



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Monday, July 16, 2018
WELL WORK PERMIT
Horizontal / New Drill

CORE APPALACHIA OPERATING LLC
414 SUMMERS STREET

CHARLESTON, WV 25301

Re: Permit approval for 828040
47-043-03582-00-00

This well work permit 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 any additional specific 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: 828040
Farm Name: HAROLD & DELORES DINGE
U.S. WELL NUMBER: 47-043-03582-00-00
Horizontal New Drill
Date Issued: 7/16/2018

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. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

WW - 2B
(Rev. 8/10)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Core Appalachia Operating, LLC

494518671	Lincoln	Harts Creek	Trace
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Operator ID County District Quadrangle

2) Operator's Well Number: 828040 3) Elevation: 636'

4) Well Type: (a) Oil _____ or Gas X
(b) If Gas: Production X / Underground Storage _____
Deep _____ / Shallow X

5) Proposed Target Formation(s): Devonian Shale Proposed Target Depth: 3120' TVD

6) Proposed Total Depth: 9831 MD Feet Formation at Proposed Total Depth: Devonian Shale

7) Approximate fresh water strata depths: 42'

8) Approximate salt water depths: 500'

9) Approximate coal seam depths: 27', 51', 270'

10) Approximate void depths, (coal, Karst, other): None known

11) Does land contain coal seams tributary to active mine? None known

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Drill new horizontal well, stimulate new well with nitrogen

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13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13-3/8"	LS	54#	40	40	sanded in
Fresh Water	9-5/8"	LS	36#	300	300	95
Coal						
Intermediate	7"	LS	20#	2025	2025	310
Production	4-1/2"	WT80	11.6#		9830	*820
Tubing						
Liners						

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Environmental Protection

55

Packers: Kind: *The planned TOC is 1825' unless packers are ran.
Sizes: _____
Depths Set _____

4704303582H

Core Operating

Well: Harold & Delores Dingess #1H 828040
 Site: Harold and Delores Dingess
 Project: Lincoln County, West Virginia NAD83
 Design: rev1
 Rig:

Section Details										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2445.93	0.00	0.00	2445.93	0.00	0.00	0.00	0.00	0.00	KOP Begin 8.50°/100' build
3	3504.75	90.00	96.80	3120.00	-79.82	669.33	8.50	96.80	674.07	Begin 90.00° lateral section
4	9830.91	90.00	96.80	3120.00	-828.94	6950.97	0.00	0.00	7000.23	PBHL/TD 9830.91 MD 3120.00 TVD

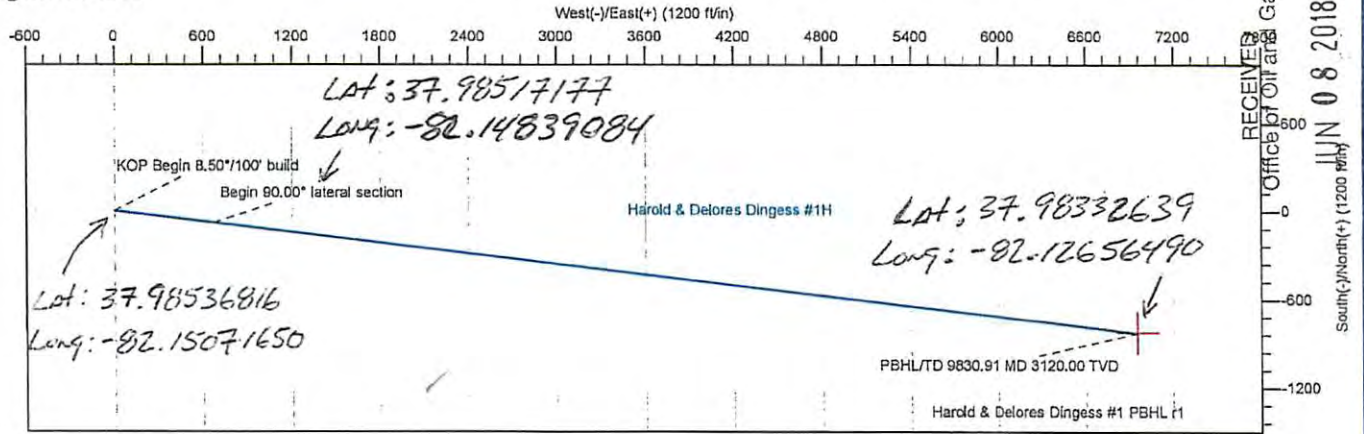


Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: West Virginia Southern Zone

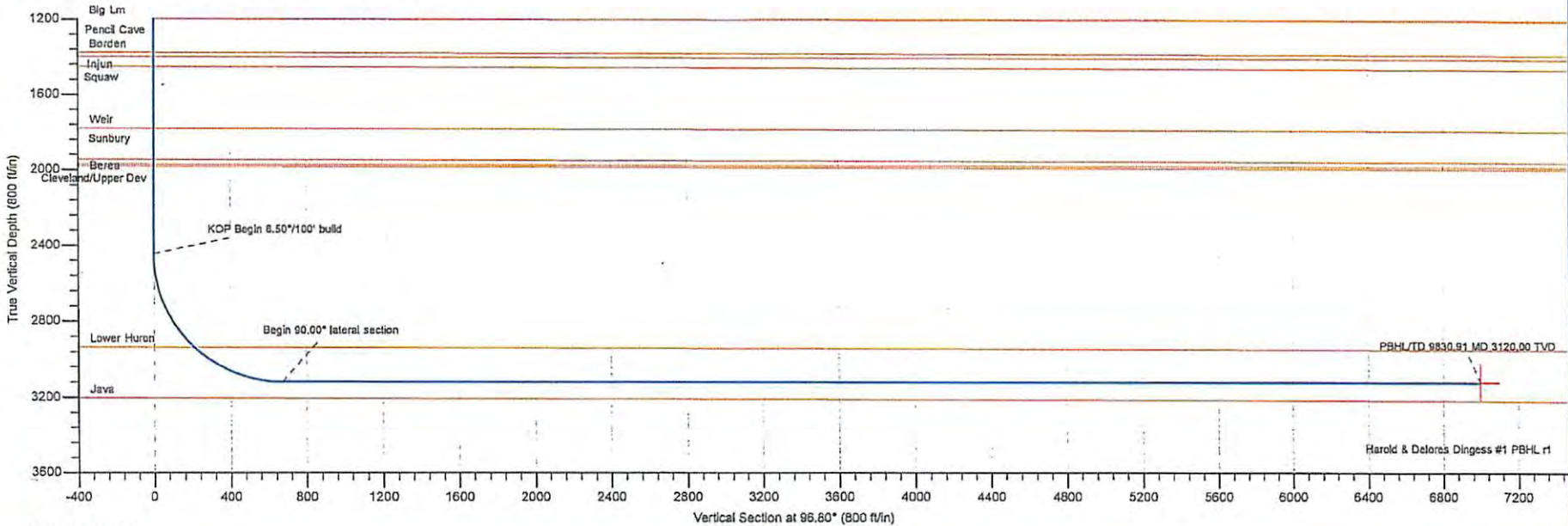
System Datum: Mean Sea Level
 Depth Reference: GL @ 638.00ft

Northing: 360864.05 Easting: 1636870.62 Latitude: 37.98536816
 Longitude: -82.15071650

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 7.66°



ALL DEPTHS ARE REFERENCED TO GROUND ELEVATION



14:43, May 25 2018

WV Department of
 Environmental Protection

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 Office of Air and
 Gas
 JUN 08 2018

4704303582H

WW-2A
(Rev. 6-14)

1.) Date: 5/24/2018
2.) Operator's Well Number 828040
State County Permit
3.) API Well No.: 47- Lincoln

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: (a) Name Harold & Delores Dingess Address 494 Robert L. Dingess RD Harts, WV 25524 (b) Name Virgil & Ada Lynn Kirk Address 39 Aarons Way Harts, WV 25524 (c) Name _____ Address _____
5) (a) Coal Operator Name _____ Address _____ (b) Coal Owner(s) with Declaration Name Southern Region Industrial Realty Inc. Address Three Commercial Place Norfolk, VA 23510 (c) Coal Lessee with Declaration Name _____ Address _____
6) Inspector Jeffery L. Smith Address 5369 Big Tyler Road Cross Lanes, WV 25313 Telephone (681) 313-6743

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties by:

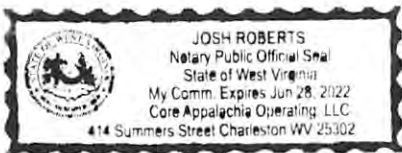
- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, 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 and imprisonment.

Well Operator: Core Appalachia Operating, LLC
By: [Signature]
Its: Director-HSE & Administrative Services, J. Greathouse
Address: 414 Summers Street Charleston, WV 25301
Telephone: (304) 353-5240
Email: jgreathouse@coreoperating.com



Subscribed and sworn before me this 29th day of May, 2018

[Signature] Notary Public
My Commission Expires 6/28/2022

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov

07/20/2018

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Chesapeake Appalachia, LLC	Core Appalachia Production, LLC	15%	637/195

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

RECEIVED
Office of Oil and Gas

Well Operator: Core Appalachia Operating, LLC
 By: Its: JL JUN 08 2018
 Director - HSE & Administrative Services, Jessica Greathouse
 WV Department of Environmental Protection

4704303582H

WW-2B1
(5-12)

Well No. 828040

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Turner Technology, Inc.
Sampling Contractor Turner Technology, Inc.

Well Operator Core Appalachia Operating, LLC
Address 414 Summers ST
Charleston, WV 25301
Telephone (304) 353-5240

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

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07/20/2018

4704303582H

WW-2B1 Attachment
NOTICE TO SURFACE OWNERS

Well 828040

All samples taken:

Andrew Thompson
765 Big Harts Creek RD
Harts, WV 25524

Nicholas Thompson
747 Big Harts Creek RD
Harts, WV 25524

Rodney Workman
788 Big Harts Creek RD
Harts, WV 25524

David Brewster
11512 Big Harts Creek RD
Harts, WV 25524

Iva Adkins
48 Rockhouse Branch
Harts, WV 25524

Chris Dillon
11429 Big Harts Creek RD
Harts, WV 25524

Makayla Thompson
11323 Big Harts Creek RD
Harts, WV 25524

Harold Dingess
494 Robert Dingess Road
Harts, WV 25524

07/20/2018

WW-9
(5/16)

API Number 47 - 4704303582H
Operator's Well No. 828040

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Core Appalachia Operating, LLC OP Code 494518671

Watershed (HUC 10) Big Harts Creek Quadrangle Trace

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: Fluids and cuttings frm drilling and completion operations

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number unknown at this time)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: No

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air/Foam

-If oil based, what type? Synthetic, petroleum, etc.

Additives to be used in drilling medium? Clay, Stabilizer, Soap

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in pit

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 [Signature]

Company Official (Typed Name) Jessica Greathouse

Company Official Title Director - HSE & Administrative Services

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Office of Oil and Gas

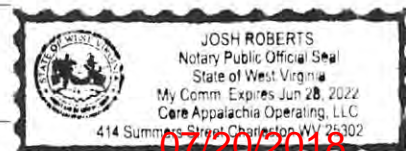
JUN 08 2018

WV Department of
Environmental Protection

Subscribed and sworn before me this 6th day of June, 20 18

[Signature] Notary Public

My commission expires 6/28/2022



Proposed Revegetation Treatment: Acres Disturbed 1.2 Prevegetation pH 6.0

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type Hydroseed

Fertilizer amount 500 lbs/acre

Mulch Hydroseed Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Winter Rye	20	Winter Rye	20
Ladino Clover	5	Ladino Clover	5

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

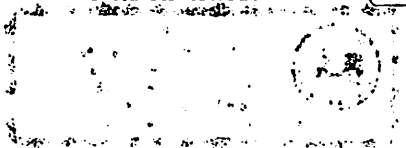
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: _____ Date: _____

Field Reviewed? () Yes () No



Proposed Revegetation Treatment: Acres Disturbed 1.2 Prevegetation pH 6.0

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type Hydroseed

Fertilizer amount 500 lbs/acre

Mulch Hydroseed Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
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Photocopied section of involved 7.5' topographic sheet.

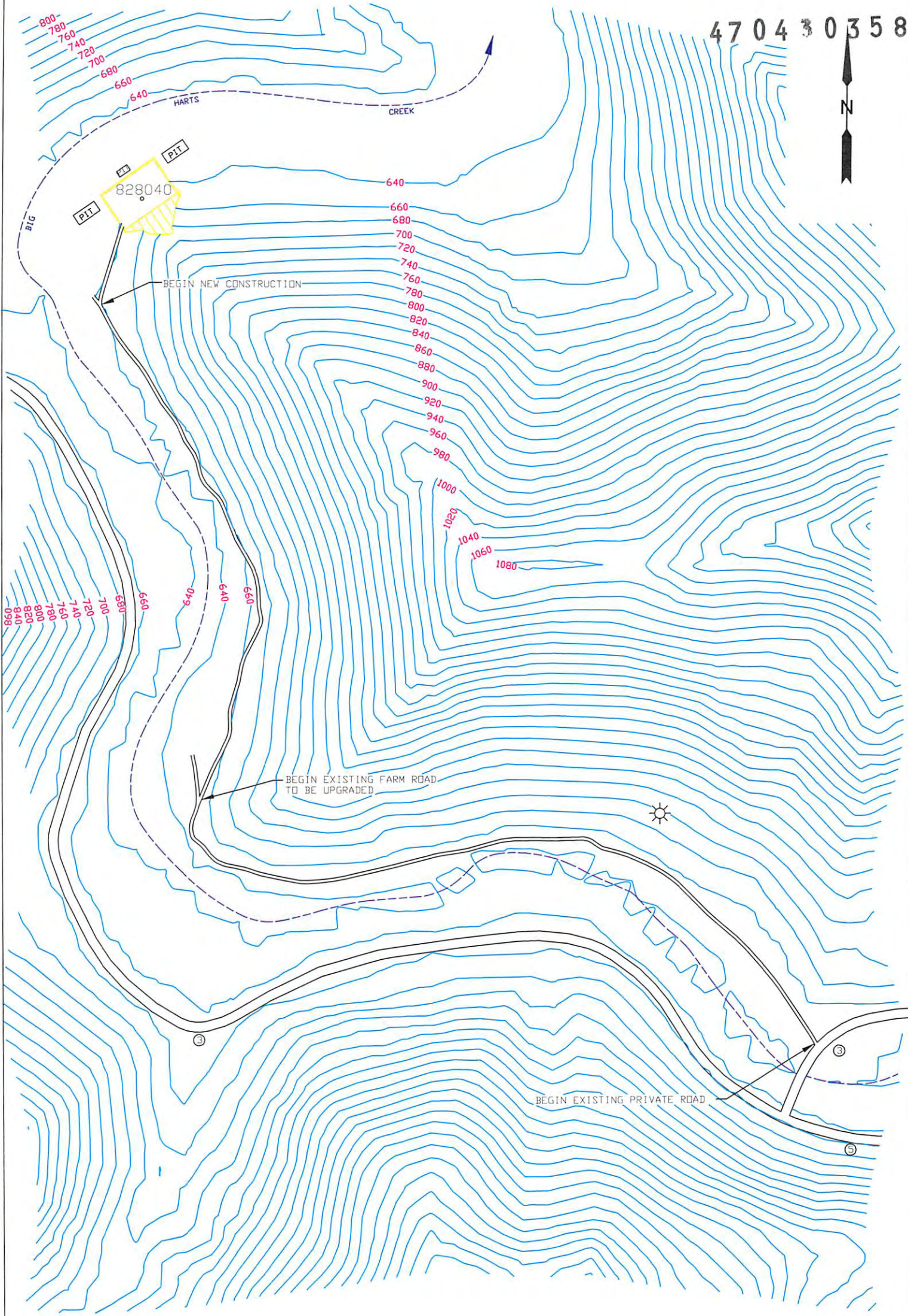
Plan Approved by: Jeffrey Smith

Comments: All sediment control to be removed prior to release.

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Title: Oil & Gas Inspector Date: 6-21-18

Field Reviewed? (X) Yes () No

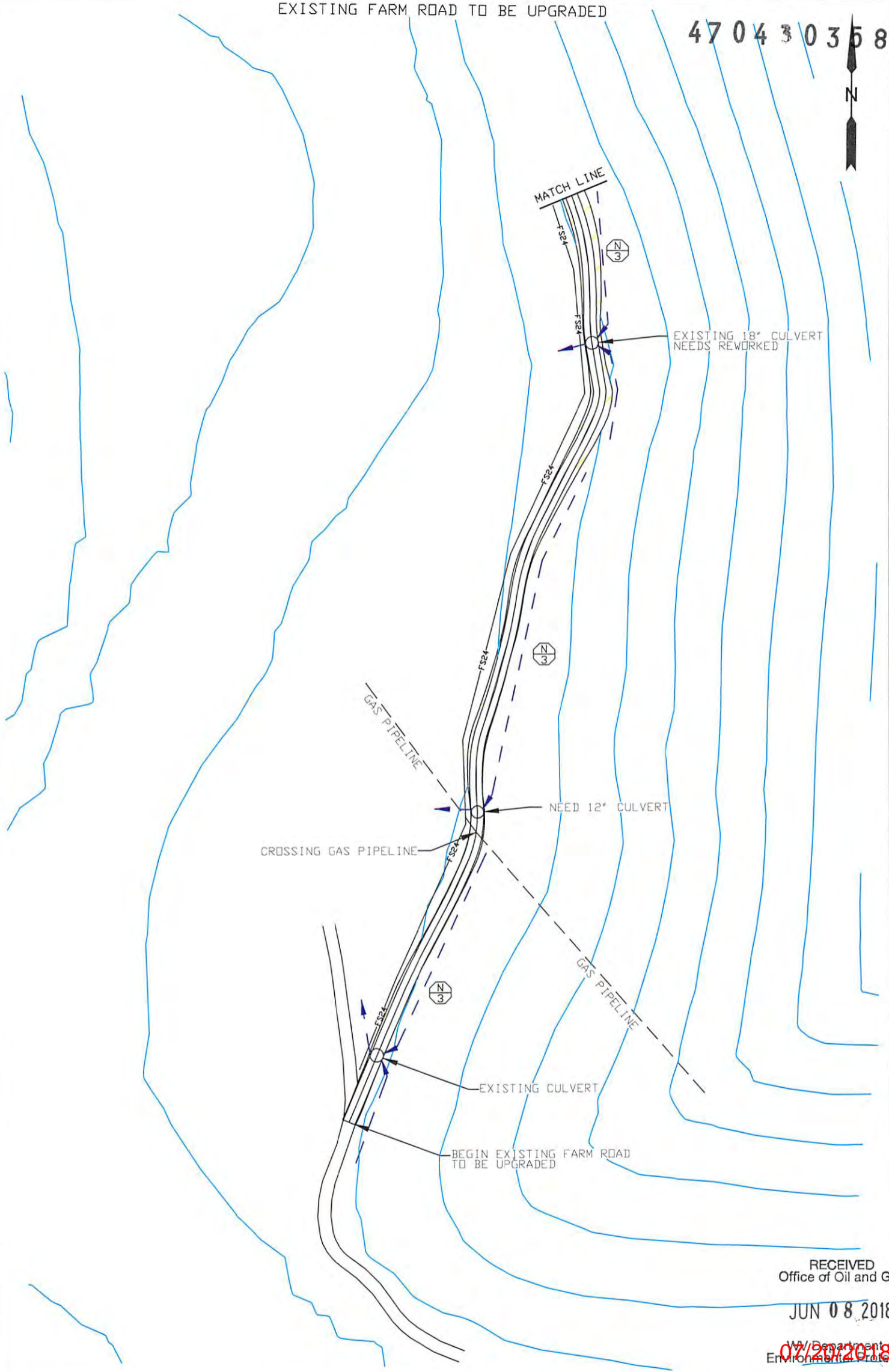


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07/20/2018
JUN 08 2018

DISTURBED AREAS		LEGEND		SITE INFORMATION	
WELL PAD CONSTRUCTION	0.87 AC		STREAM	WV Department of Environmental Protection	
PITS AND PIT SPOILS	0.29 AC		PROPERTY LINE	CORE APPALACHIA OPERATING, LLC PROPOSED WELL # 828040	
NEW ACCESS ROAD CONSTRUCTION	0.07 AC		SLOPE AREA	HARTS CREEK DISTRICT, LINCOLN COUNTY TRACE QUAD, WV 7.5'	
EXISTING ROAD	1.24 AC		WETLAND	JUNE 04, 2018	
TOTAL DISTURBED AREA	2.47 AC		BUFFER AREA	TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705	
				PAGE 1 OF 1	

EXISTING FARM ROAD TO BE UPGRADED

47 04 3 03 5 8 24







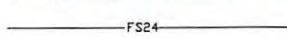
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JUN 08 2018

07/20/2018
WV Department of Environmental Protection

LEGEND

-  PROVIDE RESEEDING ON ALL CUT AND FILL SLOPES PER DEP REGULATIONS
-  LEVEL SPREADER
-  DIVERSION DITCH
-  BERM OUTLET

-  STREAM
-  PROPERTY LINE
-  SLOPE AREA
-  WETLAND
-  24' FILTER STRIP AS REQUIRED

EROSION AND SEDIMENT CONTROL PLAN

CORE APPALACHIA OPERATING, LLC
PROPOSED WELL 828040
HARTS CREEK DISTRICT, LINCOLN COUNTY
TRACE QUAD, WV 7.5'

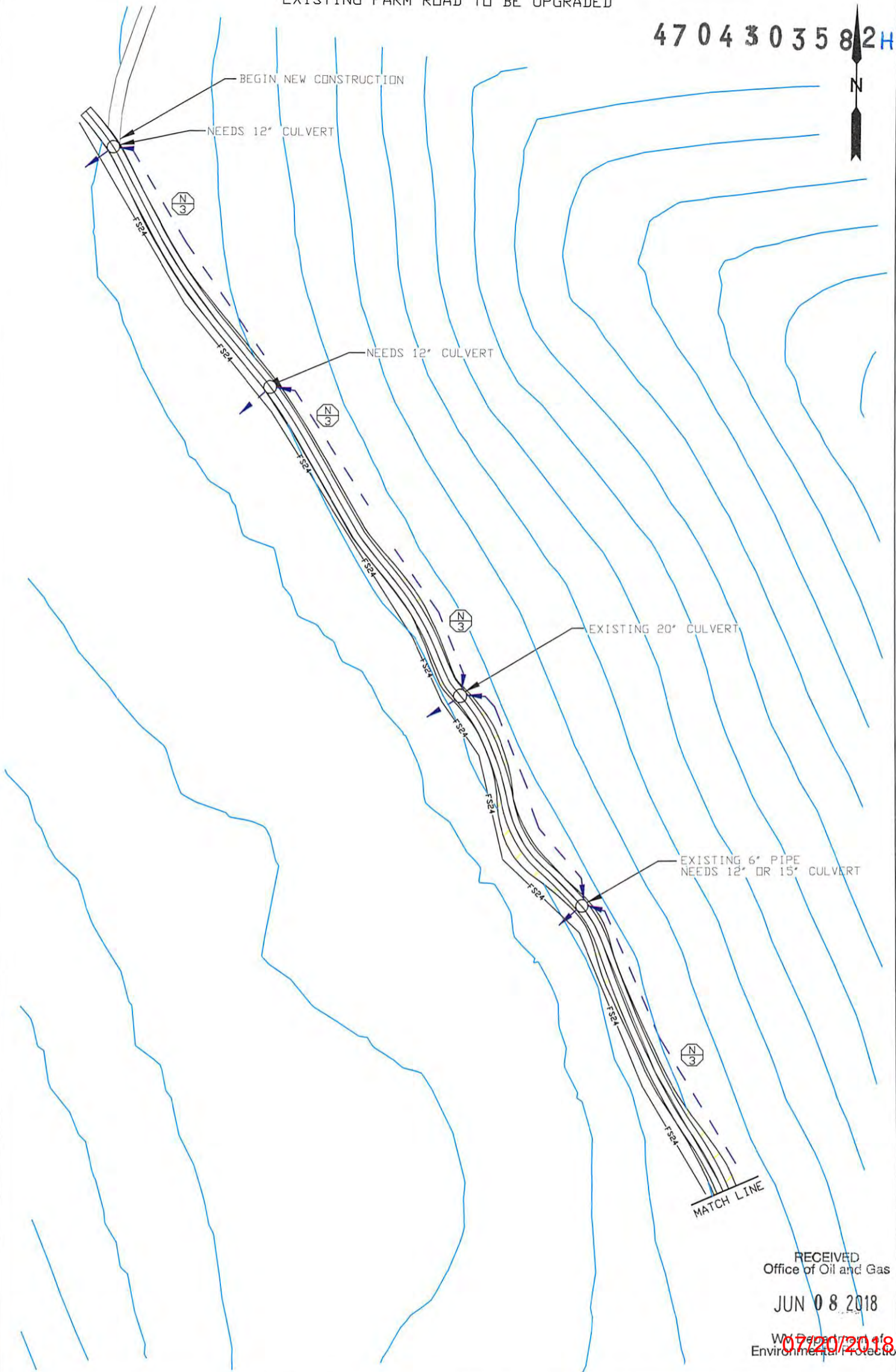
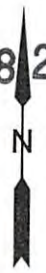
MAY 30, 2018

TRUE LINE SURVEYING
6211 FAIRVIEW DR.
HUNTINGTON, WV 25705



EXISTING FARM ROAD TO BE UPGRADED

47 04 30 35 8 2H



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JUN 08 2018

WV DEPT OF Environmental Protection

LEGEND

	PROVIDE RESEEDING ON ALL CUT AND FILL SLOPES PER DEP REGULATIONS
	LEVEL SPREADER
	DIVERSION DITCH
	BERM OUTLET

	STREAM
	PROPERTY LINE
	SLOPE AREA
	WETLAND
	24' FILTER STRIP AS REQUIRED

EROSION AND SEDIMENT CONTROL PLAN

CORE APPALACHIA OPERATING, LLC PROPOSED WELL # 828040	
HARTS CREEK DISTRICT, LINCOLN COUNTY TRACE QUAD, WV 7.5'	
MAY 31, 2018	
TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705	
PAGE <u>2</u> OF <u>2</u>	

4704303582H

MATCH LINE

WELL ROAD

EXISTING PRIVATE ROAD

BEGIN EXISTING PRIVATE ROAD DRAINAGE IN PLACE

CEMETERY ROAD





3




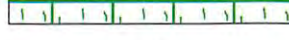
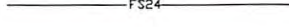
RECEIVED
Office of Oil and Gas

JUN 08 2018
07/20/2018

WV Department of
Environmental Protection

LEGEND

-  PROVIDE FLEXTERRA HIGH PERFORMANCE FLEXABLE GROWTH MEDIUM (HP-FLM) ON CUT AND FILL SLOPES
-  LEVEL SPREADER
-  DIVERSION DITCH
-  BERM OUTLET

-  STREAM
-  PROPERTY LINE
-  SLOPE AREA
-  WETLAND
-  24' COMPOST FILTER SOCK AS REQUIRED

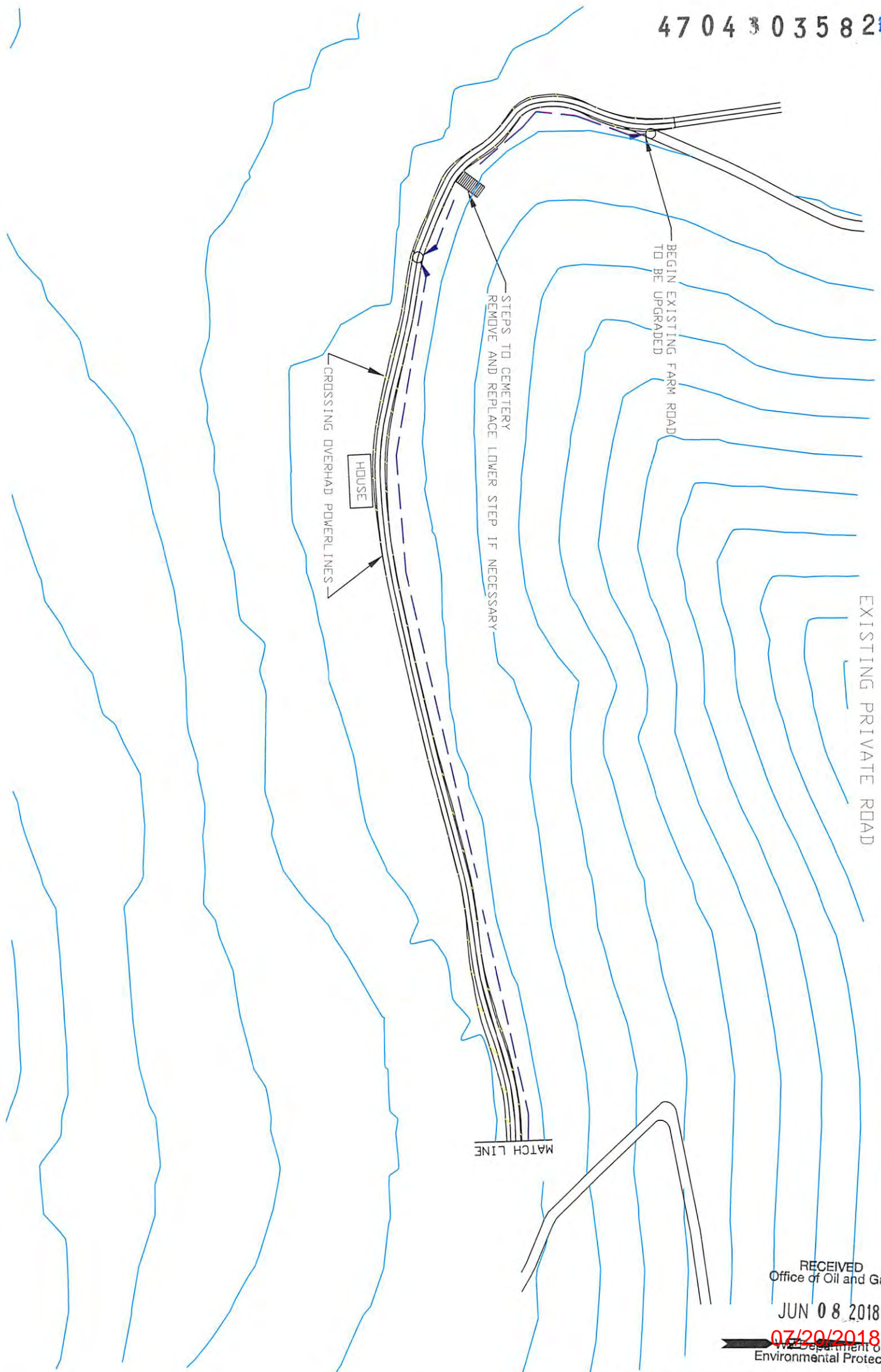
EROSION AND SEDIMENT CONTROL PLAN

CORE APPALACHIA OPERATING, LLC
 PROPOSED WELL # 828040
 HARTS CREEK DISTRICT, LINCOLN COUNTY
 TRACE QUAD, WV 7.5'
 MAY 30, 2018

TRUE LINE SURVEYING
 6211 FAIRVIEW DR.
 HUNTINGTON, WV 25705

PAGE 1 OF 2



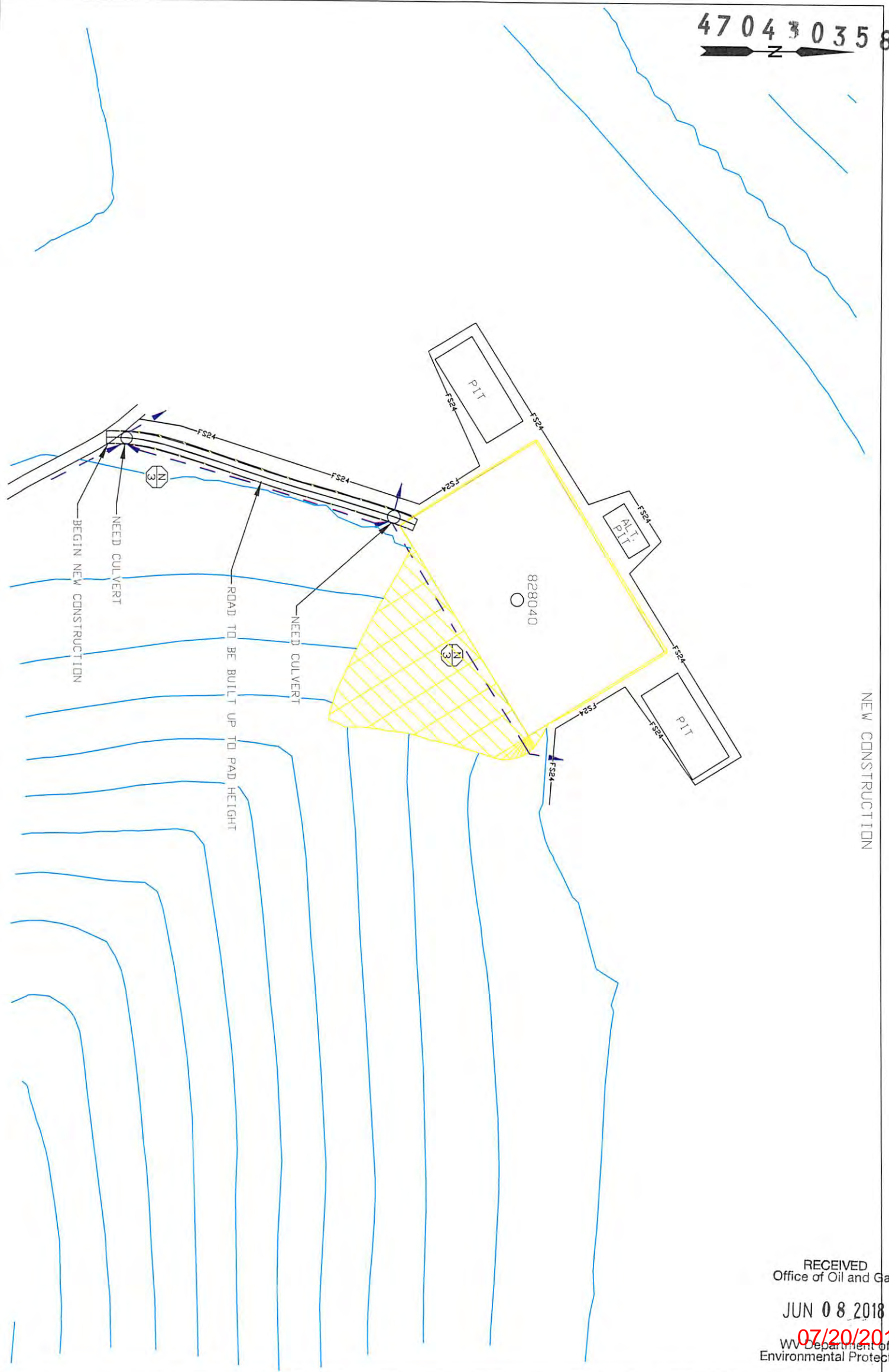
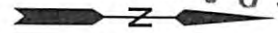


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Office of Oil and Gas

JUN 08 2018

07/20/2018
WV Department of Environmental Protection

LEGEND		EROSION AND SEDIMENT CONTROL PLAN	
	PROVIDE FLEXTERRA HIGH PERFORMAMCE FLEXABLE GROWTH MEDIUM (HP-FLM) ON CUT AND FILL SLOPES		STREAM
	LEVEL SPREADER		PROPERTY LINE
	DIVERSION DITCH		SLOPE AREA
	BERM OUTLET		WETLAND
			24" COMPOST FILTER SOCK AS REQUIRED
		CORE APPALACHIA OPERATING, LLC PROPOSED WELL # 828040 HARTS CREEK DISTRICT, LINCOLN COUNTY TRACE QUAD, WV 7.5'	
		MAY 30, 2018	
		TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705	
		PAGE 2 OF 2	



NEW CONSTRUCTION

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Environmental Protection

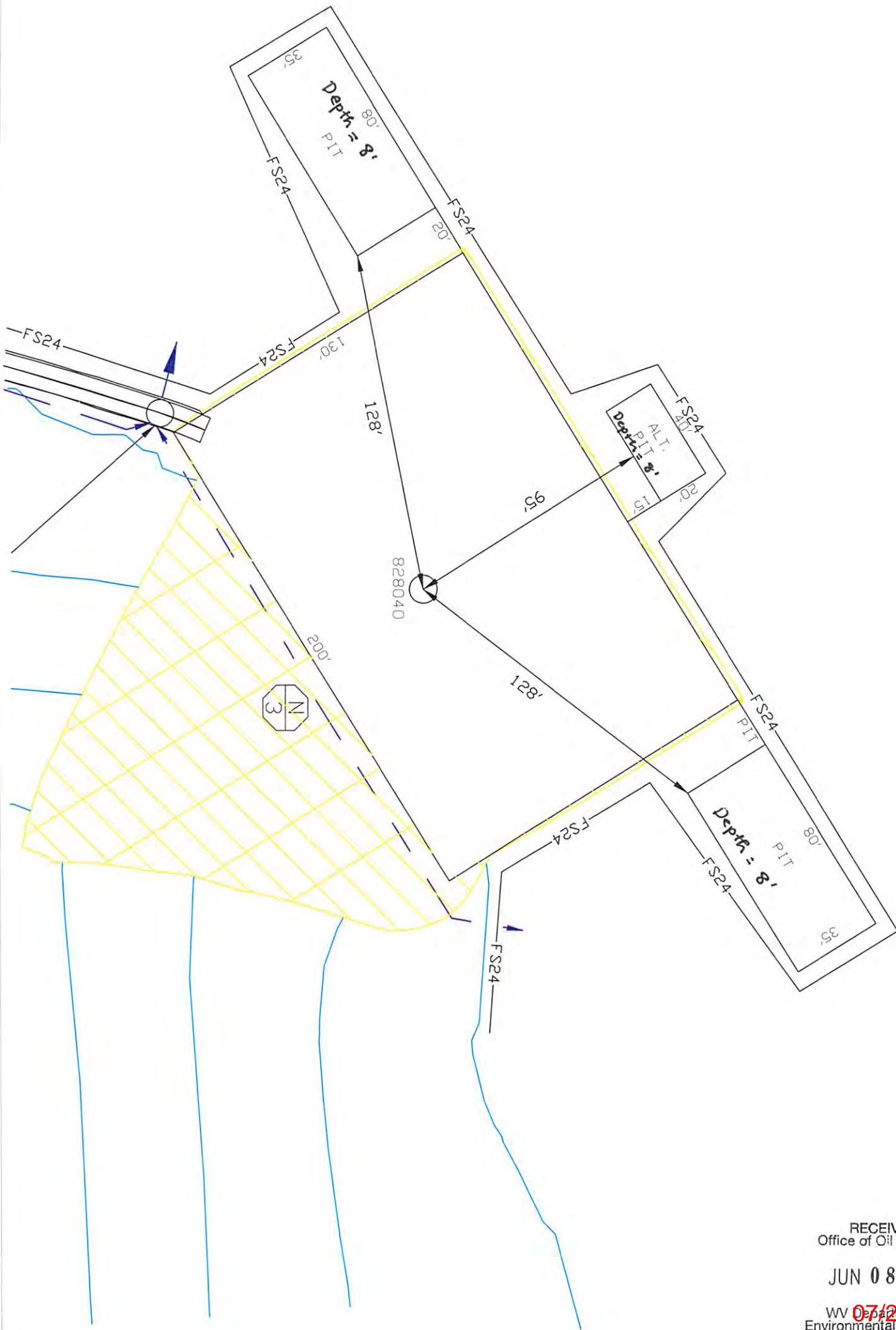
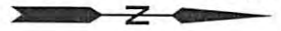
LEGEND

	PROVIDE RESEEDING ON ALL CUT AND FILL SLOPES PER DEP REGULATIONS
	LEVEL SPREADER
	DIVERSION DITCH
	BERM OUTLET
	STREAM
	PROPERTY LINE
	SLOPE AREA
	WETLAND
	24' FILTER STRIP AS REQUIRED
	FS24

EROSION AND SEDIMENT CONTROL PLAN

CORE APPALACHIA OPERATING, LLC PROPOSED WELL # 828040 HARTS CREEK DISTRICT, LINCOLN COUNTY TRACE QUAD, WV 7.5'
JUNE 04, 2018
TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705
PAGE <u>1</u> OF <u>1</u>





PAD AND PIT DETAILS

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LEGEND

- PROVIDE RESEEDING ON ALL CUT AND FILL SLOPES PER DEP REGULATIONS
- LEVEL SPREADER
- DIVERSION DITCH
- BERM OUTLET

- STREAM
- PROPERTY LINE
- SLOPE AREA
- WETLAND
- 24" FILTER STRIP AS REQUIRED

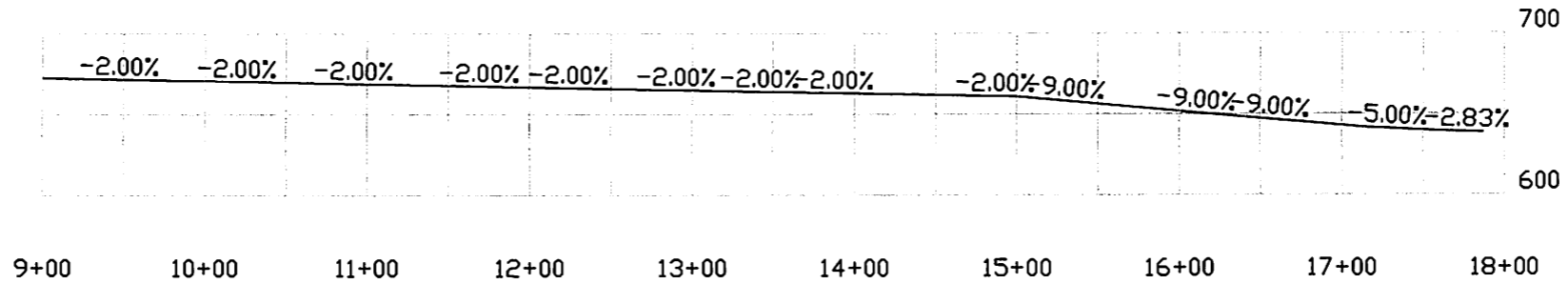
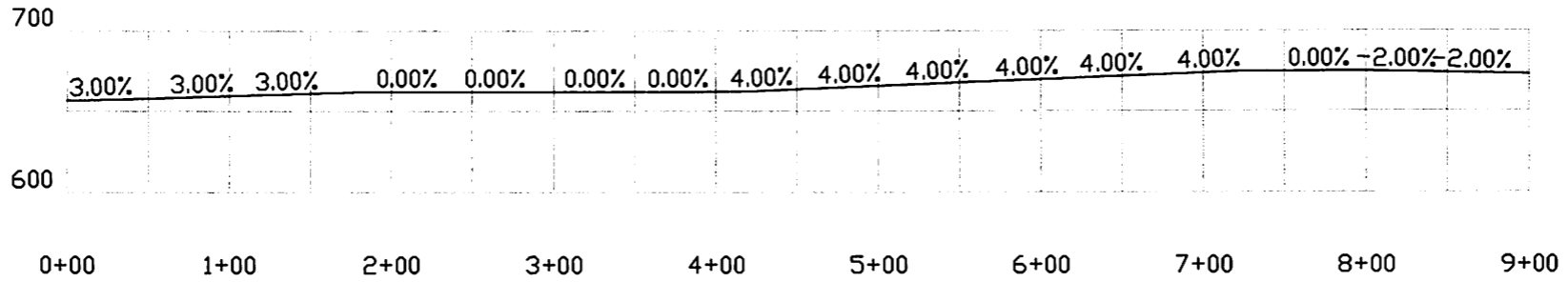
EROSION AND SEDIMENT CONTROL PLAN

CORE APPALACHIA OPERATING, LLC
PROPOSED WELL #828040
HARTS CREEK DISTRICT, LINCOLN COUNTY
TRACE QUAD, WV. 5'
JUNE 04, 2018
TRUE LINE SURVEYING
6211 FAIRVIEW DR.
HUNTINGTON, WV 25705

PAGE 1 OF 1

4704303582H

EXISTING FARM ROAD



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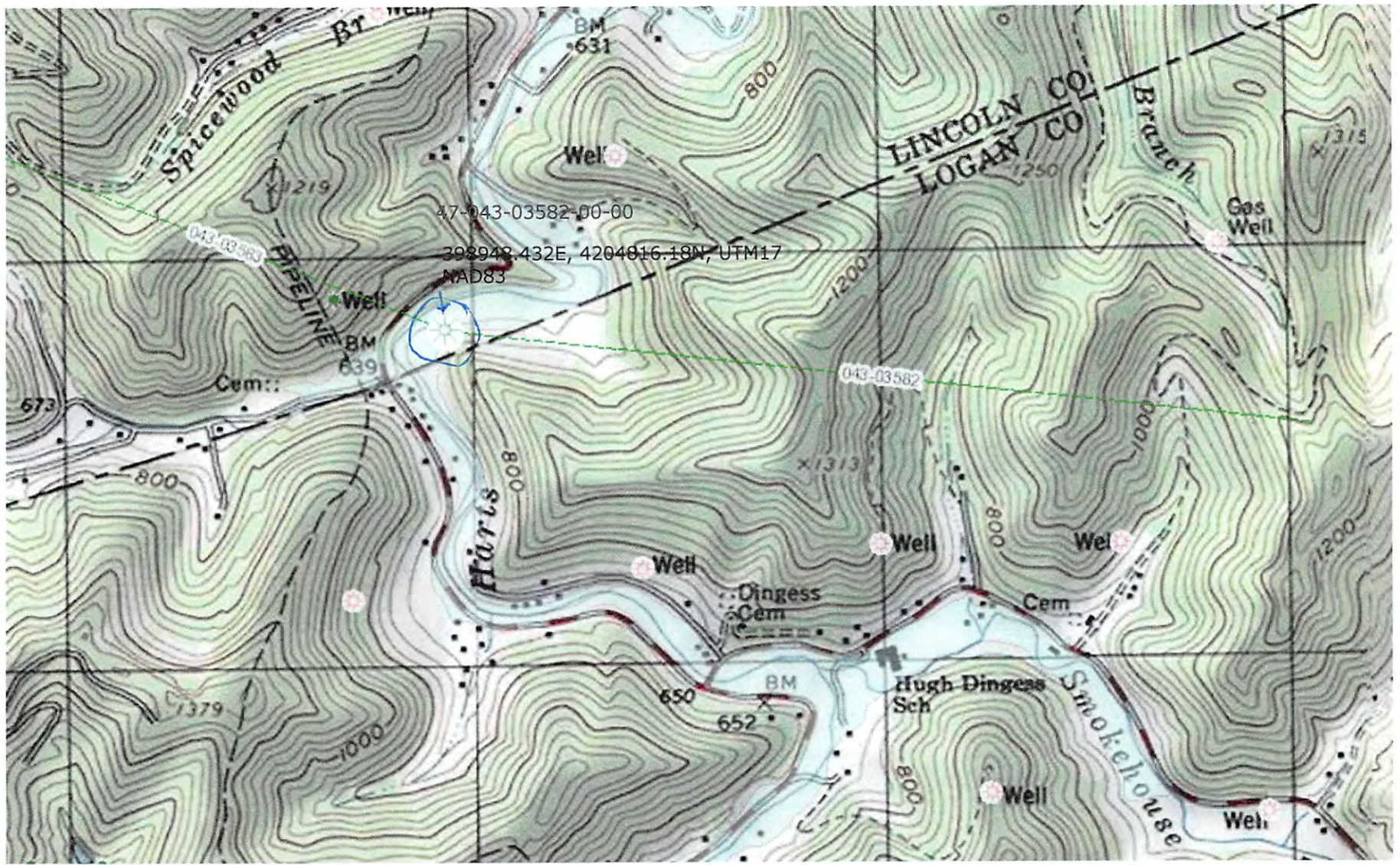
JUN 08 2018

WV Department of
Environmental Protection

ROAD PROFILE	
CORE APPALACHIA OPERATING, LLC PROPOSED WELL # 028040	
HARTS CREEK DISTRICT, LINCOLN COUNTY TRACE QUAD, WV 7.5'	
JUNE 04, 2018	
TRUE LINE SURVEYING 6211 FAIRVIEW DR. HUNTINGTON, WV 25705	
PAGE <u>1</u> OF <u>1</u>	



47-043-03582



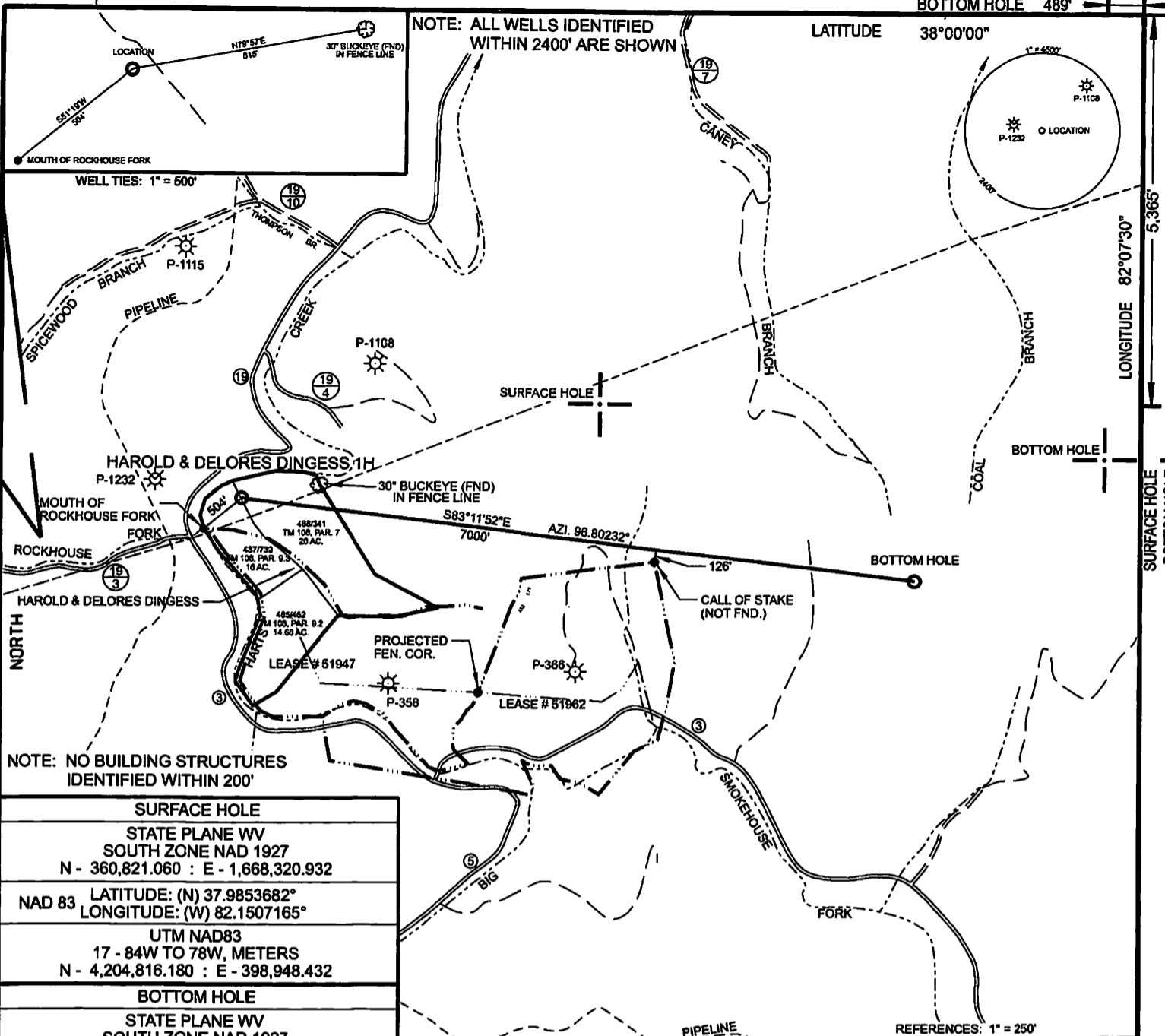
SURFACE HOLE

7,450'

BOTTOM HOLE 489'

LATITUDE 38°00'00"

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN



NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

SURFACE HOLE

STATE PLANE WV SOUTH ZONE NAD 1927
N - 360,821.060 : E - 1,668,320.932

NAD 83 LATITUDE: (N) 37.9853682°
LONGITUDE: (W) 82.1507165°

UTM NAD83
17 - 84W TO 78W, METERS
N - 4,204,816.180 : E - 398,948.432

BOTTOM HOLE

STATE PLANE WV SOUTH ZONE NAD 1927
N - 359,991.951 : E - 1,675,271.657

NAD 83 LATITUDE: (N) 37.9833264°
LONGITUDE: (W) 82.1265649°

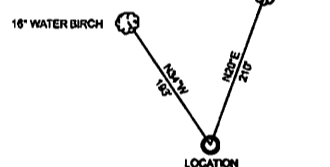
UTM NAD83
17 - 84W TO 78W, METERS
N - 4,204,563.687 : E - 401,066.654

LEGEND

SURFACE TRACT BOUNDARY

MERGER LEASE BOUNDARY

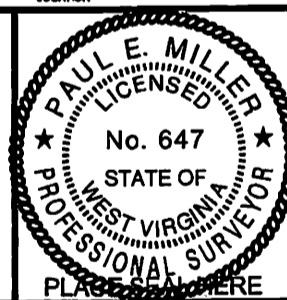
REFERENCES: 1" = 250'



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. HCN-5.DGN
 DRAWING NO. HCN-5
 SCALE 1" = 1500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION 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) Paul E. Miller
 R.P.E. _____ L.L.S. 647



STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OIL AND GAS DIVISION



DATE JUNE 04, 20 18
 OPERATOR'S WELL NO. 828040
 API WELL NO. _____

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 636' WATER SHED BIG HARTS CREEK
 DISTRICT HARTS CREEK DISTRICT COUNTY LINCOLN
 QUADRANGLE TRACE, WV 7.5'

SURFACE OWNER HAROLD & DELORES DINGESS ACREAGE 26
 OIL & GAS ROYALTY OWNER CHESAPEAKE APPALACHIA, L.L.C. LEASE ACREAGE _____ FEE 07/20/2018
 LEASE NO. 1-000001-001

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

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION DEVONIAN ESTIMATED DEPTH VERTICAL DEPTH 3120' TOTAL MEASURED DEPTH 9,831'
 WELL OPERATOR CORE APPALACHIA OPERATING, LLC DESIGNATED AGENT JESSICA GREATHOUSE
 ADDRESS 414 SUMMERS ST., CHARLESTON, WV 25301 ADDRESS SAME

COUNTY NAME PERMIT