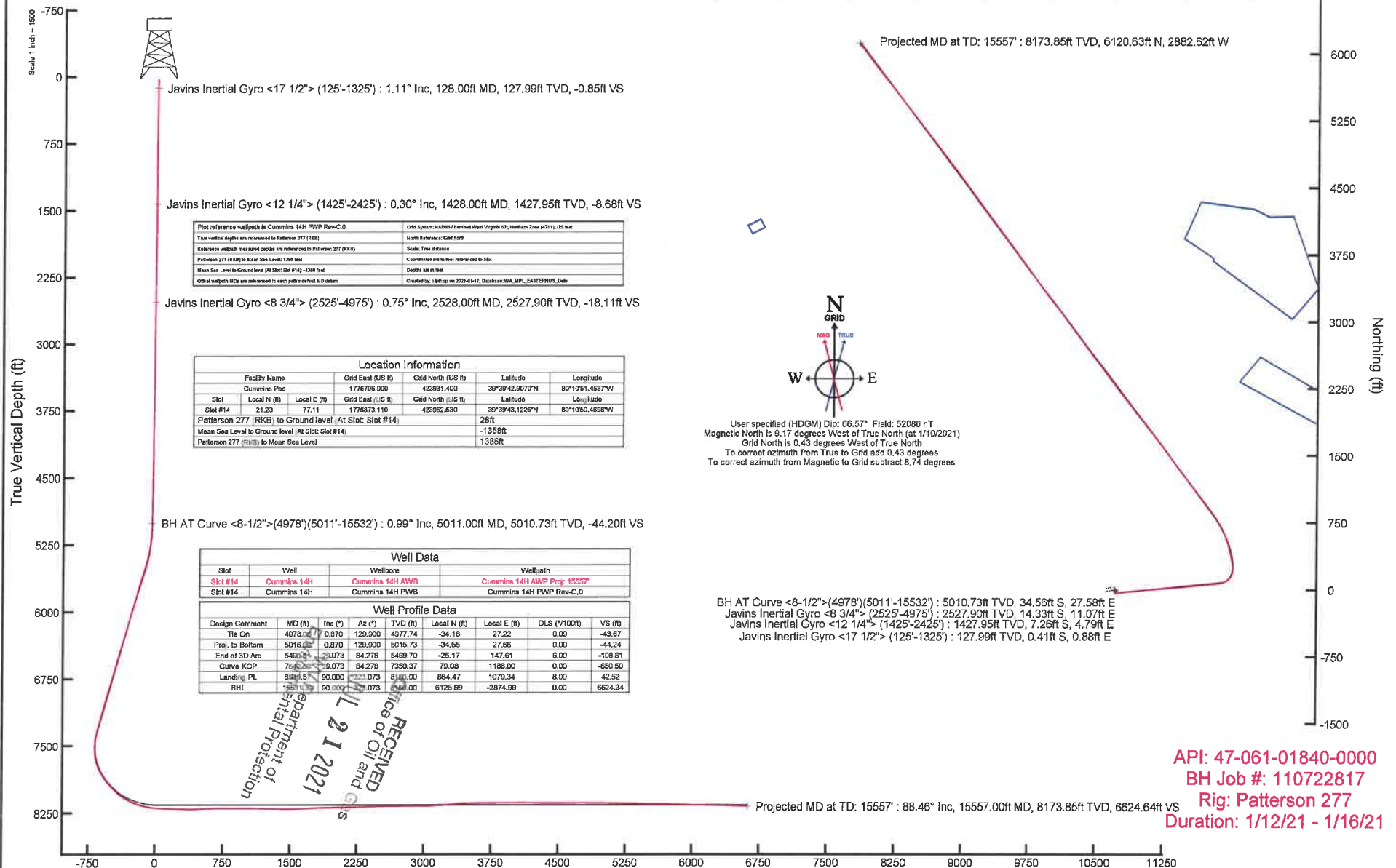




# NORTHEAST NATURAL ENERGY, LLC

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

Slot: Slot #14  
 Well: Cummins 14H  
 Wellbore: Cummins 14H PWB



Javins Inertial Gyro <17 1/2"> (125'-1325') : 1.11° Inc, 128.00ft MD, 127.99ft TVD, -0.85ft VS

Javins Inertial Gyro <12 1/4"> (1425'-2425') : 0.30° Inc, 1428.00ft MD, 1427.95ft TVD, -8.66ft VS

Plot reference wellpath is Cummins 14H PWP Rev-C-0	426 System: NAD83 / Lambert West Virginia (2) - Northam Zone (279), US foot
True vertical depths are referenced to Patterson 277 (RKB)	North Reference: GCS NAD
Reference wellbore measured depths are referenced to Patterson 277 (RKB)	Scale: True distance
Patterson 277 (RKB) to Mean Sea Level: 1385 feet	Coordinates are in feet referenced to SBD
Mean Sea Level to Ground level (At Slot: Slot #14) : -1385 feet	Depth unit in feet
Other wellpath MDs are referenced to each path's default MD datum	Created by: M&E on 2021-01-17, Database: WVA_MPL_EASTERNUS Data

Javins Inertial Gyro <8 3/4"> (2525'-4975') : 0.75° Inc, 2528.00ft MD, 2527.90ft TVD, -18.11ft VS

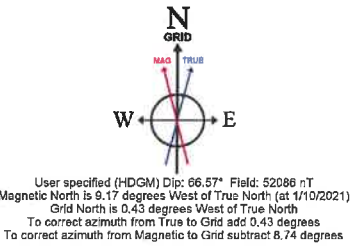
Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Cummins Pad	1776796.000	423931.400	39°39'42.9070"N	80°10'51.4537"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot #14	21.23	77.11	1776873.110	423892.630	39°39'43.1226"N
Patterson 277 (RKB) to Ground level (At Slot: Slot #14)	28ft				
Mean Sea Level to Ground level (At Slot: Slot #14)	-1358ft				
Patterson 277 (RKB) to Mean Sea Level	1385ft				

BH AT Curve <8-1/2">(4978')(5011'-15532') : 0.99° Inc, 5011.00ft MD, 5010.73ft TVD, -44.20ft VS

Well Data								
Slot	Well	Wellbore	Wellpath					
Slot #14	Cummins 14H	Cummins 14H AWP	Cummins 14H AWP Prog: 15557					
Slot #14	Cummins 14H	Cummins 14H PWB	Cummins 14H PWP Rev-C-0					

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (*/100ft)	VS (ft)
Tie On	4978.00	0.870	129.900	4977.74	-34.18	27.22	0.09	-43.67
Pre. to Bottom	5016.00	0.870	129.900	5015.73	-34.55	27.66	0.00	-44.24
End of 3D Arc	5490.00	0.073	84.278	5469.70	-25.17	147.61	6.00	-108.61
Curve KCP	76.00	0.073	84.278	7350.37	79.08	1188.00	0.00	-650.69
Landing Pl.	8000.00	0.000	323.073	8000.00	864.47	1079.34	8.00	42.52
BHL	8250.00	0.000	323.073	8250.00	6125.89	-2874.99	0.00	6624.34



BH AT Curve <8-1/2">(4978')(5011'-15532') : 5010.73ft TVD, 34.56ft S, 27.59ft E  
 Javins Inertial Gyro <8 3/4"> (2525'-4975') : 2527.90ft TVD, 14.33ft S, 11.07ft E  
 Javins Inertial Gyro <12 1/4"> (1425'-2425') : 1427.95ft TVD, 7.26ft S, 4.79ft E  
 Javins Inertial Gyro <17 1/2"> (125'-1325') : 127.99ft TVD, 0.41ft S, 0.88ft E

Projected MD at TD: 15557' : 88.46° Inc, 15557.00ft MD, 8173.85ft TVD, 6624.64ft VS

Vertical Section (ft)  
 Azimuth 323.07° with reference 0.00 N, 0.00 E

API: 47-061-01840-0000  
 BH Job #: 110722817  
 Rig: Patterson 277  
 Duration: 1/12/21 - 1/16/21

RECEIVED  
 Office of Oil and Gas  
 January 21 2021  
 Department of  
 Mineral Protection