



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

November 20, 2013

WELL WORK PERMIT

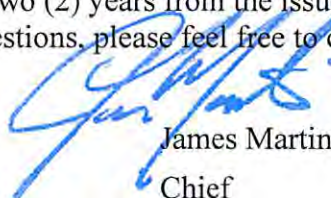
Re-Work

This permit, API Well Number: 47-3906351, issued to RAVEN RIDGE ENERGY, 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: WHITE 2A
Farm Name: BARKER, JOHN & PEGGY REV.
API Well Number: 47-3906351
Permit Type: Re-Work
Date Issued: 11/20/2013

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. 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.
2. Well work activities shall not constitute a hazard to the safety of persons.

3906351R
39-6351

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: RAVEN RIDGE ENERGY, LLC 494485865 KANAWHA -39 BIG SANDY - 01 BLUE CREEK - 258
Operator ID County District Quadrangle

2) Operator's Well Number: WHITE 2A 3) Elevation: 811'

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

5) Proposed Target Formation(s): WEIR Proposed Target Depth: 2,100'
6) Proposed Total Depth: 2,400' Feet Formation at Proposed Total Depth: 2,000' - 2,400'
7) Approximate fresh water strata depths: 150'
8) Approximate salt water depths: 1,100' - 1,600'

9) Approximate coal seam depths: NO COAL LISTED ON TITLE

10) Approximate void depths,(coal, Karst, other): NONE

11) Does land contain coal seams tributary to active mine? NO

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
RUN 4 1/2" CASING, STIMULATE AND FRAC (ACID & WATER) AN EXISTING WELL

Amey W. Hite
10/13

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						
Fresh Water	9 5/8"	LS	17LBS	350'	EXISTING	CTS
Coal						
Intermediate	7"	J55	23LBS	1,850'	EXISTING	CTS
Production	4 1/2"	J55	10.5LBS	2200'	2200'	150 Sacks
Tubing						
Liners						

Packers: Kind: _____
Sizes: _____
Depths Set _____

Received
11/22/2013
OCT 15 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

3906351R

CHECK # 8316
\$2200.00
4 PERMITS

WW-2A
(Rev. 6-07)

NOV 20 2013

WV Department of
Environmental Protection

1.) Date: OCTOBER 4, 2013
2.) Operator's Well Number WHITE 2A
State 47 County 39 Permit 06351
3.) API Well No.:

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 JOHN BARKER & PEGGY BARKER REVOCABLE TRUST
Address 457 OSBORNE MILLS ROAD
CLENDENIN, WV 25045
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector TERRY URBAN
Address PO BOX 1207
CLENDENIN, WV 25045
Telephone (304) 549-5915
5) (a) Coal Operator
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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)

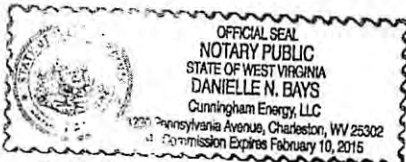
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties by:

- 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 RAVEN RIDGE ENERGY, LLC
By: RYAN CUNNINGHAM
Its: OFFICER
Address 3230 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302
Telephone (304) 344-9291

Subscribed and sworn before me this 4th day of OCTOBER, 2013

Danielle N. Bays Notary Public
My Commission Expires 2/10/2015

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

**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:

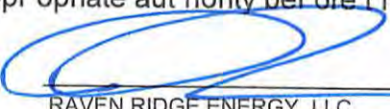
Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
IRENE RUNYON	CUNNINGHAM ENERGY, LLC SEE ATTACHED AGREEMENT	1/8	261/287

**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.

Well Operator: 
 By: Its: RAVEN RIDGE ENERGY, LLC
OFFICER

Received
 OCT 15 2013
 11/22/2013
 Office of Oil and Gas
 WV Dept. of Environmental Protection

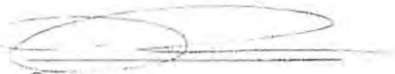
3906351R

AGREEMENT


This agreement is made and entered into this 16th day of February, 2012 by and between Cunningham Energy, LLC, a West Virginia limited liability company and Raven Ridge Energy, LLC, a West Virginia limited liability company.

This agreement gives permission to Raven Ridge Energy to operate any leases (owned property or otherwise leased) maintained by Cunningham Energy, LLC for any and all past, current or future projects to be developed by or for Cunningham Energy, LLC.

CUNNINGHAM ENERGY, LLC


Owner

RAVEN RIDGE ENERGY


Officer

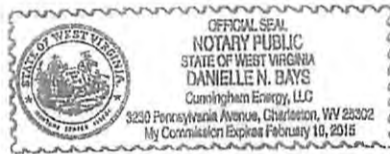
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Office of Oil and Gas

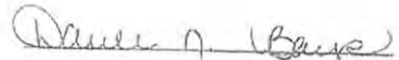
MAR 13

WV
Environmental Protection

State of West Virginia
County of Kanawha

The foregoing instrument was acknowledged before me this 16th day of February, 2012 by Ryan E. M. Cunningham, Officer of Raven Ridge Energy, LLC., a West Virginia Limited Liability Company, on behalf of the company.

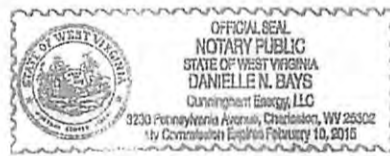



Notary Public

2/10/2015
My Commission Expires

State of West Virginia
County of Kanawha

The foregoing instrument was acknowledged before me this 16th day of February, 2012 by Ryan E. M. Cunningham, Owner of Cunningham Energy, LLC., a West Virginia Limited Liability Company, on behalf of the company.




Notary Public

2/10/2015
My Commission Expires

Received

OCT 15 2013

11/22/2013

Office of Oil and Gas
WV Dept. of Environmental Protection

3906351 R

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Office of Oil and Gas

WW-9
(5/13)

NOV 20 2013

Page _____ of _____
API Number 47 - 39 -06351
Operator's Well No. WHITE 2A

WV Department of Environmental Protection

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name RAVEN RIDGE ENERGY, LLC OP Code 494485865

Watershed (HUC 10) TRIBUTARY OF JORDAN CREEK Quadrangle BLUE CREEK

Elevation 811' County KANAWHA District BIG SANDY

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

Will a pit be used for drill cuttings? Yes _____ No X

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes X No _____ If so, what ml.? 30 mil.xx

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? N/A

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. AIR, FRESH WATER

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

Additives to be used in drilling medium? SOAP

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

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

-Landfill or offsite name/permit number? CHARLESTON LANDFILL

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, 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 Official (Typed Name) RYAN E. M. CUNNINGHAM

Company Official Title OFFICER

Subscribed and sworn before me this 4th day of OCTOBER, 20 13

Danielle N. Bays Notary

My commission expires 02/10/2015



11/22/2013

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name RAVEN RIDGE ENERGY, LLC OP Code 494485865

Watershed (HUC 10) TRIBUTARY OF JORDAN CREEK Quadrangle BLUE CREEK

Elevation 811' County KANAWHA District BIG SANDY

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

Will a pit be used for drill cuttings? Yes _____ No X

If so, please describe anticipated pit waste: _____ **NO PIT**

Will a synthetic liner be used in the pit? Yes X No _____ If so, what ml.? 30 ml.xx

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
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Company Official Signature _____

Company Official (Typed Name) RYAN E. M. CUNNINGHAM

Company Official Title OFFICER

Subscribed and sworn before me this 4th day of OCTOBER, 20 13

Notary Public

My commission expires 02/10/2015

Received
OCT 15 2013 11/22/2013
Office of Oil and Gas
WV Dept. of Environmental Protection

Drawing Not To Scale

NORTH



Install Minimum 12' Culvert

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH DEP. OIL AND GAS DRP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

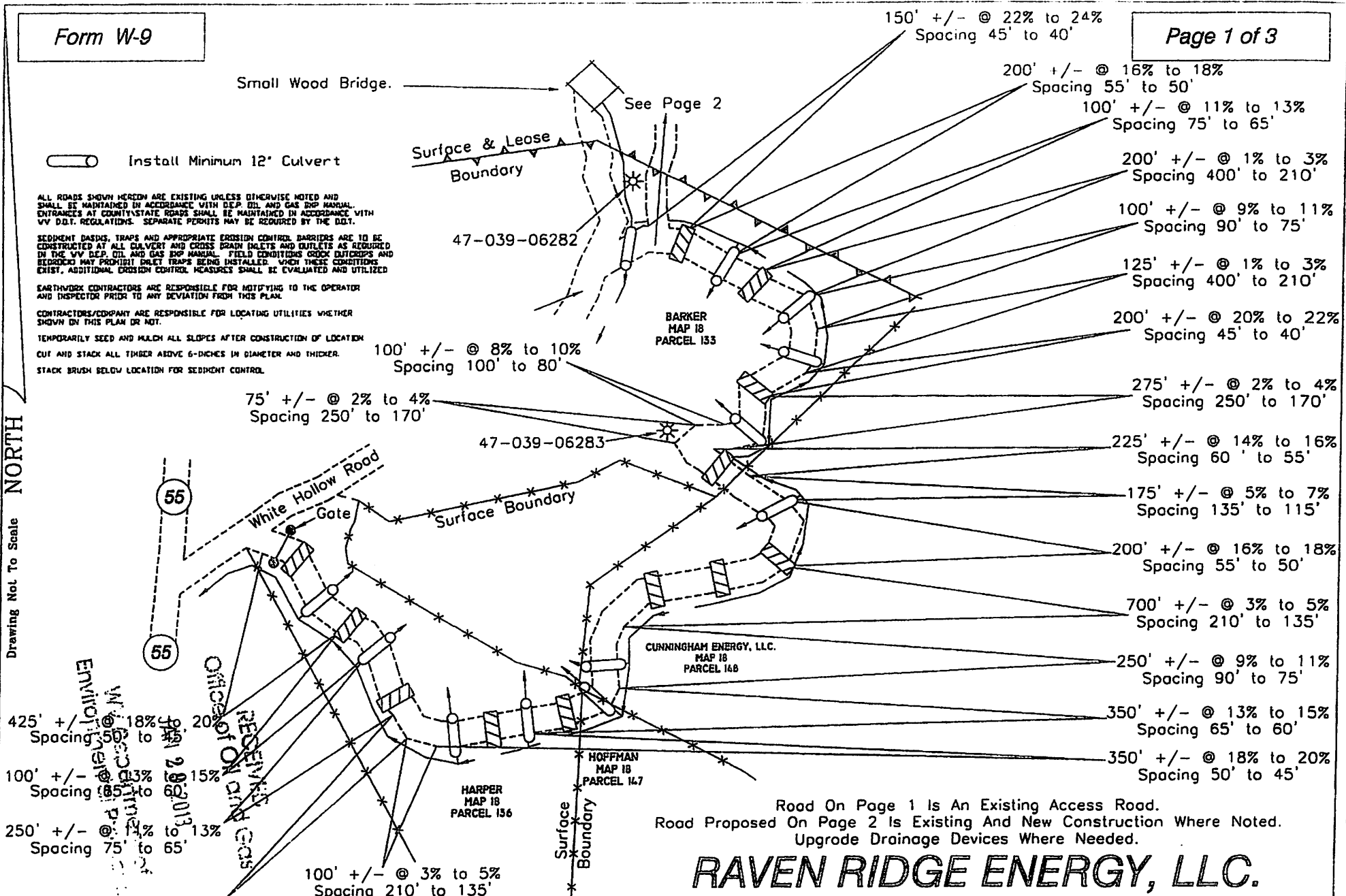
SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV DEP. OIL AND GAS DRP MANUAL. FIELD CONDITIONS SUCH AS DITCHES AND BEDROCK MAY PROHIBIT DRAIN TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS/COMPANY ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.



Road On Page 1 Is An Existing Access Road.
Road Proposed On Page 2 Is Existing And New Construction Where Noted.
Upgrade Drainage Devices Where Needed.

RAVEN RIDGE ENERGY, LLC.

HUPP Surveying & Mapping

P.O. BOX 647 GRANTSVILLE, WV 26147
PH: (304)354-7035 E-MAIL: hupp@ironliernet.net

Drafted BY:

Date Drafted:

Job Number:

DB

08/14/12

W20122146

WHITE #2A

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OCT 15 2013


Office of Oil and Gas
WV Dept. of Environmental Protection

3906351R

RAVEN RIDGE ENERGY, LLC. WHITE #2A

Drawing Not To Scale NORTH

- 125' +/- @ 13% to 15%
Spacing 65' to 60'
- 75' +/- @ 18% to 20%
Spacing 50' to 45'
- 75' +/- @ 12% to 14%
Spacing 70' to 60'
- 50' +/- @ 18% to 20%
Spacing 50' to 45'
- 75' +/- @ 36% to 40%
Spacing 45' to 40'
- 100' +/- @ 2% to 4%
Spacing 250' to 170'

 Install Minimum 12" Culvert

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH DEP OIL AND GAS BNP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV DOT REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE DOT.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV DEP OIL AND GAS BNP MANUAL. FIELD CONDITIONS, CREEK OUTLETS AND BEDROCK MAY PREVENT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS/EQUIPMENT OPERATORS ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION. CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER. STACK DRUSH BELOW LOCATION FOR TERRAIN CONTROL.

SEABOLT, ET AL
MAP 18
PARCEL 125

SEABOLT
MAP 18
PARCEL 122

BARKER
MAP 18
PARCEL 121

BARKER
MAP 18
PARCEL 120

BARKER
MAP 18
PARCEL 153

CUNNINGHAM ENERGY, LLC.
MAP 18
PARCEL 148

47-039-06282

White #1A

White #2A

Begin New Construction

See Page 1

Road On Page 1 is An Existing Access Road.
Road Proposed On Page 2 is Existing And New Construction Where Noted
Upgrade Drainage Devices Where Needed

*Will use Slats
BMP's for Seabolt
Erosion Control*

*75' +/- @ 2% to 4%
Spacing 250' to 170'*

HUPP Surveying & Mapping

Drafted BY	Date Drafted	Job Number
	08/14/12	12112148

2700 BOY 847 GRANOVILLE WV 26141
 304-291-1733 FAX 304-291-1734
 www.hupp.com

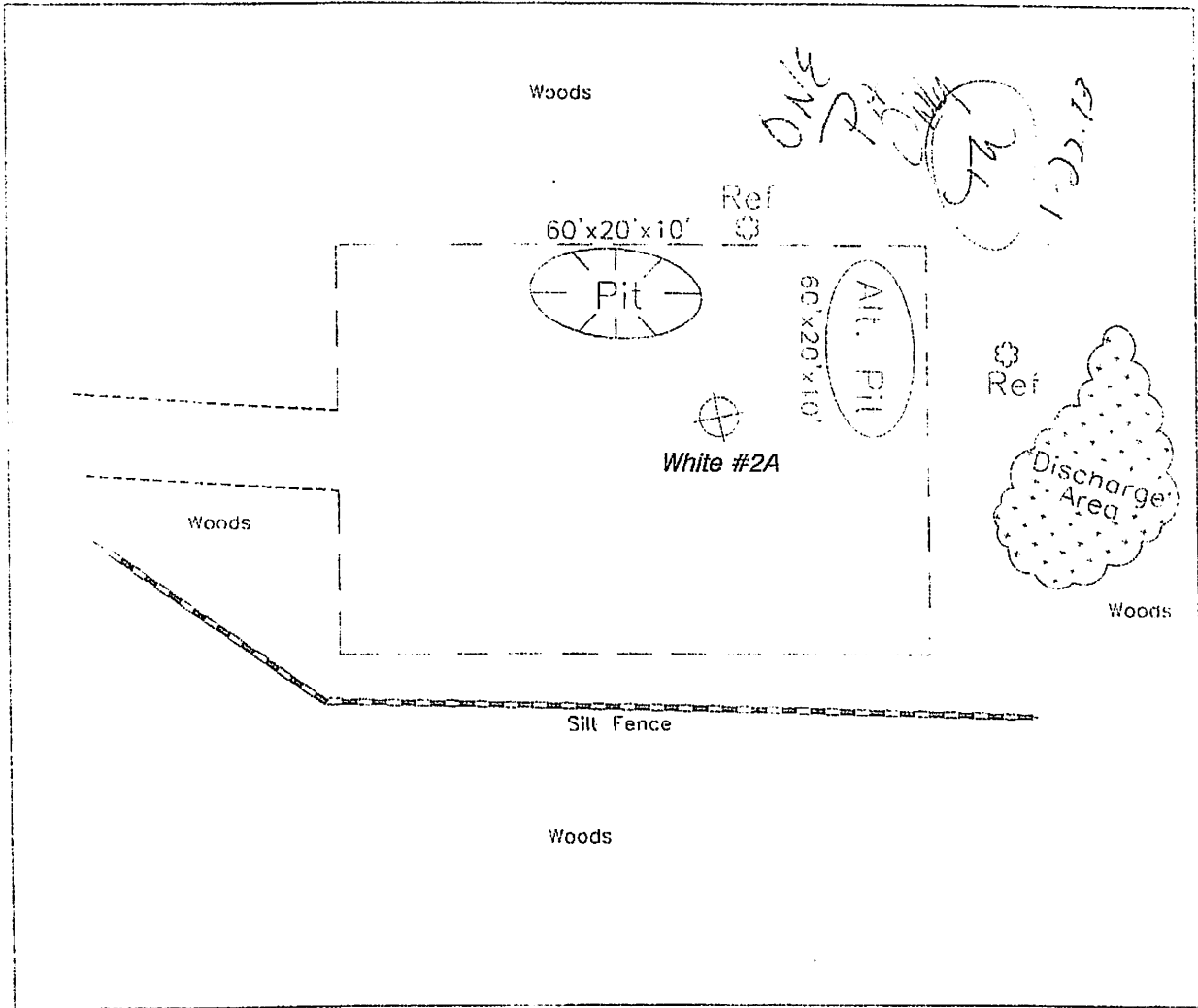
WV Dept. of Environmental Protection
Office of Oil and Gas

OCT 15 2013


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3906351 R

RAVEN RIDGE ENERGY, LLC. WHITE #2A



Drawing Not To Scale NORTH

 Install Minimum 12" Culvert

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH DEP OIL AND GAS BMP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE DOT.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV DEP OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

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TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER.

STACK BRUSH BEHIND LOCATION FOR SEDIMENT CONTROL.

Handwritten notes:
11/22/2013
JAN 28 2013

HUPP Surveying & Mapping

PO BOX 647 GRANTSVILLE, WV 26147
PH: 304-336-4035 E-MAIL: hupp@frontiernet.net

Drafted BY:

Date Drafted:

Job Number

DR

08/14/12

W20122143

Received
11/22/2013

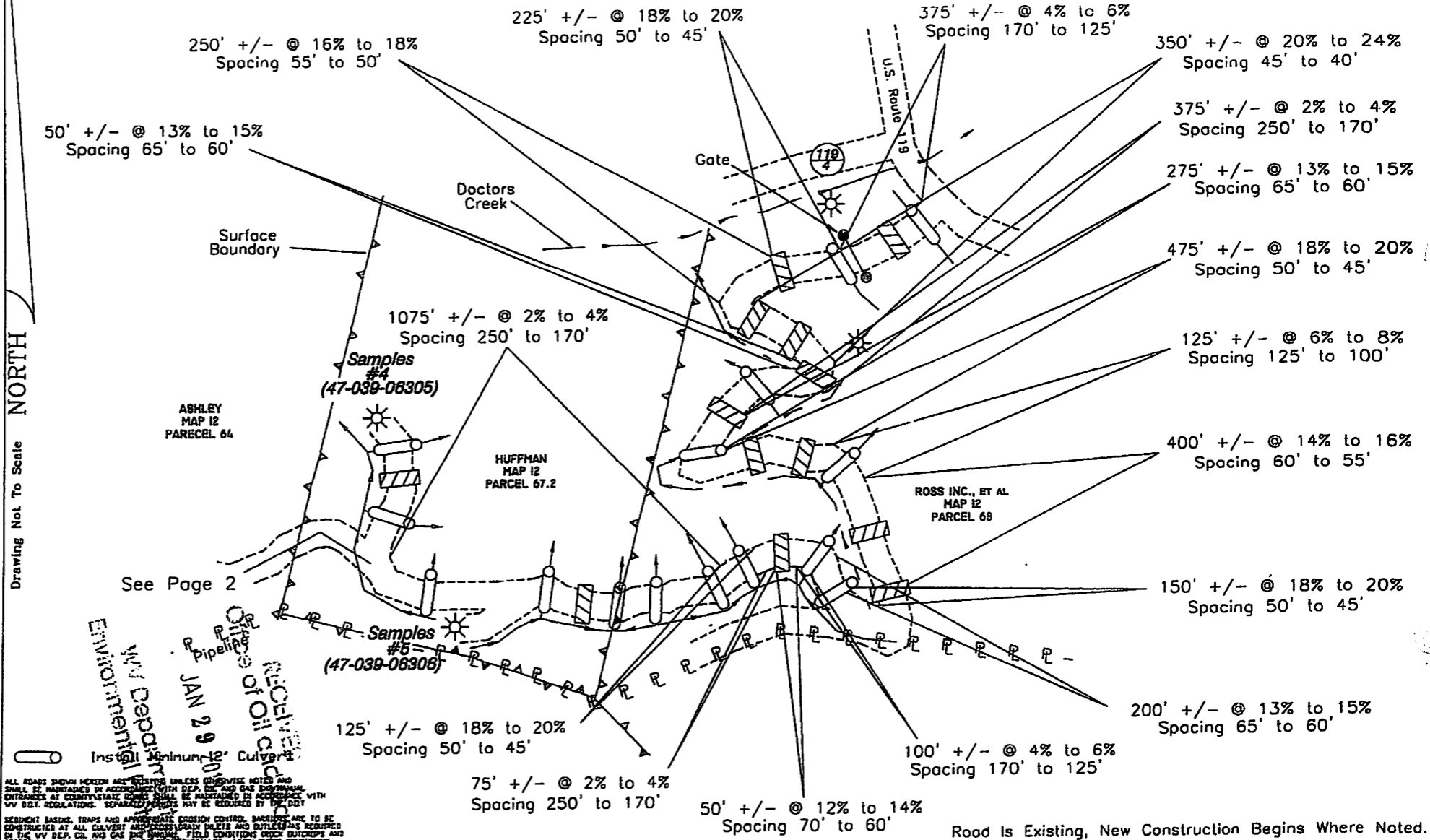
OCT 15 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

RAVEN RIDGE ENERGY, LLC. WHITE #2A

Form W-9

Page 1 of 6



Drawing Not To Scale NORTH

ALL ROADS SHOWN HEREON ARE UNIMPROVED UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED BY ACCORDANCE WITH DEP. OIL AND GAS REGULATIONS. ENTRANCES AT COMBUSTIBLE GASES SHALL BE MAINTAINED BY ACCORDANCE WITH WV DEPT. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE DEP.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL MEASURES ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS-DRAIN INLETS AND OUTLETS AS REQUIRED BY THE WV DEP. OIL AND GAS DEP. PERMITS. FIELD CONDITIONS UNDER OUTCROPS AND PERMITS MAY PRESENT BUILT ITEMS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

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TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

RECEIVED
 OFFICE OF OIL AND GAS
 JAN 29 2013
 WV Department of Environmental Protection

HUPP Surveying & Mapping
 P.O. BOX 647 GRANTSVILLE, WV 26147
 PH: (304)354-7035 E-MAIL: hupp@frontiernet.net

Drafted BY:	Date Drafted:	Job Number:
DB	08/14/12	w20122146

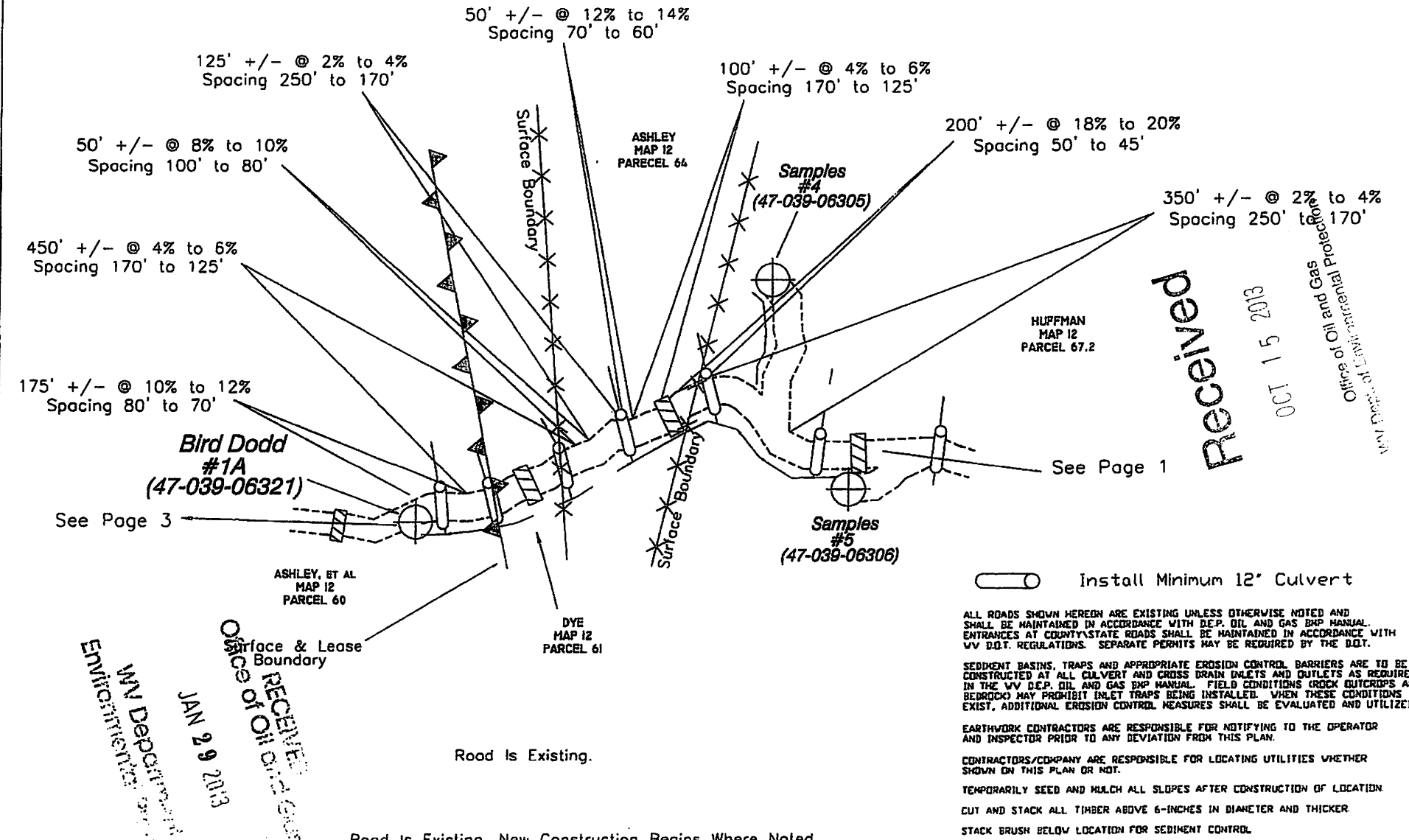
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 Department of Environmental Protection

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 JAN 29 2013
 Environmental Protection
 WV Department of

Install Minimum 12' Culvert
 ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH D.E.P. OIL AND GAS BMP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.
 SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN DALETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED
 EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.
 CONTRACTORS/COMPANY ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.
 TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION
 CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER.
 STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL

Road Is Existing, New Construction Begins Where Noted.

HUPP Surveying & Mapping P.O. BOX 647 GRANTSMILLE, WV 26147 PH:(304)354-7035 E-MAIL: hupp@frontiernet.net	Drafted BY:	Date Drafted:	Job Number:
	DB	08/14/12	W20122146

39063510

Proposed Road Is New Construction.

Drawing Not To Scale

NORTH

ROLLINS #1A
(47-039-06324)

See Page 4

ENVIRONMENTAL

ALL ROADS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED ACCORDANCE WITH DEP. OF TRANSPORTATION MANUAL ENTRANCES AT COUNTY STATE ROADS SHOULD BE MAINTAINED IN ACCORDANCE WITH WV DEP. REGULATIONS. SPACINGS MAY BE REQUIRED BY THE STATE.

SEDIMENT BASINS, TRAP AND APPROPRIATE EROSION CONTROL MEASURES ARE TO BE CONSTRUCTED AT ALL VERTS AND CROSS DRAIN DITCHES AND FACILITIES AS REQUIRED BY THE WV DEP. OF TRANSPORTATION FIELD CONDITIONS CODE OUTSCAPE AND SEDIMENT MAY BE PROHIBITED FROM BEING INSTALLED WHEN THESE CONDITIONS EXIST. ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

LANDOWNER CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS/COMPANY ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN OR THIS PLAN OR NOT.

TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION CUT AND STACK ALL TREES ABOVE 6-INCHES IN DIAMETER AND THICKER STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

WHITE #2A

HUPP Surveying & Mapping

P.O. BOX 647 GRANTSVILLE, WV 26147
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Drafted BY:

DB

Date Drafted:

08/14/12

Job Number:

W20122146

325' +/- @ 3% to 5%
Spacing 210' to 135'

125' +/- @ 10% to 12%
Spacing 80' to 70'

100' +/- @ 16% to 18%
Spacing 55' to 50'

250' +/- @ 5% to 7%
Spacing 135' to 115'

100' +/- @ 8% to 10%
Spacing 100' to 80'

325' +/- @ 3% to 5%
Spacing 210' to 135'

600' +/- @ 2% to 4%
Spacing 250' to 170'

400' +/- @ 14% to 16%
Spacing 60' to 55'

300' +/- @ 18% to 20%
Spacing 50' to 45'

50' +/- @ 8% to 10%
Spacing 100' to 80'

JENNINGS
MAP 18
PARCEL 128

Cabin

Power Lines

GUNNOE
MAP 18
PARCEL 132

125' +/- @ 20% to 22%
Spacing 45' to 40'

150' +/- @ 8% to 10%
Spacing 100' to 80'

350' +/- @ 3% to 5%
Spacing 210' to 135'

100' +/- @ 7% to 9%
Spacing 115' to 90'

110' +/- @ 18% to 20%
Spacing 50' to 45'

Road Is Existing, New Construction Begins Where Noted.

RAVEN RIDGE ENERGY, LLC.

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OCT 15 2013

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WV Dept. of Environmental Protection

ASHLEY, ET AL
MAP 12
PARCEL 58

BIRD DODD #1A
(47-039-06321)

See Page 2

ASHLEY, ET AL
MAP 12
PARCEL 60

525' +/- @ 2% to 4%
Spacing 250' to 170'

SMITH
MAP 12
PARCEL 59

75' +/- @ 8% to 10%
Spacing 100' to 80'

75' +/- @ 2% to 4%
Spacing 250' to 170'

150' +/- @ 8% to 10%
Spacing 100' to 80'

100' +/- @ 2% to 4%
Spacing 250' to 170'

BAIL
MAP 19
PARCEL 2

39 06321 R

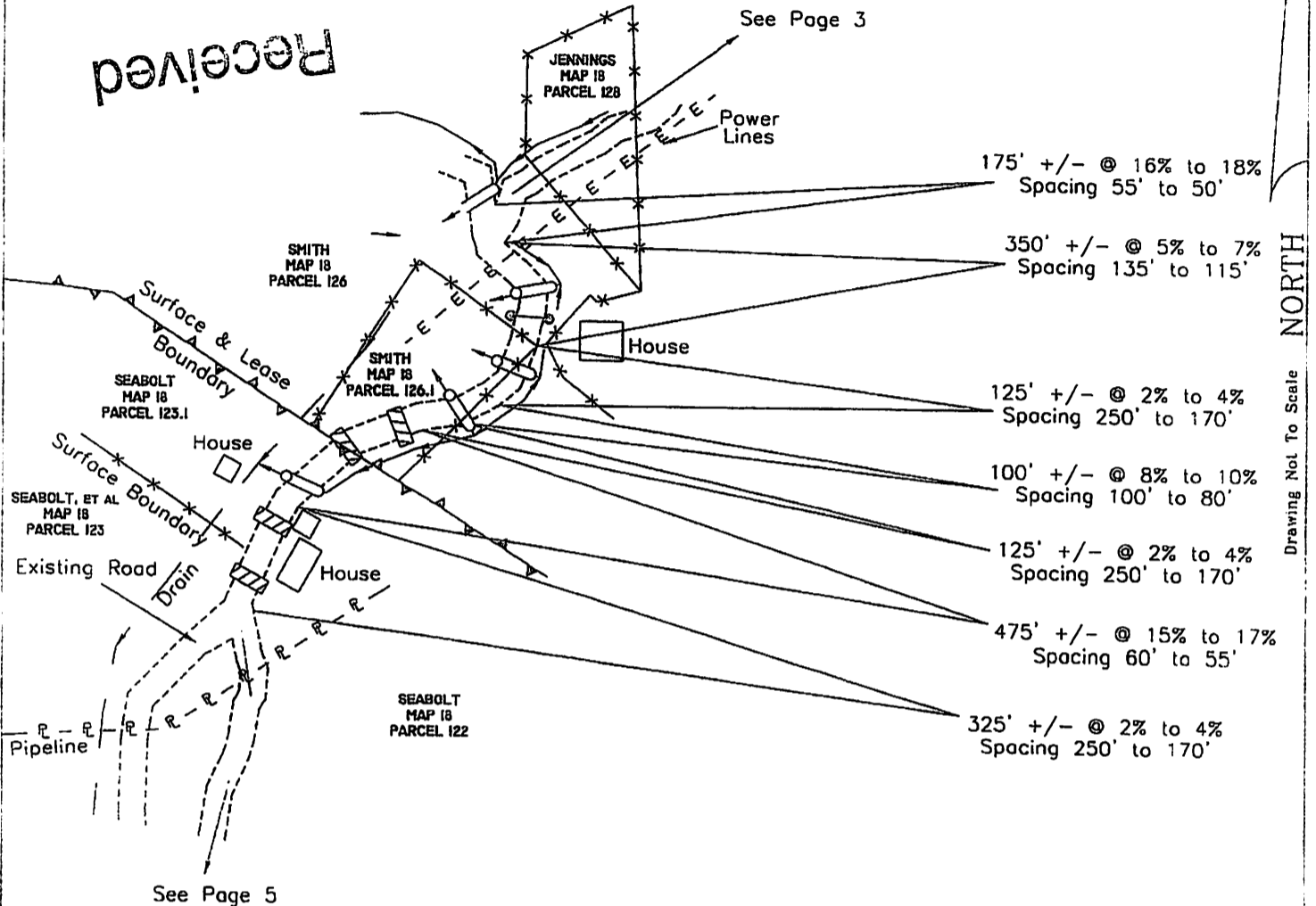
3906351R

RAVEN RIDGE ENERGY, LLC. WHITE #2A

Office of Oil and Gas
WV Dept. of Environmental Protection

OCT 15 2013

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Drawing Not To Scale

Install Minimum 12" Culvert

Road Is Existing, New Construction Begins Where Noted.

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH DEP. OF TRANSPORTATION REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE DOT.

SEEDING, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CUTS AND CROSS-DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV DEP. OF TRANSPORTATION FIELD CONDITIONS ROCK OUTCROPS AND BEDROCK MAY PREVENT BARRIERS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS/COMPANY ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT AND STACK ALL TIMBER ABOVE 6" DIAMETER AND THICKER.

STACK BRUSH BELOW LOCATION FOR EROSION CONTROL.

HUPP Surveying & Mapping P.O. BOX 647 GRANTSVILLE, WV 26147 PH: (304)354-7035 E-MAIL: hupp@frontiernet.net	Drafted BY:	Date Drafted:	Job Number:
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OCT 15 2013

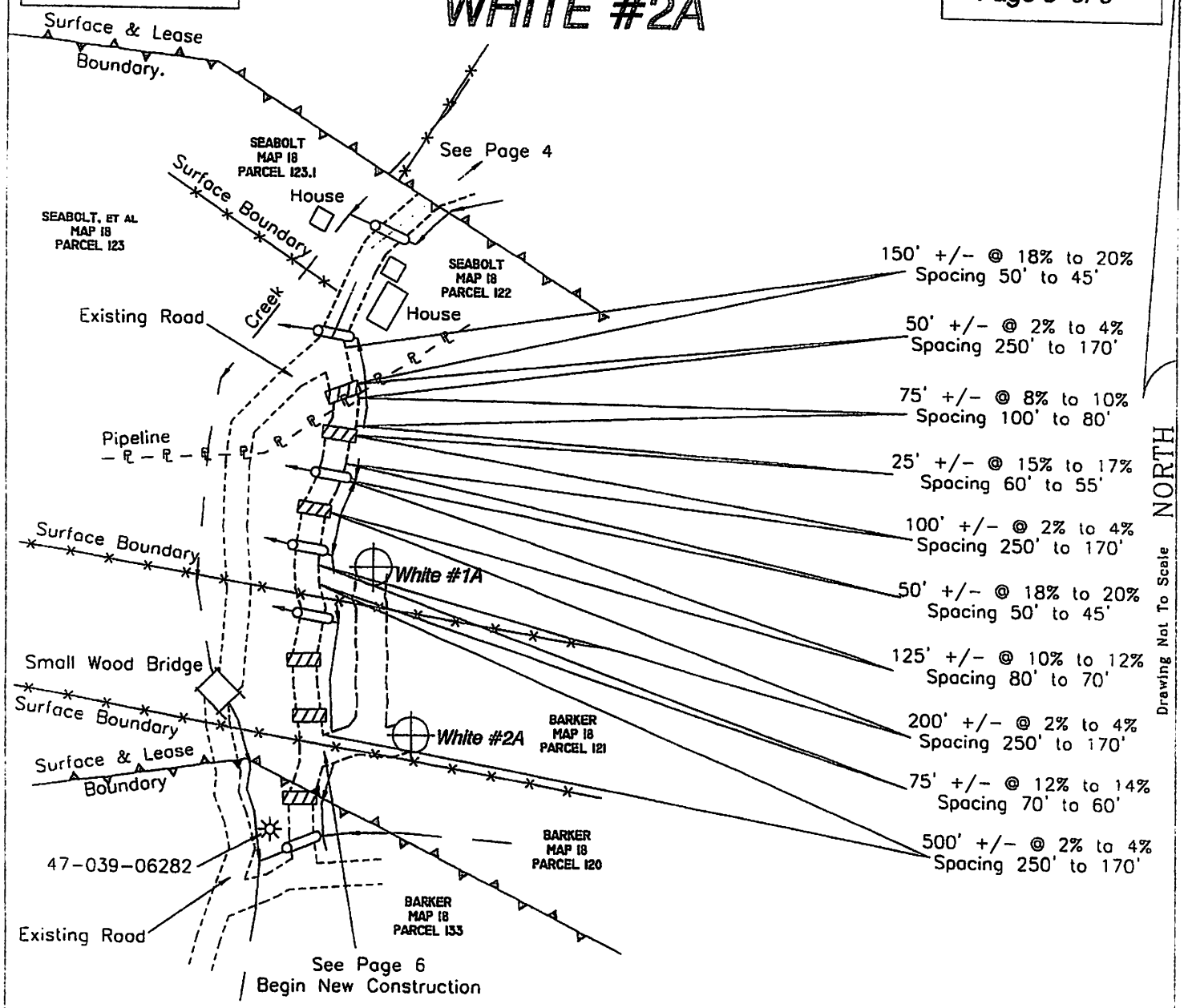
Office of Oil and Gas
WV Dept. of Environmental Protection
11/02/2013

3406351 R

RAVEN RIDGE ENERGY, LLC. WHITE #2A

Form W-9

Page 5 of 6



Drawing Not To Scale NORTH

Install Minimum 12" Culvert

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH DEP, OIL AND GAS DRP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV DOT REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE DOT.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV DEP, OIL AND GAS DRP MANUAL. FIELD CONDITIONS SUCH AS OUTCROPS AND BEDROCK MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS/COMPANY ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER.

STACK BRUSH UP/DOWN LOCATION FOR SEDIMENT CONTROL.

Road Is Existing, New Construction Begins Where Noted.

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Office of Oil and Gas
JAN 29 2013
WV Department of Environmental Protection

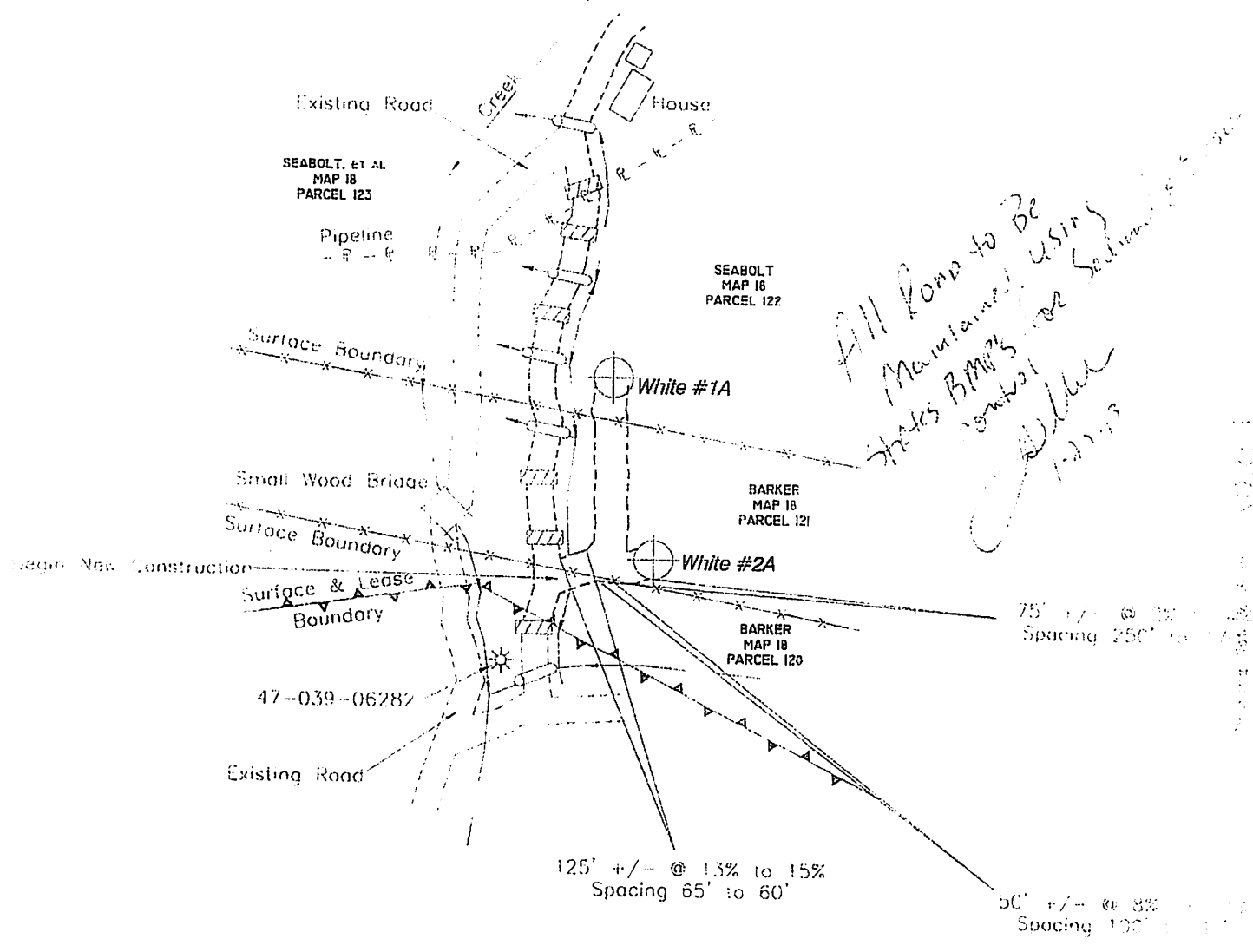
HUPP Surveying & Mapping P.O. BOX 647 GRANTSVILLE, WV 26147 PH: (304)354-7035 E-MAIL: hupp@frontiernet.net	Drafted BY:	Date Drafted:	Job Number:
	DB	08/14/12	W20122146

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11/22/2013
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WV Dept. of Environmental Protection

RAVEN RIDGE ENERGY, LLC. WHITE #2A

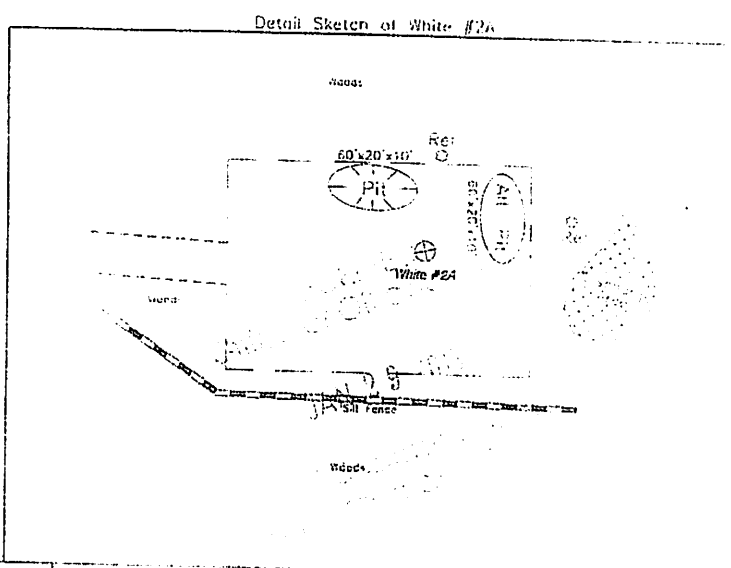
Form W-9

Page 6 of 6



All Road to Be Maintained using State BMP's for Sediment Control

Dillon 10/15/13



Install Minimum 12" Culvert

EXISTING UTILITIES ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH DEP, OIL AND GAS BMP MANUAL. ALL STATE/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH ALL DEP REGULATIONS. SPECIAL PERMITS MAY BE REQUIRED BY THE GOS.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL DIVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED BY THE WV DEP OIL AND GAS BMP MANUAL. FIELD CONDITIONS ORDER OUTCROPS AND EROSION MAY PREVENT INLET TRAPS BEING INSTALLED - WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

CONTRACTORS SHALL MAINTAIN ALL SLOPES AFTER CONSTRUCTION OF LOCATIONS.

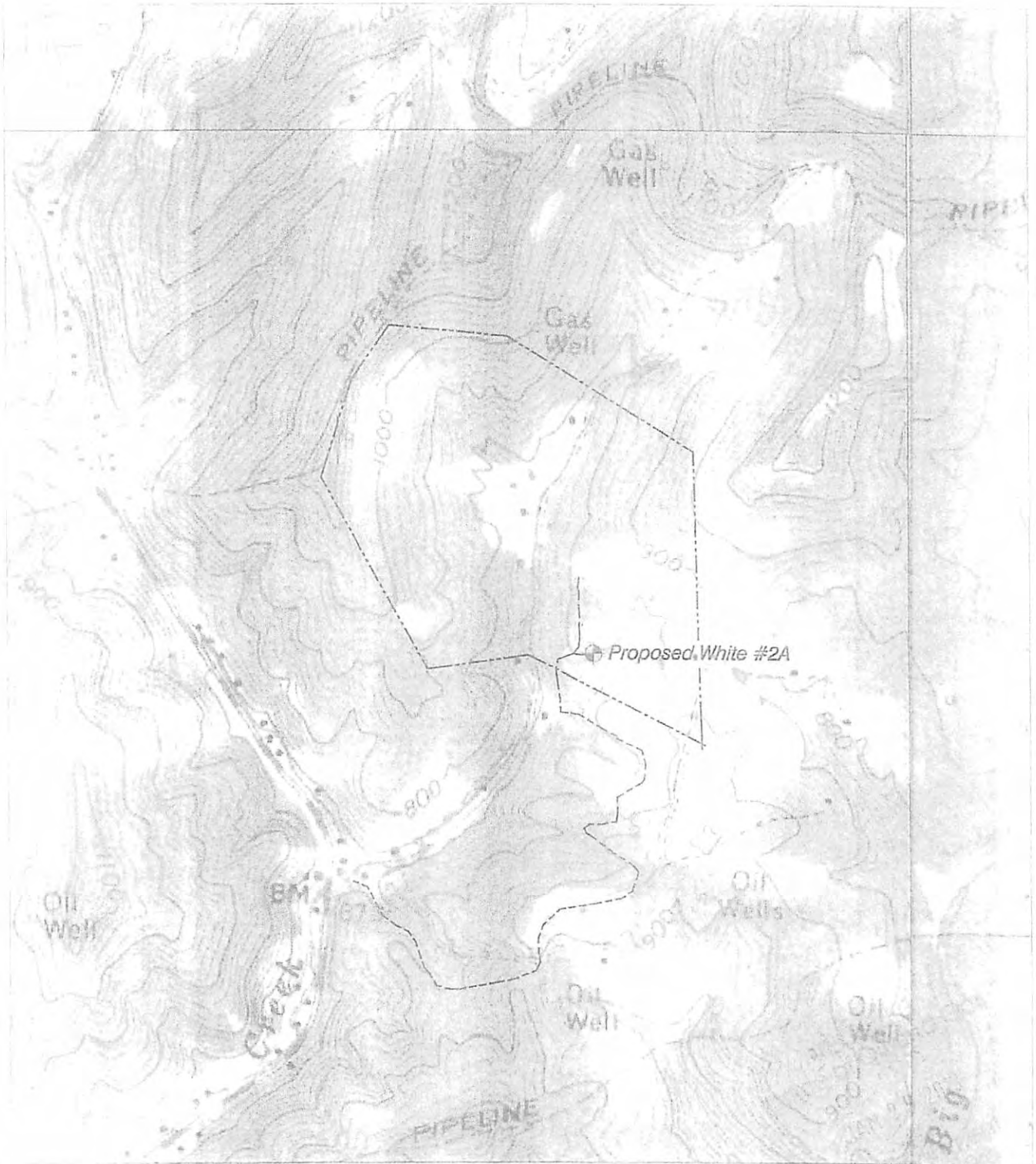
CONTRACTORS SHALL MAINTAIN ALL SLOPES ABOVE 6-INCHES IN DIAMETER AND THICKER.

CONTRACTORS SHALL MAINTAIN ALL SLOPES FOR SLIPPERY CONDITIONS.

HUPP Surveying & Mapping P.O. BOX 647 GRANTSMILLE, WV 26147 TEL: (204) 954-7035 E-MAIL: hupp@frontiernet.net	Drafted BY:	Date Drafted:	Job Number:
	DE	08/14/12	W20122-00

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 11/22/2013
 OCT 15 2013
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 WV Dept. of Environmental Protection

Raven Ridge Energy, LLC. White #2A



HUPP Surveying & Mapping

P.O. BOX 647 GRANTSVILLE, WV 26147
PH (304) 334-7035 E-MAIL hupp@frontiernet.net

1" = 1000'
Blue Creek Quad

Raven Ridge Energy, LLC
3230 Pennsylvania Ave.
Charleston, WV 25302

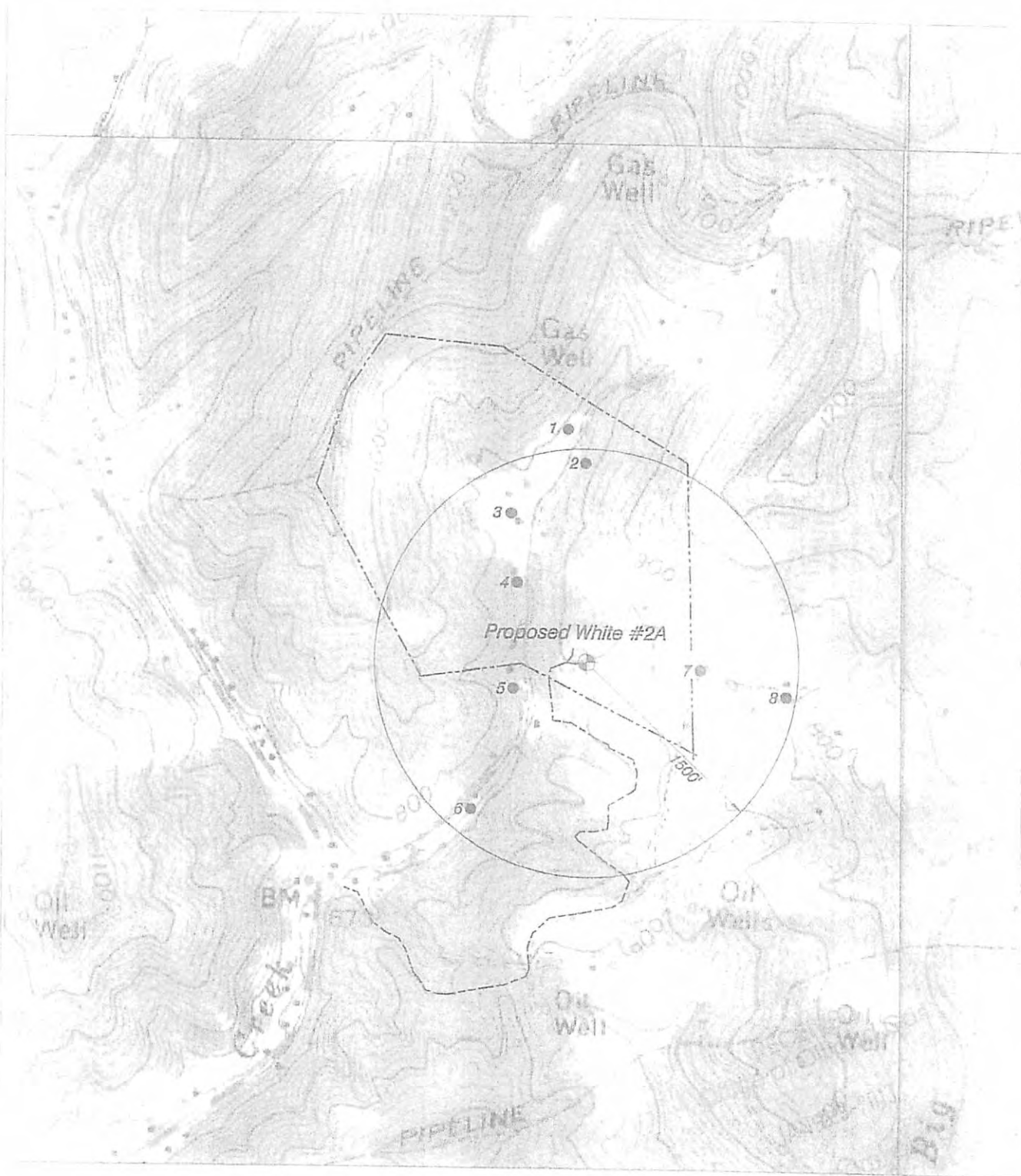
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11/22/2013

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Raven Ridge Energy, LLC. White #2A Water



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PO BOX 647 GRANTSVILLE, WV 26147
PH: 724-354-7035 MAIL: hupp@frontiernet.net

1" = 1000'
Blue Creek Quad

Raven Ridge Energy, LLC
3230 Pennsylvania Ave
Charleston, WV 25302

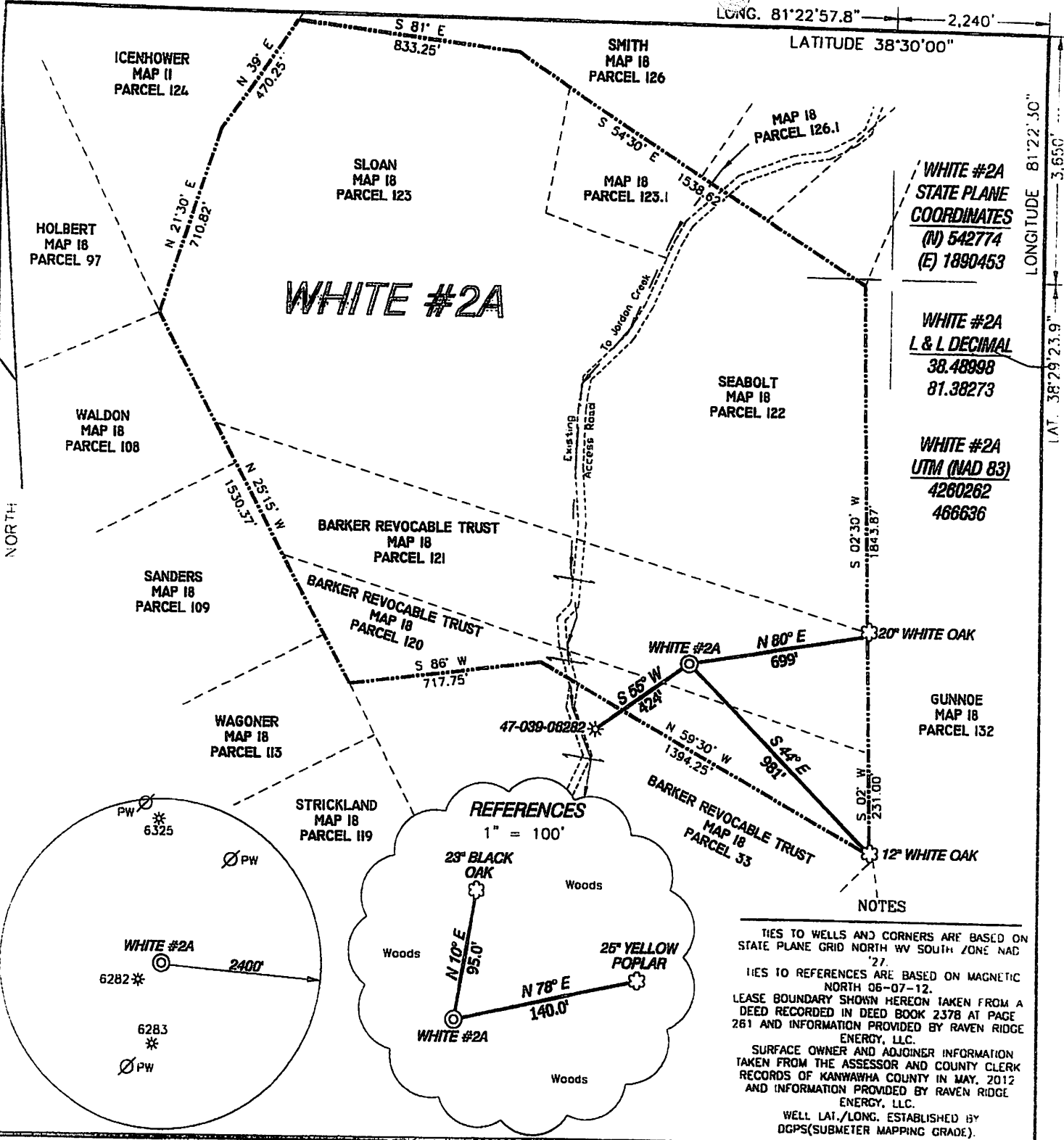
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OCT 15 2011/22/2013

Office of Oil and Gas
WV Dept. of Environmental Protection

39 06351 R

FORM WV 6

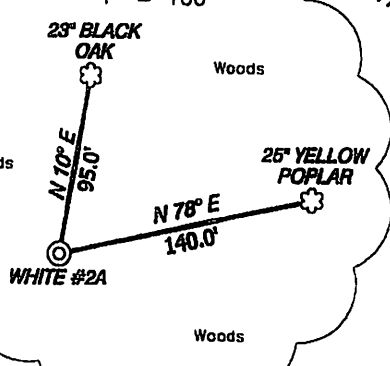


WHITE #2A
STATE PLANE
COORDINATES
 (N) 542774
 (E) 1890453

WHITE #2A
L & L DECIMAL
 38.48998
 81.38273

WHITE #2A
UTM (NAD 83)
 4260262
 466636

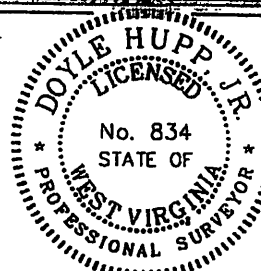
REFERENCES
 1" = 100'



NOTES

TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
 TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 06-07-12.
 LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED RECORDED IN DEED BOOK 2378 AT PAGE 281 AND INFORMATION PROVIDED BY RAVEN RIDGE ENERGY, LLC.
 SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF KANAWHA COUNTY IN MAY, 2012 AND INFORMATION PROVIDED BY RAVEN RIDGE ENERGY, LLC.
 WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

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 DIVISION OF ENVIRONMENTAL PROTECTION.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE AUGUST 14, 20 12
 OPERATORS WELL NO. WHITE #2A
 API WELL NO. 47-039-06351R
 STATE COUNTY PERMIT

P.S. 834
 Doyle Hupp, Jr.
 HUPP Surveying & Mapping
 P.O. Box 647 Grantsville, WV 26147
 (304) 354-7035 EMAIL: hupp@frontier.net

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. W2146 (BK 37-48)
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER GRADE) SCALE 1" = 500'

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

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 811' WATERSHED TRIBUTARY OF JORDAN CREEK
 DISTRICT BIG SANDY COUNTY KANAWHA QUADRANGLE BLUE CREEK 7.5'
 SURFACE OWNER JOHN BARKER & PEGGY FOSTER BARKER REVOCABLE TRUST ACREAGE 19±
 ROYALTY OWNER IRENE RUNYON, et al LEASE ACREAGE 112.0±
 PROPOSED WORK: LEASE NO. _____
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER _____
 PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION BEREA
 ESTIMATED DEPTH 3,000'

WELL OPERATOR RAVEN RIDGE ENERGY, LLC. DESIGNATED AGENT RYAN CUNNINGHAM
 ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302 ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302

Received

11/22/2013

COUNTY NAME PERMIT