

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

March 16, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4300518, issued to CHESAPEAKE APPALACHIA, L.L.C., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin

Chief

Operator's Well No: 461

Farm Name: HUNTINGTON DEV & GAS

API Well Number: 47-4300518

Permit Type: PluggingDate Issued: 03/16/2015

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

- 1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 3. Well work activities shall not constitute a hazard to the safety of persons.

API Number: 47-043-00518

805461 P&A Procedure

NOTE:	Injun	4 ½" casing was ran to 1840' and cemented. Top of cement is 1350'. Big Injun perforations from 1784'-1794, Big Lime perforations from 1674'-1678'.						
1)	Run	Run W.S. to 1790', load hole with gel						
2)	Spot	290' c	ement plug 1790'-1500', pull W.S.					
3)	Cut 4	4 1∕₂" at	free-point (approximately 1300') and pull					
4)	Shoo	ot or rip	holes in 6 5/8" at approximately 50' above 4 ½" cut					
5)	Run	W.S. t	o 1300', spot gel					
6)	Spot	100' c	ement plug 1300'-1200', pull W.S.					
7)	Cut 6	5 5/8" a	at free-point (approximately 930') and pull					
8)	Run	W.S. t	o 930', spot gel					
9)	Spot	100' c	ement plug 930'-830', pull W.S. to 550'					
10)	Spot	Spot 100' cement plug 550'-450', pull W.S.						
11)	Attempt to pull 8 1/4"							
	A)	If su	ccessful					
		a)	Run W.S. to 380', spot gel					
		b)	Spot 100' cement plug 380'-280'					
		c)	Proceed to step 12					
	B)	lf un	successful:					
		a)	Run W.S. to 400'					
		b)	Spot 100' cement plug 400'-300', pull W.S.					
		c)	Cut 8 ¼" at free-point (approximately 150') and pull					
		d)	Proceed to step 12					
12)	Pull	Pull or run W.S. to 150'						
13)	Spot	Spot 150' cement plug 150'-surface						
14)	Pull	W.S. a	and top off with cement					
15)	Erec	Erect monument and reclaim as prescribed by law						

03/20/2015

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4-3 00 518 P.

FORM WW-4 (B) Observe File Copy (Rev. 2/01)

1) Date: 1/12/2015
2) Operator's Well No. 805461 P&A
3) API Well No. 47-043-00518

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

			OFFICE (OF OI	L AND G	AS	.011011		
4)	Well Type: (Is Gas, Prod	Oil X or Under	ATION FOR A PE Gas X ground storage		uid injectio		Waste dis	posal Shallow X	
5)	Location:	Elevation 1118 District Laurel			_incoln		rile Creek of Guya drangle Bra	n River inchland, WV 7	7.5'
6)	Well Operator Address	Chesapeake Appa P.O. Box 18496 Oklahoma City, Ol			Designate Address	ed Agent	Jessica Greatho P.O. Box 6070 Charleston, WV	•	
8)	Name Ralph Address 5539	pector to be notified h Triplett McClellan Highway chland, WV 25506	- -		Name	P.O. Box	ake Appalachia, L		
10)	Work Order: Th	he work order for the	manner of plugging	this we	ell is as fo	llows:		4-	
			See Attached	Sheet					
	Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.								
Wor	k Order approved	d by Inspector					Date	1-20-1	5

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DEPARTMENT OF MINES OIL AND GAS DIVISION

Well 805461 API 47-043-00518P Page I of 2

WELL RECORD

Location (waters) Nine Mile Creek	as Co. ,W.Va.	Size 16 13 10 8¼ 6% 5 3/16 3 2 Liners Used	Used in Drilling 21 331 1579	21 331 1579	Packers Kind of Packer Size of Depth set Perf. top Perf. bottom	
Farm Huntington Dev. & Gas Co. Acres Location (waters) Nine Mile Creek Well No. 5461 Elev. District Laurel Hill County Lincoln The surface of tract is owned in fee by Address Mineral rights are owned by Huntington Dev. & Ga	1,150 B. as Co. ,W.Va. 549 2 Inch	7 Size 16 13 10 8¼ 6½ 53/16 3 2 Liners Used	21 331 1579	2 <u>1</u> 331	Kind of Packer Size of Depth set Perf. top	
Location (waters) Nine Mile Creek Well No. 5461 District Laurel Hill County Lincoln The surface of tract is owned in fee by. Address Mineral rights are owned by Huntington Dev.& Ga	1,150 B. as Co. ,W.Va. 549 2 Inch	Size 16 13 10 8¼ 6% 5 3/16 3 2 Liners Used	331 1579	331	Size of Depth set Perf. top	
Well No. 5461 Elev. District Laurel Hill County Lincoln The surface of tract is owned in fee by Address Mineral rights are owned by Huntington Dev.& Ga Address Charleston	as Co. ,W.Va.	16	331 1579	331	Size of Depth set Perf. top	
District Laurel Hill County Lincoln The surface of tract is owned in fee by— Address Mineral rights are owned by Huntington Dev.& Ga Address Charleston	as Co. ,W.Va.	18	331 1579	331	Size of Depth set Perf. top	
Address Mineral rights are owned by Huntington Dev. & Ga Address Charleston	as Co. "W.Va. 549 2 Inch	10	331 1579	331	Depth set	
Address Mineral rights are owned by Huntington Dev. & Ga Address Charleston,	as Co. "W.Va. 549 2 Inch	8¼	331 1579	331	Depth set	
Mineral rights are owned by Huntington Dev. & Ga Address Charleston,	as Co. ,W.Va.	6%	1579		Perf, top	
AddressCharleston,	549 2 Inch	5 3/16		****	Perf, top	
4 34 11	549 2 Inch	3				
	2 Inch	Liners Used				
Drilling completed 12-10-44	2 Inch					
Date Shot 12-14-44 From 3204 To 35	2 Inch				Perf. top	
With 3300# Detonite	Inch				Perf. bottom	
	000 0000					
/10ths Merc, in	City Total	CASING CEMEN	ENTEDS	SIZE	No. FtDate	
Rock Pressure 185 lbs. 72						
Oil bbls.,	1110,	COAL WAS EN	NCOUNTERED	AT 108	FEET 48 INCHES	
Fresh water feet			INCH		FEETINCHES	
Salt waterfeet			INCH		FEETINCHES	
Formation Color Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth Found	Remarks	
Sand Slate & Shells Maxon Sand Slate Lime Shell Slate & Shelk Little Lime Pencil Cave Big Lime Break Injun Sand Slate & Shells Blue Slate Coffee Shale Berea Sand Slate & Shells	0 18 30 42 108 112 140 160 195 230 325 375 400 435 455 540 590 845 920 1008 1011 1275 1289 1332 1335 1349 1528 1558 1726 1728 1728 1728 1728 1728 1728 1728 1728	18 30 42 108 112 140 160 195 230 325 375 400 435 455 540 590 820 845 920 1008 1011 1275 1289 1332 1335 1349 1528 1554 4558 1726 1728 1726 1728 1726 1728 1766 2111 2310 2323 2342 2418 2700	Gas	1684-1690	RECI Office of C JAN WV Der Environme	EIVED Dil and Gas 2 9 2015 partment of ental Protecti

API 47-043-00518P Page 2012 Well 805461 Hard or Soft Depth Found Formation Color Тор Bottom Gray Shale 2700 2770 White Slate 2770 2837 Gray Shale White Slate 2837 3036 3036 3205 Brown Shale 3420,3480 3205 3535 G45 White Slate 3535 3550 Total Depth 3550 RECEIVED Office of Oil and Gas JAN 2 9 2015 WV Department of Environmental Protection

JAN 20 2015

Date____Feb. 16,

__, 194<u>.</u>:

APPROVED UNITED FUEL THE COMPANY

_, Owner

M Ulmunghan
(Title) Engineer

0.00

WW4-A Revised 2/01

1) Date:	1/12/2015
2) Operator's Well No.	805461 P&A
3) ADI Mell No	47-043-00518

		3.55.1.4.5.5.4.3.5.7.3	DF WEST VIRGINIA - BU ENVIRONMENTAL PRO	STANDARD STATE ADDITIONALING	10 TO
			F APPLICATION TO PLU		
4)	Surface Ow	ner(s) to be served:		5) Coal Operato	
- 4.	(a) Name	Heartwood Forestland (Group	(a) Name	None
	Address	C/O Craig Kaderavak		Address	
		19045 Stone Mountain F	Road		<u> </u>
		Abingdon, VA 24210			
				Coal Owner(s) with Declaration
	(b) Name	Lois Adkins		(b) Name	Pocahontas Land Corporation
	Address	293 Nine Mile Creek		Address	800 Princeton Avenue
		Midkiff, WV 25540			Bluefield, WV 24701
					2
	7-5-51	m		News	
	(c) Name	Bryan and Lisa Stevens		Name	
	Address	P.O. Box 473		Address	(<u></u>
		Hamlin, WV 25523			
				Coal Lesse	e with Declaration
6)	Inspector	Ralph Triplett		(c) Name	None
U)	Address	5539 McClellan Highway	,	Address	
	Address	Branchland, WV 25506		71001000	(
		Branchiand, VVV 25500			and the state of t
	Telephone	304-389-0350			
то	THE PERSO	NS NAMED ABOVE: `	You should have receive	ed this Form and	the following documents:
	(1) The applie	ation to Plug and Abandon a V	Vall on Form WW. 4R, which	eate out the nartice in	walved in the work and
				sets out the parties if	IVOIVEG III THE WORK BIIG
		he well its and the plugging w		(1)	
		urveyor's map) showing the w			
	The reason you	u received these documents is	that you have rights regarding	ng the application whi	ich are summarized in the
	instructions on	the reverses side. However,	you are not required to take a	any action at all.	
	Take notice tha	at under Chanter 22-6 of the V	lest Virginia Code, the under	signed well operator	proposes to file or has filed the
		olication and accompanying do			
					the location described on the
					lication, and the plat have been
		stered or certified mail or delive			
		on or before the day of mailir		Thained above (or by	publication in certain
_	circomstances,	**************************************		Chananaska Annal	achia I I C
	1	Official Seal Notary Public	Well Operator:	Chesapeake Appal	atilia, L.E.O.
	The same of the sa	State of West Virginia	By:	Completion Superior	atendant Appelachia Couth
		Phyllis A. Copley	Its:		ntendent, Appalachia South
	1	146 Willard Circle Hurricane, WV 25525 My Commission Expires	Address:	P.O. Box 18496	7704540400
)	September 16, 2018		Oklahoma City, OK	73154-0496
	·	mmmm	Telephone:	405-935-4073	
		12-4	h		0045
Subs	scribed and swo	rn before me this	day of January	the year of	2015
			Myllsa. Cople	wy .	Notary Public RECEIVED
My C	Commission Exp	ires	September 16, 2018		Office of Oil and G

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JAN 2 \$ 2015

WV Depa03/20/2015 Environmental Protection

Well 805461 P&A API 47-043-00518

Surface Owners

Heartwood Forestland Group C/O Craig Kaderavak 19045 Stone Mountain Road Abingdon, VA 24210

Bryan and Lisa Stevens P.O. box 473 Hamlin, WV 25523

Lois Adkins 293 Nine Mile Creek Midkiff, WV 24210

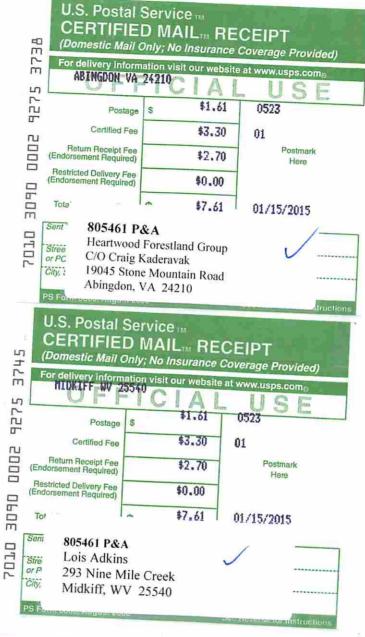
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WV Department of Environmental Protection

WILL 805441 PAA API 47-043-00518



City, State

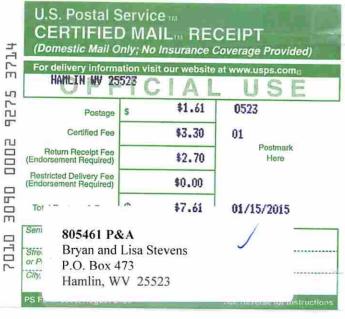
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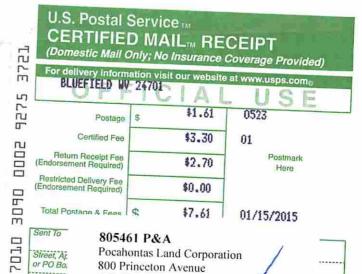
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WV Department of Environmental Protection





P.O. Box 1517

Bluefield, WV 24701

Form WW-9 Rev. 02/01

API Number	47-043-00518
Operator's Well No.	805461 P&A

STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name	Chesapeak	e Appalachia, L.	L.C.	OP Code_	494477557	_	
Watershed	Ninemile (creek of Guyan Riv	/er	Quadrangl	e Branchla	nd, WV 7.5'	
Elevation	1118'	County _	Lincoln	_	District	Laurel Hill	_
Description of a	nticipated Pit Waste	Plugging Ret	urns/Cement				
Will a synthetic	iner be used in the p	it? Yes		20 MIL.			
Proposed Dispo	Under Reuse Off Si	ted Pit Wastes: Application ground Injection (a (at API Number_ e Disposal (Supp (Explain	ly form WW-9 fo	or disposal lo)	RECEIV Office of Oil	/ED and Gas
Proposed Work	For Which Pit Will E) over				JAN 29	2015
		ng (Explain)	WV Depart Environmenta	ment of I Protection
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on December 31, 1999, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Company Official Signature							
Company Officia	l (Typed Name)	Robert E. Sc	chindler				_
Company Officia	I Title	Completion S	Superintendent	, Appalachia	South		=
Subscribed and	sworn before me thi	s 15 th day of	January O. Ciplu	y	2015 . N	lotary Public.	
My Commission	Expires Sep	tember 16, 2018				·	2

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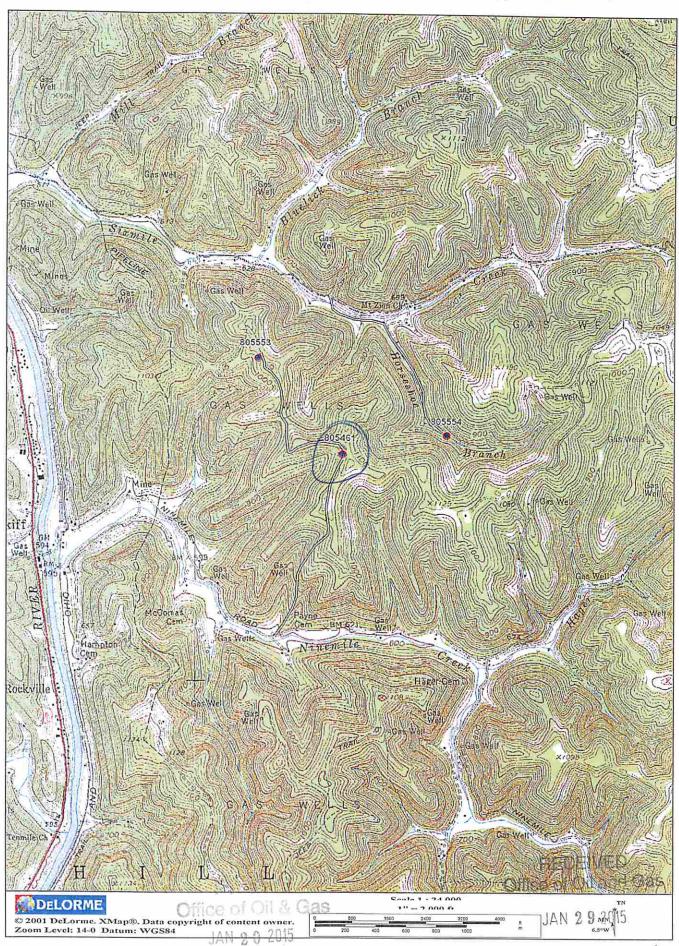


Attachment #1

API #: 47-043-00518 Operator's Well No. 805461 P&A

	L	GEND	
Property Boundary	_	Diversion (2:21/11/11/11/11/11/11/11/11/11/11/11/11/1	اللاللنانا
Rond = = = = = = = =	—	Spring -	
Existing Fence — X — X — X		Wet Spot	
Planned Fence / / /		Drain Pipe with size in inches	·
Stream	1	Waterway \longleftrightarrow	→
		Cross Drain	
Rock of significant		Artificial Filter Strip XXXXXXXXXX	XXXXXXX
North N		Pit: cut walls	
Buildings		Pit: compacted fill walls	
Water wells W		Area for Land Application of Pit Waste	
Drill site			
Proposed Revegetation Treatment: A	cres Disturbed	1.0 Prevegetation pH 6.1	
,	ima 2	Tonglagra or to correct to pl. 6.5	
	Lime3	Tons/acre or to correct to pH 6.5	-
Fertilizer (10-20-20 or equiva	lent) 1/3 TON	lbs/acre (500 lbs minimum)	
N	Iulch Hay 2	Tons/acre	
	Se	eed Mixtures	
Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	ORCHARD GRASS	15
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15		
Attach: Drawing(s) of road, location, pit and pro	posed area for	land application.	
		• •	
Photocopied section of involved 7.5' top	المحاجب والمستسمية		
_	ographic sheet		
	ographic effect		
Plan Approved by:	ographic effect		
Plan Approved by: Title: / n 5 pect of 60			

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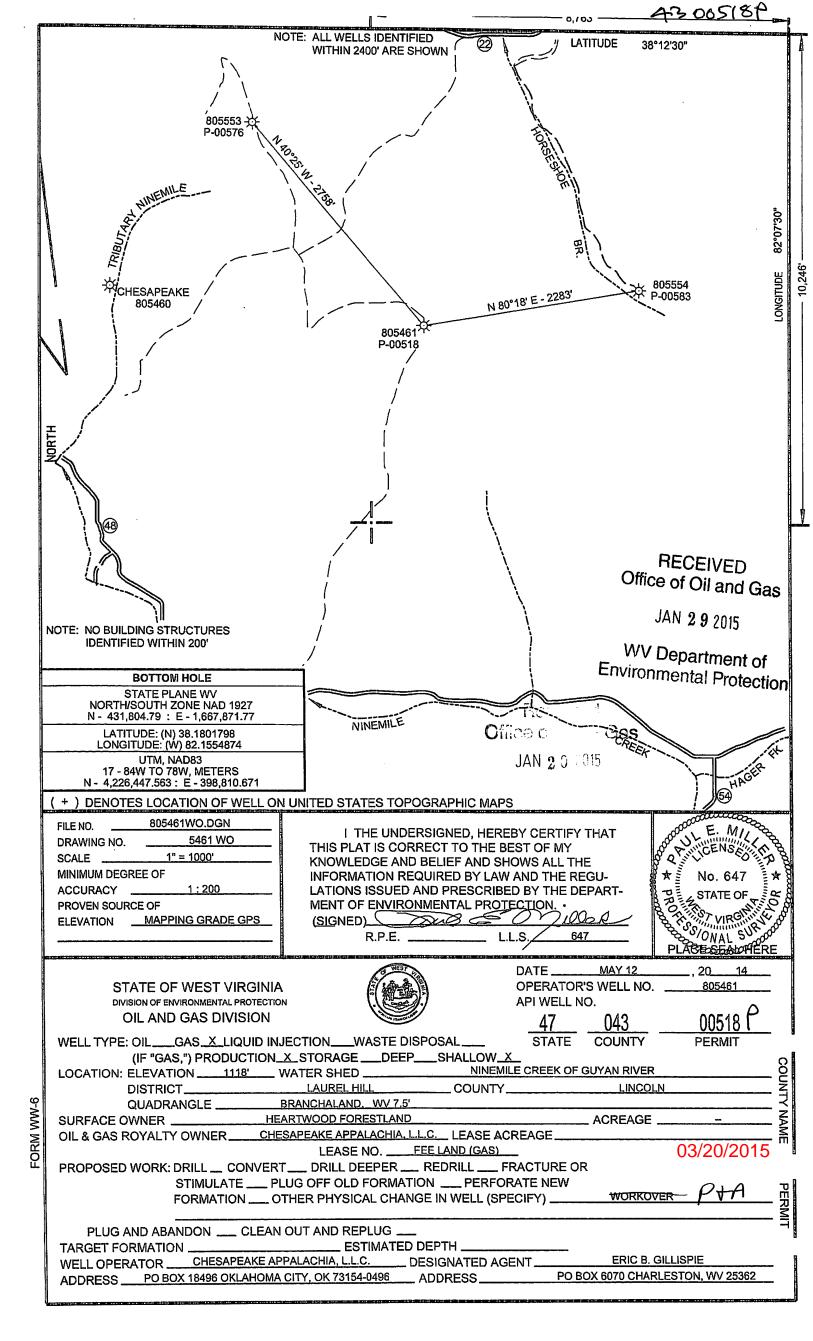
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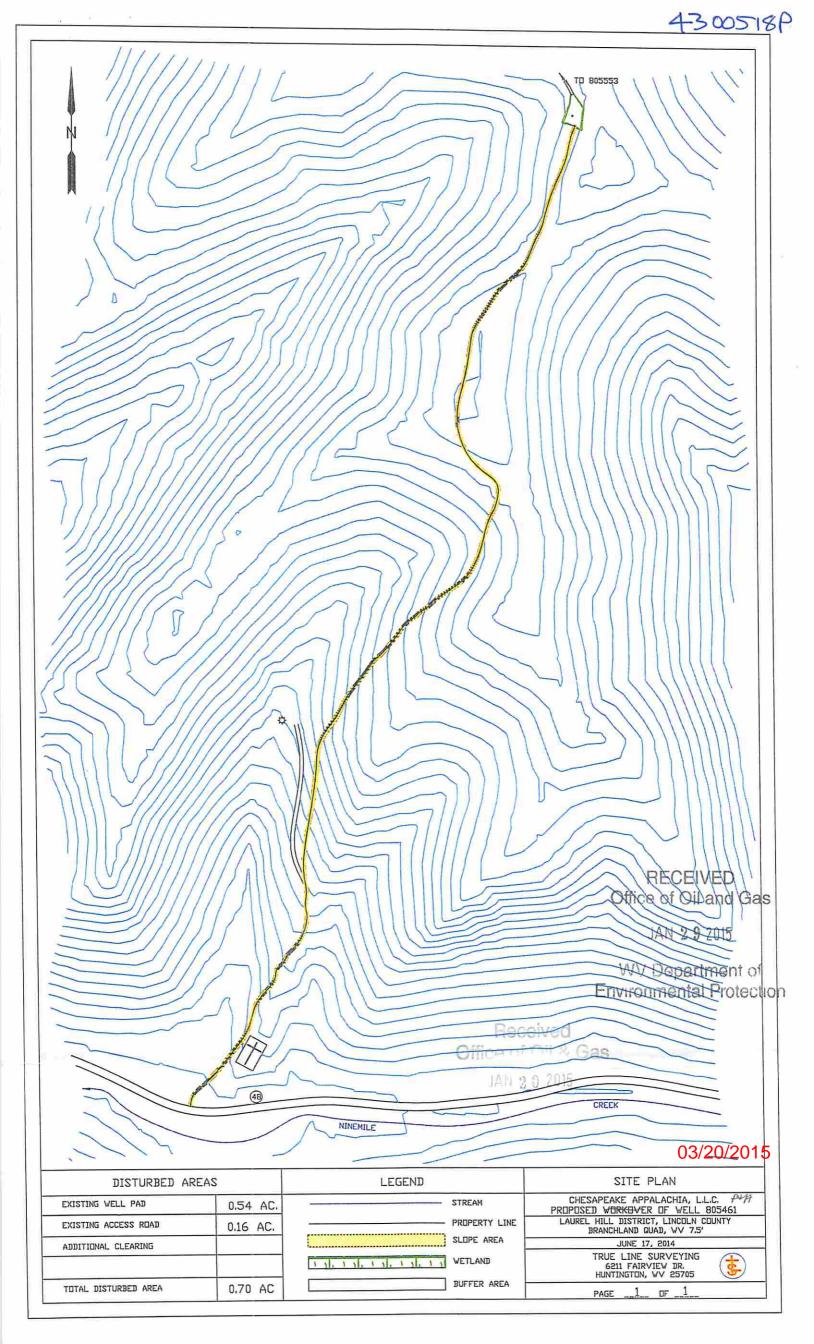


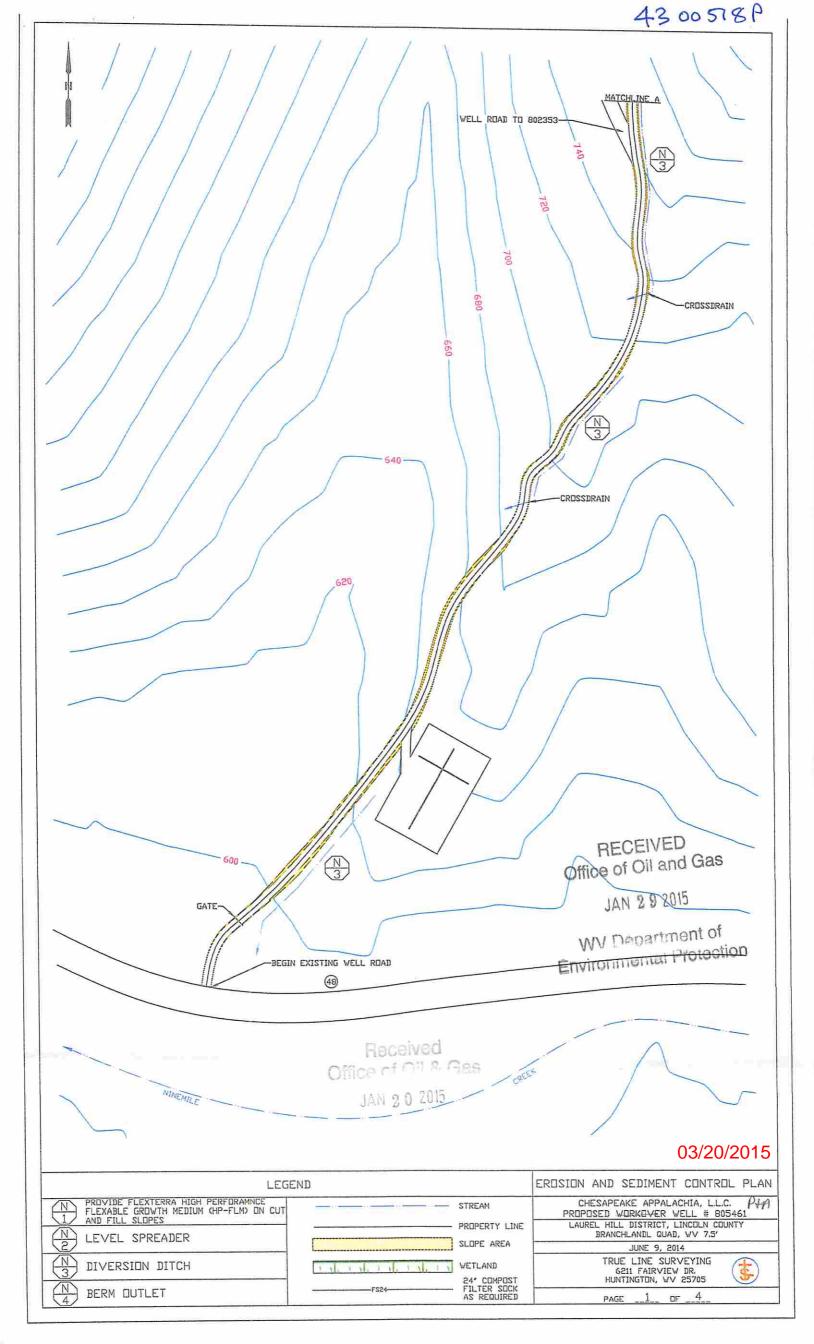
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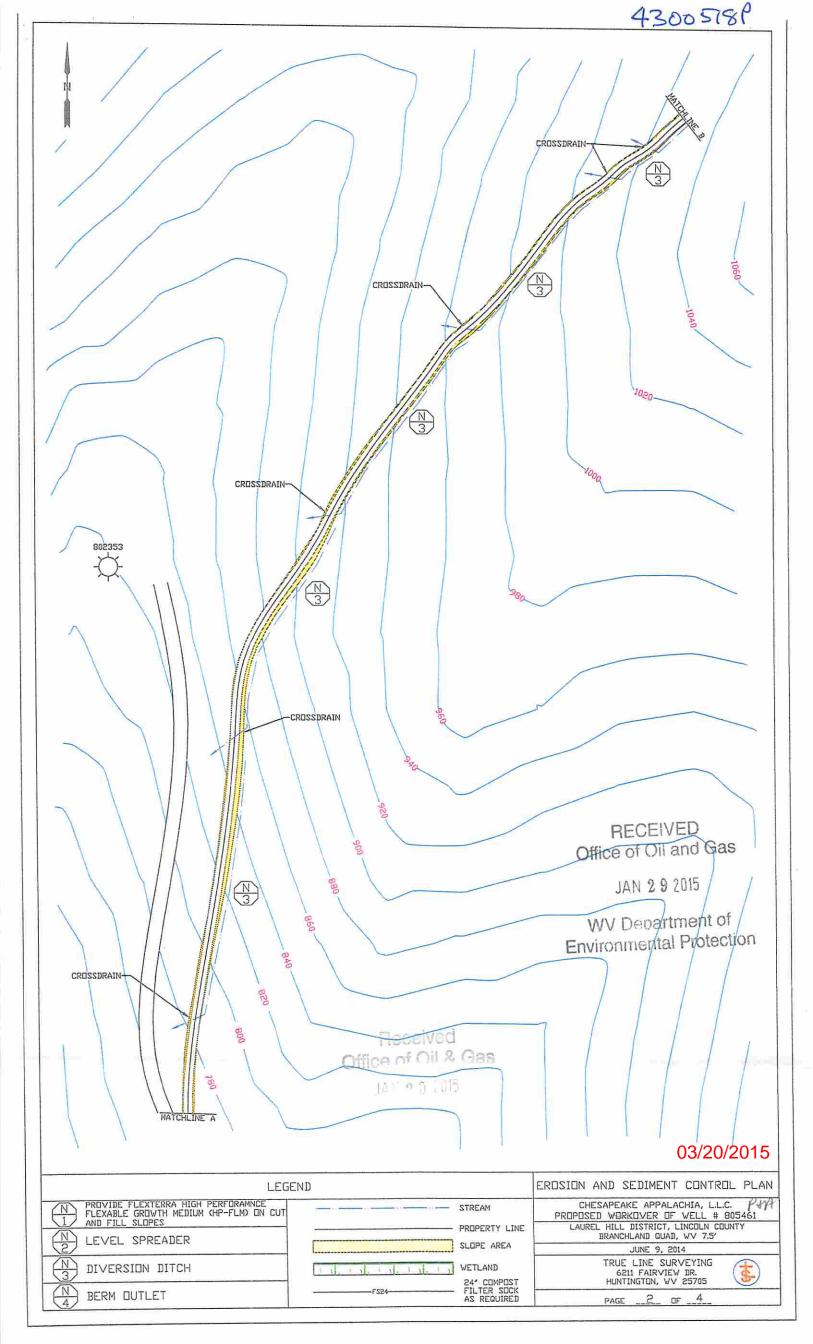
West Virginia Department of Environmental Protection Office of Oil and Gas

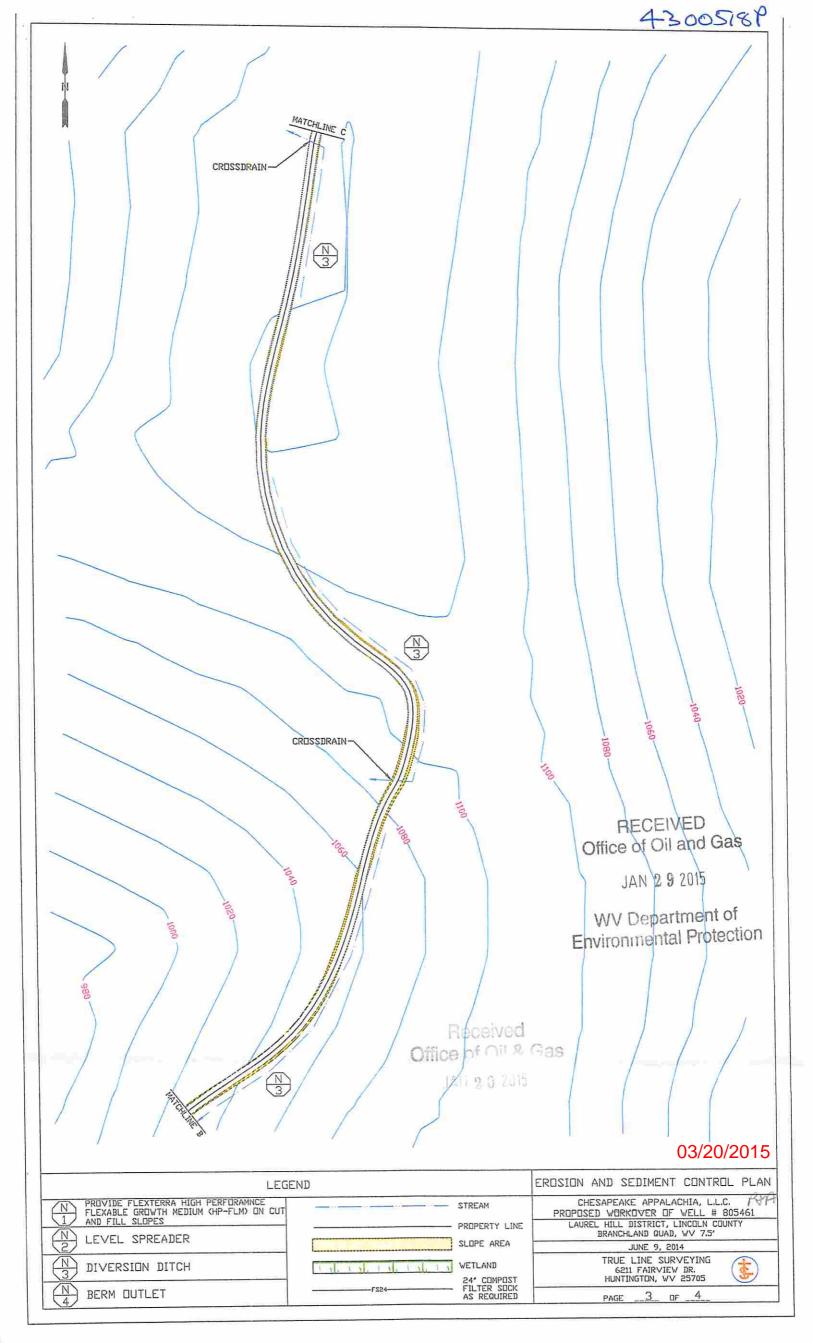
WELL LO	CATION FORM: GPS	
_{API:} 47-043-00518	WELL NO.:_8(05461
FARM NAME: Huntington	Dev & Gas Co.	
RESPONSIBLE PARTY NAME:	Rob Schindler	
COUNTY: Lincoln	bistrict: Lau	rel Hill
QUADRANGLE: Branchlan	d	
surface owner: See atta	ached sheet	
ROYALTY OWNER: Chesap	oeake Appalachia, L.	L.C.
UTM GPS NORTHING: UTM NAC	DA 83 4,226,447.563	
UTM GPS EASTING: UTM NADA 8	33 398,810.671 GPS ELEVATION	_{ON:} 1118'
height above mean sea let 2. Accuracy to Datum – 3.0: 3. Data Collection Method:	r a plugging permit or assigned A as will not accept GPS coordinates a: 17 North, Coordinate Units: met avel (MSL) – meters.	PI number on the sthat do not meet ers, Altitude: Received Office of Oil & Gas
Mapping Grade GPS X : Post	Processed Differential X	Office of Oil and Gas
	l-Time Differential	JAN 29 2015
I do James and Language Control	required by law and the regulation	Llocation.
R9 Johnsen	Completions Superintendent	1-15-15
Signature	Title	Date

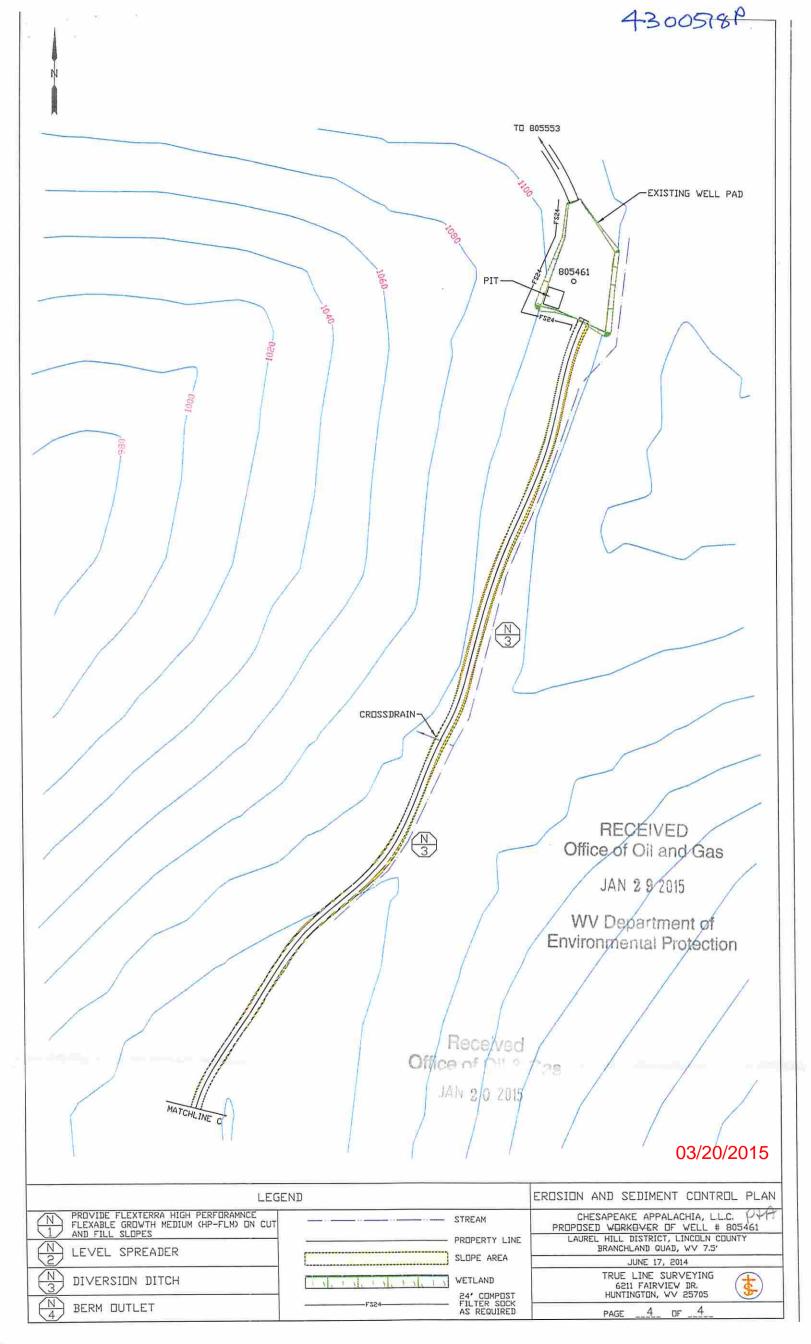


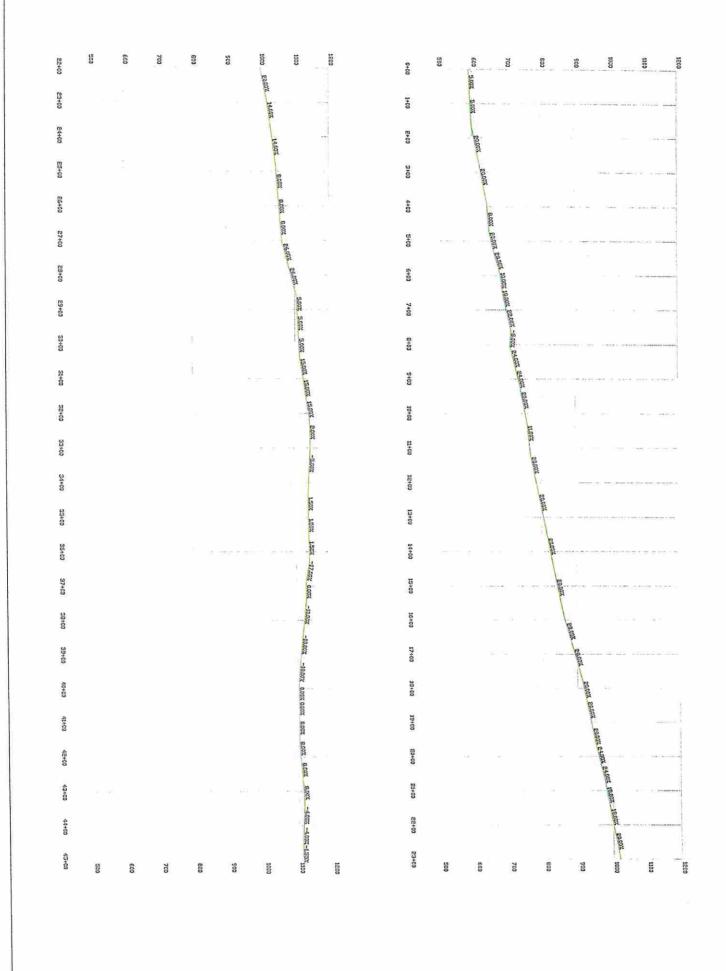












ROAD PROFILE

CHESAPEAKE APPALACHIA, L.L.C.

PROPOSED WORKBYER OF WELL # 805461
LAUREL HILL DISTRICT, LINCOLN COUNTY
BRANCHLAND OUAD, WY 7.5'

JUNE 9, 2014

TRUE LINE SURVEYING
6211 FARRVIEV DR.
HUNTINGTON, WY 25705

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