

JK

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work



API 47 - 061 - 01658 County Monongalia District Clay
Quad Blacksville Pad Name Statler Field/Pool Name _____
Farm name Statler Well Number 4H
Operator (as registered with the OOG) Northeast Natural Energy LLC
Address 707 Virginia Street East, Suite 1200 City Charleston State WV Zip 25301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4395639.9 Easting 570444.7
Landing Point of Curve Northing 4395355.5 Easting 570244.5
Bottom Hole Northing 4393669.2 Easting 571624.6

Elevation (ft) 1,061' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
Synthetic Oil Based

Date permit issued 7/24/2013 Date drilling commenced 8/29/2013 Date drilling ceased 10/26/2013
Date completion activities began 11/30/2013 Date completion activities ceased 12/19/2013
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 910' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1950' Void(s) encountered (Y/N) depths N
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths N/A
Is coal being mined in area (Y/N) N

Reviewed by:

01/16/2015



API 47-061 - 01658 Farm name Statler Well number 4H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	-	20"	59'	New	N/A	-	-
Surface	17 1/2"	13 3/8"	1044'	New	J-55, 54.5 lb/ft	-	Y
Coal	-	-	-	-	-	-	-
Intermediate 1	12 1/4"	9 5/8"	2,224'	New	J-55, 36 lb/ft	-	Y
Intermediate 2	-	-	-	-	-	-	-
Intermediate 3	-	-	-	-	-	-	-
Production	8 3/4"	5 1/2"	15,511'	New	P-110, 20 lb/ft	-	N
Tubing	-	2 7/8"	7,989'	New	P-110, 8.7 lb/ft	-	-
Packer type and depth set		N/A					

Comment Details Cement Returns to Surface: Surface - 1 bbl; Intermediate - 18 bbl; Production - 0 bbl

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Grout	-	-	-	-	-	-
Surface	Pre-NE-1 3% CaCl	765	15.2	1.28	979.2	0	8
Coal	-	-	-	-	-	-	-
Intermediate 1	Type 1 .5%EC1 1/4#FLAKE...	689	15.2	1.28	881.92	0	8
Intermediate 2	-	-	-	-	-	-	-
Intermediate 3	-	-	-	-	-	-	-
Production	50/50 Type 1 .25%BA-10A...	3,183	14.5	1.18	3755.94	2,000'	Until Completion
Tubing	-	-	-	-	-	-	-

Drillers TD (ft) 15,517 Loggers TD (ft) 15,517

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6,100

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Surface String: Bow Spring Centralizers located every 3rd joint or ≈120' from TD to Surface

Intermediate String: Bow Spring Centralizers located every 3rd joint or ≈120' from TD to Surface

Production String: Hard-Bodied Spiral Centralizers located every 4th joint or ≈150' from TD to Surface

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS N/A

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS N/A

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED N/A



API 47- 061 - 01658

Farm name Statler

Well number 4H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

Please insert additional pages as applicable. Please see page 5.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)

Please insert additional pages as applicable. Please see page 6.

API 47- 061 - 01658 Farm name Statler Well number 4H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>
Marcellus	7953' TVD _____ MD
_____	_____
_____	_____
_____	_____



Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 4300 psi Bottom Hole _____ psi DURATION OF TEST 48 hrs

OPEN FLOW Gas 4480 mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd
GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		

Please insert additional pages as applicable. Please see page 7.

Drilling Contractor Pioneer Energy Service
Address 1083 N. 88 Road City Rices Landing State PA Zip 15357

Logging Company Baker Hughes
Address 837 Phillippi Pike City Clarksburg State WV Zip 26301

Cementing Company Baker Hughes
Address 837 Phillippi Pike City Clarksburg State WV Zip 26301

Stimulating Company FTSI
Address 1432 Route 519 City Eighty Four State PA Zip 15330

Please insert additional pages as applicable. Please see page 8.

Completed by Zachary Arnold Telephone 304-241-5752
Signature [Signature] Title General Manager - Operations Date 1/6/15

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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Perforation Record					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations(s)
1	11/30/2013	15,217	15,407	40	Marcellus
2	12/1/2013	14,967	15,157	40	Marcellus
3	12/1/2013	14,717	14,907	40	Marcellus
4	12/2/2013	14,467	14,657	40	Marcellus
5	12/2/2013	14,217	14,407	40	Marcellus
6	12/2/2013	13,967	14,157	40	Marcellus
7	12/3/2013	13,717	13,907	40	Marcellus
8	12/3/2013	13,467	13,657	40	Marcellus
9	12/4/2013	13,217	13,407	40	Marcellus
10	12/4/2013	12,967	13,157	40	Marcellus
11	12/5/2013	12,717	12,907	40	Marcellus
12	12/5/2013	12,467	12,657	40	Marcellus
13	12/6/2013	12,217	12,407	40	Marcellus
14	12/8/2013	11,967	12,157	40	Marcellus
15	12/8/2013	11,717	11,907	40	Marcellus
16	12/9/2013	11,467	11,657	40	Marcellus
17	12/10/2013	11,217	11,407	40	Marcellus
18	12/10/2013	10,967	11,157	40	Marcellus
19	12/14/2013	10,717	10,907	40	Marcellus
20	12/14/2013	10,467	10,657	40	Marcellus
21	12/15/2013	10,217	10,407	40	Marcellus
22	12/16/2013	9,967	10,152	40	Marcellus
23	12/16/2013	9,717	9,907	40	Marcellus
24	12/17/2013	9,467	9,657	40	Marcellus
25	12/17/2013	9,217	9,407	40	Marcellus
26	12/18/2013	8,967	9,157	40	Marcellus
27	12/18/2013	8,717	8,907	40	Marcellus
28	12/18/2013	8,467	8,657	40	Marcellus
29	12/19/2013	8,217	8,407	40	Marcellus
30	12/19/2013	8,017	8,169	40	Marcellus

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Stimulation Information per Stage								
Stage No.	Stimulations Date	Average Pump Rate (BPM)	Average Treatment Pressure (psi)	Max Breakdown Pressure	ISIP (psi)	Amount of Prppant (lbs)	Amount of Water (bbbls)	Amount of Nitrogen/other
1	11/30/2013	68	8,550	8,842	6,006	343,949	6,676	-
2	12/1/2013	71	8,255	8,800	6,107	399,861	7,192	-
3	12/1/2013	74	8,654	9,101	6,438	396,606	7,068	-
4	12/2/2013	75	8,807	9,059	6,600	401,814	6,982	-
5	12/2/2013	74	9,012	9,345	6,533	398,924	7,061	-
6	12/2/2013	80	8,821	9,111	6,706	394,874	7,073	-
7	12/3/2013	78	8,780	9,174	6,732	408,419	7,296	-
8	12/3/2013	84	8,679	9,057	6,588	404,103	6,985	-
9	12/4/2013	86	8,705	9,054	6,338	393,446	6,954	-
10	12/4/2013	81	8,849	9,223	6,661	398,013	6,766	-
11	12/5/2013	88	8,857	9,275	6,241	389,808	6,850	-
12	12/5/2013	86	8,712	9,226	6,404	390,831	6,712	-
13	12/6/2013	88	8,850	9,112	6,374	397,251	6,942	-
14	12/8/2013	82	8,561	9,167	5,233	392,597	6,981	-
15	12/8/2013	87	8,823	9,213	6,529	401,646	6,838	-
16	12/9/2013	85	8,749	8,971	6,773	400,707	7,128	-
17	12/10/2013	8	8,780	9,146	6,731	401,951	6,808	-
18	12/10/2013	82	8,674	9,170	6,798	639,193	6,455	-
19	12/14/2013	86	8,362	9,080	6,062	398,294	6,817	-
20	12/14/2013	86	9,339	8,924	6,205	406,245	6,749	-
21	12/15/2013	91	8,963	9,196	5,862	375,281	7,459	-
22	12/16/2013	85	8,135	8,415	6,902	399,473	6,785	-
23	12/16/2013	86	8,269	8,709	6,397	403,683	6,693	-
24	12/17/2013	89	8,156	8,766	6,632	400,491	6,595	-
25	12/17/2013	88	8,092	8,241	6,292	403,379	6,959	-
26	12/18/2013	86	8,366	8,956	6,242	399,819	6,764	-
27	12/18/2013	78	8,413	9,177	6,364	404,891	6,839	-
28	12/18/2013	89	8,415	8,790	6,516	398,685	6,657	-
29	12/19/2013	82	8,361	9,147	5,830	398,465	6,716	-
30	12/19/2013	77	8,281	8,888	5,600	198,146	3,215	-

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Litholgy/Formation	Top Depth in FT Name TVD	Bottom Depth in FT TVD	Top Depth in FT MD	Bottom Depth in FT MD	Describe Rock Type and Record Quantity and Type of Fluid (Freshwater, Brine, Oil, Gas, H2S, etc)
Sand and Shale	0	650	0	650	
Coal	650	660	650	660	
Sand and Shale	660	1,500	660	1,500	
Salt Sand	1,490	1,800	1,490	1,800	
Sand and Shale	1,800	1,980	1,800	1,980	
Maxon	1,980	1,995	1,980	1,995	
Little Lime	1,995	2,018	1,995	2,018	
Big Lime	2,018	2,096	2,018	2,096	
Big Injun	2,096	2,230	2,096	2,230	
Shale	2,230	7,420	2,230	7,508	
Burkett	7,420	7,640	7,508	7,752	
Tully	7,640	7,698	7,752	7,831	
Hamilton	7,698	7,800	7,831	7,991	
Marcellus	7,800	TD	7,991	15,517	

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Drilling Contractor

Top Hole:

Performance Drilling, LLC.
1244 Martins Branch Road
Charleston, WV 25312

Horizontal:

Pioneer Energy Services
1083 N. 88 Road
Rices Landing, PA 15357

Logging Company

Baker Hughes
837 Philippi Pike
Clarksburg, WV 26301

Cementing Company

Baker Hughes
837 Philippi Pike
Clarksburg, WV 26301

Stimulating Company

FTSI
1432 Route 519
Eighty Four, PA 15330

61-01658

CEMENT JOB REPORT



CUSTOMER NORTHEAST NATURAL ENER		DATE 31-AUG-13	P.R.# 10011011065		SERV. SUPV. Charles M Gray								
LEASE & WELL NAME STATLER 4H - API 4708 (016580000)		LOCATION STAR CITY			COUNTY-PARISH-BLOCK Monongalia West Virginia								
DISTRICT Clarksburg		DRILLING CONTRACTOR RIG # PERFORMANCE DRILLING			TYPE OF JOB Surface								
SIZE & TYPE OF PLUGS		LIST-CSG-HARDWARE		MECHANICAL BARRIERS MD TVD		HANGER TYPES MD TVD							
BJ Cement Plug, Rubber, Top 13-3/8		Guide Shoe, Cement Nose 13-3/8 In											
		Float Collar, AI Flap, 13-3/8 - 8rd											
MATERIALS FURNISHED BY BJ				PHYSICAL SLURRY PROPERTIES									
LAB REPORT NO.				BACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER			
GELLED H2O + LCM				700	8.48				39				
PREMIUM NE + 3% CACL				0	690	15.2	1.28	5.77	157	84.61			
H2O						8.34			164.7				
200 LB GRANULATED SUGAR (ON THE SIDE)						0			0				
25 LB CELLOFLAKE (ON THE SIDE)						0			0				
80 LB FED SEAL (ON THE SIDE)						0			0				
Available Mix Water		1000	Bbl.	Available Displ. Fluid		1000	Bbl.	TOTAL		349.7	84.61		
HOLE				TBG-CSG-D.P.				COLLAR DEPTHS					
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOT	FLOAT	STAGE	
17.5		1050	12.62	13.375	54.5	OSG	1035	1035	J-55	1035	994		
LAST CASING				PKR-OHT RET-BR PL-LINER				PERF. DEPTH		TOP CONN		WELL FLUID	
ID	OD	WGT	TYPE	MD	TVD	BRAND & TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
19	20	84	OSG	40	40	NO PACKER	0	0	0	13.375	3RD	OTHER	0
DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI		MAX CSG PSI		MIX WATER		
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED	Operator	RATED	Operator			
153.7	BBLs	H2O	8.34	350	0	0	0	0	1600	600	TANK		
EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING:													
PRESSURE/RATE DETAIL						EXPLANATION							
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>							
	PIPE	ANNULUS				TEST LINES 4500 PSI							
13:30	0	0	0	0		CIRCULATING WELL - RIG <input type="checkbox"/> BJ <input checked="" type="checkbox"/>							
16:15	0	0	0	0		ARRIVE ON LOCATION (LOC. TIME 1400)							
17:30	0	0	0	0		PRE RIG IN MEETING							
17:34	80	0	5.8	6	H2O	PRE JOB SAFETY MEETING							
17:38	4550	0	1	1	H2O	LINE FILL							
17:38	50	0	6.5	125	H2O	PRESSURE TEST LINES							
17:57	45	0	5.5	35	GEL H2O	WATER AHEAD							
18:03	50	0	5.5	10	H2O	6% PREFLUSH + 25# FLAKE + 80# FED SEAL							
18:05	130	0	5.5	157	SLURRY	WATER SPACER							
18:35	0	0	0	0		PREMIUM NE + 3% CACL @ 15.2 LB							
18:38	70	0	7	0	H2O	SHUTDOWN, RELEASE PLUG							
19:08	708	0	0	154.7	H2O	START DISPLACEMENT							
19:11	0	0	0	0		PLUG DOWN							
19:12	0	0	0	0		CHECK FLOAT (1 BBL BACK)							
						PRE RIG OUT MEETING							

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CEMENT JOB REPORT

CUSTOMER NORTHEAST NATURAL ENER	DATE 03-SEP-13	F.R.# 10011011617	SERV. SUPV. Robert J Hmi
LEASE & WELL NAME STATLER 4H - APJ 47061010580000	LOCATION STATS CITY		COUNTY-PARISH-BLOCK Monongalia West Virginia
DISTRICT Clarksburg	DRILLING CONTRACTOR RIG # PERFORMANCE		TYPE OF JOB Intermediate

SIZE & TYPE OF PLUGS BJ Cement Plug, Rubber, Top 9-5/8	LIST CSG HARDWARE Guide Shoe, Cement Nose, 9-5/8 I	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
------------------------------------------------------------------	--------------------------------------------------------------	---------------------	----	-----	--------------	----	-----

MATERIALS FURNISHED BY BJ	LAB REPORT NO.	PHYSICAL SLURRY PROPERTIES						
		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER
H2O			8.34				130	
GEL W/FLAKE/FED SEAL		785	8.6				35	
H2O			8.34				10	
TYPE 1 .5% EC 1 1/4# FLAKE .6% BA10A .5% SMS		689	15.2	1.28	6.74	04:00	165	94.40
DRILL H2O			8.4				168	
Available Mix Water 600 Bbl.		Available Displ. Fluid 600 Bbl.		TOTAL			498	94.40

HOLE		TRO. CSG. D.P.						COLLAR DEPTHS				
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
12.25	0	2246	8.921	9.625	38	CSG	2219		J-55	2218	2172	0

LAST CASING				PKR. CMT RET. BR PL. LINER				PERF. DEPTH		TOP CONN.		WELL FLUID	
ID	OD	WGT.	TYPE	MD	TVD	BRAND & TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
13.13.38	55	CSG		1035	1035	NO PACKER	0	0	0	9.625	BRND	OTHER	0

DISPL. VOLUME		DISPL. FLUID		CAL. PSI		CAL. MAX PSI		OP. MAX		MAX TBG PSI		MAX CSG PSI		MIX WATER
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV	SG. PSI	RATED	Operator	RATED	Operator	RATED	Operator	TANKS	
168	BBLs	DRILL H2O	8.4	776	0	0	0	0	0	0	2816	1000	TANKS	

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: NONE

PRESSURE/RATE DETAIL					EXPLANATION		
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input checked="" type="checkbox"/>	
	PIPE	ANNULUS				TEST LINES	2000 PSI
13:40	0	0	0	0	ARRIVE LOC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
14:10	0	0	0	0	WERE HELD UP BY DOT CHECK 1235-1310PM		
15:20	0	0	0	0	PRE RIG IN SAFETY MEETING		
15:30	0	0	0	2	PRE JOB SAFETY MEETING		
15:33	85	0	7	130	TEST LINES		
15:53	98	0	6	35	H2O AHEAD		
16:59	85	0	5.5	10	GEL		
16:02	315	0	5.5	165	H2O SPACER		
16:35	0	0	7	1	BEGIN SLURRY		
17:20	1205	0	0	168	BEGIN DISP		
17:25	0	0	0	0	SHUT DOWN PLUG DOWN		
17:50	0	0	0	0	POST JOB SAFETY MEETING		
					PRE RIG OUT SAFETY MEETING		

BUMPED PLUG <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	PSI TO BUMP PLUG 915	TEST FLOAT EQUIP. <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	BBL. CMT RETURNS/ REVERSED 18	TOTAL BBL. PUMPED 498	PSI LEFT ON CSG 0	SPOT TOP OUT CEMENT <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	SERVICE SUPERVISOR SIGNATURE:
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CEMENT JOB REPORT

CUSTOMER NORTHEAST NATURAL ENER	DATE 28-OCT-13	F.R.# 10011022859	SERV. SUPV. Jason H Matheny
LEASE & WELL NAME STATLER 4H - API 47061019580000	LOCATION BLACKSVILLE		COUNTY-PARISH-BLOCK Monongalia West Virginia
DISTRICT Clarksburg	DRILLING CONTRACTOR RIG # PIONEER 59		TYPE OF JOB Long String

SIZE & TYPE OF PLUGS 6-1/2" Top Cem Plug, Nitri cvr, Phen	LIST OBG HARDWARE Guide Shoe, Cement Nose, 6-1/2 I	MECHANICAL BARRIERS	MD	TVD	HANGER TYPES	MD	TVD
--------------------------------------------------------------	-------------------------------------------------------	---------------------	----	-----	--------------	----	-----

MATERIALS FURNISHED BY BJ	LAB REPORT NO.	PHYSICAL SLURRY PROPERTIES						
		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT	WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	Bbl MIX WATER
SEALBOND		0	13.6	0	0	00:00	100	
60/60 TYPE 1 .25%BA-10A 1% FL-62 .15%ASA-301 .4		3,183	14.6	1.18	5.09	06:00	688.8	385.73
H2O		0	8.34	0	0	00:00	343.6	
110 SS-2		0	0	0	0	00:00	0	
110 US-40		0	0	0	0	00:00	0	
250# SUGAR		0	0	0	0	00:00	0	
6.5 TRP		0	0	0	0	00:00	0	
Available Mix Water	800 Bbl.	Available Displ. Fluid	600 Bbl.	TOTAL			1112.4	385.73

TBO-CSG-D.P.										COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	ID	OD	WGT.	TYPE	MD	TVD	GRADE	SHOE	FLOAT	STAGE
8.75	10	15522	4.778	6.8	20	CSG	15617	7880	P-110	15517	15491.1	0

LAST CASING				PKR. CNT RET. OR PL. LINER			PERF. DEPTH		TOP CONN.		WELL FLUID		
ID	OD	WGT.	TYPE	MD	TVD	BRAND & TYPE	DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT.
8.0	9.625	38	CSG	2224	2224	NO-PACKER	0	0	0	6.5	BUTT	SYNTHETIC MUD	12.8

DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBO PSI		MAX CSG PSI		MIX WATER
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV	SG. PSI	RATED	Operator	RATED	Operator	
352.7	BBLs	H2O	8.34	2500	0	0	0	0	10112	4088	TANK

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING;

PRESSURE/RATE DEYAR					EXPLANATION			
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW [X] CO. REP. [X]		
	PIPE	ANNULUS				TEST LINES	6400 PSI	CIRCULATING WELL - RIG [X]
05:00	0	0	0	0	0			ARRIVED ON LOCATION
11:16	890	0	5.5	100	SEALBOND			MUD SWEEP
11:35	480	0	5.6	688	SLURRY			60/60 TYPE 1 + ADDITIVES
13:31	0	0	0	0	H2O			S/D WASH LINES RELEASE PLUG
13:33	1680	0	8	0	H2O/SUGAR			3 BBLs SUGAR WATER (150#) START DISPLACEMENT
13:35	1700	0	8	3	H2O			REMAINDER OF DISPLACEMENT
14:25	4088	0	0	352.7	H2O			END DISPLACEMENT
14:30	0	0	0	0	N/A			BLEED OFF/RIG OUT

BUMPED PLUG <input checked="" type="checkbox"/> N	PSI TO BUMP PLUG 3586	TEST FLOAT EQUIP. <input checked="" type="checkbox"/> N	BBL. CNT RETURNS/ REVERSED 0	TOTAL BBL PUMPED 1120.7	PSI LEFT ON CSG 0	SPOT TOP OUT CEMENT Y <input checked="" type="checkbox"/>	SERVICE SUPERVISOR SIGNATURE: <i>Jason Matheny</i>
------------------------------------------------------	--------------------------	------------------------------------------------------------	---------------------------------	----------------------------	----------------------	--------------------------------------------------------------	-------------------------------------------------------

took off 3.5 hrs location time because we had trouble transferring 552 to Batch mixer

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/30/2013
Job End Date:	12/19/2013
State:	West Virginia
County:	Monongalia
API Number:	47-061-01658-00-00
Operator Name:	Northeast Natural Energy LLC
Well Name and Number:	Statler 4H
Longitude:	-80.17816900
Latitude:	39.70768600
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,919
Total Base Water Volume (gal):	8,528,016
Total Base Non Water Volume:	0



61-01658

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Operator	Carrier	Water	7732-18-5	100.00000	0.85439	
40/70 White	FTSI	proppant	Silica, Quartz	14808-60-7	100.00000	0.09044	
100 Mesh Sand	FTSI	proppant	Silica, Quartz	14808-60-7	100.00000	0.04875	
Hydrochloric Acid (HCl)	FTSI	Acid	Water	7732-18-5	63.00000	0.00320	
			Hydrogen Chloride	7647-01-0	37.00000	0.00188	
FRW-200	FTSI	Friction reducer	Water	7732-18-5	48.00000	0.00032	
			Copolymer of acrylamide and sodium acrylate	25987-30-8	33.00000	0.00022	
			Petroleum distillate hydrotreated light	64742-47-8	26.00000	0.00018	
			Acrylamide P/W acrylic acid, ammonium salt	26100-47-0	25.00000	0.00017	
			Ammonium Chloride	12125-02-9	12.00000	0.00008	
			Surfactant	Proprietary	7.00000	0.00005	
			Hydrotreated heavy paraffinic	64742-54-7	5.00000	0.00003	

			Alcohols (C10-C16), ethoxylated	68002-97-1	4.00000	0.00003
			Alcohols (C12-C16), ethoxylated	68551-12-2	4.00000	0.00003
			Alcohols (C12-C14), ethoxylated	68439-50-9	4.00000	0.00003
			Polyethylene glycol monooleate	9004-96-0	3.00000	0.00002
			Sorbitan Monooleate	1338-43-8	3.00000	0.00002
			Sorbitol Tetraoleate	61723-83-9	2.00000	0.00001
			Dewaxed heavy paraffinic	64742-65-0	1.50000	0.00001
			Alkyloxypolyethyleneoxyethanol	84133-50-6	1.00000	0.00001
			Ammonium Acrylate	10604-69-0	0.50000	0.00000
			Isopropanol	67-63-0	0.30000	0.00000
			Acrylamide	79-06-1	0.10000	0.00000
CI-3240	FTSI	Biocide				
			Water	7732-18-5	55.00000	0.00021
			Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	533-74-4	24.00000	0.00009
			Sodium Hydroxide	1310-73-2	23.00000	0.00009
CS-500 SI	FTSI	Scale inhibitor				
			Water	7732-18-5	55.00000	0.00013
			Ethylene glycol	107-21-1	10.00000	0.00002
			Sodium chloride	7647-14-5	6.00000	0.00001
			Sodium Polyacrylate	9003-04-7	5.00000	0.00001
			Acrylic Polymer	Proprietary		
HVG-1	FTSI	Water Gelling Agent				
			Guar Gum	9000-30-0	55.00000	0.00001
			Petroleum Distillate	64742-47-8	55.00000	0.00001
			Raffinates (Petroleum), Sorption Process	64741-85-1	50.00000	0.00001
			Clay	1302-78-9	5.00000	0.00000
			Clay	14808-60-7	2.00000	0.00000
			Surfactant	24938-91-8	1.00000	0.00000
			Surfactant	9043-30-5	1.00000	0.00000
			Surfactant	154518-36-2	1.00000	0.00000
NE-100	FTSI	Non-emulsifier				
			Water	7732-18-5	90.00000	0.00001
			2-Propanol	67-63-0	10.00000	0.00000
			2-Butoxyethanol	111-76-2	10.00000	0.00000
			Dodecylbenzenesulfonic acid	27176-87-0	5.00000	0.00000
			Benzene, C10-16 Alkyl Derivatives	68648-87-3	0.04000	0.00000
			Unsulphonated Matter	Proprietary	0.03000	0.00000
			Sulfuric Acid	7664-93-9	0.01000	0.00000
			Sulfur Dioxide	7446-09-5		0.00000
CI-150	FTSI	Acid Corrosion Inhibitor				
			Organic amine resin salt	Proprietary	30.00000	0.00000

6/10/19
88

6101658

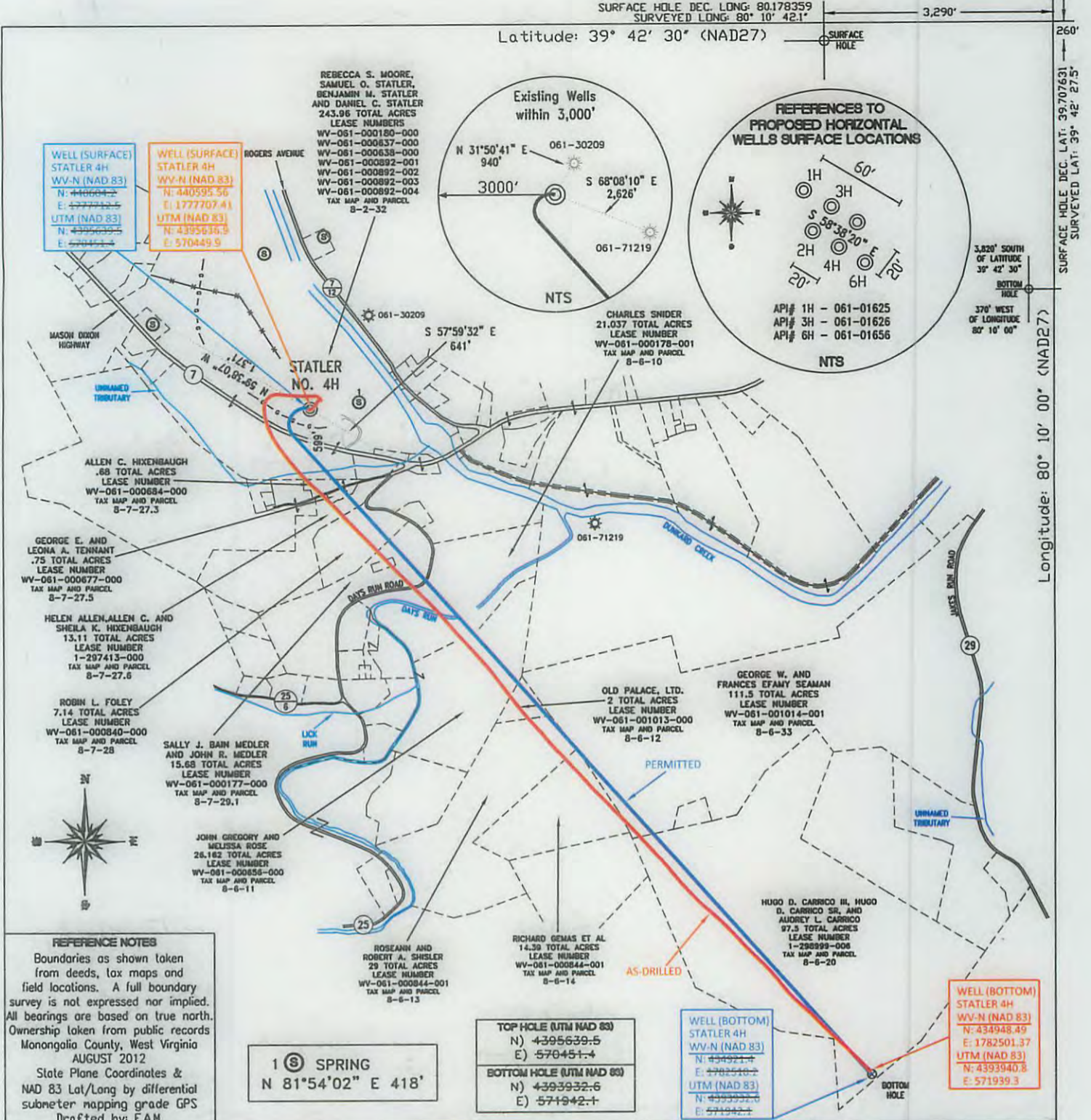
			Ethylene Glycol	107-21-1	30.00000	0.00000
			Isopropanol	67-63-0	30.00000	0.00000
			Alkylene Oxide Block Polymer	Proprietary	10.00000	0.00000
			Aromatic aldehyde	Proprietary	10.00000	0.00000
			Dimethylformamide	68-12-2	10.00000	0.00000
			Quaternary ammonium compound	Proprietary	10.00000	0.00000
			Water	7732-18-5	5.00000	0.00000
			Diethylene glycol	111-46-6	1.00000	0.00000
			Fatty Acid	Proprietary	0.10000	0.00000
			Aliphatic alcohol	Proprietary	0.10000	0.00000
			Fatty Acid Salt	Proprietary	0.10000	0.00000
FE-100L	FTSI	Iron control				
			Water	7732-18-5	60.00000	0.00000
			Citric acid	77-92-9	55.00000	0.00000
APB-1	FTSI	Gel breaker				
			Ammonium Persulfate	7727-54-0	100.00000	0.00000

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

Latitude: 39° 42' 30" (NAD27) Longitude: 80° 10' 00" (NAD27)



REFERENCE NOTES

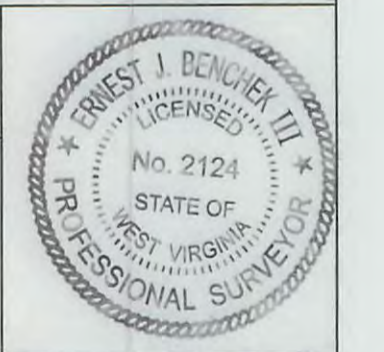
Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Monongalia County, West Virginia AUGUST 2012

Slate Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS
Drafted by: E.A.M.

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]*

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



FILE #: NNE 008
DRAWING #: 2191
SCALE: 1" = 1200'

MINIMUM DEGREE OF ACCURACY: 1/200

PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

DATE: MAY 28, 2014

OPERATOR'S WELL #: STATLER NO. 4H AS-DRILLED

API WELL #: 47 61 **01658 HCA**
STATE COUNTY PERMIT

WATERSHED: DUNKARD ELEVATION: 1,061'

COUNTY/DISTRICT: MONONGALIA / CLAY QUADRANGLE: BLACKSVILLE, WV

SURFACE OWNER: REBECCA S. MOORE, SAMUEL O. STATLER, BENJAMIN M. STATLER, DANIEL C. STATLER ACREAGE: 243.96 +/-

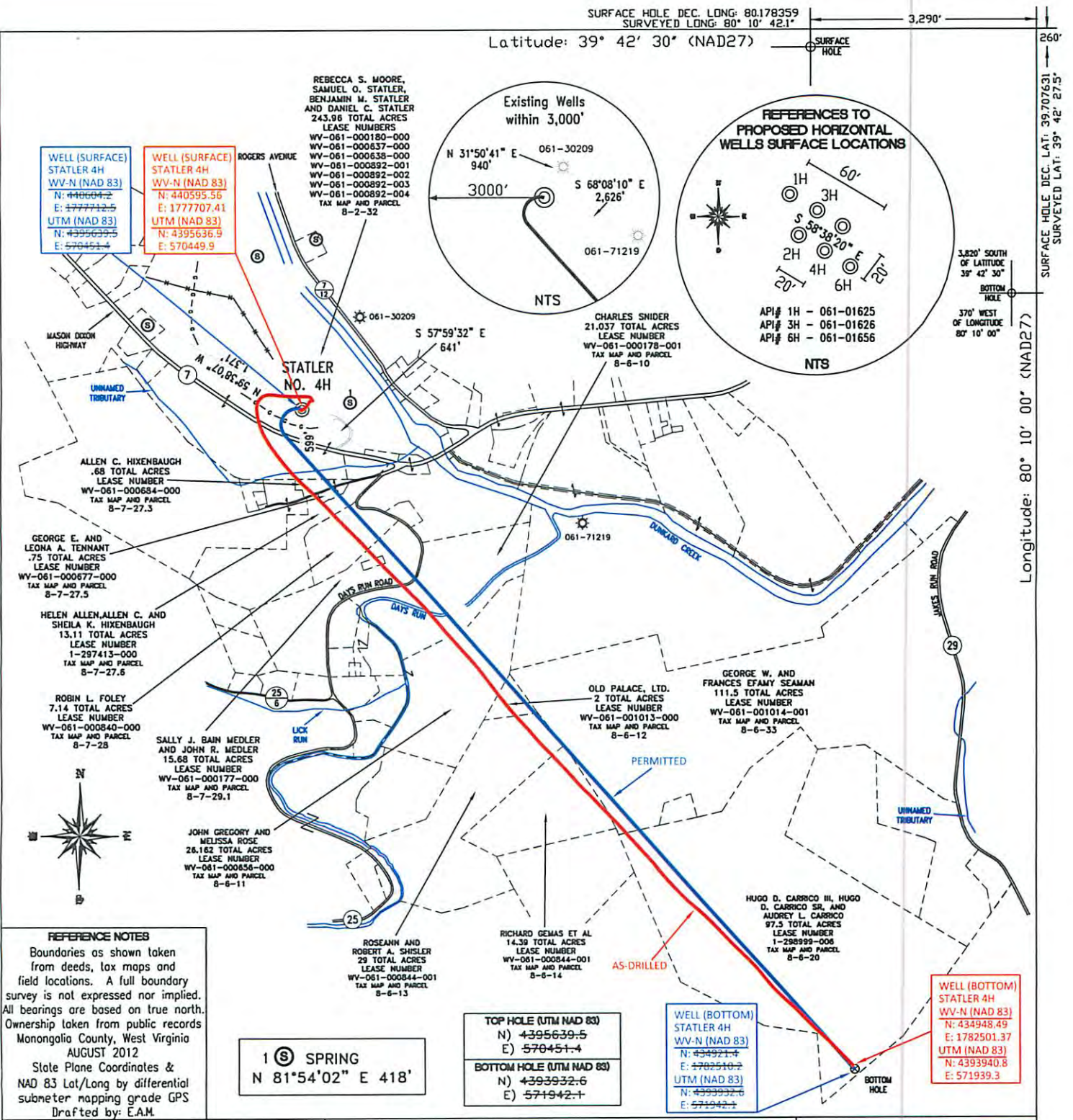
OIL & GAS ROYALTY OWNER: REBECCA S. MOORE, SAMUEL O. STATLER, BENJAMIN M. STATLER, DANIEL C. STATLER ACREAGE: 582.909 +/-

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: 7,860' TMD: 15,867'

WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC DESIGNATED AGENT: JOHN ADAMS
ADDRESS: 707 VIRGINIA STREET - SUITE 1200 ADDRESS: 707 VIRGINIA STREET - SUITE 1200
CITY: CHARLESTON STATE: WV ZIP CODE: 25301 CITY: CHARLESTON STATE: WV ZIP CODE: 25301



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 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS
 Drafted by: E.A.M.

1 (S) SPRING
 N 81°54'02" E 418'

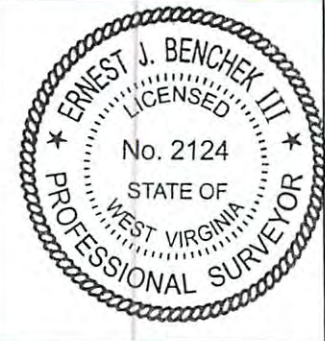
TOP HOLE (UTM NAD 83)
 N) 4395639.5
 E) 570451.4
 BOTTOM HOLE (UTM NAD 83)
 N) 4393932.6
 E) 571942.1

WELL (BOTTOM) STATLER 4H
 WV-N (NAD 83)
 N: 4393932.6
 E: 571942.1
 UTM (NAD 83)
 N: 4393932.6
 E: 571942.1

WELL (BOTTOM) STATLER 4H
 WV-N (NAD 83)
 N: 434948.49
 E: 1782501.37
 UTM (NAD 83)
 N: 4393940.8
 E: 571939.3

FILE #: NNE 008
 DRAWING #: 2191
 SCALE: 1" = 1200'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE SUBMETER MAPPING GRADE GPS

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 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

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

WATERSHED: DUNKARD ELEVATION: 1,061'
 COUNTY/DISTRICT: MONONGALIA / CLAY QUADRANGLE: BLACKSVILLE, WV
 SURFACE OWNER: REBECCA S. MOORE, SAMUEL O. STATLER, BENJAMIN M. STATLER, DANIEL C. STATLER ACREAGE: 243.96 +/-
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01/16/2015