

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

API 47 - 51 - 01615 County Marshall District Franklin
Quad Powhatan Point 7.5' Pad Name Armstrong Field/Pool Name _____
Farm name CNX Gas Company, LLC Well Number 3H
Operator (as registered with the OOG) Gastar Exploration Inc.
Address 229 West Main Street Suite 301 City Clarksburg State WV Zip 26301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4400447.6 Easting 516408.8
Landing Point of Curve Northing 4400291.4 Easting 516304.1
Bottom Hole Northing 4400994.0 Easting 514582.2

Elevation (ft) 1278' 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 Base Mud

Date permit issued April 15, 2013 Date drilling commenced 10/28/2013 Date drilling ceased 9/1/2014
Date completion activities began 9/11/2014 Date completion activities ceased 4/21/2015
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 55' Open mine(s) (Y/N) depths None
Salt water depth(s) ft 1664' Void(s) encountered depths None
Coal depth(s) ft 815'-825' & 1160'-1190' Covered(s) encountered depths None
Is coal being mined in area (Y/N) No

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Reviewed by: [Signature]
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API 47-51 - 01615 Farm name CNX Gas Company, LLC Well number 3H

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							
Surface	30"	20"	118'	New	PE / 54.5 #/ft		Yes
Coal	17.5"	13.375"	1229'	New	H-40 / 48 #/ft	80'	Yes
Intermediate 1	12.25"	9.625"	2655'	New	J-55 / 36 #/ft	80'	Yes
Intermediate 2							
Intermediate 3							
Production	8.875" & 8.5"	5.5"	12868'	New	P-110 / 20 #/ft		Yes
Tubing		2.375"	6611'	New	N80/4.7#		
Packer type and depth set							

Comment Details _____

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							
Surface	Class A	295	15.6	1.21	357	Surface	12
Coal	Class A	963	15.6	1.21	1165	Surface	8
Intermediate 1	Class A	898	15.6	1.21	1087	Surface	8
Intermediate 2							
Intermediate 3							
Production	50:50 Class A	2861	14.5	1.21	3462	Surface	8
Tubing							

Drillers TD (ft) 12,868' Loggers TD (ft) N/A
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6096'

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/Coal Casing - 3 Centralizers at 300' spacing
 Intermediate Casing - 7 Centralizers at 300' Spacing
 Production Casing - 203 Centralizers total - 1 centralizer every joint in the lateral and curve and 1 centralizer every third joint in the vertical section

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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API 47- 51 - 01615 Farm name CNX Gas Company, LLC Well number 3H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
					SEE ATTACHED PERF INFO SHEET

Please insert additional pages as applicable.

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)
			See Attached					

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Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS	
<u>Marcellus</u>	<u>6,470' - 6,509'</u> TVD	<u>6,759' - 12,868'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1600 psi Bottom Hole 4422 psi DURATION OF TEST 227 hrs

OPEN FLOW Gas 3013 mcfpd Oil 194 bpd NGL _____ bpd Water 567 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 ATTACHED

Please insert additional pages as applicable.

Drilling Contractor Nomac Drilling
Address 171 Locust Ave. City Mt. Morris State PA Zip 15349

Logging Company Baker Hughes
Address 370 Westec Drive City Mt. Pleasant State PA Zip 15666

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

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

Please insert additional pages as applicable.

Completed by Thomas Rowan Telephone 304-622-4796
Signature [Signature] Title Drilling and Completions Engineer Date 7-31-15

51.01615

Armstrong 3H Perforation Information

<u>Stage</u>	<u>Date</u>	<u>Perforated interval</u>		<u>Number of Perfs</u>	<u>Formation</u>
		<u>From</u> ft	<u>To</u> ft		
1	9/18/2014	12739	12647	48	Marcellus
2	9/27/2014	12592	12425	48	Marcellus
3	9/28/2014	12372	12205	48	Marcellus
4	9/29/2014	12152	11985	48	Marcellus
5	10/2/2014	11932	11765	48	Marcellus
6	10/8/2014	11712	11545	48	Marcellus
7	10/11/2014	11492	11325	48	Marcellus
8	10/11/2014	11272	11105	48	Marcellus
9	10/12/2014	11052	10885	48	Marcellus
10	10/13/2014	10832	10665	48	Marcellus
11	10/14/2014	10619	10437	60	Marcellus
12	10/15/2014	10399	10217	60	Marcellus
13	10/16/2014	10179	9997	60	Marcellus
14	10/17/2014	9959	9777	60	Marcellus
15	10/18/2014	9739	9551	60	Marcellus
16	10/19/2014	9519	9337	60	Marcellus
17	10/20/2014	9299	9117	60	Marcellus
18	10/21/2014	9079	8897	60	Marcellus
19	10/21/2014	8859	8677	60	Marcellus
20	10/22/2014	8639	8457	60	Marcellus
21	10/23/2014	8414	8237	60	Marcellus
22	10/24/2014	8199	8017	60	Marcellus
23	10/24/2014	7979	7797	60	Marcellus
24	10/25/2014	7759	7577	60	Marcellus
25	10/25/2014	7539	7357	60	Marcellus
26	10/26/2014	7319	7137	60	Marcellus
27	10/26/2014	7099	6914	60	Marcellus

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Fluid & Sand Volume Summary - Armstrong #3H

<u>Stage</u>	<u>Stimulation Date</u>	<u>Avg Pump Rate (BPM)</u>	<u>Avg Pressure (PSI)</u>	<u>Max Break Pres. (PSI)</u>	<u>ISIP (PSI)</u>	<u>Sand Total (lbs)</u>	<u>Total Water (bbls)</u>
1	9/27/2014	80	6257	4146	4001	105,972	3276
2	9/28/2014	76	6032	4402	4889	216,956	8323
3	9/29/2014	74	6152	4850	3916	296,150	7502
4	9/30/2014	59	6185	4850	3658	159,307	5657
5	10/2/2014	78	5799	4850	3800	347,210	8046
6	10/9/2014	75	5867	4506	8932	169,123	7713
7	10/11/2014	78	6109	5841	3626	170,116	6445
8	10/12/2014	77	5979	4698	3470	179,401	7082
9	10/13/2014	82	5736	4698	4021	173,463	7937
10	10/14/2014	81	6194	4810	4007	214,848	8976
11	10/15/2014	52	6293	5179	4394	8,393	3530
12	10/16/2014	81	5903	4793	4066	217,090	8876
13	10/17/2014	81	6104	4887	4082	219,960	8869
14	10/18/2014	80	5859	4911	3923	215,840	8829
15	10/19/2014	80	5862	5080	3839	217,557	8807
16	10/20/2014	81	5928	5127	3421	215,398	8835
17	10/21/2014	81	5767	5003	3802	213,179	8796
18	10/21/2014	82	5725	4786	3293	211,127	8748
19	10/22/2014	80	5639	4893	3306	276,600	8235
20	10/23/2014	81	5447	4579	3490	280,587	8322
21	10/24/2014	80	5546	4694	3275	325,355	6905
22	10/24/2014	80	5488	4907	3357	301,392	6927
23	10/25/2014	82	5317	5012	3440	325,055	7026
24	10/25/2014	82	5491	5068	3520	333,693	7031
25	10/26/2014	81	5627	5015	4136	331,163	6839
26	10/26/2014	81	5610	5066	4641	320168	6791
27	10/27/2014	81	5604	5240	3995	318357	6712

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Formations	Armstrong TOP TVD	Armstrong BASE TVD	Top MD	Base MD
SHALE AND SANDSTONE	0	815	0	815
SEWICKLEY COAL	815	825	815	825
SHALE	825	1160	825	1160
PITTSBURGE COAL	1160	1190	1160	1190
SHALE AND SANDSTONE	1190	1664	1190	1664
3RD SALT SAND	1664	1720	1664	1720
SHALE	1720	1820	1720	1820
MAXTON	1820	1894	1820	1894
SHALE	1894	1914	1894	1914
BIG LIME	1914	2001	1914	2001
BIG INJUN	2001	2251	2001	2251
WEIR SILTSTONE	2251	2524	2251	2524
BEREA SILTSTONE	2524	2724	2524	2724
SAND AND SHALE	2724	2730	2724	2730
GORDON	2730	2787	2730	2787
SILTSTONE AND SANDSTONE	2787	3400	2787	3400
BRALLER	3400	5280	3400	5325
PIPE CREEK SHALE	5280	5480	5325	5526
SHALE	5480	5905	5526	5958
RHINESTREET	5905	6175	5958	6243
CASHAQUA	6175	6311	6243	6414
MIDDLESEX	6311	6330	6414	6442
WEST RIVER	6330	6389	6442	6538
GENESEO	6389	6416	6538	6588
TULLY LIMESTONE	6416	6452	6588	6666
HAMILTON	6452	6470	6666	6721
MARCELLUS	6470	na	6721	na
ONONDOGA	na	na	na	na

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Welcome Tracy H., Operator - OpNo. G1410907 [Log Out]

Hydraulic Fracturing DISCLOSURE

Submission to FracFocus using Excel Spreadsheets has been turned off.

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Hydraulic Fracturing Data

[Edit](#)

Job Start Date 9/27/2014
 Job End Date 10/27/2014
 API Number 47-051-01615-00-00
 State & County West Virginia --- Marshall

Well Name ARMSTRONG 3H

Longitude -80.82994
 Latitude 39.75864
 Datum NAD27
 Federal/Tribal Well?

True Vertical Depth (ft) 6490
 Total Water Vol (gal) 11050368
 Total Non Water Vol 0
 Total Mass (lbs) 99170715.1377



MSDS Chemical Ingredients

[New Additive](#) [Select Additive](#) ▼ [Add Additive](#)

	Trade Name	Supplier	Purpose	Ingredients	CAS #	% High Additive	% HF Job	Comments	Ingredient Mass
Edit	Water	Operator	Carrier	Water	7732-18-5	100%	92.832331%		92135758.3104
Edit	Sand, White, 40/70	Baker Hughes	Proppant	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	5.08208%		5039937
Edit	Sand, White, 30/50	Baker Hughes	Proppant	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	1.43208%		1420206
Edit	HCl, 10.1 - 15%	Baker Hughes	Acidizing	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.406853%	SmartCare Product	403480
Edit	FRW-18	Baker Hughes	Friction Reducer	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.0674427%	SmartCare Product	66883.44
Edit	GW-3LDF	Baker Hughes	Gelling Agent	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.0628216%	SmartCare Product	62300.7

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<input type="button" value="Edit"/>	Alpha 1427	Baker Hughes	Biocide	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.0165963%	SmartCare Product	16458.75
<input type="button" value="Edit"/>	Enzyme G-NE	Baker Hughes	Breaker	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.0108877%	SmartCare Product	10797.451
<input type="button" value="Edit"/>	FlexSand MSE, 20/40 mesh	Baker Hughes	Proppant	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.0060502%		6000
<input type="button" value="Edit"/>	ScaleSorb 4, (50# bag)	Baker Hughes	Scale Inhibitor	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.0042795%	SmartCare Product	4244
<input type="button" value="Edit"/>	Ferrotrol 300L	Baker Hughes	Iron Control	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.0027967%	SmartCare Product	2773.48632
<input type="button" value="Edit"/>	CI-14	Baker Hughes	Corrosion Inhibitor	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.0012867%	SmartCare Product	1276
<input type="button" value="Edit"/>	ScaleSorb 7 (50 lb)	Baker Hughes	Scale Inhibitor	MSDS and Non-MSDS Ingredients Listed Below	N/A	0%	.000605%		600

Non-MSDS Chemical Ingredients

	Trade Name	Supplier	Purpose	Ingredients	CAS #	% High Additive	% HF Job	Comments	Ingredient Mass
<input type="button" value="Edit"/>	Ingredients in Additive(s) (MSDS and non-MSDS)	Baker Hughes	See Trade Name(s) List						
				Crystalline Silica (Quartz)	14808-60-7	100%	6.5090323%		6460191.44
				Water	7732-18-5	95%	.3942318%		391273.70761
				Hydrochloric Acid	7647-01-0	15%	.0609924%		60534.76
				Mineral Oil	8042-47-5	70%	.0439402%		43610.49
				Guar Gum	9000-30-0	60%	.037663%		37380.42
				Poly (acrylamide-co-acrylic acid) partial sodium salt	62649-23-4	30%	.0202167%		20065.032
				Hydrotreated Light Distillate	64742-47-8	30%	.0202167%		20065.032
				Petroleum Distillates	64742-47-8	30%	.0188315%		18690.21
				Paraffinic Petroleum Distillate	64742-55-8	30%	.0188315%		18690.21
				Walnut Shells	84012-43-1	90%	.0054408%		5400
				Glutaraldehyde	111-30-8	30%	.004975%		4937.625
				Diatomaceous Earth, Calcined	91053-39-3	100%	.0048806%		4844
				Sodium Chloride	7647-14-5	10%	.0034299%		3404.172
				1-butoxy-2-propanol	5131-66-8	5%	.0031386%		3115.035

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Crystalline Silica: Quartz	14808-60-7	5%	.0031386%	3115.035
Isotridecanol, ethoxylated	9043-30-5	5%	.0031386%	3115.035
Ammonium Chloride	12125-02-9	3%	.0020217%	2006.5032
Citric Acid	77-92-9	60%	.0016767%	1664.091792
Didecyl Dimethyl Ammonium Chloride	7173-51-5	10%	.0016583%	1645.875
Alcohols, C12-16, ethoxylated	68551-12-2	2%	.0013478%	1337.6688
Oleamide DEA	93-83-4	2%	.0013478%	1337.6688
Methanol	67-56-1	100%	.0012856%	1276
Ethanol	64-17-5	5%	.0008292%	822.9375
Quaternary Ammonium Compound	68424-85-1	5%	.0008292%	822.9375
Sodium chloride	7647-14-5	15%	.0006414%	636.6
Sodium Carboxymethyl inulin	430439-54-6	15%	.0006414%	636.6
Cured Resin	25085-99-8	10%	.0006045%	600
Hemicellulase Enzyme Concentrate	9025-56-3	5%	.000544%	539.87255
Polyoxyalkylenes	68951-67-7	30%	.0003857%	382.8
Sorbitan Monooleate	1338-43-8	.5%	.0003369%	334.4172
Polyoxyethylene Sorbitan Monooleate	9005-65-6	.5%	.0003369%	334.4172
Sodium diglycolate	35249-69-5	5%	.0002138%	212.2
Sodium glycolate	2836-32-0	5%	.0002138%	212.2
Organo Phosphorus Salt	Trade Secret, disc.	30%	.0001814%	180
Fatty Acids	61790-12-3	10%	.0001286%	127.6
Modified Thiourea Polymer	68527-49-1	7%	.00009%	89.32
Propargyl Alcohol	107-19-7	5%	.0000643%	63.8
Olefin	64743-02-8	5%	.0000643%	63.8
2-butoxy-1-propanol	15821-83-7	.1%	.0000628%	62.3007
Crystalline Silica (Cristobalite)	14464-46-1	1%	.0000428%	42.44
Formaldehyde	50-00-0	1%	.0000129%	12.76
Sodium Bisulfate	7631-90-5	1%	.000006%	6
Sodium Sulfonate	870-72-4	.5%	.000003%	3

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Armstrong 3H Cement and additives

Surface: Class A + 3% CaCl + 1/4 #per sack Flake

Coal: Class A + 3% CaCl + ¼ # per sack flake

Intermediate: Class A + 1% EC-1 + ¼ per sack flake +.5% SMS + .55% BA-10A

Production: 50:50 Class A + 3 lbs/sk BA-90 + .35% R-3 + .3% MPA-170

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GASTAR EXPLORATION USA, INC.

Location: Marshall County, WV
 Field: Marshall
 Facility: Armstrong

Slot: Slot #3
 Well: Armstrong 3H
 Wellbore: Armstrong 3H (PWB)

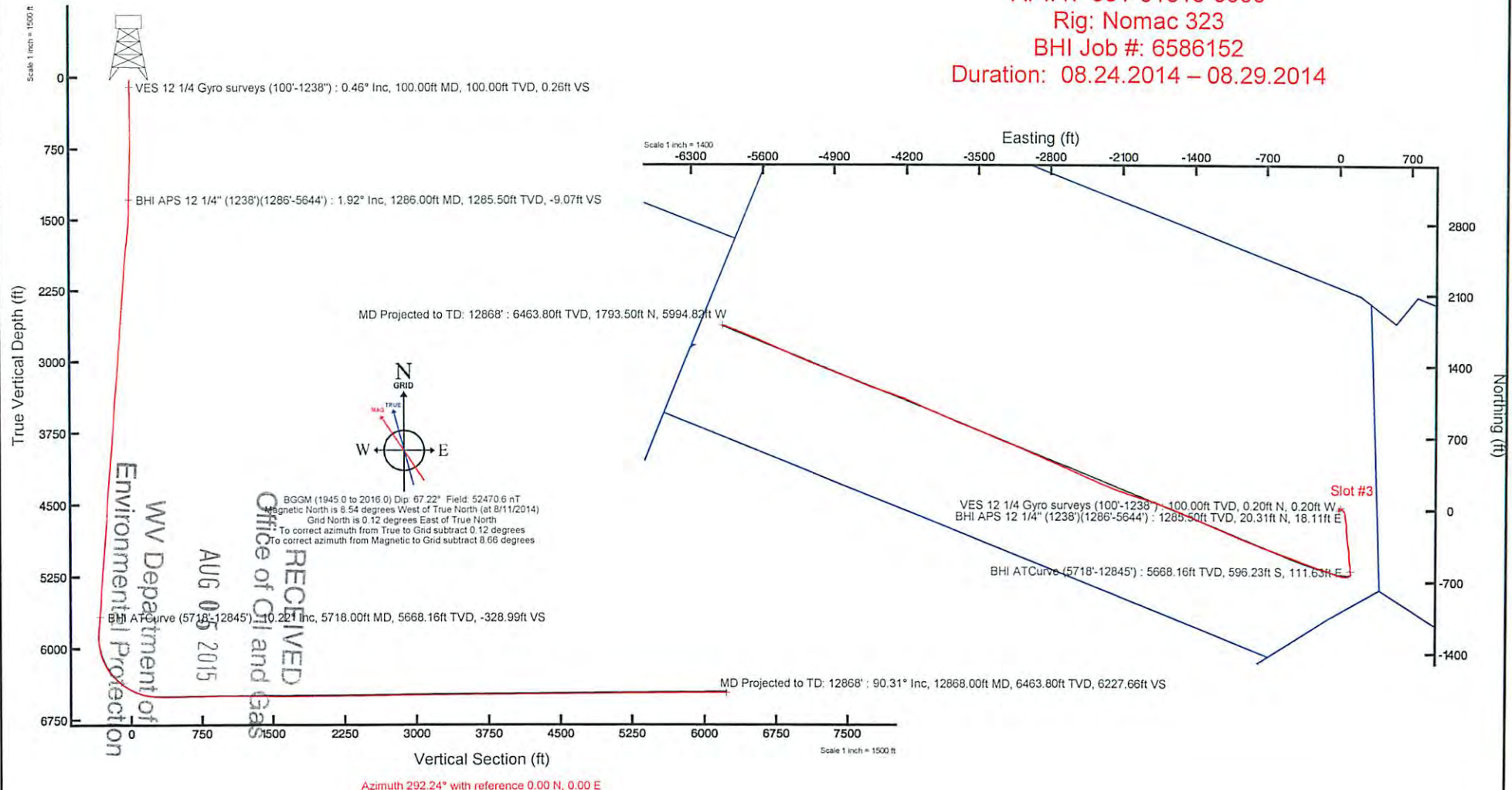


Plot reference wellpath is Armstrong 3H(PWP) Rev-C.0	
True vertical depths are referenced to Nomac 323 (RT)	Grid System: NAD83 / UTM Zone 17 North, US feet
Measured depths are referenced to Nomac 323 (RT)	North Reference: Grid north
Nomac 323 (RT) to Mean Sea Level: 1307.4 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #3): -1278 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: gotfbral on 9/2/2014

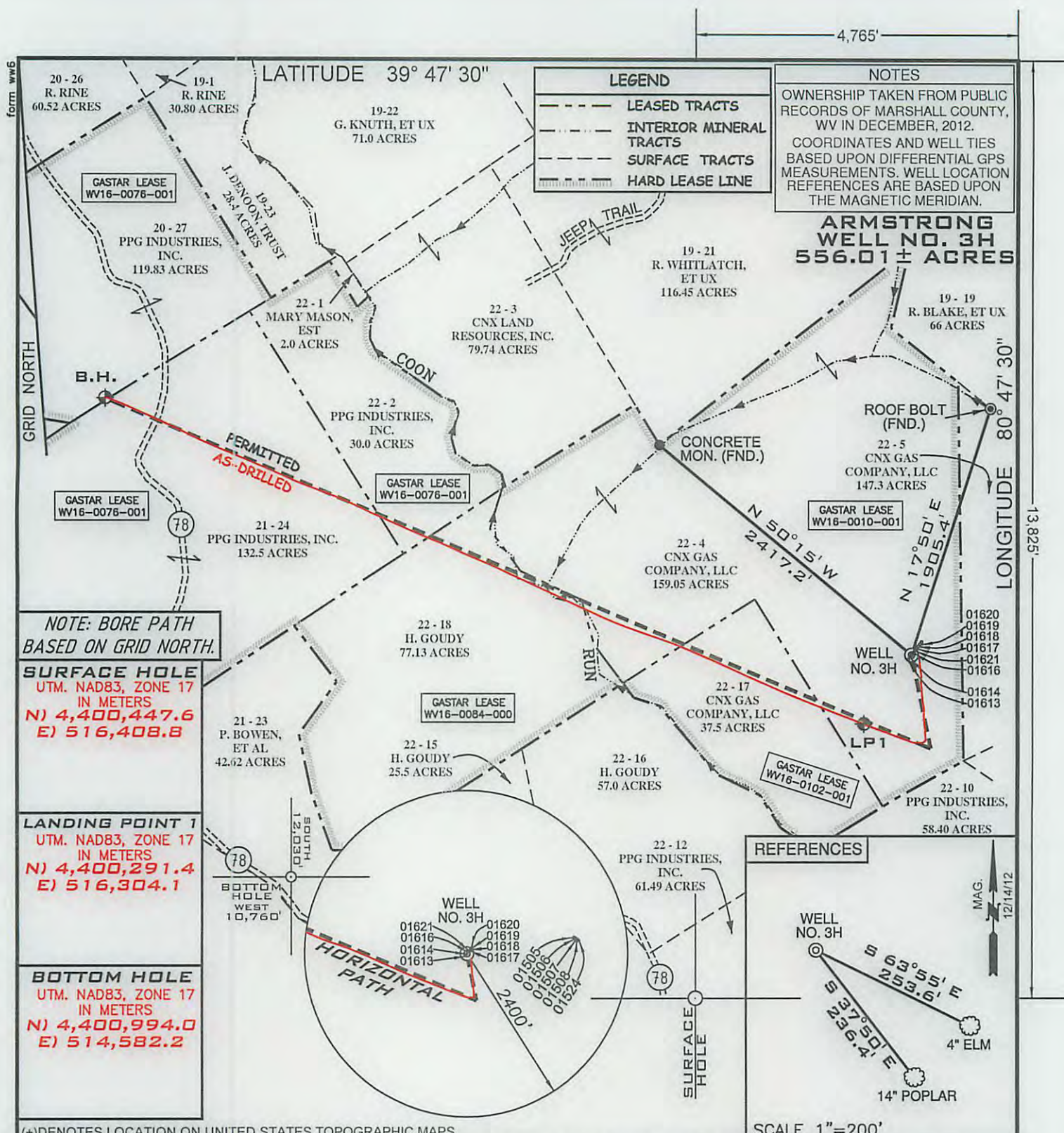
Location Information						
Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Armstrong			1694263.000	14437151.000	39°45'13.773"N	80°48'30.287"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #3	-16.01	-12.00	1694251.000	14437135.000	39°45'13.615"N	80°48'30.441"W
Nomac 323 (RT) to Mud line (At Slot: Slot #3)					29.4ft	
Mean Sea Level to Mud line (At Slot: Slot #3)					-1278ft	
Nomac 323 (RT) to Mean Sea Level					1307.4ft	

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #3	Armstrong 3H	Armstrong 3H (AWB)	Armstrong 3H (AWP) Proj:12868'
Slot #3	Armstrong 3H	Armstrong 3H (PWB)	Armstrong 3H(PWP) Rev-C.0

API:47-051-01615-0000
 Rig: Nomac 323
 BHI Job #: 6586152
 Duration: 08.24.2014 – 08.29.2014



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NOTE: BORE PATH BASED ON GRID NORTH.

SURFACE HOLE
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,400,447.6
 E) 516,408.8

LANDING POINT 1
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,400,291.4
 E) 516,304.1

BOTTOM HOLE
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,400,994.0
 E) 514,582.2

LEGEND

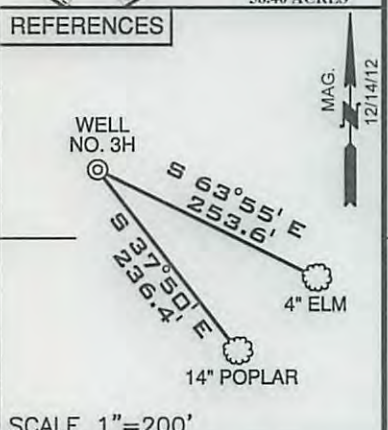
- LEASED TRACTS
- INTERIOR MINERAL TRACTS
- SURFACE TRACTS
- HARD LEASE LINE

NOTES

OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN DECEMBER, 2012.

COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.

ARMSTRONG WELL NO. 3H
556.01 ± ACRES



FILE NUMBER W0120316 (WB1-56)

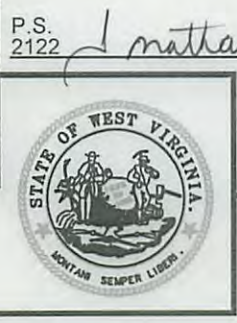
DRAWING NUMBER ARMSTRONG_WP_3H-WR35

SCALE 1" = 1000'

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



WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION ELEVATION 1278' WATERSHED _____ TRIBUTARY OF COON RUN

DISTRICT FRANKLIN COUNTY MARSHALL

QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER WV16-0102-001
WV16-0010-001, WV16-0076-001, WV16-0084-000

SURFACE OWNER CNX GAS COMPANY, LLC ACREAGE 159.05

OIL & GAS ROYALTY OWNER CNX GAS COMPANY, LLC LEASE ACREAGE 556.01

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY) _____

TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD:6509' TMD:12,868'

WELL OPERATOR GASTAR EXPLORATION INC. DESIGNATED AGENT MICHAEL McCOWN

ADDRESS 229 W MAIN STREET, SUITE 301
CLARKSBURG WV, 26301

RECEIVED
 Office of Oil and Gas
 AUG 05 2015

DATE: JULY 27, 2015

OPERATORS WELL NO. ARMSTRONG NO. 3H AS-DRILLED

API WELL NO. 47-051-01615

STATE WV COUNTY MARSHALL PERMIT 1016/2015

PLUG & ABANDON CLEAN OUT & REPLUG