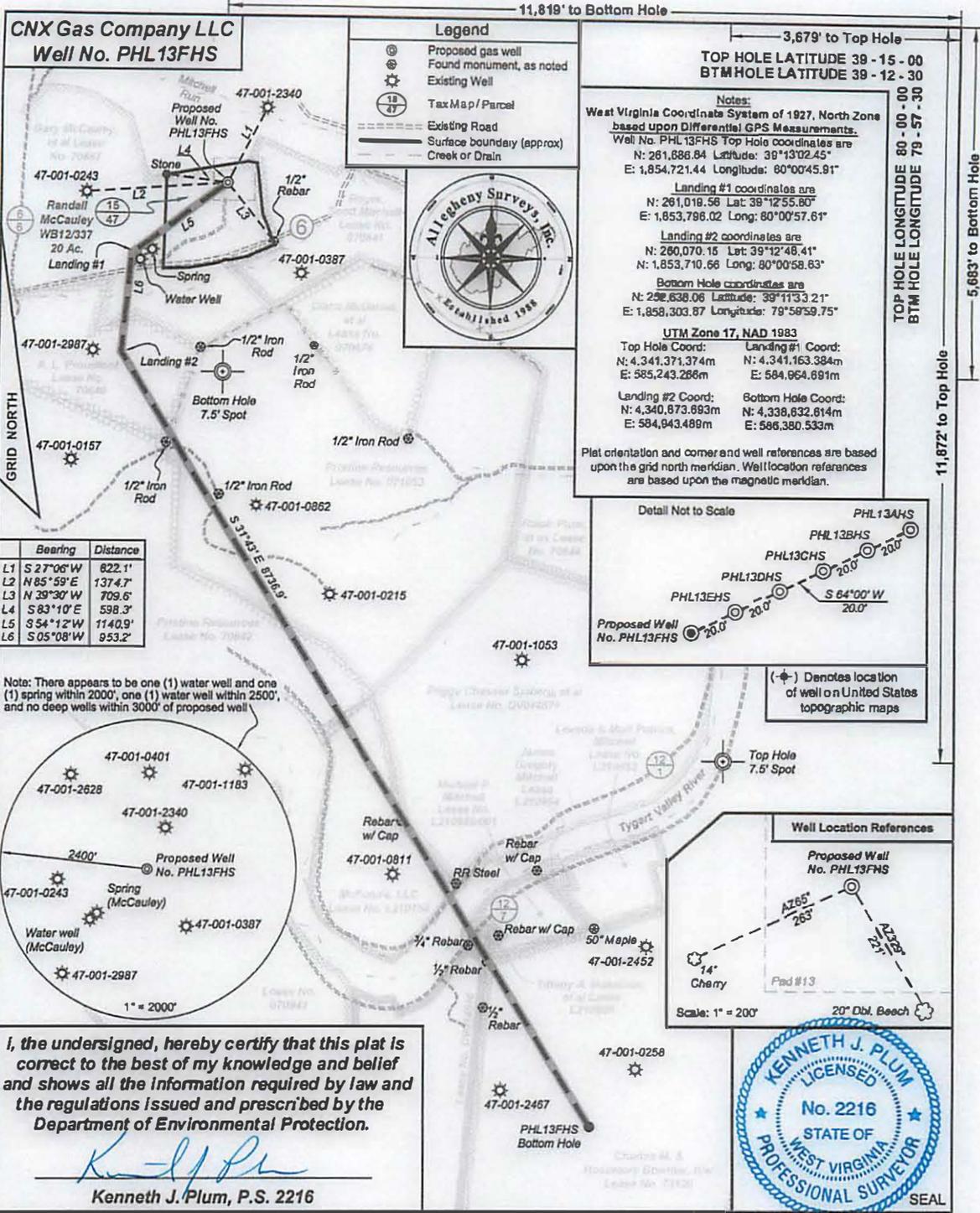
1-800-482-8606

172 THOMPSON DRIVE  
 BRIDGEPORT, WV 26330  
 PH: (304) 848-5035  
 FAX: (304) 848-5037

PREPARED FOR:

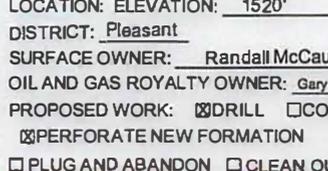
### CNX Gas Company LLC

ONE ENERGY DRIVE  
 P.O. BOX 1248  
 JANE LEW, WV 26378



| Bearing       | Distance |
|---------------|----------|
| L1 S 27°06' W | 822.1'   |
| L2 N 85°59' E | 1374.7'  |
| L3 N 39°30' W | 709.6'   |
| L4 S 83°10' E | 598.3'   |
| L5 S 54°12' W | 1140.9'  |
| L6 S 05°08' W | 953.2'   |

Note: There appears to be one (1) water well and one (1) spring within 2000', one (1) water well within 2500', and no deep wells within 3000' of proposed well



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 Environmental Protection.

*Kenneth J. Plum*  
**Kenneth J. Plum, P.S. 2216**

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: December 3, 2012  
 OPERATOR'S WELL NO. PHL13FHS  
 API WELL NO. 47-001-3239H  
 STATE COUNTY PERMIT

FILE NO: 156-10-P-10  
 DRAWING NO: 156-10 PHL13FHS Well Plat  
 SCALE: 1" = 1200'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

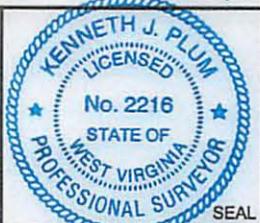
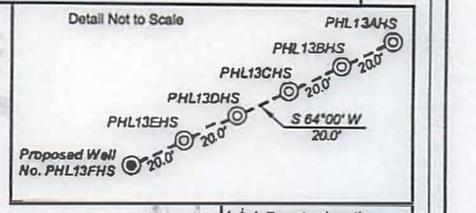
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: 1520' WATERSHED Tygart Valley River QUADRANGLE: Philippi COUNTY: Barbour  
 DISTRICT: Pleasant  
 SURFACE OWNER: Randall McCauley  
 OIL AND GAS ROYALTY OWNER: Gary McCauley, et al; Pilatine Resources; Pristine Resources  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,820' TVD, 20,000 TMD

WELL OPERATOR: CNX Gas Company LLC  
 ADDRESS: P.O. Box 1248  
 Jane Lew, WV 26378

DESIGNATED AGENT: Kent Wright  
 ADDRESS: P.O. Box 1248  
 Jane Lew, WV 26378

LEGEND:  
 Proposed gas well  
 Found monument, as noted  
 Existing Well  
 Tax Map / Parcel  
 Existing Road  
 Surface boundary (approx)  
 Creek or Drain

Notes:  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. PHL13FHS Top Hole coordinates are N: 261,686.84 Latitude: 39°13'02.45" E: 1,854,721.44 Longitude: 80°00'45.91"  
 Landing #1 coordinates are N: 261,019.56 Lat: 39°12'55.80" E: 1,853,796.02 Long: 80°00'57.61"  
 Landing #2 coordinates are N: 260,070.15 Lat: 39°12'48.41" E: 1,853,710.66 Long: 80°00'58.63"  
 Bottom Hole coordinates are N: 298,638.06 Latitude: 39°11'33.21" E: 1,858,303.87 Longitude: 79°59'59.75"  
 UTM Zone 17, NAD 1983  
 Top Hole Coord: N: 4,341,371.374m E: 585,243.266m  
 Landing #1 Coord: N: 4,341,163.384m E: 584,964.691m  
 Landing #2 Coord: N: 4,340,873.693m E: 584,943.489m  
 Bottom Hole Coord: N: 4,338,632.614m E: 586,380.533m  
 Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.



11,819' to Bottom Hole  
 3,679' to Top Hole  
 TOP HOLE LATITUDE 39 - 15 - 00  
 BTM HOLE LATITUDE 39 - 12 - 30  
 TOP HOLE LONGITUDE 80 - 00 - 00  
 BTM HOLE LONGITUDE 79 - 57 - 30  
 5,683' to Bottom Hole  
 11,872' to Top Hole



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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](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

May 08, 2013

CNX GAS COMPANY LLC  
ONE ENERGY DRIVE  
JANE LEW, WV26378

Re: Permit Modification Approval for API Number 103238 , Well #: PHL13EHS  
**Modified WW-9**

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith

Regulatory/Compliance Manager  
Office of Oil and Gas

Topo Quad: Philippi 7.5'

Scale: 1" = 2000'

County: Barbour

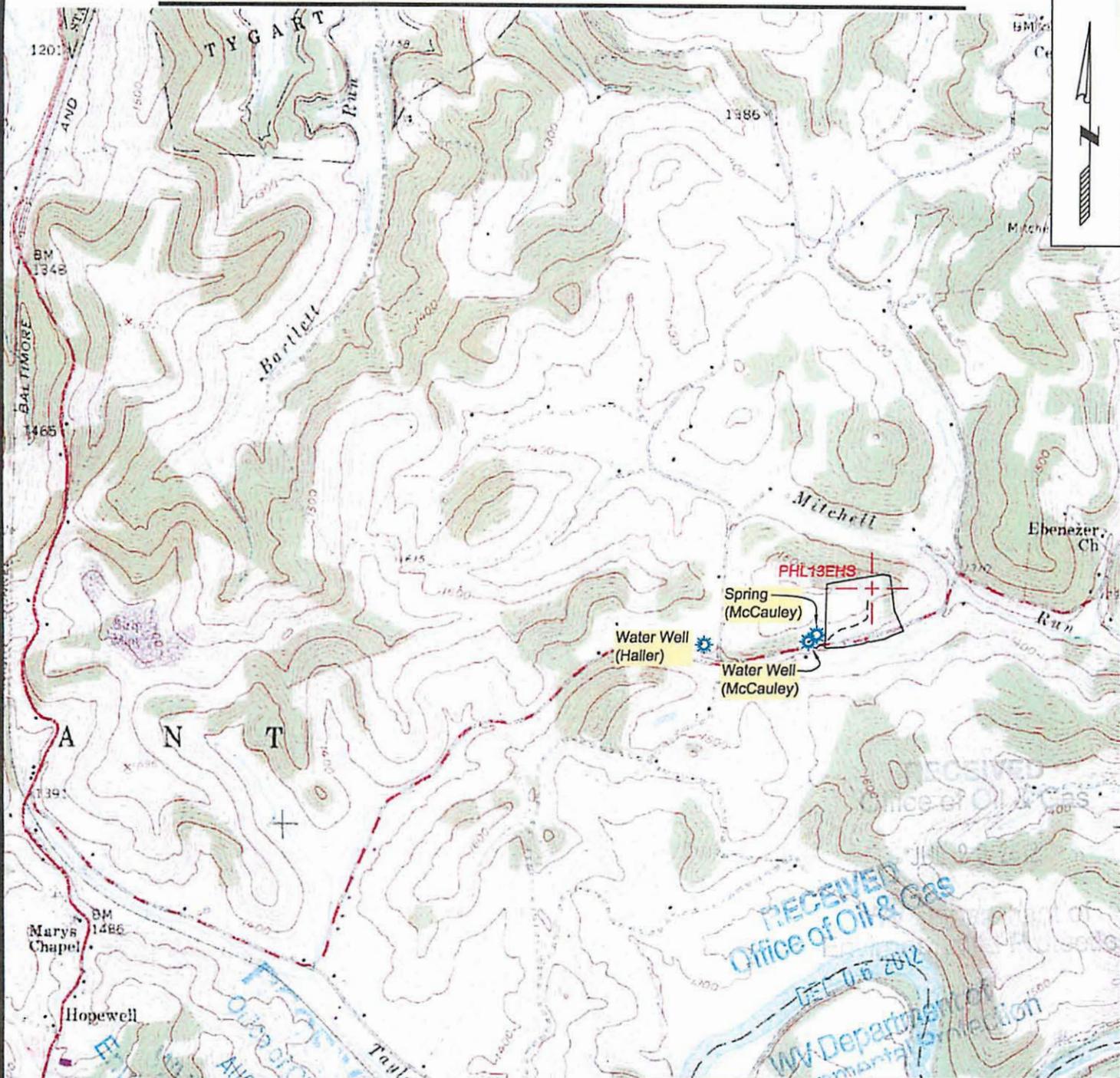
Date: June 28, 2012

District: Pleasant

Project No: 156-10-P-10

# Water

## PROPOSED CNX Gas Company LLC WELL NO. PHL13EHS



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**

P.O. BOX 438  
 BIRCH RIVER, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

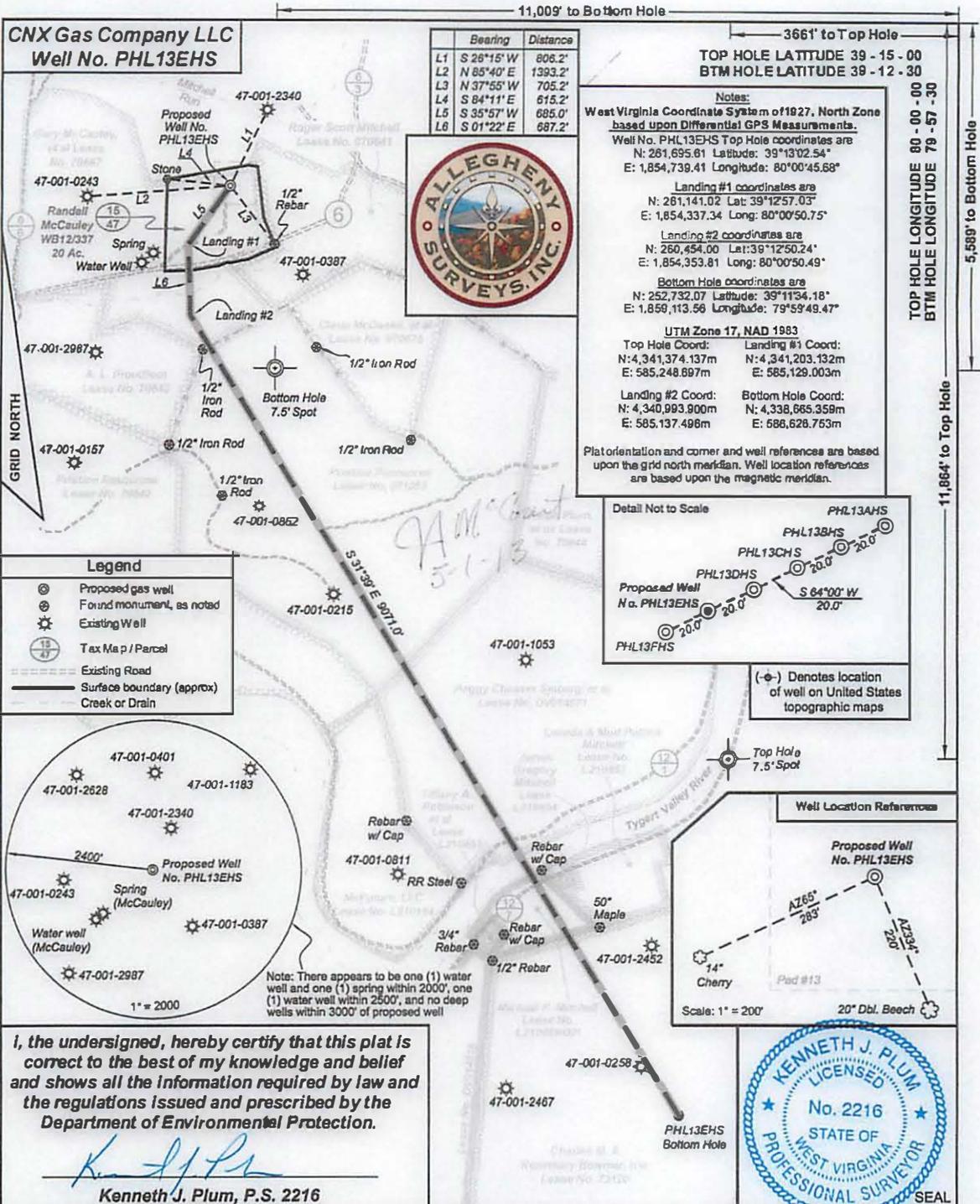
1-800-482-8606

172 THOMPSON DRIVE  
 BRIDGEPORT, WV 26330  
 PH: (304) 848-5035  
 FAX: (304) 848-5037

PREPARED FOR:

### CNX Gas Company LLC

ONE ENERGY DRIVE  
 P.O. BOX 1248  
 JANE LEW, WV 26378



FILE NO: 156-10-P-10  
 DRAWING NO: 156-10 PHL13EHS Well Plat  
 SCALE: 1" = 1200'  
 MINIMUM DEGREE OF ACCURACY:  
 Submeter  
 PROVEN SOURCE OF ELEVATION:  
 WVDOT, Bridgeport, WV

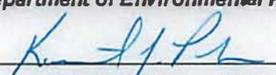
**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

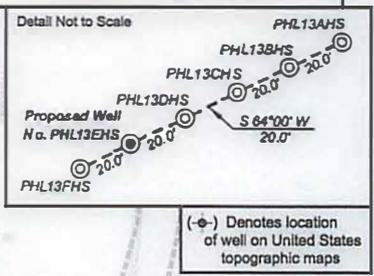
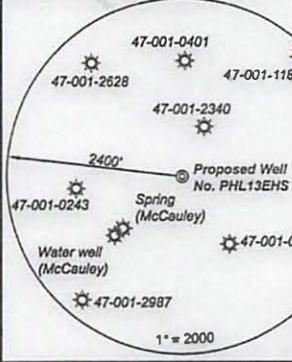
DATE: May 1 2013  
 OPERATOR/ WELL NO. PHL13EHS  
 API WELL NO **H6A**  
 47 - 001 - 03238 **MOD**  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: 1520' WATERSHED Tygart Valley River  
 QUADRANGLE: Phillippi DISTRICT: Pleasant COUNTY: Barbour  
 SURFACE OWNER: Randall McCauley Charles M. & Rosemary Bowman h/w L210659/001 ACREAGE: 20  
 OIL AND GAS ROYALTY OWNER: Gary McCauley, et al; Peggy Chesser Sjoberg, et al 70867; 071053 82:12; 203  
 LEASE NO: DVO14571; 73120 ACREAGE: 200; 170  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND A ANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,820' TVD 19,200 TMD

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Jeremy Jones  
 ADDRESS: P.O. Box 1248 ADDRESS: P.O. Box 1248  
 Jane Lew, WV 26378 Jane Lew, WV 26378

*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 Environmental Protection.*

  
**Kenneth J. Plum, P.S. 2216**



**Legend**

- Proposed gas well
- Found monument, as noted
- Existing Well
- Tax Map / Parcel
- Existing Road
- Surface boundary (approx)
- Creek or Drain



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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](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

May 08, 2013

CNX GAS COMPANY LLC  
ONE ENERGY DRIVE  
JANE LEW, WV26378

Re: Permit Modification Approval for API Number 103223 , Well #: PHL13DHS

Modified WW-9

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith

Regulatory/Compliance Manager  
Office of Oil and Gas

Topo Quad: Philippi 7.5'

Scale: 1" = 2000'

County: Barbour

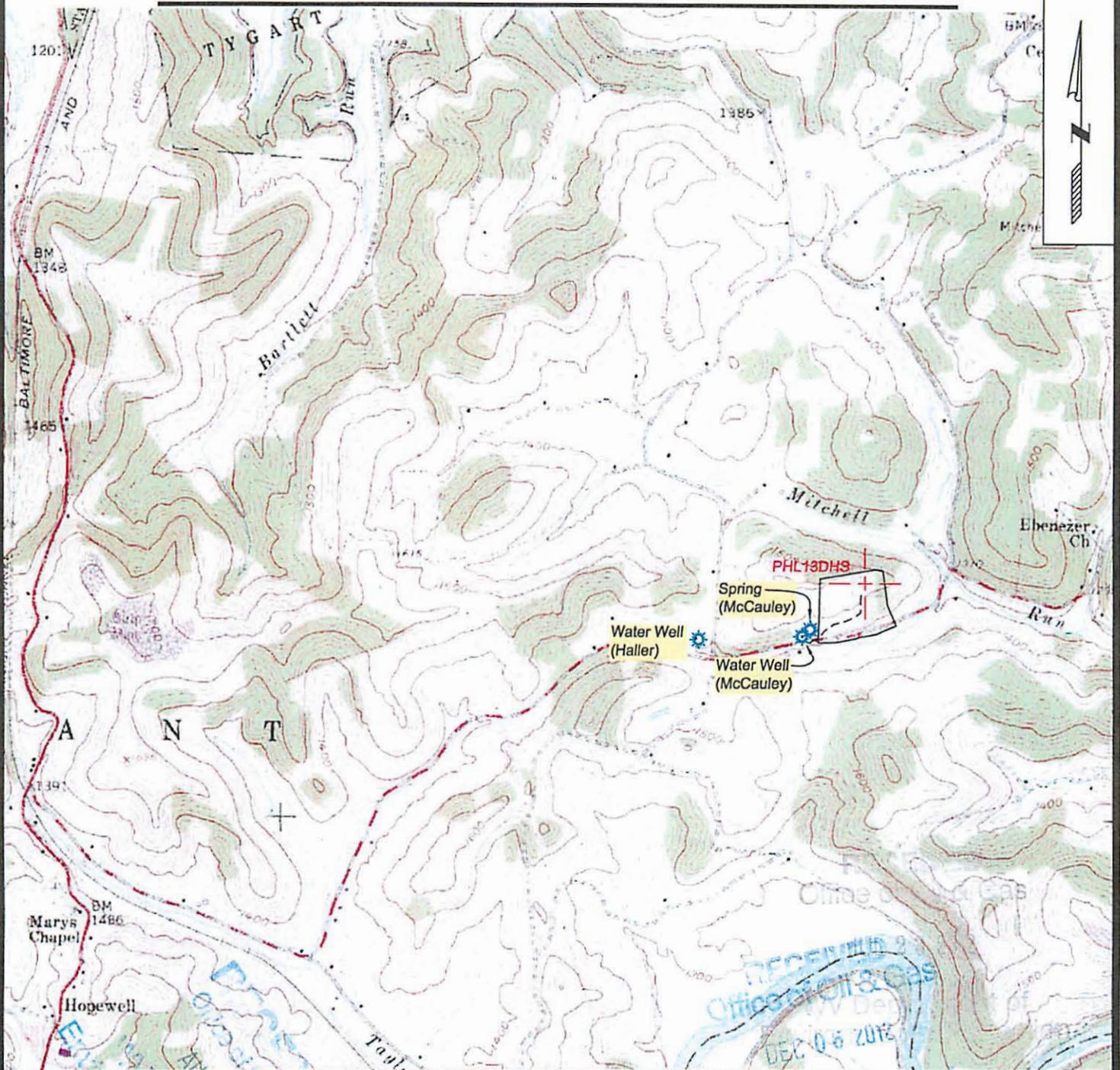
Date: June 28, 2012

District: Pleasant

Project No: 156-10-P-10

# Water

## PROPOSED CNX Gas Company LLC WELL NO. PHL13DHS



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**  
 P.O. BOX 438  
 BIRCH RIVER, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608  
 1-800-482-8606  
 172 THOMPSON DRIVE  
 BRIDGEPORT, WV 26330  
 PH: (304) 848-5035  
 FAX: (304) 848-5037

PREPARED FOR:  
**CNX Gas Company LLC**  
 ONE ENERGY DRIVE  
 P.O. BOX 1248  
 JANE LEW, WV 26378

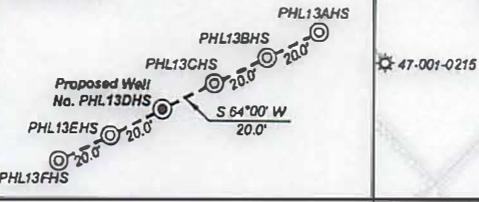
**CNX Gas Company LLC  
Well No. PHL13DHS**

**Legend**

- ☉ Proposed gas well
- ⊙ Found monument, as noted
- ⊙ Existing Well
- Ⓜ Tax Map / Parcel
- ⊙ Existing Road
- Surface boundary (approx)
- Creek or Drain



Detail Not to Scale



**Notes:**  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
Well No. PHL13DHS Top Hole coordinates are  
N: 261,704.38 Latitude: 39°13'02.62"  
E: 1,854,757.39 Longitude: 80°00'45.45"  
Landing #1 coordinates are  
N: 261,266.76 Lat: 39°12'58.50"  
E: 1,854,773.67 Long: 80°00'45.21"  
Landing #2 coordinates are  
N: 261,034.79 Lat: 39°12'56.01"  
E: 1,854,888.97 Long: 80°00'43.73"  
Bottom Hole coordinates are  
N: 253,406.36 Latitude: 39°11'40.87"  
E: 1,859,591.79 Longitude: 79°59'43.44"

**UTM Zone 17, NAD 1983**  
Top Hole Coord: N: 4,341,376.901m E: 585,254.130m  
Landing #1 Coord: N: 4,341,249.746m E: 585,261.204m  
Landing #2 Coord: N: 4,341,173.562m E: 585,297.608m  
Btm Hole Coord: N: 4,338,873.220m E: 586,769.049m

Flat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

**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 Environmental Protection on.**

*Kenneth J. Plum*  
**Kenneth J. Plum, P.S. 2216**



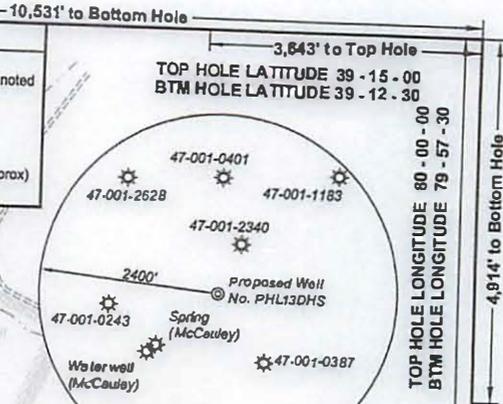
FILE NO: 156-10-P-10  
DRAWING NO: 156-10 PHL13DHS Well Plat  
SCALE: 1" = 100'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL AND GAS DIVISION**

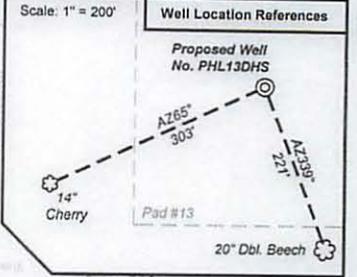
DATE: December 3 2012  
OPERATOR'S WELL NO. PHL13DHS  
API WELL NO  
47 - 001 - 322316A  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1520' WATERSHED: Tygart Valley River  
QUADRANGLE: Phillippi DISTRICT: Pleasant COUNTY: Barbour  
SURFACE OWNER: Randall McCauley PEGGY CHESSEY, SJOBERG, ET AL; LEVADA & MURL PATRICK MITCHELL DV014571 ACREAGE: 20 203; 13.385  
OIL AND GAS ROYALTY OWNER: Gary McCauley, et al; Roger Scott Mitchell; Pristine Resources CHARLES M. & ROSAMARY BOWMAN, HW 071053; L210653 ACREAGE: 92.86.81  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,820' TVD  
18,500 TMD

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Kent Wright  
ADDRESS: P.O. Box 1248 Jane Lew, WV 26378 ADDRESS: P.O. Box 1248 Jane Lew, WV 26378



Note: There appears to be one (1) water well and one (1) spring within 2000', one (1) water well within 2500', and no deep wells within 3000' of proposed well



(☉) Denotes location of well on United States topographic maps

|    | Bearing    | Distance |
|----|------------|----------|
| L1 | S 25°21' W | 790.5'   |
| L2 | N 85°22' E | 1411.8'  |
| L3 | N 36°19' W | 701.3'   |
| L4 | S 69°08' E | 632.3'   |
| L5 | S 02°14' E | 417.9'   |
| L6 | S 24°35' E | 277.1'   |



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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](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

May 08, 2013

CNX GAS COMPANY LLC  
ONE ENERGY DRIVE  
JANE LEW, WV 26378

Re: Permit Modification Approval for API Number 103222 , Well #: PI-IL13CHS

**Modified WW-9**

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith  
Regulatory/Compliance Manager  
Office of Oil and Gas

1-03222

Topo Quad: Philippi 7.5'

Scale: 1" = 2000'

County: Barbour

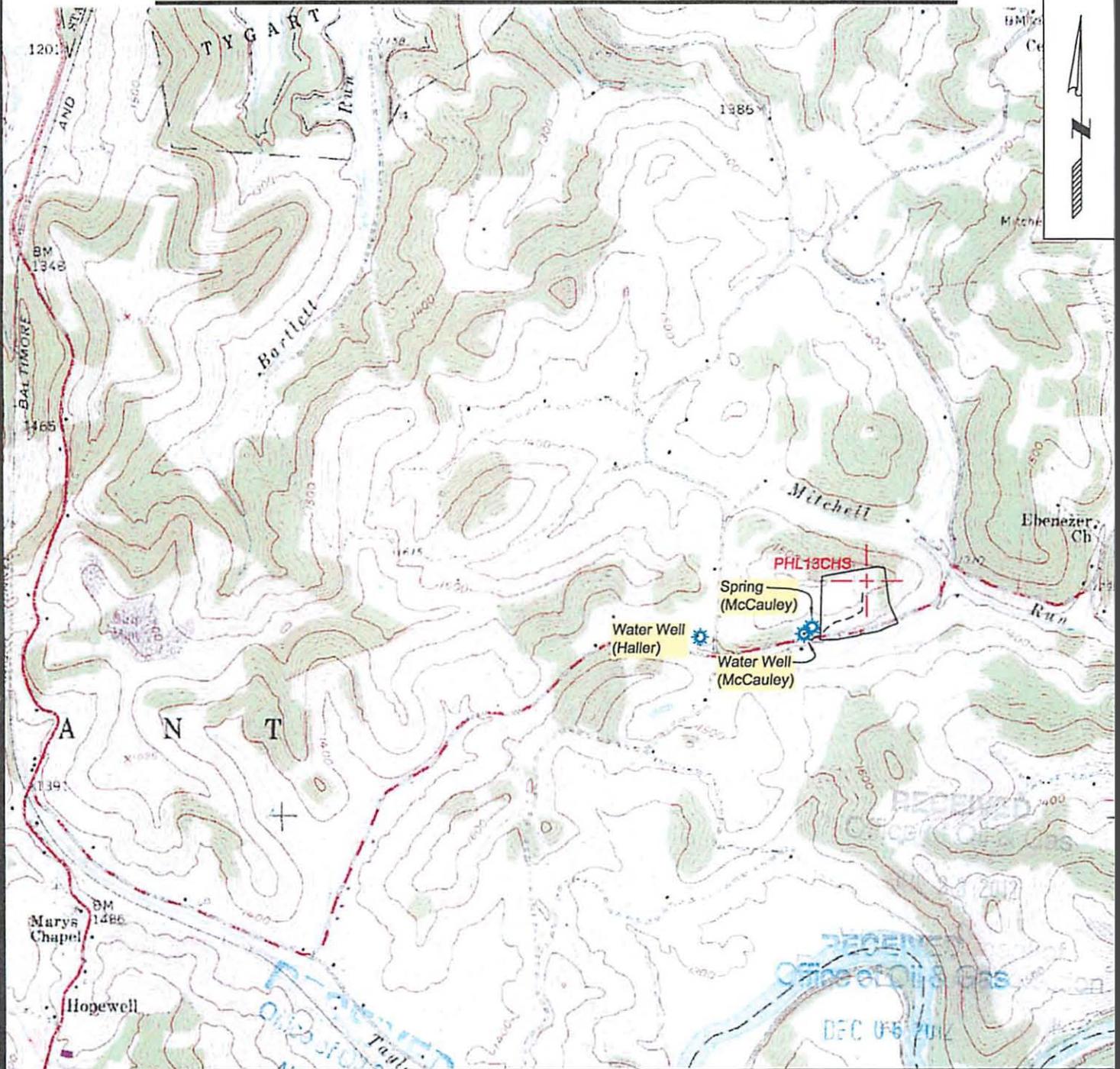
Date: June 28, 2012

District: Pleasant

Project No: 156-10-P-10

**Water**

# PROPOSED CNX Gas Company LLC WELL NO. PHL13CHS



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**

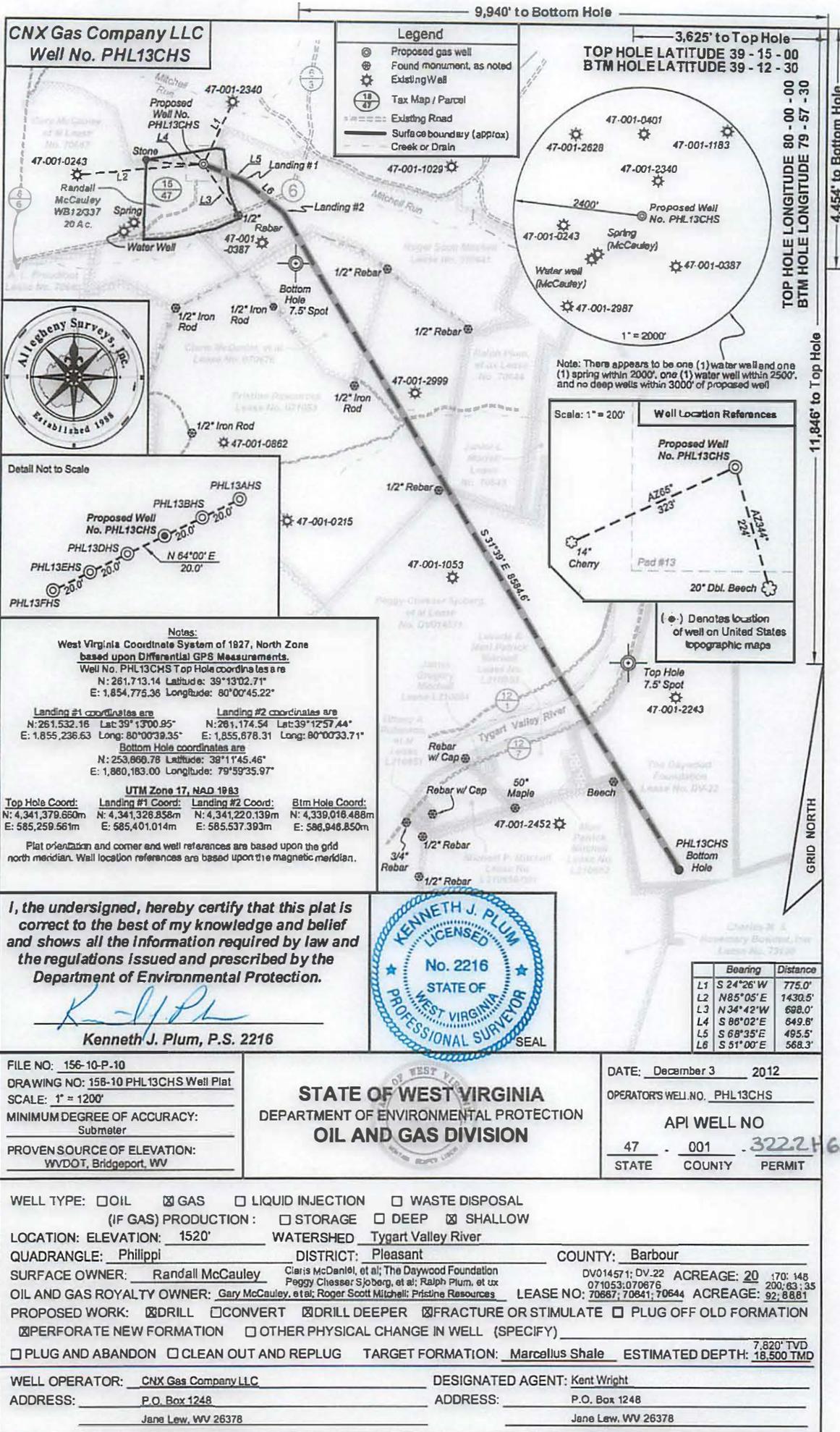
P.O. BOX 438  
 BIRCH RIVER, WV 26610  
 PH: (304) 649-8605  
 FAX: (304) 649-8608

1-800-482-8606

172 THOMPSON DRIVE  
 BRIDGEPORT, WV 26330  
 PH: (304) 848-5035  
 FAX: (304) 848-5037

PREPARED FOR: WV Department of  
**CNX Gas Company LLC**

ONE ENERGY DRIVE  
 P.O. BOX 1248  
 JANE LEW, WV 26378



CNX Gas Company LLC  
Well No. PHL13CHS

**Legend**

- ⊙ Proposed gas well
- ⊙ Found monument, as noted
- ⊙ Existing Well
- ⊙ Tax Map / Parcel
- ⊙ Existing Road
- Surface boundary (approx)
- Creek or Drain

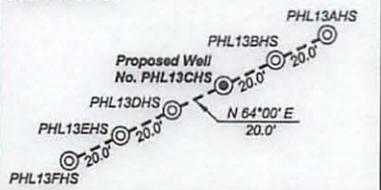
3,625' to Top Hole  
TOP HOLE LATITUDE 39 - 15 - 00  
BTM HOLE LATITUDE 39 - 12 - 30

TOP HOLE LONGITUDE 80 - 00 - 00  
BTM HOLE LONGITUDE 79 - 57 - 30

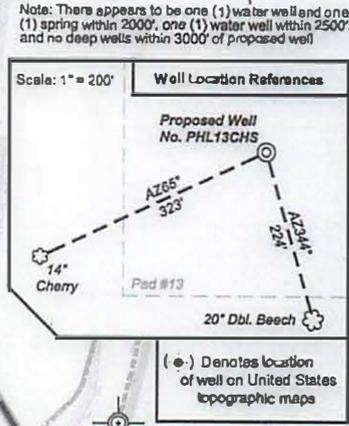
11,846' to Top Hole  
GRID NORTH



Detail Not to Scale



**Notes:**  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
Well No. PHL13CHS Top Hole coordinates are  
N: 261,713.14 Latitude: 39°13'02.71"  
E: 1,854,775.36 Longitude: 80°00'45.22"  
Landing #1 coordinates are  
N: 261,532.16 Lat: 39°13'00.95"  
E: 1,855,236.63 Long: 80°00'39.35"  
Landing #2 coordinates are  
N: 261,174.54 Lat: 39°12'57.44"  
E: 1,855,878.31 Long: 80°00'33.71"  
Bottom Hole coordinates are  
N: 253,866.78 Latitude: 38°11'45.46"  
E: 1,880,183.00 Longitude: 79°59'35.97"  
UTM Zone 17, NAD 1983  
Top Hole Coord: N: 4,341,379.650m E: 585,259.561m  
Landing #1 Coord: N: 4,341,326.858m E: 585,401.014m  
Landing #2 Coord: N: 4,341,220.139m E: 585,537.393m  
BTM Hole Coord: N: 4,339,016.488m E: 586,946.850m  
Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.



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 Environmental Protection.

*Kenneth J. Plum*  
Kenneth J. Plum, P.S. 2216



|    | Bearing    | Distance |
|----|------------|----------|
| L1 | S 24°26' W | 775.0'   |
| L2 | N 85°05' E | 1430.5'  |
| L3 | N 34°42' W | 698.0'   |
| L4 | S 86°02' E | 649.8'   |
| L5 | S 68°35' E | 495.5'   |
| L6 | S 51°00' E | 568.3'   |

FILE NO: 156-10-P-10  
DRAWING NO: 156-10 PHL13CHS Well Plat  
SCALE: 1" = 1200'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

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

DATE: December 3 2012  
OPERATORS WELL NO. PHL13CHS  
API WELL NO  
47 - 001 - 322216A  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1520' WATERSHED Tygart Valley River  
QUADRANGLE: Phillippi DISTRICT: Pleasant COUNTY: Barbour  
SURFACE OWNER: Randall McCauley, Claris McDaniel, et al; The Daywood Foundation, Peggy Chesser Sjoberg, et al; Ralph Plum, et ux  
OIL AND GAS ROYALTY OWNER: Gary McCauley, et al; Roger Scott Mitchell; Pristine Resources LEASE NO: 70867; 70841; 70644 ACREAGE: 20 : 170: 148  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 18,500 TMD  
7,820' TVD

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Kent Wright  
ADDRESS: P.O. Box 1248 Jane Lew, WV 26378 ADDRESS: P.O. Box 1248 Jane Lew, WV 26378



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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](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

May 08, 2013

CNX GAS COMPANY LLC  
ONE ENERGY DRIVE  
JANE LEW, WV 26378

Re: Permit Modification Approval for API Number 103221 , Well #: PHL13BHS  
**Modified WW-9**

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith  
Regulatory/Compliance Manager  
Office of Oil and Gas

Topo Quad: Philippi 7.5'

Scale: 1" = 2000' *1-3221DD*

County: Barbour

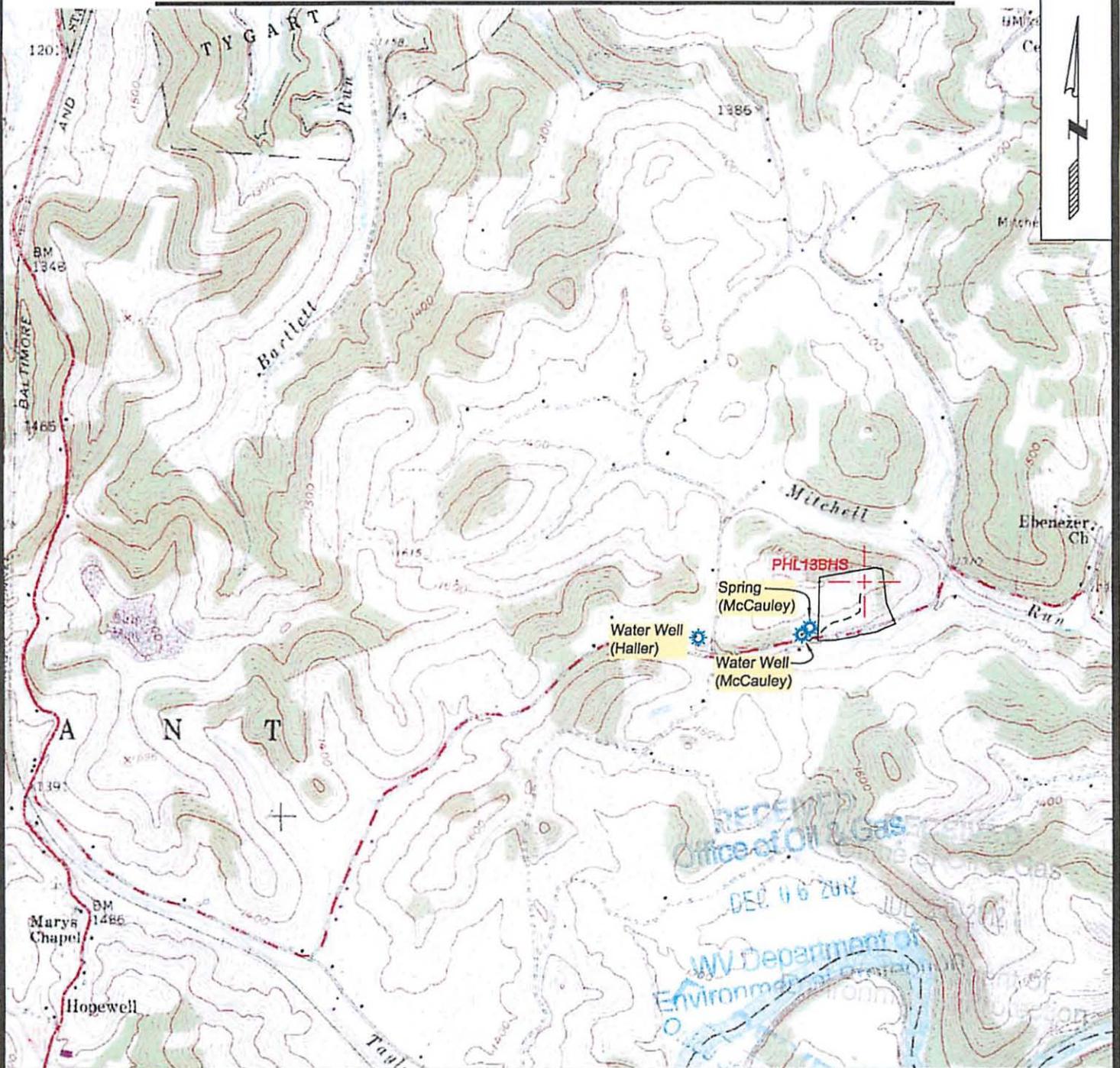
Date: June 28, 2012

District: Pleasant

Project No: 156-10-P-10

**Water**

# PROPOSED CNX Gas Company LLC WELL NO. PHL13BHS



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**

1-800-482-8606  
 P.O. BOX 438  
 BIRCH RIVER, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608  
 172 THOMPSON DRIVE  
 BRIDGEPORT, WV 26330  
 PH: (304) 848-5035  
 FAX: (304) 848-5037

PREPARED FOR:

**CNX Gas Company LLC**

ONE ENERGY DRIVE  
 P.O. BOX 1248  
 JANE LEW, WV 26378

CNX Gas Company LLC  
Well No. PHL13BHS

**Legend**

- ⊙ Proposed gas well
- ⊙ Found monument, as noted
- ⊙ Existing Well
- ⊙ Tax Map / Parcel
- Existing Road
- Surface boundary (approx)
- Creek or Drain

9,374' to Bottom Hole

3,607' to Top Hole

TOP HOLE LATITUDE 39 - 15 - 00  
BTM HOLE LATITUDE 39 - 12 - 30

TOP HOLE LONGITUDE 80 - 00 - 00  
BTM HOLE LONGITUDE 79 - 57 - 30

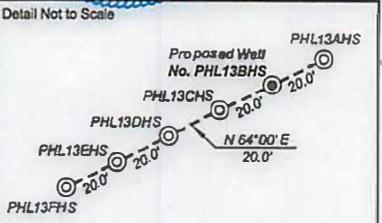
11,837' to Top Hole

3,917' to Bottom Hole

1" = 2000'

Note: There appears to be one (1) water well and one (1) spring within 2000', one (1) water well within 2500', and no deep wells within 3000' of proposed well

| Bearing      | Distance |
|--------------|----------|
| L1 S 23°28'W | 799.7'   |
| L2 N 8°48'E  | 1449.2'  |
| L3 N 33°04'W | 695.3'   |
| L4 S 86°54'E | 667.0'   |
| L5 S 77°37'E | 1396.9'  |
| L6 S 54°29'E | 553.7'   |



**Notes:**  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
Well No. PHL13BHS Top Hole coordinates are  
N: 261,721.91 Latitude: 39°13'02.80"  
E: 1,854,793.34 Longitude: 80°00'44.99"

Landing #1 coordinates are  
N: 281,422.41 Lat: 39°12'59.91"  
E: 1,856,157.71 Long: 80°00'27.64"

Landing #2 coordinates are  
N: 261,100.81 Lat: 39°12'56.76"  
E: 1,856,808.40 Long: 80°00'21.89"

Bottom Hole coordinates are  
N: 254,403.66 Latitude: 39°11'50.79"  
E: 1,860,749.43 Longitude: 79°59'28.81"

UTM Zone 17, NAD 1983  
Top Hole Coord: N: 4,341,382.424m E: 585,264.995m  
Landing #1 Coord: N: 4,341,298.087m E: 585,682.200m  
Landing #2 Coord: N: 4,341,202.388m E: 585,821.142m  
Btm Hole Coord: N: 4,339,182.937m E: 587,116.714m

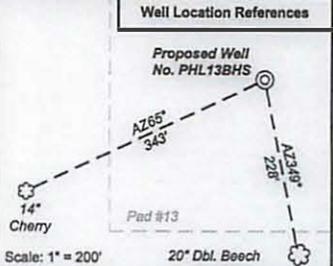
Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.



*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 Environmental Protection.*

*K. J. Plum*

**Kenneth J. Plum, P.S. 2216**



FILE NO: 156-10-P-10  
DRAWING NO: 156-10 PHL13BHS Well Plat  
SCALE: 1" = 1200'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: December 4 20 12  
OPERATOR'S WELL NO. PH13BHS  
API WELL NO. 47 - 001 - 322146A  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1520' WATERSHED Tygart Valley River  
QUADRANGLE: Phillippi DISTRICT: Pleasant COUNTY: Barbour

SURFACE OWNER: Randall McCauley JUNIOR L. MORRELL; THE DAYWOOD FOUNDATION  
OIL AND GAS ROYALTY OWNER: Gary McCauley, et al; Roger Scott Mitchell; Pristine Resources  
LEASE NO: 70667; 70641; 70644 ACREAGE: 20 170: 148  
200: 63; 24  
82; 86.81

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

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,820' TVD  
18,800 TMD

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Kent Wright  
ADDRESS: P.O. Box 1248 ADDRESS: P.O. Box 1248  
Jana Lew, WV 25378 Jane Lew, WV 25378



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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](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

May 08, 2013

CNX GAS COMPANY LLC  
ONE ENERGY DRIVE  
JANE LEW, WV 26378

Re: Permit Modification Approval for API Number 103220 , Well #: PI-L13AHS

Modified WW-9

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith

Regulatory/Compliance Manager  
Office of Oil and Gas

Topo Quad: Philippi 7.5'

Scale: 1" = 2000'

County: Barbour

Date: June 28, 2012

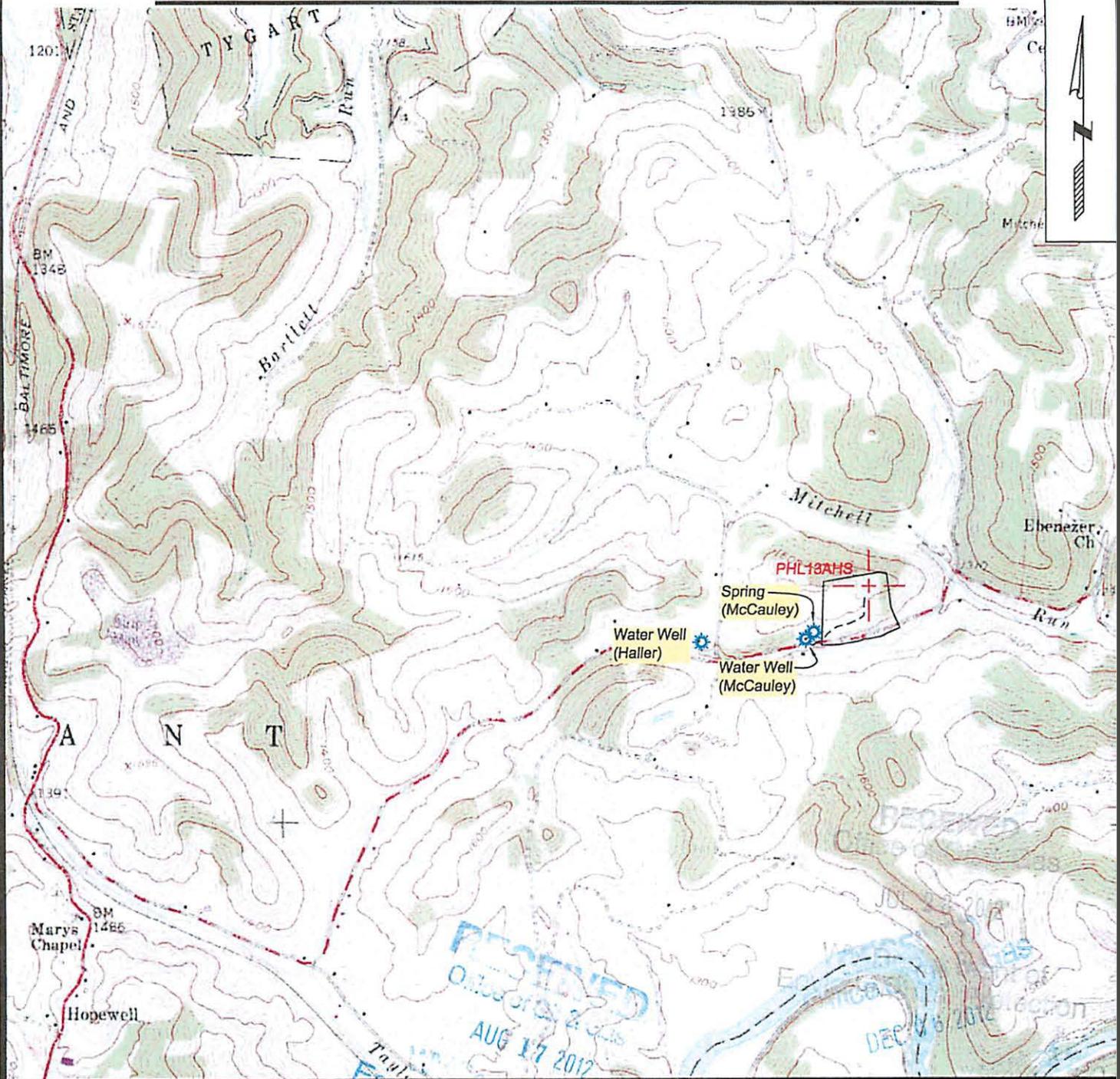
District: Pleasant

Project No: 156-10-P-10

1-03220 D

# Water

## PROPOSED CNX Gas Company LLC WELL NO. PHL13AHS

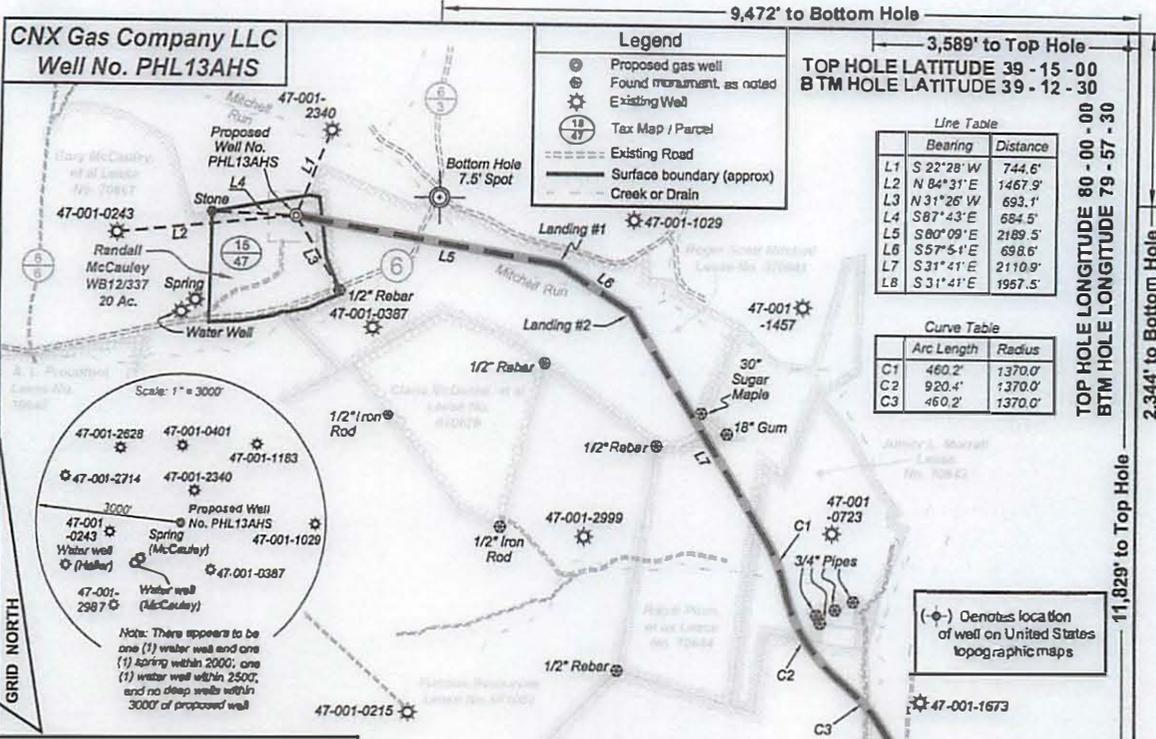


SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**  
 P.O. BOX 438  
 BIRCH RIVER, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

1-800-482-8606

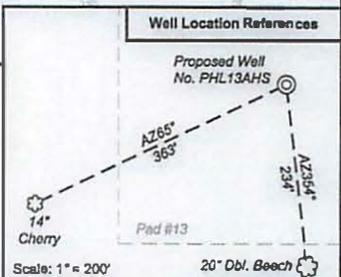
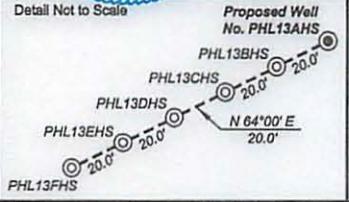
172 THOMPSON DRIVE  
 BRIDGEPORT, WV 26330  
 PH: (304) 848-5035  
 FAX: (304) 848-5037

PREPARED FOR:  
**CNX Gas Company LLC**  
 ONE ENERGY DRIVE  
 P.O. BOX 1248  
 JANE LEW, WV 26378



**Notes:**  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
Well No. PHL13AHS Top Hole coordinates are N: 261,730.68 Lat: 39°13'02.89" E: 1,654,811.32 Longitude: 80°00'44.77"  
Landing #1 coordinates are N: 261,355.92 Lat: 39°12'59.30" E: 1,856,968.54 Long: 80°00'17.33"  
Landing #2 coordinates are N: 260,984.74 Lat: 39°12'55.87" E: 1,857,580.35 Long: 80°00'09.78"  
Bottom Hole coordinates are N: 255,976.68 Lat: 39°12'06.34" E: 1,860,650.58 Longitude: 79°58'30.17"  
UTM Zone 17, NAD 1983  
Top Hole Coord: N: 4,341,385.187m E: 585,270.428m  
Landing #1 Coord: N: 4,341,231.938m E: 585,929.577m  
Landing #2 Coord: N: 4,341,171.648m E: 586,111.765m  
Bottom Hole Coord: N: 4,339,681.893m E: 587,078.837m

Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.



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 Environmental Protection.

*Kenneth J. Plum*  
Kenneth J. Plum, P.S. 2216

FILE NO: 156-10-P-10  
DRAWING NO: 156-10 PHL13AHS Well Plat  
SCALE: 1" = 1200'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

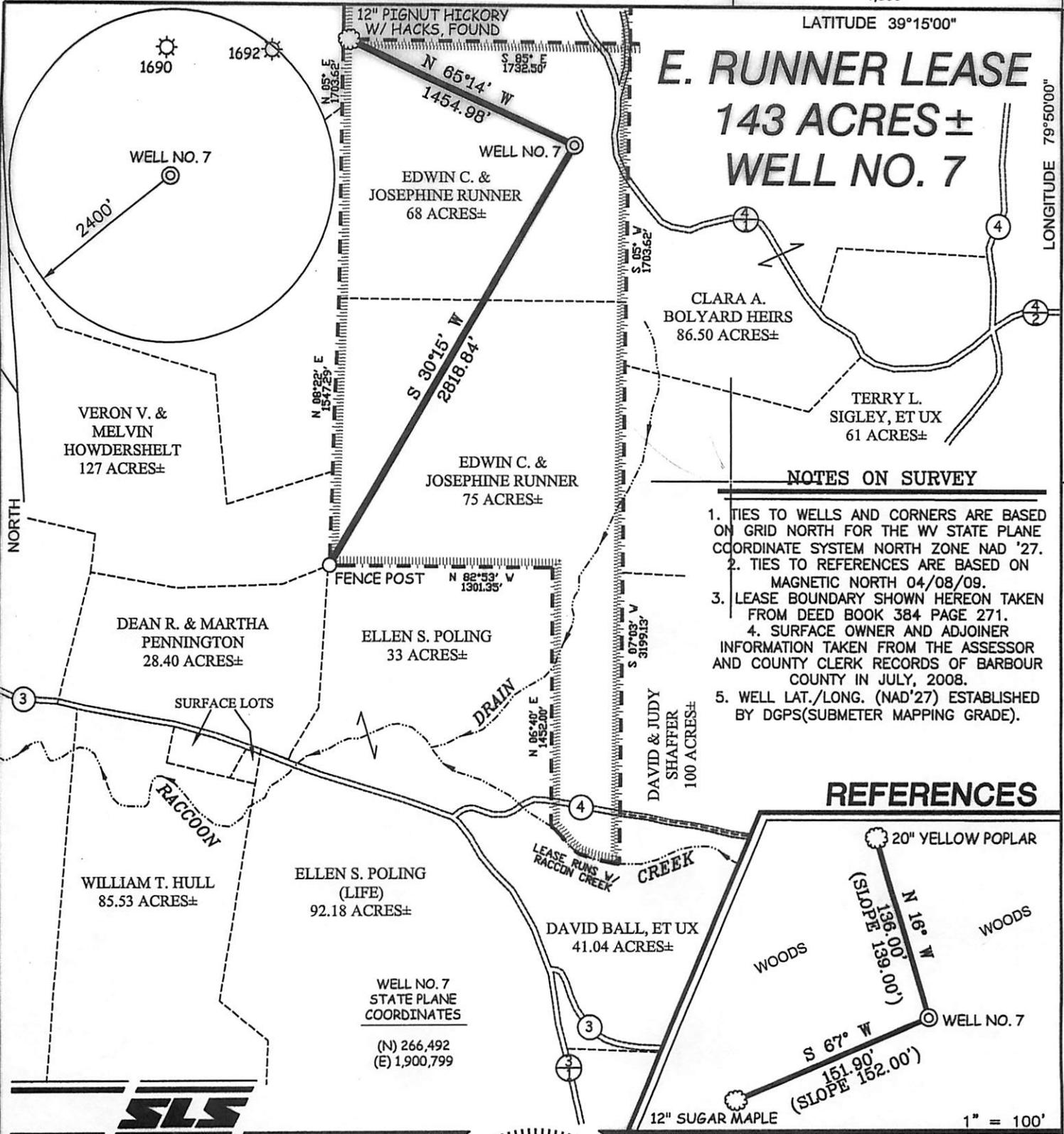
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL AND GAS DIVISION

DATE: December 4, 2012  
OPERATOR'S WELL NO.: PH13AHS  
API WELL NO: 47 - 001 - 3220  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1520' WATERSHED Tygart Valley River  
QUADRANGLE: Phillippi DISTRICT: Pleasant COUNTY: Barbour  
SURFACE OWNER: Randall McCauley The Daywood Foundation 70643 ACREAGE: 20 170: 148  
OIL AND GAS ROYALTY OWNER: Gary McCauley, et al; Roger Scott Mitchell; Junior L. Morrell Peggy Chesser Sjoberg, et al; Ralph Plum, et ux DV014571; DV-22 ACREAGE: 83: 24  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FOR ATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,820' TVD 18,000 TMD

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Kent Wright  
ADDRESS: P.O. Box 1248 Jane Lew, WV 26378 ADDRESS: P.O. Box 1248 Jane Lew, WV 26378

Drill Deeper



# E. RUNNER LEASE

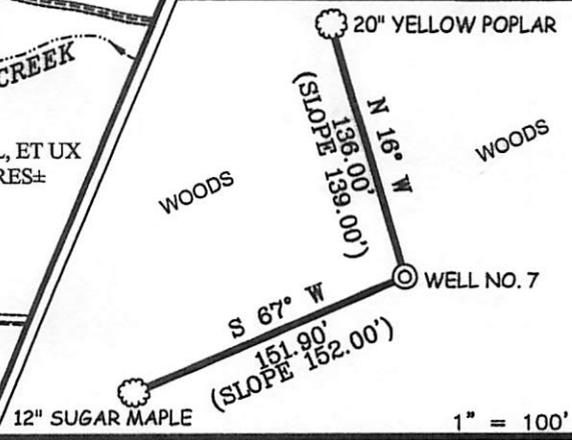
## 143 ACRES±

### WELL NO. 7

#### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 04/08/09.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 384 PAGE 271.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2008.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

#### REFERENCES



WELL NO. 7  
STATE PLANE  
COORDINATES  
(N) 266,492  
(E) 1,900,799



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.

P.S.  
677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE JUNE 09, 20 09  
OPERATORS WELL NO. E. RUNNER #7  
API WELL NO. 47-001-03076  
STATE COUNTY PERMIT  
**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7112P7 (279-15)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,823' WATERSHED TRIBUTARY OF RACCOON CREEK  
DISTRICT COVE COUNTY BARBOUR QUADRANGLE COLEBANK 7.5'

SURFACE OWNER EDWIN C. & JOSEPHINE RUNNER ACREAGE 68±  
ROYALTY OWNER EDWIN C. & JOSEPHINE RUNNER LEASE ACREAGE 143±

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD   
FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK  
ESTIMATED DEPTH 6,130'

WELL OPERATOR TEXAS KEYSTONE, INC. DESIGNATED AGENT JON FARMER  
ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

COUNTY NAME  
PERMIT

LONG. 79°51'42.9"

8,117' W

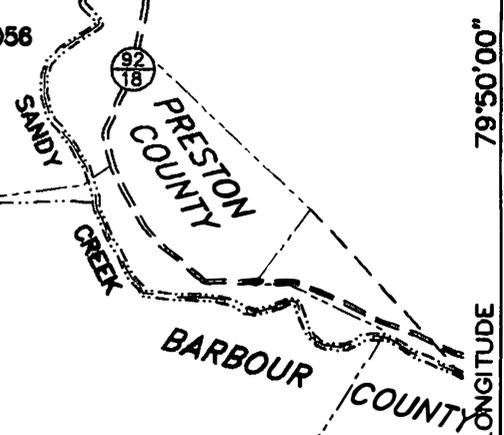
LATITUDE 39°17'30"

FOGG #1  
STATE PLANE COORDINATES NAD-27  
NORTH=281215 EAST=1897480  
LAT=39.27165556 LON=79.86191056

KENNETH & DEBRA GILBERT  
TM 4 PAR 37  
100 ACRES

RAY E. KITCHEN (LIFE ESTATE)  
TM 7 PAR 16  
111.75 ACRES

RALPH & GLENDA SIGLEY  
TM 3 PAR 6  
171 ACRES



JOHN SYPOLT ET UX  
TM 7 PAR 18  
111 ACRES

HOWARD & RUBY DUGAN  
TM 8 PAR 01  
152 ACRES

HANCHER LIVING TRUST  
TM 8 PAR 07  
189.17 ACRES

DOROTHY M. WOLFE  
TM 8 PAR 08  
81 ACRES

DANIEL HOGAN  
TM 8 PAR 2.3

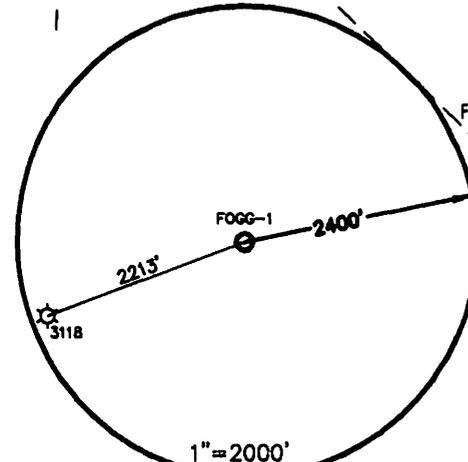
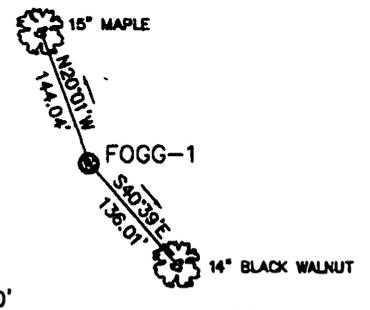
PATRICIA & MICHAEL CAREY  
TM 8 PAR 4  
81 ACRES

J.A. JENNINGS  
TM 8 PAR 09.1  
100 ACRES

NOTES:

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE, NAD-1927.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DB 385 PG 364 AND DB 132 PG 40.
3. SURFACE OWNER AND ADJOINER INFO TAKEN FROM ASSESSOR AND COUNTY CLERK RECORDS.
4. WELL LAT/LONG (NAD 27) ESTABLISHED BY GPS (SURVEY GRADE).

REFERENCES



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 09-0231-010  
DRAWING NO. FOGG-1  
SCALE 1"=800'  
MINIMUM DEGREE OF ACCURACY 1/2500  
PROVEN SOURCE OF ELEVATION GPS O.P.U.S. SOLUTION

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 ENVIRONMENTAL PROTECTION.

(SIGNED) Victor M. Dawson  
R.P.E. P.S. 956  
POTESTA & ASSOCIATES, INC.



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



DATE JULY 16, 2010  
OPERATOR'S WELL NO. FOGG #1  
API WELL NO.

47 - 01 - 03157  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1576' WATERSHED SANDY CREEK  
DISTRICT COVE COUNTY BARBOUR  
QUADRANGLE FELLOWSVILLE 7.5'

SURFACE OWNER HANCHER LIVING TRUST ACREAGE ±189  
OIL & GAS ROYALTY OWNER GERALD M. FOGG/ALAN GREY MARSH LEASE ACREAGE ±189  
LEASE NO. \_\_\_\_\_

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

PLUG AND ABANDON  CLEAN OUT AND REPLUG   
TARGET FORMATION ELK ESTIMATED DEPTH 6,110'  
WELL OPERATOR TEXAS KEYSTONE DESIGNATED AGENT JON FARMER  
ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

FORM WW-6

COUNTY NAME PERMIT

LONG. 79°51'54.9"

9,360' W

LATITUDE 39°17'30"

LONGITUDE 79°50'00"

LAT. 39°15'50.5"

KENNETH & DEBRA GILBERT  
TM 4 PAR 37  
100 ACRES

FOGG #8  
STATE PLANE COORDINATES NAD-27  
NORTH=278452 EAST=1898519  
LAT=39.28403638 LON=79.86526867

RAY E. KITCHEN (LIFE ESTATE)  
TM 7 PAR 16  
111.75 ACRES

RALPH & GLENDA SIGLEY  
TM 3 PAR 6  
171 ACRES

SANDY CREEK

PRESTON COUNTY

BARBOUR COUNTY

JOHN SYPOLT ET UX  
TM 7 PAR 18  
111 ACRES

3117  
DUGAN-2

5/8" REBAR

20" MAPLE

3118  
DUGAN-3

14" MAPLE  
W/HACKS

HANCHER LIVING TRUST  
TM 8 PAR 07  
189.17 ACRES

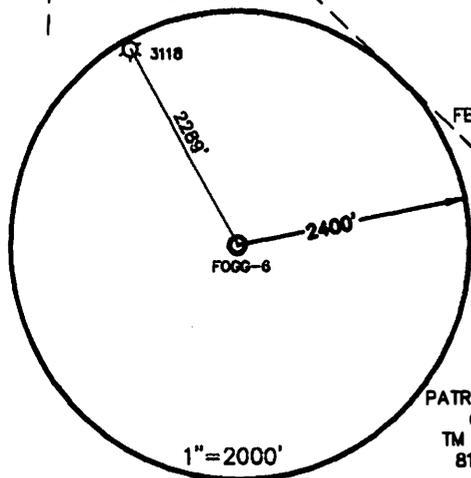
DOROTHY M. WOLFE  
TM 8 PAR 08  
81 ACRES

HOWARD & RUBY DUGAN  
TM 8 PAR 01  
152 ACRES

NOTES:

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE, NAD-1927.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DB 385 PG 384 AND DB 132 PG 40.
3. SURFACE OWNER AND ADJOINER INFO TAKEN FROM ASSESSOR AND COUNTY CLERK RECORDS.
4. WELL LAT/LONG (NAD 27) ESTABLISHED BY GPS (SURVEY GRADE).

REFERENCES

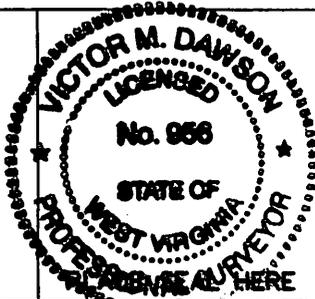


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

1"=200'

FILE NO. 09-0231-013  
 DRAWING NO. FOGG-6  
 SCALE 1"=800'  
 MINIMUM DEGREE OF ACCURACY 1/2500  
 PROVEN SOURCE OF ELEVATION GPS O.P.U.S. SOLUTION

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 ENVIRONMENTAL PROTECTION.  
 (SIGNED) [Signature]



R.P.E. P.S. 956  
 POTESTA & ASSOCIATES, INC.

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



DATE JULY 16, 2010  
 OPERATOR'S WELL NO. FOGG #8  
 API WELL NO.

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL  
 (IF "GAS,") PRODUCTION X STORAGE DEEP SHALLOW X  
 LOCATION: ELEVATION 1774' WATERSHED SANDY CREEK

47 01 03160  
 STATE COUNTY PERMIT

CANCELLED

DISTRICT COVE COUNTY BARBOUR

SURFACE OWNER HANCHER LIVING TRUST ACREAGE ±189

OIL & GAS ROYALTY OWNER GERALD M. FOGG/ALAN GREY MARSH LEASE ACREAGE ±189

PROPOSED WORK: DRILL X 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 ELK ESTIMATED DEPTH 6,110'

WELL OPERATOR TEXAS KEYSTONE DESIGNATED AGENT JON FARMER

ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25960

FORM WW-6

COUNTY NAME PERMIT

# DONA QUEEN LEASE

## 85 ACRES ±

### WELL NO. 2

WELL NO. 2  
STATE PLANE COORDINATES  
NORTH ZONE (NAD'27)

N. 272,337  
E. 1,894,710

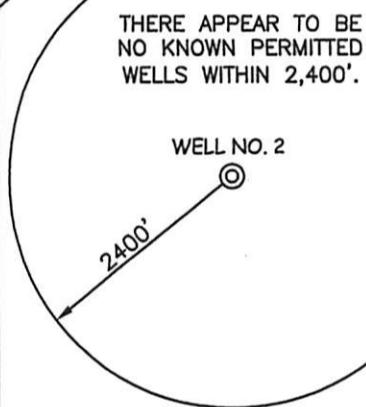
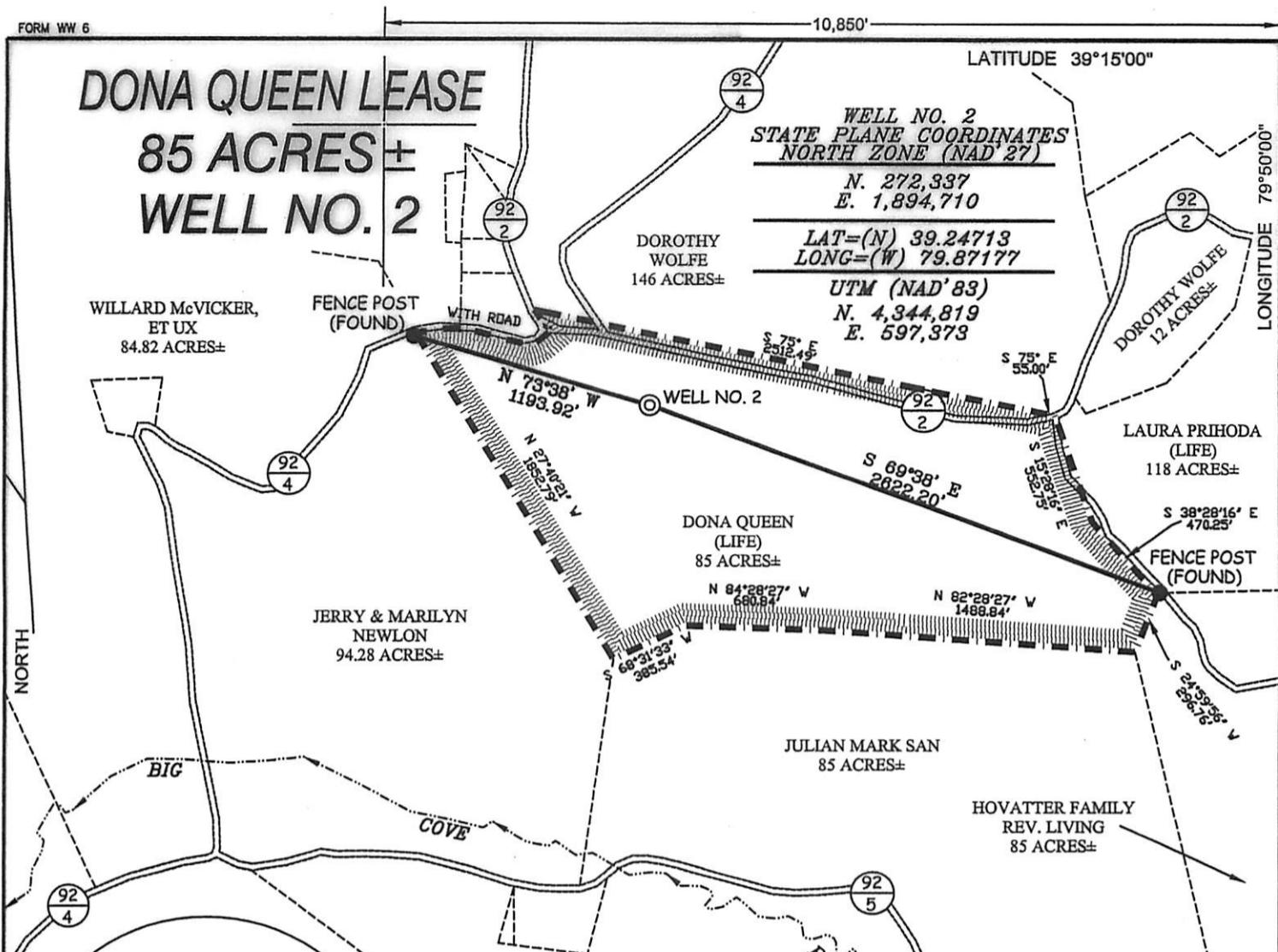
LAT=(N) 39.24713  
LONG=(W) 79.87177

UTM (NAD'83)

N. 4,344,819  
E. 597,373

LATITUDE 39°15'00"

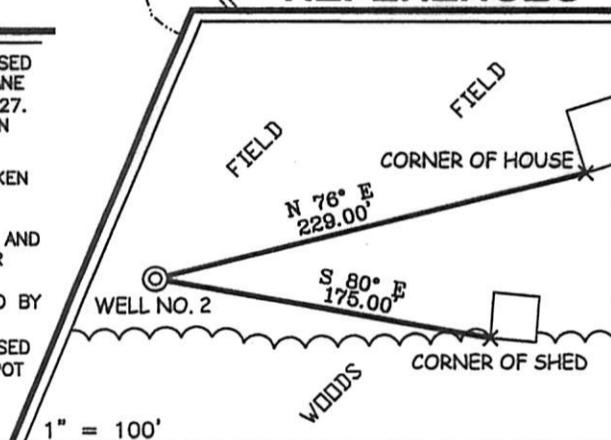
LONGITUDE 79°50'00"



#### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11-12-09.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 204 PAGE 114.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).
6. ORIGINAL PLAT DATED 02/15/10 REVISED 11/17/10 TO UPDATE OWNERSHIP & SPOT CIRCLE INFORMATION & ADD UTM COORDINATES ETC.

#### REFERENCES



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.

P.S. 677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE NOVEMBER 17, 20 10

OPERATORS WELL NO. DONA QUEEN NO. 2

API WELL NO. 47-001-03199  
STATE COUNTY PERMIT

**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7348P2R (293-13)

PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,851' WATERSHED BIG COVE RUN

DISTRICT COVE COUNTY BARBOUR QUADRANGLE COLE BANK 7.5'

SURFACE OWNER DONA QUEEN (LIFE) ACREAGE 85±

ROYALTY OWNER DONA QUEEN (LIFE) LEASE ACREAGE 85±

PROPOSED WORK: LEASE NO. \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD

FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK

ESTIMATED DEPTH 6,160'

WELL OPERATOR TEXAS KEYSTONE, INC. DESIGNATED AGENT JON FARMER

ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD

PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

COUNTY NAME PERMIT

# DONA QUEEN LEASE

## 85 ACRES±

### WELL NO. 3

WILLARD McVICKER,  
ET UX  
84.82 ACRES±

FENCE POST  
(FOUND)

WITH ROAD

DOROTHY  
WOLFE  
146 ACRES±

WELL NO. 3  
STATE PLANE COORDINATES  
NORTH ZONE (NAD '27)

N. 272,294  
E. 1,895,775

LAT=(N) 39.24702  
LONG=(W) 79.86801

UTM (NAD'83)  
N. 4,344,811  
E. 597,698

DOROTHY WOLFE  
12 ACRES±

LAURA PRIHODA  
(LIFE)  
118 ACRES±

DONA QUEEN  
(LIFE)  
85 ACRES±

JERRY & MARILYN  
NEWLON  
94.28 ACRES±

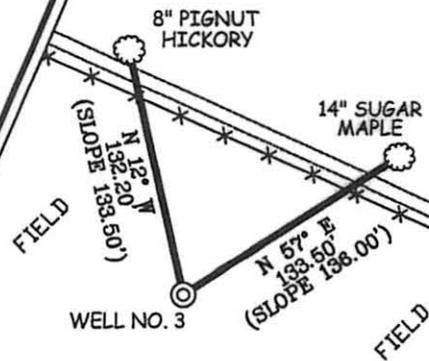
JULIAN MARK SAN  
85 ACRES±

HOVATTER FAMILY  
REV. LIVING  
85 ACRES±

#### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11-12-09.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED B K 204 PAGE 114.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).
6. ORIGINAL PLAT DATED 02/15/10 REVISED 11/17/10 TO UPDATE OWNERSHIP & SPOT CIRCLE INFORMATION & ADD UTM COORDINATES ETC.

#### REFERENCES



THERE APPEAR TO BE  
NO KNOWN PERMITTED  
WELLS WITHIN 2,400'.

WELL NO. 3

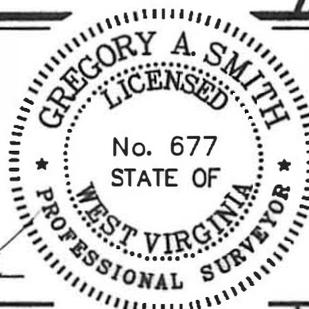
2400'

# SLS

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.

P.S.  
677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE NOVEMBER 17, 20 10  
 OPERATORS WELL NO. DONA QUEEN NO. 3  
 API WELL NO. 47-001-03200  
 STATE COUNTY PERMIT  
**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 7348P3R (293-12)  
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION:  
 ELEVATION 1,879' WATERSHED BIG COVE RUN  
 DISTRICT COVE COUNTY BARBOUR QUADRANGLE COLE BANK 7.5'

SURFACE OWNER DONA QUEEN (LIFE) ACREAGE 85±  
 ROYALTY OWNER DONA QUEEN (LIFE) LEASE ACREAGE 85±

PROPOSED WORK:  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION   
 PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK  
 ESTIMATED DEPTH 6,180'

WELL OPERATOR TEXAS KEYSTONE, INC. DESIGNATED AGENT JON FARMER  
 ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

COUNTY NAME  
PERMIT

# DONA QUEEN LEASE

## 85 ACRES±

### WELL NO. 4

WELL NO. 4  
STATE P NE COORDINATES  
NORTH ZONE (NAD '27)

N. 271,284  
E. 1,894,791

LAT=(N) 39.24424  
LONG=(W) 79.87147

UTM (NAD'83)  
N. 4,344,499  
E. 597,403

DOROTHY WOLFE  
146 ACRES±

DOROTHY WOLFE  
12 ACRES±

WILLARD McVICKER,  
ET UX  
84.82 ACRES±

FENCE POST  
(FOUND)

DONA QUEEN  
(LIFE)  
85 ACRES±

LAURA PRIHODA  
(LIFE)  
118 ACRES±

JERRY & MARLYN  
NEWLON  
94.28 ACRES±

FENCE POST  
(FOUND)

JULIAN MARK SAN  
85 ACRES±

HOVATTER FAMILY  
REV. LIVING  
85 ACRES±

NORTH

BIG

COVE

RUN

THERE APPEAR TO BE  
NO KNOWN PERMITTED  
WELLS WITHIN 2,400'.

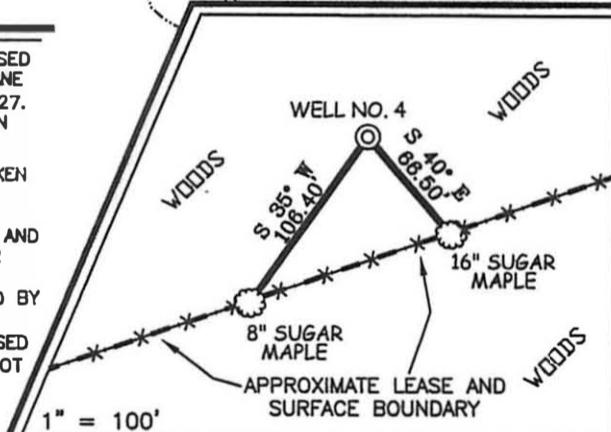
WELL NO. 4

2,400'

#### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11-12-09.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 204 PAGE 114.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).
6. ORIGINAL PLAT DATED 02/15/10 REVISED 11/17/10 TO UPDATE OWNERSHIP & SPOT CIRCLE INFORMATION & ADD UTM COORDINATES ETC.

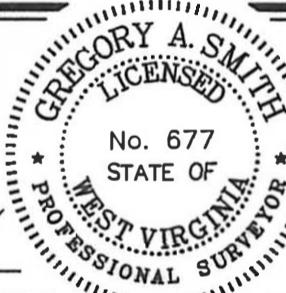
#### REFERENCES



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.

P.S.  
677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE NOVEMBER 17, 20 10

OPERATORS WELL NO. DONA QUEEN NO. 4

API WELL NO. 47-001-03201  
STATE            COUNTY            PERMIT           

**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 7348P4R (293-11)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,811' WATERSHED BIG COVE RUN  
DISTRICT COVE COUNTY BARBOUR QUADRANGLE COLE BANK 7.5'

SURFACE OWNER DONA QUEEN (LIFE) ACREAGE 85±  
ROYALTY OWNER DONA QUEEN (LIFE) LEASE ACREAGE 85±

PROPOSED WORK: LEASE NO.             
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY)            TARGET FORMATION ELK  
ESTIMATED DEPTH 6,120'

WELL OPERATOR TEXAS KEYSTONE, INC.  
ADDRESS 560 EPSILON DRIVE  
PITTSBURGH, PA 15238

DESIGNATED AGENT JON FARMER  
ADDRESS 139-B KILGORE ROAD  
SCOTT DEPOT, WV 25560

COUNTY NAME

PERMIT

# DONA QUEEN LEASE

## 85 ACRES±

### WELL NO. 5

WELL NO. 5  
STATE PLANE COORDINATES  
NORTH ZONE (NAD '27)  
N. 271,297  
E. 1,895,907  
LAT=(N) 39.24429  
LONG=(W) 79.86753  
UTM (NAD' 83)  
N. 4,344,508  
E. 597,743

WILLARD McVICKER,  
ET UX  
84.82 ACRES±

FENCE POST  
(FOUND)

DOROTHY  
WOLFE  
146 ACRES±

DOROTHY WOLFE  
12 ACRES±

DONA QUEEN  
(LIFE)  
85 ACRES±

LAURA PRIHODA  
(LIFE)  
118 ACRES±

JERRY & MARILYN  
NEWLON  
94.28 ACRES±

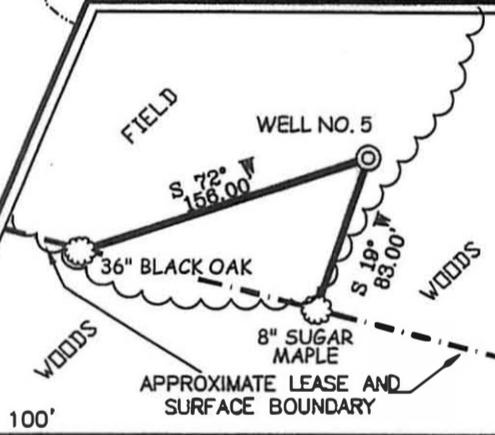
JULIAN MARK SAN  
85 ACRES±

HOVATTER FAMILY  
REV. LIVING  
85 ACRES±

#### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11-12-09.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 204 PAGE 114.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).
6. ORIGINAL PLAT DATED 02/15/10 REVISED 11/17/10 TO UPDATE OWNERSHIP & SPOT CIRCLE INFORMATION & ADD UTM COORDINATES ETC.

#### REFERENCES



THERE APPEAR TO BE NO KNOWN PERMITTED WELL WITHIN 2,400'.

WELL NO. 5

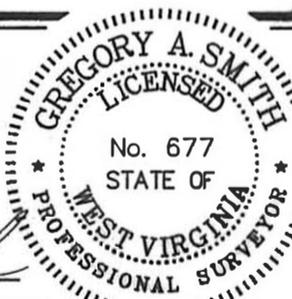
2400'

# SLS

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.

P.S.  
677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE NOVEMBER 17, 20 10

OPERATORS WELL NO. DONA QUEEN NO. 5

API WELL NO. 47-001-03202  
STATE COUNTY PERMIT

**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7348P5R (293-11)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,864' WATERSHED BIG COVE RUN

DISTRICT COVE COUNTY BARBOUR QUADRANGLE COLE BANK 7.5'

SURFACE OWNER DONA QUEEN (LIFE) ACREAGE 85±

ROYALTY OWNER DONA QUEEN (LIFE) LEASE ACREAGE 85±

PROPOSED WORK: LEASE NO. \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD

FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK

ESTIMATED DEPTH 6,170'

WELL OPERATOR TEXAS KEYSTONE, INC. DESIGNATED AGENT JON FARMER  
ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

COUNTY NAME

PERMIT

# DONA QUEEN LEASE

## 85 ACRES±

### WELL NO. 6

LATITUDE 39°15'00"

LONGITUDE 79°50'00"

WE NO. 6  
STATE PLANE COORDINATES  
NORTH ZONE (NAD'27)

N. 271,446  
E. 1,896,963

LAT=(N) 39.24471  
LONG=(W) 79.86380

UTM (NAD'83)  
N. 4,344,559  
E. 598,064

DOROTHY WOLFE  
146 ACRES±

DOROTHY WOLFE  
12 ACRES±

LAURA PRIHODA  
(LIFE)  
118 ACRES±

DONA QUEEN  
(LIFE)  
85 ACRES±

JERRY & MARILYN  
NEWLON  
94.28 ACRES±

JULIAN MARK SAN  
85 ACRES±

HOVATTER FAMILY  
REV. LIVING  
85 ACRES±

WILLARD McVICKER,  
ET UX  
84.82 ACRES±

FENCE POST  
(FOUND)

WITH ROAD

N 70°09' W  
3613.33'

S 83°48' E  
206.31'

S 38°28'16" E  
470.25'

N 84°28'27" W  
680.84'

N 82°28'27" W  
1488.84'

S 68°31'33" W  
385.54'

S 24°39'36" W  
294.76'

NORTH

BIG

COVE

RUN

THERE APPEAR TO BE  
NO KNOWN PERMITTED  
WELL WITHIN 2,400'.

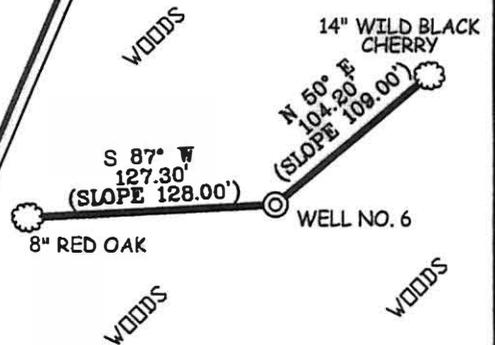
WELL NO. 6

2400'

#### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11-12-09.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 204 PAGE 114.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).
6. ORIGINAL PLAT DATED 02/15/10 REVISED 11/17/10 TO UPDATE OWNERSHIP & SPOT CIRCLE INFORMATION & ADD UTM COORDINATES ETC.

#### REFERENCES



1" = 100'



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.

P.S. 677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE NOVEMBER 17, 20 10

OPERATORS WELL NO. DONA QUEEN NO. 6

API WELL NO. 47 - 001 - 03203  
STATE COUNTY PERMIT

**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7348P6R (293-12)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,724' WATERSHED BIG COVE RUN

DISTRICT COVE COUNTY BARBOUR QUADRANGLE COLE BANK 7.5'

SURFACE OWNER DONA QUEEN (LIFE) ACREAGE 85±

ROYALTY OWNER DONA QUEEN (LIFE) LEASE ACREAGE 85±

PROPOSED WORK: LEASE NO. \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD

FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK

ESTIMATED DEPTH 6,030'

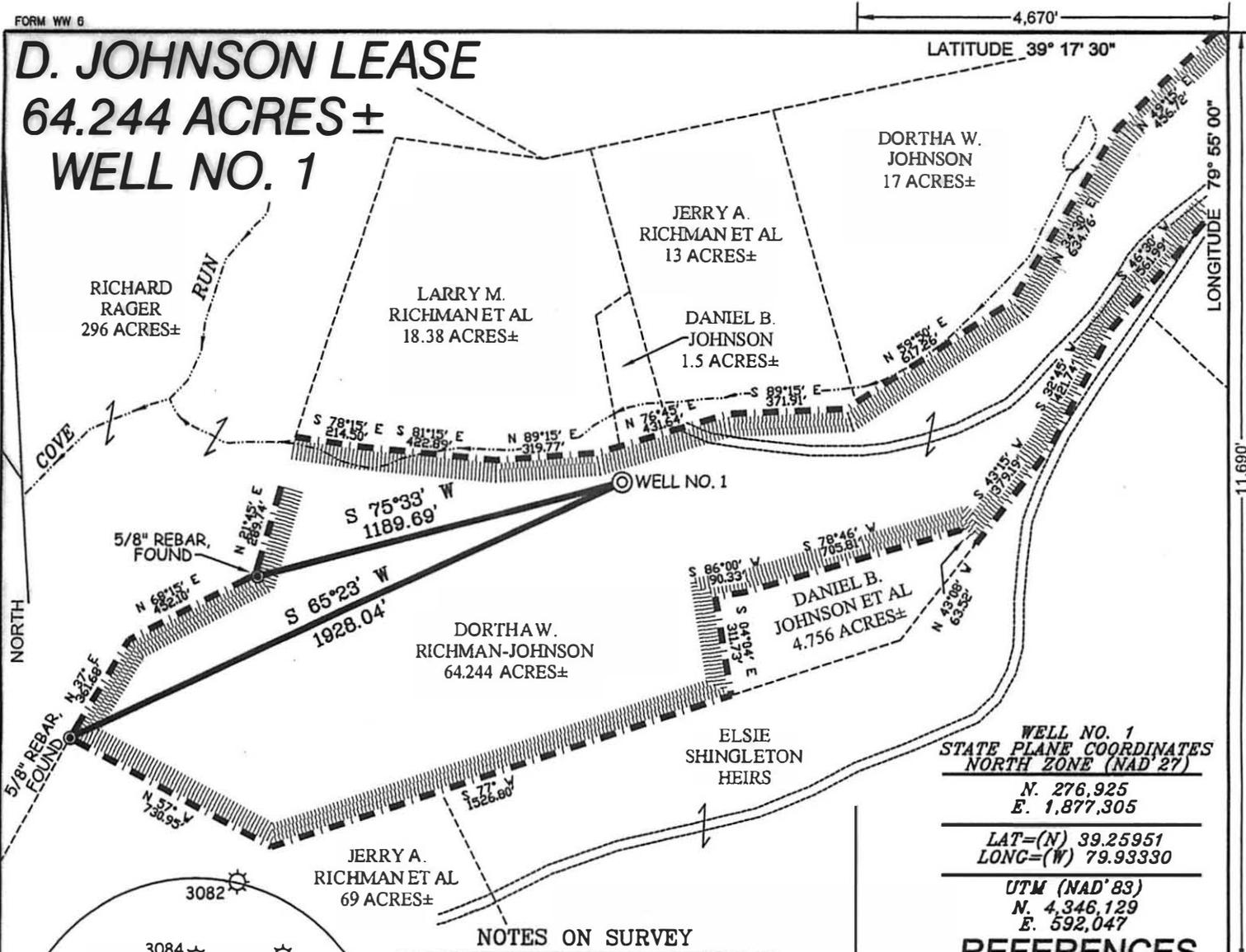
WELL OPERATOR TEXAS KEYSTONE, INC. DESIGNATED AGENT JON FARMER  
ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

COUNTY NAME PERMIT

# D. JOHNSON LEASE

## 64.244 ACRES±

### WELL NO. 1



LATITUDE 39° 17' 30"

LONGITUDE 79° 55' 00"

**WELL NO. 1**  
**STATE PLANE COORDINATES**  
**NORTH ZONE (NAD '27)**  
 N. 276,925  
 E. 1,877,305

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LAT=(N) 39.25951  
 LONG=(W) 79.93330

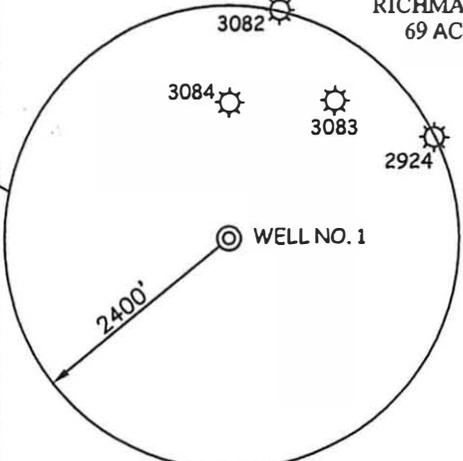
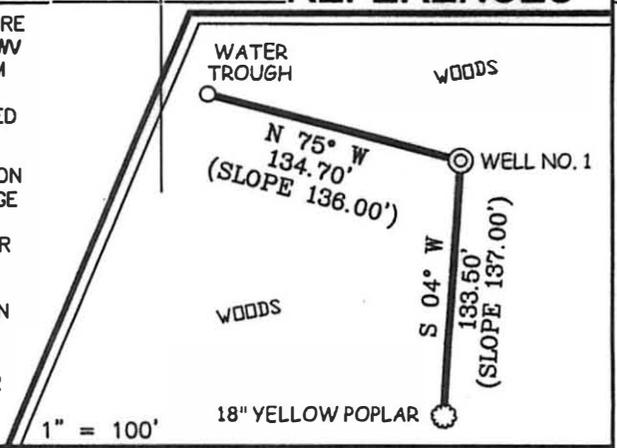
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UTM (NAD '83)  
 N. 4,346,129  
 E. 592,047

#### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 12/23/10.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 169 PAGE 316.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

#### REFERENCES



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOW EDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677  
*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE DECEMBER 27, 20 10  
 OPERATORS WELL NO. D. JOHNSON #1  
 API WELL NO. 47-001-03231  
 STATE COUNTY PERMIT  
**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7559P1 (319-79)  
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,619' WATERSHED TRIBUTARY OF COVE RUN  
 DISTRICT COVE COUNTY BARBOUR QUADRANGLE THORNTON 7.5'

SURFACE OWNER DORTHA W. RICHMAN-JOHNSON ACREAGE 64.244±  
 ROYALTY OWNER DORTHA W. RICHMAN-JOHNSON ET AL LEASE ACREAGE 64.244±

PROPOSED WORK: LEASE NO. \_\_\_\_\_  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION   
 PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK  
 ESTIMATED DEPTH 5,920'

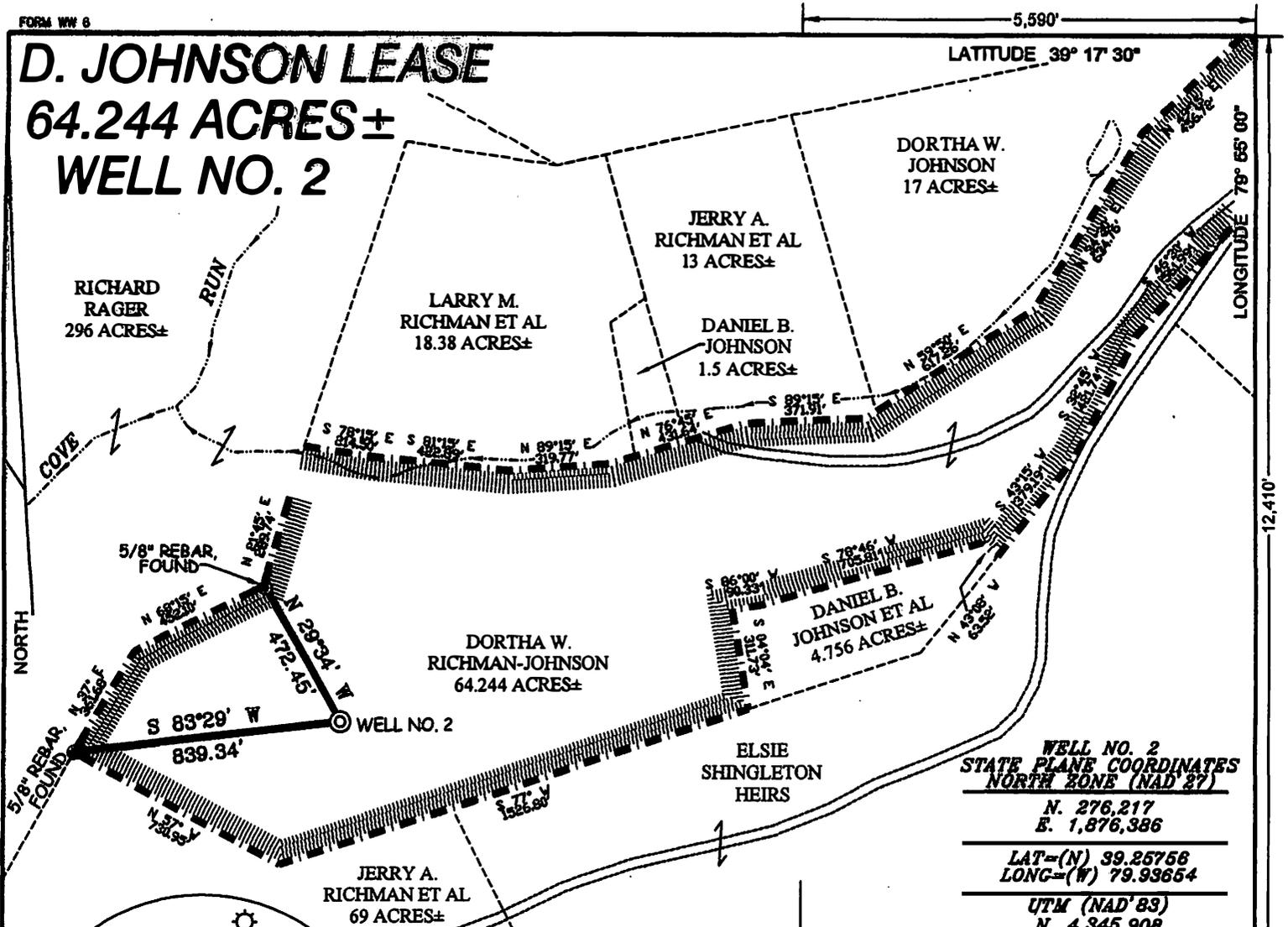
WELL OPERATOR TEXAS KEYSTONE, INC DESIGNATED AGENT JON FARMER  
 ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

COUNTY NAME  
 PERMIT

# D. JOHNSON LEASE

## 64.244 ACRES± WELL NO. 2

LATITUDE 39° 17' 30"



**WELL NO. 2  
STATE PLANE COORDINATES  
NORTH ZONE (NAD 27)**  
 N. 276,217  
 E. 1,876,386

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**LAT=(N) 39.29758  
LONG=(W) 79.93654**

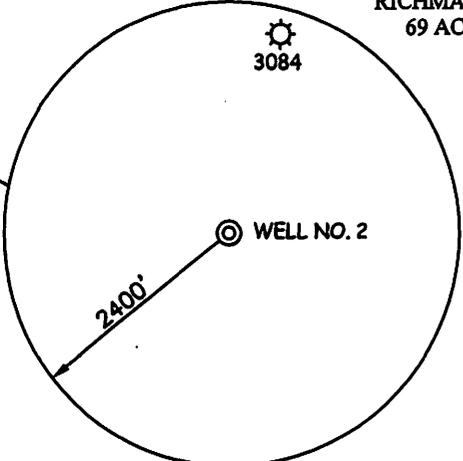
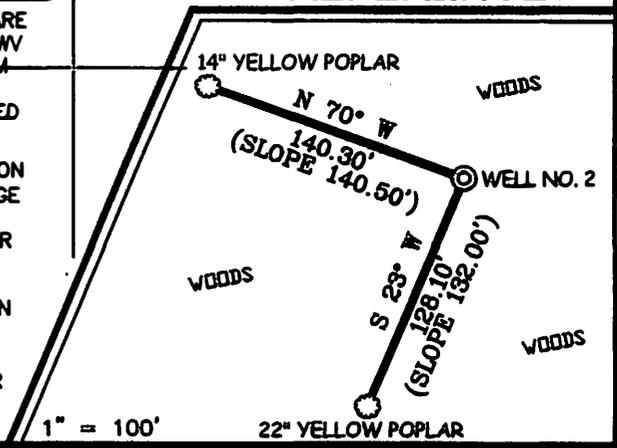
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**UTM (NAD 83)**  
 N. 4,345,908  
 E. 591,771

### NOTES ON SURVEY

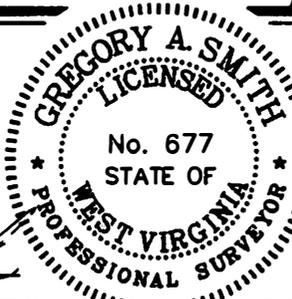
1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 12/23/10.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 169 PAGE 316.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

### REFERENCES



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.

P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE DECEMBER 27, 20 10  
 OPERATORS WELL NO. D. JOHNSON #2  
 API WELL NO. 47-001-03232  
 STATE            COUNTY            PERMIT             
**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7559P2 (319-77)  
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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



WELL TYPE: OIL  GAS  INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,733' WATERSHED TRIBUTARY OF COVE RUN  
 DISTRICT COVE COUNTY BARBOUR QUADRANGLE THORNTON 7.5'

SURFACE OWNER DORTHA W. RICHMAN-JOHNSON ACREAGE 64.244±  
 ROYALTY OWNER DORTHA W. RICHMAN-JOHNSON ET AL LEASE ACREAGE 64.244±

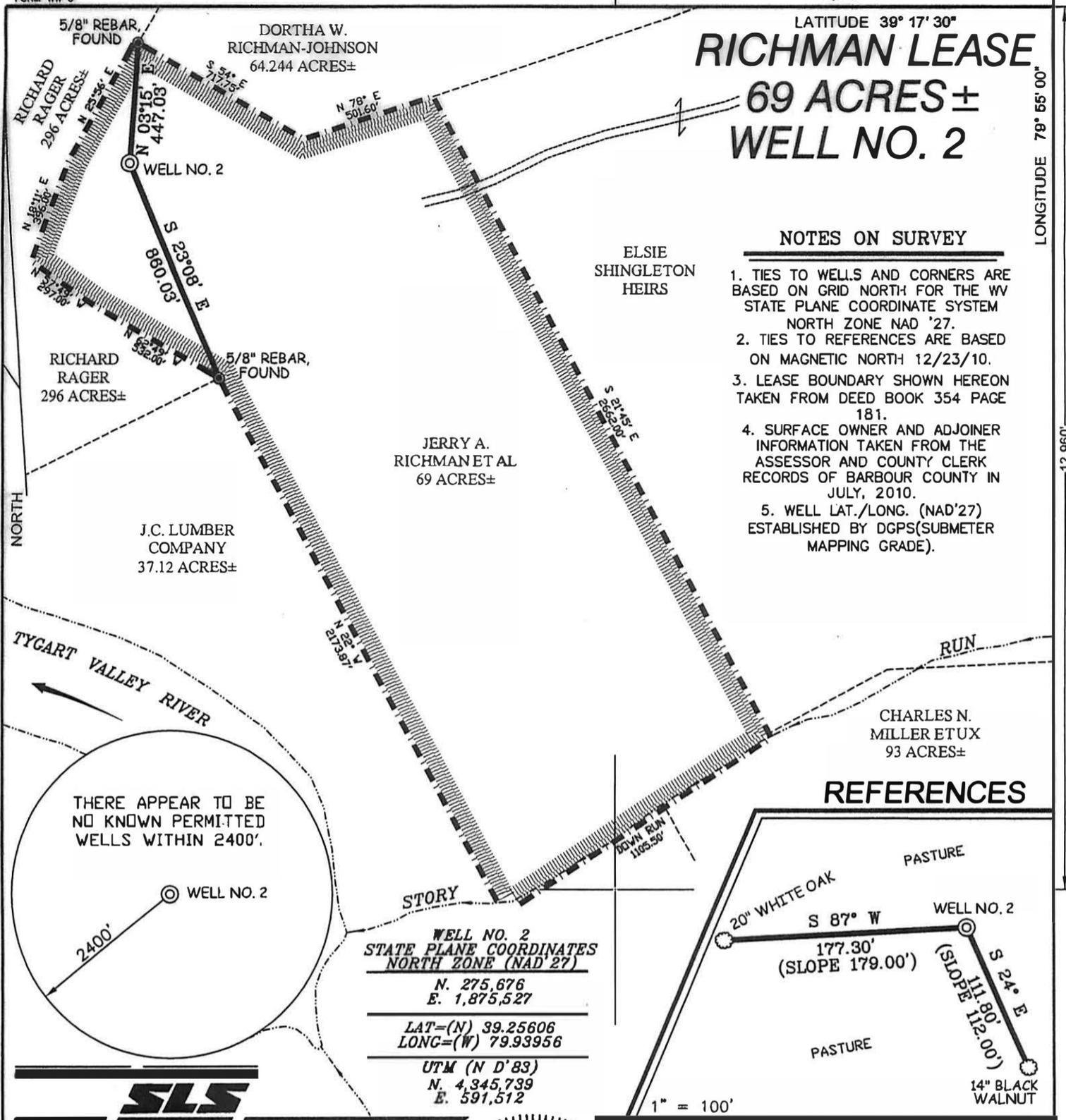
PROPOSED WORK: LEASE NO.             
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION   
 PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY)            TARGET FORMATION ELK  
 ESTIMATED DEPTH 6,040'

WELL OPERATOR TEXAS KEYSTONE, INC DESIGNATED AGENT JON FARMER  
 ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

COUNTY NAME  
PERMIT

# RICHMAN LEASE 69 ACRES ± WELL NO. 2



- NOTES ON SURVEY**
1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
  2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 12/23/10.
  3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 354 PAGE 181.
  4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
  5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

## REFERENCES

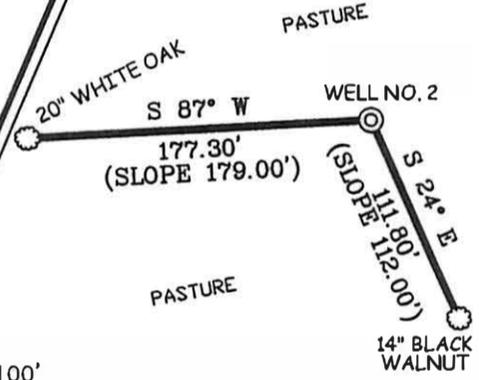
THERE APPEAR TO BE NO KNOWN PERMITTED WELLS WITHIN 2400'.

**WELL NO. 2  
STATE PLANE COORDINATES  
NORTH ZONE (NAD'27)**

N. 275,676  
E. 1,875,527

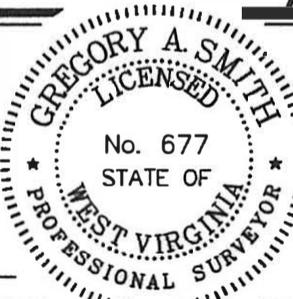
LAT=(N) 39.25606  
LONG=(W) 79.93956

UTM (N D'83)  
N. 4,345,739  
E. 591,512



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.

P.S. 677  
*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE DECEMBER 28, 20 10  
OPERATORS WELL NO. RICHMAN #2  
API WELL NO. 47 - 001 - 03233  
STATE            COUNTY            PERMIT             
**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7560P2 (319-78)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,641' WATERSHED COVE RUN OF TYGART VALLEY RIVER  
DISTRICT COVE COUNTY BARBOUR QUADRANGLE THORNTON 7.5'

SURFACE OWNER JERRY A. RICHMAN ET AL ACREAGE 69±  
ROYALTY OWNER JERRY A. RICHMAN ET AL LEASE ACREAGE 69±  
PROPOSED WORK: LEASE NO.           

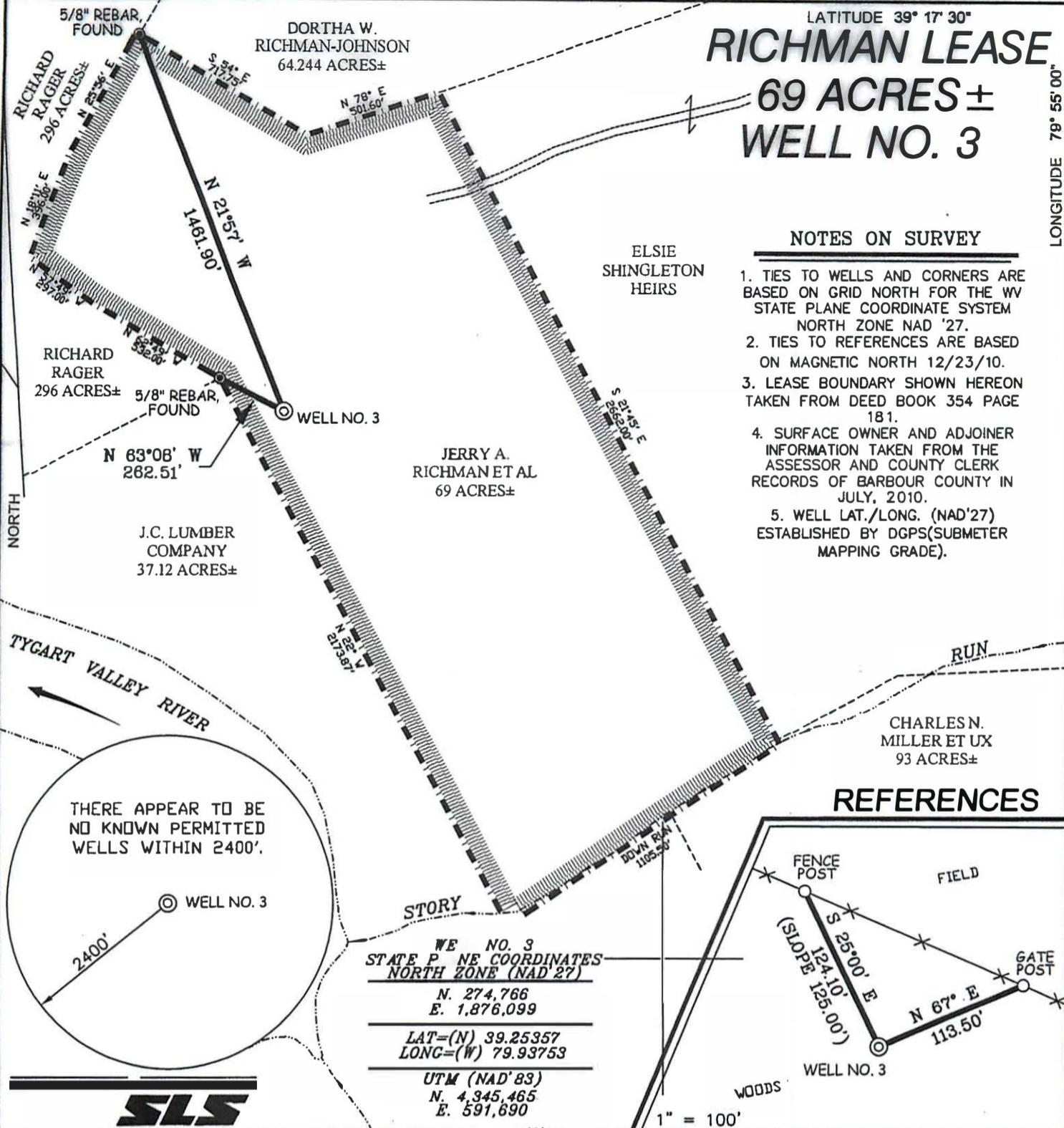
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY)            TARGET FORMATION ELK  
ESTIMATED DEPTH 5,950'

WELL OPERATOR TEXAS KEYSTONE, INC DESIGNATED AGENT JON FARMER  
ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

# RICHMAN LEASE

## 69 ACRES± WELL NO. 3



### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 12/23/10.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 354 PAGE 181.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

### REFERENCES

WE NO. 3  
STATE P. NE COORDINATES  
NORTH ZONE (NAD'27)

N. 274,766  
E. 1,876,099

LAT=(N) 39.25357  
LONG=(W) 79.93753

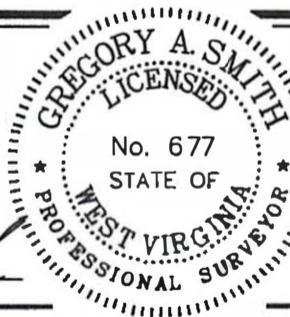
UTM (NAD'83)  
N. 4,345,465  
E. 591,690



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.

P.S.  
677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE DECEMBER 28, 20 10

OPERATORS WELL NO. RICHMAN #3

API WELL NO. 47 - 001 - 03234  
STATE COUNTY PERMIT

**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 7560P3 (319-77)

PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,609' WATERSHED TYGART VALLEY RIVER

DISTRICT COVE COUNTY BARBOUR QUADRANGLE THORNTON 7.5'

SURFACE OWNER JERRY A. RICHMAN ET AL ACREAGE 69±

ROYALTY OWNER JERRY A. RICHMAN ET AL LEASE ACREAGE 69±

PROPOSED WORK: LEASE NO. \_\_\_\_\_

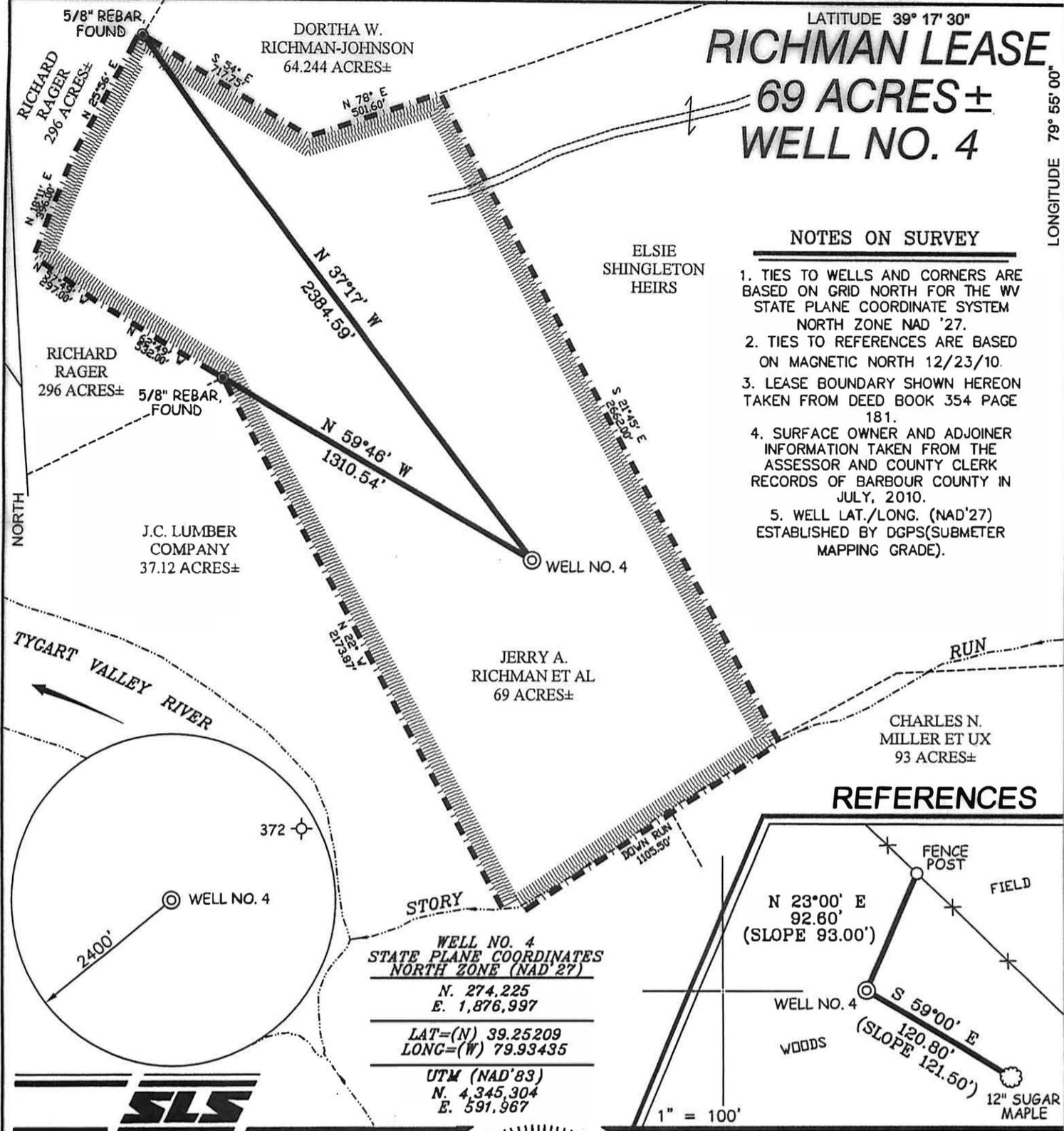
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK  
ESTIMATED DEPTH 5,910'

WELL OPERATOR TEXAS KEYSTONE, INC DESIGNATED AGENT JON FARMER  
ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

COUNTY NAME

PERMIT

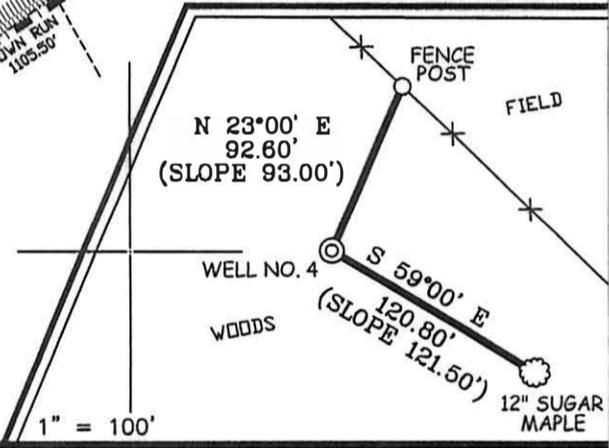


LATITUDE 39° 17' 30"  
**RICHMAN LEASE**  
**69 ACRES±**  
**WELL NO. 4**

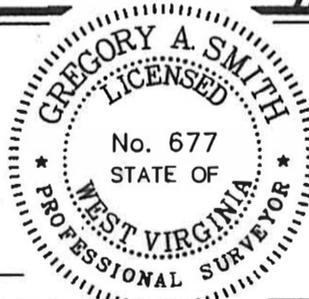
**NOTES ON SURVEY**

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 12/23/10.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 354 PAGE 181.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

**REFERENCES**



**WELL NO. 4**  
**STATE PLANE COORDINATES**  
**NORTH ZONE (NAD 27)**  
 N. 274,225  
 E. 1,876,997  
 LAT=(N) 39.25209  
 LONG=(W) 79.93435  
 UTM (NAD'83)  
 N. 4,345,304  
 E. 591,967



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.

P.S. 677  
*Gregory A. Smith*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE DECEMBER 28, 20 10  
 OPERATORS WELL NO. RICHMAN #4  
 API WELL NO. 47 - 001 - 03235  
 STATE COUNTY PERMIT  
**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7560P4 (319-77)  
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,573' WATERSHED TYGART VALLEY RIVER  
 DISTRICT COVE COUNTY BARBOUR QUADRANGLE THORNTON 7.5'

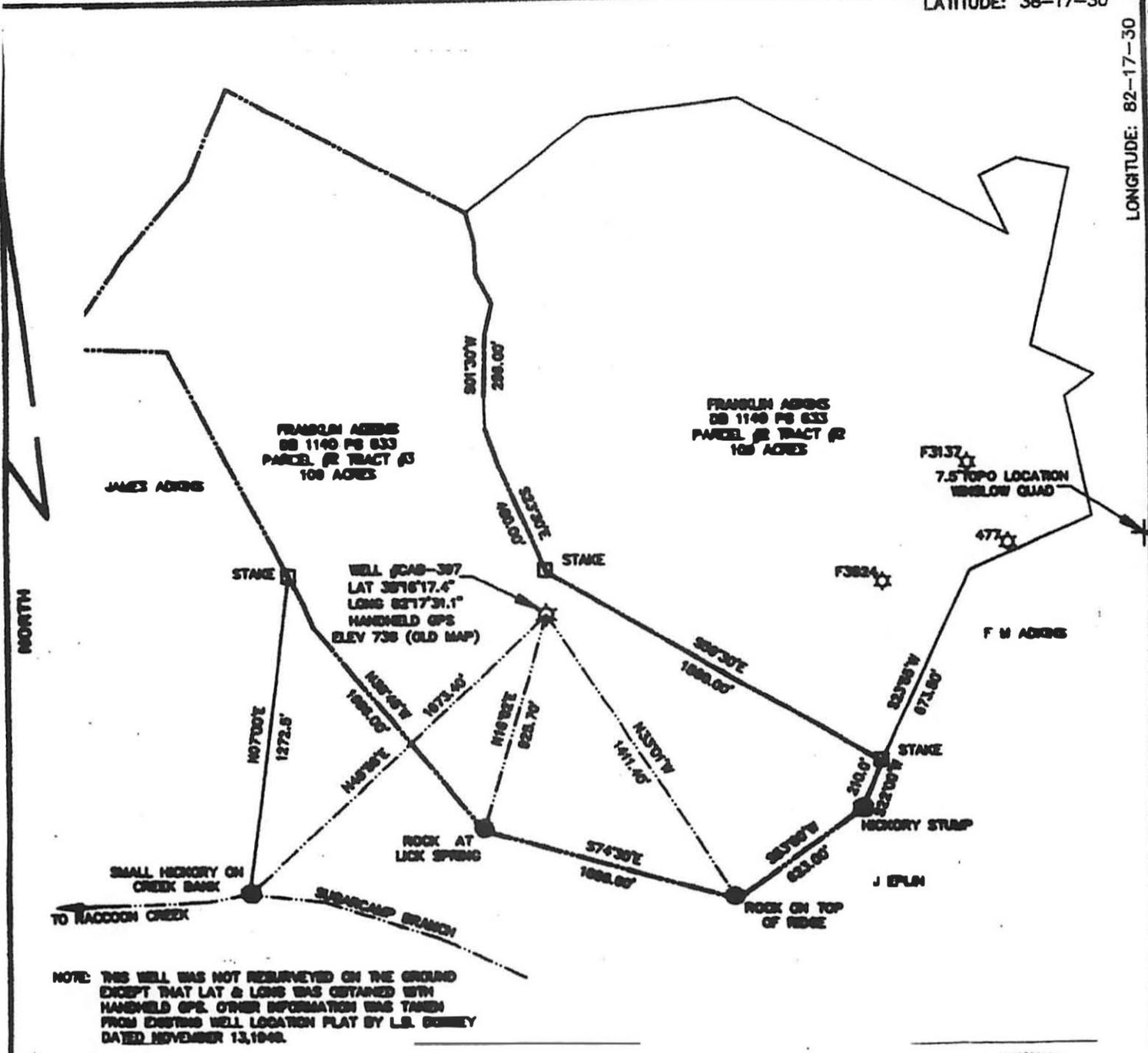
SURFACE OWNER JERRY A. RICHMAN ET AL ACREAGE 69±  
 ROYALTY OWNER JERRY A. RICHMAN ET AL LEASE ACREAGE 69±  
 PROPOSED WORK: LEASE NO. \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER \_\_\_\_\_

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK  
 ESTIMATED DEPTH 4,880'

WELL OPERATOR TEXAS KEYSTONE, INC DESIGNATED AGENT JON FARMER  
 ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25560

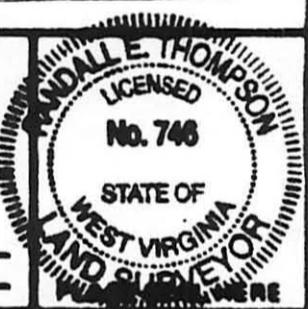




NOTE: THIS WELL WAS NOT RESURVEYED ON THE GROUND EXCEPT THAT LAT & LONG WAS OBTAINED WITH HANDHELD GPS. OTHER INFORMATION WAS TAKEN FROM EXISTING WELL LOCATION PLAT BY L.B. GIMNEY DATED NOVEMBER 13, 1948.

FILE NO. 1  
 DRAWING NO. 62007-1  
 SCALE 1"=600'  
 MINIMUM DEGREE OF ACCURACY 1:  
 PROVEN SOURCE OF ELEVATION EXISTING WELL LOCATION PLAT

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 AND REVENUE.  
 (SIGNED) [Signature]  
 R.P.E. \_\_\_\_\_ L.L.S.W. 746



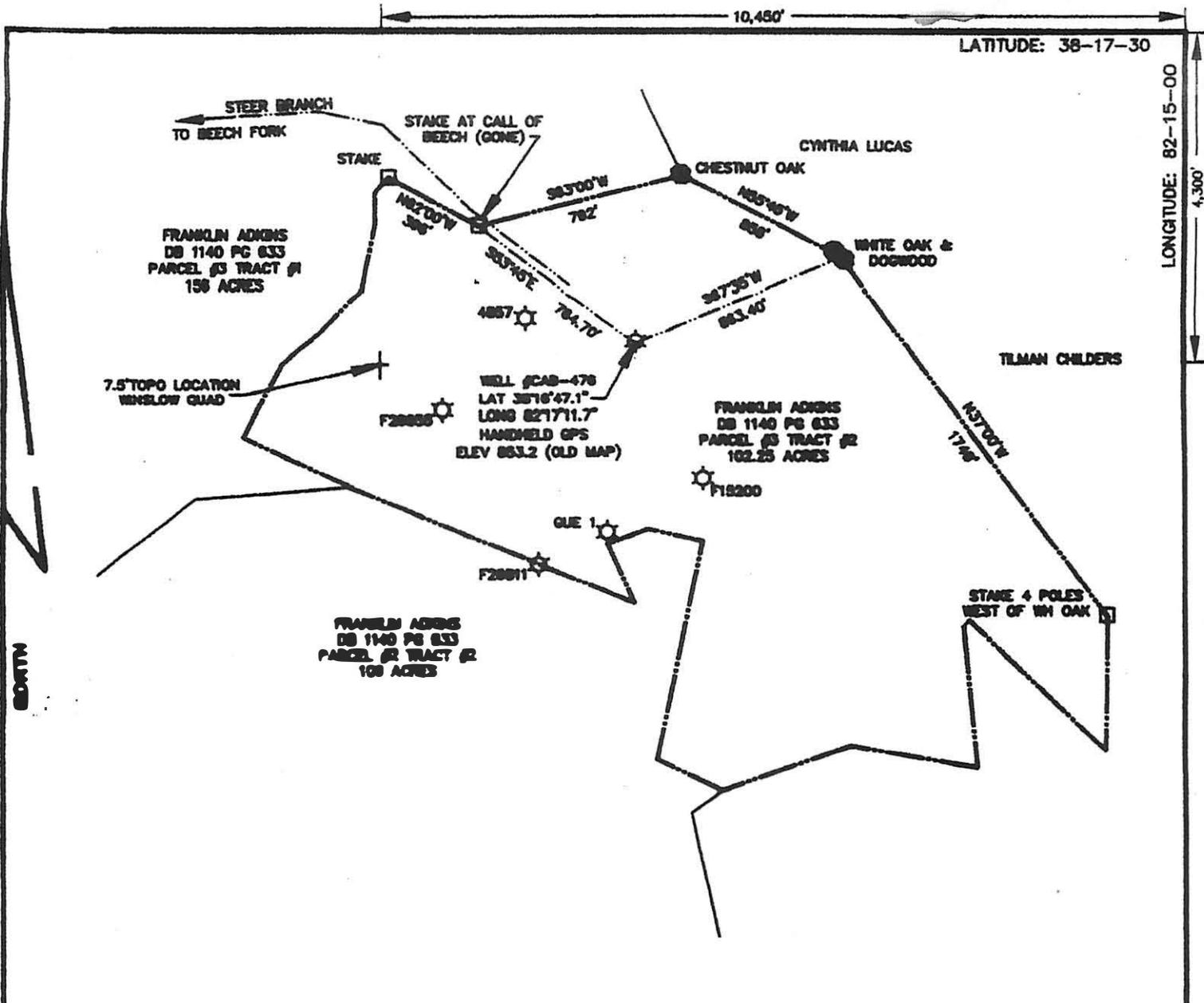
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-B  
 (8-78)



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

DATE 6-20-2007  
 OPERATOR'S WELL NO. 1  
 API WELL NO. CAS 397  
47-011-00397R  
 STATE COUNTY PERMIT  
**CANCELLED**

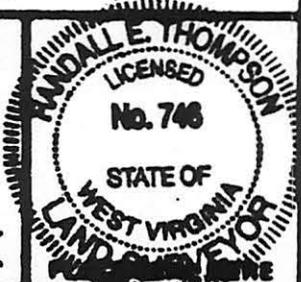
WELL TYPE: OIL    GAS    LIQUID INJECTION    WASTE DISPOSAL     
 (IF "GAS") PRODUCTION    STORAGE    DEEP    SHALLOW     
 LOCATION: ELEVATION 736.0 WATER SHED SUGARCAMP BRANCH OF RACCOON CREEK  
 DISTRICT MCCOMAS COUNTY CARRI  
 QUADRANGLE WINSLOW 7.5'  
 SURFACE OWNER FRANKLIN ADKINS ACREAGE 109  
 OIL & GAS ROYALTY OWNER FRANKLIN ADKINS LEASE ACREAGE 109  
 LEASE NO. DB 1140 PG 633 PARC #2 TRACT #3  
 PROPOSED WORK: DRILL    CONVERT    DRILL DEEPER    REDRILL    FRACTURE OR STIMULATE    PLUG OFF OLD FORMATION    PERFORATE NEW FORMATION    OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON    CLEAN OUT AND REPLUG     
 TARGET FORMATION DEVON SHALE ESTIMATED DEPTH 3100'  
 WELL OPERATOR FRANKLIN ADKINS DESIGNATED AGENT SAME  
 ADDRESS P.O. BOX 70 ADDRESS \_\_\_\_\_  
ONA, WV. 25545



NOTE: THIS WELL WAS NOT RESURVEYED ON THE GROUND EXCEPT THAT LAT & LONG WAS OBTAINED WITH HANDHELD GPS. OTHER INFORMATION WAS TAKEN FROM EXISTING WELL LOCATION PLAT

FILE NO. 2  
 DRAWING NO. 62007-2  
 SCALE 1" = 600'  
 MINIMUM DEGREE OF ACCURACY \_\_\_\_\_  
 PROVEN SOURCE OF ELEVATION EXISTING WELL LOCATION PLAT

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 AND GEOLOGICAL SURVEY.  
 SIGNED: Mandall E. Thompson  
 R.P.E. \_\_\_\_\_ L.L.S. WV 746



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

DATE 6-28-2007  
 OPERATOR'S WELL NO. 2  
 API WELL NO. CAB 476  
47-011-00476R  
 STATE COUNTY PERMIT

CANCELLED

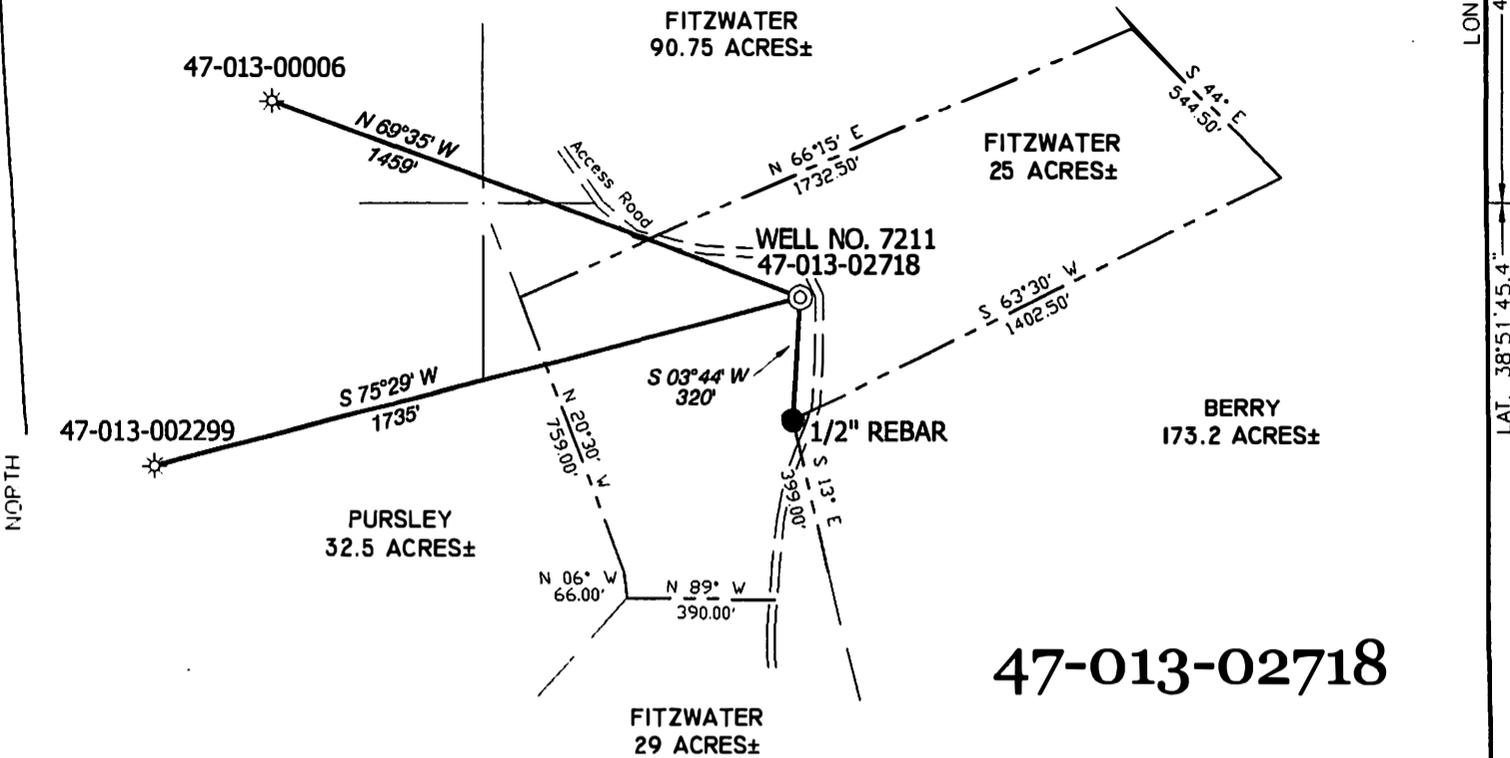
WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 853.2 WATER SHED STEER BRANCH OF BEECH FORK  
 DISTRICT McCOMAS COUNTY CABELL  
 QUADRANGLE WINSLOW 7.5'  
 SURFACE OWNER FRANKLIN ADKINS ACREAGE 102.25  
 OIL & GAS ROYALTY OWNER FRANKLIN ADKINS LEASE ACREAGE 102.25  
 LEASE NO. DB 1140 PG 633 PARC #3 TRACT #2  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUS OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUS   
 TARGET FORMATION DEVON. SHALE ESTIMATED DEPTH 3200'  
 WELL OPERATOR FRANKLIN ADKINS DESIGNATED AGENT SAME  
 ADDRESS P.O. BOX 79 ADDRESS \_\_\_\_\_  
ONA, WV 25545

# McCOY LEASE

# WELL NO.

## 25 AC±

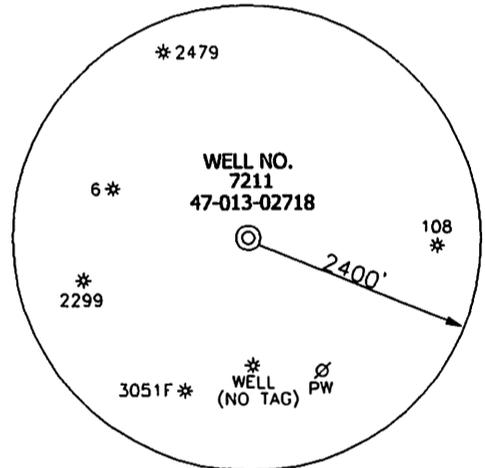
## 7211



### NOTES ON SURVEY

TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A WELL PLAT FOR WELL 47-013-02718 AND INFORMATION PROVIDED BY DOMINION EXPLORATION & PRODUCTION, INC. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF CALHOUN COUNTY IN APRIL, 2007 AND INFORMATION PROVIDED BY DOMINION EXPLORATION & PRODUCTION, INC. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

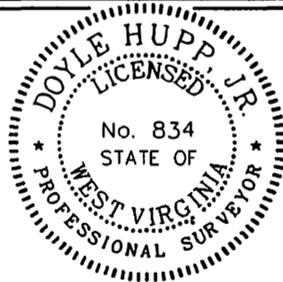
**WELL 7211**  
**STATE PLANE**  
**COORDINATES**  
**(N) 678289**  
**(E) 1954069**



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.

P.S 834

*Doyle Hupp Jr.*  
**HUPP Surveying & Mapping**  
 P.O. Box 647 Grantsville, WV 26147  
 (304) 354-7035 EMAIL: hupp@troniernet.net



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE MAY 24, 20 07

OPERATORS WELL NO. 7211

API WELL NO. 47-013-02718  
 STATE COUNTY PERMIT

### CANCELLED

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. W1607 (BK 30-25)  
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER GRADE) SCALE 1" = 50'

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



WELL TYPE : OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION :  
 ELEVATION 1,151' WATERSHED TRIBUTARY OF BARNES RUN  
 DISTRICT CENTER COUNTY CALHOUN QUADRANGLE ARNOLDSBURG 7.5'  
 SURFACE OWNER RICHARD FITZWATER ACREAGE 25±  
 ROYALTY OWNER JOHN I. McCOY HEIRS, et al LEASE ACREAGE 25±  
 PROPOSED WORK : LEASE NO. 039171  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AN" ABANDON  CLEAN OUT AND REPLUG  OTHER   
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION SQUAW  
 ESTIMATED DEPTH 2,270'

WELL OPERATOR DOMINION TRANSMISSION Inc. DESIGNATED AGENT JAMES BLASINGAME  
 ADDRESS 445 WEST MAIN STREET, CLARKSBURG, WV 26301 ADDRESS 445 WEST MAIN STREET, CLARKSBURG, WV 26301

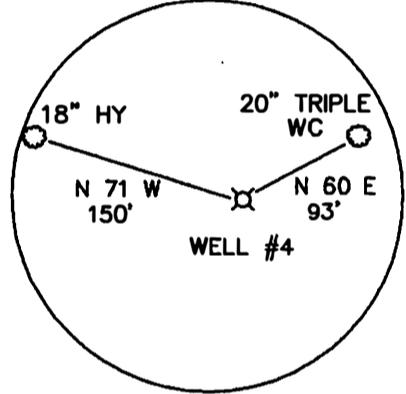
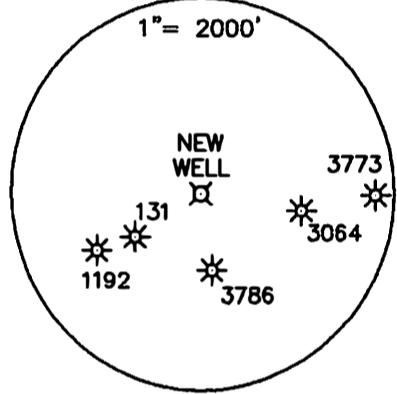
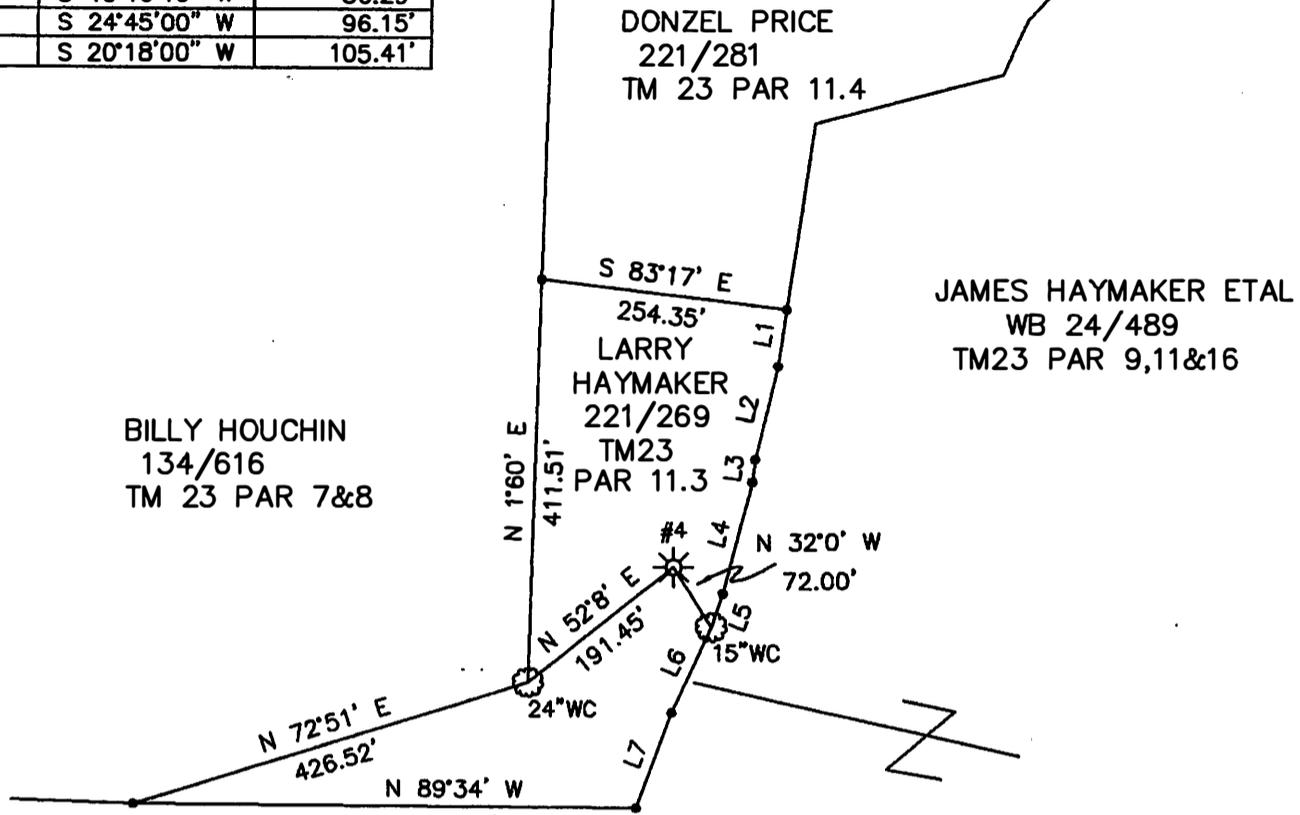
LONGITUDE 81°07'30" 4.580' LAT. 38°51'45.4" COUNTY NAME PERMIT

| LINE | BEARING       | DISTANCE |
|------|---------------|----------|
| L1   | S 08°37'00" W | 58.03'   |
| L2   | S 13°54'00" W | 97.43'   |
| L3   | S 06°46'00" W | 24.00'   |
| L4   | S 14°47'20" W | 119.08'  |
| L5   | S 19°46'10" W | 36.29'   |
| L6   | S 24°45'00" W | 96.15'   |
| L7   | S 20°18'00" W | 105.41'  |

LATITUDE 38°50'00"

LONGITUDE 81°07'30"

NORTH



STATE PLANE COOR.  
NAD 83  
N 655,494  
E 1,927,238

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. 08-61  
 SCALE 1"=200'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION 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 DEPARTMENT OF ENERGY.  
 (SIGNED) \_\_\_\_\_  
 R.P.E. \_\_\_\_\_ L.L.S. 851



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE 9/10, 2008  
 OPERATOR'S WELL NO. #4  
 API WELL NO. 47-013-04691  
 STATE CANCELLED COUNTY PERMIT

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

LOCATION: ELEVATION 772 WATER SHED WEST FORK OF LITTLE KANAWHA RIVER  
 DISTRICT LEE COUNTY CALHOUN  
 QUADRANGLE ARNOLDSBURG

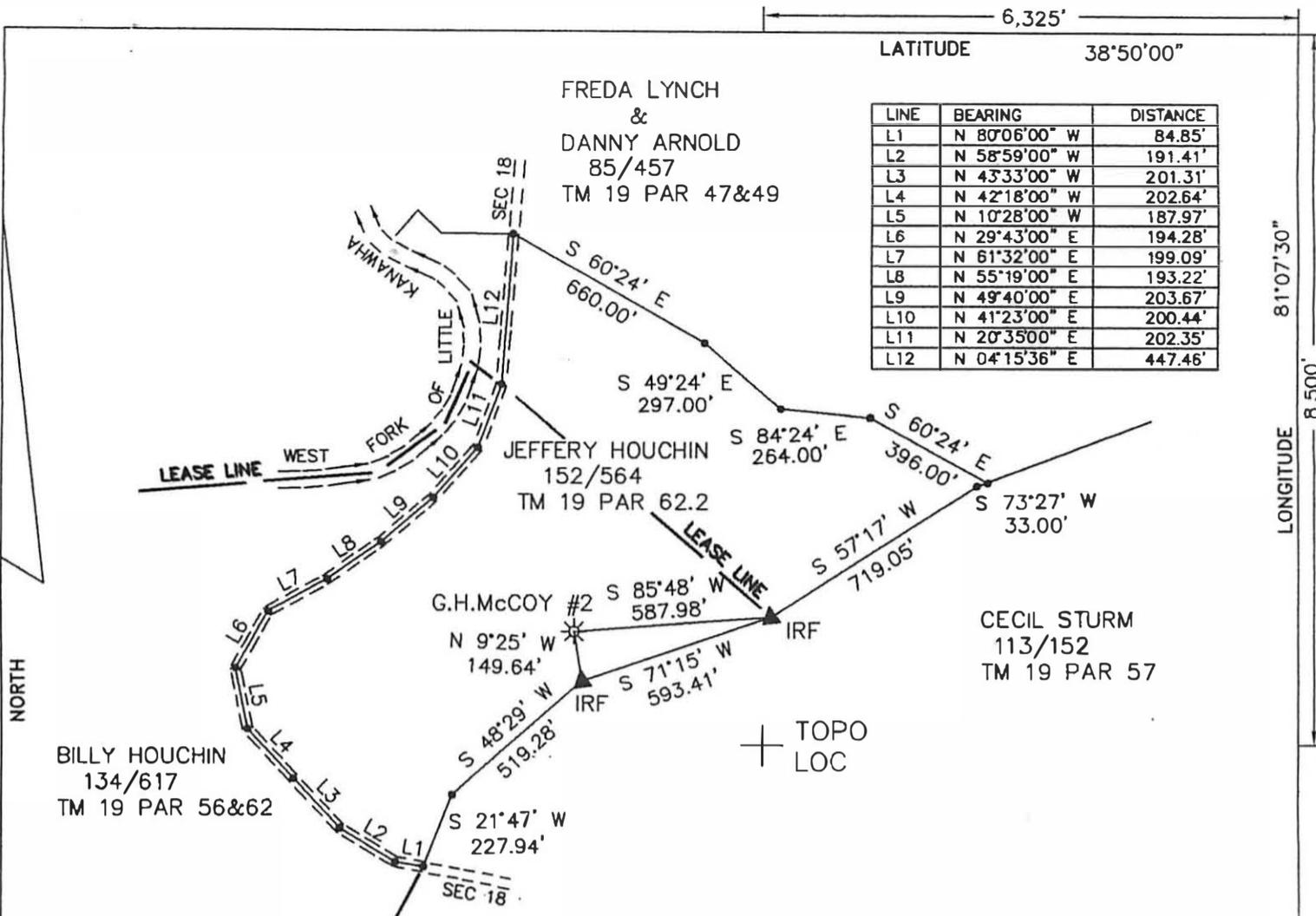
SURFACE OWNER LARRY HAYMAKER ACREAGE 3  
 OIL & GAS ROYALTY OWNER MOGENE C. HAYMAKER HEIRS LEASE ACREAGE 235.5  
 LEASE NO. \_\_\_\_\_

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

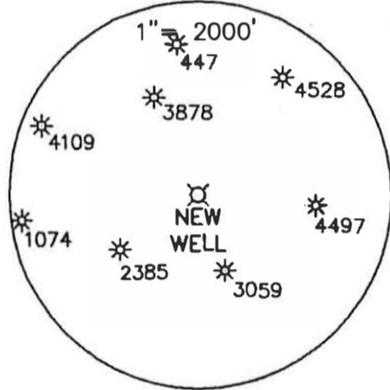
PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_

TARGET FORMATION BIG INDIAN ESTIMATED DEPTH 2200  
 WELL OPERATOR McINTOSH OIL & GAS INC. DESIGNATED AGENT JOE LYNCH  
 ADDRESS PO BOX 14 ADDRESS PO BOX 14  
ARNOLDSBURG, WV 25234 ARNOLDSBURG, WV 25234

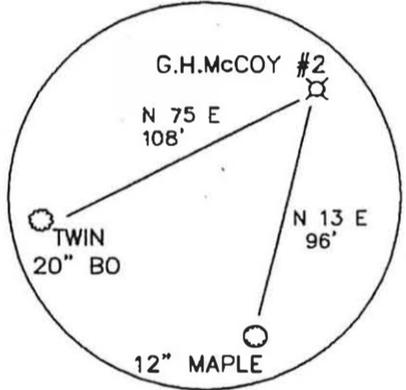




| LINE | BEARING       | DISTANCE |
|------|---------------|----------|
| L1   | N 80°06'00" W | 84.85'   |
| L2   | N 58°59'00" W | 191.41'  |
| L3   | N 43°33'00" W | 201.31'  |
| L4   | N 42°18'00" W | 202.64'  |
| L5   | N 10°28'00" W | 187.97'  |
| L6   | N 29°43'00" E | 194.28'  |
| L7   | N 61°32'00" E | 199.09'  |
| L8   | N 55°19'00" E | 193.22'  |
| L9   | N 49°40'00" E | 203.67'  |
| L10  | N 41°23'00" E | 200.44'  |
| L11  | N 20°35'00" E | 202.35'  |
| L12  | N 04°15'36" E | 447.46'  |



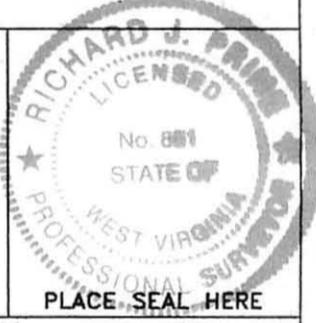
STATE PLANE COOR.  
 NAD 83  
 N 659,106  
 E 1,926,569



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. 08-63  
 SCALE 1"=500  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION 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 DEPARTMENT OF ENERGY.  
 (SIGNED) *Richard J. Prime*  
 R.P.E. \_\_\_\_\_ L.L.S. 851



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE 9/11, 20 08  
 OPERATOR'S WELL NO. G.H.McCOY #2  
 API WELL NO. 47-013-04693

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

LOCATION: ELEVATION 1005 WATER SHED \_\_\_\_\_ WEST FORK OF LITTLE KANAWHA RIVER  
 DISTRICT LEE COUNTY CALHOUN  
 QUADRANGLE ARNOLDSBURG

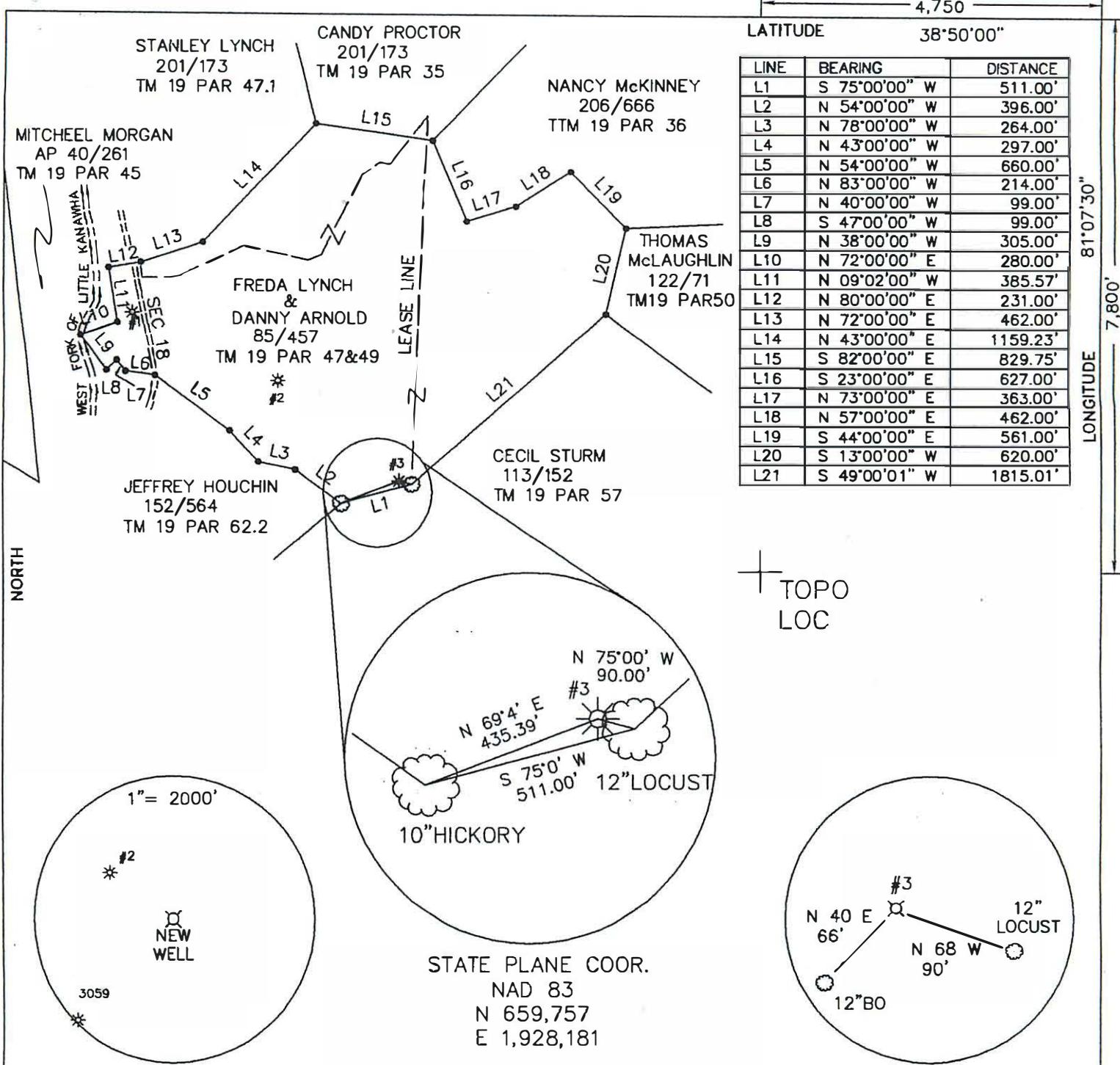
SURFACE OWNER JEFFERY HOUCHIN ACREAGE 38.63  
 OIL & GAS ROYALTY OWNER BILLY HOUCHIN LEASE ACREAGE 47.75  
 LEASE NO. \_\_\_\_\_

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

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_

TARGET FORMATION BIG INJUN ESTIMATED DEPTH 2100  
 WELL OPERATOR McINTOSH OIL & GAS, INC. DESIGNATED AGENT JOE LYNCH  
 ADDRESS PO BOX 14 ADDRESS PO BOX 14  
ARNOLDSBURG, WV 25234 ARNOLDSBURG, WV 25234

**CANCELLED**



TOPO  
 LOC

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. 08-62  
 SCALE 1"=1000'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION 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 DEPARTMENT OF ENERGY.  
 (SIGNED) \_\_\_\_\_  
 R.P.E. \_\_\_\_\_ L.L.S. 851



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE 9/11, 2008  
 OPERATOR'S WELL NO. #3  
 API WELL NO. 47-013-04694  
 STATE WEST VIRGINIA COUNTY LEE PERMIT CANCELLED

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

LOCATION: ELEVATION 1157 WATER SHED \_\_\_\_\_ WEST FORK OF LITTLE KANAWHA RIVER  
 DISTRICT LEE COUNTY CALHOUN  
 QUADRANGLE ARNOLDSBURG

SURFACE OWNER FREDA LYNCH & DANNY ARNOLD ACREAGE 150  
 OIL & GAS ROYALTY OWNER GEORGE L. LYNCH HEIRS LEASE ACREAGE 63.5  
 LEASE NO. \_\_\_\_\_

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

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION BIG INJUN ESTIMATED DEPTH 2200  
 WELL OPERATOR McINTOSH OIL & GAS, INC. DESIGNATED AGENT JOE LYNCH  
 ADDRESS PO BOX 14 ADDRESS PO BOX 14  
ARNOLDSBURG WV 25234 ARNOLDSBURG WV 25234



CANCELLED

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
**WELL LOCATION FORM: GPS**

API: 47-039-1452 P WELL NO.: 323  
FARM NAME: Williams Coal  
RESPONSIBLE PARTY NAME: Gary E. Acord  
COUNTY: Kanawha DISTRICT: Cabin Creek  
QUADRANGLE: Esk-dale  
SURFACE OWNER: Shonk Land Company  
ROYALTY OWNER: Shonk Land Company  
UTM GPS NORTHING: 4217971.976  
UTM GPS EASTING: 456341.618 GPS ELEVATION: 1370.58 feet

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:  
Survey grade GPS X : Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_  
Mapping Grade GPS \_\_\_\_\_ : Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Gary E. Acord  
Signature

ENGINEER  
Title

4/13/12  
Date



CANCELLED

West Virginia Department of Environmental Protection  
Office of Oil and Gas

WELL LOCATION FORM: GPS

REVISED  
GEA

API: 47-039-1453 WELL NO.: 324  
FARM NAME: Williams Coal  
RESPONSIBLE PARTY NAME: Gary E. Acord  
COUNTY: Kanawha DISTRICT: Cabin Creek  
QUADRANGLE: Sylvester  
SURFACE OWNER: Shonk Land Company  
ROYALTY OWNER: Shonk Land Company  
UTM GPS NORTHING: 4217745.327  
UTM GPS EASTING: 456107.759 GPS ELEVATION: 1404.10 feet

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:  
Survey grade GPS  : Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_  
Mapping Grade GPS \_\_\_\_\_ : Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Gary E. Acord  
Signature

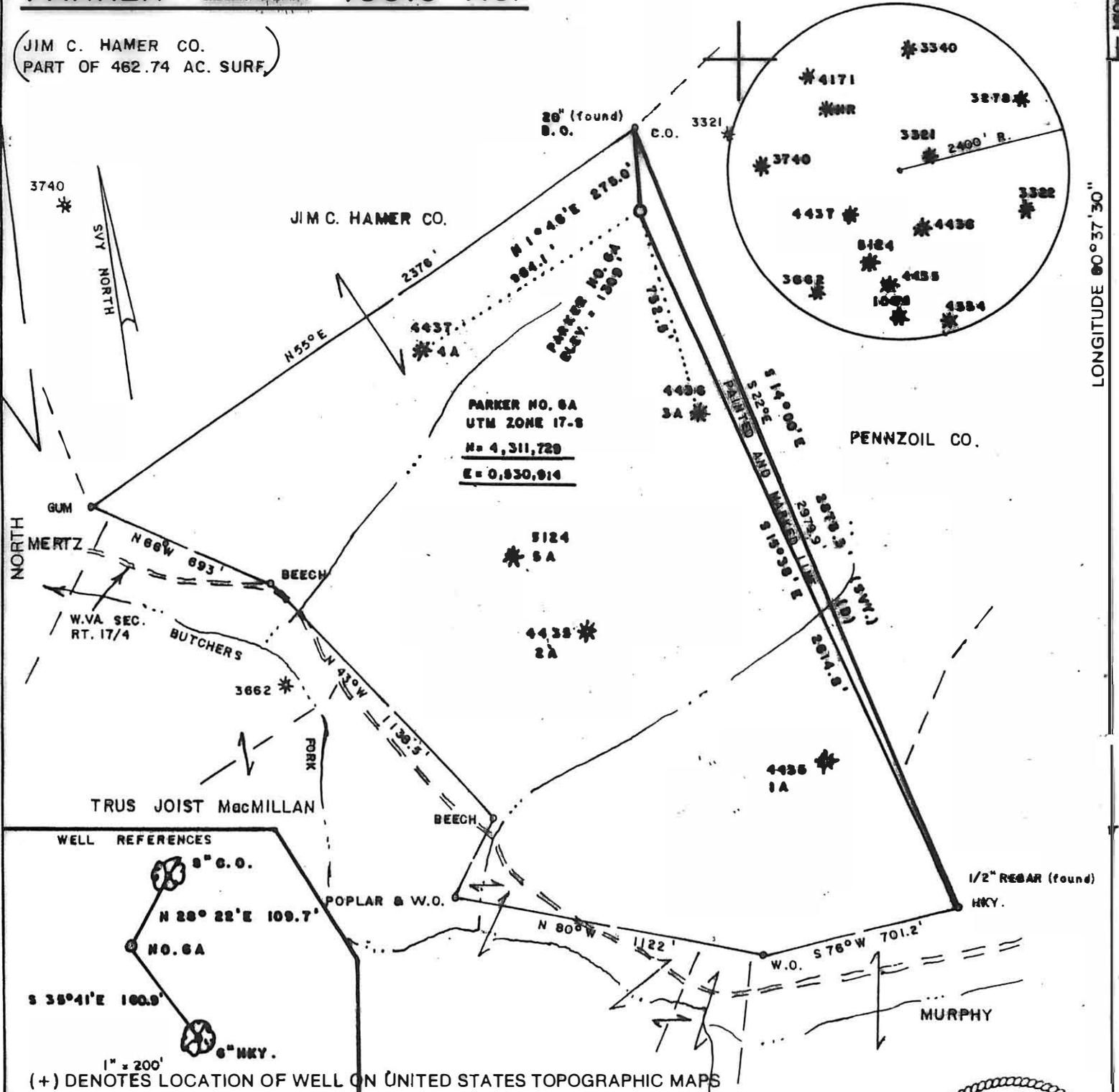
ENGINEER  
Title

6/07/12  
Date

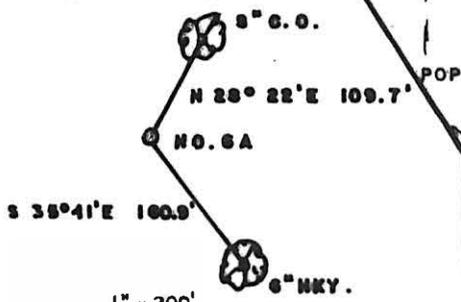
# PARKER LEASE 100.8 AC.

(JIM C. HAMER CO.  
PART OF 462.74 AC. SURF.)

LATITUDE 38° 57' 30"



**WELL REFERENCES**

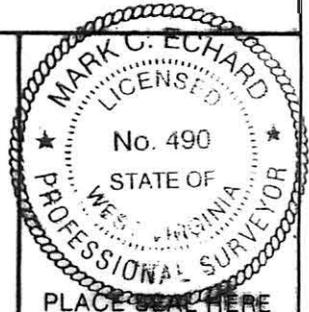


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION SPOT ELEV. N of LEASE  
 ELEV. = 1322'

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) Mark C. Echard  
 R.P.E. \_\_\_\_\_ I.L.S. NO. 490



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS



DATE APRIL 7, 2011  
 OPERATOR'S WELL NO. PARKER NO. 6-A  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
 LOCATION: ELEVATION 1309' WATERSHED BUTCHERS FORK OF SAND FORK  
 DISTRICT COURT HOUSE COUNTY LEWIS  
 QUADRANGLE GILMER 7.5'

SURFACE OWNER JIM C. HAMER CO. ACREAGE P/O 462.74 AC  
 OIL & GAS ROYALTY OWNER UNITED NATIONAL BANK LEASE ACREAGE 100.8

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

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION BENSON ESTIMATED DEPTH 5000'  
 WELL OPERATOR HORIZON ENERGY CORP. DESIGNATED AGENT ROBERT R. JONES II  
 ADDRESS SAND FORK ROAD BOX 111 ADDRESS SAND FORK ROAD BOX 111  
SAND FORK, WV 26430 SAND FORK, WV 26430

**CANCELLED**

LONGITUDE 80° 37' 30"

COUNTY NAME

PERMIT

CANCELLED

West Virginia Department of Environmental Protection  
Office of Oil & Gas

**WELL LOCATION FORM: GPS**

API: 47- 061 - 0879 f WELL NO: No.7

FARM NAME: M.E. Brookover

RESPONSIBLE PARTY NAME: East Resources, Inc.

COUNTY: Monongalia DISTRICT: Clay

QUADRANGLE: Grant Town 7.5'

SURFACE OWNER: Billy C. Haught

ROYALTY OWNER: East Resources, Inc. et al.

UTM GPS NORTHING: 4,384,776 (NAD 27)

UTM GPS EASTING: 564,883 (NAD 27) GPS ELEVATION: 400 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS  Post Processed Differential   
 Real-Time Differential

Mapping Grade GPS  Post Processed Differential   
 Real-Time Differential

RECEIVED  
Office of Oil & Gas  
NOV 22 2010  
WV Department of  
Environmental Protection

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Timothy P. Roush

Professional Surveyor

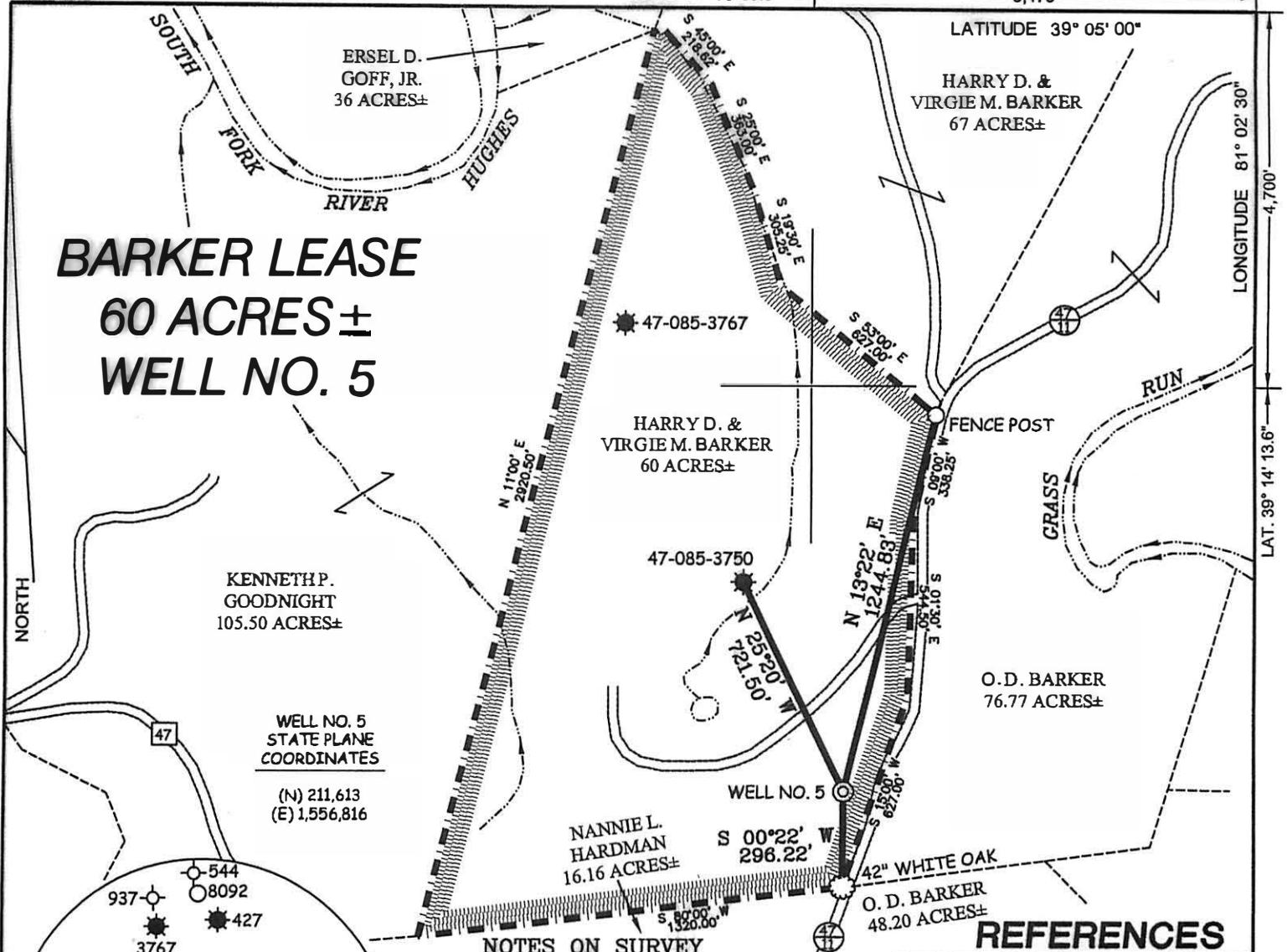
Signature

Title

November 17, 2010

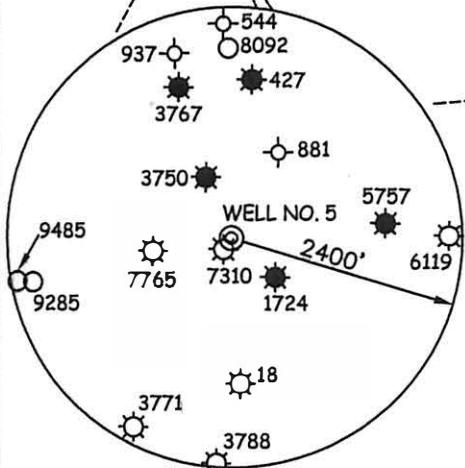
Date

# BARKER LEASE 60 ACRES± WELL NO. 5



WELL NO. 5  
STATE PLANE  
COORDINATES

(N) 211,613  
(E) 1,556,816



### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 07/22/09.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 153 PAGE 307.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF RITCHIE COUNTY IN JULY, 2009.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

### REFERENCES



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.

P.S.  
677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE JULY 28, 20 09  
 OPERATORS WELL NO. BARKER #5  
 API WELL NO. 47 - 085 - 09901  
 STATE COUNTY PERMIT  
**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 1788P5 (282-55)  
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION:  
 ELEVATION 899' WATERSHED SOUTH FORK OF HUGHES RIVER  
 DISTRICT MURPHY COUNTY RITCHIE QUADRANGLE SMITHVILLE 7.5'  
 SURFACE OWNER HARRY D. & VIRGIE M. BARKER ACREAGE 60±  
 ROYALTY OWNER H.D. BARKER LEASE ACREAGE 60±  
 PROPOSED WORK:  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD   
 FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK  
 ESTIMATED DEPTH 5,600'

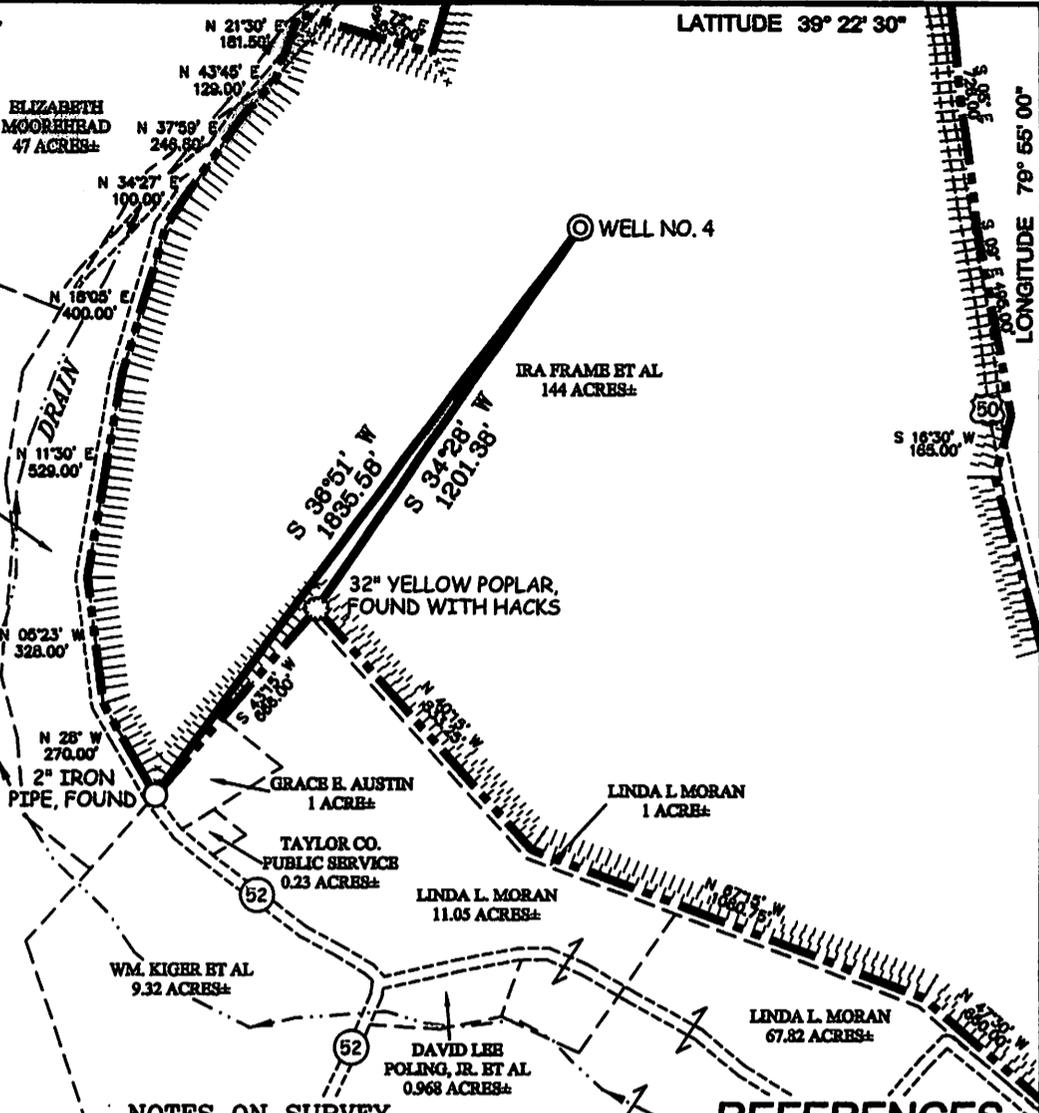
WELL OPERATOR MURVIN & MEIER OIL CO. DESIGNATED AGENT P. NATHAN BOWLES, JR.  
 ADDRESS P.O. BOX 396 ADDRESS P.O. BOX 1237  
OLNEY, IL 62450 CHARLESTON, WV 25325

COUNTY NAME PERMIT

# FRAME LEASE 144 ACRES ± WELL NO. 4

LATITUDE 39° 22' 30"

LONGITUDE 79° 55' 00"

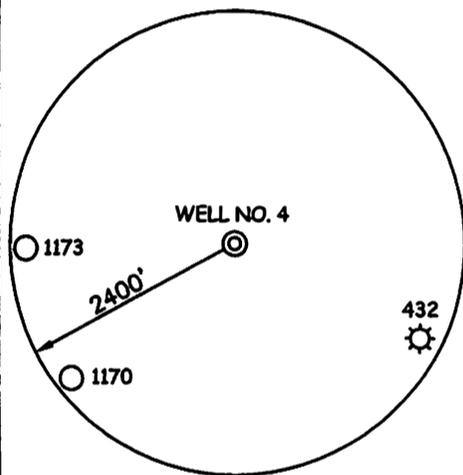


WELL NO. 4  
STATE PLANE COORDINATES  
NORTH ZONE (NAD 27)

N. 305,217  
E. 1,876,383

LAT=(N) 39.33718  
LONG=(W) 79.93705

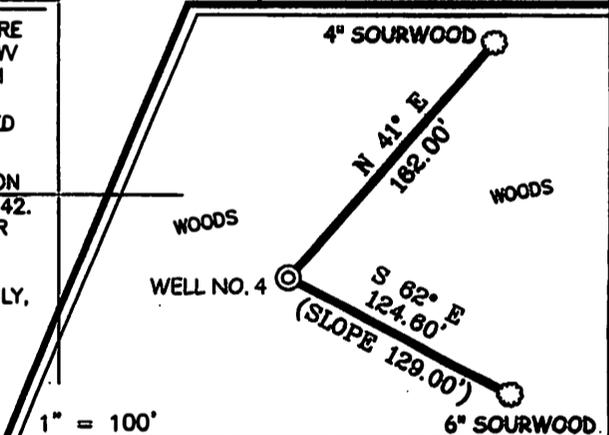
UTM (NAD'83)  
N. 4,354,744  
E. 591,823



### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORT FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 12/08/10.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 38 PAGE 42.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF TAYLOR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

### REFERENCES



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.

P.S.  
677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE DECEMBER 29, 20 10

OPERATORS WELL NO. FRAME #4

API WELL NO. 47 - 091 - 01218  
STATE COUNTY PERMIT

**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7572P4 (319-63)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,425' WATERSHED TRIBUTARY OF THREE FORK CREEK  
DISTRICT FETTERMAN COUNTY TAYLOR QUADRANGLE THORNTON 7.5'

SURFACE OWNER IRA FRAME ET AL ACREAGE 144±  
ROYALTY OWNER IRA FRAME ET AL LEASE ACREAGE 144±  
PROPOSED WORK: LEASE NO. \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER \_\_\_\_\_

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ELK  
ESTIMATED DEPTH 5,730'

WELL OPERATOR TEXAS KEYSTONE, INC DESIGNATED AGENT JON FARMER  
ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25580

COUNTY NAME  
PERMIT

# FRAME LEASE 144 ACRES± WELL NO. 5

LATITUDE 39° 22' 30"

5,920'

LONGITUDE 79° 55' 00"

ELIZABETH MOOREHEAD  
47 ACRES±

IRA FRAME ET AL  
144 ACRES±

DANIEL N. AUSTIN  
7.185 ACRES±

DANIEL N. AUSTIN  
280 ACRES±

32" YELLOW POPLAR,  
FOUND WITH HACKS

WELL NO. 5

WELL NO. 5  
STATE PLANE COORDINATES  
NORTH ZONE (NAD '27)

N. 304,084  
E. 1,876,171

LAT=(N) 39.33406  
LONG=(W) 79.93778

UTM (NAD '83)  
N. 4,354,397  
E. 591,564

2" IRON  
PIPE, FOUND

GRACE E. AUSTIN  
1 ACRE±  
TAYLOR CO.  
PUBLIC SERVICE  
0.23 ACRES±

LINDA L. MORAN  
1 ACRE±

LINDA L. MORAN  
11.05 ACRES±

WM. KIGER ET AL  
9.32 ACRES±

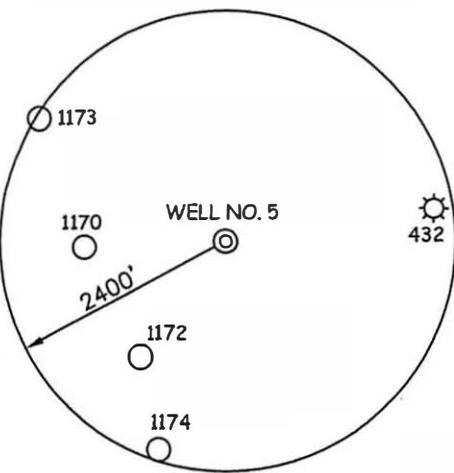
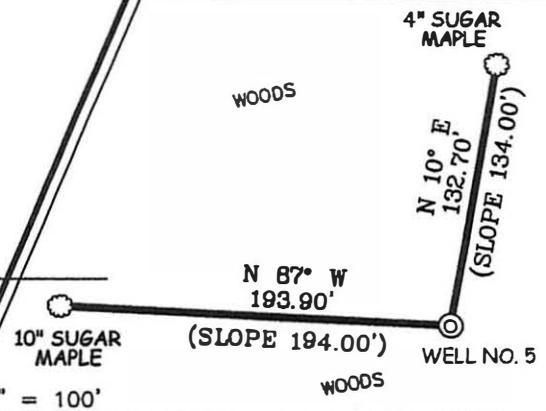
DAVID LEE  
POLING, JR. ET AL  
0.968 ACRES±

LINDA L. MORAN  
67.82 ACRES±

### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 12/08/10.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 38 PAGE 42.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF TAYLOR COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

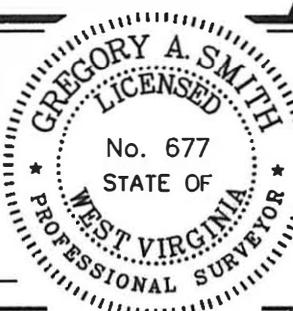
### REFERENCES



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.

P.S. 677

*Gregory A. Smith*



(F) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE DECEMBER 29, 20 10

OPERATORS WELL NO. FRAME #5

API WELL NO. 47 - 091 - 01219  
STATE            COUNTY            PERMIT           

**CANCELLED**

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7572P5 (319-63)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,530' WATERSHED TRIBUTARY OF THREE FORK CREEK  
DISTRICT FETTERMAN COUNTY TAYLOR QUADRANGLE THORNTON 7.5'

SURFACE OWNER IRA FRAME ET AL ACREAGE 144±  
ROYALTY OWNER IRA FRAME ET AL LEASE ACREAGE 144±

PROPOSED WORK: LEASE NO.             
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION   
PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY)            TARGET FORMATION ELK  
ESTIMATED DEPTH 5,840'

WELL OPERATOR TEXAS KEYSTONE, INC DESIGNATED AGENT JON FARMER  
ADDRESS 560 EPSILON DRIVE ADDRESS 139-B KILGORE ROAD  
PITTSBURGH, PA 15238 SCOTT DEPOT, WV 25680

COUNTY NAME  
PERMIT