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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Jim Justice , Governor  
Austin Caperton , Cabinet Secretary  
www.dep.wv.gov

Wednesday, July 12, 2017  
WELL WORK PERMIT  
Vertical / Partial Plug

EQUITRANS, L. P.  
625 LIBERTY AVENUE SUITE 1700

PITTSBURGH, PA 152220000

Re: Permit approval for 5491  
47-095-00469-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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- 0450.

James A. Martin  
Chief

Operator's Well Number: 5491  
Farm Name: PERKINS, CARL  
U.S. WELL NUMBER: 47-095-00469-00-00  
Vertical / Partial Plug  
Date Issued: 7/12/2017

Promoting a healthy environment.

07/14/2017

## PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date May 12, 2017  
2) Operator's  
Well No. 605491  
3) API Well No. 47-095 - 00469

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

5) Location: Elevation 998.79 Watershed Camp Mistake Run/Middle Island Creek  
District McElroy County Tyler Quadrangle West Union SE 2.1

6) Well Operator Equitrans, L.P. 7) Designated Agent Justin Macken  
Address 625 Liberty Ave Suite 1700 Address 625 Liberty Ave Suite 1700  
Pittsburgh, PA 15222-0000 Pittsburgh, PA 15222-0000

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Justin Snyder Derek Haught Name To Be Determined  
Address 200 Florence P.O. Box 85 Address \_\_\_\_\_  
~~Lumberport WV 26386~~ Smithville, WV 26178

10) Work Order: The work order for the manner of plugging this well is as follows:  
See attachment for details and procedures.

WELL HAS PERFORATIONS IN THE KEENER FROM 1918' - 1932' THAT WILL REMAIN OPEN, WHILE ALL OTHERS WILL BE PLUGGED. gmm

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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 [Signature] Date 6-8-17

<b>P&amp;A OF STORAGE WELL 5491 IN SHIRLEY STORAGE</b>
<b>2017</b>
<b>Plugback Procedure</b>
Partial Plugging-Removing tubing and completing well to one storage horizon (See attachment-Well 5491 (Current) and Well 5470 (After) Schematics)
Notify State Inspector, Derek Haught 304-206-7613. 24 hours prior to commencing operations.
<b>SITE PREPARATION</b>
Field reconnaissance
Upgrade existing well sites to accommodate service rig and ancillary equipment if necessary
Install all necessary erosion control measures spelled out in approved E&S Plan
<b>FIELD WORK</b>
Kill well and annulus with weighted fluid
Move in and rig up service rig and ancillary equipment
Weld bell nipple onto 3.5" tubing
Install new master gate valve and annular BOP on 3.5" tubing
Install bell collar and lifting sub on 1.5" tubing
Use service rig to lift 1.5" tubing and release slips in casing head
Release 3.5" X 1.5" tension packer
Pull 1.5" tubing and packer
Move in and rig up wireline unit
Run Gamma Ray correlation log and check TD
Run flux leakage surveillance logging tool
Trip in with cast iron bridge plug and set at 1939'
Rig down and move off wireline unit
Place 5' of Class A cement on top of plug from 1939' to 1934' with dump bailer on sand line
Wait on cement 8 hours
Check cement top with sand line
Swab and bail fluid out of well
Remove BOP
Rig down and move off service rig
Place well back into service
<b>PLUGGING PROCEDURE WILL COMPLY WITH THE WVDEP CODE REQUIREMENTS</b>
<b>SITE RECLAMATION</b>
Reclaim access road and well site
<b>PERMITTING</b>
Submit final plugging affidavit

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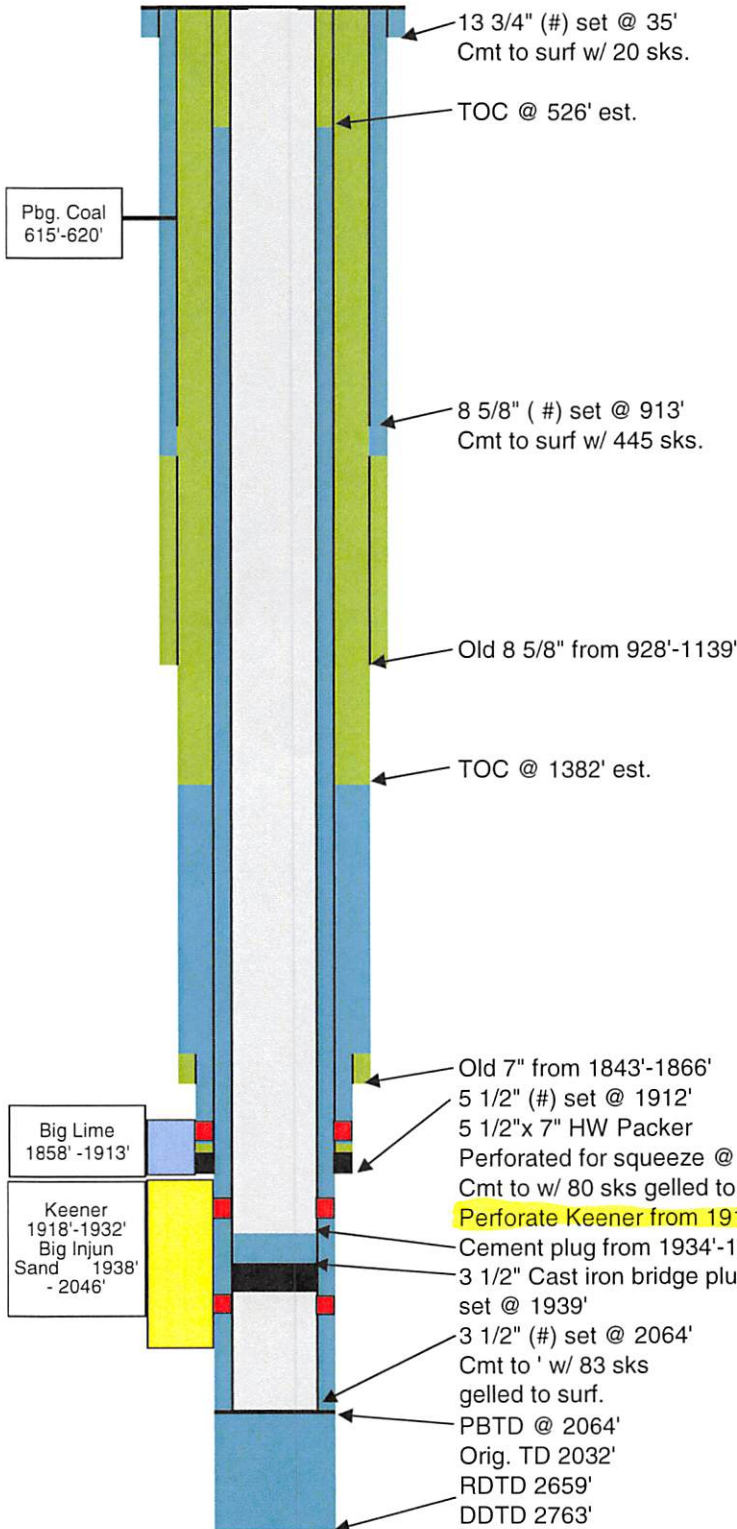
# Well 5491 (OBS)

Final Schematics

## Shirley Storage Field

Well Name: Carl Perkins  
 API No.: 47-095-00469  
 Lease No.: 26218  
 Location: McElroy Dist., Tyler Co.  
 Drilled: 12/3/10 TD 2032'  
 Drilled Deeper: 11/11/11 DDTD 2661'  
 Drilled Deeper: 10/1/40 DDTD 2763'  
 Storage: 01/17/75  
 Repaired & CO: 1/17/75 RDTD 2659'  
 PBD 1926'

\* Presumed weights - exact weight unknown!



*DMH  
6-8-17*

Perfs: 1944'-1959' Upper Big Injun  
 2006'-2014' Middle Big Injun

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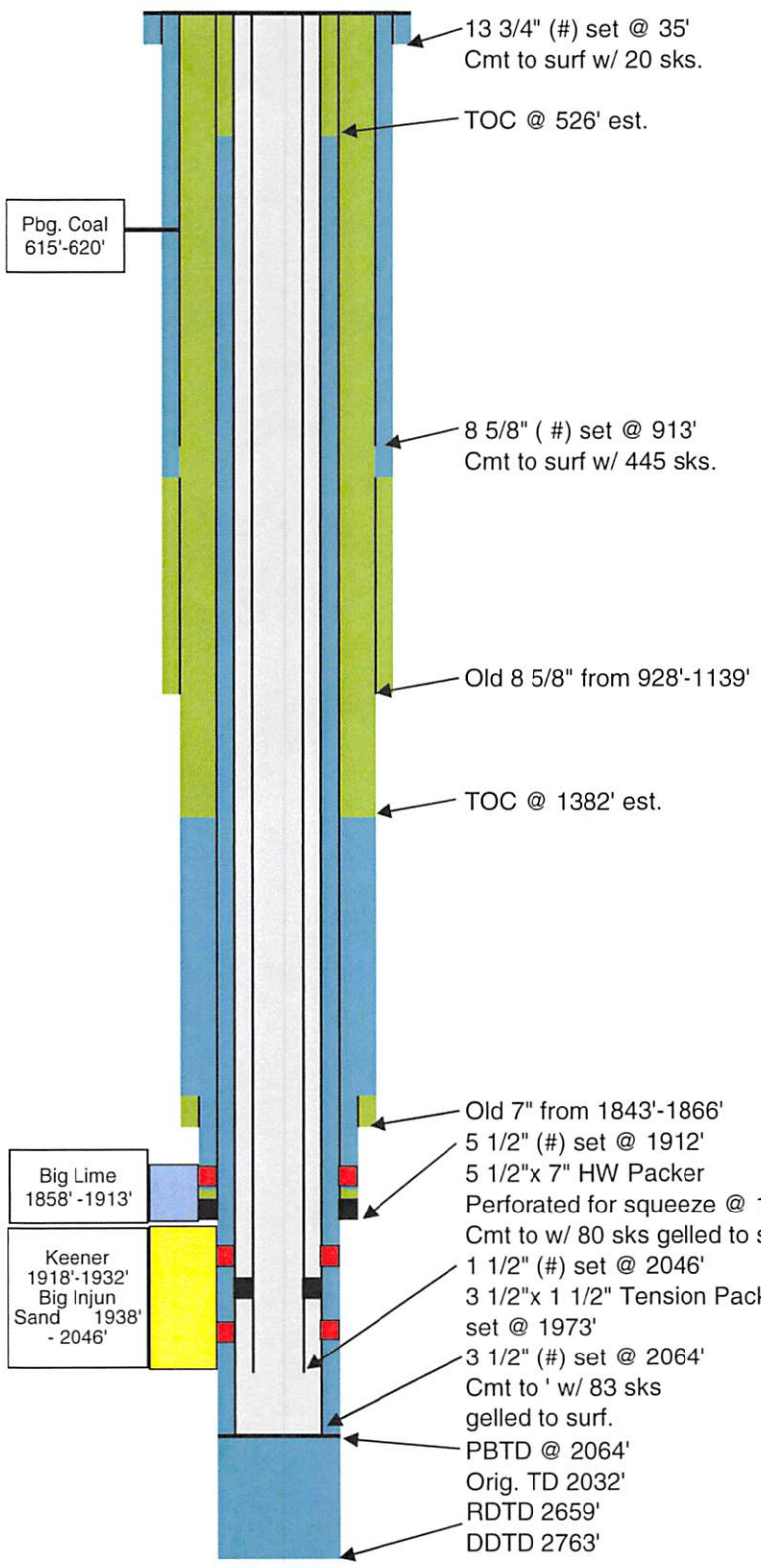
# Well 5491 (OBS)

Current Schematics

## Shirley Storage Field

Well Name: Carl Perkins  
 API No.: 47-095-00469  
 Lease No.: 26218  
 Location: McElroy Dist., Tyler Co.  
 Drilled: 12/3/10 TD 2032'  
 Drilled Deeper: 11/11/11 DDTD 2661'  
 Drilled Deeper: 10/1/40 DDTD 2763'  
 Storage: 01/17/75  
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 PBDT 1926'

\* Presumed weights - exact weight unknown!



*DAH  
6-8-17*

Perfs: 1944'-1959' Upper Big Injun  
 2006'-2014' Middle Big Injun

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STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Rotary XX Oil \_\_\_\_\_  
API # 47- 95-00459 W

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State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

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DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY Well Operator's Report of Well Work

Farm name: PERKINS, CARL Operator Well No.: 5491

JUN 16 2017

LOCATION: Elevation: 998.79 Quadrangle:

WV Department of  
Environmental Protection

District: MCELROY County: TYLER  
Latitude: Feet South of Deg. Min. Sec.  
Longitude: Feet West of Deg. Min. Sec.

Company: EQUITRANS, INC.  
4955 STEUBENVILLE PIKE  
PITTSBURGH, PA 15205-4955

Agent: GARY A. HOY, DIVISION MGR.

Inspector: GLEN P. ROBINSON  
Permit Issued: 06/08/89  
Well work Commenced: 06/28/89  
Well work Completed: 09/27/89  
Verbal Plugging \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth (feet) 2076'  
Fresh water depths (ft) \_\_\_\_\_

Salt water depths (ft) \_\_\_\_\_

Is coal being mined in area (Y/N)? \_\_\_\_\_  
Coal Depths (ft): \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13"	35'	35'	To Surface
8 5/8"	913	913	To Surface
5 1/2"	1912'	1912'	80 Sx
3 1/2"	2064'	2064'	83 Sx

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth (ft) 1944  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

Second producing formation Big Injun Pay zone depth (ft) 2006  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

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

For: EQUITRANS, INC.

By: [Signature] PRESIDENT  
Date: \_\_\_\_\_

JAN 16 1990

JAN 5 1975

07/14/2017

FORMATION	TOP FEET	BOTTOM FEET	REMARKS
Pittsburgh Coal	615	620	
B. Dunkard Sand	1099	1112	
Gas Sand	1142	1152	
Gas Sand	1362	1660	
Maxton	1718	1732	
Little Lime	1816	1834	
Big Lime	1858	1913	
Big Injun	1918	2046	
TD:		2076	

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DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Perforated Interval:  
1944' to 1959 and  
2006' to 2014'

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OG-10  
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STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
Oil and Gas Division

OIL & GAS DIVISION  
DEPT. OF MINES

WELL RECORD

Rotary XX Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas \_\_\_\_\_  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage XX  
Disposal \_\_\_\_\_ (Kind)

Quadrangle West Union SE 2.1

Permit No. TYL-469-Red

Company Equitable Gas  
Address Pittsburgh, Pa. 15219  
Farm Carl D. Perkins Acres 50  
Location (waters) Camp Mistake Run  
Well No. 5491 Elev. 998.79  
District McElroy County Tyler  
The surface of tract is owned in fee by  
Carl D. Perkins  
Address Rt. 3, Pennsboro, W.Va. 26415  
Mineral rights are owned by Same as surface  
Address \_\_\_\_\_

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13 1/2"	35	35	20 sks. to surf.
9 5/8			
8 5/8 *	913	913	445 sks. to surf.
7			
5 1/2	1912	1912	
4 1/2	1912	1912	on H.W. Packer, gel to surf.
3			
2			
Liners Used			

Re Drilling Commenced 6-12-74  
Re Drilling Completed 1-17-75  
Initial open flow \_\_\_\_\_ cu. ft. \_\_\_\_\_ bbls.  
Final production \_\_\_\_\_ cu. ft. per day \_\_\_\_\_ bbls.  
Well open \_\_\_\_\_ hrs. before test \_\_\_\_\_ RP.

Well treatment details:

Attach copy of cementing record.

\* Old 8-1/4" in hole 928 to 1139

\*\* Old 7" in hole 1843 to 1866

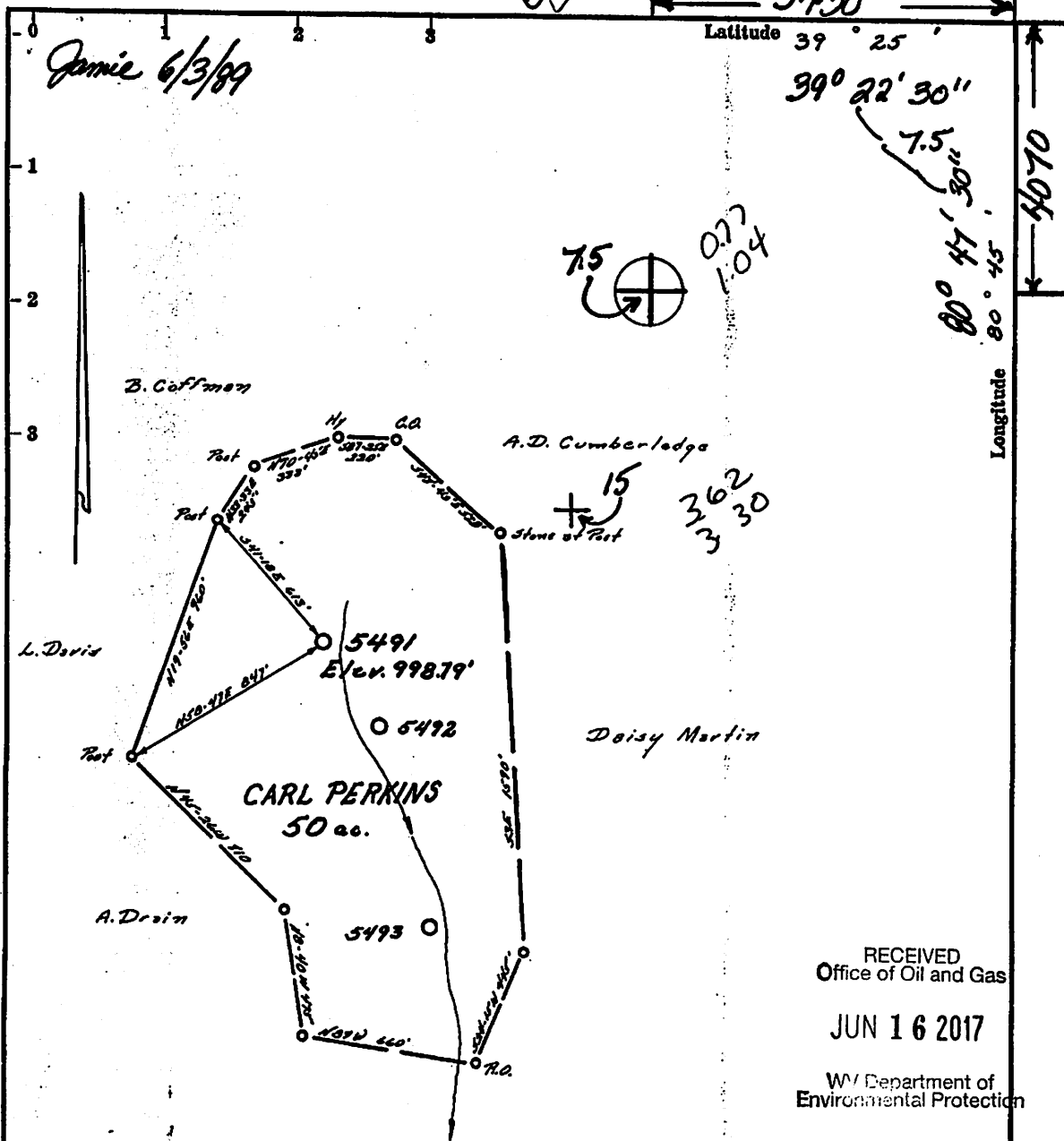
Coal was encountered at 615-620 Feet \_\_\_\_\_ Inches  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand \_\_\_\_\_ Depth \_\_\_\_\_

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Pittsburgh Coal (Driller)			615	620		
Big Dunkard Sand			1099	1112		
Gas Sand			1142	1158		
Salt Sand			1362	1660		
Maxton Sand			1718	1732		
Little Lime			1816	1834		
Big Lime			1858	1913		
Big Injun			1918	2046		
Weir Sand			2208	2304		
50' Sand			2406	2410		
Gordon Sand			2620	2647		
Redrilled to				2659		
Cement Plug back to				1926		
Completed Total Depth				1926		

Note: Gamma Log from surface to 2656

(over)

\* Indicates Electric Log tops in the remarks section.



- Fracture...
- Redrill...
- New Location...
- Drill Deeper...
- Abandonment...

Source of Elevation B.M. 834 Bridge at Camp Mistake  
 I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.  
 Minimum accuracy, one part in 200

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 WV Department of  
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Company: Equitrans, Inc. 4468  
 Address: 4155 SHUBERTVILLE PIKE, PITTSBURGH, PA.  
 Farm: CARL PERKINS  
 Tract: \_\_\_\_\_ Acres 50 Lease No. 26218  
 Well (Farm) No. 1 Serial No. 5491  
 Elevation (Spirit Level) 998.79'  
 Quadrangle WEST UNION SE 2-15/97.5  
 County TYLER District M<sup>o</sup> ELROY 5  
 Engineer R. J. McWilliam  
 Engineer's Registration No. 105 L.L.S.  
 File No. 2221148 Drawing No. \_\_\_\_\_  
 Date 8-27-73 Scale 1" = 500'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 15205 OIL AND GAS DIVISION  
 CHARLESTON

671  
1336  
WELL LOCATION MAP  
 FILE NO. Ty1-469-Red  
Rework Drill Dept

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
 JUN 16 1999  
 - Denotes one inch spaces on border line of original tracing.  
47-095

OG-10  
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JAN 14 1974

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division  
WELL RECORD

Quadrangle: West Union SE 2.1  
Permit No. Prior

Rotary  Oil   
Cable  Gas   
Recycling  Comb.   
Water: Flood  Storage   
Disposal  (Kind)

Company: Hope Natural Gas  
Address: Clarksburg, W. Va.  
Farm: Hammett Heirs Acres 50  
Location (waters): Camp Mistake Run  
Well No. Hope No. 1963 Elev 999  
District: McElroy County Tyler  
The surface of tract is owned in fee by:  
Address:  
Mineral rights are owned by:  
Address:  
Drilling Commenced 8-25-10  
Drilling Completed 12-3-10  
Initial open flow 1,225 M cu. ft. bbls.  
Final production          cu. ft. per day bbls.  
Well open          hrs. before test RP.  
Well treatment details:

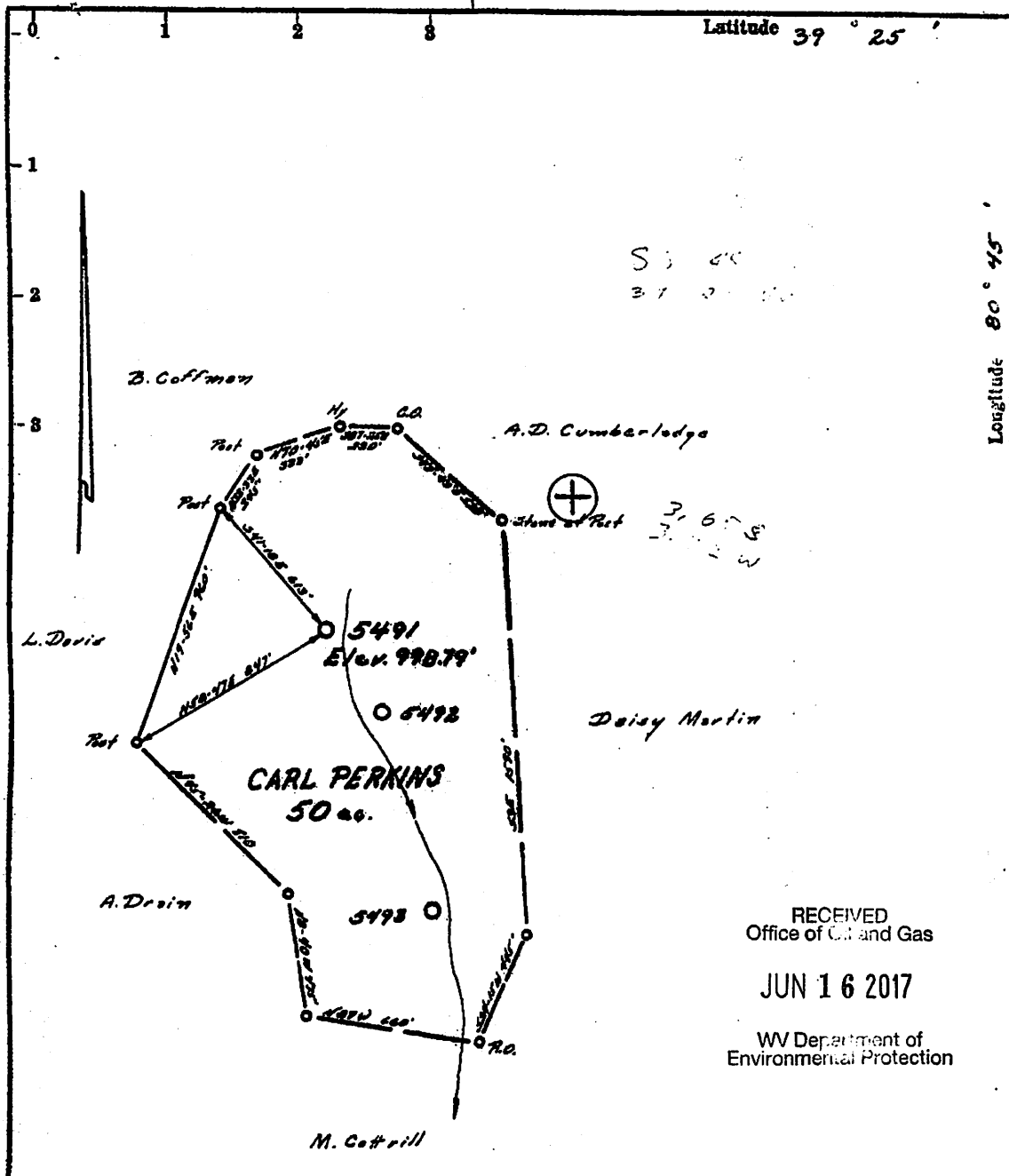
Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size: 20-16			Cag. left in after plugging  411' 28' & packer
Cond: X1000"	270	270	
9 5/8			
8 5/8	1140	1140	
7	1872	1872	
5-1/2	2650	2650	
4 1/2			
3			
2	2684	2684	
Liners Used			

Attach copy of cementing record.

Coal was encountered at 615-620 Feet \_\_\_\_\_ Inches  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet  
Producing Sand \_\_\_\_\_ Depth \_\_\_\_\_

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Pittsburgh Coal			615	620		
Dunkard Sand			1035	1260		
Salt Sand			1375	1635		
Maxton Sand			1705	1790		
Big Injun Sand			1940	2066	Gas 1952, 2015	
Gantz Sand			2205	2300		
Stray Sand			2621	2638	Gas 2630 (2,170 M)	
Total Depth 12-3-10				2032		
Drilled Deeper 11-11-11				2661		
Drilled Deeper 10-1-40				2763		
Plugged 2-9-44-1-Permit No. TYL-382-A						

\* Indicates Electric Log tops in the remarks section.



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- Fracture...
- Redrill...
- New Location...
- Drill Deeper...
- Abandonment...

Source of Elevation B.M. 834 Bridge of Camp Mistake  
I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Minimum accuracy, one part in 200

Company EQUITABLE GAS CO. W.VA. DIV.  
 Address PITTSBURGH, PA. 15219  
 Farm CARL PERKINS  
 Tract \_\_\_\_\_ Acres 50 Lease No. 26218  
 Well (Farm) No. 1 Serial No. 5491  
 Elevation (Spirit Level) 998.79'  
 Quadrangle WEST UNION 24 EC  
 County TYLER District M<sup>o</sup>ELROY  
 Engineer A. J. [Signature]  
 Engineer's Registration No. 105 L.L.S.  
 File No. 222/148 Drawing No. \_\_\_\_\_  
 Date 8-27-73 Scale 1" = 500'

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION  
CHARLESTON

WELL LOCATION MAP  
FILE NO. Ty1-469-Red

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

47-295



WW-4A  
Revised 6-07

1) Date: May 12, 2017  
2) Operator's Well Number  
605491  
3) API Well No.: 47 - 095 - 00469

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

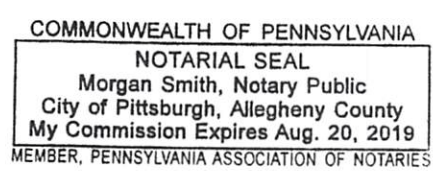
4) Surface Owner(s) to be served:	5) (a) Coal Operator	
(a) Name <u>Carl D. Perkins Family Trust</u>	Name <u>N/A</u>	RECEIVED Office of Oil and Gas  <b>JUN 16 2017</b>
Address <u>c/o Clay M. Perkins</u> <u>700 Greene St.</u>	Address _____	
(b) Name <u>Naruna VA 24576-5019</u>	(b) Coal Owner(s) with Declaration	WV Department of Environmental Protection
Address _____	Name <u>Same as Surface Owner(s)</u> Address _____	
(c) Name _____	Name _____	
Address _____	Address _____	
6) Inspector <u>Justin Snyder</u> <u>Derek Haught</u>	(c) Coal Lessee with Declaration	
Address <u>200 Florence</u> <u>PO BOX 85</u>	Name <u>N/A</u>	
<u>Lumberport WV 26286</u> <u>Smithville, WV 26178</u>	Address _____	
Telephone <u>681-913-6995</u> <u>304-206-7613</u>	_____	

**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 Equitrans, L.P.  
By: Justin Macken *Justin Macken*  
Its: VP Gas Systems Planning  
Address 625 Liberty Avenue  
Pittsburgh, PA 15222  
Telephone 412-395-5554; Email: jmacken@eqt.com

Subscribed and sworn before me this 23<sup>rd</sup> day of May, 2017  
*Morgan Smith* Notary Public  
My Commission Expires August 20, 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).

WW-9  
(5/16)

API Number 47 - 095 - 00469  
Operator's Well No. 605491

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Equitrans, L.P. OP Code 5547235

Watershed (HUC 10) Camp Mistake Quadrangle West Union SE 2.1

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

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: N/A

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? \_\_\_\_\_

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Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection ( UIC Permit Number \_\_\_\_\_)
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

WV Department of  
Environmental Protection

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A

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

Additives to be used in drilling medium? N/A

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

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

-Landfill or offsite name/permit number? (See Attachment)

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 Justin Macken

Company Official (Typed Name) Justin Macken

Company Official Title VP Gas Systems Planning

Subscribed and sworn before me this 23<sup>rd</sup> day of May, 2017

Morgan Smith Notary Public

My commission expires August 20, 2019

COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
Morgan Smith, Notary Public  
City of Pittsburgh, Allegheny County  
My Commission Expires Aug. 20, 2019  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES  
07/14/2017

Proposed Revegetation Treatment: Acres Disturbed less than one (1) acre Prevegetation pH N/A

Lime 3 Tons/acre or to correct to pH 6 1/2

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 600 lbs/acre

Mulch Hay or Straw Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

Seed Type                      lbs/acre

Seed Type                      lbs/acre

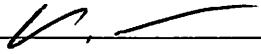
N/A

Meadow Mix                      40lbs per acre

**Attach:**

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 

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

Title: Oil + Gas Inspect                      Date: 6-8-17

Field Reviewed?       Yes       No

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Attachment WW-9 Landfill or Offsite Disposal Name/Permit Number

Region	Facility Type	Facility Location Name	Street	City	State	Zip Code
Marshall/Union	Disposal Well	Nichols (SWIW #13) 1 - A	10555 Veto Road	Belpre	OH	45714
	Disposal Well	D - 1 (SWIW #7)	3549 Warner Road	Fowler	OH	44418
	Disposal Well	Goff (SWIW #27) 1	9350 East Pike Road	Norwich	OH	43767
	Disposal Well	Eva Jean Root Wolf 1 and 4, Wolf 2	5480 State Route 5	Newton Falls	OH	44444
	Disposal Well	Pander R&P (SWIW # 15 & #16) 1 & 2	5310 State Route 5	Newton Falls	OH	44444
	Disposal Well	John G. Delores Blazek 2	5700 Allyn Road	Hiram	OH	44234
	Disposal Well	Belden & Blake Corporation 2 - 1050	8000 Edison Street	Louisville	OH	44641
	Disposal Well	Plum Creek 1	4285 Karg Industrial Parkway	Kent	OH	44240
	Disposal Well	Ed Lyons (Genet) 1	7790 Lincoln Street	East Canton	OH	44730

List of Ohio SWDs 6.13.2013

Wells	County	Township	State	Permit #s	Entity
Belden & Blake #2	Stark	Marlboro	Ohio	34-151-2-3420	Heckmann Water Resources (CVR), Inc.
Blazek #2	Portage	Hiram	Ohio	34-133-2-0525	Heckmann Water Resources (CVR), Inc.
Lyons #1	Stark	Osnaburg	Ohio	34-151-2-1198	Heckmann Water Resources (CVR), Inc.
Pander R & P #1	Trumbull	Newton	Ohio	34-155-2-3795	Heckmann Water Resources (CVR), Inc.
Pander R & P #2	Trumbull	Newton	Ohio	34-155-2-3794	Heckmann Water Resources (CVR), Inc.
Plum Creek #1	Portage	Brimfield	Ohio	34-133-2-3614	Heckmann Water Resources (CVR), Inc.
Eva Jean Root Wolf #1	Trumbull	Newton	Ohio	34-155-2-1893	Heckmann Water Resources (CVR), Inc.
Wolf #2	Trumbull	Newton	Ohio	34-155-2-1894	Heckmann Water Resources (CVR), Inc.
Eva Jean Root Wolf #4	Trumbull	Newton	Ohio	34-155-2-3203	Heckmann Water Resources (CVR), Inc.
D-1 (AnnaRock)	Trumbull	Fowler	Ohio	34-155-2-2403	Heckmann Water Resources (CVR), Inc.
Nichols #1-A SWIW #13	Washington	Dunham	Ohio	34-167-2-3862	Heckmann Water Resources (CVR), Inc.
Goff #1	Muskingum	Union	Ohio	34-119-2-8776	Heckmann Water Resources (CVR), Inc.
Appalachian Water (APP or AWS)	Connellsville	N/A	PA	2608201	

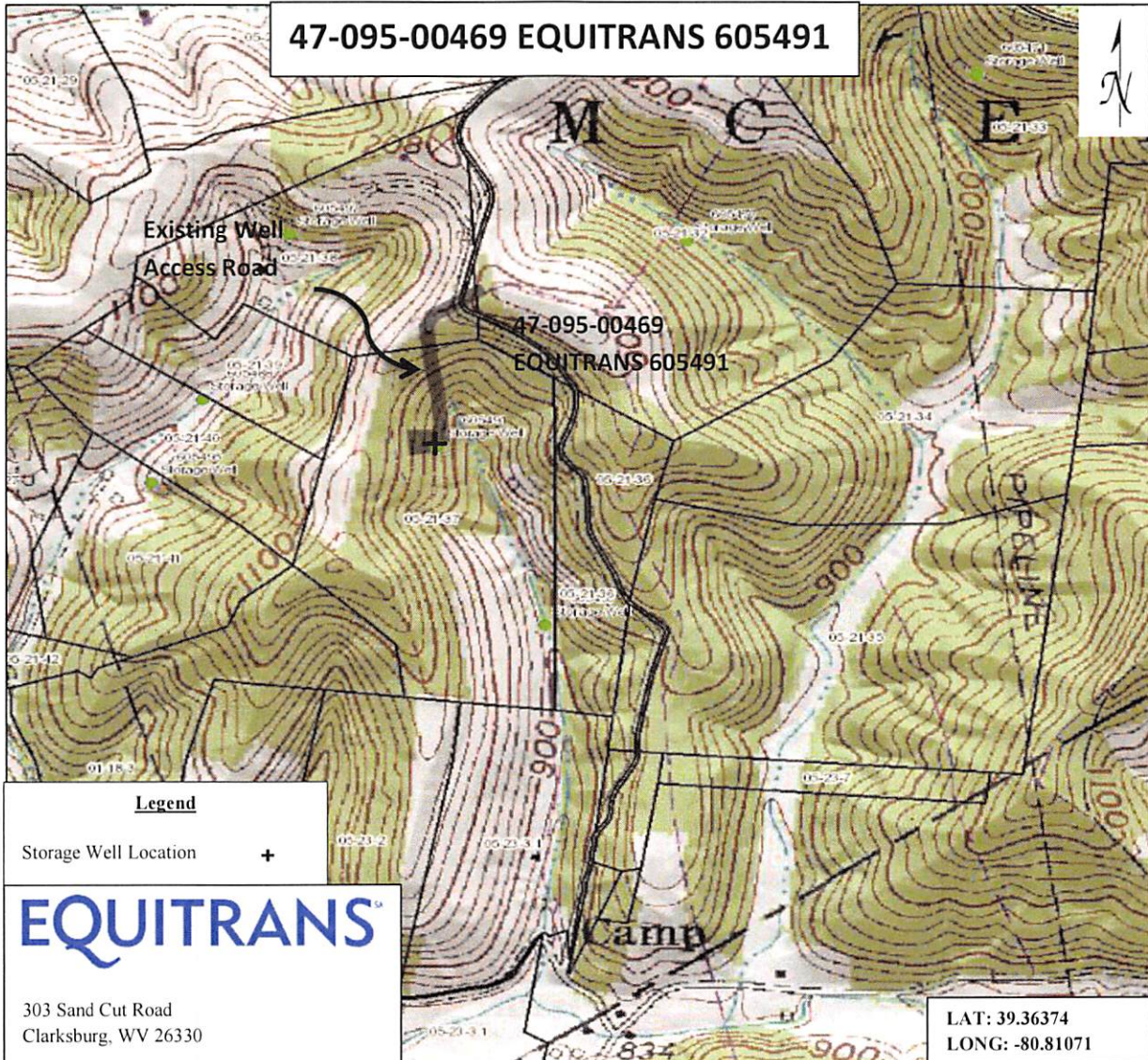
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DMH 6-8-17

Quad: West Union SE 2.1 Scale: Not Mapped to Scale  
 County: Tyler Date: May 12, 2017  
 District: McElroy API: 47-095-00469

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