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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

July 03, 2013

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-9100986, issued to ICG TYGART VALLEY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

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: J. SHARP 1  
Farm Name: SHARP, JONATHAN & LINDA  
**API Well Number: 47-9100986**  
**Permit Type: Plugging**  
Date Issued: 07/03/2013

1) Date June 14, 2013  
2) Operator's Well No. J. Sharp #1  
3) API Well No. 47-91 - 00986

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil \_\_\_ / Gas \_\_\_ / Liquid injection \_\_\_ / Waste disposal \_\_\_ /  
(If "Gas, Production \_\_\_ or Underground storage \_\_\_) Deep \_\_\_ / Shallow X

5) Location: Elevation 1563 Watershed Three Fork Creek  
District Knottsville County Taylor Quadrangle Thornton (638)

6) Well Operator ICG Tygart Valley, LLC 7) Designated Agent Charles E. Duckworth  
Address 2708 Cranberry Square Address 1200 Tygart Drive  
Morgantown, WV 26508 Grafton, WV 26354

8) Oil and Gas Inspector to be notified Name Joe McCourt  
Address P.O. Box 2657  
Buckhannon, WV 26201  
9) Plugging Contractor Name Coastal Drilling East, LLC  
Address 130 Meadows Ridge Road  
Mt. Morris, PA 15349

10) Work Order: The work order for the manner of plugging this well is as follows:

SEE EXHIBIT NO. 1 @ NO. 2

ALL CEMENT PLUGS MUST BE AT LEAST  
100' CLASS A CEMENT WITH NO MORE THAN  
3% CaCl<sub>2</sub> AND NO OTHER ADDITIVES.  
MAY USE 6% GEL BETWEEN PLUGS

Received  
JUN 26 2013  
Office of Oil and Gas  
WV Dept. of Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector JAMC Court Date 6-26-13

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**EXHIBIT NO. 1**

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From the experience and technology developed since 1970 in plugging oil and gas wells for mining through, ICG Tygart Valley, LLC will utilize one of the following two methods to plug all future wells.

**4 ½ VENT PIPE METHOD**

- a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below the lowest mineable coal seam.
- b) If abandoned well: clean out to first plug 200 feet below lowest mineable coal seam.
- c) Run 4 ½ casing from surface to a minimum of 200 feet below lowest minable coal seam and circulate 50/50 poz mix cement followed by expanding cement to surface. The expanding cement shall extend from a minimum of 200 feet below minable coal seam to a point 100 feet above.

The 4 ½ will remain open from surface to a minimum of 80 feet below that mineable coal seam.

**SOLID PLUG METHOD**

- a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below lowest minable coal seam.
- b) If abandoned well: clean out to first plug 200 feet below lowest minable coal seam.
- c) Circulate through tubing or drill steel an expanding cement plug from a minimum of 200 feet below minable coal seam to a point 100 feet above minable coal.

Circulate through tubing or drill steel ~~50/50~~ poz mix from 100 feet above coal seam to surface.

A monument will be installed with API No. and stating "solid plug".

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07/05/2013

Cleanout/Plugging Plan

- Day 1 – Move to site, rig up, mix mud, drill rathole
- Day 2 – Finish drilling rathole, start picking up 2 3/8" drill pipe and cleanout well with a 3 3/4" bit to total depth (T.D)
- Day 3 – Continue to pick up 2 3/8" drill pipe and cleanout to T.D.  
Trip out of the hole (T.O.H) with 2 3/8" drill pipe.
- Day 4 – Run cement bond log on 4 1/2" casing, (calculations reached from the cement information taken from the report indicate the estimated top of the cement on the outside of the 4 1/2" is 3,191'), perforate/cut 4 1/2" casing every 100' from 5,137' to 3,291'. Total shots needed 120.
- Day 5 – Trip in hole (T.I.H) with 2 3/8" drill pipe to T.D. Cement hole from 5,239' back to 3,191 with 160 sacks of Class A Cement with a gas blocker additive. Circulate hole, condition mud, T.O.H.
- Day 6 – T.I.H with 3 3/4" bit to tag top of cement plug. T.O.H, T.I.H with 4 1/2" pressure pipe cutter, cut 4 1/2" casing just above top of bonded casing at 3,185'. Lay down 2 3/8" drill pipe.
- Day 7 – Continue to lay down 2 3/8" drill pipe. Rig up 4 1/2" casing spear. Hook to 4 1/2" casing at the surface, release slips from wellhead and attempt work 4 1/2" casing free to 3,185'. Lay down 4 1/2" casing.
- Day 8 – Rig up 7 7/8" bit. Pick up drill collars and drill pipe, start cleaning hole to top of remaining 4 1/2" casing at 3,185'.
- Day 9 – Continue to clean hole with 7 7/8" bit to top of remaining 4 1/2" casing at 3,185'. Circulate hole. T.O.H with 7 7/8" bit. T.I.H with open ended 3 1/2" drill pipe.
- Day 10 – Cement hole from 3,191 to within 50' of bottom of 8 5/8" casing at 1,031 with 1000 gallons of mud flush and 500 sacks of Class A cement with 4% gel. Circulate hole and condition mud. T.O.H Log hole (Caliper, Natural Gamma, Directional and Bond logs). Calculations reached from the cement information taken from the report indicates that the 8 5/8" casing was cemented to surface.
- Day 11 – T.I.H with 8 5/8" pressure pipe cutter. Cut 8 5/8" casing every 100' from 891' to 381' (6 cuts total). T.O.H w/ 8 5/8" cutter. T.I.H with 8 5/8" section mill. Section mill 30' window in 8 5/8" casing through coal seam.
- Day 12 – Continue to section mill 8 5/8" casing through coal seam.
- Day 13 – Finish section milling 8 5/8" casing. T.O.H with 8 5/8" section mill. T.I.H with 7 7/8" bit.
- Day 14 – Clean hole with 7 7/8" bit to top of cement plug at 1,031'. Circulate hole at 1,031'. T.O.H with 7 7/8" bit. Run caliper log to verify window and cuts in 8 5/8" casing.

Lay down drill collars and fishing tools. Prepare to cement hole to surface.

- Day 15 – Cement hole from 1,031' to surface using 180 sacks of Class A cement with 4% gel and 120 sacks of Thixotropic cement with green dye. Clean out mud tank. Rig down equipment and prepare to move rig to next site.

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JUN 26 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

BRILLING - EAST 07/05/2013  
2

WELL NAME: J. Sharp #1  
API NUMBER: P# 0986 - Taylor  
AFE NUMBER: 96022

DATE: 8/28/96

ZONES STIMULATED

NO. OF STAGES 2

1) Benson

2) Riley

PERFORATIONS:

16 HOLES FROM		4526 TO		4528	
<u>20</u>	"	<u>4150</u>	"	<u>4160</u>	"
_____	"	_____	"	_____	"
_____	"	_____	"	_____	"
_____	"	_____	"	_____	"
_____	"	_____	"	_____	"
_____	"	_____	"	_____	"

POTENTIAL-ZONES

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

CASED HOLE TD 4590 FT.  
LOGGERS TD 4686 FT.  
DRILLERS TD 4689 FT.

SURFACE

SURFACE CASING

8 1/2" @ 1113 FT.  
285 SKS. CEMENT

P  
R  
O  
D  
U  
C  
T  
I  
O  
N  
C  
S  
G

2630 FT. CEMENT TOP

PACKER INFORMATION:

TYPE \_\_\_\_\_  
DEPTH \_\_\_\_\_ FT.

TBG. SIZE \_\_\_\_\_ IN.  
@ \_\_\_\_\_ FT.

PRODUCTION CASING

4 1/2" CSG. @ 4648 FT.  
310 SKS. CEMENT  
93 BBL SLURRY

Received

JUN 26 2013

9100986 P

WW-4A  
Revised 6-07

1) Date: June 14, 2013  
2) Operator's Well Number  
J. Sharp #1  
3) API Well No.: 47 - 91 - 00986

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Jonathan E. &amp; Linda J. Sharp</u>	Name <u>CoalQuest Development, LLC</u>
Address <u>RR 1, Box 482</u>	Address <u>2708 Cranberry Square</u>
<u>Grafton, West Virginia 26354</u>	<u>Morgantown, West Virginia 26508</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector _____	(c) Coal Lessee with Declaration
Address _____	Name _____
Telephone _____	Address _____

**TO THE PERSONS NAMED ABOVE:** You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator ICG Tygart Valley, LLC  
 By: Charles E. Duckworth  
 Its: Designated Agent  
 Address 2708 Cranberry Square  
Morgantown, West Virginia 26508  
 Telephone (304) 594-1616



Subscribed and sworn before me this 21 day of June 2013  
Thomas Gregory Nair  
My Commission Expires December 22, 2019



**Oil and Gas Privacy Notice**

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

07/05/2013

9100986A

WW-4B

API No. 47-91-00986

Farm Name Jonathan and Linda Sharp

Well No. J. Sharp #1

### INSTRUCTIONS TO COAL OPERATORS OWNERS AND LESSEE

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

### WAIVER

The undersigned coal operator X / owner      / lessee      / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: June 17, 2013

CoalQuest Development LLC

By: [Signature]  
Its Jon's. Moetz  
Secretary

Received  
JUN 26 2013  
Office of Oil and Gas  
WV Dept. of Environmental Protection

07/05/2013



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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name ICG Tygart Valley, LLC OP Code \_\_\_\_\_

Watershed Three Fork Creek Quadrangle Thornton (638) 638

Elevation 1563 County Taylor 91 District Knottsville 06

Description of anticipated Pit Waste: N/A

Will a synthetic liner be used in the pit? N/A

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Tanks - See attached letter)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain \_\_\_\_\_)
- Swabbing
- Plugging

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

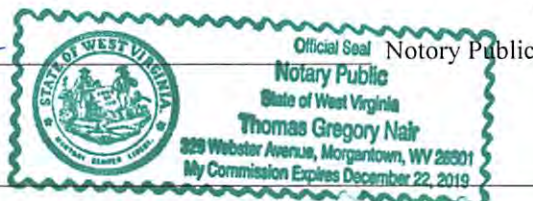
Company Official Signature [Signature]

Company Official (Typed Name) Charles E. Duckworth

Company Official Title Designated Agent

Subscribed and sworn before me this 21 day of June, 2013

[Signature]



My commission expires \_\_\_\_\_

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JUN 26 2013  
Office of Oil and Gas  
WV Dept. of Environmental Protection  
07/05/2013

**LEGEND**

- Property Boundary
- Road
- Existing Fence
- Planned Fence
- Stream
- Open Ditch
- Rock
- North
- Buildings
- Water wells
- Drill site

- Diversion
- Spring
- Wet Spot
- Drain Pipe with size in inches
- Waterway
- Cross Drain
- Artificial Filter Strip
- Pit: cut walls
- Pit: compacted fill walls
- Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1.00 Prevegetation pH \_\_\_\_\_  
 Lime 3 Tons/acre or to correct to pH 6.5  
 Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)  
 Mulch Hay Bales Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	12	Orchard Grass	12
Landino Clover	3	Landino Clover	3
Timothy	10	Timothy	10

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by JAM<sup>c</sup> Court  
 Comments: Ed S controls in place at all times and before rig arrives.

Title: Inspector Date: 6-25-13  
 Field Reviewed? ( ) Yes (  ) No

**Received**  
 JUN 26 2013  
 Office of Oil and Gas  
 and Dept. of Environmental Protection  
 07/05/2013

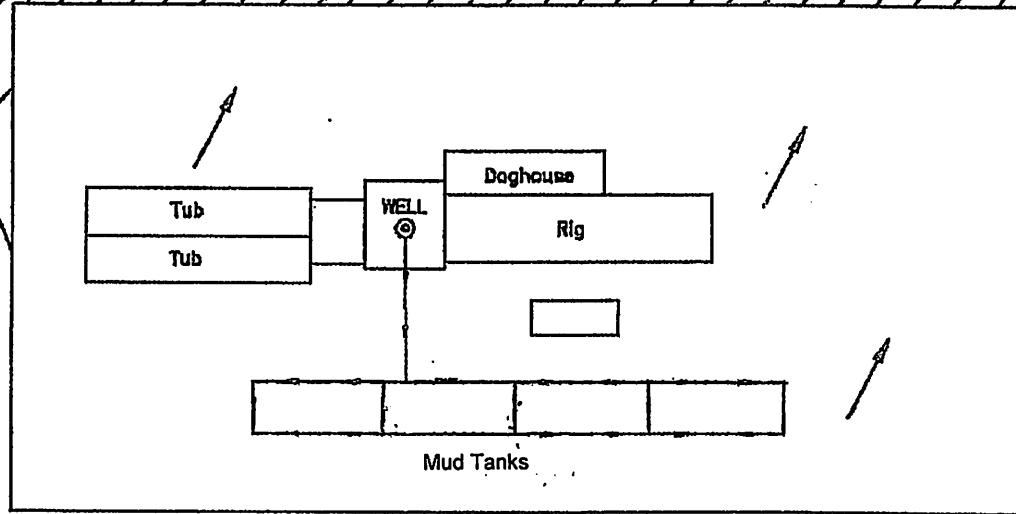
ICG TYGART VALLEY, LLC

Diversion Ditch (as Needed)

Typical Drawing  
Of Well Plugging Site Plan

CUT

Cut Mulched if Slope  
Less than 1 to 1



Sediment  
Catch Basin

Sediment  
Catch Basin

Mud Tanks

Compacted and Layed

FILL

Original Ground Keywayed

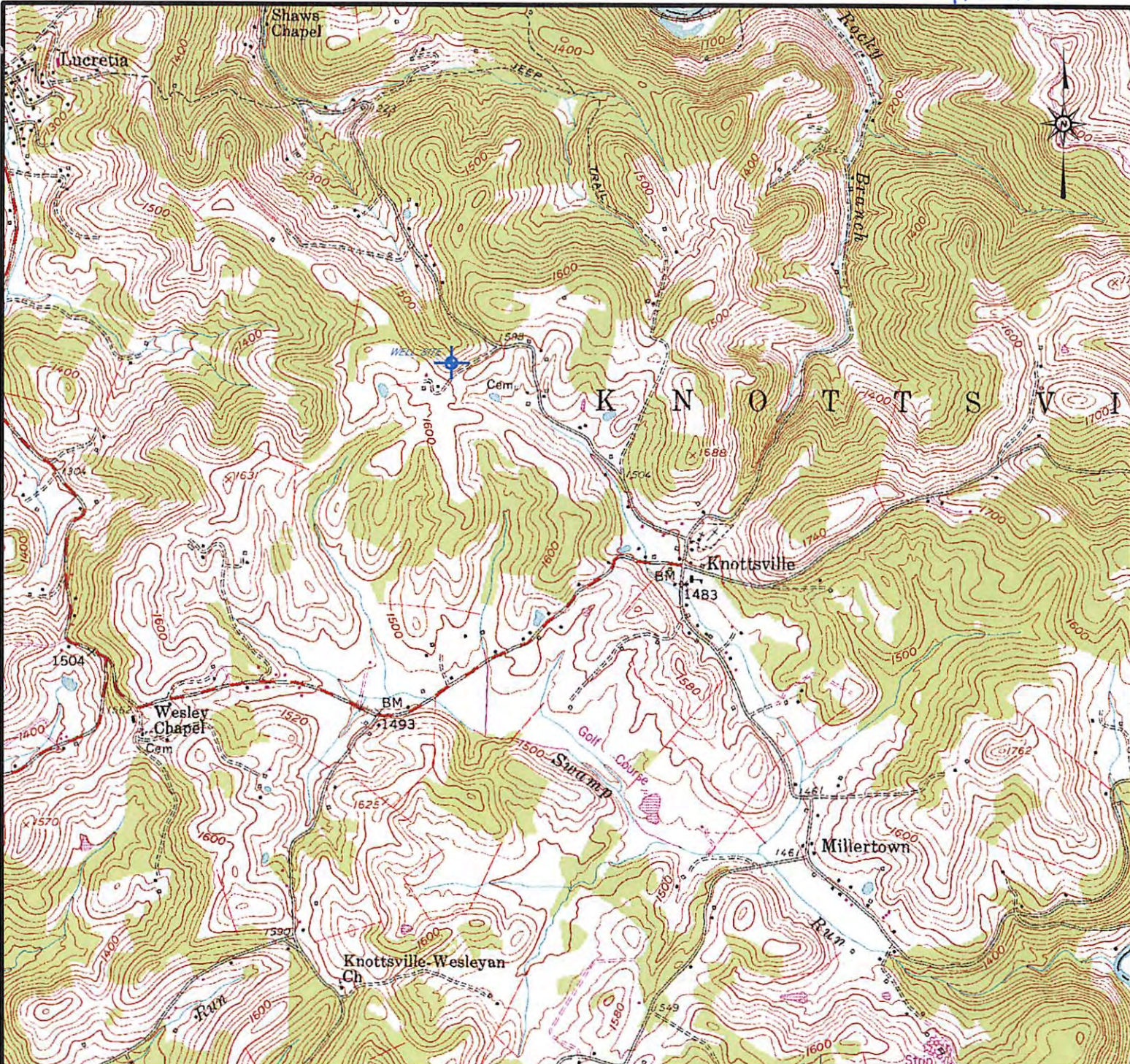
Ray Bates

Sediment Fence

*AM Point*  
6-25-13

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JUN 26 2013  
Office of Oil and Gas  
WV Dept. of Environmental Protection

9100986F



LATITUDE: 39-19-08 N  
 LONGITUDE: 79-58-37 W  
 NEAREST WATERCOURSE: 400' North of unnamed branch of Three Fork Creek  
 NEAREST TOWN: 4200' southeast of Knottsville

OPERATOR'S WELL NO. Jonathan Sharp  
 API WELL NO. No. 1  
 STATE 47 COUNTY 091 PERMIT 0986

WELL TYPE: OIL \_\_\_\_\_ GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 1563 WATERSHED Three Fork Creek  
 DISTRICT Knottsville COUNTY Taylor  
 QUADRANGLE Thornton 7 1/2"  
 SURFACE OWNER: Jonathan E. Sharp et al ACREAGE 72.63  
 OIL & GAS ROYALTY OWNER: Jonathan E. Sharp et al LEASE ACREAGE 73  
 LEASE NO. 442400

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 ICG Tygart Valley, LLC DESIGNATED AGENT Charles E. Duckworth  
 ADDRESS 2708 Cranberry Square, Morgantown, WV 26508 ADDRESS 1200 Tygart Drive, Grafton, WV 26354

*JAM Count  
6-25-13*

Received

REVISED BY:	DATE:	API WELL NO. 47-091-0986 SHARP NO. 1
Office of Oil and Gas WV Dept. of Environmental Protection		ICG TYGART VALLEY, LLC
DRAWN BY:	SCALE:	
DIRECTORY: DWG/TG/TYG #V WV OIL & GAS PERMIT MAPS/	DATE ORIGINATED:	
DRAWING NO.: 47-091-0986 Sharp #10271	PLOTTING SCALES:	

PREPARED BY:  
  
 Appalachia - Northern Region  
 2708 Cranberry Square, Morgantown, WV 26508  
 Phone: 304-594-1616 Fax: 304-594-1615  
**07/05/2013**

WW-7  
8-30-06



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

API: 47-91-00986 WELL NO.: Sharp No. 1

FARM NAME: Sharp Farm

RESPONSIBLE PARTY NAME: ICG Tygart Valley, LLC

COUNTY: Taylor DISTRICT: Knottsville

QUADRANGLE: Thornton

SURFACE OWNER: Jonathan E. & Linda J. Sharp

ROYALTY OWNER: Jonathan E. & Linda J. Sharp

UTM GPS NORTHING: 4352676.41

UTM GPS EASTING: 588207.85 GPS ELEVATION: 477.87 m 1563.0 FT

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.

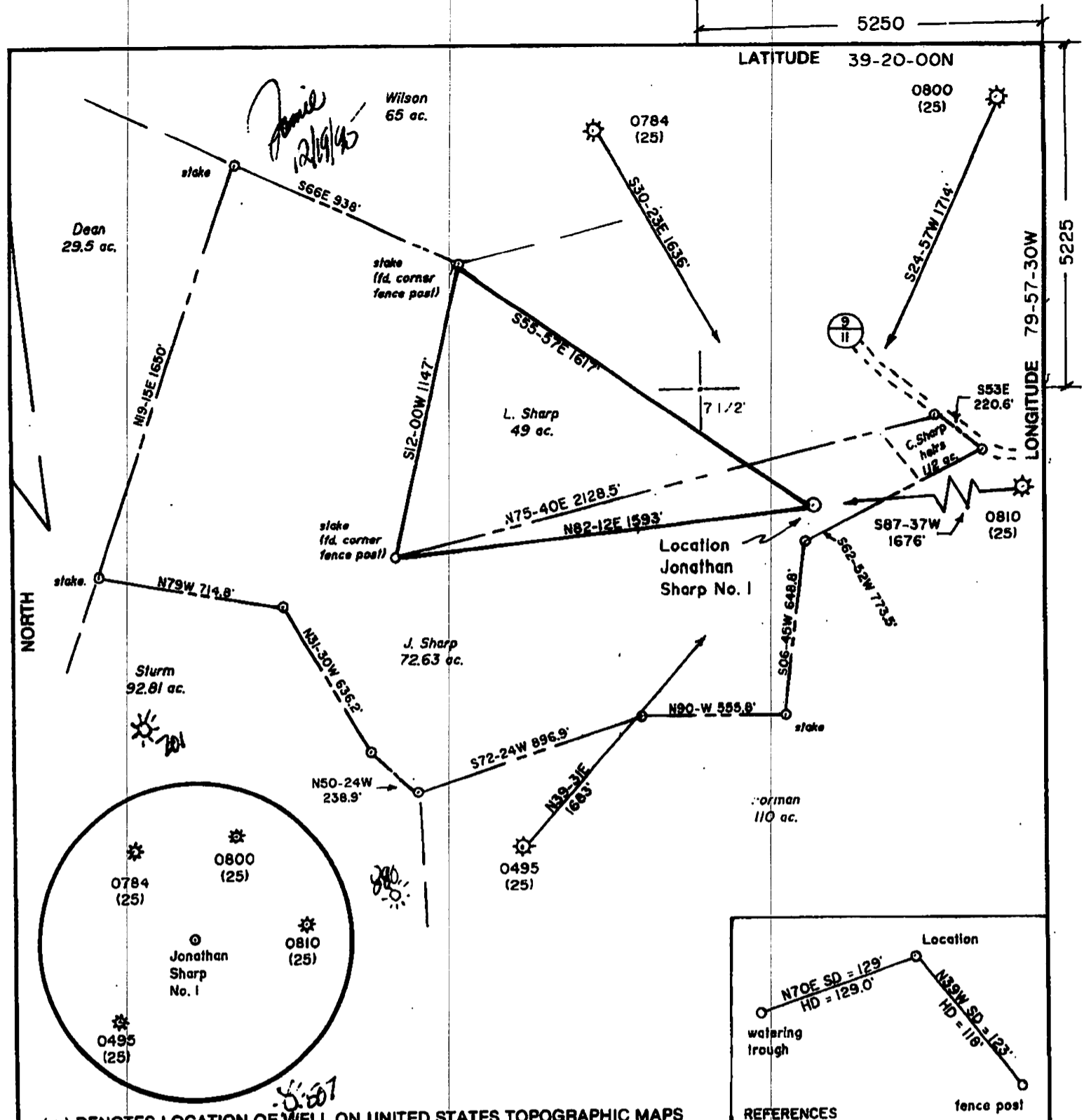
I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

[Signature]  
Signature

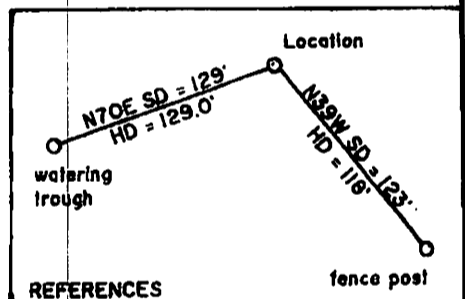
Attorney-in-fact  
Title

July 1, 2013  
Date

**Received**  
JUL - 2 2013  
Office of Oil and Gas  
WV Dept. of Environmental Protection



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



FILE NO. \_\_\_\_\_  
 DRAWING NO. 1  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION Road Junction 650'  
East of Locallan: elev 1598'

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) David L. Jackson  
 R.P.E. \_\_\_\_\_ L.L.S. 708

PLACE SEAL HERE

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

DATE November 28, 19 95  
 OPERATOR'S WELL NO. Jonathan Sharp  
 API WELL NO. No. 1  
47-091-00986  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1563 WATERSHED Three Fork Creek  
 DISTRICT Knottsville COUNTY Taylor  
 QUADRANGLE Thornton 7 1/2'

SURFACE OWNER Jonathan E. Sharp et al ACREAGE 72.63  
 OIL & GAS ROYALTY OWNER Jonathan E. Sharp et al LEASE ACREAGE 73  
 LEASE NO. 442400

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

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION Benson ESTIMATED DEPTH 5000'  
 WELL OPERATOR Petroleum Development Corp. DESIGNATED AGENT Eric R. Stearns  
 ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

FORM WW-6

COUNTY NAME Taylor  
PERMIT 0986

07/05/2018

WR-35

18-Dec-95

**RECEIVED**

API # 47- 91-00986

WV Division of Environmental Protection

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

FEB 16 1996

Well Operator's Report of Well Work

Permitting  
Farm Name: SHARP, JONATHAN & LINDA Operator Well No.: J. SHARP #1

LOCATION: Elevation: 1,563.00 Quadrangle: THORNTON

District: KNOTTSVILLE County: TAYLOR  
Latitude: 5225 Feet South of 39 Deg. 20Min. 0 Sec.  
Longitude 5250 Feet West of 79 Deg. 57 Min. 30 Sec.

Company: PETROLEUM DEVELOPMENT CORP  
103 E. MAIN ST. - P.O. BOX 26  
BRIDGEPORT, WV 26330-0026

Agent: ERIC STEARNS

Inspector: PHILLIP TRACY  
Permit Issued: 12/22/95  
Well work Commenced: 01/15/96  
Well work Completed: 01/20/96  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary  Cable \_\_\_\_\_ Rig  
Total Depth (feet) 4689  
Fresh water depths (ft) \_\_\_\_\_  
5; 44  
Salt water depths (ft) \_\_\_\_\_  
n/a

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	33'	33'	
8 5/8"	1103'	1103'	285 sks
4 1/2"	4638'	4638'	310 sks

Is coal being mined in area (Y/N)? N  
Coal Depths (ft) 80-84; 264-265; 627-632;  
947-951

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4526-4528  
Gas: Initial open flow 146 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 335 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 4 Hours  
Static rock Pressure 1050 psig (surface pressure) after 72 Hours

Second producing formation Riley Pay zone depth (ft) 4150-4160  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow co-mingled MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

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

07/05/2013

For: PETROLEUM DEVELOPMENT CORP.

By: Eric R. Stearns  
Date: February 5, 1996

TAYLOR  
097

## J. SHARP #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1st	Benson	16 (4526' - 4528')	50	400	500	55
2nd	Riley	20 (4150' - 4160')	50	400	500	55

## W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	1380	H2O @ 5'
Little Lime	1380	1392	1 3/4" stream H2O @ 44'
sand, shale	1392	1418	Coal 80' - 84', 264' - 265'
Big Lime	1418	1498	
sand, shale	1498	1500	Coal 627' - 632'
Keener	1500	1547	Coal 947' - 951'
sand, shale	1547	1550	
Big Injun	1550	1608	gas chk @ 1220' no show
sand, shale	1608	1710	
Weir	1710	1764	
sand, shale	1764	1866	gas chk @ 1425' no show
Gantz	1866	1918	
sand, shale	1918	1925	gas chk @ 1691' no show
50 ft	1925	1990	
sand, shale	1990	2004	
30 ft	2004	2040	gas chk @ 1974' no show
sand, shale	2040	2220	gas chk @ 2035' 2/10 thru 1" w/water
4th	2220	2418	
sand, shale	2418	2498	
5th	2498	2532	gas chk @ 2129' 2/10 thru 1" w/water
sand, shale	2532	2538	
Bayard	2538	2562	
sand, shale	2562	2621	gas chk @ 2255' 2/10 thru 1" w/water
Elizabeth	2621	2684	gas chk @ 2474' 2/10 thru 1" w/water
sand, shale	2684	2865	gas chk @ 2630' 2/10 thru 1" w/water
Speechly	2865	3286	gas chk @ 3318' 2/10 thru 1" w/water
sand, shale	3286	3305	
Balltown	3305	3638	
sand, shale	3638	3676	gas chk @ 3945' 2/10 thru 1" w/water
Bradford	3676	3780	
sand, shale	3780	4046	gas chk @ 4440' 16/10 thru 2" w/water
Riley	4046	4432	gas chk @ 4564' 28/10 thru 2" w/water
sand, shale	4432	4519	gas chk @ TD 12/10 thru 2" w/water
Benson	4519	4574	
sand, shale	4208	4689	Drillers TD
		4686	Logger TD

07/05/2013