

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

API 47-061-01791 County Monongalia District Clay
Quad Blacksville Pad Name MEPCO Field/Pool Name _____
Farm name MEPCO, LLC Well Number MEPCO 14H
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 4390684.3 Easting 572723.0
Landing Point of Curve Northing 4390831.2 Easting 573221.7
Bottom Hole Northing 4388708.4 Easting 574624.0

Elevation (ft) 1,420' 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 - 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 11/03/2017 Date drilling commenced 01/20/2018 Date drilling ceased 06/17/2018
Date completion activities began 10/22/2018 Date completion activities ceased 11/03/2018
Verbal plugging (Y/N) N Date permission granted NA Granted by RECEIVED
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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug SEP 9 2019

Freshwater depth(s) ft 906' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 2027', 2250', 2460' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 848', 930' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed

Reviewed by: MGK 10/28/2019

API 47- 061 - 01791 Farm name MEPCO, LLC Well number MEPCO 14H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>7890'</u> TVD	<u>17,696'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2693 psi Bottom Hole 4171 psi DURATION OF TEST 48 hrs

OPEN FLOW Gas 1776 mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd
 GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	
	<u>0</u>		<u>0</u>		<u>Please See Attachment</u>

Please insert additional pages as applicable.

Drilling Contractor Highlands
 Address 900 Virginia Street E. City Charleston State WV Zip 25301

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

Cementing Company CJ Energy Services
 Address 528 Industrial Park Rd City Jane Lew State WV Zip 26378

Stimulating Company Producers Service Corporation
 Address 109 Graham St. City Zanesville State OH Zip 43701

Please insert additional pages as applicable. RECEIVED
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Completed by Hollie Medley Telephone 304-212-0422
 Signature Hollie Medley Title Regulatory Manager Date 08/08/2019
WV Department of Environmental Protection

MEPCO 14H STIMULATION INFORMATION

Stage Number	Report Date	Avg Treating Rate (BPM)	Avg Treating Pressure (psi)	Breakdown Pressure (psi)	ISIP (psi)	Total Proppant Amount (lbs)	Flush Volume (bbls)	Total Clean Fluid (Bbls)	Pad Volume (bbls)
1	10/20/18	75	8,757	8,086	4,778	300,050	388	8,578	750
2	10/22/18	78	8,860	8,497	5,153	399,470	386	8,591	415
3	10/22/18	79	8,440	7,047	5,606	398,850	380	8,555	428
4	10/22/18	76	9,017	7,023	5,514	400,420	378	8,501	429
5	10/23/18	75	9,007	7,292	5,115	401,020	377	9,270	517
6	10/23/18	75	9,063	7,095	5,979	399,780	374	10,361	501
7	10/23/18	76	8,881	7,256	5,622	400,500	367	8,763	429
8	10/24/18	79	9,129	7,412	5,420	405,560	368	9,879	430
9	10/24/18	78	8,441	7,110	5,508	399,900	356	8,955	544
10	10/24/18	77	8,846	6,268	5,878	399,720	348	9,096	429
11	10/25/18	80	8,864	7,433	5,431	401,100	348	8,776	429
12	10/25/18	80	8,339	6,622	5,780	406,200	339	8,949	410
13	10/25/18	80	8,258	7,148	5,752	404,690	339	8,437	429
14	10/26/18	80	8,160	7,102	5,815	399,620	332	8,530	429
15	10/26/18	83	8,110	6,828	5,560	400,980	327	8,342	430
16	10/26/18	82	8,208	7,232	5,346	401,580	326	8,967	400
17	10/26/18	80	8,177	7,266	5,241	400,410	318	8,630	429
18	10/27/18	81	8,574	7,468	5,176	399,790	316	8,373	407
19	10/27/18	81	8,638	7,379	5,614	401,360	310	8,011	429
20	10/27/18	80	8,212	7,499	5,476	400,340	306	8,627	429
21	10/28/18	80	8,202	7,061	5,461	400,220	304	8,667	429
22	10/28/18	81	8,387	7,386	6,019	401,090	295	7,982	400
23	10/28/18	80	8,219	7,732	5,732	400,660	297	7,844	385
24	10/28/18	80	7,085	7,086	5,498	399,670	286	8,668	431
25	10/29/18	80	8,269	7,863	5,778	400,310	311	8,092	430
26	10/29/18	81	7,937	6,795	5,707	400,420	281	7,855	375
27	10/29/18	80	7,912	7,084	5,509	396,580	274	8,428	385
28	10/29/18	81	8,049	7,376	5,259	400,020	274	8,745	429
29	10/30/18	80	7,860	6,856	5,252	400,220	266	8,135	429
30	10/30/18	83	7,829	6,567	5,917	399,440	264	8,685	125
31	10/30/18	84	7,977	6,793	5,995	399,420	261	9,034	429
32	10/31/18	82	7,932	7,415	5,834	397,970	258	8,363	429
33	10/31/18	83	7,854	7,501	5,194	401,920	250	7,895	100
34	10/31/18	83	7,826	7,608	5,367	400,080	241	8,238	170
35	10/31/18	84	7,820	6,815	6,164	400,020	240	8,603	475
36	11/1/18	84	7,698	7,451	5,557	399,320	240	7,946	108
37	11/1/18	79	8,346	7,447	5,261	400,460	235	8,016	148
38	11/1/18	81	7,920	7,274	5,410	400,080	226	8,140	429
39	11/2/18	80	8,108	7,264	5,139	399,300	222	8,082	430
40	11/2/18	80	7,921	7,174	4,994	357,040	215	7,137	95
41	11/2/18	71	8,219	7,349	5,248	402,560	216	9,774	170
42	11/2/18	80	7,827	7,535	4,975	400,220	211	7,935	170

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MEPCO 14H PERFORATION RECORD				
Stage Number	Report Date	Cluster 5 Bottom TD	Cluster 1 Top TD	Total Shots
1	10/20/18	17,535	-	0
2	10/22/18	17,331	17,491	40
3	10/22/18	17,128	17,288	40
4	10/22/18	16,925	17,085	40
5	10/23/18	16,722	16,882	40
6	10/23/18	16,519	16,680	40
7	10/23/18	16,317	16,477	40
8	10/24/18	16,114	16,274	40
9	10/24/18	15,911	16,071	40
10	10/24/18	15,708	15,869	40
11	10/25/18	15,506	15,666	40
12	10/25/18	15,303	15,463	40
13	10/25/18	15,100	15,260	40
14	10/26/18	14,897	15,057	40
15	10/26/18	14,694	14,855	40
16	10/26/18	14,492	14,652	40
17	10/26/18	14,289	14,449	40
18	10/27/18	14,086	14,246	40
19	10/27/18	13,883	14,043	40
20	10/27/18	13,680	13,841	40
21	10/28/18	13,478	13,638	40
22	10/28/18	13,275	13,435	40
23	10/28/18	13,072	13,232	40
24	10/28/18	12,869	13,029	40
25	10/29/18	12,666	12,827	40
26	10/29/18	12,464	12,624	40
27	10/29/18	12,261	12,421	40
28	10/29/18	12,058	12,218	40
29	10/30/18	11,855	12,016	40
30	10/30/18	11,652	11,813	40
31	10/30/18	11,450	11,610	40
32	10/31/18	11,247	11,407	40
33	10/31/18	11,044	11,204	40
34	10/31/18	10,841	11,002	40
35	10/31/18	10,639	10,799	40
36	11/1/18	10,436	10,596	40
37	11/1/18	10,233	10,393	40
38	11/1/18	10,030	10,190	40
39	11/2/18	9,827	9,988	40
40	11/2/18	9,625	9,785	40
41	11/2/18	9,422	9,582	40
42	11/2/18	9,219	9,379	40

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Lithology/Formation	Top Depth in FT TVD	Bottom Depth in FT TVD	Describe rock type and record quantity and type of fluid (freshwater, brine, oil, gas, H2S, etc)
Shale/Sand	0	384	Shale/Sand
Shale	384	400	Shale
sand/shale	400	466	sand/shale
shale	466	470	shale
Sandstone/shale/coal	470	570	Sandstone/shale/coal
sand/shale	570	848	sand/shale
coal	848	853	coal
sand/shale	853	930	sand/shale
coal	930	933	sandstone/shale/coal - water @ 906'
sand/shale	933	1214	sand/shale
shale/red rock	1214	1651	shale/red rock
sand/shale	1651	2010	sand/shale
red rock	2010	2110	red rock
Big Lime	2110	2248	Big Lime
Big Injun	2248	2370	Big Injun
siltstone	2370	2430	siltstone
Berea	2430	2450	Berea
siltstone	2450	2610	siltstone
Gantz	2610	2630	Gantz
Upper Devonian undifferentiated	2630	2920	Upper Devonian undifferentiated
red rock/siltstone	2920	3080	red rock/siltstone
Devonian silt/sand/shale	3080	7290	Devonian silt/sand/shale
Middlesex	7290	7530	Middlesex
Burkett	7530	7710	Burkett
Geneseo	7710	7770	Geneseo
Tully	7770	7830	Tully
Hamilton	7830	7890	Hamilton
Marcellus	7890	8082	Marcellus
Onondaga	8082	8114	Onondaga
Huntersville chert	8114		Huntersville chert

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Customer: NORTHEAST NATURAL ENERGY LLC				Date: 1/20/2018				Serv. Supervisor: Aaron Shreve			
Cust. Rep.: Ross				Ticket #: JWV1801-0021				Serv. Center: Jane Lew, WV			
Lease: Mecco 14H				API Well #:				County: Monongalia State: WV			
Well Type:				Rig: 0 0				Type of Job: Surface Casing			
Materials Furnished by C&J ENERGY SERVICES											
Plugs		Casing Hardware				Physical Slurry Properties					
						Sacks of Cement	Fluid Dens (lb/gal)	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Mix Water (bbls)
Spacer 1:	6% Gel					-	8.7			25	
Lead											
Tail:	CJ910 + 2% CJ110 + 0.25 LB/SK CJ600				1124	15.6	1.20	5.21	239	139	
Displacement Chemicals:											
OPEN HOLE DATA				TUBULAR DATA							
SIZE (in)	EXCESS (%)	DEPTH (ft)	TYPE (CSG/TBG/DP)	OD (in)	WEIGHT (lbs/ft)	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
17 1/2		1423	Casing	13 3/8	54.5		1400		12.61		
PREVIOUS CASING DATA				PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS			
SIZE (in)	WEIGHT (lbs/ft)	ID (in)	DEPTH (ft)	TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP
24	94.5	23.27	40					1400	1358		
WELL FLUID		DISPLACEMENT FLUID (STG 1)			DISPLACEMENT FLUID (STG 2)			WATER ON LOC (bbl)	DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)
TYPE	DENSITY	VOLUME	TYPE	DENSITY	VOLUME	TYPE	DENSITY				
		210 bbl	Processed					1000	513	544	2000
Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details				
10:00PM						0	Location Time				
10:10PM						0	Started Casing				
1:00AM						0	Spot Trucks/Rig In				
2:00AM						0	Finished Casing				
2:15AM						0	Safety Meeting				
2:37AM	3	2400			2	2	Psi Test				
2:42AM	6.5	120			190	192	Load Casing				
3:15AM	3.5	60			25	217	Start Gel				
3:22AM	3.5	90			10	227	Pump fresh Water				
3:24AM	6.5	300			240	467	Start Cement				
3:37AM						467	85 BBLs Away Circulation				
4:11AM	8	160			210	677	Release Plug/Displace				
4:45AM	3	925			0.5	677.5	Landed Plug				
6:00AM						677.5	Wash up/Rig Down/Leave Location				
						677.5					
						677.5					
						677.5					
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						677.5					
						677.5					
						677.5	RECEIVED				
						677.5	Office of Oil and Gas				
						677.5					
Left Yard	1/20/2018@7:30PM			Left Loc.	1/21/2018@6:00AM			Start Pump	1/21/2018@2:37AM		
Arrived Loc.	1/20/2018@10:00PM			Returned Yd	1/21/2018@8:00AM			End Pump	1/21/2018@4:35AM		
Bumped Plug (psi)	Final Differential (psi)	Floata Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Standby Charged (hrs)	<i>Aaron Shreve</i> Department of Environmental Protection Service Supervisor			
Yes	510	Yes	0	60	Yes	925	4				

API Permit #: 47-061-01791

Customer: Northeast

Lease and Well Name: Mepco 14-H

A.F.E #: 100405-602



Job Type: 9 5-8

Cement Operator: Brian Fullem

Date Cemented: 1/23/2018

Drilling Contractor: Highlands #8

Cement Slurry Information										
No. of Sacks	Cement Blend Composition				Yield (ft ³ /sk)	Mix Water (gal/sk)	Density (lb/gal)	(bbl) Mix Water	(ft ³) Of Slurry	(bbl) Of Slurry
796	Class A 1% Calcium				1.19	5.20	15.6	99	947	169
							Totals	99	947	169

Wellbore Information									
	New/Used	Diameter (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Collapse/Burst Pressures (psi)		Requested TOC (ft)	Surface
Casing	New	9 5-8	40.0	0	2,425			TVD (ft)	2,500
Previous Casing		13 3-8	54.5	0	1,400				
Tubing or Drillpipe	New							Displacement Depth (ft)	2,385
Open Hole		12 1/4		1,400	2,500				
Open Hole									

Pumping Returns			Cement Slurry Temperature Record (°F)					Fluid Information	
Spacer or Gel Sweep Return Seen At Surface	Yes		Cement Blend 1	Reading 1	Reading 2	Reading 3	Average	Mix Water Temp (°F)	50
Cement Returns Seen at Surface	Yes		Blend 2	55	55	55	55	Displacement Fluid Type	Water
Amount of Cement Returns (BBL)	35		Blend 3					Displacement Fluid Temp (°F)	50
								Displacement Fluid Density (lb/gal)	8.3

Time	Rate (bpm)	Volume (bbl)	Pressure (psi)	Event or Stage Description
10:00				Arrive on Location
				Wait on Rig to Run Casing
13:30				Hold Safety Meeting
				Spot Trucks, Rig in
14:50	2.0	2	500	Test OPDS
14:52			3100	Pressure Test Lines
14:53	5.5	163	130	Pump Recycled Water
15:23	5.5	25	145	Pump Gel
15:28	5.5	5	140	Pump Fresh Water
15:29	5.5	169	180	Mix and Pump Lead Cement
16:01				Shut Down, Drop Plug
16:02	5.5,4,3	180	980	Displace Plug
16:39			1420	Plug Lands, Shut Down
				Hold 5 Minutes, Release Pressure
16:44				Floats Hold, Shut in Manifold
				Wash Up, Rack Out
17:30				Leave Location

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Comments:

PH-7
SG 1.001
Hardness 250

SEP 9 2019

WV Department of
Environmental Protection
Thank You for your Business

UWS Cement Operator Signature:

Brian Fullem

Customer Representative Signature:

Customer: NORTHEAST NATURAL ENERGY LLC			Date: 6/16/2018			Serv. Supervisor: Nicholas Kile					
Cust. Rep.: Mepco 14H			Ticket #: JVV1808-0019			Serv. Center: Jane Lew, WV					
Lease: Mepco 14H			API Well #: 100405-603			County: Monongalia State: West Virginia					
Well Type: Patterson 334			Rig: Patterson 334			Type of Job: Production Casing					
Materials Furnished by C&J ENERGY SERVICES											
Plugs		Casing Hardware				Physical Slurry Properties					
						Sacks of Cement	Fluid Dens (lb/gal)	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Mix Water (bbls)
Spacer 1:	CJ810 PureScrub Spacer + 1 gal/bbl CPC35				-	13.5			100		
Lead											
Tail:	50:50 CJ010:CJ910 + 0.25% CJ210F + 0.1% CJ501 + 0.2% CJ504 + 0.2% CJX157011				3350	14.5	1.16	4.91	690	391	
Displacement Chemicals:											
OPEN HOLE DATA						TUBULAR DATA					
SIZE (in)	EXCESS (%)	DEPTH (ft)	TYPE (CSG/TBODP)	OD (in)	WEIGHT (lbs/ft)	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
8 3/4		6512	Casing	5 1/2	20		17696		4.79		
8 1/2		17696									
PREVIOUS CASING DATA				PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS			
SIZE (in)	WEIGHT (lbs/ft)	ID (in)	DEPTH (ft)	TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP
9 5/8	40	8.84	2431					17696	17616		
WELL FLUID		DISPLACEMENT FLUID (STG 1)			DISPLACEMENT FLUID (STG 2)			WATER ON LOC (bbl)	DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)
TYPE	DENSITY	VOLUME	TYPE	DENSITY	VOLUME	TYPE	DENSITY				
		392 bbl	Water	8.3 ppg				2000	4000	6892	7000
Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press. (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details				
10:30 PM							0 Arrived On Location				
11:00 PM							0 Spotted Trucks/Rigged Up				
12:50AM							0 Safety Meeting				
1:20AM	2				2		2 Released Bottom Plug				
1:40AM		7000					2 Loaded Top Plug/Psi Test				
1:54AM	6.6	800			100	102	Start Spacer				
1:58AM						102	Scaled At 13.5				
2:10AM	6.6	800			692	794	Start Tall Cement/ Top of Cement 1078'				
2:16AM						794	Scaled At 14.5				
2:57AM	8.4	1300				794	Up Rate Cleared Shoe				
3:45AM						794	Shut Down Washed Lines Out				
3:49AM	8.8	2400			392	1186	Released Plug/Displace				
4:03AM	8	4000				1186	150 Away				
4:23AM	7.2	4550				1186	250 Away				
4:43AM	3.7	4000				1186	380 Away				
4:46AM	3.7	4500			6.5	1192.5	Laned Plug				
7:00AM						1192.5	Wash Up/Rig Down/Leave Location				
						1192.5					
						1192.5					
						1192.5					
						1192.5					
						1192.5					
						1192.5					
Left Yard	6/16/2018@8:00PM			Left Loc.	6/17/2018@7:00AM			Start Pump	6/17/2018@1:54AM		
Arrived Loc.	6/16/2018@11:00PM			Returned Yd				End Pump	6/17/2018@4:46AM		
Bumped Plug (psi)	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Standby Charged (hrs)	<i>Nicholas Kile</i> Office of Oil and Gas Service Supervisor			
Yes	4000	Yes	0	0	Yes	4500	4				

SEP 9 2019

NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV
 Field: Monongalia
 Facility: MEPCO Pad

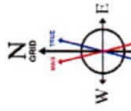
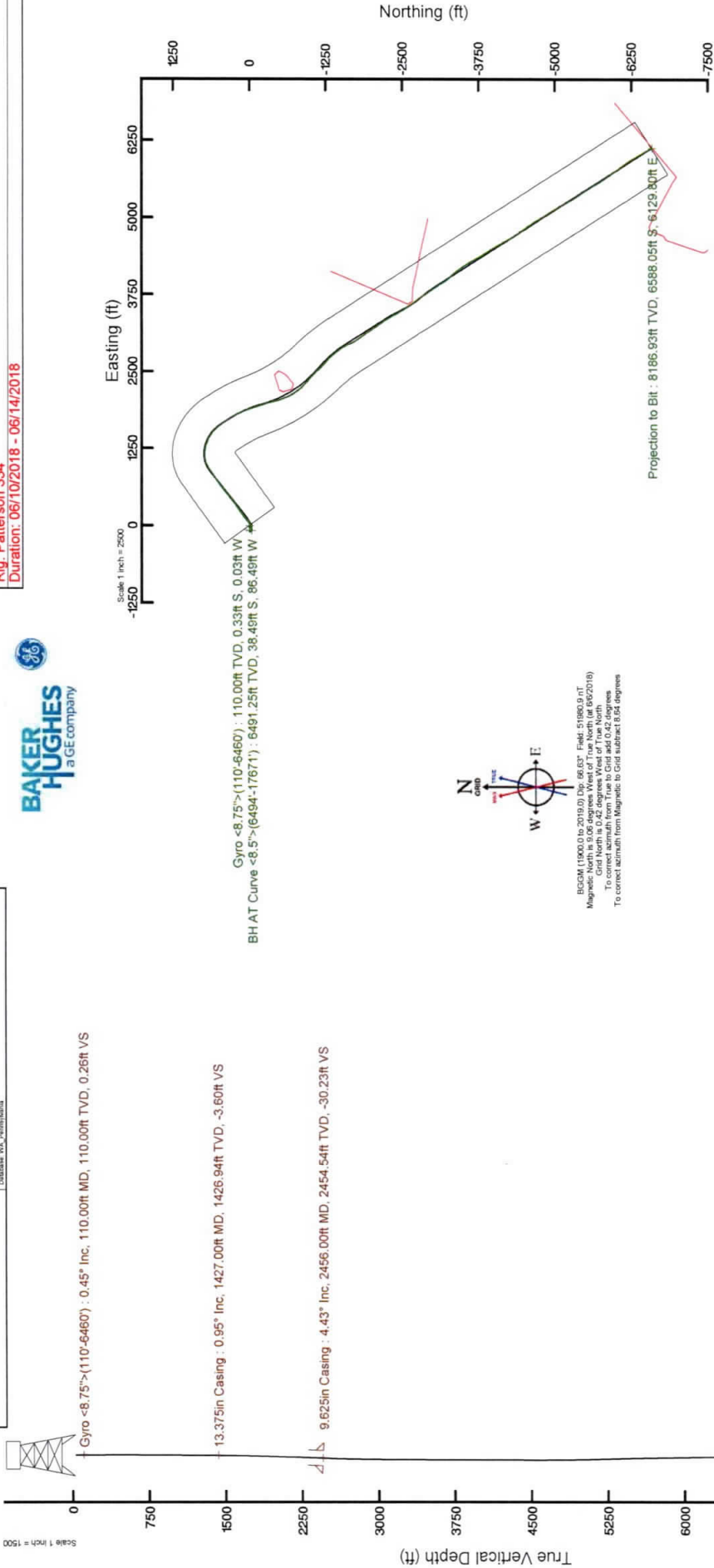
Slot: Slot #14
 Well: MEPCO LLC 14H
 Wellbore: MEPCO LLC 14H PWB

Grid System: NAD83 / Lambert West Virginia 87 / Medium Zone (42N), US feet
** Wellbore was transferred from a different geospatial datum
North Reference: Grid north
Scale: True distance
Depth: as in feet
Created by: Broomfield on 2018-06-26
Database: WV_Pennsylvania

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
MEPCO Pad	1784821.230	424282.090	80°00'08.866"W
Local N (ft)	Local E (ft)	Grid North (US ft)	Longitude
Slot #14	-61.83	1784894.340	80°00'07.925"W
Local N (ft)	Local E (ft)	Grid North (US ft)	Longitude
Slot #14	-61.83	1784894.340	80°00'07.925"W
Mean Sea Level to Ground level (At Slot: Slot #14)	25ft		
Mean Sea Level to Ground level (At Slot: Slot #14)	-1424ft		
Pattern 334 (KB) to Mean Sea Level	1449ft		

Comments

API: 47-061-01791-0000
 BH Job #: 9202098
 Rig: Patterson 334
 Duration: 06/10/2018 - 06/14/2018



BGCM (1998.0 to 2015.0) is used. East: 65886.8 ft
 Magnetic North is 0.95 degrees West of True North (at 692018)
 Grid North is 0.42 degrees West of True North
 To correct azimuth from True to Grid add 0.42 degrees
 To correct azimuth from Magnetic to Grid subtract 0.54 degrees

BH AT Curve $\langle 8.5^\circ \rangle$ (6494-17671) : 1.49° Inc, 6494.00ft MD, 6491.25ft TVD, -14.01ft VS

RECEIVED
 Office of Oil and Gas

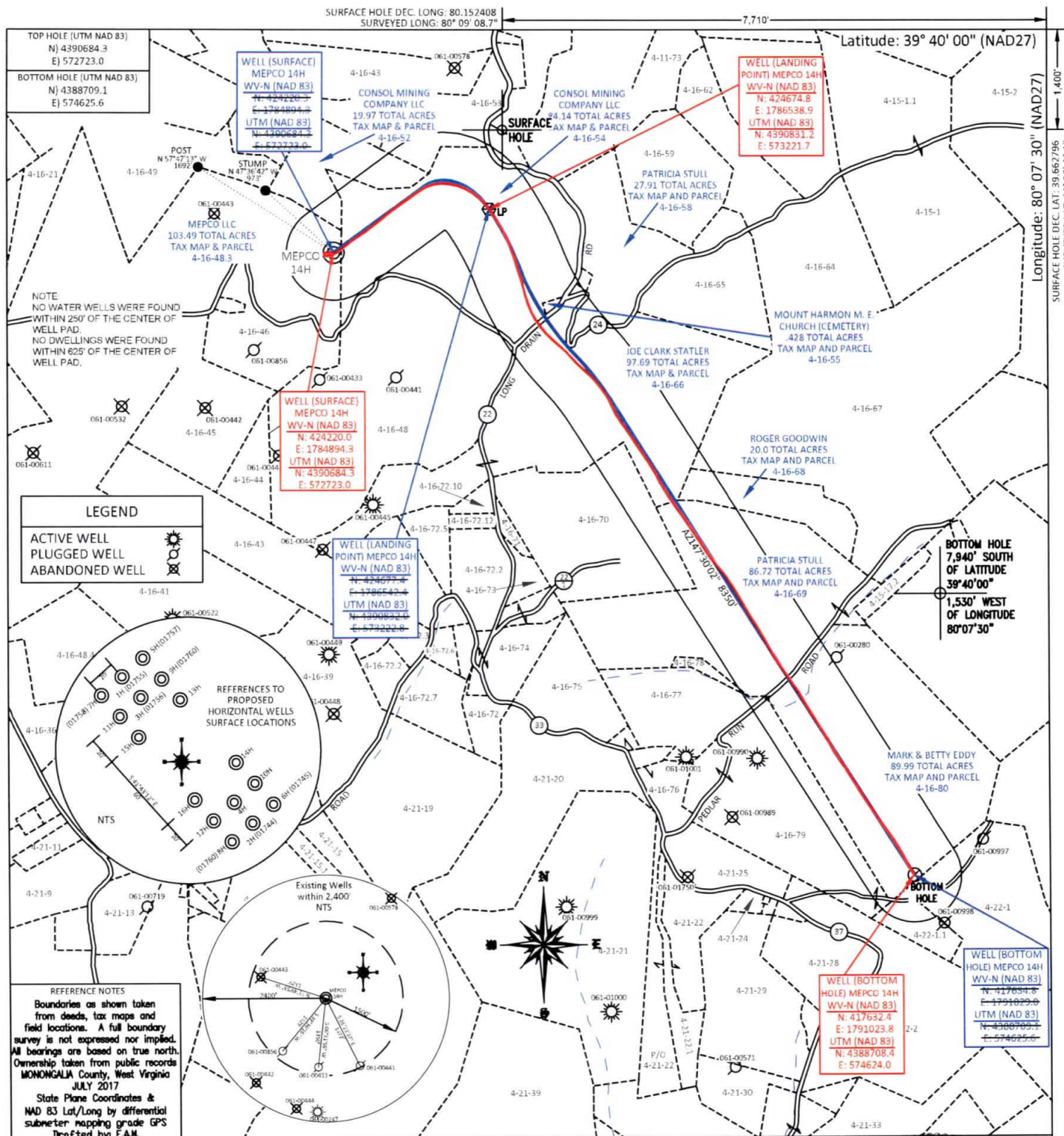
SEP 9 2019

WV Department of
 Environmental Protection

Projection to Bit : 91.97° Inc, 17696.00ft MD, 8186.93ft TVD, 8849.84ft VS
 5.5in Casing Production : 91.97° Inc, 17696.00ft MD, 8186.93ft TVD, 8849.84ft VS

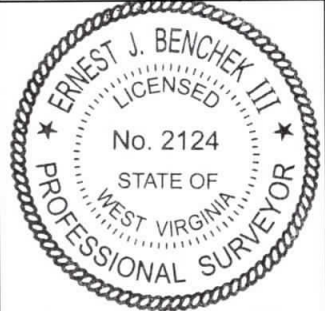
Vertical Section (ft)
 Azimuth 147.50° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500



FILE #: NNE15
 DRAWING #: 2829
 SCALE: PLAT: 1" = 1500'
TICK: 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: [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

DATE: AUGUST 5, 2019 RECEIVED
 OPERATOR'S WELL #: MEPCO 14H (AS-DRILLED) Office of Oil and Gas
 API WELL #: 47 61 0179 SEP 9 2019
 STATE COUNTY PERMIT
 WV Department of Environmental Protection

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

WATERSHED: DUNKARD CREEK
 COUNTY/DISTRICT: MONONGALIA / CLAY
 SURFACE OWNER: MEPCO LLC
 OIL & GAS ROYALTY OWNER: NORTHEAST NATURAL ENERGY LLC
 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
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

ESTIMATED DEPTH: TVD: 8,222' TMD: 17,616.87'
 DESIGNATED AGENT: JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

AS-BUILT ELEVATION: 1,420.20'
 QUADRANGLE: BLACKSVILLE
 ACREAGE: 103.49 +/-
 ACREAGE: 607.30 +/-