

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

API 47 - 061 - 01668 County Monongalia District Clay
Quad Blacksville, WV Pad Name Beach Field/Pool Name Blacksville
Farm name Nancy Kay Beach Davis and Russell C. Beach Well Number 6H
Operator (as registered with the OOG) Northeast Natural Energy LLC
Address 707 Virginia Street E., 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 4395290.1 Easting 572674.6
Landing Point of Curve Northing 4395234.3 Easting 572939.8
Bottom Hole Northing 4393434.2 Easting 574011.1

Elevation (ft) 1361 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 Based Mud for horizontal section

BIO-BASE 365, CALCIUM CHLORIDE POWDER, G-SEAL PLUS, HRP, LIME, M-I WATE (BARITE), M-I-X II MEDIUM, MEGADRIL P SYSTEM, MEGADRIL P SYSTEM RENTAL, MEGAMUL, SAFE-CARB 250, VERSATHIN HF, VERSAWET, VG-PLUS, VINSEAL MEDIUM, WALNUT NUT PLUG MEDIUM

Date permit issued 5-16-14 Date drilling commenced 8-4-14 Date drilling ceased 10-27-14
Date completion activities began 12/30/2014 Date completion activities ceased 1/25/2015
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

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

Freshwater depth(s) ft 1,206' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,550' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 300',800' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed by:
AK 6/3/15
W.S. 06/05/2015

API 47- 061 - 01668 Farm name Nancy Kay Beach Davis and Russell C. Beach Well number 6H

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	30	24	52'	N	N/A	N/A	Y to surface
Surface	17.5	13 3/8	1,323'	N	54.5	N/A	Y 32 BBL return
Coal							
Intermediate 1	12.25	9 5/8	2,370'	N	40	N/A	Y 19 BBL return
Intermediate 2							
Intermediate 3							
Production	8.5	5.5	15,661'	N	20	N/A	Y 5 BBL return
Tubing							
Packer type and depth set							

Comment Details All casing and cement jobs went with out issue.

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	4,500 psi ready mix	36.4		.75	27.27	CTS	48
Surface	Class A	953	15.2	1.27	911	CTS	8
Coal							
Intermediate 1	Class A	753	15.2	1.26	682	CTS	8
Intermediate 2							
Intermediate 3							
Production	5050 Premium NE-1.3% R-3.3% MPA170	3033	14.5	1.17	2,661	CTS	48
Tubing							

Drillers TD (ft) 15,710' Loggers TD (ft) 15,686'
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure _____

Kick off depth (ft) 7,189'

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: bow spring centralizers every 3rd joint or aprox 120'
 Intermediate: bow spring centralizers every 3rd joint or aprox 120'
 Production: Hard bodied spiral centralizers every other joint or aprox 80' from TD to KOP then bow spring from KOP to 9 5/8" every forth joint or aprox 140'

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____ JUN 02 2015

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____ WV Department of

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____ Environmental Protection

API 47-061-01668 Farm name Nancy Kay Beach Davis and Russell C. Beach Well number 6H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>8125'</u>	<u>TVD</u>	<u>15,710'</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 4,391 psi Bottom Hole _____ psi DURATION OF TEST 48 hrs

OPEN FLOW Gas 5,640 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	
	<u>0</u>		<u>0</u>		See Attachment

Please insert additional pages as applicable.

Drilling Contractor Pioneer 63
Address 1250 NE Loop 410 Suite 1000 City San Antonio State TX Zip 78209

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

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

Stimulating Company Schlumberger
Address 1080 US-33 City Weston State WV Zip 26452

Please insert additional pages as applicable.

Completed by Zack Arnold Telephone 304-203-8059
Signature [Signature] Title General Manager - Operations Date 4/29/15

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

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Beach 6H

Lithology/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/Shale	0	245	0		sand/shale
Red Rock	245	262			red rock
Sand/Shale	262	1210			sand/shale
Red Rock	1210	1225			red rock
Sand/Shale	1225	2070			sand/shale
Red Rock	2070	2083			red rock
Shale	2083	2137			shale
Big Lime	2137	2210			limestone
Injun	2210	2380			sandstone
Sand/Shale	2380	3300			sand/shale
Geneseo	7910	7953	8034	8097	shale
Tully	7953	8003	8097	8170	limestone
Hamilton	8003	8119	8170	8382	shale
Marcellus	8119	8171	8382	8533	shale
Cherry Valley	8171	8174	8533	8554	limestone
Lower Marcellus	8174		8554		shale

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Perforation Record					
Stage Number	Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	12/30/2014	15,600	15,482	40	Marcellus Shale
2	12/30/2014	15,450	15,332	40	Marcellus Shale
3	12/30/2014	15,300	15,187	40	Marcellus Shale
4	1/1/2015	15,150	15,032	40	Marcellus Shale
5	1/1/2015	15,000	14,882	40	Marcellus Shale
6	1/1/2015	14,848	14,732	40	Marcellus Shale
7	1/2/2015	14,700	14,582	40	Marcellus Shale
8	1/2/2015	14,550	14,432	40	Marcellus Shale
9	1/3/2015	14,398	14,282	40	Marcellus Shale
10	1/3/2015	14,250	14,132	40	Marcellus Shale
11	1/4/2015	14,100	13,982	40	Marcellus Shale
12	1/4/2015	13,950	13,832	40	Marcellus Shale
13	1/5/2015	13,800	13,682	40	Marcellus Shale
14	1/6/2015	13,646	13,532	40	Marcellus Shale
15	1/7/2015	13,496	13,382	40	Marcellus Shale
16	1/7/2015	13,346	13,232	40	Marcellus Shale
17	1/7/2015	13,190	13,082	40	Marcellus Shale
18	1/7/2015	13,048	12,932	40	Marcellus Shale
19	1/9/2015	12,900	12,782	40	Marcellus Shale
20	1/9/2015	12,750	12,632	40	Marcellus Shale
21	1/9/2015	12,590	12,482	40	Marcellus Shale
22	1/13/2015	12,440	12,332	40	Marcellus Shale
23	1/14/2015	12,300	12,332	40	Marcellus Shale
24	1/14/2015	12,150	12,032	40	Marcellus Shale
25	1/14/2015	12,000	11,882	40	Marcellus Shale
26	1/16/2015	11,846	11,732	40	Marcellus Shale
27	1/19/2015	11,689	11,582	40	Marcellus Shale
28	1/19/2015	11,550	11,432	40	Marcellus Shale
29	1/19/2015	11,390	11,284	40	Marcellus Shale
30	1/20/2015	11,250	11,132	40	Marcellus Shale
31	1/20/2015	11,100	10,982	40	Marcellus Shale
32	1/21/2015	10,952	10,832	40	Marcellus Shale
33	1/21/2015	10,800	10,682	40	Marcellus Shale
34	1/21/2015	10,650	10,534	40	Marcellus Shale
35	1/21/2015	10,500	10,382	40	Marcellus Shale
36	1/22/2015	10,347	10,232	40	Marcellus Shale
37	1/22/2015	10,200	10,082	40	Marcellus Shale
38	1/22/2015	10,050	9,932	40	Marcellus Shale
39	1/23/2015	9,900	9,782	40	Marcellus Shale
40	1/23/2015	9,748	9,632	40	Marcellus Shale
41	1/23/2015	9,600	9,482	40	Marcellus Shale
42	1/23/2015	9,450	9,332	40	Marcellus Shale
43	1/24/2015	9,296	9,182	40	Marcellus Shale
44	1/24/2015	9,146	9,032	40	Marcellus Shale
45	1/24/2015	9,000	8,882	40	Marcellus Shale
46	1/24/2015	8,850	8,732	40	Marcellus Shale
47	1/25/2015	8,680	8,478	40	Marcellus Shale

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Stimulation Record							
Stage Number	Date	Average Treating Rate (BPM)	Average Treating Pressure (psi)	Breakdown Pressure (psi)	ISIP (psi)	Total Propanant Amount (lbs)	Total Clean Fluid (Bbls)
1	12/30/2014	72	8,821	7,288	6,005	403680	8,188
2	12/30/2014	82	8,838	7,406	6,320	398720	7,658
3	12/30/2014	78	8,800	6,265	6,797	401320	7,771
4	1/1/2015	79	8,763	6,989	6,448	399260	7,419
5	1/1/2015	82	8,935	7,212	6,541	402980	7,502
6	1/1/2015	83	8,903	7,751	6,359	400300	7,289
7	1/2/2015	83	8,846	7,900	6,320	397500	7,388
8	1/2/2015	54	9,111	7,795	6,574	249234	6,680
9	1/3/2015	66	8,839	7,520	6,098	405100	7,308
10	1/3/2015	82	8,677	7,277	6,194	400000	7,221
11	1/4/2015	80	8,533	8,848	6,130	400980	7,387
12	1/4/2015	83	8,708	8,582	6,227	404740	7,431
13	1/5/2015	82	8,559	8,188	6,448	402011	7,987
14	1/6/2015	83	8,656	7,701	6,214	388800	7,028
15	1/7/2015	81	8,607	6,736	6,068	402660	7,238
16	1/7/2015	83	8,682	7,433	6,438	400140	6,970
17	1/7/2015	78	8,582	7,792	0	404920	7,451
18	1/7/2015	81	8,646	7,900	6,480	402060	7,297
19	1/9/2015	80	8,423	6,296	6,416	398220	7,114
20	1/9/2015	83	8,209	7,287	6,154	403400	7,307
21	1/9/2015	86	8,300	6,525	6,352	398140	7,212
22	1/13/2015	82	8,381	6,834	6,258	400160	7,850
23	1/14/2015	86	8,728	7,426	6,606	410480	6,896
24	1/14/2015	80	8,352	7,606	6,340	400420	7,299
25	1/14/2015	86	8,578	8,343	6,220	401360	7,179
26	1/16/2015	85	8,508	7,243	6,348	398720	7,228
27	1/19/2015	84	8,549	7,358	6,480	395600	7,041
28	1/19/2015	85	8,496	8,505	6,922	397720	7,114
29	1/19/2015	84	8,756	8,275	6,480	396720	7,029
30	1/20/2015	88	8,796	7,672	0	405480	8,211
31	1/20/2015	74	8,935	8,861	5,240	345660	7,770
32	1/21/2015	82	8,737	8,962	5,950	399940	7,054
33	1/21/2015	88	8,525	7,310	6,798	399780	7,021
34	1/21/2015	86	8,688	7,648	6,732	395820	7,026
35	1/21/2015	76	8,937	8,388	6,510	403000	9,053
36	1/22/2015	86	8,831	7,136	6,448	401500	7,501
37	1/22/2015	87	8,547	7,012	6,480	402680	6,982
38	1/22/2015	88	8,683	7,818	6,715	408620	7,093
39	1/23/2015	88	8,641	9,173	6,943	405300	6,995
40	1/23/2015	81	8,627	7,771	6,828	400360	6,859
41	1/23/2015	88	8,479	8,971	6,480	399040	6,897
42	1/23/2015	88	8,516	7,081	6,320	402880	6,978
43	1/24/2015	89	8,323	8,347	1	401160	6,919
44	1/24/2015	90	8,280	9,040	6,461	402960	7,071
45	1/24/2015	85	8,209	8,950	6,480	401420	7,055
46	1/24/2015	86	8,559	7,516	6,606	365240	6,765
47	1/25/2015	85	8,399	8,023	6,194	407900	7,103

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/30/2014
Job End Date:	1/25/2015
State:	West Virginia
County:	Monongalia
API Number:	47-061-01668-00-00
Operator Name:	Northeast Natural Energy LLC
Well Name and Number:	Beach 6H
Longitude:	-80.15225900
Latitude:	39.70437300
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	8,164
Total Base Water Volume (gal):	14,492,467
Total Base Non Water Volume:	0



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
Proppant Transport	Schlumberger	Corrosion Inhibitor, AntiFoam Agent, Acid, Breaker, Gelling Agent, Friction Reducer, Rheology Modifier, Iron Control Agent, Accelerator, Propping Agen	Water (Including Mix Water Supplied by Client)* Crystalline silica Hydrochloric acid Ammonium sulfate Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer Guar gum Calcium chloride Erucic amidopropyl dimethyl betaine Polymer of 2-acrylamido-2-methylpropanesulfonic acid sodium salt and methyl acrylate Propan-2-ol	NA 14808-60-7 7647-01-0 7783-20-2 38193-60-1 9000-30-0 10043-52-4 149879-98-1 136793-29-8 67-63-0	86.55014 98.83650 0.71362 0.16801 0.12400 0.04830 0.03642 0.01705 0.01329 0.01277		

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				Urea	57-13-6	0.00816	0.00110
				Sodium chloride	7647-14-5	0.00295	0.00040
				Polypropylene glycol	25322-69-4	0.00289	0.00039
				Sodium erythorbate	6381-77-7	0.00216	0.00029
				Methanol	67-56-1	0.00210	0.00028
				Sodium sulfate	757-82-6	0.00190	0.00026
				Non-crystalline silica (impurity)	7631-86-9	0.00182	0.00024
				Potassium chloride	7447-40-7	0.00169	0.00023
				Fatty acids, tall-oil	61790-12-3	0.00146	0.00020
				Diammonium peroxodisulphate	7727-54-0	0.00127	0.00017
				Thiourea, polymer with formaldehyde and 1-phenylethanone	68527-49-1	0.00121	0.00016
				Alcohols, C14-15, ethoxylated (7EO)	68951-67-7	0.00057	0.00008
				2-propenamid	79-06-1	0.00041	0.00005
				Propargyl alcohol	107-19-7	0.00038	0.00005
				Tetrasodium ethylenediaminetetraacetate	64-02-8	0.00021	0.00003
				Sodium chloroacetate	3926-62-3	0.00022	0.00003
				Hexadec-1-ene	629-73-2	0.00013	0.00002
				Dimethyl siloxanes and silicones	63148-62-9	0.00012	0.00002
				Polyvinyl acetate, partially hydrolyzed	304443-60-5	0.00005	0.00001
				1-Octadecene (C18)	112-88-9	0.00006	0.00001
				Copper(II) sulfate	7758-98-7		
				Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	0.00002	
				Decamethyl cyclopentasiloxane	541-02-6	0.00001	
				Octamethylcyclotetrasiloxane	556-67-2	0.00001	
				Dodecamethylcyclohexasiloxane	540-97-6		
				Formaldehyde	50-00-0	0.00001	
SC-30				Scale Inhibitor			
				Sodium Polyacrylate	2594-41-5	14.71000	
				Water	7732-18-5	85.29000	
Chlorine Dioxide				Microbial Control			Gas
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)

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SURFACE HOLE DEC. LONG: 80.152467
SURVEYED LONG: 80° 09' 08.9"

7.730'

Latitude: 39° 42' 30" (NAD 27)

Longitude: 80° 07' 30" (NAD 27)

TOP HOLE (UTM 83)
N) 4395289.8
E) 572674.5
BOTTOM HOLE (UTM 83)
N) 4393022.0
E) 574287.4

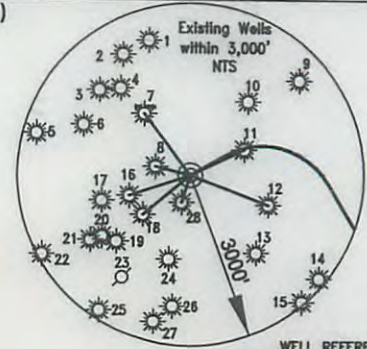
**WELL (SURFACE)
BEACH 6H
WV-N (NAD 83)
N: 439934.8
E: 1784987.9
UTM (NAD 83)
N: 4395289.8
E: 572674.5**

**WELL (LANDING
POINT) BEACH 6H
WV-N (NAD 83)
N: 439138.2
E: 1785855.2
UTM (NAD 83)
N: 4395234.3
E: 572939.8**

**WELL (SURFACE)
BEACH 6H
WV-N (NAD 83)
N: 4399335.6
E: 1784988.3
UTM (NAD 83)
N: 4395290.1
E: 572674.6**

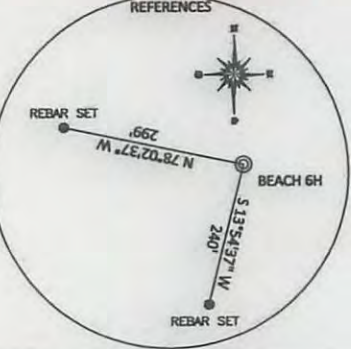
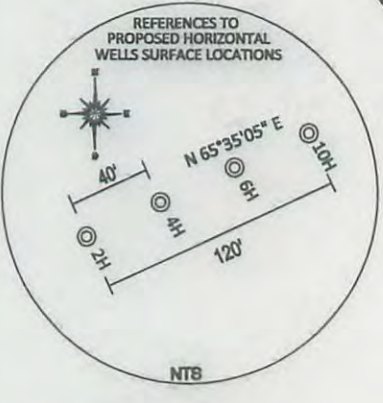
**WELL (BOTTOM)
BEACH 6H
WV-N (NAD 83)
N: 433172.8
E: 1789271.9
UTM (NAD 83)
N: 4393434.2
E: 574011.1**

**WELL (BOTTOM)
BEACH 6H
WV-N (NAD 83)
N: 431884.9
E: 1790156.0
UTM (NAD 83)
N: 4393022.0
E: 574287.4**



- WELL REFERENCE (API#, DISTANCE TO LATERAL)
- 0.061-00125
 - 0.061-30121
 - 0.061-00126
 - 0.061-00134
 - 0.061-30187
 - 0.061-71252
 - 0.061-71251 N 41°14'10" W 1,333'
 - 0.061-70273 N 82°43'40" W 685'
 - 0.061-71226
 - 0.061-30151 N 66°15'00" E 936'
 - 0.061-71250 S 65°11'36" E 1,401'
 - 0.061-71256
 - 0.061-00766
 - 0.061-71260
 - 0.061-71254 S 69°20'45" W 1,213'
 - 0.061-71253
 - 0.061-71255 S 49°56'35" W 1,174'
 - 0.061-00101
 - 0.061-30280
 - 0.061-71259
 - 0.061-30559
 - 0.061-30531
 - 0.061-71257
 - 0.061-30338
 - 0.061-00148
 - 0.061-71258
 - 0.061-30186 S 22°33'49" W 588'

8,960' SOUTH OF LATITUDE 39° 42' 30"
2,510' WEST OF LONGITUDE 80° 07' 30"



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 Ohio County, West Virginia OCTOBER 2013
State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS
Drafted by: E.A.M.

NO DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF WELL PAD
NO WATER WELLS WERE FOUND WITHIN 250' OF THE CENTER OF WELL PAD

FILE #: NNE009
DRAWING #: 2295
SCALE: PLAT = (1"=1600')
TICK MARK = (1"=2000')
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
Signed:
L.L.S. #2124 : Ernest J. Benchek III



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

DATE: APRIL 3, 2015
OPERATOR'S WELL #: BEACH 6H AS-DRILLED PLAT
API WELL #: 47 61
STATE COUNTY PERMIT

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

WATERSHED: DUNKARD CREEK ELEVATION: 1361'
COUNTY/DISTRICT: MONONGALIA / CLAY QUADRANGLE: BLACKSVILLE, WV.
SURFACE OWNER: NANCY K. BEACH DAVIS & RUSSELL C. BEACH ACREAGE: 233.72 +/-
OIL & GAS ROYALTY OWNER: (SEE ATTACHMENT) ACREAGE: 826.21 +/-

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: 8,125' TMD: 15,710'
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

06/05/2015

CITY: CHARLESTON STATE: WV ZIP CODE: 25301
 WELL OPERATOR : NORTHEAST NATURAL ENERGY LLC
 ADDRESS: 707 VIRGINIA STREET SUITE 1500
 TARGET FORMATION: MARCELLUS
 DESIGNATED AGENT : JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET SUITE 1500
 ESTIMATED DEPTH: TVD: 8125' TMD: 15210'
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY):
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE

OIL & GAS ROYALTY OWNER: (SEE ATTACHMENT)
 COUNTY/DISTRICT: MONONGALIA / CLAY
 WATERSHED: DUNKARD CREEK
 Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow
 CHARLESTON, WV 25301
 601 5TH STREET
 OFFICE OF OIL & GAS
 UNITED STATES TOPOGRAPHIC MAPS
 (+) DENOTES LOCATION OF WELL ON
 DATE: APRIL 3, 2015

CITY: CHARLESTON STATE: WV ZIP CODE: 25301
 ADDRESS: 707 VIRGINIA STREET SUITE 1500
 WELL OPERATOR : NORTHEAST NATURAL ENERGY LLC
 DESIGNATED AGENT : JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET SUITE 1500
 ESTIMATED DEPTH: TVD: 8125' TMD: 15210'
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY):
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE

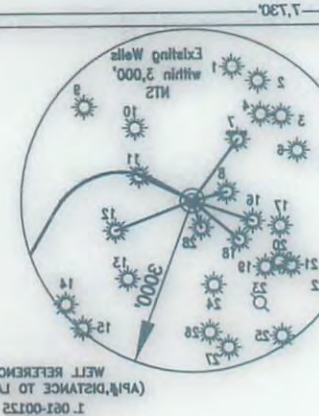
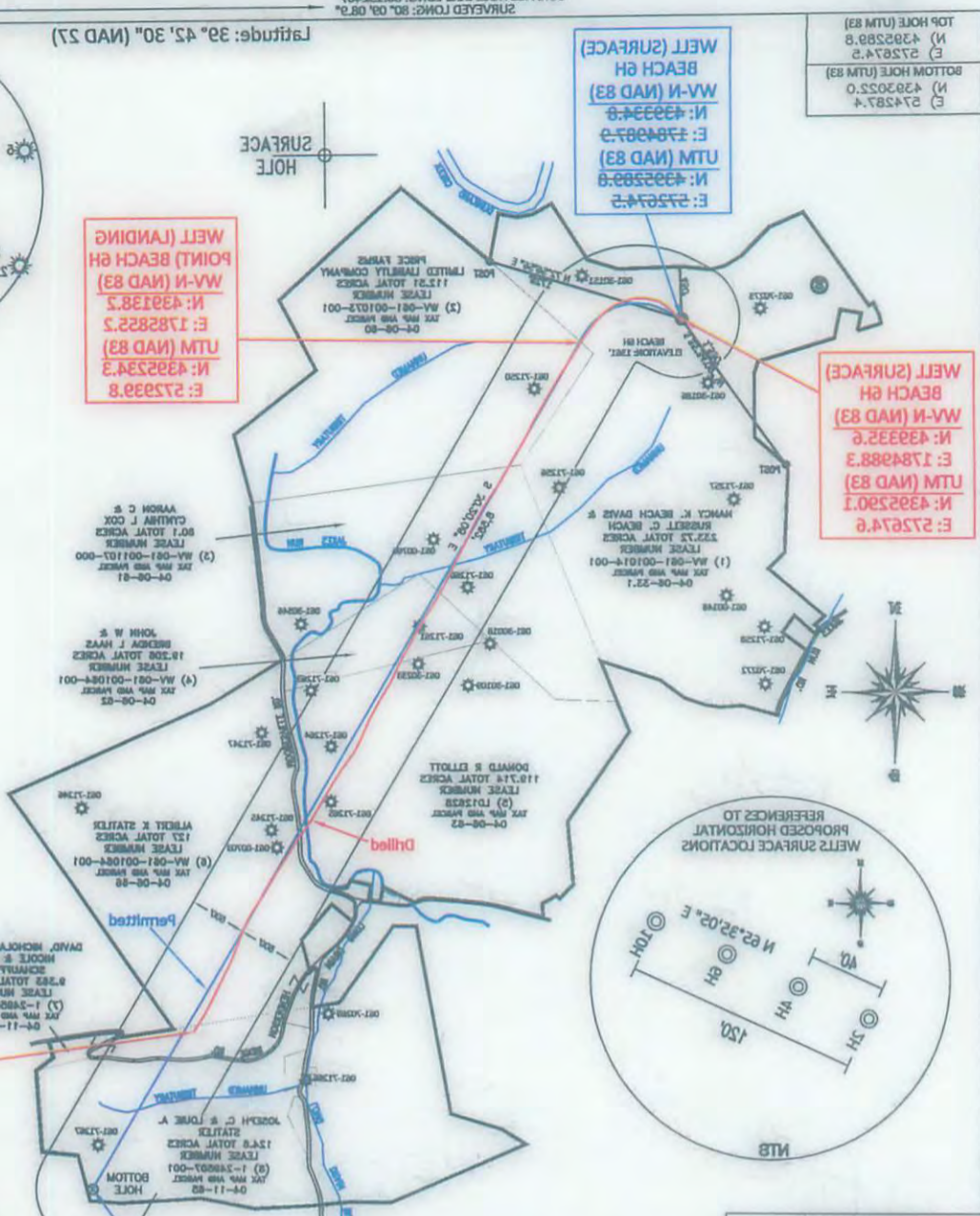


I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS
 PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND
 BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY
 LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY
 THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 Signed: *[Signature]*
 L.L.S. #2154 ; Ernest J. Benckek III

OF ELEVATION: GRADE GPS
 PROVEN SOURCE: SUBMETER MAPPING
 OF ACCURACY: 1/500
 MINIMUM DEGREE
 SCALE: TICK MARK = (1"=5000')
 DRAWING #: 2288
 FILE #: INE009

Drawn by: E.A.M.
 and/or mapping grade GPS
 NAD 83 Lat/Lon by differential
 State Plane Coordinates &
 OCTOBER 2013
 Ohio County, West Virginia
 Ownership taken from public records
 All bearings are based on true north.
 survey is not expressed nor implied.
 field locations. A full boundary
 from deeds, tax maps and
 boundaries as shown taken

OF THE CENTER OF WELL PAD
 NO WATER WELLS WERE FOUND WITHIN 250'
 OF THE CENTER OF WELL PAD
 NO DWELLINGS WERE FOUND WITHIN 825'



WELL REFERENCE (APRIL DISTANCE TO LATERAL)

1	081-00125
2	081-00121
3	081-00126
4	081-00134
5	081-00178
6	081-11252
7	081-11251 N 41°14'10" W 1733'
8	081-10073 N 83°43'40" W 682'
9	081-10075
10	081-11258
11	081-30121 N 88°17'00" E 398'
12	081-11250
13	081-00186
14	081-11250
15	081-11254 N 89°30'45" W 1713'
16	081-11253
17	081-11252 N 49°26'32" W 1714'
18	081-11252
19	081-00101
20	081-30380
21	081-11259
22	081-30259
23	081-30231
24	081-11257
25	081-30238
26	081-00148
27	081-11258
28	081-30188 N 22°33'49" W 288'



Latitude: 39° 45' 30" (NAD 23)
 SURVEYED LONG: 80° 09' 08.9"
 SURFACE HOLE DEC LONG: 80° 12' 24.9"
 (TSS DAM) "06" TO "08" abutment
 1.730'
 1.710'

SURFACE HOLE DEC. LONG: 80.152467
SURVEYED LONG: 80° 09' 08.9"

7,730'

Latitude: 39° 42' 30" (NAD 27)

Longitude: 80° 07' 30" (NAD 27)

SURFACE HOLE DEC. LAT: 39.707294
SURVEYED LAT: 39.715153

TOP HOLE (UTM 83)
N) 4395289.8
E) 572674.5
BOTTOM HOLE (UTM 83)
N) 4393022.0
E) 574287.4

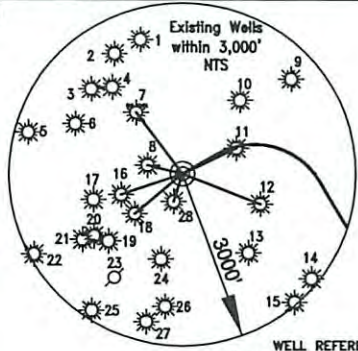
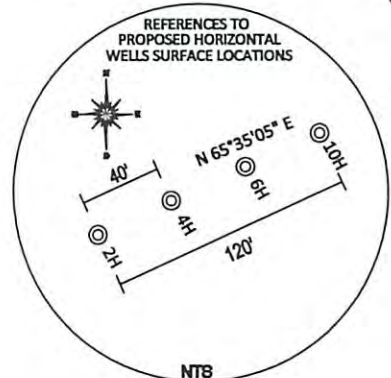
**WELL (SURFACE)
BEACH 6H
WV-N (NAD 83)
N: 4399334.8
E: 1784987.9
UTM (NAD 83)
N: 4395289.8
E: 572674.5**

**WELL (LANDING
POINT) BEACH 6H
WV-N (NAD 83)
N: 439138.2
E: 1785855.2
UTM (NAD 83)
N: 4395234.3
E: 572939.8**

**WELL (SURFACE)
BEACH 6H
WV-N (NAD 83)
N: 439335.6
E: 1784988.3
UTM (NAD 83)
N: 4395290.1
E: 572674.6**

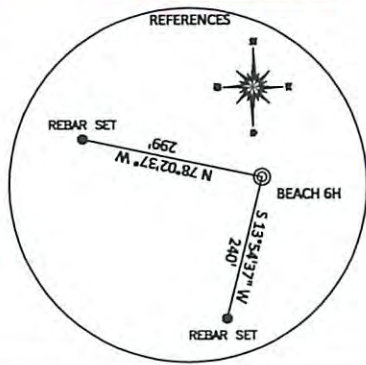
**WELL (BOTTOM)
BEACH 6H
WV-N (NAD 83)
N: 433172.8
E: 1789271.9
UTM (NAD 83)
N: 4393434.2
E: 574011.1**

**WELL (BOTTOM)
BEACH 6H
WV-N (NAD 83)
N: 431804.9
E: 1790156.0
UTM (NAD 83)
N: 4393022.0
E: 574287.4**



- WELL REFERENCE
(API#, DISTANCE TO LATERAL)**
- 061-00125
 - 061-30121
 - 061-00126
 - 061-00134
 - 061-30187
 - 061-71252
 - 061-71251 N 41°14'10" W 1,333'
 - 061-70273 N 82°43'40" W 685'
 - 061-70075
 - 061-71226
 - 061-30151 N 66°15'00" E 936'
 - 061-71250 S 65°11'36" E 1,401'
 - 061-71256
 - 061-00766
 - 061-71260
 - 061-71254 S 69°20'45" W 1,213'
 - 061-71253
 - 061-30280
 - 061-71259
 - 061-30559
 - 061-30531
 - 061-71257
 - 061-30338
 - 061-00148
 - 061-71258
 - 061-30186 S 22°33'49" W 588'

8,960' SOUTH
OF LATITUDE
39° 42' 30"
2,510' WEST
OF LONGITUDE
80° 07' 30"



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 Ohio County, West Virginia OCTOBER 2013 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS Drafted by: E.A.M.

NO DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF WELL PAD
NO WATER WELLS WERE FOUND WITHIN 250' OF THE CENTER OF WELL PAD

FILE #: NNE009
DRAWING #: 2295
SCALE: PLAT = (1"=1600')
TICK MARK = (1"=2000')
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE: SUBMETER MAPPING
OF ELEVATION: GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
Signed:
L.L.S. #2124 : Ernest J. Benchek III



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

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

WATERSHED: DUNKARD CREEK ELEVATION: 1361'

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

SURFACE OWNER: NANCY K. BEACH DAVIS & RUSSELL C. BEACH ACREAGE: 233.72 +/-

OIL & GAS ROYALTY OWNER: (SEE ATTACHMENT) ACREAGE: 826.21 +/-

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06/05/2015



[Handwritten signature]

06/05/2015