EXHIBIT 1

STONEHAVEN ENERGY LLC,
1251 WATERFRONT PLACE, SUITE 540 ~ PITTSBURGH, PA 15222

Writer's Phone Number:
(412) 745-7770

June 30, 2011

U.S. Environmental Protection Agency
Attn: Stephen Platt (3WP22)
1650 Arch Street
Philadelphia, PA 19103

Re: Class II Produced Water Disposal Application

Stephen Platt:

Enclosed you will find Stonehaven Energy, LLC's application and supporting documents for a Class II Produced Water Disposal Well. Any questions or concerns do not hesitate to contact Jeremy Graham (412) 526-2919 or myself 412-526-2621. Jeremy is our Director of Field Operations and is heading this project.

Sincerely,

Mark Axel
Controller
Stonehaven Energy, LLC

OMB No. 2040-0042 Approval Expires 12/31/2011

United States Environmental Protection Agency

Underground Injection Control Permit Application

(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)

I. EPA ID Number

	T/A	C
U		

Read Attached Instructions Before Starting

For Official Use Only

Application approved mo day year	Date received mo day year	Permit Number	Well ID	FINDS Number

II. Owner Name and Address

Owner Name: Stonehaven Energy, LLC

Street Address: 1251 Waterfront Place Ste. 540

Phone Number: (412) 745-7770

City: Pittsburgh State: PA ZIP CODE: 15222

III. Operator Name and Address

Owner Name: Stonehaven Energy Management Company, LLC

Street Address: 1251 Waterfront Place, Ste. 540

Phone Number: (412) 745-7770

City: Pittsburgh State: PA ZIP CODE: 15222

IV. Commercial Facility

- [ ] Yes
- [x] No

V. Ownership

- [x] Private
- [ ] Federal
- [ ] Other

VI. Legal Contact

- [ ] Owner
- [x] Operator

VII. SIC Codes

1381
1382
1389

VIII. Well Status *(Mark "x")*

- [ ] A. Operating — Date Started mo day year:
- [ ] B. Modification/Conversion
- [x] C. Proposed

IX. Type of Permit Requested *(Mark "x" and specify if required)*

- [x] A. Individual
- [ ] B. Area

Number of Existing Wells	Number of Proposed Wells	Name(s) of field(s) or project(s)
0	1	Latshaw #9

X. Class and Type of Well *(see reverse)*

A. Class(es) (enter code(s))	B. Type(s) (enter code(s))	C. If class is "other" or type is code 'x,' explain	D. Number of wells per type (if area permit)
Class II	D		

XI. Location of Well(s) or Approximate Center of Field or Project

Latitude Deg	Min	Sec	Longitude Deg	Min	Sec	Township and Range Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
41	23	16.4	79	37	43.5								

XII. Indian Lands (Mark 'x')

- [ ] Yes
- [x] No

XIII. Attachments

(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)

For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.

XIV. Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments 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 and imprisonment. (Ref. 40 CFR 144.32)

A. Name and Title *(Type or Print)*: David J. Down Vice President

B. Phone No. *(Area Code and No.)*: (412) 745-7770

C. Signature:

D. Date Signed: 06/30/2011

EPA Form 7520-6 (Rev. 12-08)

Stonehaven Energy Management, LLC
Class II Produced Water Disposal Application
Tippery Field
Cranberry Township, Venango County, Pennsylvania

Prepared By: HAVCO Oil and Gas, Inc.
Thomas F. Havranek
Consulting Petroleum Engineer
1842 Eastbrook Road
New Castle, PA 16101

EPA UIC Permit Application - Class II
Produced Fluid Disposal Project
Tippery Field
Cranberry Township, Venango County, Pennsylvania

Prepared for:
Stonehaven Energy Management, LLC
1251 Waterfront Place
Suite 540
Pittsburgh, Pennsylvania 15222
412-745-7770 Phone
412-391-7220 Fax

Prepared by:
HAVCO Oil and Gas, Inc.
Thomas F. Havranek
Consulting Petroleum Engineer
1842 Eastbrook Road
New Castle, PA 16101
412 – 999-3958 Phone
724-654-0093 Fax

Submitted to:
S. Stephen Platt
U.S. Environmental Protection Agency Region III
Ground Water and Enforcement Branch (3WP22)
Office of Drinking Water and Source Water Protection
1650 Arch Street
Philadelphia, PA 19103-2029

June, 2011

Stonehaven Energy Management, LLC
EPA UIC Class II Produced Water Disposal Project
Tippery Field Cranberry Township Venango County Pennsylvania

Table of Contents

A. Area of Review

Stonehaven Energy Management, LLC (Stonehaven) is applying for an EPA Class II "D" Produced Fluid Disposal Well permit. Their goal is to facilitate their oil production operations on their B.Stover, M. Latshaw, and J. Ahrens leases located in Cranberry township, Venango County, Pennsylvania. The Latshaw #9 well has been selected as the candidate for the produced water disposal and a fixed radius of ¼ mile around that well will be the Area of Review (AOR) for this application. The produced water will be disposed into the Speechley sand formation at an interval of 1934 – 1995 feet.

This area is located approximately 25 miles south of the Drake Well located in Titusville, Pennsylvania. That well is given credit for being the first commercial oil well ever drilled and the birthplace of the oil and gas industry. The industry spread rapidly throughout the Appalachian basin after the Drake discovery and many wells were drilled through the Oil Creek valley into Venango county. The Venango group of formations were the primary target of the early oil drillers. This group includes the Venango 1st, Red Valley, Venango 2nd, Grey, and Venango 3rd sandstone formations. These formations range between 750 – 1100 feet of depth on Stonehaven's properties.

Many of the old wells left over from the early oil boom have been located on these leases and have been plugged by Stonehaven. Four wells were developed on the Stover lease in 1985 through the Venango sands by a previous operator. They are now owned and operated by Stonehaven. In 2007, Stonehaven developed 21 wells on the Stover lease through the Venango sands.. In 2008, 17 wells were developed on the Stover lease, 6 on the Latshaw, and 7 on the Ahrens. These wells penetrated the Venango sands only. In 2009, they developed 8 wells on the Latshaw lease with 3 of them drilled through the Speechley sand which included the Latshaw #9 subject well. In 2010, 5 more wells were developed on the Latshaw lease with one of them drilled through the Speechley. This development is shown on Map B-1

In summary, Stonehaven is operating 68 producing wells on the three leases with four of them drilled through the Speechley sand. It should be noted that 16 additional Venango sand wells are located on the Ahrens property that are not operated by Stonehaven.

B. Maps

Map B-1

This is a 1" = 400' scale map that shows the chronological development of the 68 wells operated by Stonehaven as outlined in the Area of Review portion of this application.

Map B-2

This is a 1"=2000' scale USGS topographic map showing all existing producing wells operated by Stonehaven and others, all known plugged wells, all known water wells, located old wells that have not been plugged, the Latshaw #9 proposed disposal well with the ¼ mile AOR radius around it, and a one mile radius around the properties.

There are no hazardous waste treatment, storage, or disposal facilities on the proper-Ty, Map B-3 shows in greater detail the location of the collection and distribution facilities for the produced water.

Map B-3

This is a 1" = 300 ' scale map that shows all of the wells within the ¼ mile AOR. It shows the location of the tank batteries for storing produced water and oil and the pipeline system that will be used to deliver produced water to the injection well.

Map B-4

This is a 1" = 200' showing the four Speechley wells and their distance from the Latshaw #9 injection candidate in greater detail.

C. Corrective Action Plan and Well Data

Excluding the M. Latshaw #9, the proposed injection well, only two other wells within the AOR penetrate the Speechley formation. They are the M. Latshaw #12 and the M. Latshaw #25. The M. Latshaw #12 is 1035 feet away from the M. Latshaw #9 while the M. Latshaw #25 is 1263 feet away. The M. Latshaw #25 was completed in the Speechley while the M. Latshaw #12 was not. The M. Latshaw #15 was completed in the Speechley but is outside the AOR at 1594 feet away. Despite its location it will be utilized along with the other two wells as the primary monitoring wells for fluid migration.

There are twenty two Venango sand wells drilled through the Grey sand at an approximate depth of 1200 feet that are within the AOR. Eleven are located on the Stover lease and eleven on the Latshaw lease. Map B-3 displays their location the best.

There are four old wells that have been located within the AOR that have been plugged and four that have not. The four plugged wells are 4X, 6X, 7X, and 9X. The four that have not are 5X, 8X and two that have not yet been registered with the PADEP. These were all orphan wells that have been left over from the early days of the oil industry. They had no known records or current operator. Most often they are discovered while completing a new well. They were plugged by the old operators either very poorly or not at all. When they are discovered the criteria for plugging is made based on whether they are adversely affecting the production of a new well. This is usually due to failed casing dumping fresh water into the producing formations. When they are entered they are found drilled through the Venango sands only.

Water wells within the AOR exist on the M. Latshaw, Kimberly D. Heeter, and Robert A. Hoover properties.

All of the wells developed by Stonehaven were drilled by spudding the well with a 12 ¼" bit and setting approximately 22'-42' of 9 5/8" – 26 #/ft conductor pipe depending on surface conditions.. Next an 8 ¾" bit is run and drilled to a depth of 60' below the deepest known aquifer. Depending on surface elevation this is usually between a depth of 450' to 525'. A surface casing string of 7" – 17 #/ft is run and cemented to surface. Finally a 6 ¼" bit is run and drilled to the pre-determined total depth. The only difference between wells drilled to the Speechley from wells drilled through the Venango sand wells is the depth of the 6 ¼" hole.

Every producing well operated by Stonehaven is equipped with a pump off control device that monitors the daily pump time of every well. In the event that injected produced water is migrating in some manner to cause risk to the environment or welfare of the residents in the a area it will be detected quickly and steps to remedy the situation will be enacted. No wells within the AOR would be operating over the fracture pressure of the Speechley.

Table C-1 on the next below displays the date drilled, well type, casing data, total depth, deepest producing formation, and completion date of all the wells within the AOR:

Table C-1

Well	Type	Date	9 5/8"	7"	Total Depth	Completion Date
Stover #5	Venango	2/17/07	21'	467'	1210'	7/13/07
Stover #6	Venango	1/12/07	21'	469'	1198'	7/20/07
Stover #7	Venango	2/20/07	23'	503'	1258'	7/27/07
Stover #8	Venango	1/05/07	21'	482'	1205'	5/22/07
Stover #9	Venango	4/04/07	24'	454'	1202'	6/27/07
Stover #13	Venango	4/18/07	23'	480'	1202'	6/01/07
Stover #14	Venango	2/29/07	22'	485'	1260'	5/16/07
Stover #15	Venango	3/26/07	21'	500'	1210'	7/06/07
Stover #16	Venango	3/08/07	22'	508'	1263'	8/07/07
Stover #24	Venango	3/01/07	20'	531'	1243'	4/25/07
Stover #41	Venango	3/10/07	22'	454'	1226'	8/24/07
Latshaw #3	Venango	8/06/08	22'	418'	1108'	8/28/08
Latshaw #4	Venango	8/01/08	22'	428'	1106'	8/06/08
Latshaw #5	Venango	8/10/08	22'	420'	1109'	8/12/08
Latshaw #6	Venango	8/13/08	22'	418'	1109'	9/24/08
Latshaw #9	Speechley	3/21/09	22'	396'	2206'	10/14/09
Latshaw #10	Venango	3/25/09	22'	400'	1104'	10/21/09
Latshaw #11	Venango	3/27/09	21'	400'	1104'	10/26/09
Latshaw #12	Speechley	4/03/09	42'	400'	2108'	12/02/09
Latshaw #15	Speechley	5/02/09	42'	400'	2359'	12/10/09
Latshaw #16	Venango	4/27/09	42'	400'	1054'	12/18/09
Latshaw #23	Venango	1/02/10	42'	420'	1114'	3/09/10
Latshaw #24	Venango	12/23/09	42'	410'	1104'	1/04/10
Latshaw #25	Speechley	2/03/10	40'	410'	2107'	4/29/10
Latshaw #26	Venango	1/18/10	42'	411'	1057'	3/16/10
Latshaw #31	Venango	1/15/10	41'	415'	1128'	3/03/10

E. Name and Depth of USDWs

When Stonehaven began development in January 2007 of the Stover lease one of the first tasks was to drill a water well on the property. Its purpose was to provide fresh water for the completion of the new wells to be drilled. It was located within 50' of the Stover #24 well and is within the AOR. Small veins of water were encountered within 50-75 of depth and again in the 100'- 125' range.

The only named aquifer in this area is the Mountain sand which was encountered between 440' and 470'. The Stover #24 is the highest elevation well on the property. The Surface casing depths were adjusted for elevation and set 60' below the Mountain sand in all the developed wells.

G. Geological Data on Injection and Confining Zones

The Speechley sandstone is an Upper Devonian formation within the Bradford series. In this area the Speechley is encased in gray shale in excess of over 200' above and below the formation. The table below shows the gross thickness, the net pay, average porosity of the net pay, and the fracture pressures for the three wells completed in the Speechley:

Well	Depth	Gross	Net Pay	Avg. Porosity	Frac Press.
Latshaw #9	1977-1992	15'	8'	12%	3250 psi
Latshaw #12	1977-1993	16'	7'	7%	
Latshaw #15	1963-1982	19'	5'	10%	3734 psi
Latshaw #25	1980-1998	18'	6'	9%	4018 psi

The openhole logs of the four wells are shown in Figures G1, G2, G3, and G4. The treatment reports for the three wells fractured in the Speechley are shown in Figures G5, G6 and G7.

Figure G1

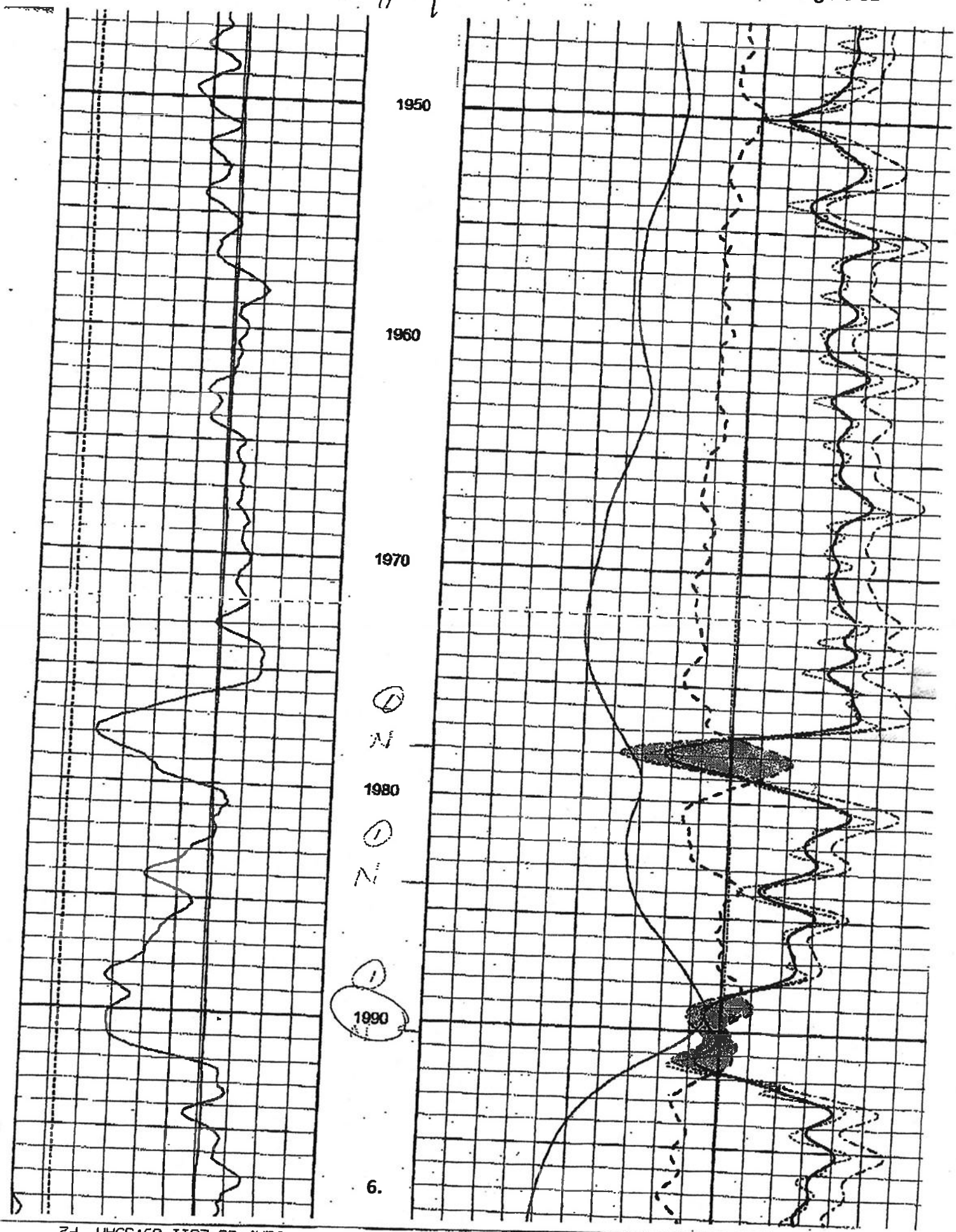

Figure G2

#12

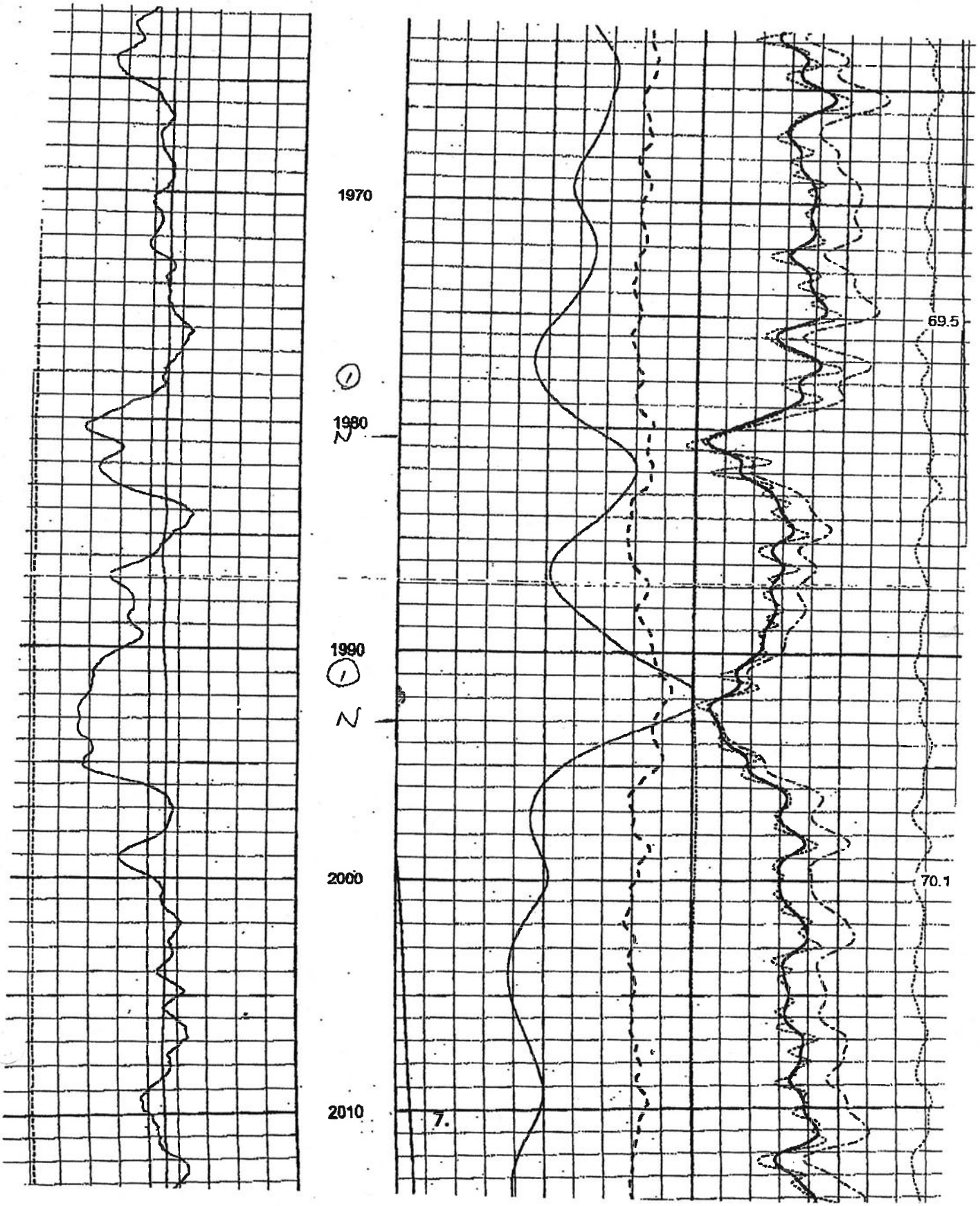

Figure G3

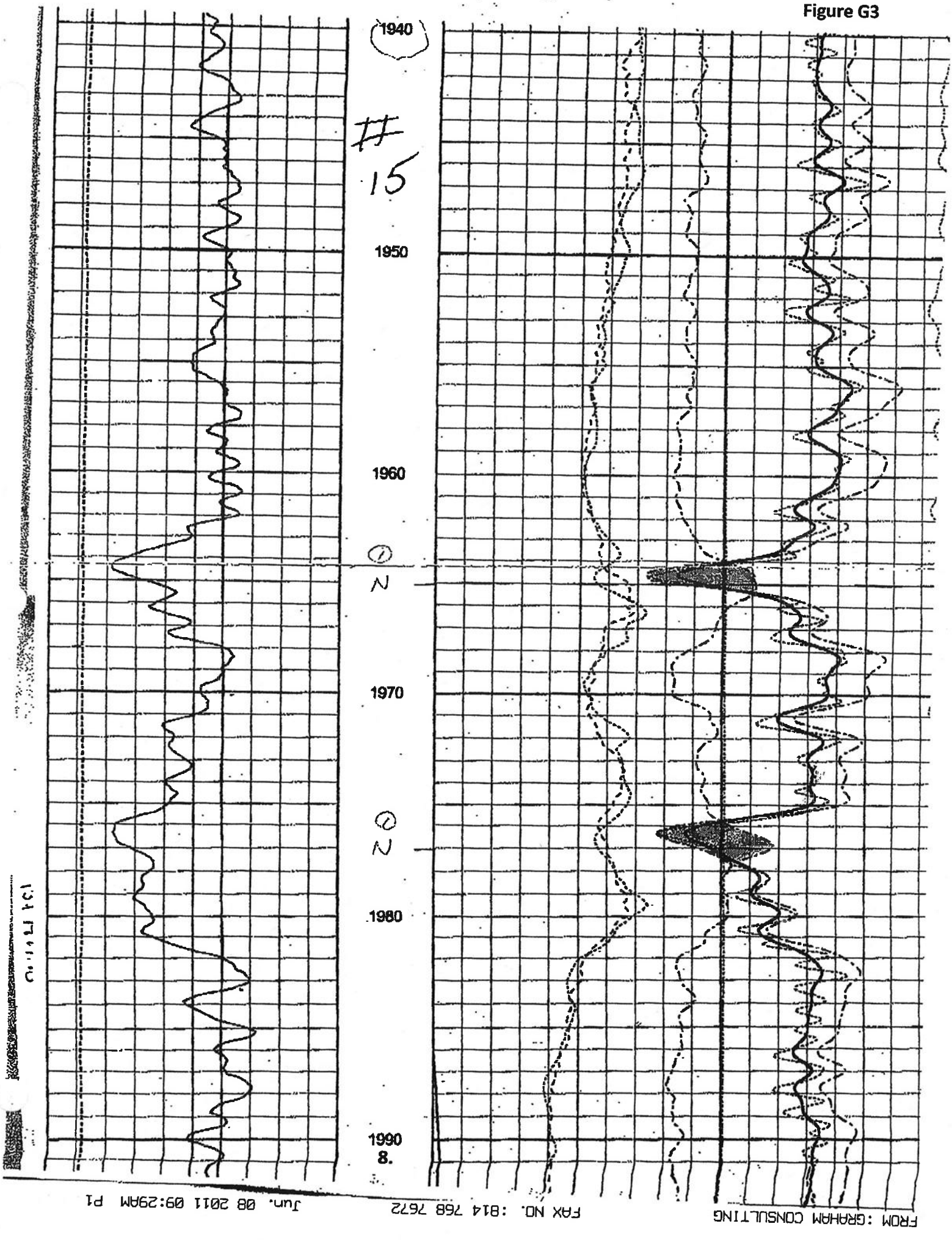

Figure G4

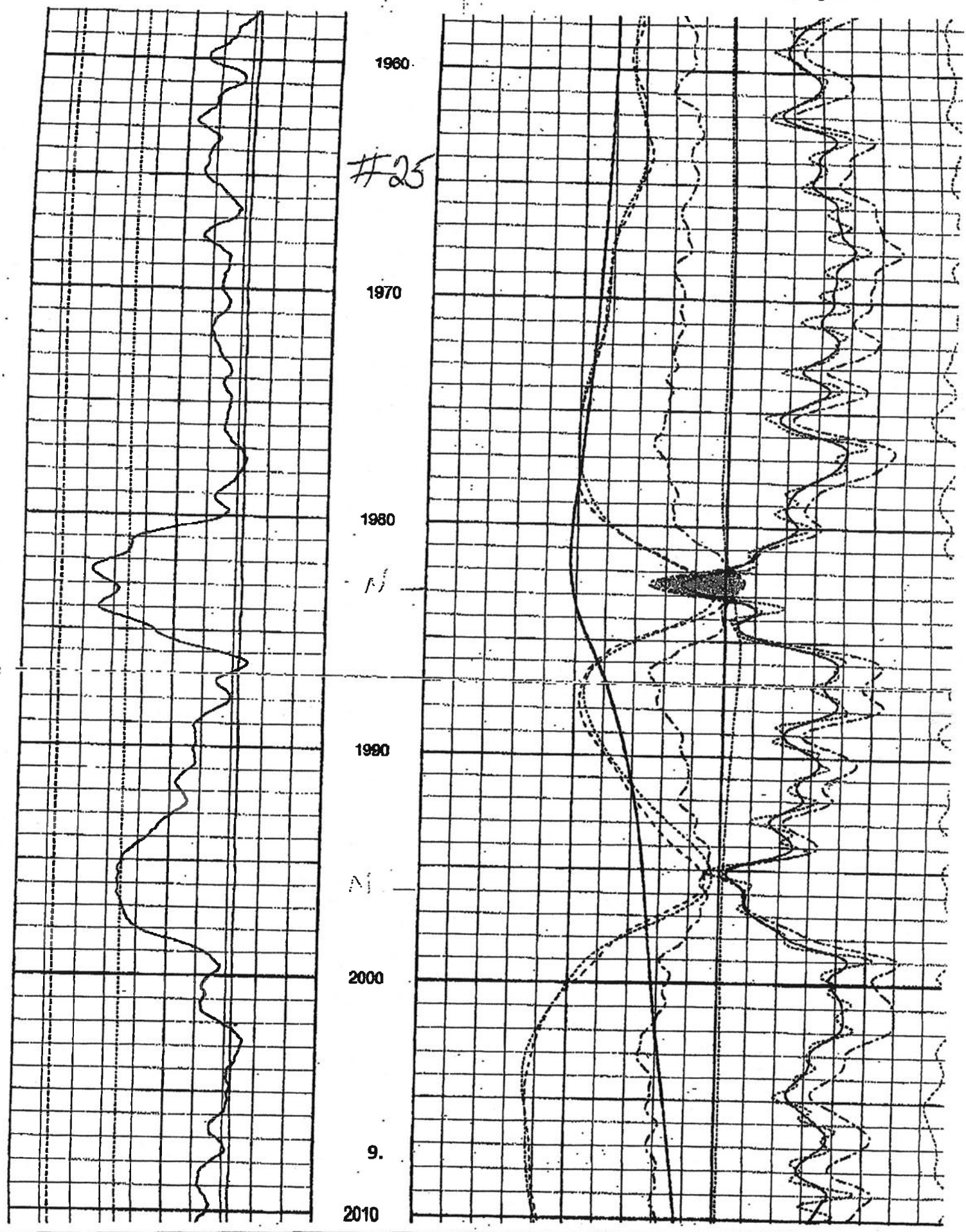

Figure G5

10-14-07

JOB LOG

779 Latshaw

UNIVERSAL WELL SERVICES, INC.
A PATTERSON-UTI ENERGY COMPANY

INVOICE NO. 216855

PRESSURES IN P.S.I.

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ DISPLACEMENT _____

SHUT-IN: INSTANT _____ 5-MIN. 1380 10-MIN. _____

VOLUMES IN GAL.

LOAD & BKDN _____ PAD _____

TREATMENT _____ DISPL _____

TOTAL VOLUME _____

HYDRAULIC HORSEPOWER

USED _____

AVERAGE RATES IN B.P.M.

TREATING _____ DISPL. _____ OVERALL _____

DESCRIPTION OF JOB 3 stage oil Job Frac thru 3" Casing

TIME	RATE (BPM)	VOLUME (GAL)	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF STAGE OR EVENT
1045					Safety meeting
		Stage 1			Notch 1978
1232	17.4	1000		3900	Start Sand ½ Gel
1233		2500		2260	Start Sand 1
1235		3568		2110	Start Sand 1½
1237		4500		2370	Start Sand 1 increase Gel
1237		5200		2110	Start Sand 1½
1239		6500		2040	Start Sand 2
1240		7400		2240	Start Sand 1½
1241		7800		1570	Finish Sand
1242		8000		2140	Start Sand 1½ (PI)
1245		9850		2140	Finish 20/40 Sand Start 12/20
1246		10850		2170	Start Sand 1½
1248		11900		2230	Finish Sand ISIP 1435
1250		12920			Finish Flush PSI 2106
					Rate 15.2
					HHP 792
					Total Sks 20 sks 12/20
					100 sks 29/40

Figure G6

12-10-09 Stage 12-13

JOB LOG

LATSHAW #15

UNIVERSAL WELL SERVICES INC

INVOICE NO. 21621.5

PRESSURES IN P.S.I.

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ DISPLACEMENT _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 10-MIN. _____

VOLUMES IN GAL.

LOAD & BKDN _____ PAD _____

TREATMENT _____ DISPL _____

TOTAL VOLUME _____

HYDRAULIC HORSEPOWER

USED _____

AVERAGE RATES IN B.P.M.

TREATING _____ DISPL _____ OVERALL _____

DESCRIPTION OF JOB 13 Stage O.H. Sub Frac thru 5" Casing

TIME	RATE (BPM)	VOLUME (GAL)	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF STAGE OR EVENT
	Stage 12				Natl 1965
1657	5.1	200		3000	Gel
1704					Acid Flush
				3734	Break formation
1724	17.1	1950		3050	Start Sand 2
1725		2000		3010	Start Sand 1
1730		3900		2700	Start Sand 1/2
1728		4700		2600	Start Sand 2
1734		5850		2550	Start Sand 1/2 ISIP 1677
1733		7900		2560	Finish Sand Pr 2671
1739		8960			Finish Flush Rate 17.4
					MP 1135
	Stage 13		Nitrogen 1977		Total Sand 100 24/40
		5410 Gal Pad			
1757					
1802		11022		190	Shut down

Figure G7

4-29-10

JOB LOG

Latshaw #25

Slago 10-11-12

UNIVERSAL WELL SERVICES, INC.

A PATTERSON-UTI ENERGY COMPANY

INVOICE NO. 15-10037

PRESSURES IN P.S.I.

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ DISPLACEMENT _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 10-MIN. _____

VOLUMES IN GAL.

LOAD & BKDN _____ PAD _____

TREATMENT _____ DISPL _____

TOTAL VOLUME _____

HYDRAULIC HORSEPOWER

USED _____

AVERAGE RATES IN B.P.M.

TREATING _____ DISPL. _____ OVERALL _____

DESCRIPTION OF JOB 12 Slago Oil Sub "For Thru 3" Casing

TIME	RATE (BPM)	VOLUME (GAL)	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF STAGE OR EVENT
Slagg		Slag	10		Notch 1939
		Slag 2	11		Notch 1939
1717					Spotting gal
1747	6			3600	Est. 3 bpm
				3592	Break formation
1755		2300		3150	Start Sand 1/2 30/50
1758	12	4600		3060	Start Sand 1
1801		6700		2950	Start Sand 1½
1804		7900		2910	Start Sand 2 ISIP 104
1807		11000		3150	Finish Sand FG .704
1810		11780			Finish Flush Ext 16.2
					Hill 1205
					Total Sd 95 30/50
		Slago 12			
1632		800			Notch 1956
1635	12	4600		3200	Spotting gal
				40	
1638		1200		4018	Break Formation
1639	15	1400		2060	Start Sand 1/2 30/50 gal
1641		3300		2840	Start Sand 1
1644		5600		2670	Start Sand 1½
1647		7600		2540	Start Sand 2 ISIP 1741
1649		9900		2500	Start Sand 2½ FG .711
1651		10770		2790	Finish Sand Ext 16.7
1655		11270			Finish Flush HHP 1127
					Total 105 30/50

H. Operating Data

In a letter dated February 17,2011, from S. Stephen Platt, of the United States Environmental Protection Agency, Region III, Stonehaven was given permission to perform a controlled injection test into the Speechley formation in the Latshaw #9.

A copy of the letter is shown as Figure H1. The conditions outlined in the letter allowed for the test to be conducted for a duration not to exceed thirty days and for a total volume injected not to exceed 5000 BBls. The injection pressure was also limited to a maximum injection pressure of 1365 psi.

The test was conducted by running an openhole packer into the well on 3 ½" 10 rd tubing and setting it just above the Speechley formation at 1928'. The annulus between the 3 ½" tubing and the 7" casing was left open at the surface so it could be monitored. The test began on April 15, 2011 and was completed on May 14, 2011. The well took the fluid for the most part under the hydrostatic pressure of the fluid column. During the thirty day test 1955 BBls of the produced brine was disposed into the well. Figure H2 contains a table displaying the daily volumes and pressures.

Figures H3 and H4 show the sample analysis and specific gravity of the brine being produced by the Stonehaven wells. The testing was conducted by Mahaffey Laboratory, LTD. Located at 551 State Street, Curwensville, PA 16833.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

February 17, 2011

Mr. Mark Axel
Stonehaven Energy, LLC
1251 Waterfront Place, Suite 540
Pittsburgh, PA 15222

Dear Mr. Axel:

EPA Region III Underground Injection Control (UIC) program staff has completed review of your request to conduct a second injectivity test using the Ardent Latshaw #9 well. This request has been approved and Stonehaven Energy is hereby granted authorization to conduct this test, utilizing the Ardent Latshaw #9 (API #37-121-44484), located in Tippery Township, Venango County, Pennsylvania, under the following conditions.

1. **Injection Zone** – The well will be utilized to perform testing of the Speechley Sandstone. Injection into the Speechley will be conducted through tubing and packer set immediately above the upper notched interval in the Speechley (1978 feet).

2. **Duration of Test** – The duration of the injectivity test shall not exceed a maximum of thirty (30) consecutive days.

3. **Total Volume Limitation** - During the testing period, the total volume of fluid to be injected shall not exceed a maximum of 5000 barrels of produced fluid (brine).

4. **Maximum Injection Pressure** - The maximum injection pressure for the test into the Speechley is based on an instantaneous shut-in pressure of 1435 psi (based on the first stage fracture information) and a specific gravity of the injection fluid of 1.08. The injection pressure for this test shall not exceed the maximum surface injection pressure of **1365 psi**. If, during testing, it is observed that this pressure causes formation breakdown/fracturing to occur, the test shall be stopped and EPA contacted immediately to discuss alternative testing procedures.

5. **Injection Fluid** - Injection fluid shall consist of produced fluid (brine) obtained from Stonehaven Energy production operations with a specific gravity of approximately 1.08.

6. **Monitoring** - Injection volume and pressure shall be monitored and recorded on a continuous basis. We encourage you to continue to monitor formation pressure decline after injection has concluded. This data should further enhance your analysis of the transmissivity and storage capacity of the proposed injection formation and allow for an estimation of the protracted effects on the formation. A final report must be submitted to EPA within 30 days of the conclusion of the test.

The authorization for this test will expire on May 15, 2011. Please contact Dave Rectenwald, our UIC field inspector, at 814-827-1952 (office) or 814-449-9577 (cell) when you are ready to schedule the injectivity testing. If you should have any questions, please give me a call at 215-814-5464.

Sincerely,

S. Stephen Platt

S. Stephen Platt
Ground Water and Enforcement Branch (3WP22)
Office of Drinking Water and Source Water Protection

cc: Dave Rectenwald
S. Craig Lobins, PADEP Meadville

Latshaw #9 Injection Well Test Results
Meter #7964980

Date:	Meter Reading	PSI	Gallons Disposed	BBLS Disposed	Total BBLS Disposed
4/15/2011	120	39	120	3	3
4/16/2011	3860	39	3,740	89	92
4/17/2011	7650	39	3,790	90	182
4/18/2011	11460	39	3,810	91	273
4/19/2011	15010	39	3,550	85	357
4/20/2011	15270	0	260	6	364
4/21/2011	18600	4	3,330	79	443
4/22/2011	21720	3	3,120	74	517
4/23/2011	24940	3	3,220	77	594
4/24/2011	28040	0	3,100	74	668
4/25/2011	31150	0	3,110	74	742
4/26/2011	34120	0	2,970	71	812
4/27/2011	36900	0	2,780	66	879
4/28/2011	39850	0	2,950	70	949
4/29/2011	42540	0	2,690	64	1,013
4/30/2011	45770	32	3,230	77	1,090
5/1/2011	48870	32	3,100	74	1,164
5/2/2011	51960	32	3,090	74	1,237
5/3/2011	54870	27.5	2,910	69	1,306
5/4/2011	57780	35	2,910	69	1,376
5/5/2011	60600	36	2,820	67	1,443
5/6/2011	63370	35	2,770	66	1,509
5/7/2011	66030	35	2,660	63	1,572
5/8/2011	68790	35	2,760	66	1,638
5/9/2011	71410	35	2,620	62	1,700
5/10/2011	73490	4	2,080	50	1,750
5/11/2011	75640	3	2,150	51	1,801
5/12/2011	77820	2	2,180	52	1,853
5/13/2011	80020	0	2,200	52	1,905
5/14/2011	82110	0	2,090	50	1,955
Totals			**82,110**	**1,955**	

Average PSI for test 18.3

Figure H3

Mahaffey Laboratory LTD.

551 State Street
Curwensville, PA 16833

Phone: 814-236-3540
Fax: 814-236-1952

Email info@mahaffeylaboratory.com
www.mahaffeylaboratory.com

PA DEP Certified
Lab ID# 17-00213

Certificate of Analysis

Graham
Stonehaven Energy, LLC

Project Brine
Date Reported 6/4/2010
Date Received 5/25/2010
Date Complete 6/4/2010

Sample No.: 1005202-001 Sample ID: Brine Sample Description:
Sampler: client Date Sample 5/24/2010 Matrix Brine

Test	Result	Units	Method	Qlf	Test Date	Analyst
Chloride	63629.0	mg/L	SM 4110B		5/29/2010	CH
Total Dissolved Solids - WW	97468	mg/L	USGS I-1750-85		6/4/2010	
Calcium	8217.0	mg/L	200.7		6/2/2010	DW
Magnesium	1560.0	mg/L	200.7		6/2/2010	DW
Sodium	26657.0	mg/L	200.7		6/2/2010	DW

Approved By Carlton R. McCracken, Jr. Chemist

Figure H4

Mahaffey Laboratory LTD.

551 State Street
Curwensville, PA 16833

Phone: 814-236-3540
Fax: 814-236-1952

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www.mahaffeylaboratory.com

PA DEP Certified
Lab ID# 17-00213

Certificate of Analysis

Graham
Stonehaven Energy, LLC

Project
Date Reported 10/27/2010
Date Received 9/23/2010
Date Complete 9/30/2010

Sample No.: 1009213-001 Sample ID: Description:
Sampler: client Date Sample 9/23/2010 Matrix

Test	Result	Units	Method	Qlf	Test Date	Analyst
Specific Gravity	1.078	gm/ml	ASTM D 1429		9/24/2010	GEOT

Approved By Carlton R. McCracken, Jr. Chemist

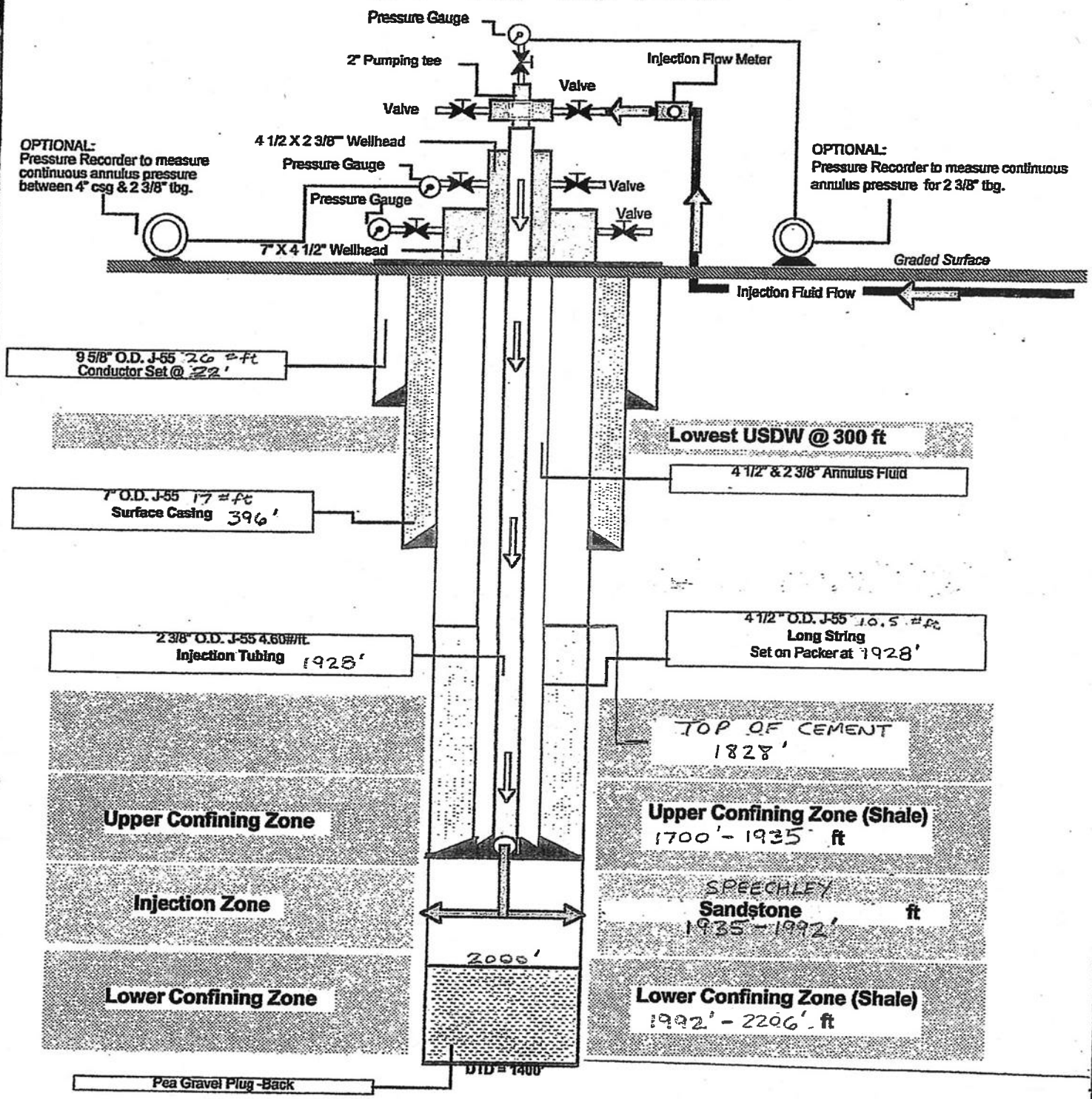
M. Construction Details

Most of the components for this project are already in place. The main tank battery is located just above the buildings shown on Map B-3. Gun barrel separaters are used to separate the produced water from the oil and siphon it down to three 250 barrel storage tanks located below Stover #23. An existing 1 ¼" plastic line will be utilized to deliver the produced water on a route that takes it from the storage tanks to Stover #16, past Stover #41, past Stover #5, past Stover #6, past Latshaw #5, past Latshaw #10 and finally to Latshaw #9. It has already been used during the test injection.

At the well site a diatomaceous earth filter will be used to filter out dissolved solids. From There it will be gravity fed into injection string. A pump may be eventually located at the well site to assist in the disposal. Surface pressure is never to exceed the 1365 psi maximum injection pressure.

The well itself will be re-constructed by running 4 ½" J-55 10.5 #/ft casing on an open hole cementing packer down to 1928'. The pipe will be cemented in place with 100 feet of class A cement mixed at a density of 15.6 #/gal with a yield of 1.18 ft3/sk. The top of the cement will be approximately 1828'. A 2 3/8" J-55 4.6 #/ft injection string will be hung on a 4 ½" X 2 3/8" hook wall packer after the hole is circulated with a fresh water gel monitoring fluid containing corrosion inhibitors. The packer will be set, the fresh water gel will be swabbed out of the tubing, and the will be ready to be used for disposal. Figure M1 shows a schematic of the proposed construction.

TYPE PROPOSED WELL CONSTRUCTION



Q. Plugging and Abandonment Plan

A estimate was solicited from S & T Service and Supply, Inc., a local plugging contractor, with respect to the ultimate plugging of the well. The well would be plugged as per PADEP regulations in the following manner:

1.) **The 2 3/8" X 4 ½" hookwall packer would be released. A 100' cement plug would spotted from 1828' – 1928'.**
2.) **The 2 3/8" tubing would be recovered from the well.**
3.) **The 4 ½" casing would be shot off above the cement top @ 1828"**
4.) **The Venango series would be cement as per PADEP specs from 1040 to 690'**
5.) **A 100 ft cement plug would straddle the 7" casing seat from 350-450'**
6.) **The 7" casing would be filled with pea gravel to surface as per PADEP specs.**

Figure Q1 shows S & T's written estimate and Figure Q2 is EPA form 7520-14 filled out showing the placement of the plugs.

R. Necessary Resources

Figure R1 demonstrates the necessary resources are available to plug the well.

Figure Q1

ESTIMATE

S&T SERVICE AND SUPPLY, INC.
16267 TIONESTA ROAD • PLEASANTVILLE, PA 16341
OFFICE: 814-589-7025

CUSTOMER PHONE

NAME Stonehaven, LLC

DATE 5/12/11

ADDRESS

CONDITIONS

WORK PERFORMED:

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	Plug Ketchum #9		
16 hrs	Mobilization and Demobilization	90 -	1440 00
	Shoot off 3° (if needed)		800 00
9 hrs	Rig Time	135 -	1215 00
	Top Hole		400 00
130 sacks	Cement & Plugging	42 -	5628 00
4 bags	Gel		
			9,483 00

Thank you! Steve Smith

SUBTOTAL

TAX

TOTAL

SIGNATURE

KEEP THIS SLIP FOR REFERENCE. Thank You.

OMB No. 2040-0042 Approval Expires 12/31/2011

EPA

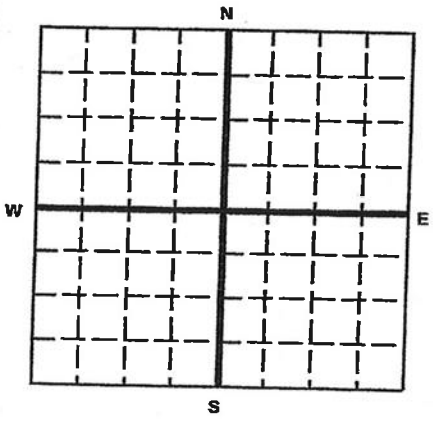
United States Environmental Protection Agency
Washington, DC 20460

PLUGGING AND ABANDONMENT PLAN

Name and Address of Facility
TIPPERY FIELD #9

Name and Address of Owner/Operator
STONEHAVEN ENERGY MANAGEMENT, LLC
1251 WATERFRONT PLACE SUITE 540
PITTSBURGH, PA 15222

Locate Well and Outline Unit on Section Plat - 640 Acres



State PENNSYLVANIA
County VENANGO
Permit Number 37-121-44484

Surface Location Description
___ 1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range ___

Locate well in two directions from nearest lines of quarter section and drilling unit
Surface
Location ___ ft. frm (N/S) ___ Line of quarter section
and ___ ft. from (E/W) ___ Line of quarter section.

TYPE OF AUTHORIZATION
- [x] Individual Permit
- [ ] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name M. LATSHAW

WELL ACTIVITY
- [ ] CLASS I
- [x] CLASS II
  - [x] Brine Disposal
  - [ ] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number #9

CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT (LB/FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLE SIZE
9 5/8"	26	22'	22'	12 1/4
7"		396'	396'	8 7/8
4 1/2"		1928	100'	6 1/4
2 3/8"		1928		

METHOD OF EMPLACEMENT OF CEMENT PLUGS
- [ ] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (inche	4 1/2"	6 1/4	6 1/4-7"				
Depth to Bottom of Tubing or Drill Pipe (ft	1928'	1040	450				
Sacks of Cement To Be Used (each plug)	8	63	18				
Slurry Volume To Be Pumped (cu. ft.)	9.44	74.34	21.24				
Calculated Top of Plug (ft.)	1828'	690	350				
Measured Top of Plug (if tagged ft.)	1828	690	350				
Slurry Wt. (Lb./Gal.)	15.6	15.6	15.6				
Type Cement or Other Material (Class III)	CLASS A	CLASS A	CLASS A				

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (If any)

From	To	From	To

Estimated Cost to Plug Wells
$9483.00

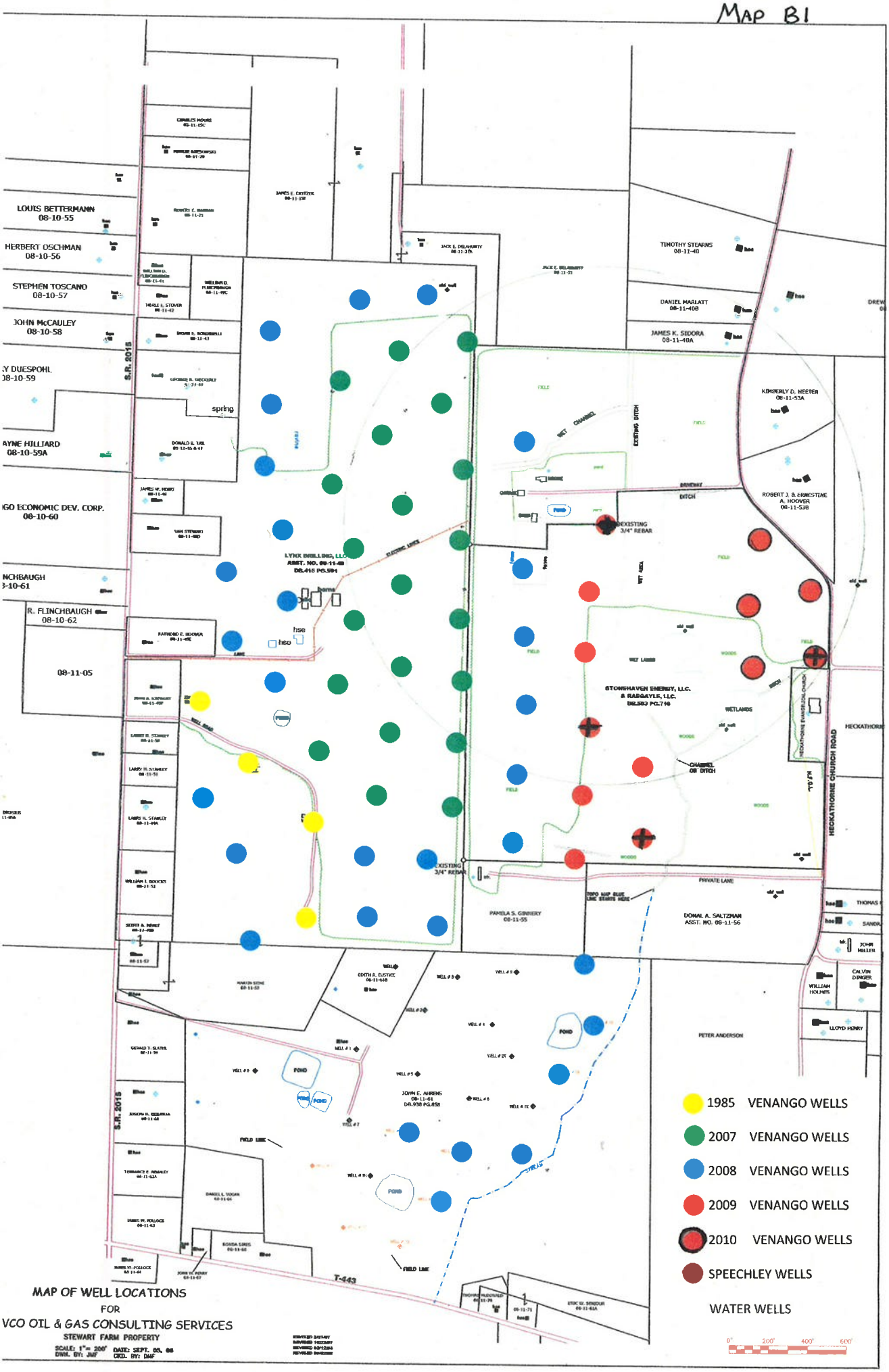
Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments 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 and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed

EPA Form 7520-14 (Rev. 12-08)

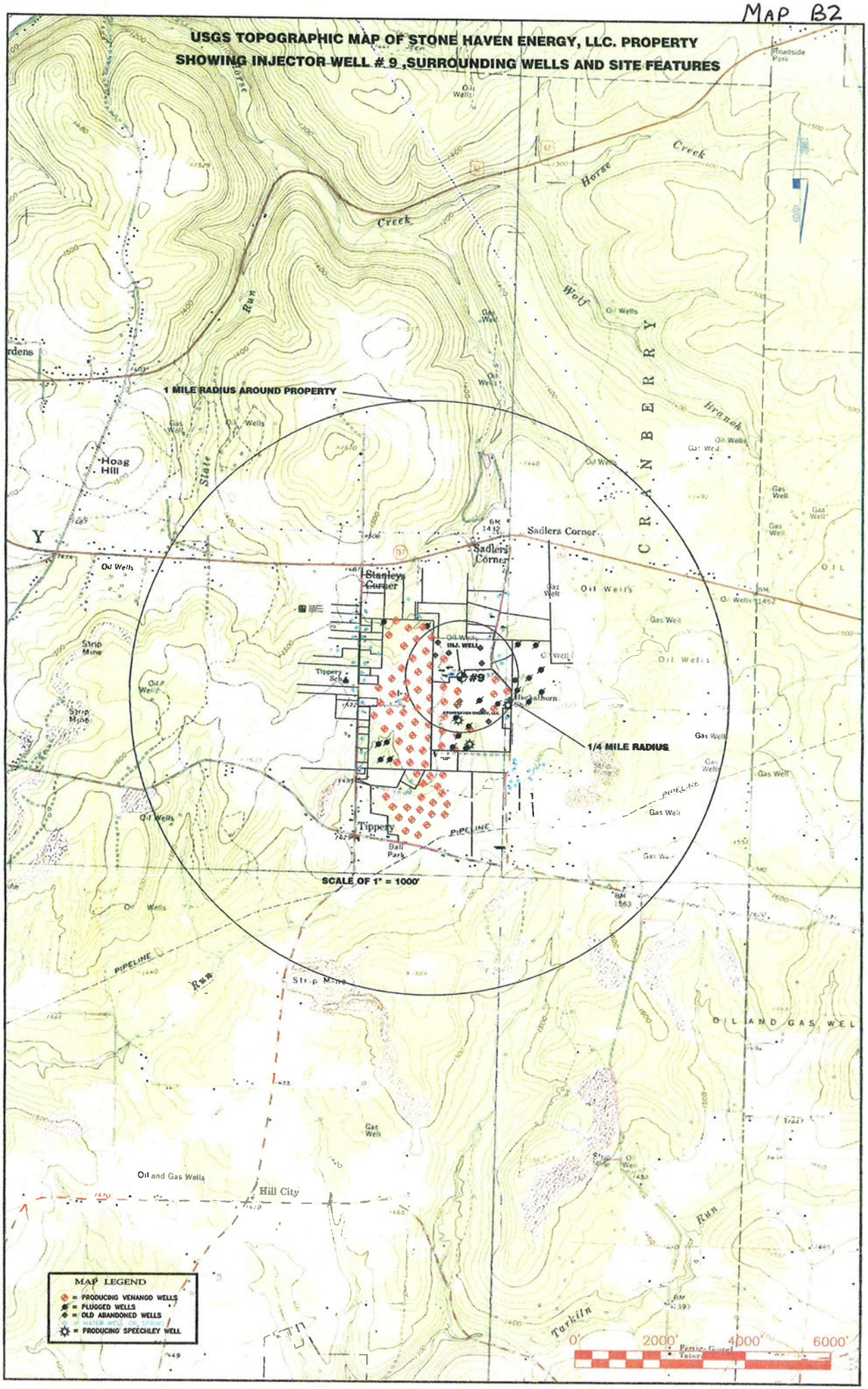
MAP B1



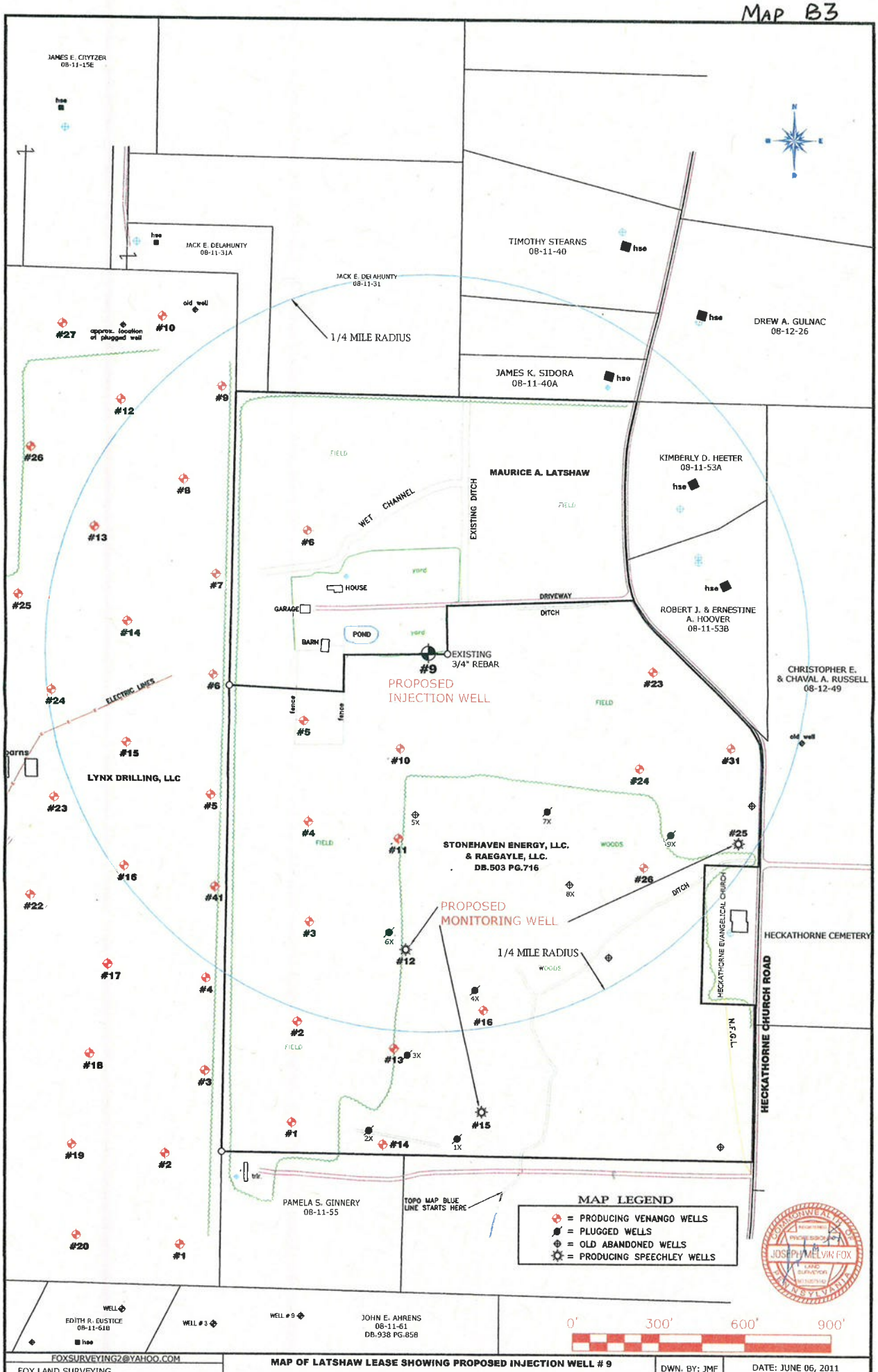
MAP OF WELL LOCATIONS
FOR
VCO OIL & GAS CONSULTING SERVICES
STEWART FARM PROPERTY
SCALE: 1"= 200' DATE: SEPT. 05, 06
DWN. BY: JMF CKD. BY: DMF

MAP B2

USGS TOPOGRAPHIC MAP OF STONE HAVEN ENERGY, LLC. PROPERTY SHOWING INJECTOR WELL # 9 ,SURROUNDING WELLS AND SITE FEATURES



MAP B3

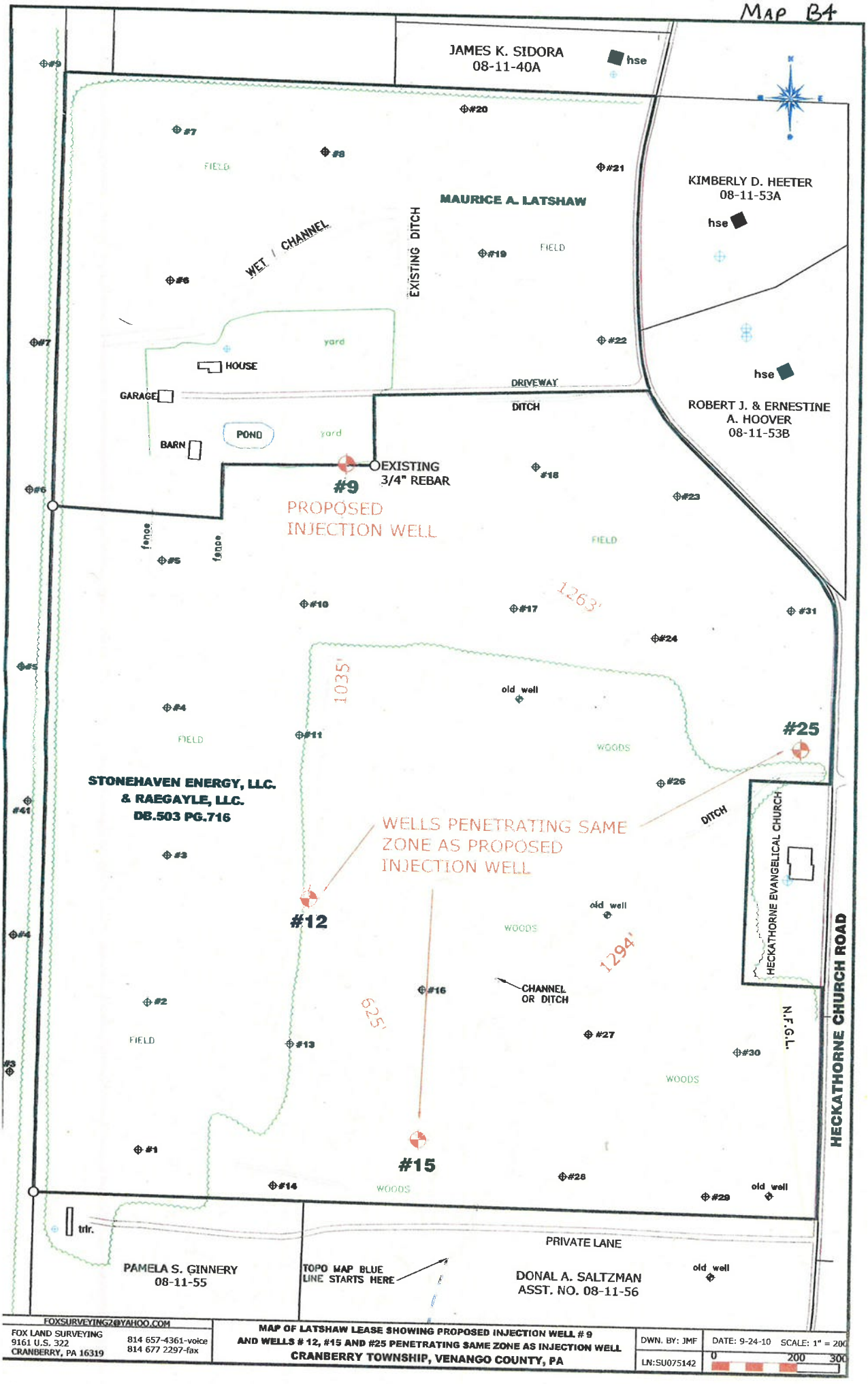


FOXSURVEYING2@YAHOO.COM
FOX LAND SURVEYING
9161 U.S. 322
CRANBERRY, PA 16319
814 657-4361-voice
814 677 2297-fax

MAP OF LATSHAW LEASE SHOWING PROPOSED INJECTION WELL # 9 AND WELLS # 12, #15 AND #25 PENETRATING SAME ZONE AS INJECTION WELL
CRANBERRY TOWNSHIP, VENANGO COUNTY, PA

DWN. BY: JMF	DATE: JUNE 06, 2011
LN:SU075142	SCALE: 1" = 300

MAP B4



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CRANBERRY, PA 16319
814 657-4361-voice
814 677 2297-fax

MAP OF LATSHAW LEASE SHOWING PROPOSED INJECTION WELL # 9
AND WELLS # 12, #15 AND #25 PENETRATING SAME ZONE AS INJECTION WELL
CRANBERRY TOWNSHIP, VENANGO COUNTY, PA

DWN. BY: JMF | DATE: 9-24-10 | SCALE: 1" = 200'
LN:SU075142
0 200 300