

11/16/2018



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

Friday, November 16, 2018
WELL WORK PERMIT
Horizontal 6A / New Drill

TRIAD HUNTER, LLC
125 PUTNAM ST

MARIETTA, OH 45750

Re: Permit approval for 2UH
47-095-02485-00-00

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

A handwritten signature in blue ink, appearing to read "James A. Martin", is positioned to the right of the typed name and title.

Operator's Well Number: 2UH
Farm Name: VELMA L. WELLS
U.S. WELL NUMBER: 47-095-02485-00-00
Horizontal 6A New Drill
Date Issued: 11/16/2018

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. 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 § 22-6A-5a (12), 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 one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: 951016/2018

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



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Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Jim Justice, Governor
Barry K. Lay, Chairman
ogcc.wv.gov

December 14, 2017

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-095-02485

COMPANY: Triad Hunter, LLC

FARM: Velma L. Wells – Wells Meckley 2UH

COUNTY: Tyler DISTRICT: Lincoln QUAD: Paden City

The deep well review of the application for the above company is **Approved to drill to Point Pleasant for completion.**

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? No
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners? yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells: none
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Susan Rose
Administrator

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

1) Well Operator: Triad Hunter, LLC 494494833 Tyler Lincoln Paden City
Operator ID County District Quadrangle

2) Operator's Well Number: 2UH Well Pad Name: Wells Meckley

3) Farm Name/Surface Owner: Wells Meckley Public Road Access: State Route 18

4) Elevation, current ground: 958' Elevation, proposed post-construction: 958'

5) Well Type (a) Gas Oil Underground Storage

Other _____

(b) If Gas Shallow _____ Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Point Pleasant Shale, 10,891' TVD, 18,133' TMD, 256' Thick, 7,000-9,000 # BHP

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8) Proposed Total Vertical Depth: 10,891' TVD

9) Formation at Total Vertical Depth: Point Pleasant Shale

10) Proposed Total Measured Depth: 18,133' MD

11) Proposed Horizontal Leg Length: 7,503'

12) Approximate Fresh Water Strata Depths: 250'

13) Method to Determine Fresh Water Depths: Examine local water wells

14) Approximate Saltwater Depths: 1,100' - 2,000'

15) Approximate Coal Seam Depths: Multiple, thin, non-commercial seams 1,300' - 1,800'

16) Approximate Depth to Possible Void (coal mine, karst, other): None known

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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(04/15)

4709502485
API NO. 47-95 - 11/16/2018
OPERATOR WELL NO. 2UH
Well Pad Name: Wells Meckley

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26"	New	A-500	85 ppf	100'	100'	Cement to surface
Fresh Water	20"	New	J-55	94 ppf	350'	350'	Cement to Surface
Coal	13 3/8"	New	J-55	61 ppf	2,270'	2,270'	Cement to Surface
Intermediate	9 5/8"	New	HCP-110	43.5 ppf	9,670'	9,670'	2,600 Cu. Ft.
Production	5 1/2"	New	P-110	23 ppf	N/A	18,133'	4,200 Cu. Ft.
Tubing	2 7/8"	New	P-110	6.5 ppf	N/A	10,200'	N/A
Liners	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26"	30"	.375"	N/A	0	Class A	1.18-1.20 cu.ft./sk
Fresh Water	20"	24"	.438"	2,110	750	Class A	1.18-1.20 cu.ft./sk
Coal	13 3/8"	17 1/2"	.430"	3,100	750	Class A	1.18-1.24 cu.ft./sk
Intermediate	9 5/8"	12 1/4"	.435"	8,710	1750	Class A	1.18-3.0 cu.ft./sk
Production	5 1/2"	8 1/2"	.415"	16,510	8500	Class A & H	1.51-2.08 cu.ft./sk
Tubing	2 7/8"	4.545"	.380"	7,700	3000	N/A	N/A
Liners	N/A	N/A	N/A	N/A	N/A	N/A	N/A

PACKERS

Kind:	N/A			RECEIVED Office of Oil and Gas
Sizes:	N/A			NOV - 1 2017
Depths Set:	N/A			WV Department of Environmental Protection

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

SEE ATTACHMENT: I-B

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

SEE ATTACHMENT: II-B

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 0 acres

22) Area to be disturbed for well pad only, less access road (acres): 0 acres

23) Describe centralizer placement for each casing string:

SEE ATTACHMENT: III-B

24) Describe all cement additives associated with each cement type:

SEE ATTACHMENT: IV-B

25) Proposed borehole conditioning procedures:

SEE ATTACHMENT: V-B

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*Note: Attach additional sheets as needed.

(WW-6B)

ATTACHEMENT: I-B**#19 Proposed Well Work:****Drill and complete a new horizontal Utica Shale Well.**

1. AIR/SOAP Drill a 30" conductor hole to 100 feet; run 26" casing to T.D., cement / grout to surface with Class A cement.
2. AIR/SOAP Drill a 24" surface hole to depth of 350 feet; run 20" casing to T.D. and cement to surface with Class A Cement.
3. AIR/SOAP Drill a 17 1/2" intermediate hole to a depth of 2,270 feet; run 13 3/8" casing to T.D. and cement to surface with Class A cement.
4. AIR / SOAP Drill a 12 1/4" intermediate hole to a depth of 9,670 feet; run 9 5/8" casing to T.D. and cement back to 2,500 feet with Class A cement.
5. Fluid Drill an 8 1/2" production hole to the projected total measured depth @ 18,133 feet.
6. Run and Cement 5 1/2" production casing to the TMD; cement casing back to 2,500 with Class A and Class H cement.
7. Run Cased-hole logs (Gamma-Ray, CCL, Bond).
8. Open toe sleeve and establish 15 BPM pump rate.
9. Perforate and stimulate multiple stages in Point Pleasant lateral section.
 - a. Perforations per stage = sixty to seventy
 - b. Average stage length = two hundred fifty feet
10. Clean-out 5 1/2" production casing using a coil tubing rig or a work over rig and snubbing unit.
11. Flow test well for seven to ten days to clean up wellbore and determine overall productivity.
12. Turn well into production.

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#20 Fracturing/Stimulation Methods:

Upon the successful cementation of the 5 ½" production casing, completion of the well will be performed as follows:

1. Run a GR/CCL/Bond log from the bottom of the curve to surface.
2. Pressure-up on casing, open the toe sleeve and establish pump rate of 15 bpm through the toe sleeve.
3. Run a GR/CCL log ^{from} from the toe to the base of the curve and correlate with the GR/CCL/Bon log.
4. Pump down through the casing a solid bridge plug and perforating guns.
5. Set the solid bridge plug just above the toe sleeve and perforate the first stage with 60-70 perforations over a 200'-250' interval (stage#1).
6. Fracture stage #1 with a slick water/sand stimulation using approximately 8,000bbls of water and 450,000lbs of sand. Average treating pressure is expected to range between 6,000psi and 7,000psi and average treating rates are expected to range between 70bbls and 80bbls per minute. Upon completion of the stage, the five minute and ten minute shut in pressures are recorded.
7. Repeat the same methodology of perforating and fracturing on subsequent stages using composite frac plugs instead of solid bridge plugs. Once the heel is reached, completion operations are suspended. The average number of stages completed in each well range between twenty and thirty.
8. Upon completion of the last stage, solid bridge plugs are set in the casing, just above the top of the curve and just below the well head for safety purposes.
9. Well is shut in until clean out and flow back operations are initiated.

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(WW-6B)**ATTACHMENT: III-B****#23 Centralizer Placement:**

- (26") Conductor Casing – No centralizers used.
- (20") Surface Casing – Between two and four run based on setting depth of casing.
 - Estimate - centralizer every 2 joints (estimate 4 centralizers to be ran)
- (13 3/8") 1st Intermediate Casing- Between six and ten run based on setting depth of casing.
 - Estimate - centralizer every 5 joints (estimate 10 centralizers to be ran)
- (9 5/8") 2nd Intermediate Casing – Between ten and twenty run based on setting depth of casing. Run Bow spring centralizers every other joint beginning on first joint for first 1,000', then every second joint to top of cement; then every third joint from there to surface.
 - Estimate - (centralizer 1 per 1 for 1st 1000', then 1 per 2 to surface)
- (5 1/2") Production Casing:
 - Beginning on joint #5 run one Solid Body Composite Spiral centralizer every third joint throughout lateral up to KOP (Top of Curve). Roughly 50-60 spiral centralizers run.

(WW-6B)**#24 Cement Additives:**ATTACHMENT: IV-B
PAGE 1 OF 2**A. Surface Cement Job (20" csg.)**

1. Surface Cement Job (20" csg.)
 - a) Average weight = 15.4 to 15.6 lbs./gal
 - b) Average yield = 1.19 to 1.24 ft³/5k
2. Common Additives
 - a) ¼ lb./5k Cello Flake (Lost circulation material)
 - b) 2%-3% Calcium Chloride (Accelerator)

*Note: Gel Sweep is usually pumped ahead of the cement.
Gel Spacer consists of 6% gel w/cello Flake.

B. Intermediate Cement Job (13 3/8" csg. & 9 5/8" csg.)

Due to depth, most intermediate casings are cemented in two stages.

1. The upper (lead) stage cement job usually consists of CLASS A CEMENT .
 - a) Average weight = 13.1 to 13.5 lbs. /gal.
 - b) Average yield = 1.54 to 1.70 ft³/5k.

*Note: Gel Sweep is usually pumped ahead of the cement.
Gel Spacer consists of 6% gel w/cello Flake.
2. The lower (tail) stage usually consists of standard CLASS A CEMENT.
 - a) Average weight = 15.4 to 15.6 lbs./gal
 - b) Average yield = 1.18 to 1.20 ft³/5k.

#24 Cement Additives:ATTACHMENT: IV-B
PAGE 2 OF 2**C. Longstring Cement Job (5 ½" csg.)**

Depending on how far cement is brought back into the intermediate casing, the production casing is usually cemented in two stages and a heavy weighted spacer is pumped ahead of the cement to condition the well bore.

- | | | |
|---|------------------------|---------------------------|
| 1. Weighted Spacer | Ultra Flush II | 50 bbs. @ 13lbs. /gal |
| a) Barite | @257 lbs. /bbl | (Weighting Material) |
| b) US-40 | 2 gals. /bbl | (Surface tension reducer) |
| c) ss-2 | 13 lbs. /gal | (Suractant) |
| 2. Weighted Spacer | | |
| a) Barite | @257 lbs. /bbl | (Weighting Material) |
| b) SS-2 | 1 lb. /gal | (Surfactant) |
| c) MPA-170 | 1 lb. /bbl | (Fluid loss additive) |
| 3. Lead Slurry | 50:50 POZ/Premium NE-1 | |
| a) Average Weight = 13.50 lbs. /gal | | |
| b) Average yield = 1.44 ft ³ / 5k. | | |

Common Additives

- | | | |
|--------------|-------------|-----------------------|
| a) BA – 90 | 3lbs. /5k | (Bonding Agent) |
| b) R – 3 | .258 bwoc | (Retarder) |
| c) MPA – 170 | 1 lb. / bbl | (Fluid loss additive) |

4. Tail Slurry CLASS H CEMENT

- | | | |
|---|--|--|
| a) Average Weight = 15.2lbs. /gal | | |
| b) Average Yield = 1.64 ft ³ /5k | | |

Common Additives

- | | | |
|------------------------|------------|-----------------------|
| a) R-3 | .2% bwoc | (Retarder) |
| b) CD-32 | .75 % bwoc | (Dispersant) |
| c) ASA – 301 | .35 % bwoc | (Free water removal) |
| d) BA-10A | 1.25% bwoc | (Bonding Agent) |
| e) ASCA | 30lbs. /5k | (Solubility additive) |
| f) Sodium Metasilicate | .58 bwoc | (Extender) |

(WW-6B)

#25 Borehole Conditioning Procedures:

17 ½" hole – Generally this section of the well is drilled on air with air compressors and boosters. It's imperative through this section of the well to have sufficient air volume and pressure on the borehole during drilling to ensure hole conditions remain clean and unobstructed. If a significant volume of freshwater is encountered during drilling "stiff foam" or soap is utilized to assist in lifting drill cuttings and freshwater out of the hole. "Red Rock" is a clay-dominant strata that is sensitive to freshwater in this area. Stiff foam is applied to the borehole when freshwater is encountered to prevent the clays from swelling and sloughing into the borehole.

12 1/4" hole - Generally this section of the well is drilled on air with air compressors and boosters. It's imperative through this section of the well to have sufficient air volume and pressure on the borehole during drilling to ensure hole conditions remain clean and unobstructed. If a significant volume of saltwater is encountered during drilling "stiff foam" or soap is utilized to assist in lifting drill cuttings and freshwater out of the hole. "Red Rock" is a clay-dominant strata that is sensitive to saltwater in this area. Stiff foam is applied to the borehole when saltwater is encountered to prevent the clays from swelling and sloughing into the borehole.

8 ¾" hole – Generally, this section of the well is drilled on fluid. In an effort to keep borehole conditions in good working order several mechanisms are used to condition the borehole:

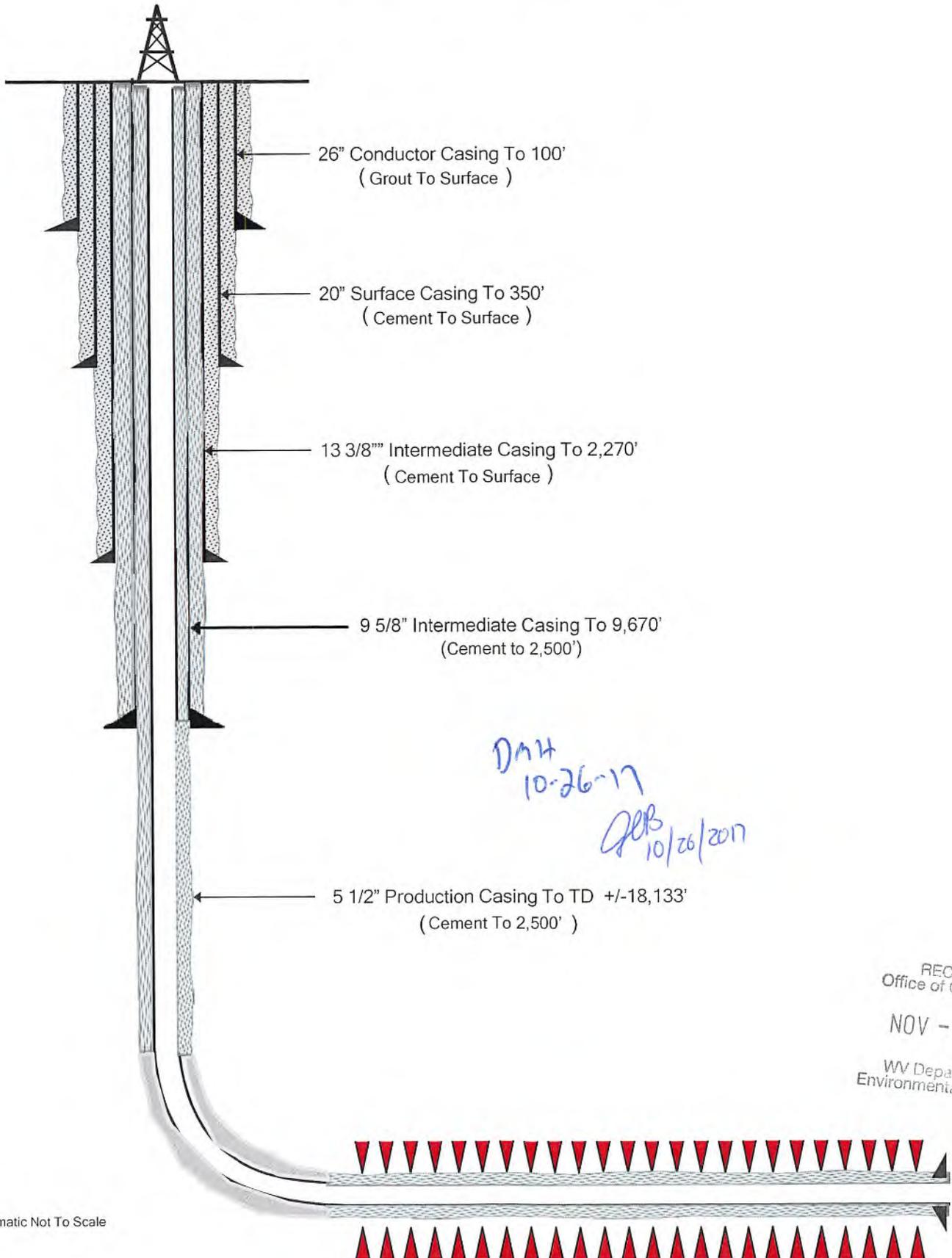
1. **High Viscosity Sweeps:** Sweeps are mixed and pumped after drilling every 3 joints during the drilling process. Sweeps generally run 20 cp over the active mud system viscosity for 20 bbls.
2. **Clean-Up Cycle:** "Clean-Up Cycles" are utilized every 500' in the lateral section of the well. During this routine conditioning procedure drilling is halted for the amount of time it takes to circulate 2 sweeps to surface. Also, during this process the pipe is continuously rotated and reciprocated at this spot to help circulate out any "cutting beds" lying in the wellbore.
3. **Short Trips:** Short trips are utilized to work out tight spots and cutting beds from the borehole which cause increased torque and drag, and pressure. Two short trips are typically run during the drilling of this section of the wellbore. The first at the half-way point of the lateral. The drill pipe is pulled out of the hole to the "kick-off" point of the well. The second short trip is utilized at total depth (TD). At this point the drill pipe is pulled out of the wellbore to the half-way point of the lateral.
4. **At TOTAL DEPTH:** A clean-up cycle and short trip is utilized to condition the wellbore when total depth (TD) has been reached in preparation for running production casing.

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Triad Hunter, LLC
Wells Meckley 2UH
UTICA SHALE WELLBORE SCHEMATIC*

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* Schematic Not To Scale

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Date

(Conventional Well Operator)
(address)
(address)

RE: Wells Meckley Hydraulic Fracturing Notice

To whom it may concern,

Triad Hunter has developed a Marcellus and Utica pad (Wells Meckley pad) located in Tyler County, WV. As an owner or operator of conventional natural gas wells in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communications, via natural gas, water, or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 6,400' TVD) and existing conventional natural gas wells in the partially-depleted, relatively high permeability, Alexander formation (approximately 5,200' TVD).

Triad Hunter LLC anticipates conducting hydraulic fracturing at the Wells Meckley pad during the (1 quarter of 2018). We have identified conventional natural gas wells operated by your company within 1,500' (lateral distance) of our new planned laterals. Plats for each well on this pad are attached.

We recommend that conventional well operators conduct the following activities before, during, and after fracturing operations:

1. Inspect surface equipment, prior to fracturing, to establish integrity and establish well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas, or pressure.
3. Inspect or install master valves rated to 3000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and Triad Hunter, LLC. if any changes in water, gas production, pressure, or other anomalies are identified.

Should you have any questions or comments please call me at 740-760-0558. You may also contact the West Virginia Office of Oil and Gas at 304-926-0440.

Sincerely,
Triad Hunter, LLC

Will Harless
Supervisor Regulatory Operations

909 Lake Carolyn Pkwy • Suite 600 • Irving, TX 77039
Office (469) 444-1647 • Fax (469) 444-1649

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Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operations near Triad Hunter, LLC. Fracturing in Tyler County, WV prior to hydraulic fracturing at the following Triad Hunter, LLC. wells on the Wells Meckley pad : 1401, 1402, 1403, 1404, 1405.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water, or both, may occur between hydraulically fractured wells in the Marcellus formation, (approximately 6,400' TVD) and existing natural gas wells in the partially-depleted, relatively high permeability Alexander formation (approximately 5,200' TVD).

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include pre-notification of conventional well operations of the timing and location of the hydraulic fracturing, establishment of measures conventional well operations should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during the fracturing.

1. Communications with Conventional Well Operators

Triad Hunter, LLC. using available data (WV geological Survey, WVDEP website, and IHS data service), has identified all known conventional wells and well operators within 1,500 feet of this pad and the lateral sections. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

Upon approval of this plan, Triad Hunter, LLC. Will notify these operators, via letter, of the hydraulic fracturing schedule for these wells. A copy of this letter is included in **Attachment B**.

This letter provides the recommendations to these conventional operators to 1) increase their monitoring of their wells, during that time period, 2) ensure that their well head equipment is sound, and 3) provide immediate notification to Triad Hunter, LLC. And the OOG in the event of any changes in their well conditions.

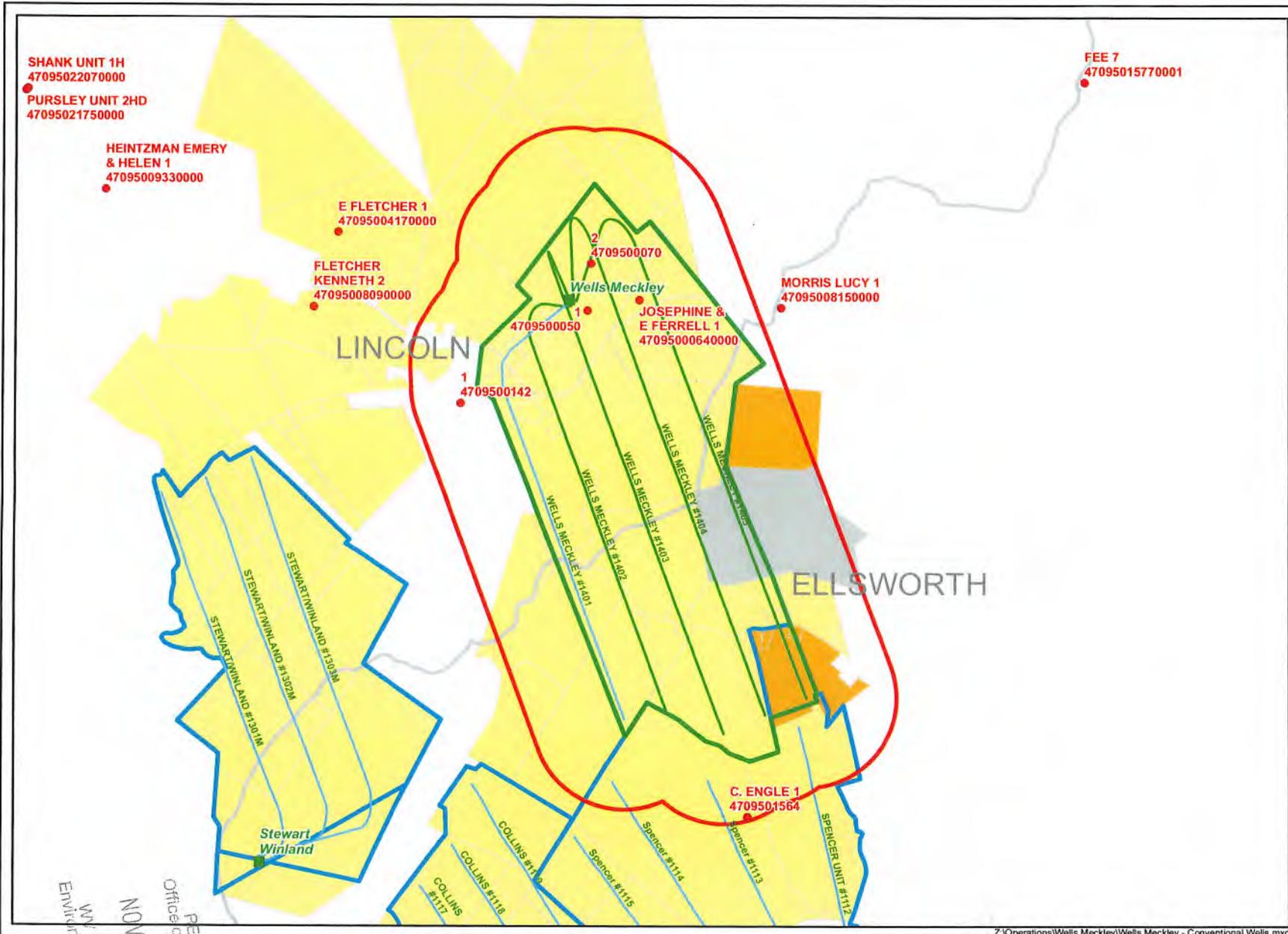
Specifically, the letter recommends that conventional well operators conduct the following activities during and after fracturing operations:

1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas, or pressure.
3. Inspect or install master valves rated to 3000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and Triad Hunter, LLC. if any changes in water, gas production, pressure, or other anomalies are identified.

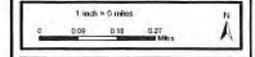
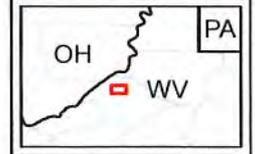
2. Reporting

Triad Hunter, LLC. will provide information relating to the hydraulic fracturing schedule, communication with conventional operators, and ongoing monitoring of the work upon request of the OOG or immediately in the event of any noted abnormalities.

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Blue Ridge Mountain Resources, Inc.
 Wells Meckley Unit
 Conventional Wells
 within 1,500'
 Date: 10/6/2017 Author: Matt Anderson
 Coordinate System:
 NAD 1983 StatePlane West Virginia North FIPS 4701 Feet



- Legend**
- Pad Site
 - Industry Well
 - 1,500' Buffer
 - Leasehold**
 - BRMR
 - Competitors**
 - Antero
 - Other
 - Triad Units**
 - Drilled
 - Proposed

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XMap® 7



Scale 1" = 633.3 ft
 Data Zoom 14-2

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API Number 47 - _____ - _____
Operator's Well No. Wells Meckley 2UH

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Triad Hunter, LLC OP Code 494494833

Watershed (HUC 10) Pursley Creek Quadrangle Paden City

Elevation 958' County Tyler District Lincoln

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: _____

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 387 Ohio Disposal Well, 34-121-3995)
- 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: Yes, cuttings fluids+gases are separated through a series of vessels. Cuttings are then solidified in debris boxes and hauled to landfill

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Top Hole-Air Drilled. Lateral-Syn Mud

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

Additives to be used in drilling medium? See Attachment I-A: Drilling Additives List

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) N/A

-Landfill or offsite name/permit number? Wetzel County Landfill, SWPU ID 12-10-45

*DMH
10-26-17
GEB
10/26/17*

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 *Mike Horan*

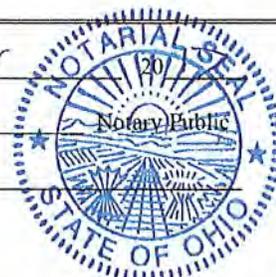
Company Official (Typed Name) Mike Horan

Company Official Title Operations Manager Conventional/Infrastructure

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Subscribed and sworn before me this 18th day of October

Jacob M Biehl
My commission expires 9-1-21



JACOB M BIEHL
Notary Public State of Ohio
My Commission Expires
September 1, 2021

Form WW-9

Operator's Well No. Wells Meckley 2UH

Triad Hunter, LLC

Proposed Revegetation Treatment: Acres Disturbed 6.6 Prevegetation pH 6-7

Lime 2-5 Tons/acre or to correct to pH 6.0-7.0

Fertilizer type _____

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre	Seed Type	lbs/acre
Common Orchard Grass	30%	Same as temporary	
Perennial Rye	35%		
Medium Red Clover	25%		
Common Timothy	10%		

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: _____

Title: Oil + Gas Inspector Date: 10-26-17

Field Reviewed? () Yes () No

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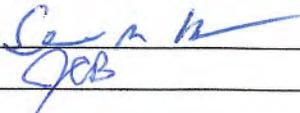
TRIAD HUNTER LLC. Subsidiary Of Blue Ridge Mountain Resources

125 Putnam Street
Marietta, Ohio 45750

SITE & SAFETY PLAN
Wells Meckley
Tyler County
West Virginia

Approved:

West Virginia DEP



Date: 10-26-17
10/26/2017

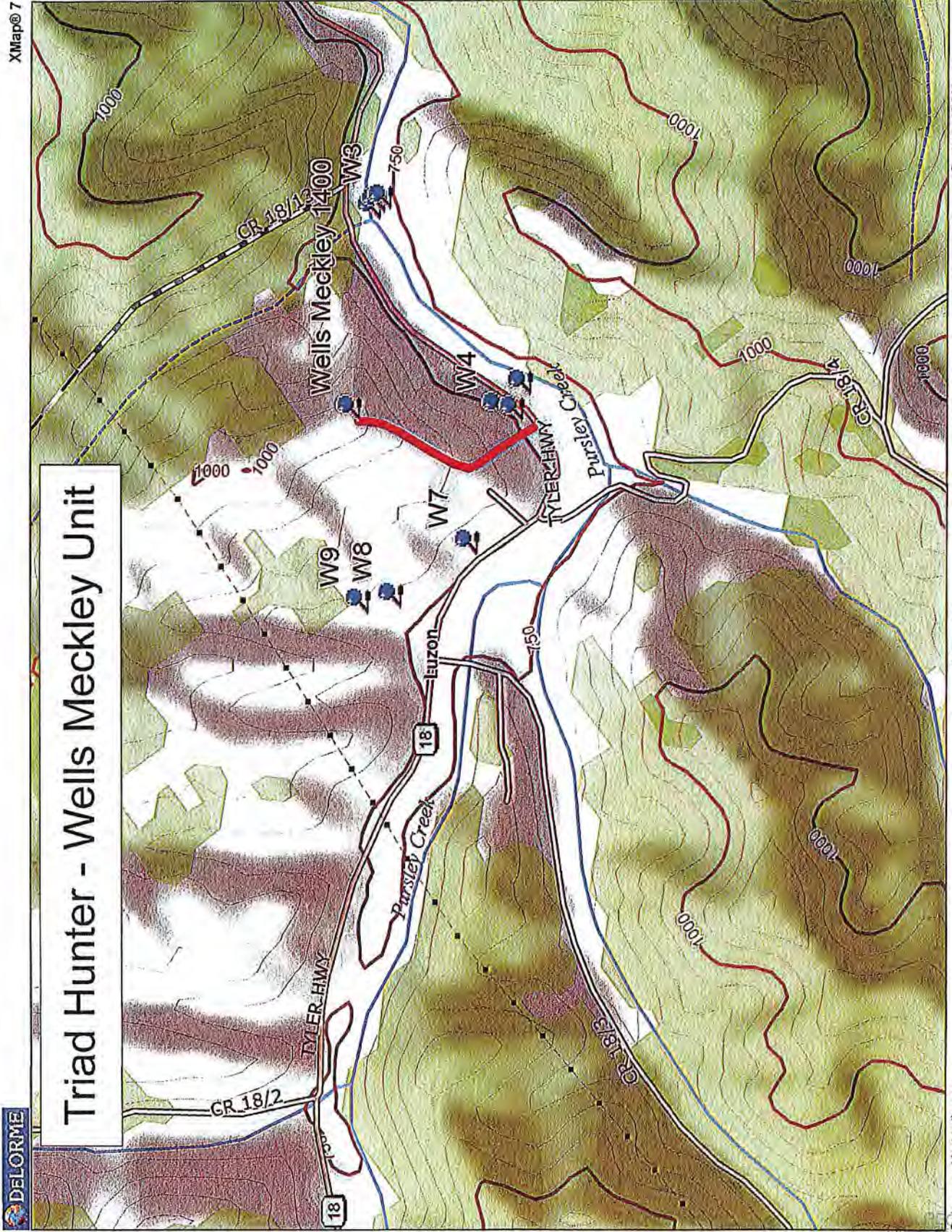
Triad Hunter LLC

Mike Horan


Date: 10/17/17

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XMap® 7



Scale 1 : 12,800
 1" = 1,066.7 ft
 Data Zoom 13-2



Triad Hunter - Wells Meckley Unit

Data use subject to license.
 © Delorme, XMap® 7.
 www.delorme.com

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WV Department of Environmental Protection

WW-6A1
(5/13)

Operator's Well No. 2UH

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Please see attached sheets				

**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: Triad Hunter, LLC
 By: Mike Horan 
 Its: Manager Operations Conventional/Infrastructure

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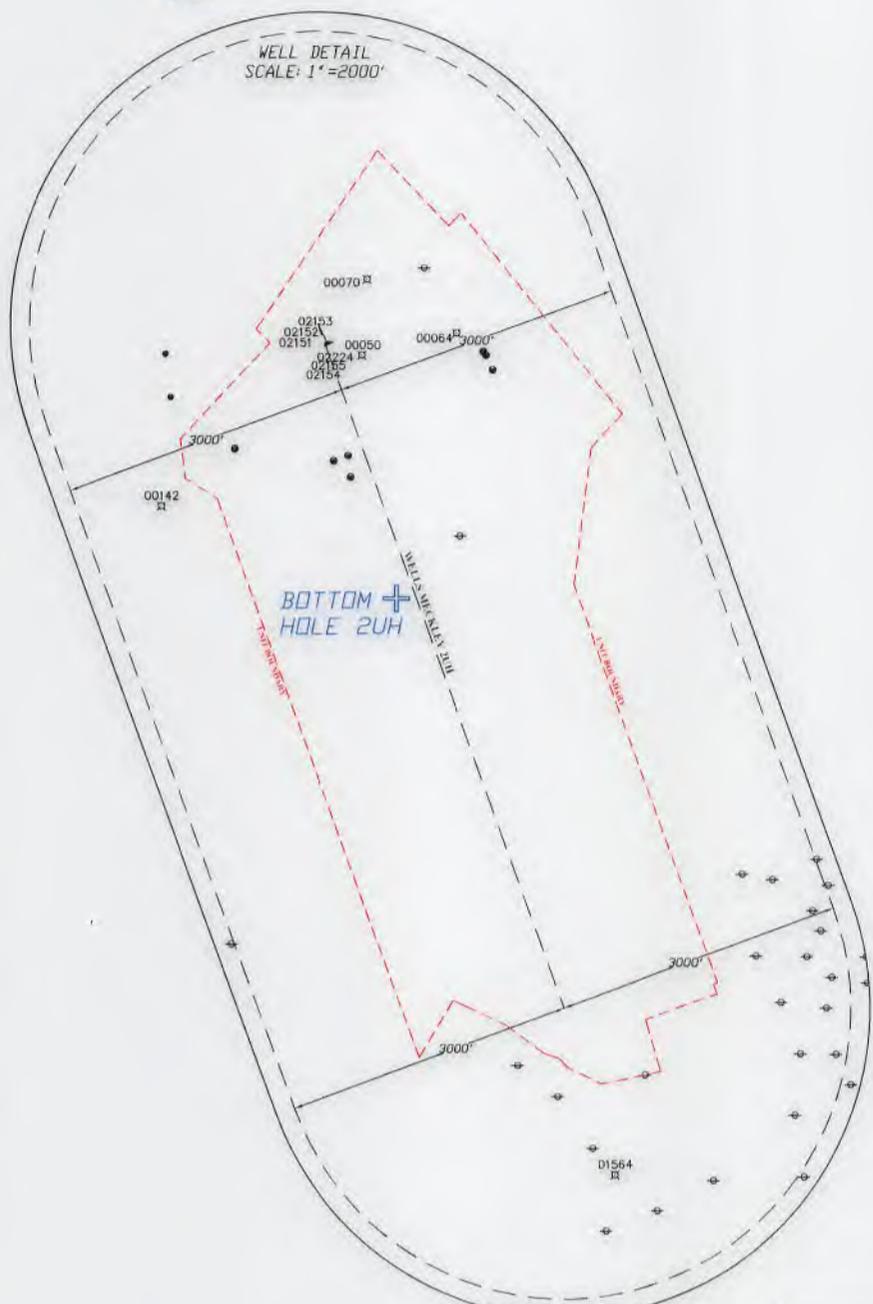
WELLS MECKLEY 2UH

13494'
10920' TO BOTTOM HOLE
LATITUDE 39° 32' 30"

2337'
9155' TO BOTTOM HOLE
LONGITUDE 80° 52' 30"

LANDING POINT
2UH
TOP HOLE
2UH

11/16/2018



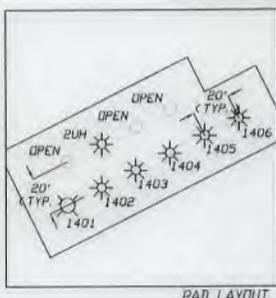
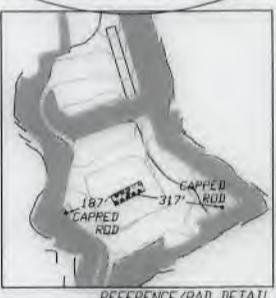
LEGEND	
+	TOP MAP POINT
⊗	EXISTING WELLS
⊙	PRE-29 WELLS
- - -	PARCEL LINES
*	PROPOSED WELL
⊗	WATER WELL
—	ROAD
~	STREAM

SURFACE LOC.	
UTM 17-NAD 83 METERS	
N:	4376181.57'
E:	506630.67'
NAD 83	
LAT:	39.53526926
LOX:	80.92284136

LANDING POINT LOC.	
UTM 17-NAD 83 METERS	
N:	4376239.60'
E:	506600.23'
NAD 83	
LAT:	39.53579243
LOX:	80.92319504

BOTTOM HOLE LOC.	
UTM 17-NAD 83 METERS	
N:	4374104.71'
E:	507417.88'
NAD 83	
LAT:	39.51654920
LOX:	80.91370407

- SURVEY NOTES:**
1. THERE ARE NINE WATER WELLS LOCATED WITHIN 2000' OF THE WELL PAD.
 2. THERE ARE NO DEEP WELLS WITHIN 3000' OF THE PROPOSED WELLS.
 3. THIS IS A VOLUNTARILY POOLED UNIT.
 4. THERE ARE NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF PROPOSED WELL.
 5. THERE ARE NO EXISTING BUILDINGS WITHIN 625' OF PROPOSED WELL.
 6. PROPOSED WELL IS GREATER THAN 100' FROM PERENNIAL STREAM, WETLAND, POND, RESERVOIR, OR LAKE.
 7. THERE ARE NO NATIVE TROUT STREAMS WITHIN 300' OF PROPOSED WELL.
 8. PROPOSED WELL IS GREATER THAN 1000' FROM SURFACE/GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY.
 9. IT IS NOT THE INTENTION OF THIS PLAN TO REPRESENT SURVEYED LOCATIONS OF THE SURFACE OR MINERAL PARCELS DEPICTED HEREON. THE LOCATION OF THE BOUNDARY LINES, AS SHOWN, ARE BASED ON RECORD DEED DESCRIPTIONS, FIELD EVIDENCE FOUND, AND/OR TAX MAP POSITION, UNLESS OTHERWISE NOTED.



Architects • Engineers • Surveyors

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(304) 464-5305 PICKERING USA.COM

FILE#: 2176021
DRAWING#: TRH-WELLS MECKLEY
SCALE: 1" = 2000'
ACCURACY: 1/2500
ELEVATION: OPUS SOLUTION
DATE: 8/13/2018

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED: *[Signature]* - PS# 2141



WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP OPERATOR'S WELL#: **WELLS MECKLEY 2UH**
 GAS LIQUID INJECTION STORAGE SHALLOW API WELL#: 47 095 02485 H6A

WATERSHED: PURSLEY CREEK
COUNTY/DISTRICT: TYLER/LINCOLN
SURFACE OWNER: VELMA L. WELLS
ROYALTY OWNERS: SEE ROYALTY OWNERS DETAIL

STATE COUNTY PERMIT
QUADRANGLE: PADEN CITY
ACREAGE: 225.28 AC
ACREAGE: SEE ROYALTY OWNERS DETAIL

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
PAD ELEVATION 903' CLEAN OUT & REPLUG OTHER CHANGE <SPECIFY>:
TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD, 10891' ± MD, 18133' ±

WELL OPERATOR TRIAD HUNTER, LLC
<SUBSIDIARY OF BLUE RIDGE MOUNTAIN RESOURCES>
ADDRESS 125 PUTNAM ST.
CITY MARIETTA STATE OH ZIP CODE 45750

DESIGNATED AGENT KIMBERLY ARNOLD
ADDRESS PO BOX 154
CITY WAVERLY STATE WV ZIP CODE 26184



WELLS MECKLEY 2UH

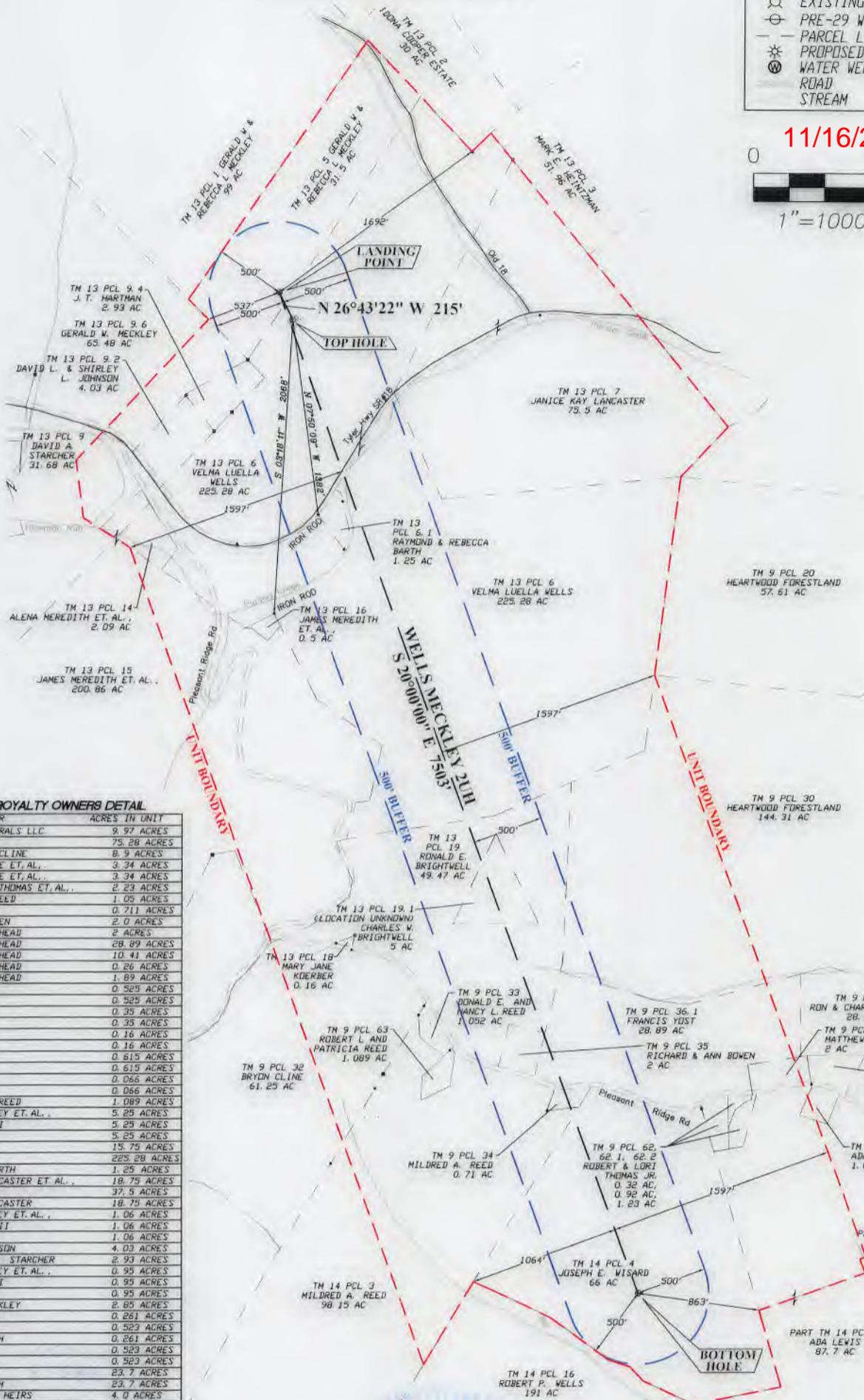
LEGEND

- TOPO MAP POINT
- EXISTING WELLS
- PRE-29 WELLS
- PARCEL LINES
- PROPOSED WELL
- WATER WELL
- ROAD
- STREAM

11/16/2018

0 1000

1"=1000'



WELLS MECKLEY MINERAL ROYALTY OWNERS DETAIL

TAXMAP/PARCEL	MINERAL OWNER	ACRES IN UNIT
9/20	BRC APPALACHIAN MINERALS LLC	9.97 ACRES
9/30	WACO OIL & GAS, INC	75.28 ACRES
9/32	BYRON T. & JANET L. CLINE	8.9 ACRES
9/32	RUTH B. THOMAS ESTATE ET, AL.	3.34 ACRES
9/32	RUTH B. THOMAS ESTATE ET, AL.	3.34 ACRES
9/32	JAMES W. & HELEN M. THOMAS ET, AL.	2.23 ACRES
9/33	DONALD E. & NANCY L. REED	1.05 ACRES
9/34	MILDRED A. REED	0.711 ACRES
9/35	RICHARD & JUDITH BOWEN	2.0 ACRES
9/36	BETTY & KENNETH MUREHEAD	2 ACRES
9/36.1	BETTY & KENNETH MUREHEAD	28.89 ACRES
9/36.2	BETTY & KENNETH MUREHEAD	10.41 ACRES
9/36.3	BETTY & KENNETH MUREHEAD	0.26 ACRES
9/36.4	BETTY & KENNETH MUREHEAD	1.89 ACRES
9/37	CHARLES RAY JUBES	0.525 ACRES
9/37	RONALD EUGENE BOOR	0.525 ACRES
9/38	CHARLES RAY JUBES	0.35 ACRES
9/38	RONALD EUGENE BOOR	0.35 ACRES
9/62	CHARLES RAY JUBES	0.16 ACRES
9/62	RONALD EUGENE BOOR	0.16 ACRES
9/62.1	CHARLES RAY JUBES	0.615 ACRES
9/62.1	RONALD EUGENE BOOR	0.615 ACRES
9/62.2	CHARLES RAY JUBES	0.066 ACRES
9/62.2	RONALD EUGENE BOOR	0.066 ACRES
9/63	ROBERT L. & PATRICIA REED	1.089 ACRES
13/5	TERESA STARCHER BURGEE ET. AL.	5.25 ACRES
13/5	DENVER R. STARCHER, II	5.25 ACRES
13/5	DAVID STARCHER	5.25 ACRES
13/5	VELMA LUELLE WELLS	15.75 ACRES
13/6	VELMA LUELLE WELLS	225.28 ACRES
13/6.1	RAYMOND & REBECCA BARTH	1.25 ACRES
13/7	JANICE FREELAND LANCASTER ET. AL.	18.75 ACRES
13/7	LARRY HENTHORN	37.5 ACRES
13/7	JANICE FREELAND LANCASTER	18.75 ACRES
13/9	TERESA STARCHER BURGEE ET. AL.	1.06 ACRES
13/9	DENVER R. STARCHER, II	1.06 ACRES
13/9	DAVID STARCHER	1.06 ACRES
13/9.2	DAVID & SHIRLEY JOHNSON	4.03 ACRES
13/9.4	DENVER R. & DEBORAH L. STARCHER	2.93 ACRES
13/9.6	TERESA STARCHER BURGEE ET. AL.	0.95 ACRES
13/9.6	DENVER R. STARCHER, II	0.95 ACRES
13/9.6	DAVID STARCHER	0.95 ACRES
13/9.6	GERALD & REBECCA MECKLEY	2.85 ACRES
13/14	WILLIAM H. MEREDITH	0.261 ACRES
13/14	KAY MEREDITH MOLNAR	0.523 ACRES
13/14	JAMES ROBERT MEREDITH	0.261 ACRES
13/14	MARY R. LEE	0.523 ACRES
13/14	REITA JANE HALL	0.523 ACRES
13/15	WILLIAM H. MEREDITH	23.7 ACRES
13/15	JAMES ROBERT MEREDITH	23.7 ACRES
13/15	MARY E. & G.C. FETTY HEIRS	4.0 ACRES
13/16	WILLIAM H. MEREDITH	0.5 ACRES
13/18	MARY JANE NEFF	0.053 ACRES
13/18	NETTIE NITA GULLEY	0.053 ACRES
13/18	WAYNE KUERBER, JR.	0.053 ACRES
13/19	RONALD E. BRIGHTWELL	49.47 ACRES
13/19.1	CHARLES W. BRIGHTWELL	5.0 ACRES
14/3	MILDRED A. REED	46.4 ACRES



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- SURVEY NOTES:**
1. THIS IS A VOLUNTARILY POOLED UNIT
 2. THERE ARE NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF PROPOSED WELL.
 3. THERE ARE NO EXISTING BUILDINGS WITHIN 525' OF PROPOSED WELL.
 4. PROPOSED WELL IS GREATER THAN 100' FROM PERENNIAL STREAM, WETLAND, POND, RESERVOIR, OR LAKE.
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WMS/SLG

API WELL#: 47-095-02485 H6A
 STATE COUNTY PERMIT

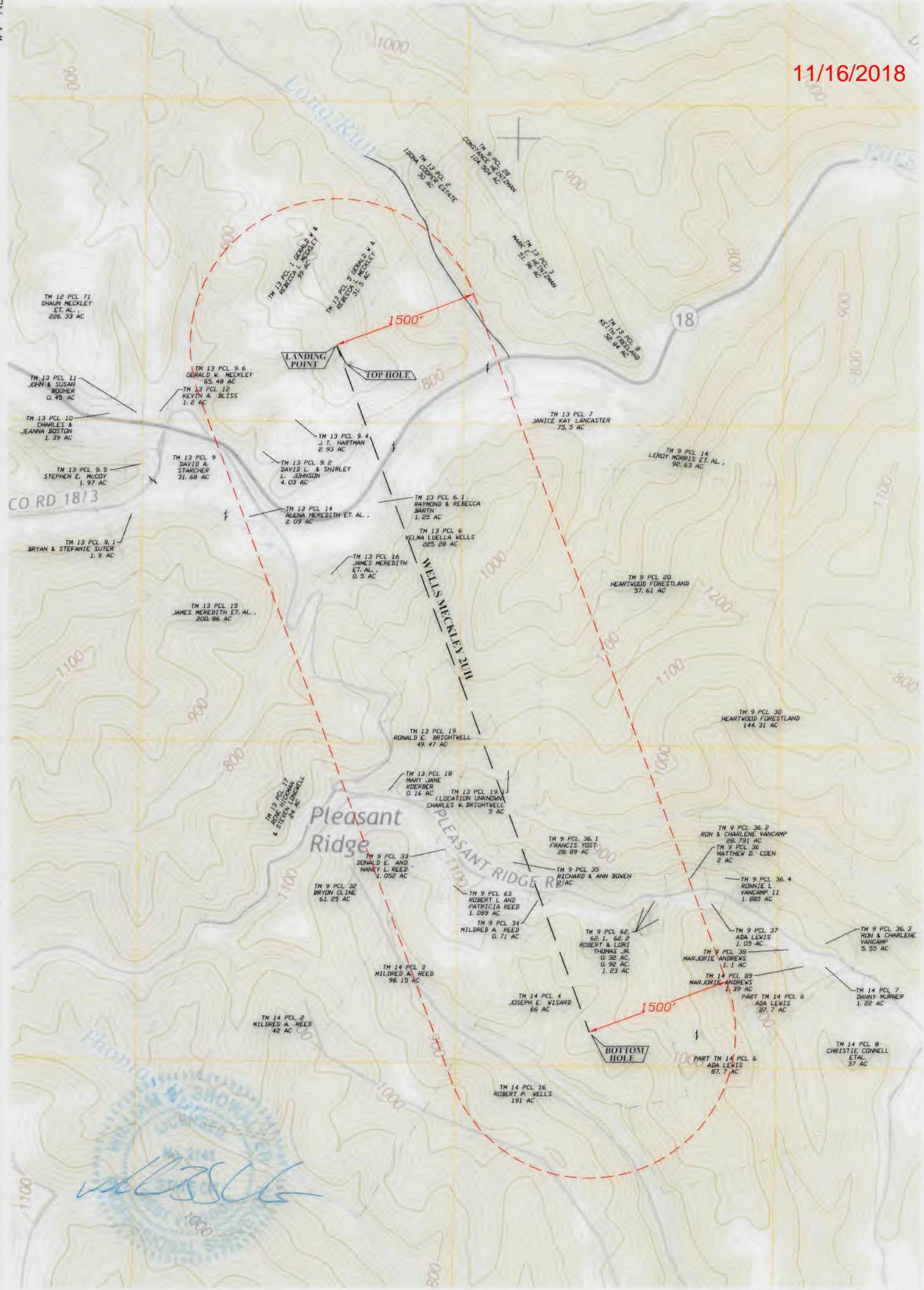
OPERATOR'S WELL #: **WELLS MECKLEY 2UH**

WELL OPERATOR TRIAD HUNTER, LLC (SUBSIDIARY OF BLUE RIDGE MOUNTAIN RESOURCES) ADDRESS 125 PUTNAM ST. MARIETTA OH 45750
 DESIGNATED AGENT KIMBERLY ARNOLD ADDRESS PO BOX 154 WAVERLY WV 26184 DATE: 8/13/2018

WELLS MECKLEY 2UH 1500' EXHIBIT

11/16/2018

WV NORTH



PADEN CITY QUAD MAP

47-095-02485H6A



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0 1200 2400



SCALE 1-INCH = 1200-FEET

FILE#: 2176021
DATE: 8/13/2018

4709502485

Form WW6A1 - List of Lessors
Wells-Meckley 2UH

Lease Number	Lessor	Lessee	Lessor Address	Lease Recording Info	Lease Recording Info	Lease Date
LSE250STA11	TERESA STARCHER BURGEY Gwendolyn L. Starcher	Triad Hunter, LLC	85 Hickman Road Sistersville WV 26175	Book 383 Page 103	4-13-5	6/14/2011
LSE250STA15	Denver R. Starcher, II	Triad Hunter, LLC	7601 Mistywood Rd. Knoxville, TN 37938	Book 383 Page 55	4-13-5	6/14/2011
LSE250STA10	David Starcher	Triad Hunter, LLC	37 Hickman Road Sistersville WV 26175	Book 383 Page 92	4-13-5	6/14/2011
LSE250WEL17	Velma Luella Wells	Triad Hunter, LLC	1901 Tyler Highway Sistersville WV 26175	Book 392 Page 459	4-13-5	11/7/2011
LSE250WEL17	Velma Luella Wells	Triad Hunter, LLC	1901 Tyler Highway Sistersville WV 26175	Book 392 Page 459	4-13-6	11/7/2011
LSE250BRI2	Charles Wayne Brightwell	Triad Hunter, LLC	637 Pleasants Ridge Road Sistersville, WV 26175	Book 392 Page 457	4-13-19.1	12/14/2011
LSE250BRI1	Ronald E. Brightwell	Triad Hunter, LLC	98 Dee Street Waverly, WV 26184- 9700	Book 391 Page 486	4-13-19	12/19/2011

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Form WW6A1 - List of Lessors
Wells-Meckley 2UH

LSE250REE2	Mildred A. Reed	Triad Hunter, LLC	722 Pleasant Ridge Road Sistersville, WV 26175	Book 383 Page 100	2-9-34	3/1/2011
LSE250BOW2	Richard D. Bowen and Judith Ann Bowen	Triad Hunter, LLC	745 Pleasant Ridge Road Sistersville, WV 26175-9016	Book 383 Page 118	2-9-35	3/28/2011
LSE250MOR9	Betty Weekly Morehead and Kenneth Morehead	Triad Hunter, LLC	41 Songbird Rd. St Mary's, WV 26170	Book 383 Page 16	2-9-36.1	3/4/2011
LSE250REE2	Mildred A. Reed	Triad Hunter, LLC	722 Pleasant Ridge Road Sistersville, WV 26175	Book 383 Page 100	2-14-3	3/1/2011
LSE250WIS1 (LSE250AMP2)	Joseph E. Wisard and Lafern J. Wisard AMP FUND II, LP	Triad Hunter, LLC	1525 Township Rd. 414, Dundee, Ohio, 44624-9201	Book 377 Page 436	2-14-4	9/8/2010
LSE250PRI2 (LSE250AMP1)	Lawrence O. Price AMP FUND II, LP	Triad Hunter, LLC	1083 Park Ave. Meadville, PA 16335-3105	Book 377 Page 433	2-14-4	9/3/2010
LSE250POS1 (LSE250AMP3)	Roger S. Post AMP FUND II, LP	Triad Hunter, LLC	2517 Woodland Rd. Abington, PA 19001	Book 383 Page 250	2-14-4	4/6/2011

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11/16/2018

4709502485

Form WW6A1 - List of Lessors
Wells-Meckley 2UH

LSE250POS2 (LSE250AMP4)	William W. Post AMP FUND II, LP	Triad Hunter, LLC	2180 Veterans Hwy Apt 504, Levittown, Pa 19056	Book 383 Page 247	2-14-4	3/30/2011
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WV Department of
Environmental Protection



95-00485
11/16/2018

July 13, 2017

WVDEP
Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304

RE: Wells Meckley

To whom it may concern,

This letter serves you and the Office of Oil and Gas that Triad Hunter, LLC has the minerals leased for the development of the Marcellus Shale on the Wells-Meckley acreage located in the Lincoln District, Tyler County. Wells Meckley will have portions of the horizontal laterals crossing State Route 18 and County Road 18/4. Triad Hunter, LLC also has the mineral rights and the rights to extract all minerals under this Subject State Route 18 and County Road 18/4.

Should you have any questions please call me at my office 740-868-1324.

Sincerely,

Mike Horan
Manager Operations Conventional/Infrastructure

909 Lake Carolyn Pkwy • Suite 600 • Irving, TX 77039
Office (469) 444-1647 • Fax (469) 444-1649

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**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION**

Date of Notice Certification: 10/18/17

API No. 47- 95 - 02485
Operator's Well No. 2UH
Well Pad Name: Wells Meckley

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>506630.67</u>
County: <u>Tyler</u>	UTM NAD 83 Northing: <u>4376181.57</u>
District: <u>Lincoln</u>	Public Road Access: <u>State Route 18</u>
Quadrangle: <u>Paden City</u>	Generally used farm name: <u>Wells Meckley</u>
Watershed: <u>Pursley Creek</u>	

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
---	---

Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

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95-02485
11/16/2018

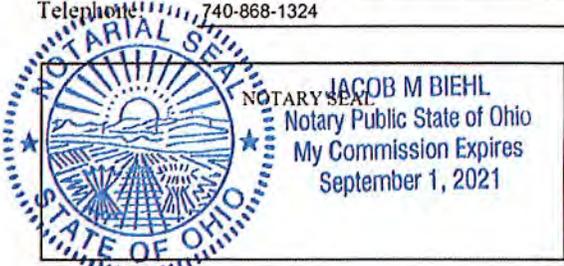
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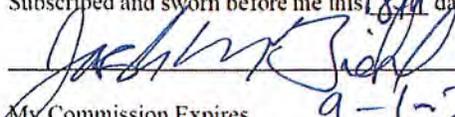
Certification of Notice is hereby given:

THEREFORE, I Mike Horan, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification 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: Triad Hunter, LLC
By: Mike Horan 
Its: Operations Manager
Telephone: 740-868-1324

Address: 125 Putnam Street
Marietta, OH 45750
Facsimile: 740-374-5270
Email: mhoran@brmresources.com



Subscribed and sworn before me this 18th day of October.


Notary Public
My Commission Expires 9-1-2021

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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WW-6A
(9-13)

API NO. 47-95 - 024815 ^{11/16/2018}
OPERATOR WELL NO. 2UH
Well Pad Name: Wells Meckley

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/18/2017 Date Permit Application Filed: 10/30/17

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)
Name: Velma Luella Wells
Address: 1901 Tyler Highway
Sistersville, WV 26175

Name: Gerald & Rebecca Meckley
Address: 1701 Tyler Highway
Sistersville, WV 26175

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: _____
Address: _____
Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Velma Luella Wells
Address: 1901 Tyler Highway
Sistersville, WV 26175

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

*Mineral
See WVA-1*

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Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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API NO. 47-95 - 0248816/2018
OPERATOR WELL NO. 2UH
Well Pad Name: Wells Meckley

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

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Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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(8-13)

API NO. 47-95 - 0248511/16/2018
OPERATOR WELL NO. 2UH
Well Pad Name: Wells Meckley

Notice is hereby given by:

Well Operator: Triad Hunter, LLC
Telephone: 740-868-1324
Email: mhoran@brmresources.com

Address: 125 Putnam Street
Marietta, OH 45750
Facsimile: 740-374-5270

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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.



JACOB M BIEHL
Notary Public State of Ohio
My Commission Expires
September 1, 2021

Subscribed and sworn before me this 18th day of Oct, 2017.

Jacob M Biehl Notary Public

My Commission Expires 9-1-2021

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11/16/2018

WW-6A: Additional Water Purveyors

Donald H. Lancaster, Jr.
5769 Tyler HWY
Sistersville, WV 26175

David & Shirley Johnson
4741 Tyler HWY
Sistersville, WV 26175

Gerald W. & Rebecca Meckley
4625 Tyler HWY
Sistersville, WV 26175

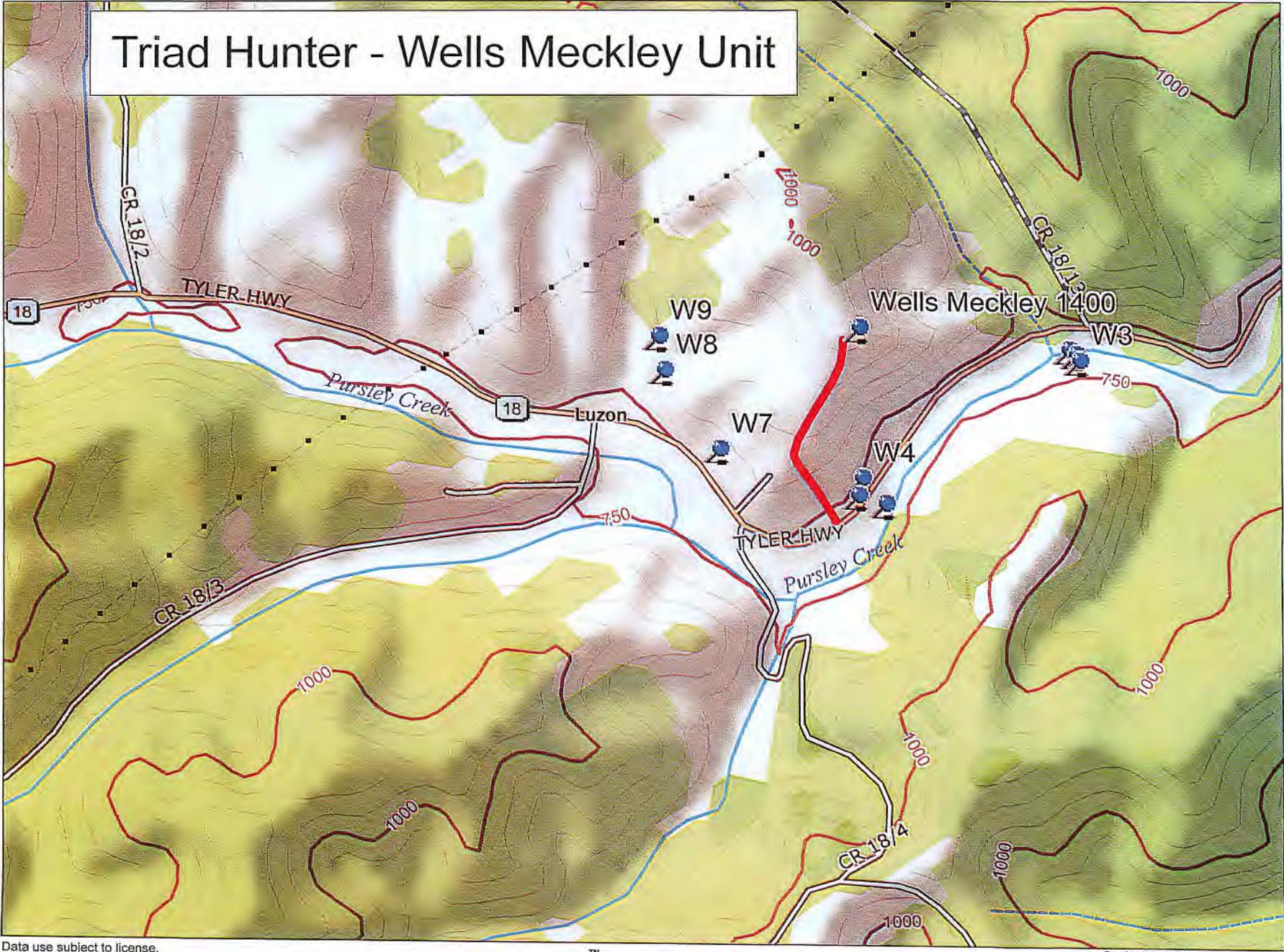
Raymond Keith & Rebecca Ann Barth
1910 Tyler HWY
Sistersville, WV 26175P

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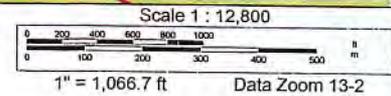
Triad Hunter - Wells Meckley Unit



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Operator Well No. 2UH 11/16/2018

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 10/18/2017 **Date Permit Application Filed:** 10/30/17

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Velma Luella Wells
Address: 1901 Tyler Highway
Sistersville, WV 26175

Name: Gerald & Rebecca Meckley
Address: 1701 Tyler Highway
Sistersville, WV 26175

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 506630.67
County: Tyler Northing: 4376181.57
District: Lincoln Public Road Access: State Route 18
Quadrangle: Paden City Generally used farm name: Wells Meckley
Watershed: Pursley Creek

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Triad Hunter, LLC
Address: 125 Putnam Street
Marietta, OH 45750
Telephone: (740) 760-0558
Email: wharfless@brmresources.com
Facsimile: _____

Authorized Representative: Mike Horan 
Address: 125 Putnam Street
Marietta, OH 45750
Telephone: 740-374-2940
Email: mhoran@brmresources.com
Facsimile: 740-374-5270

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/18/2017 Date Permit Application Filed: 10/30/17

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Velma Luella Wells
Address: 1901 Tyler Highway
Sistersville, WV 26175

Name: Gerald & Rebecca Meckley
Address: 1701 Tyler Highway
Sistersville, WV 26175

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>506630.67</u>
County:	<u>Tyler</u>		Northing:	<u>4376181.57</u>
District:	<u>Lincoln</u>	Public Road Access:	<u>State Route 18</u>	
Quadrangle:	<u>Paden City</u>	Generally used farm name:	<u>Wells Meckley</u>	
Watershed:	<u>Persley Creek</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Triad Hunter, LLC
Telephone: 740-374-2940
Email: wharless@brmresources.com

Address: 125 Putnam Street
Marietta, OH 45750
Facsimile: 740-374-5270

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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WV Department of
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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

March 10, 2014

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Wells/Meckley Unit Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit # 06 -2013-0563 previously to Triad Hunter, LLC for access to the State Road for a well site located off of WV 18 in Tyler County Route.

The operator has signed an OIL AND GAS DISTRICT WIDE ROAD MAINTENANCE BONDING AGREEMENT for District 6 and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

A handwritten signature in blue ink that reads "Gary K. Clayton".

Gary K. Clayton
Regional Maintenance Engineer
Central Oil & Gas Coordinator

Cc: Sam Miracle
Triad Hunter, LLC
CH, OM, D-6
File

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CAS Numbers for frac additives:

1. Friction reducers, (PSC) AS-9810
 - a. Acrylamide, CAS #26100-47-0 34-40%
2. Scale inhibitor, (PSC) AS-9220
 - a. Organic phosphate, CAS #11024-99-2 10-25%
3. Flowback surfactant + iron stabilizer, (PSC) AS-9899
 - a. Ethoxylated alcohol, CAS #65439-46-3 10-15%
 - b. Stannous chloride, CAS #7772-99-8 5-10%
 - c. Sulfamic acid, CAS #5329-14-6, 5-8%
 - d. Monoethylamine CAS #141-43-5 2-6%
4. Microbiocide, One AquaSource MB-7530 (see attached MSDS, page 1)

DmH
10-26-17
JEB
10/26/2017

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OPERATOR: Triad Hunter, LLC WELL NO: 2UH
PAD NAME: Wells Meckley
REVIEWED BY: Mike Horan SIGNATURE: 

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

- At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
 DEP Waiver and Permit Conditions
- At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
 DEP Waiver and Permit Conditions
- At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
 DEP Waiver and Permit Conditions
- At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
 Surface Owner Waiver and Recorded with County Clerk, OR
 DEP Variance and Permit Conditions
- At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
 Surface Owner Waiver and Recorded with County Clerk, OR
 DEP Variance and Permit Conditions
- At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
 Surface Owner Waiver and Recorded with County Clerk, OR
 DEP Variance and Permit Conditions

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TRIAD HUNTER, LLC
WELLS MECKLEY LOCATION
TYLER COUNTY, WEST VIRGINIA

11/16/2018

ABBREVIATIONS		ABBREVIATIONS CONT.	
ADD	ADDITIONAL	HP	HIGH POINT
ADJ	ADJUSTABLE	I/	INSIDE OF
AFC/F/C	ABOVE FINISHED CEILING/ FLOOR/GRADE	IBO	INSTALLED BY OTHERS
APPX	APPROXIMATELY	ID	INSIDE DIAMETER
BIT	BITUMINOUS	INCL	INCLUD(E)(ING)
BL	BUILDING LINE	INV	INVERT
BM	BEAM/BENCH MARK	ISO	ISOLATION
BOF/P	BOTTOM OF FOOTER/PIPE	LP	LOW POINT
BOT	BOTTOM	MAS	MASONRY
BRG	BEARING	MAT	MATERIAL
CB	CATCH BASIN	MEMB	MEMBRANE
CIP	CAST-IN-PLACE	MFR	MANUFACTURER
CL	CENTERLINE	MH	MANHOLE
CLR	CLEARANCE	NIC	NOT IN CONTRACT
CMU	CONCRETE MASONRY UNIT	NOM	NOMINAL
CJ	CONSTRUCTION/CONTROL JOINT	NS	NEAR SIDE
CO	CLEANOUT	NTS	NOT TO SCALE
CONC	CONCRETE	O/	OUTSIDE OF
CONST	CONSTRUCTION	OC	ON CENTER
CONT	CONTINUOUS	OPP	OPPOSITE
DBO	DESIGN BY OTHERS	PLC(S)	PLACE(S)
DCBO	DESIGN & CONSTRUCTION BY OTHERS	PL(S)	PLATE(S)
DET	DETAIL	PVMT	PAVEMENT
DN	DOWN	QTY	QUANTITY
D&R	DEMOLISH & REMOVE	REINF	REINFORCING
DWG	DRAWING	REQD	REQUIRED
EA	EACH	SECT	SECTION
ED	EDGE DISTANCE	SP	SPACE
EL	ELEVATION	SPEC	SPECIFICATION(S)
EOP/W	EDGE OF PAVEMENT/WALK	SQ	SQUARE
EQ	EQUAL	STA	STATION
ES	EACH SIDE	STD	STANDARD
EXIST	EXISTING	T&B	TOP AND BOTTOM
EXT	EXTERIOR	TBD	TACKBOARD/TO BE DETERMINED
FBO	FURNISHED BY OTHERS	TD	TRENCH DRAIN
FDN	FOUNDATION	TOB/F/ M/P/R/ S/W	TOP OF BANK/ FOOTER/MASONRY/PIPE /RAIL(NG)/STEEL/ WALL
FOC/F/ M	FACE OF CONCRETE/ FINISH/MASONRY	TOS	TOE OF SLOPE
FS	FAR SIDE	UNO	UNLESS NOTED OTHERWISE
GND	GROUND	VIF	VERIFY IN FIELD

UTILITIES

EXISTING/PROPOSED UTILITIES NOT SHOWN IN ENTIRETY. CONSTRUCTION SHALL BE PROPERLY COORDINATED WITH SURVEYOR, TESTING AGENCY, LOCAL UTILITY PROVIDERS, PROPERTY OWNERS, ETC.

REFERENCES

- BHG SURVEYING TOPOGRAPHIC SURVEY (2012)
- USDA NRCS CUSTOM SOIL RESOURCE REPORT (2012)
- WVDEP OFFICE OF OIL AND GAS WV 35CSR4 (04/2010) AND OTHER APPLICABLE GUIDELINES
- NRCS CONSTRUCTION SPECIFICATIONS (2000)
- US ARMY CORE OF ENGINEERS SLOPE STABILITY DESIGN MANUAL (2003)

SCOPE

THE PROJECT WILL BE BID AND CONSTRUCTED UNDER ONE GENERAL CONTRACT(S) IN ACCORDANCE WITH THE BID DOCUMENTS. THE GENERAL CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ALL WORK AS SPECIFIED BY THE CONTRACT DOCUMENTS. INDIVIDUAL TRADES MAY ALSO BE BROKEN DOWN INTO MULTIPLE PRIME CONTRACTS.

SPECIFIC WORK ITEM EXCEPTIONS AND CLARIFICATIONS ARE NOTED ON THE DRAWINGS. THE PROJECT SPECIFICATIONS SHALL BE REFERENCED FOR ADDITIONAL DETAILS.

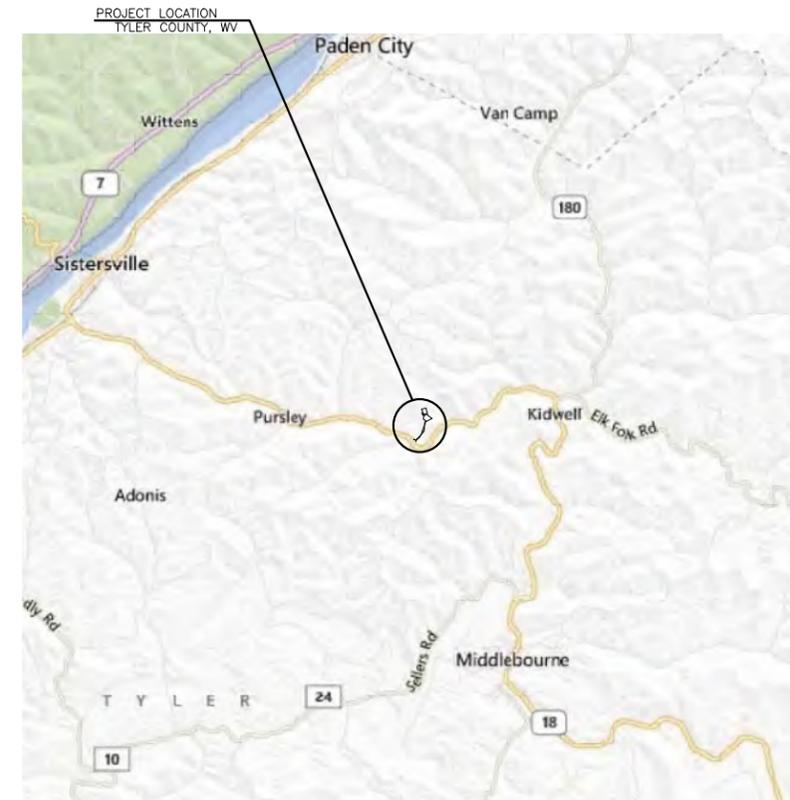
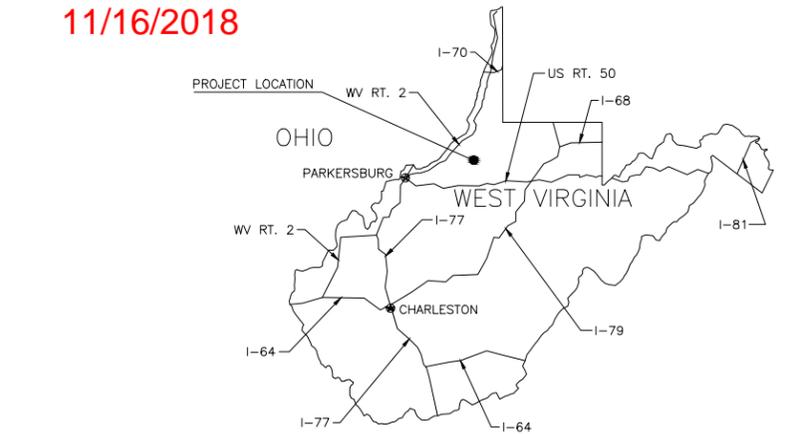
WORK SHALL BE AS REQUIRED TO FULLY MEET THE INTENT OF THE PROJECT DOCUMENTS IN ACCORDANCE WITH VENDOR SPECIFICATIONS/RECOMMENDATIONS, THE AUTHORITIES HAVING JURISDICTION, AND THE PROJECT DOCUMENTS (INCLUDING REFERENCES).

CONTRACTORS SHALL BE RESPONSIBLE FOR ALL LABOR, MATERIALS, TAXES, ETC. ASSOCIATED WITH THE RESPECTIVE WORK AS SPECIFIED IN THE PROJECT DOCUMENTS.

SCOPE OF THE PROJECT CONSISTS OF FOLLOWING: CONSTRUCTION OF APPROXIMATELY 0.30 MILE OF STONE ACCESS ROADWAY, A PRODUCTION PAD AND A DRILLING PAD. SEDIMENT AND EROSION CONTROL DEVICES WILL ALSO BE INSTALLED AND/OR CONSTRUCTED DURING THE PROJECT.

INDEX OF DRAWINGS		
DRAWING NUMBER	DRAWING DESCRIPTION	REVISION
T0.1	TITLE SHEET	0
CO.1	GENERAL NOTES	0
C1.1	MASTER PLAN	0
C1.2	GRADING & SEDIMENT/EROSION CONTROL PLAN (1 OF 4)	0
C1.3	GRADING & SEDIMENT/EROSION CONTROL PLAN (2 OF 4)	0
C1.4	GRADING & SEDIMENT/EROSION CONTROL PLAN (3 OF 4)	0
C1.5	GRADING & SEDIMENT/EROSION CONTROL PLAN (4 OF 4)	0
C1.6	RECLAMATION PLAN	0
C2.1	ACCESS ROAD PROFILES	0
C2.2	DRILL PAD PROFILE & SECTION	0
C2.3	PRODUCTION PAD PROFILE & SECTIONS	0
C3.1	ACCESS ROAD CROSS SECTIONS (1 OF 2)	0
C3.2	ACCESS ROAD CROSS SECTIONS (2 OF 2)	0
C5.1	SECTIONS AND DETAILS (1 OF 2)	0
C5.2	SECTIONS AND DETAILS (2 OF 2)	0
C5.3	SEDIMENT/EROSION CONTROL SPECIFICATIONS (1 OF 3)	0
C5.4	SEDIMENT/EROSION CONTROL SPECIFICATIONS (2 OF 3)	0
C5.5	SEDIMENT/EROSION CONTROL SPECIFICATIONS (3 OF 3)	0
C6.1	TABLES AND SCHEDULES	0
ATTACHED REFERENCED DOCUMENTS		
	STORM WATER POLLUTION PREVENTION PLAN (SWPPP)	0

API#9502151
API#9502152
API#9502153
API#9502154
API#9502155



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LINETYPE LEGEND

---	EDGE OF GRAVEL
---	EDGE OF PAVEMENT
---	PROPERTY LINE
---	LOT LINE
---	RIGHT-OF-WAY
T	OH TELEPHONE LINE
UGT	UNDERGROUND TELEPHONE LINE
E	OH ELECTRIC LINE
UGE	UNDERGROUND ELECTRIC LINE
SS	SANITARY SEWER LINE
S	STORM SEWER LINE
G	GAS LINE
W	WATER LINE
C	COMMUNICATION LINE
---	UNDERDRAIN
---	WATER EDGE
---	DITCH OR SWALE
---	BREAKLINE OR SLOPE LINE
C	CONSTRUCTION LIMITS (CUT)
F	CONSTRUCTION LIMITS (FILL)
X	CONSTRUCTION/CONTROL JOINT
X	BARBED WIRE FENCE
○	CHAIN LINK FENCE
---	BOUNDARY
---	CENTERLINE
---	MATCHLINE

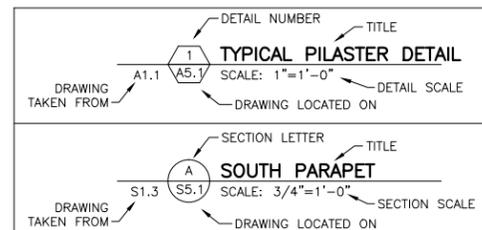
MATERIAL LEGEND

[Pattern]	CONCRETE
[Pattern]	WELL-GRADED
[Pattern]	STONE/GRAVEL
[Pattern]	UNIFORM-GRADED
[Pattern]	STONE/GRAVEL
[Pattern]	SOIL
[Pattern]	BEDROCK
[Pattern]	GRASS
[Pattern]	WATER
[Pattern]	SAND

SYMBOL LEGEND

[Symbol]	CODED NOTE	[Symbol]	POWER POLE
[Symbol]	REVISION TRIANGLE	[Symbol]	GAS/WATER VALVE
[Symbol]	SECTION	[Symbol]	WATER METER
[Symbol]	ELEVATION	[Symbol]	GAS METER
[Symbol]	DETAIL	[Symbol]	UTILITY HANDHOLE
[Symbol]	SPOT ELEVATION	[Symbol]	UTILITY PEDESTAL
[Symbol]	MANHOLE	[Symbol]	TREE (DECID./EVERGREEN)
[Symbol]	CATCH BASIN	[Symbol]	BUSH
[Symbol]	FIRE HYDRANT	[Symbol]	IRON REBAR (SET)
[Symbol]	GUY WIRE	[Symbol]	IRON PIPE (FOUND)
[Symbol]	LIGHT POLE	[Symbol]	IRON PIN/REBAR (FOUND)
[Symbol]	UTILITY POLE	[Symbol]	STONE (FOUND)
[Symbol]	TELEPHONE POLE	[Symbol]	BOLT (FOUND)
[Symbol]		[Symbol]	MAG NAIL (SET)
[Symbol]		[Symbol]	ROW MARKER

SECTION AND DETAIL NOTATION



UNDERGROUND UTILITIES
2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE: 800-245-4848
MISS UTILITY
NON-MEMBERS MUST BE CALLED DIRECTLY

Electronic Version of These Plans May Be Viewed at: Q:\OIL GAS\SAY FILES\REVIEWS

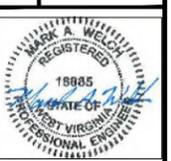
AUTHORITY CONTACTS

WVDEP (304-926-0495)
WVDEP OFFICE OF OIL & GAS (304-926-0499)
WVDR (304-558-3225)
ARMY CORPS OF ENGINEERS (304-399-5353)
WVDEP OFFICE OF OIL & GAS TYLER COUNTY INSPECTOR (304-380-7469)

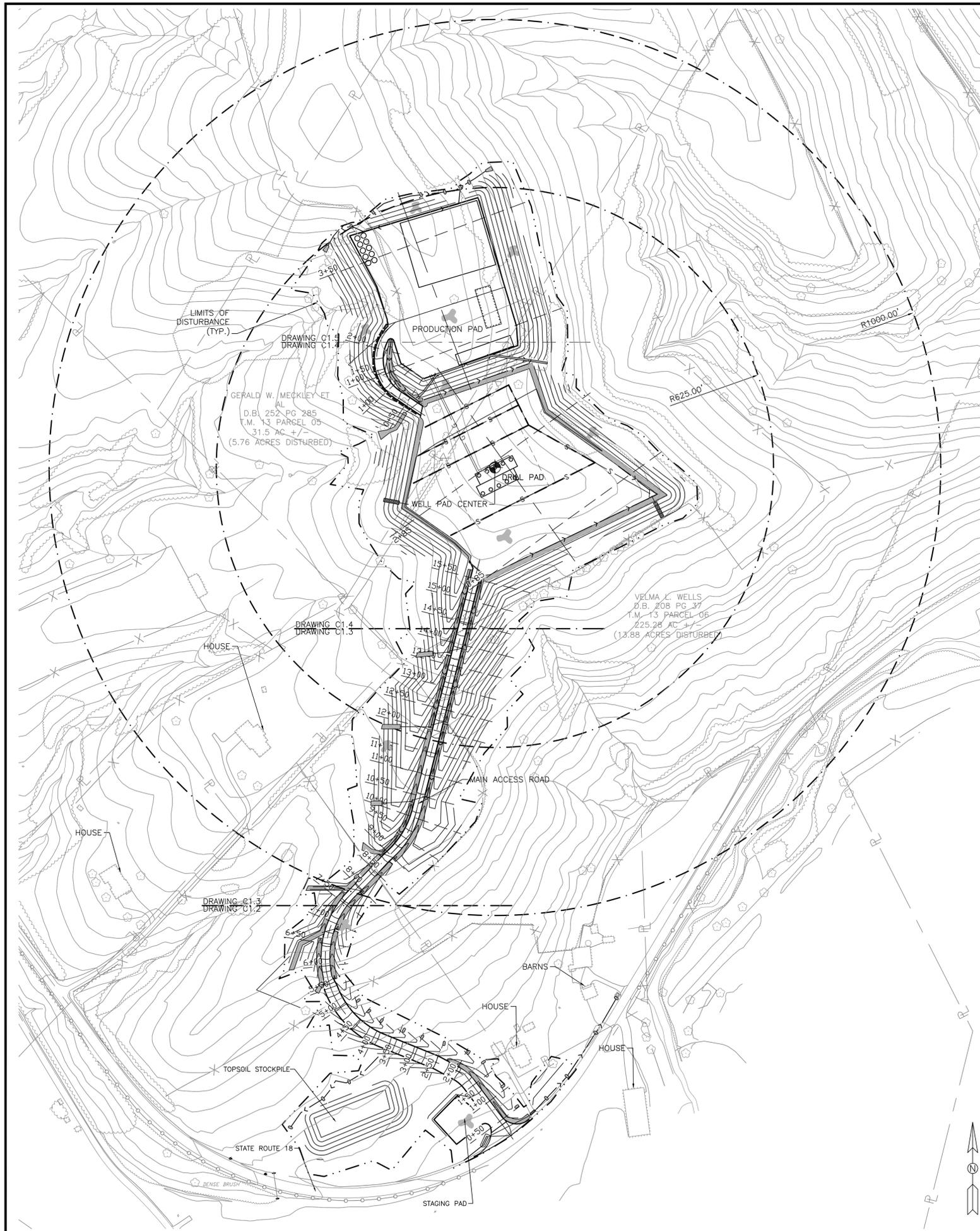


Date	By	Description	Rev.
01/31/14	MAW	ISSUED FOR PERMIT	0

Drawing Description
TRIAD HUNTER, LLC
TYLER COUNTY, WEST VIRGINIA
WELLS MECKLEY LOCATION
TITLE SHEET



Project:	2129036.2
Designed By:	AMZ
Drawn By:	AMZ
Checked By:	MAW
Scale:	AS NOTED
Plot Date:	01/31/14
Revision:	0
Drawing Number:	T0.1



- NOTES:**
- DRAWING C0.1 SHALL BE REFERENCED FOR ADDITIONAL NOTES.
 - TO THE ENGINEER'S KNOWLEDGE, NO SOILS INVESTIGATION HAS BEEN COMPLETED FOR THIS SITE NOR HAVE ANY SPECIAL GEOTECHNICAL ENGINEERING SERVICES BEEN CONDUCTED. AN ALLOWABLE SOIL BEARING CAPACITY OF 1500 LBS/SF (PER THE 2003 EDITION OF THE INTERNATIONAL BUILDING CODE) HAS BEEN ASSUMED FOR THE EXISTING SOIL. A SOIL INVESTIGATION SHOULD BE CONDUCTED PRIOR TO CONSTRUCTION.
 - BASED ON GENERAL INFORMATION FROM THE USDA NRCS, THE APPROXIMATE SOIL CHARACTERISTICS OF THE EXISTING SOIL ARE AS FOLLOWS:
 - GILPIN UPSHUR COMPLEX
 - DEPTH TO RESTRICTIVE FEATURE: 30 - 34 INCHES TO UNWEATHERED BEDROCK
 - ALL SITE/OFF SITE STORM WATER SHALL BE DIRECTED AWAY FROM THE DRILL/PRODUCTION PAD(S) VIA SWALES (NOT ALL SHOWN).
 - ALL DISTURBED AREAS SHALL BE PROPERLY SEEDED AND MULCHED TO ENSURE VEGETATIVE STABILIZATION.
 - CONSTRUCTION INSPECTION AND COMPACTION TESTING SHOULD BE CONDUCTED BY A 3RD PARTY TESTING AGENCY FOR THIS PROJECT. A POST-CONSTRUCTION SURVEY SHOULD ALSO BE CONDUCTED.
 - THE ENGINEER SHALL BE CONTACTED IN THE EVENT GROUNDWATER, SEEPAGE, ETC IS ENCOUNTERED DURING CONSTRUCTION.
 - THE STABILITY OF FILL CONDITIONS HAVE NOT BEEN EVALUATED WITH REGARDS TO SEISMIC ACTIVITY.
 - THE ENGINEER SHALL BE NOTIFIED UPON COMPLETION OF WORK CONCERNING SCHEDULING OF POST-CONSTRUCTION INSPECTION.
 - ALL SITE WORK, EROSION AND SEDIMENT CONTROL, ETC SHALL BE IN ACCORDANCE WITH THE WVDEP EROSION AND SEDIMENT CONTROL FIELD MANUAL OF THE OFFICE OF OIL AND GAS IN ADDITION TO THE WVDEP CONSTRUCTION STORMWATER MANUAL.
 - ALL SPOT ELEVATIONS REPRESENT FINISHED SURFACES. PIPE ELEVATIONS SHOWN IN ITALICS REPRESENT PIPE INVERTS.
 - ALL CONTOURS REPRESENT FINISHED SURFACES (E.G. CONTOURS AT PAD AND DRIVE LOCATIONS REPRESENT TOP OF STONE, CONTOURS OUTSIDE OF STONED AREAS REPRESENT TOP OF GROUND, ETC.).
 - ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IN DIRECT ACCORDANCE WITH THE WVDOH STARDARD SPECIFICATIONS, THE WVDEP SEDIMENT AND EROSION CONTROL FIELD MANUAL (MAY 2012), THE NPDES PERMIT, THE PROJECT DOCUMENTS, AND AUTHORITIES HAVING JURISDICTION REQUIREMENTS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE (NO STANDING WATER) IS ATTAINED THROUGHOUT AND UPON COMPLETION OF THE PROJECT.
 - ROCK CHECK DAMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.05 OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
 - SEDIMENT TRAPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.29 OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
 - SUPER SILT FENCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.28 OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
 - CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.02 OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
 - SEDIMENT BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.30 OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
 - CONSTRUCTION SEQUENCE:
 - PROVIDE PERIMETER FILTER FABRIC FENCE PRIOR TO GRADING AND START OF GRUBBING OR AS REQUIRED.
 - PERFORM CLEARING AND GRUBBING.
 - CONSTRUCT CONSTRUCTION ENTRANCE(S) WITH TEMPORARY GRAVEL SURFACE(S) AS APPROPRIATE.
 - PROVIDE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AS REQUIRED DURING CONSTRUCTION.
 - CONSTRUCT EXCAVATION AND EMBANKMENT ASSOCIATED WITH PROPOSED DITCHES, SWALES, DRILL PAD, PRODUCTION PAD, TANK FARM PAD, WATER STORAGE PAD, ACCESS ROAD, ETC. (CHANNEL AND MANAGE STORM WATER AS SOON AS POSSIBLE VIA SEDIMENT AND EROSION CONTROL DEVICES.)
 - APPLY TEMPORARY AND PERMANENT SEEDING AND MULCHING TO DISTURBED AREAS AS REQUIRED. SEEDING AND MULCHING SHALL BE SCHEDULED TO MINIMIZE THE DURATION OF EXPOSURE.
 - CONSTRUCT AGGREGATE DRIVES.
 - MAINTAIN SITE DURING COMPLETION.
 - REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AND CONSTRUCTION AS CONTRIBUTING AREAS ARE STABILIZED.
 - THIS PROJECT MIGHT BE CONSTRUCTED DURING WINTER/RAINY MONTHS. SPECIAL CARE/CONSTRUCTION PRACTICES MAY BE REQUIRED TO ENSURE EXCAVATED AND FILL SOIL MATERIAL IS WITHIN ALLOWABLE MOISTURE CONTENT RANGES. ANY SOFT/WET SPOTS SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.
 - EROSION MATTING SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3.13 OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
 - TEMPORARY DIVERSION DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.15 OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
 - WATTLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.06 OF THE WVDEP SEDIMENT AND EROSION CONTROL MANUAL.
 - IF ROCK IS ENCOUNTERED DURING EXCAVATION, CONTACT ENGINEER IMMEDIATELY TO DETERMINE IF DESIGNED SLOPES AND EARTHWORK NEED TO BE ADJUSTED.
 - LOCATIONS OF SILT FENCE ARE SHOWN AS THE MINIMUM REQUIRED. ADD ADDITIONAL FENCE AS REQUIRED TO ENSURE SEDIMENT IS PROPERLY CONTROLLED.

CODED NOTES:
1.

APPROVED WVDEP OOG
SAY 5/20/2014

EARTHWORK SUMMARY

AREAS OF DISTURBANCE:
 ACCESS ROAD = 4.92 ACRES
 DRILL PAD = 5.02 ACRES
 PRODUCTION PAD ACCESS ROAD = 0.55 ACRES
 PRODUCTION PAD = 3.67 ACRES
 SEDIMENT & EROSION, STOCKPILES, FENCE = 5.48 ACRES
 TOTAL AREA OF DISTURBANCE = 19.64 ACRES

ESTIMATED EARTHWORK VOLUMES*

DRILL PAD:
 EXCAVATION: 73,300 CY
 EMBANKMENT: 19,000 CY
 6" TOPSOIL: 4,050 CY
 ACCESS ROAD:
 EXCAVATION: 12,140 CY
 EMBANKMENT: 57,140 CY
 6" TOPSOIL: 3,970 CY
 PRODUCTION PAD:
 EXCAVATION: 34,770 CY
 EMBANKMENT: 15,480 CY
 TOPSOIL: 2,960 CY
 PRODUCTION PAD ACCESS ROAD:
 EXCAVATION: 200 CY
 EMBANKMENT: 5,110 CY
 6" TOPSOIL: 450 CY
 TOPSOIL STOCKPILE:
 EXCAVATION: -
 EMBANKMENT: 11,825 CY
 TOPSOIL: 510 CY
 TOTAL SITE (ALL ROADS, PADS, ETC.):
 EXCAVATION: 120,400 CY
 EMBANKMENT: 96,730 CY
 6" TOPSOIL: 11,940 CY

*VOLUMES LISTED ABOVE ARE UNADJUSTED FOR SHRINK/SWELL FACTORS.

PARTIAL SLOPE STABILITY ANALYSIS SUMMARY

PROPERTIES:	SOIL, C=1350 PSF	SOIL/ROCK, C=1600 PSF
SLOPE ANALYZED	FACTOR OF SAFETY	FACTOR OF SAFETY
DRILL PAD		
EXCAVATION	3.0	3.5
EMBANKMENT	1.4	1.4
MAIN ACCESS ROAD		
EXCAVATION	3.6	4.3
EMBANKMENT	1.2	1.4
PRODUCTION PAD		
EXCAVATION	3.1	3.7
EMBANKMENT	1.3	1.5
PROD. PAD ACCESS		
EXCAVATION	-	-
EMBANKMENT	1.7	2.0
STOCKPILES		
EMBANKMENT	2.0	2.4

*MINIMUM FACTOR OF SAFETY = 1.3
 **EQUATIONS TO CALCULATE FACTORS OF SAFETY SHOWN ABOVE ARE BASED ON U.S.A.C.E. SLOPE STABILITY, ENGINEER MANUAL; FHWA ROCK SLOPES: DESIGN, EXCAVATION, STABILIZATION; AND THE TAYLOR SLOPE STABILITY METHOD.
 ***ANALYSIS SHOWN ARE ALSO BASED ON AN ASSUMED 500 PSF SURCHARGE LOAD ON ALL FILL SLOPES.
 ****FACTORS OF SAFETY ARE CALCULATED AT THE LOCATION OF THE MAXIMUM CUT/FILL.

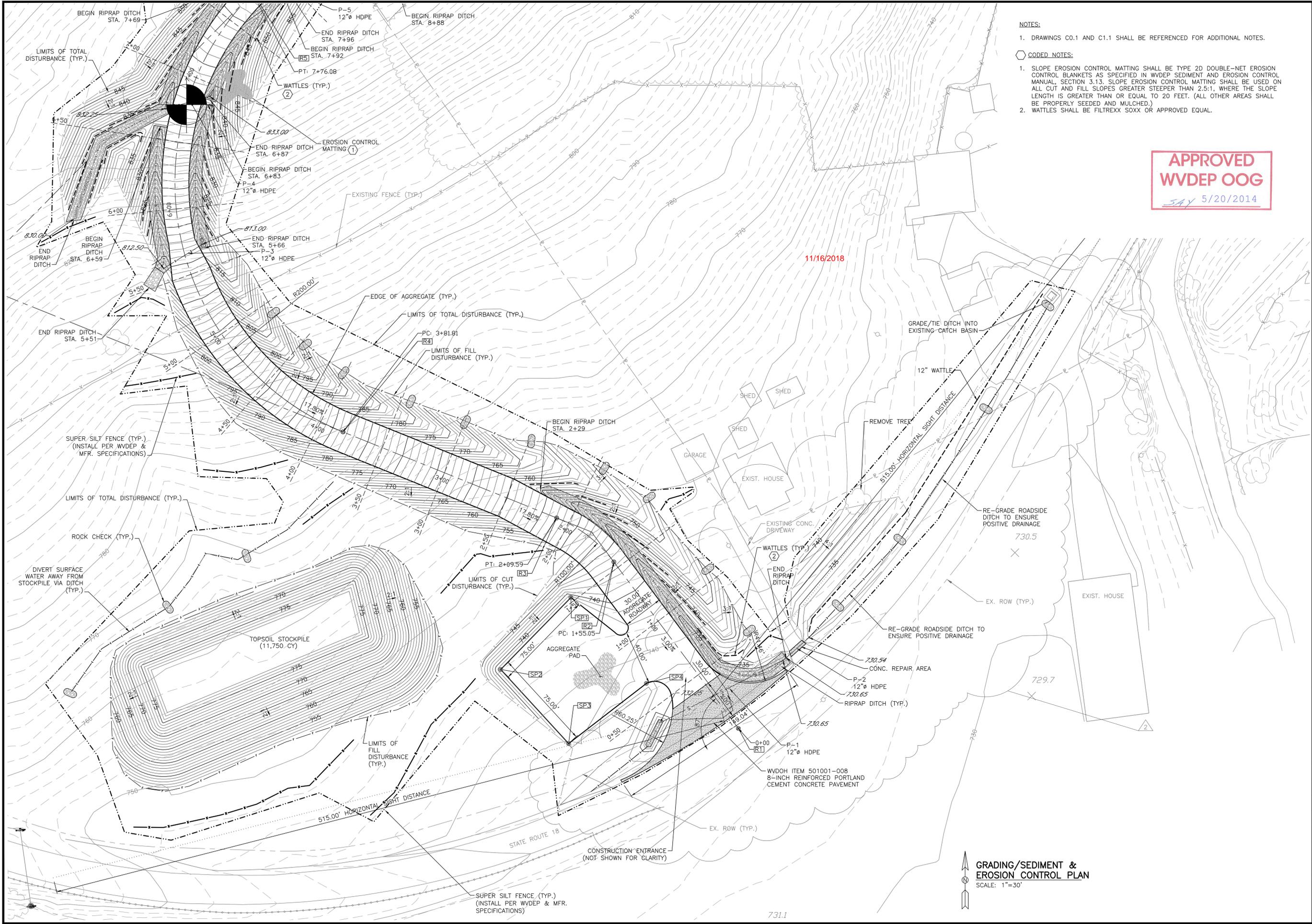
GENERAL LAYOUT PLAN
SCALE: 1"=120'

PICKERING ASSOCIATES
 Architects • Engineers • Surveyors
 11283 Emerson Avenue
 Parkersburg, West Virginia 26104
 Phone: (304) 464-5305
 Fax: (304) 464-4428

Rev.	Description	By	Date
1	ISSUED FOR PERMIT	MAW	04/22/14
0	ISSUED FOR PERMIT	MAW	01/31/14

Drawing Description
 TRIAD HUNTER, LLC
 TYLER COUNTY, WEST VIRGINIA
 WELLS MECKLEY LOCATION
 MASTER PLAN

Project: 2129036.2
 Designed By: AMZ
 Drawn By: AMZ
 Checked By: MAW
 Scale: AS NOTED
 Plot Date: 04/22/14
 Revision: 1
 Drawing Number:
C1.1



- NOTES:**
1. DRAWINGS C0.1 AND C1.1 SHALL BE REFERENCED FOR ADDITIONAL NOTES.
- CODED NOTES:**
1. SLOPE EROSION CONTROL MATTING SHALL BE TYPE 2D DOUBLE-NET EROSION CONTROL BLANKETS AS SPECIFIED IN WDEP SEDIMENT AND EROSION CONTROL MANUAL, SECTION 3.13. SLOPE EROSION CONTROL MATTING SHALL BE USED ON ALL CUT AND FILL SLOPES GREATER STEEPER THAN 2.5:1, WHERE THE SLOPE LENGTH IS GREATER THAN OR EQUAL TO 20 FEET. (ALL OTHER AREAS SHALL BE PROPERLY SEEDED AND MULCHED.)
 2. WATTLES SHALL BE FILTREXX SOXX OR APPROVED EQUAL.

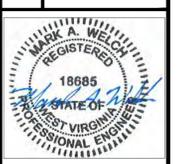
**APPROVED
WVDEP OOG**
SAY 5/20/2014

11/16/2018



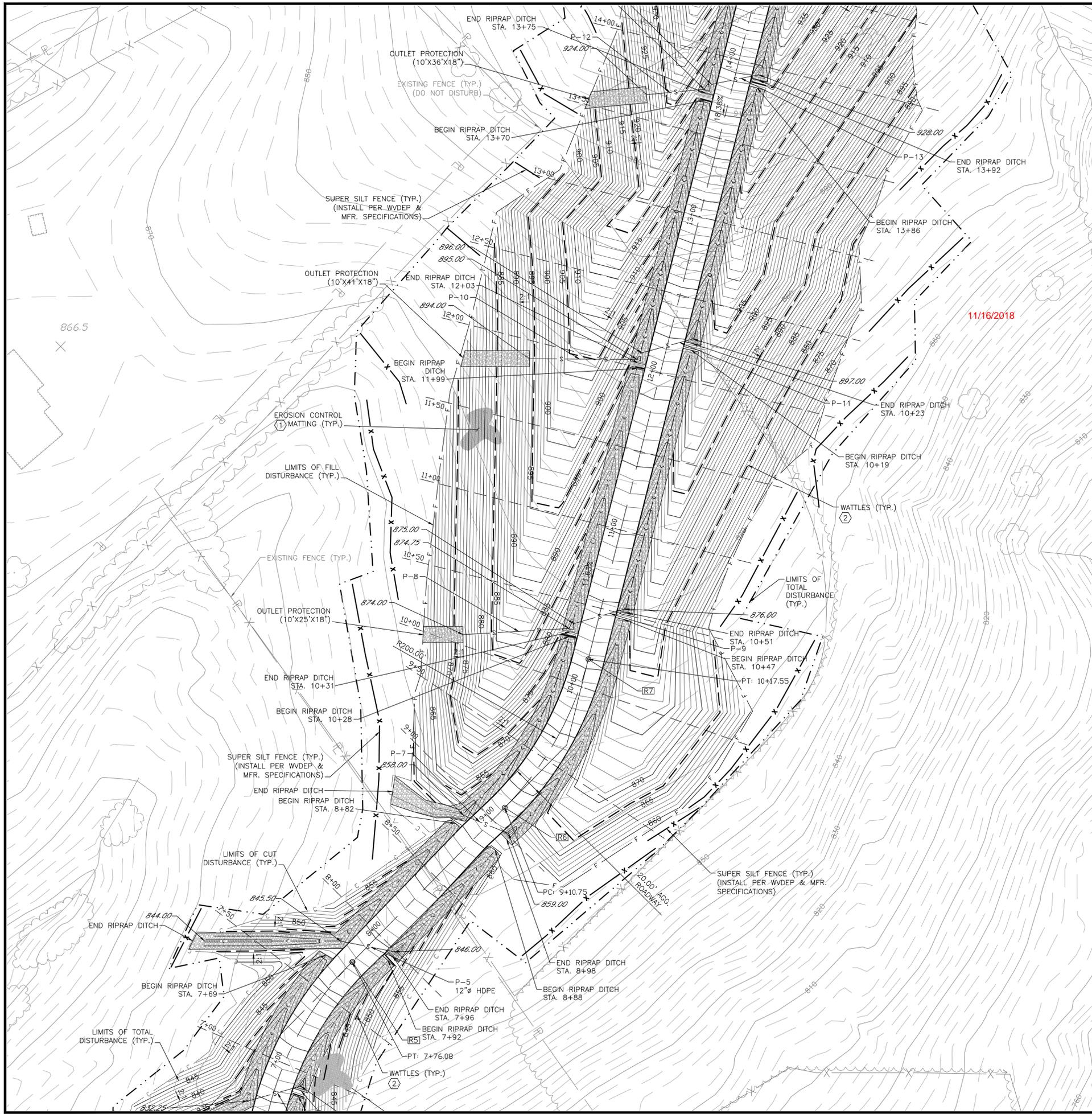
Rev.	By	Date	Description
2	MAW	5/8/14	ISSUED FOR PERMIT
1	MAW	04/22/14	ISSUED FOR PERMIT
0	MAW	01/31/14	ISSUED FOR PERMIT

Drawing Description
 TRIAD HUNTER, LLC
 TYLER COUNTY, WEST VIRGINIA
 WELLS MECKLEY LOCATION
 GRADING AND SEDIMENT/EROSION CONTROL PLAN (1 OF 4)



Project:	2129036.2
Designed By:	AMZ
Drawn By:	AMZ
Checked By:	MAW
Scale:	AS NOTED
Plot Date:	5/8/14
Revision:	2
Drawing Number:	C1.2

**GRADING/SEDIMENT &
EROSION CONTROL PLAN**
 SCALE: 1"=30'



NOTES:

1. DRAWINGS CO.1 AND C1.1 SHALL BE REFERENCED FOR ADDITIONAL NOTES.

APPROVED
WVDEP OOG
 SAY 5/20/2014

CODED NOTES:

1. SLOPE EROSION CONTROL MATTING SHALL BE TYPE 2D DOUBLE-NET EROSION CONTROL BLANKETS AS SPECIFIED IN WVDEP SEDIMENT AND EROSION CONTROL MANUAL, SECTION 3.13. SLOPE EROSION CONTROL MATTING SHALL BE USED ON ALL CUT AND FILL SLOPES GREATER STEEPER THAN 2.5:1, WHERE THE SLOPE LENGTH IS GREATER THAN OR EQUAL TO 20 FEET. (ALL OTHER AREAS SHALL BE PROPERLY SEEDED AND MULCHED.)
2. WATTLES SHALL BE FILTREXX SOXX OR APPROVED EQUAL.

11/16/2018



Rev.	Description	By	Date
0	ISSUED FOR PERMIT	MAW	01/31/14

Drawing Description
 TRIAD HUNTER, LLC
 TYLER COUNTY, WEST VIRGINIA
 WELLS MECKLEY LOCATION
 GRADING AND SEDIMENT/EROSION CONTROL PLAN (2 OF 4)



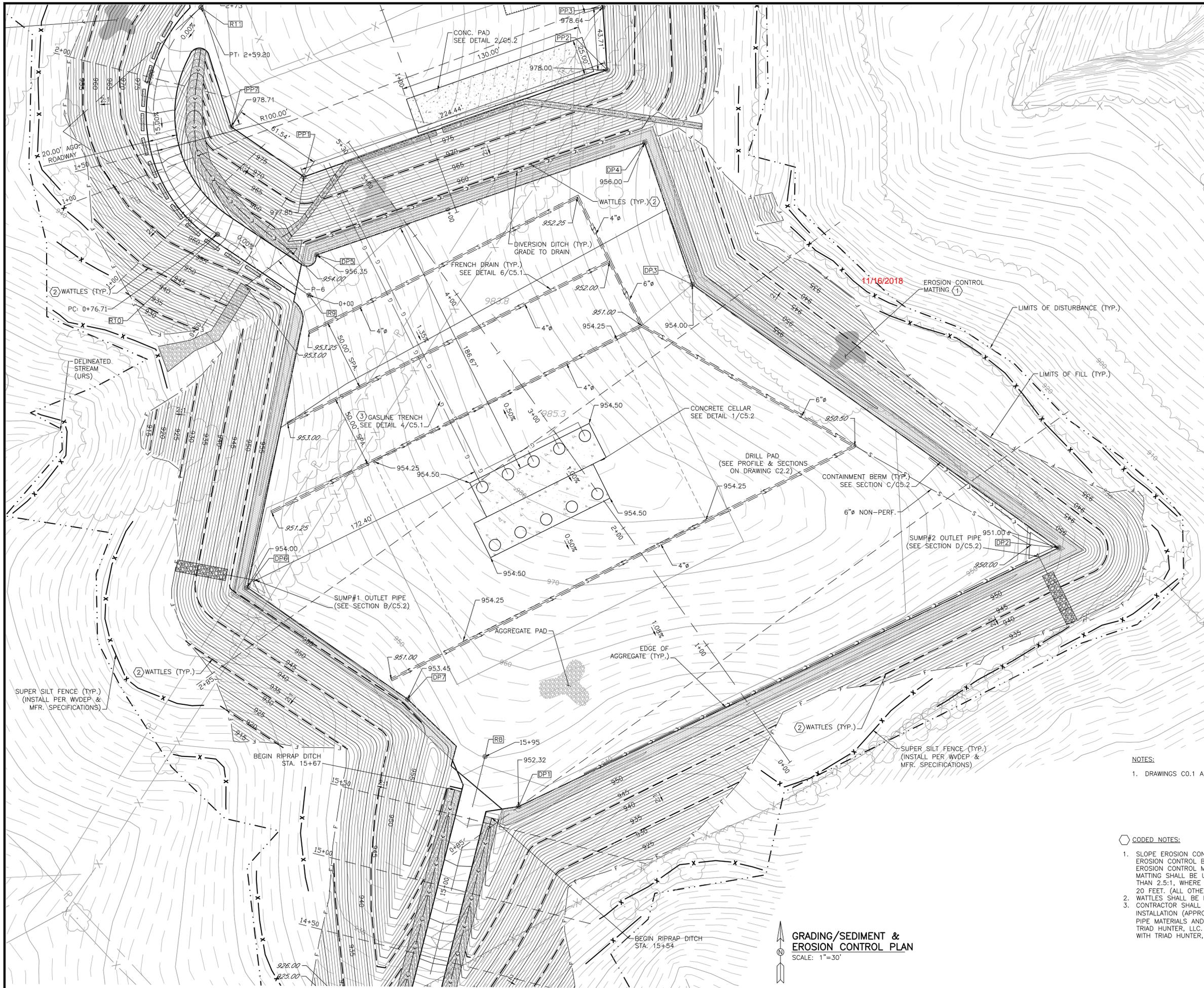
Project:	2129036.2
Designed By:	AMZ
Drawn By:	AMZ
Checked By:	MAW
Scale:	AS NOTED
Plot Date:	01/31/14
Revision:	0
Drawing Number:	C1.3

GRADING/SEDIMENT & EROSION CONTROL PLAN
 SCALE: 1"=30'

APPROVED
WVDEP OOG
SAY 5/20/2014



Architects • Engineers • Surveyors
11283 Emerson Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-5305
Fax: (304) 464-4428



GRADING/SEDIMENT &
EROSION CONTROL PLAN
SCALE: 1"=30'

NOTES:
1. DRAWINGS C0.1 AND C1.1 SHALL BE REFERENCED FOR ADDITIONAL NOTES.

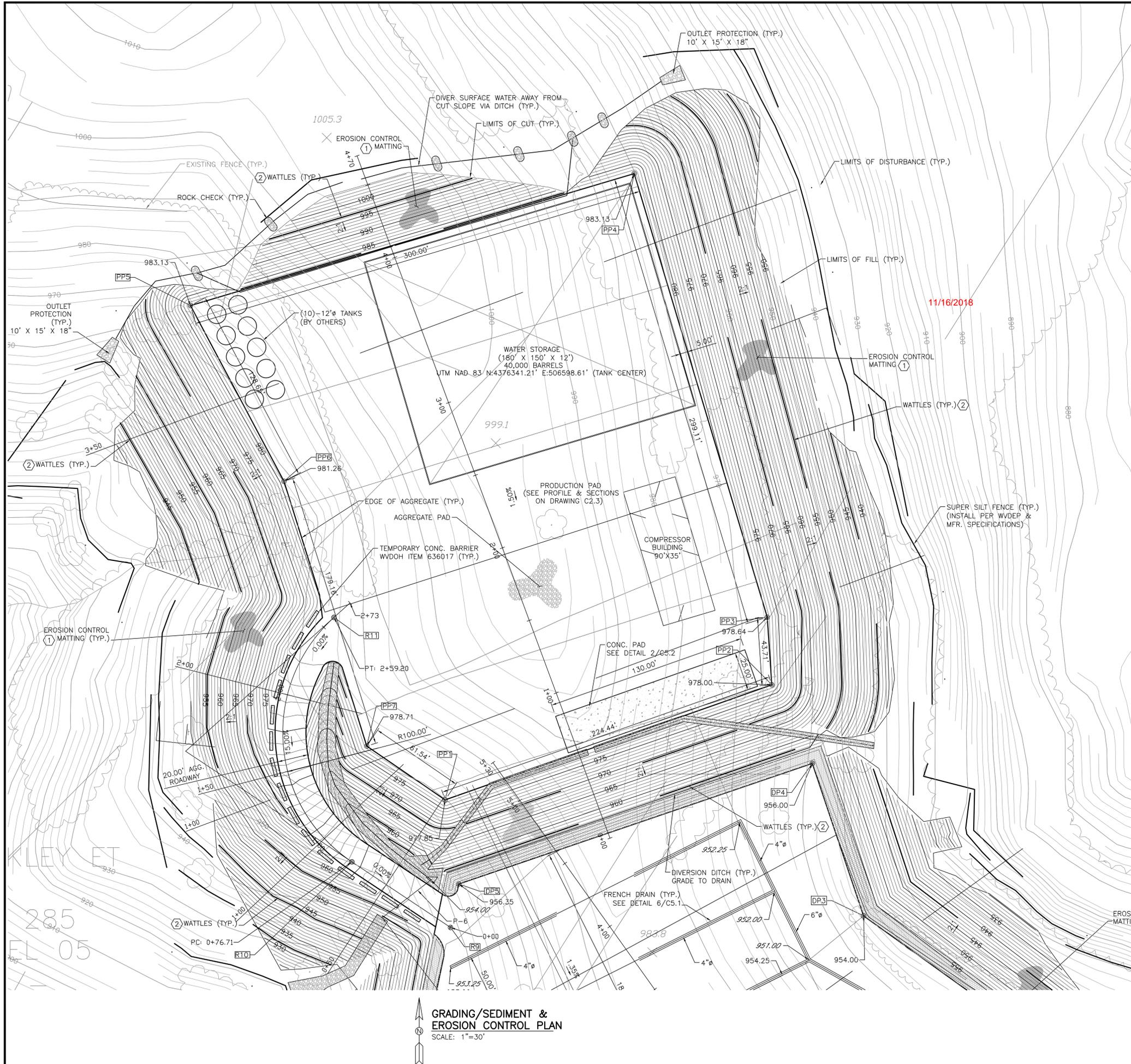
CODED NOTES:
1. SLOPE EROSION CONTROL MATTING SHALL BE TYPE 2D DOUBLE-NET EROSION CONTROL BLANKETS AS SPECIFIED IN WVDEP SEDIMENT AND EROSION CONTROL MANUAL, SECTION 3.1.3. SLOPE EROSION CONTROL MATTING SHALL BE USED ON ALL CUT AND FILL SLOPES GREATER STEEPER THAN 2.5:1, WHERE THE SLOPE LENGTH IS GREATER THAN OR EQUAL TO 20 FEET. (ALL OTHER AREAS SHALL BE PROPERLY SEEDING AND MULCHED).
2. WATTLES SHALL BE FILTREXX SOXX OR APPROVED EQUAL.
3. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCH FOR GASLINE LINE INSTALLATION (APPROXIMATELY 320' LENGTH OF TRENCH). PURCHASE OF PIPE MATERIALS AND INSTALLATION/WELDING OF PIPE SHALL BE DONE BY TRIAD HUNTER, LLC. COORDINATE INSTALLATION AND EXACT LINE LOCATION WITH TRIAD HUNTER, LLC.

Rev.	Description	By	Date
0	ISSUED FOR PERMIT	MAW	01/31/14

Drawing Description
TRIAD HUNTER, LLC
TYLER COUNTY, WEST VIRGINIA
WELLS MECKLEY LOCATION
GRADING AND SEDIMENT/EROSION CONTROL PLAN (3 OF 4)



Project: 2129036.2
Designed By: AMZ
Drawn By: AMZ
Checked By: MAW
Scale: AS NOTED
Plot Date: 01/31/14
Revision: 0
Drawing Number:
C1.4



NOTES:
 1. DRAWINGS CO.1 AND C1.1 SHALL BE REFERENCED FOR ADDITIONAL NOTES.

- CODED NOTES:
- SLOPE EROSION CONTROL MATTING SHALL BE TYPE 2D DOUBLE-NET EROSION CONTROL BLANKETS AS SPECIFIED IN WVDEP SEDIMENT AND EROSION CONTROL MANUAL, SECTION 3.13. SLOPE EROSION CONTROL MATTING SHALL BE USED ON ALL CUT AND FILL SLOPES GREATER STEEPER THAN 2.5:1, WHERE THE SLOPE LENGTH IS GREATER THAN OR EQUAL TO 20 FEET. (ALL OTHER AREAS SHALL BE PROPERLY SEEDED AND MULCHED.)
 - WATTLES SHALL BE FILTREXX SOXX OR APPROVED EQUAL.

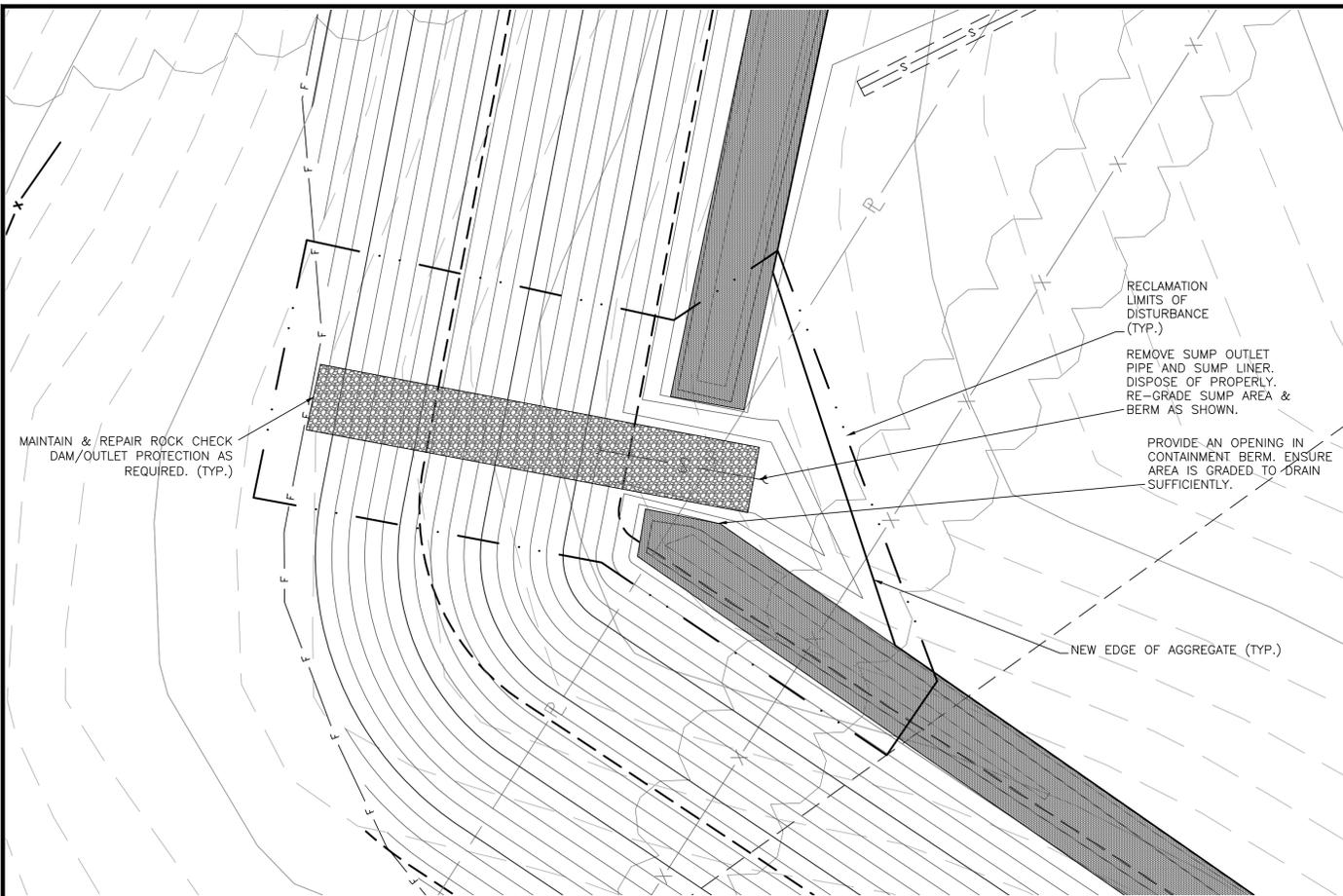
APPROVED
WVDEP OOG
 SAY 5/20/2014

GRADING/SEDIMENT & EROSION CONTROL PLAN
 SCALE: 1"=30'

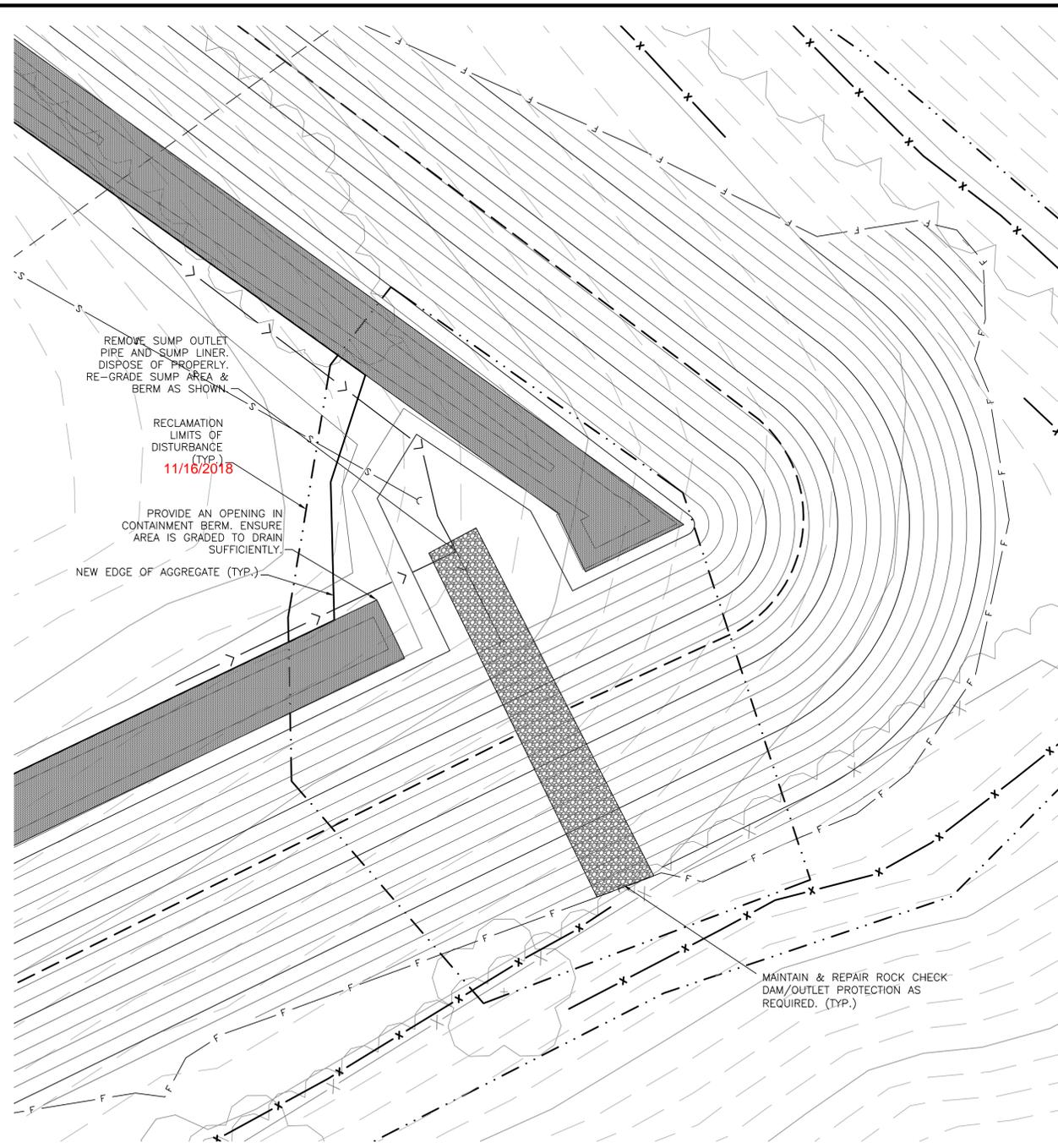
Rev.	Description	By	Date
0	ISSUED FOR PERMIT	MAW	01/31/14

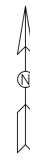
Drawing Description TRIAD HUNTER, LLC TYLER COUNTY, WEST VIRGINIA WELLS MECKLEY LOCATION GRADING AND SEDIMENT/EROSION CONTROL PLAN (4 OF 4)	
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Project: 2129036.2
Designed By: AMZ
Drawn By: AMZ
Checked By: MAW
Scale: AS NOTED
Plot Date: 05/05/14
Revision: 0
Drawing Number: C1.5




SUMP #1 AREA RECLAMATION PLAN
 SCALE: 1"=10'




SUMP #2 AREA RECLAMATION PLAN
 SCALE: 1"=10'

RECLAMATION NOTES:

1. DRAWINGS C0.1 AND C1.1 SHALL BE REFERENCED FOR ADDITIONAL NOTES.
2. THE INTENT OF THIS RECLAMATION PLAN IS TO SHOW AREAS WHICH WILL BE RE-GRADED/RECLAIMED ONCE THE SITE OPERATIONS ARE CONSIDERED COMPLETE. THE DRILL PAD AGGREGATE AREA WILL REMAIN THE SAME. AN OPENING IN THE CONTAINMENT BERM WILL BE PROVIDED AND THE SUMP AREA RE-GRADED TO ENSURE ADEQUATE DRAINAGE OF THE SITE. SUMP LINER AND OUTLET PIPE WILL BE REMOVED.
3. ALL AREAS OUTSIDE OF RECLAMATION DISTURBANCE LIMITS AS SHOWN ON THIS DRAWING SHALL NOT BE DISTURBED OR RECLAIMED.
4. RECLAMATION WORK SHALL BE PERFORMED ONLY AFTER THE CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED FROM INITIAL CONSTRUCTION.
5. ALL RECLAMATION WORK SHALL BE DONE IN ACCORDANCE WITH WVDEP, OFFICE OF OIL & GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.
6. SEQUENCE OF WORK:
 - 6.1. VERIFY EXISTING SUPER SILT FENCE IS FUNCTIONING PROPERLY. MODIFY/REPAIR AS REQUIRED.
 - 6.2. REMOVE SUMP OUTLET PIPE AND SUMP LINER. DISPOSE OF PROPERLY.
 - 6.3. RE-GRADE RECLAMATION AREA AS SHOWN. EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH NOTE "M: EARTHWORK" ON DRAWING C0.1.
 - 6.4. PLACE 6" TOPSOIL ON ALL DISTURBED AREAS.
 - 6.5. SEED AND MULCH DISTURBED AREAS IN ACCORDANCE WITH DETAILS ON DRAWING C5.4.
 - 6.6. AFTER SITE IS STABILIZED, REMOVE SILT FENCE.

CODED NOTES:

- 1.

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Rev.	Description	By	Date
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Drawing Description
 TRIAD HUNTER, LLC
 TYLER COUNTY, WEST VIRGINIA
 WELLS MECKLEY LOCATION
 RECLAMATION PLAN

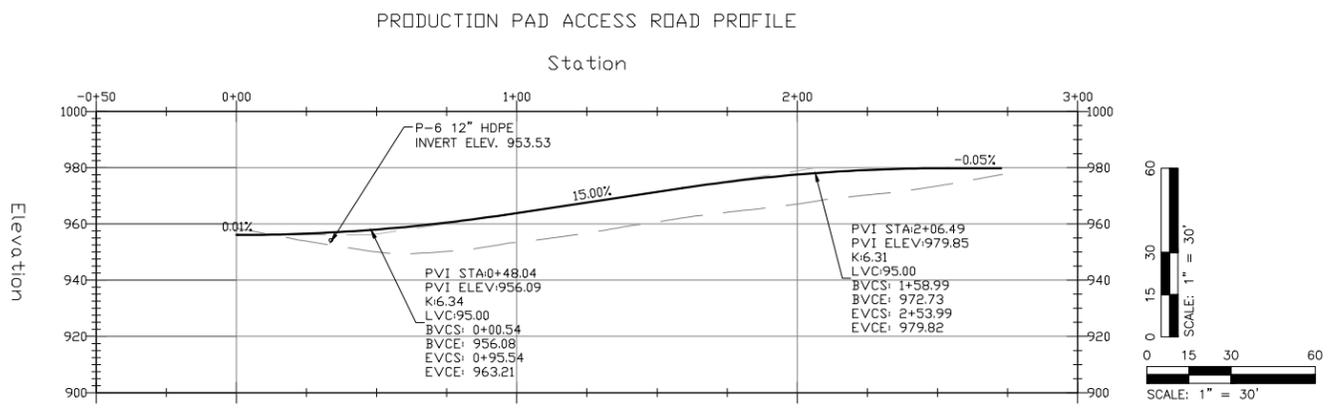
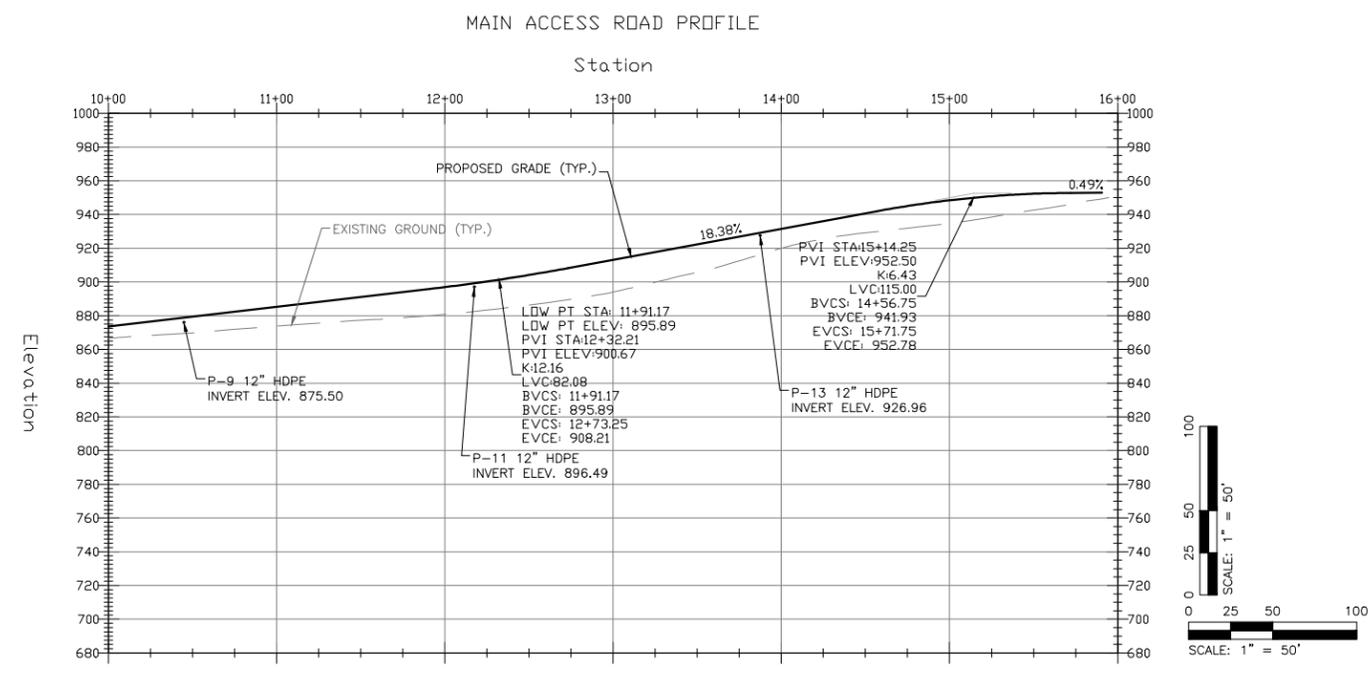
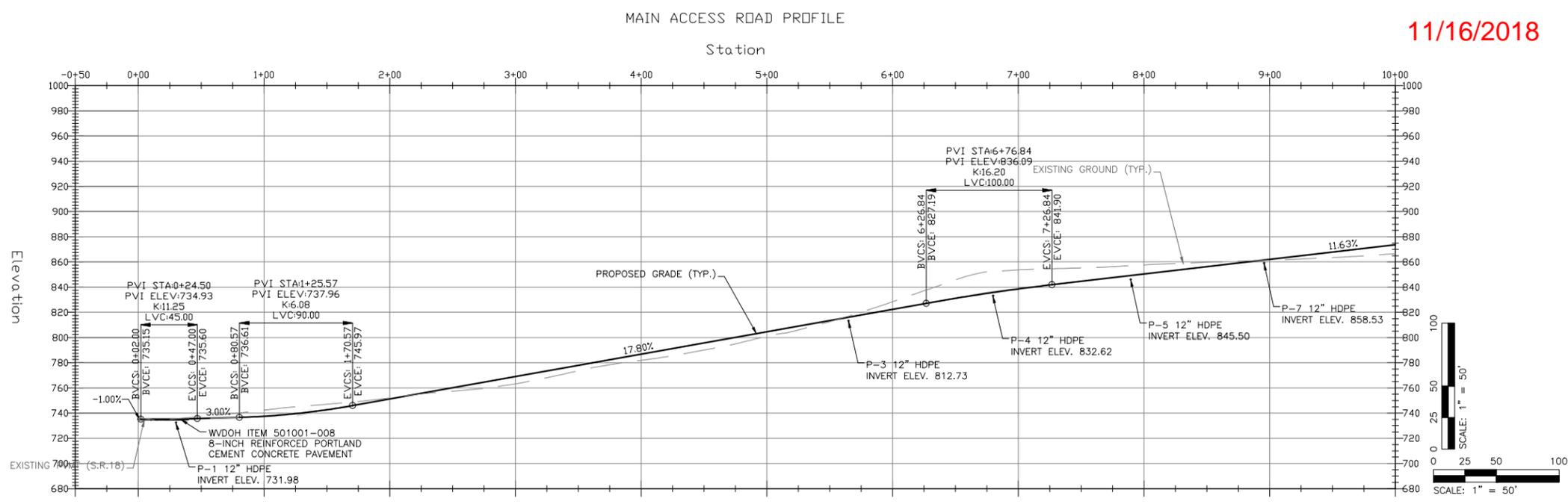


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Designed By: AMZ
Drawn By: AMZ
Checked By: MAW
Scale: AS NOTED
Plot Date: 01/31/14
Revision: 0
Drawing Number:

C1.6

11/16/2018

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Rev.	Description	By	Date
0	ISSUED FOR PERMIT	MAW	01/31/14

Drawing Description
 TRIAD HUNTER, LLC
 RENO, OHIO
 WELLS MECKLEY LOCATION
 ROADWAY PROFILES



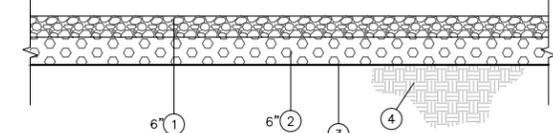
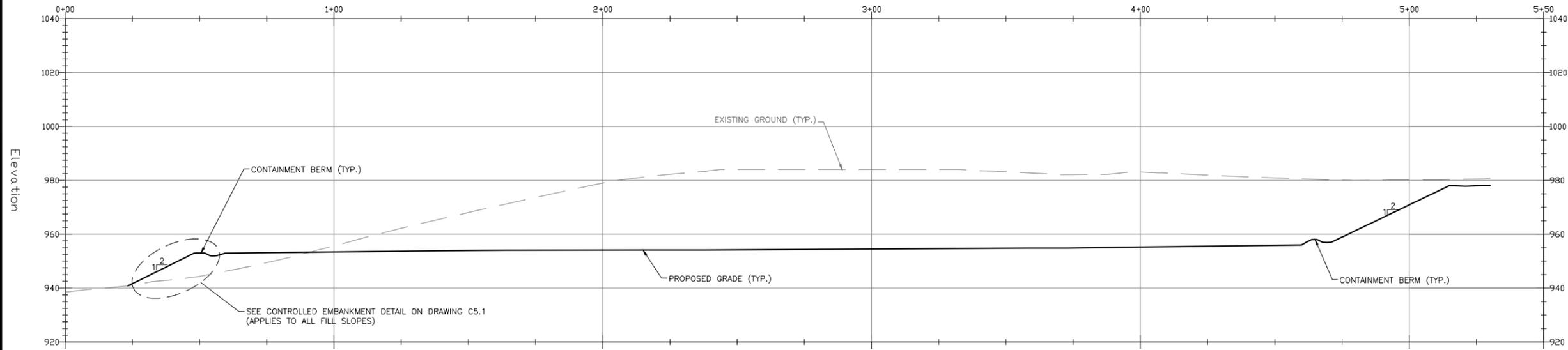
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 Designed By: AMZ
 Drawn By: AMZ
 Checked By: MAW
 Scale: AS NOTED
 Plot Date: 01/31/14
 Revision: 0

Drawing Number:
C2.1

DRILL PAD PROFILE

11/16/2018

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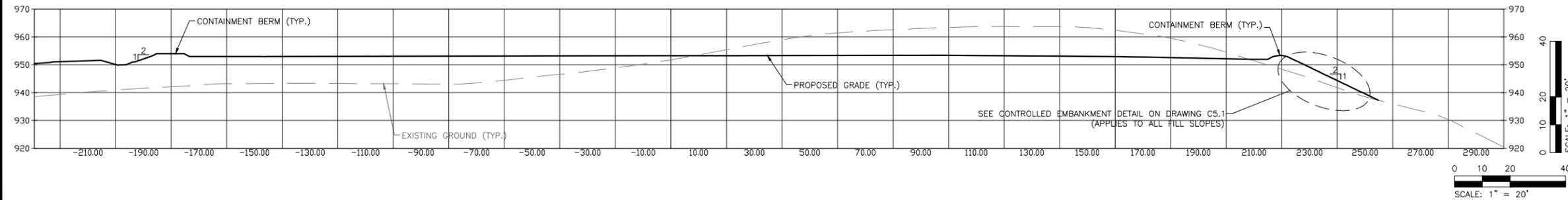


TYPICAL DRILL PAD SECTION
SCALE: NTS

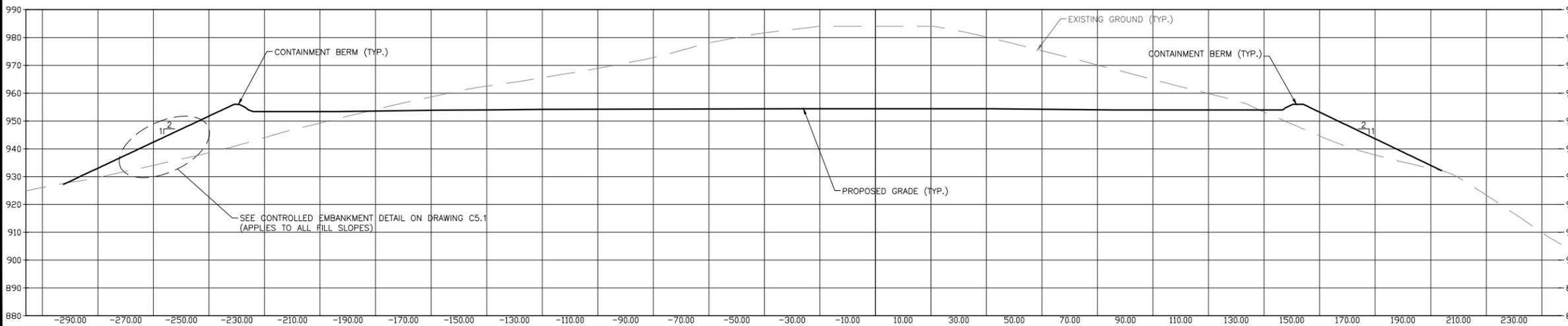
MATERIAL LEGEND

- ① ITEM 307001 AGGREGATE BASE COURSE
- ② NO. 2 CRUSHED LIMESTONE
- ③ FABRIC FOR SUBSURFACE DRAINAGE
- ④ PROPERLY PREPARED SUBGRADE

DRILL PAD 0+85.00



DRILL PAD 2+85.00



Rev.	Description	By	Date
0	ISSUED FOR PERMIT	MAW	01/31/14

Drawing Description
 TRIAD HUNTER, LLC
 RENO, OHIO
 WELLS MECKLEY LOCATION
 DRILL PAD PROFILE AND SECTION



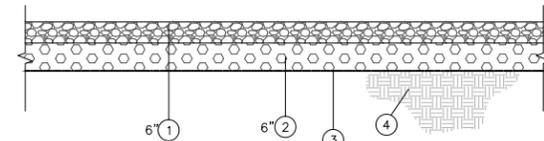
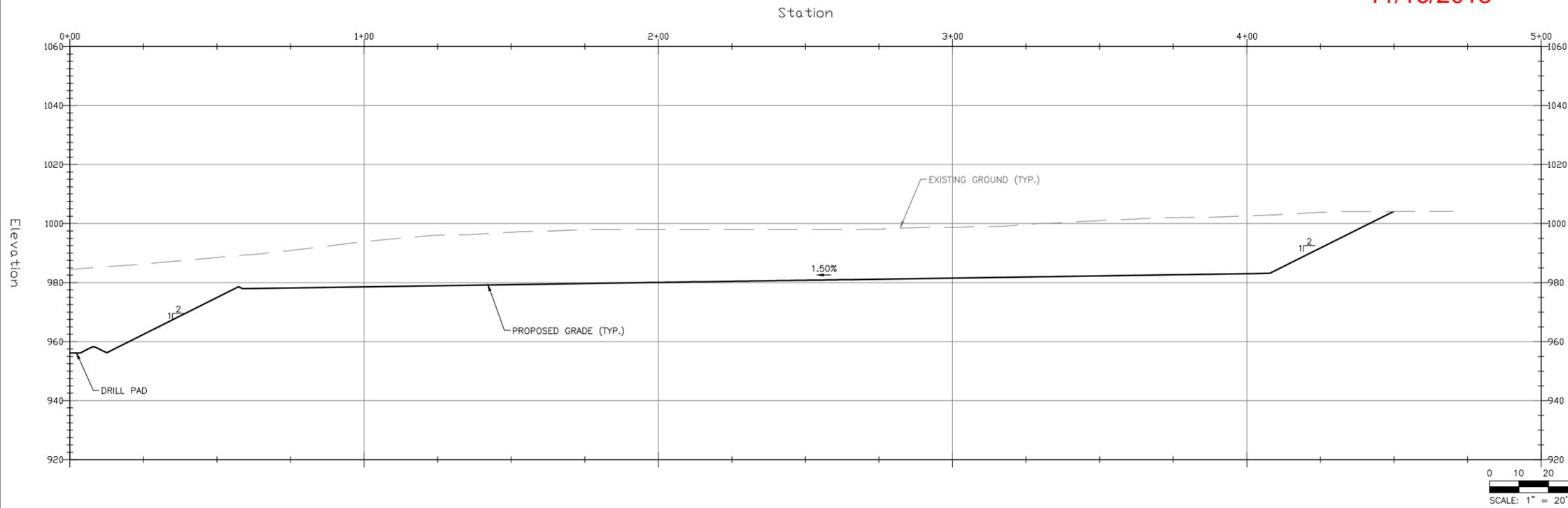
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Designed By:	AMZ
Drawn By:	AMZ
Checked By:	MAW
Scale:	AS NOTED
Plot Date:	01/31/14
Revision:	0
Drawing Number:	C2.2

PRODUCTION PAD PROFILE

11/16/2018

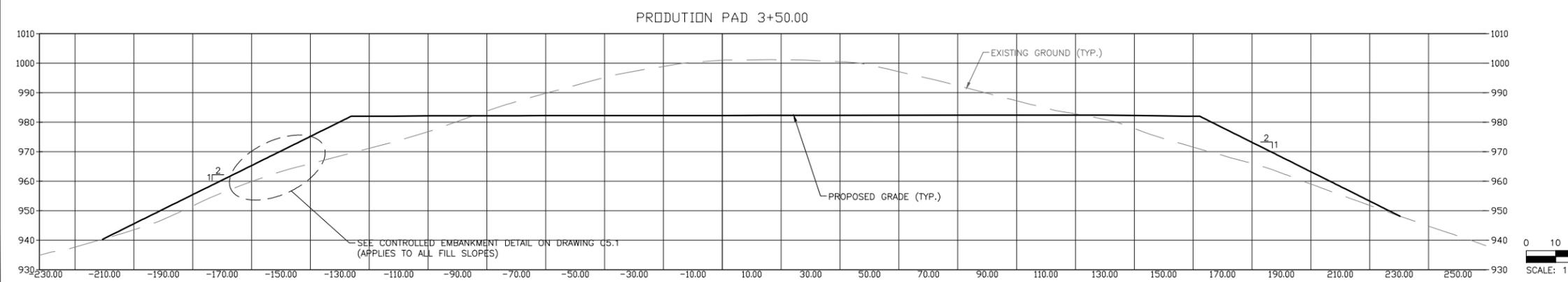
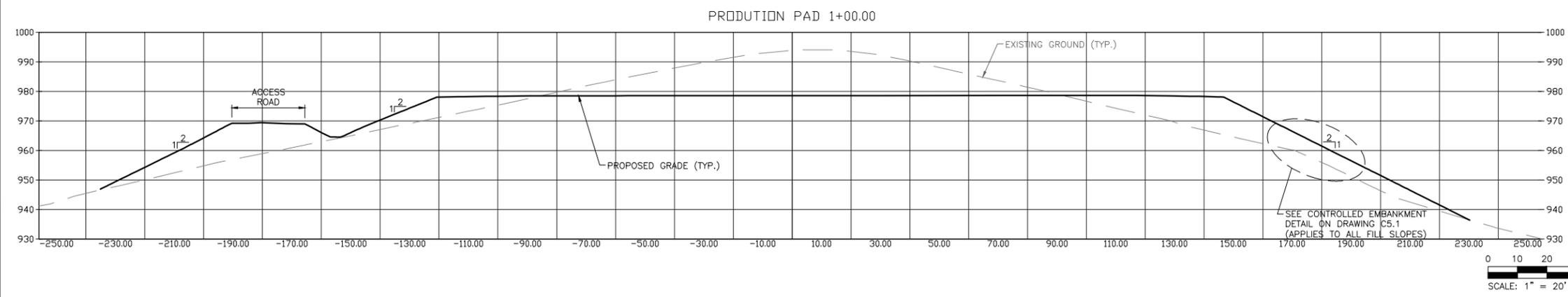
APPROVED
WVDEP OOG

SAY 5/20/2014



TYPICAL PRODUCTION PAD SECTION
SCALE: NTS

- MATERIAL LEGEND**
- ① ITEM 307001 AGGREGATE BASE COURSE
 - ② NO. 2 CRUSHED LIMESTONE
 - ③ FABRIC FOR SUBSURFACE DRAINAGE
 - ④ PROPERLY PREPARED SUBGRADE



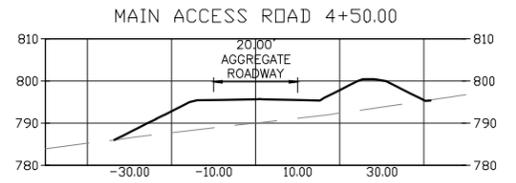
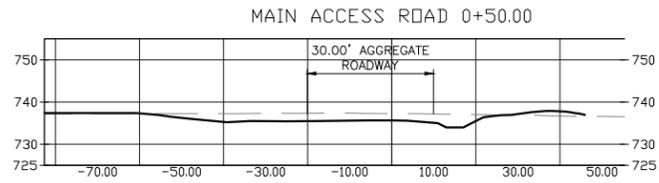
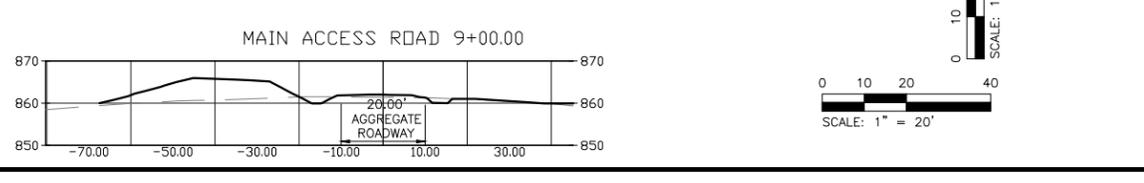
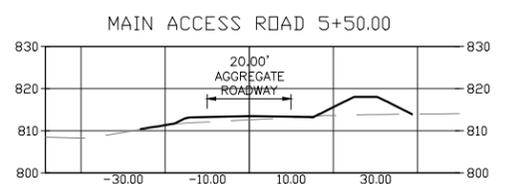
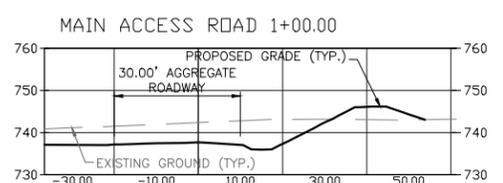
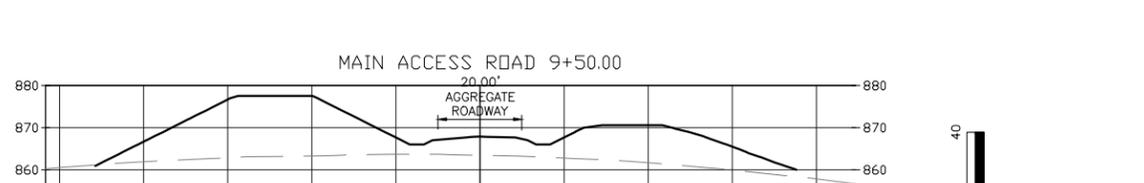
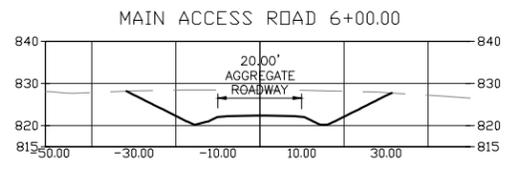
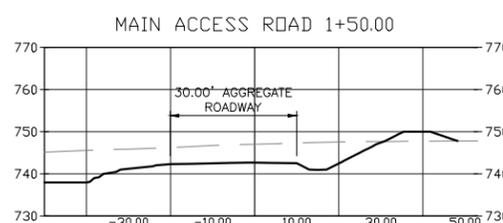
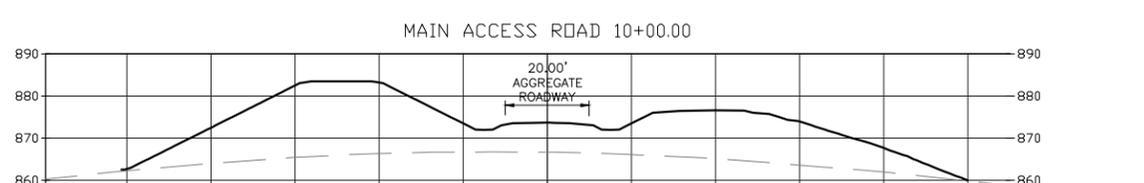
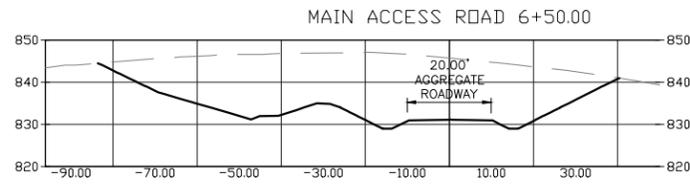
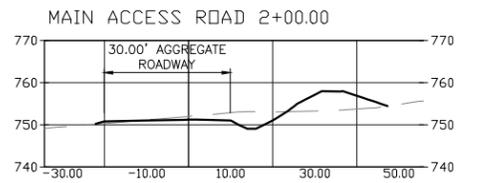
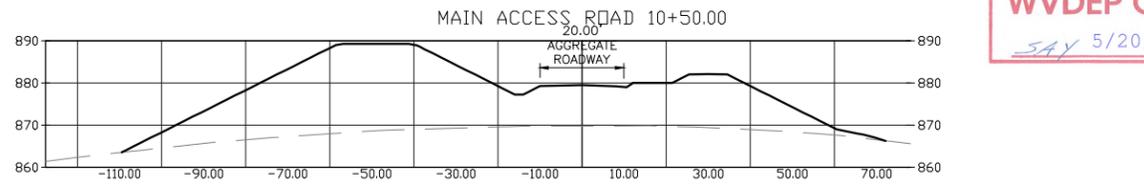
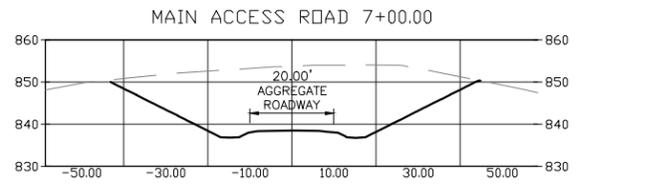
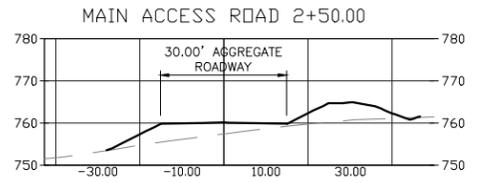
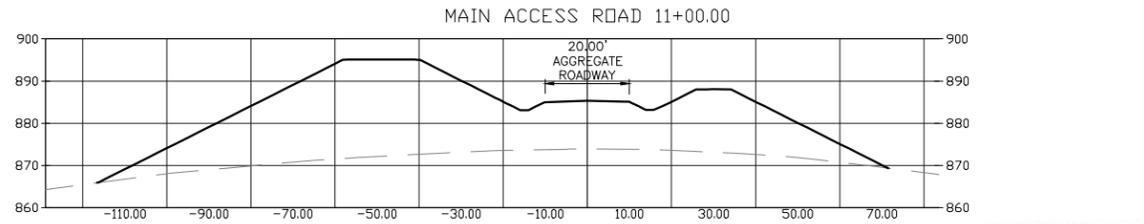
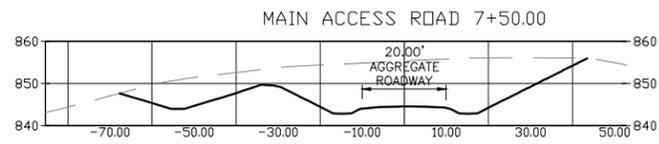
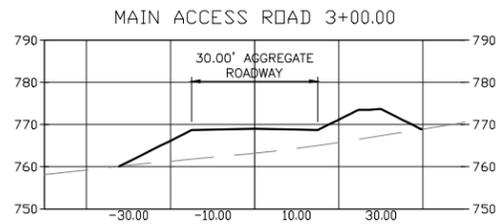
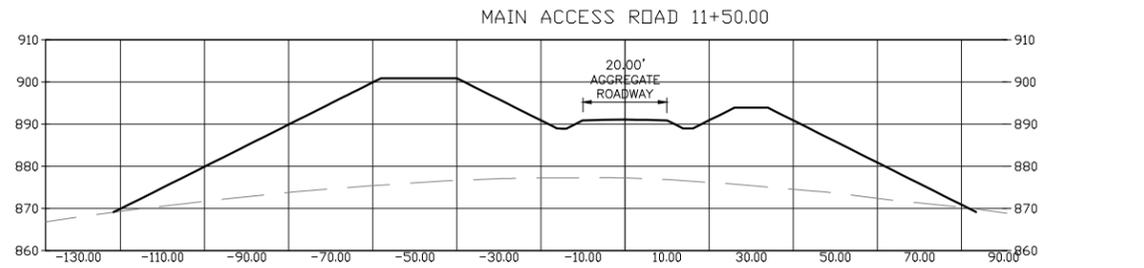
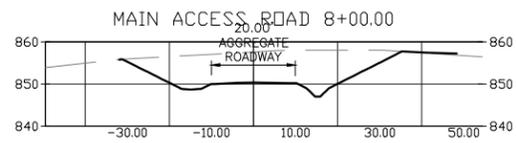
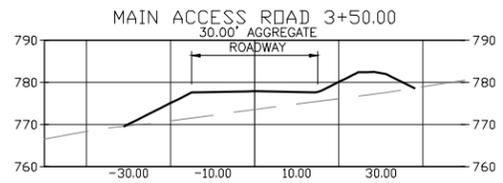
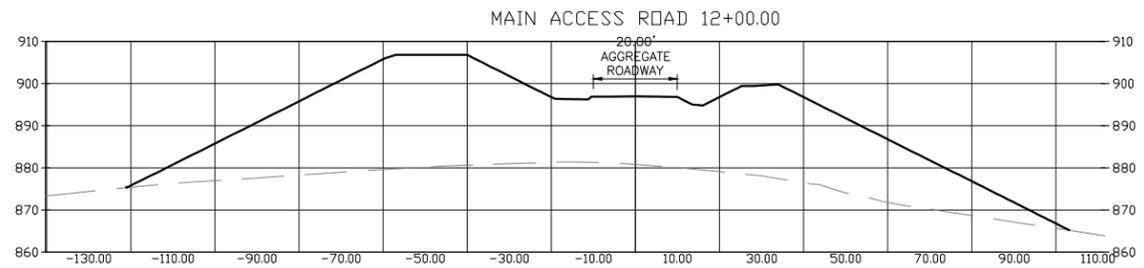
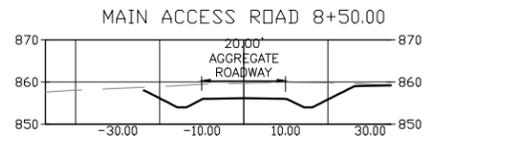
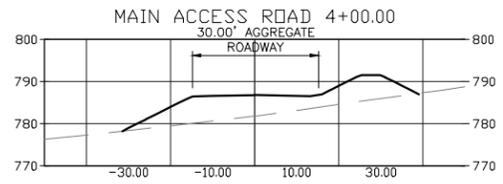
Date	By	Description	Rev.
01/31/14	MAW	ISSUED FOR PERMIT	0

Drawing Description
 TRIAD HUNTER, LLC
 RENO, OHIO
 WELLS MECKLEY LOCATION
 PRODUCTION PAD PROFILE AND SECTION

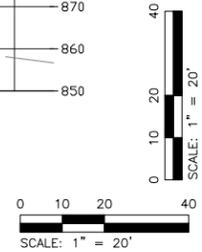


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Designed By: AMZ
Drawn By: AMZ
Checked By: MAW
Scale: AS NOTED
Plot Date: 01/31/14
Revision: 0
Drawing Number: C2.3

11/16/2018



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SAY 5/20/2014



ISSUED FOR PERMIT	0	Rev.
By	MAW	01/31/14
Date		

Drawing Description
 TRIAD HUNTER, LLC
 RENO, OHIO
 WELLS MECKLEY LOCATION
 ACCESS ROAD CROSS SECTIONS (1 OF 2)



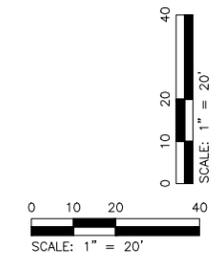
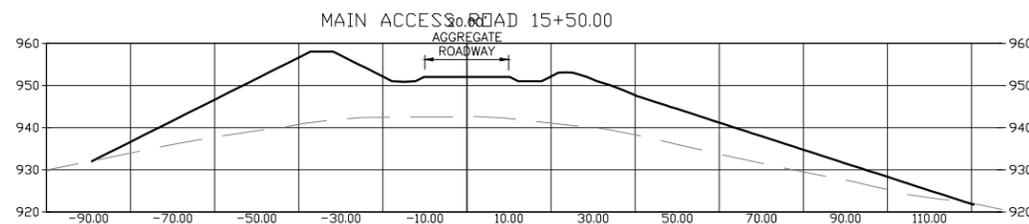
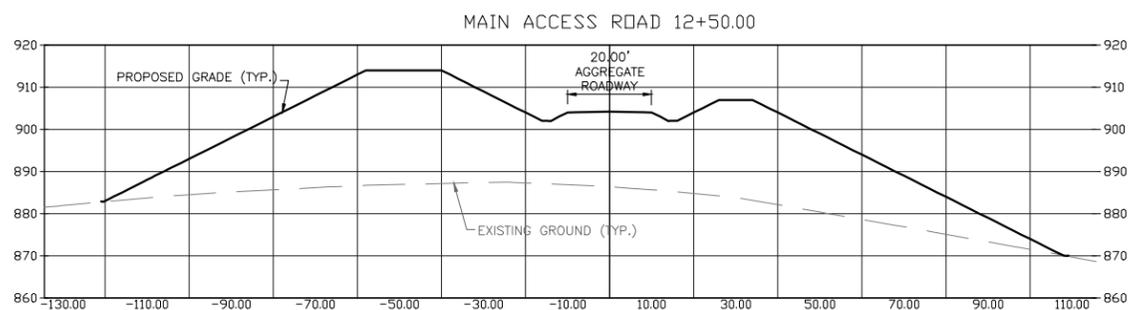
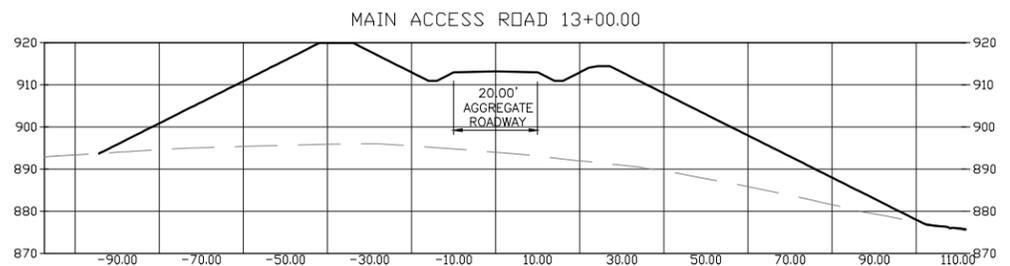
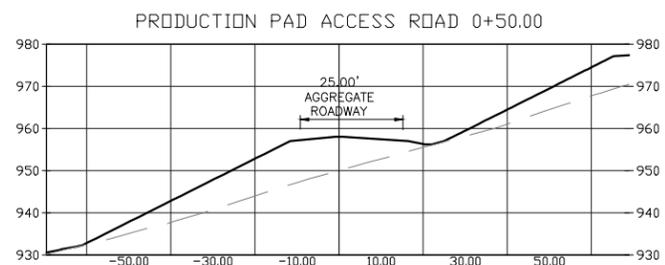
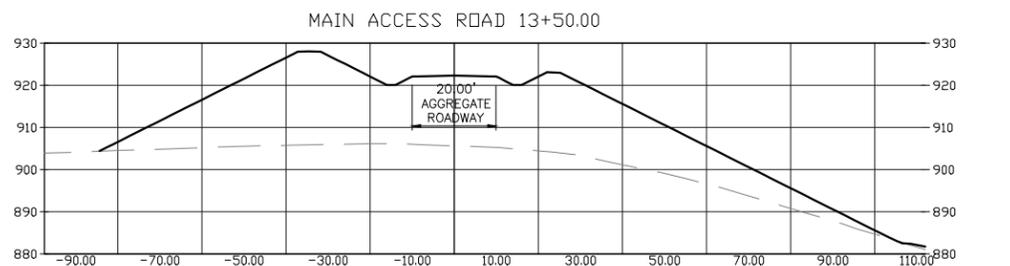
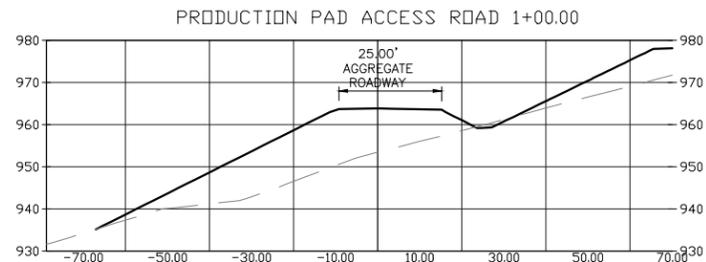
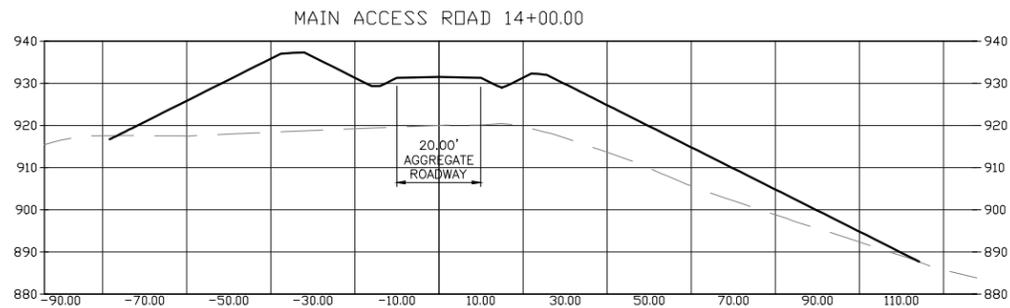
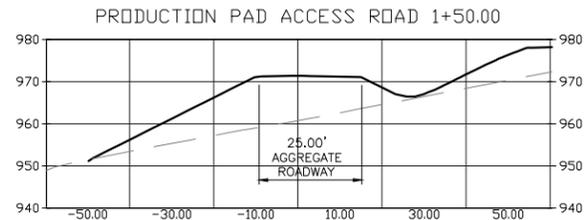
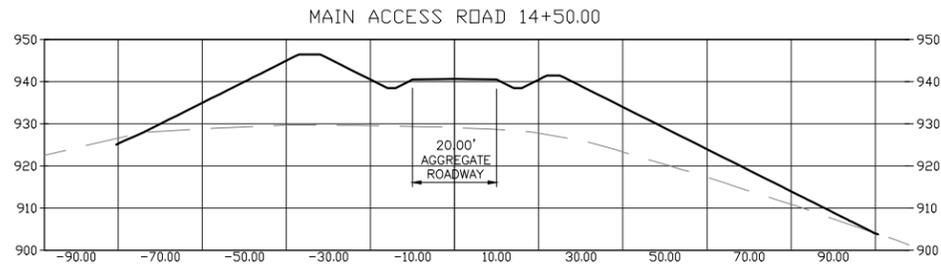
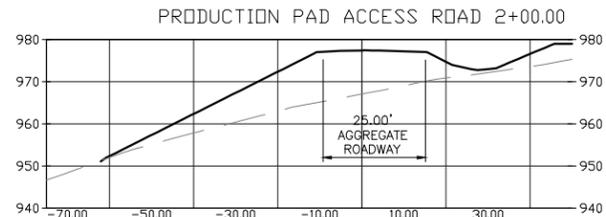
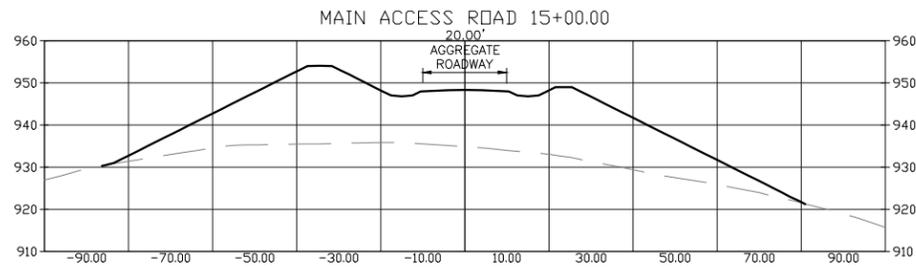
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Checked By:	MAW
Scale:	AS NOTED
Plot Date:	01/31/14
Revision:	0
Drawing Number:	C3.1

11/16/2018

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SAY 5/20/2014



Architects • Engineers • Surveyors
11383 Emergent Avenue
Parkersburg, West Virginia 26104
Phone: (304) 464-4305
Fax: (304) 464-4428

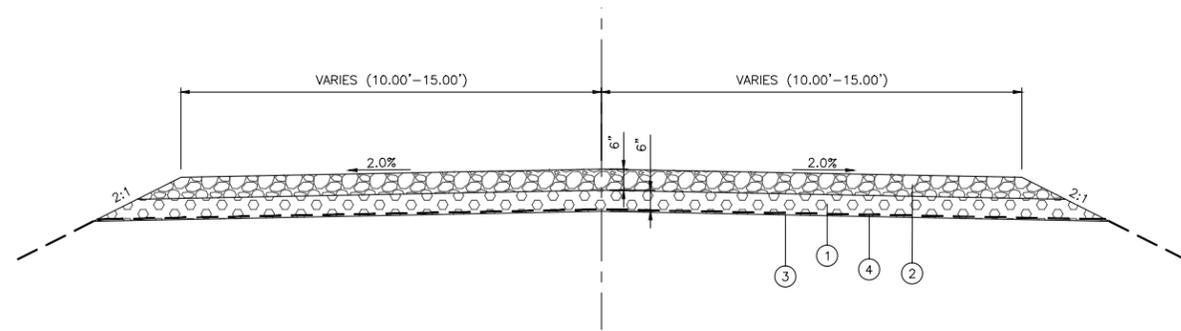


Date	By	Description
01/31/14	MAW	ISSUED FOR PERMIT
0		Rev.

Drawing Description
 TRIAD HUNTER, LLC
 RENO, OHIO
 WELLS MECKLEY LOCATION
 ACCESS ROAD CROSS SECTIONS (2 OF 2)



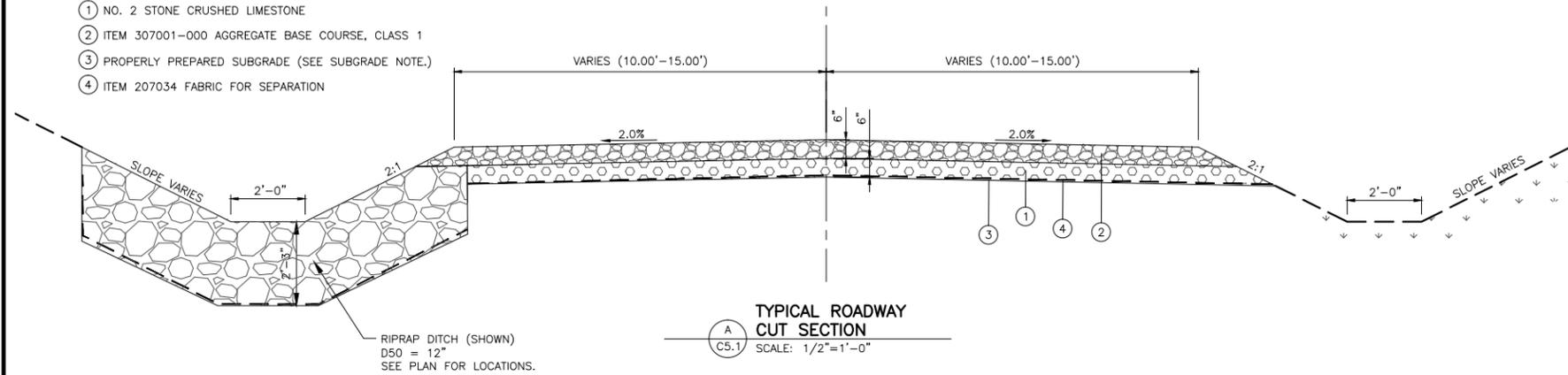
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 Drawn By: AMZ
 Checked By: MAW
 Scale: AS NOTED
 Plot Date: 01/31/14
 Revision: 0
 Drawing Number:
C3.2



TYPICAL ROADWAY FILL SECTION
SCALE: 1/2"=1'-0"

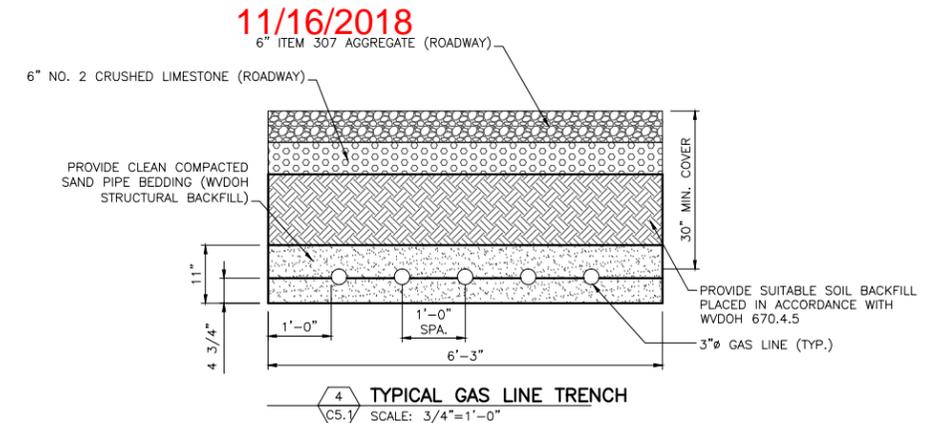
MATERIAL LEGEND

- 1 NO. 2 STONE CRUSHED LIMESTONE
- 2 ITEM 307001-000 AGGREGATE BASE COURSE, CLASS 1
- 3 PROPERLY PREPARED SUBGRADE (SEE SUBGRADE NOTE.)
- 4 ITEM 207034 FABRIC FOR SEPARATION

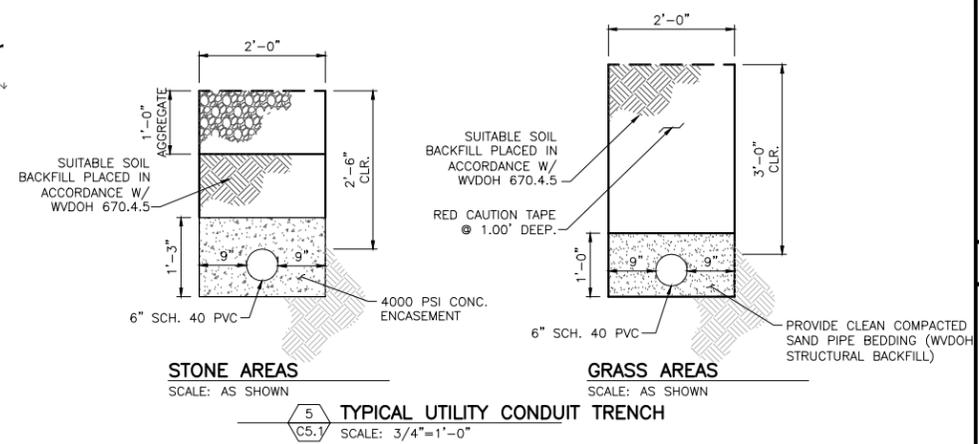


TYPICAL ROADWAY CUT SECTION
SCALE: 1/2"=1'-0"

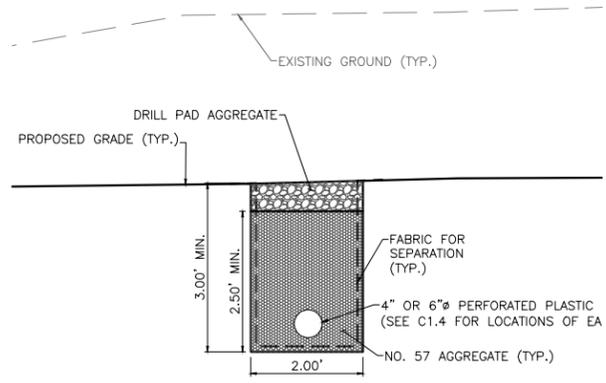
RIPRAP DITCH (SHOWN)
D50 = 12"
SEE PLAN FOR LOCATIONS.



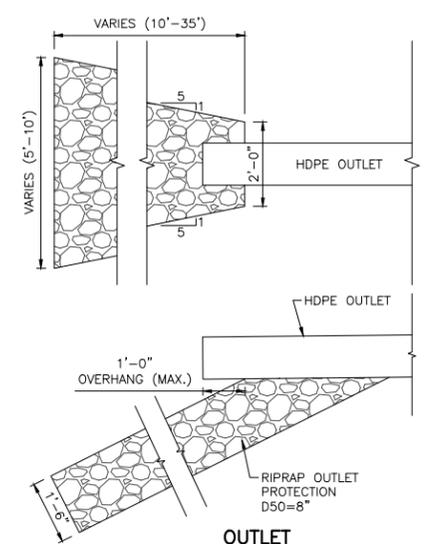
4 TYPICAL GAS LINE TRENCH
SCALE: 3/4"=1'-0"



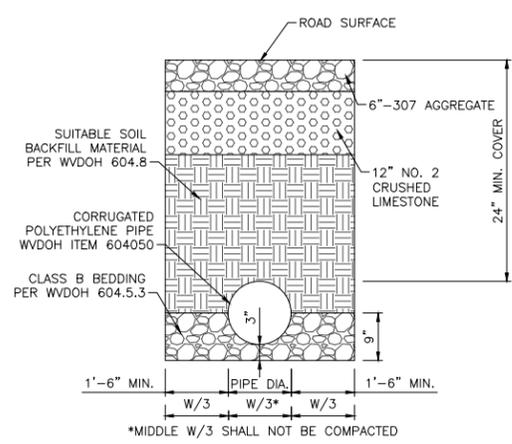
5 TYPICAL UTILITY CONDUIT TRENCH
SCALE: 3/4"=1'-0"



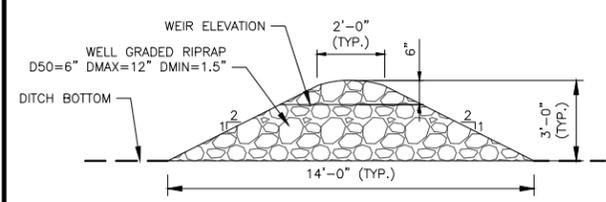
6 TRENCH DRAIN DETAIL
SCALE: 1" = 1'-0"



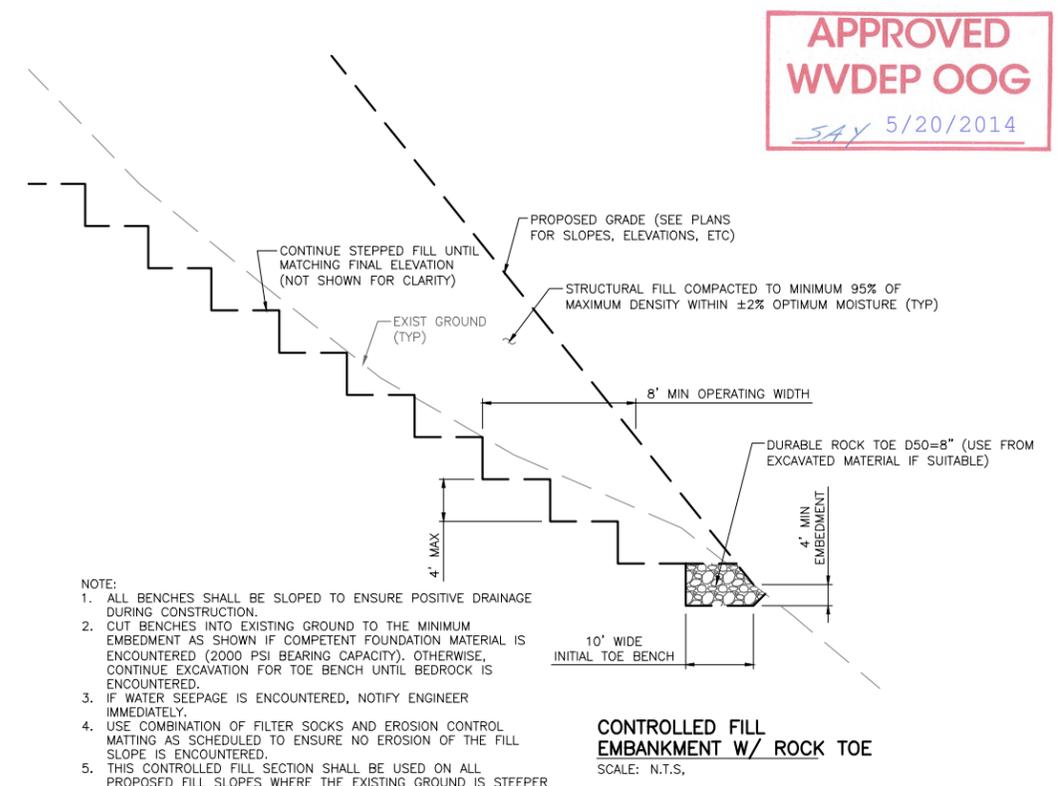
2 OUTLET PROTECTION DETAIL
SCALE: NO SCALE



3 STORM PIPE BEDDING DETAIL
SCALE: NO SCALE



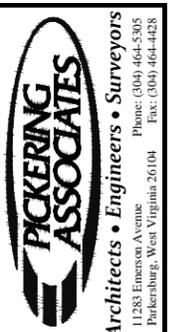
1 ROCK CHECK DAM DETAIL
SCALE: NO SCALE



5 CONTROLLED FILL EMBANKMENT W/ ROCK TOE
SCALE: N.T.S.

- NOTE:
- ALL BENCHES SHALL BE SLOPED TO ENSURE POSITIVE DRAINAGE DURING CONSTRUCTION.
 - CUT BENCHES INTO EXISTING GROUND TO THE MINIMUM EMBEDMENT AS SHOWN IF COMPETENT FOUNDATION MATERIAL IS ENCOUNTERED (2000 PSI BEARING CAPACITY). OTHERWISE, CONTINUE EXCAVATION FOR TOE BENCH UNTIL BEDROCK IS ENCOUNTERED.
 - IF WATER SEEPAGE IS ENCOUNTERED, NOTIFY ENGINEER IMMEDIATELY.
 - USE COMBINATION OF FILTER SOCKS AND EROSION CONTROL MATTING AS SCHEDULED TO ENSURE NO EROSION OF THE FILL SLOPE IS ENCOUNTERED.
 - THIS CONTROLLED FILL SECTION SHALL BE USED ON ALL PROPOSED FILL SLOPES WHERE THE EXISTING GROUND IS STEEPER THAN A 4:1. PROPER BENCHING OF ALL FILL SLOPES SHALL BE PERFORMED NO MATTER THE EXISTING SLOPE.
 - DRAWING TO.1 AND CO.1 SHALL BE REFERENCED FOR ADDITIONAL NOTES.

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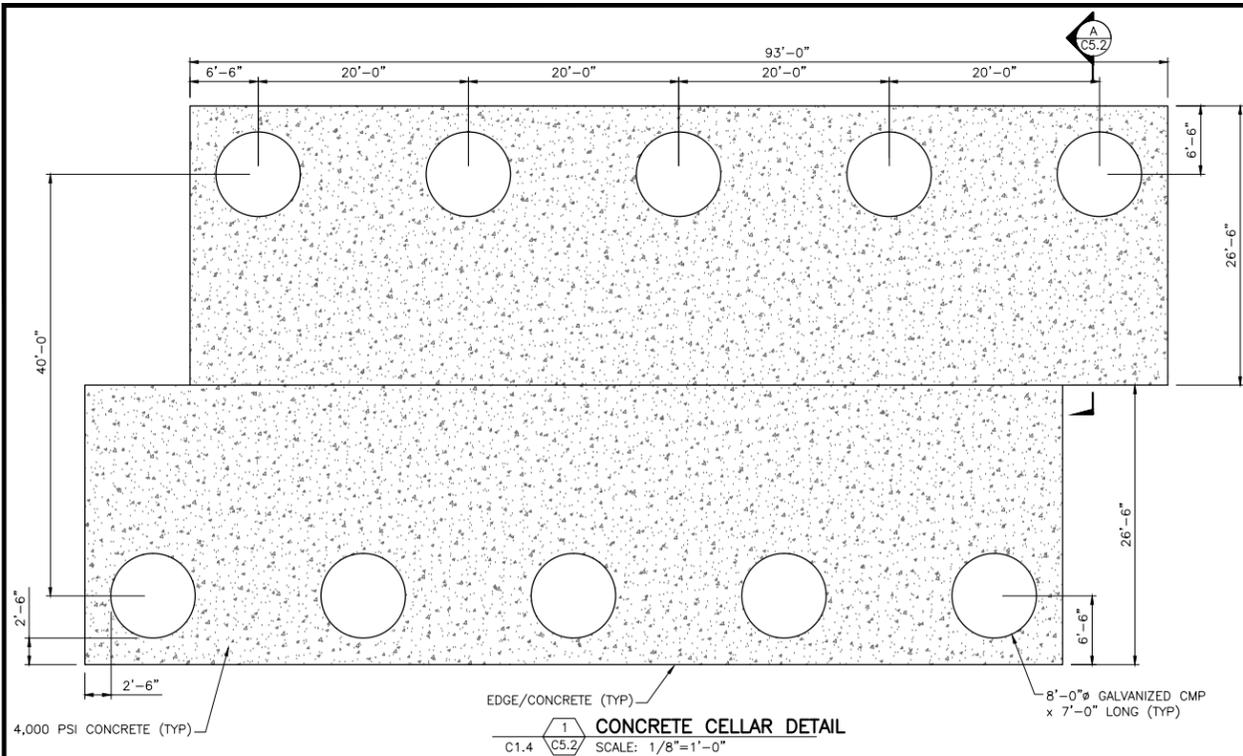


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Drawn By:	AMZ
Checked By:	MAW
Scale:	AS NOTED
Plot Date:	01/31/14
Revision:	0
Drawing Number:	C5.1

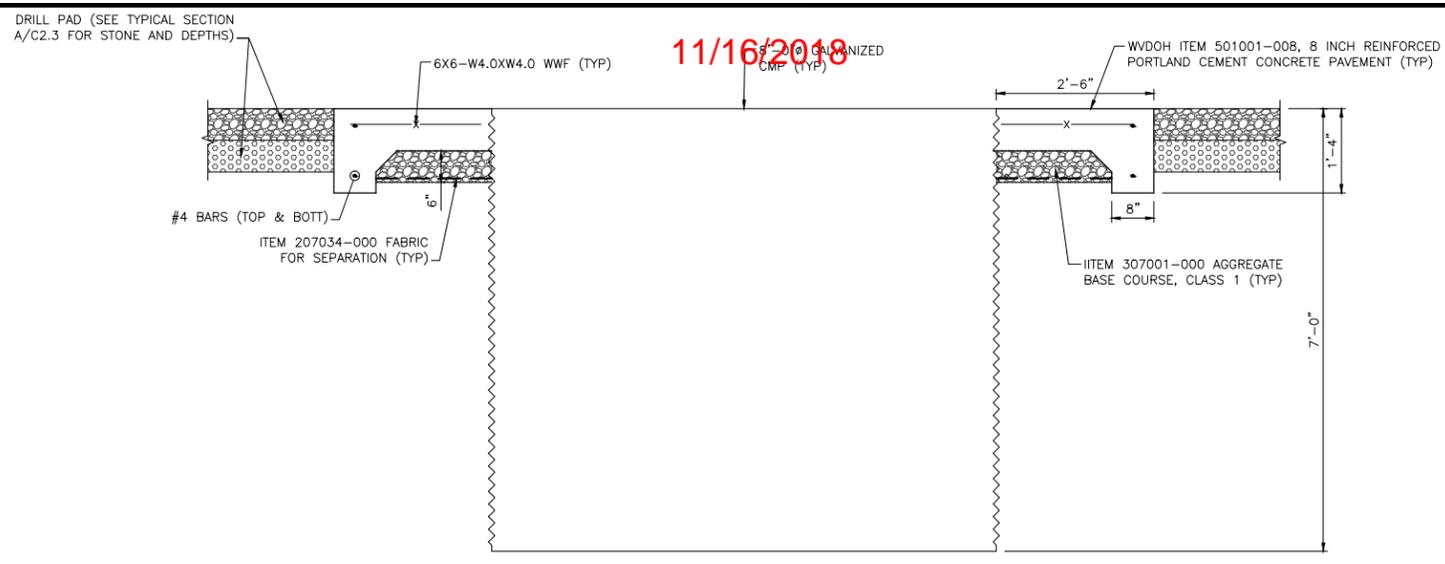
Rev.	Description
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1	By: MAW Date: 01/31/14



Drawing Description
TRIAD HUNTER, LLC
TYLER COUNTY, WEST VIRGINIA
WELLS MECKLEY LOCATION
SECTIONS AND DETAILS (1 OF 2)

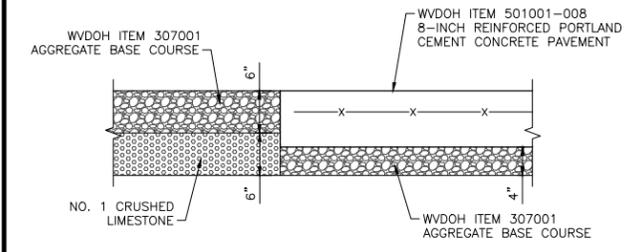


1 CONCRETE CELLAR DETAIL
C1.4 C5.2 SCALE: 1/8"=1'-0"

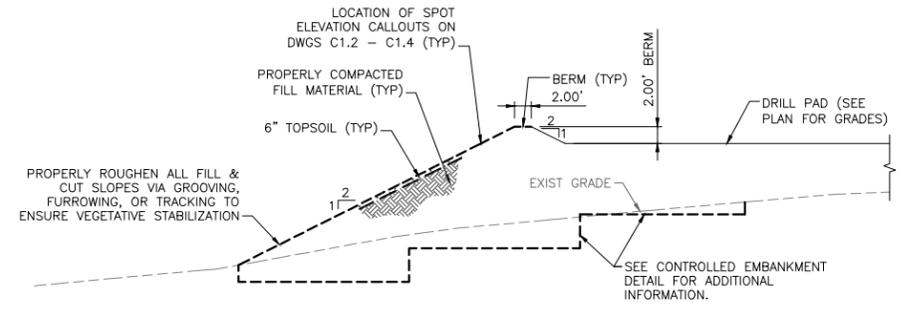


A TYPICAL CELLAR SECTION
C5.2 C5.2 SCALE: 3/4"=1'-0"

11/16/2018

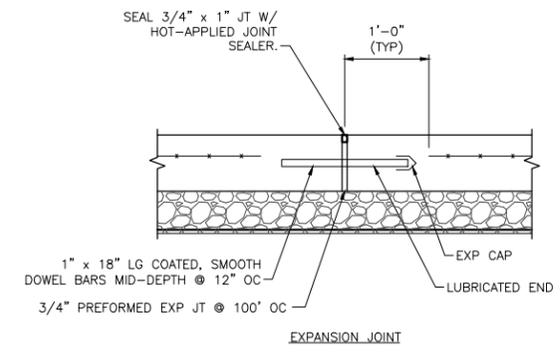


2 SEPARATOR PAD DETAIL
C1.4 C5.2 SCALE: 3/4"=1'-0"

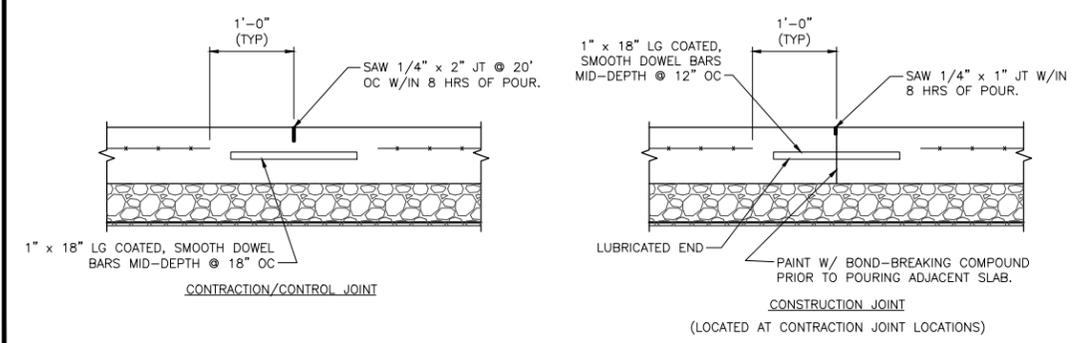


C TYPICAL CONTAINMENT BERM SECTION
C1.4 C5.2 SCALE: N.T.S.

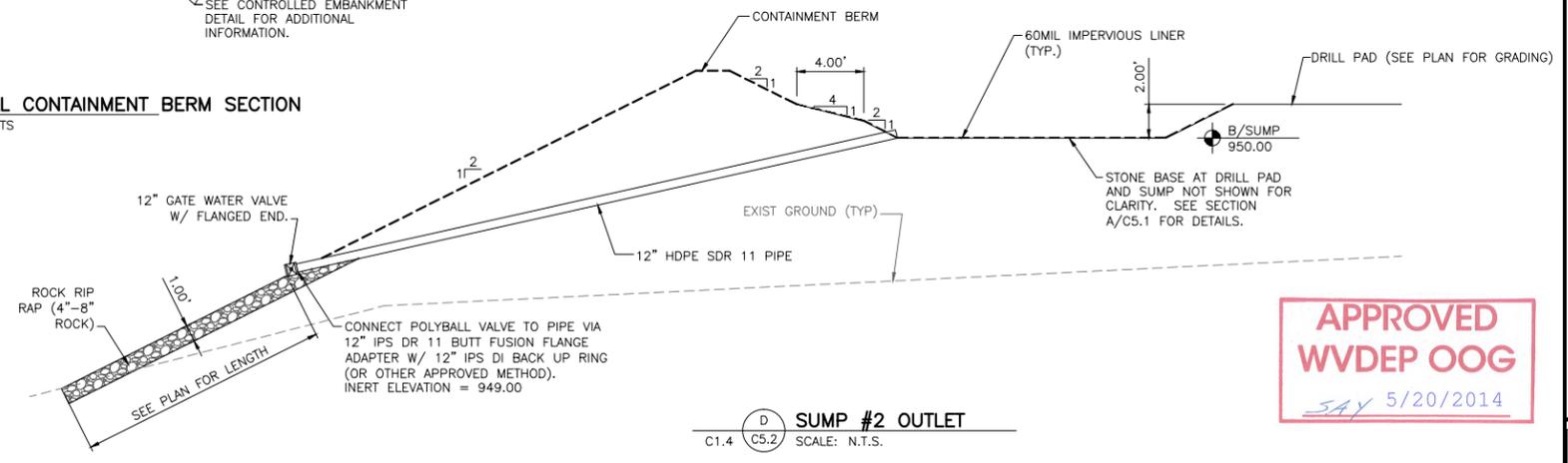
- NOTES:**
- DRAWINGS C0.1 AND C1.1 SHALL BE REFERENCED FOR ADDITIONAL NOTES.
 - STORM PIPES SHALL BE INSTALLED ACCORDING TO WVDH 604.
 - ROADWAY STONE SIZES/THICKNESSES MAY BE MODIFIED AS REQUIRED BY TRANS ENERGY INC. IF GOOD SOLID ROCK MATERIAL IS FOUND AT SUBGRADE ELEVATION, THICKNESS MAY BE REDUCED. NOTIFY ENGINEER OF FINDINGS.
- CODED NOTES:**
- SUMP VALVE SHALL REMAIN CLOSED DURING DRILLING AND COMPLETION ACTIVITIES. NO DISCHARGE SHALL BE ALLOWED TO DRAIN FROM THE PAD DURING DRILLING AND COMPLETION ACTIVITIES.



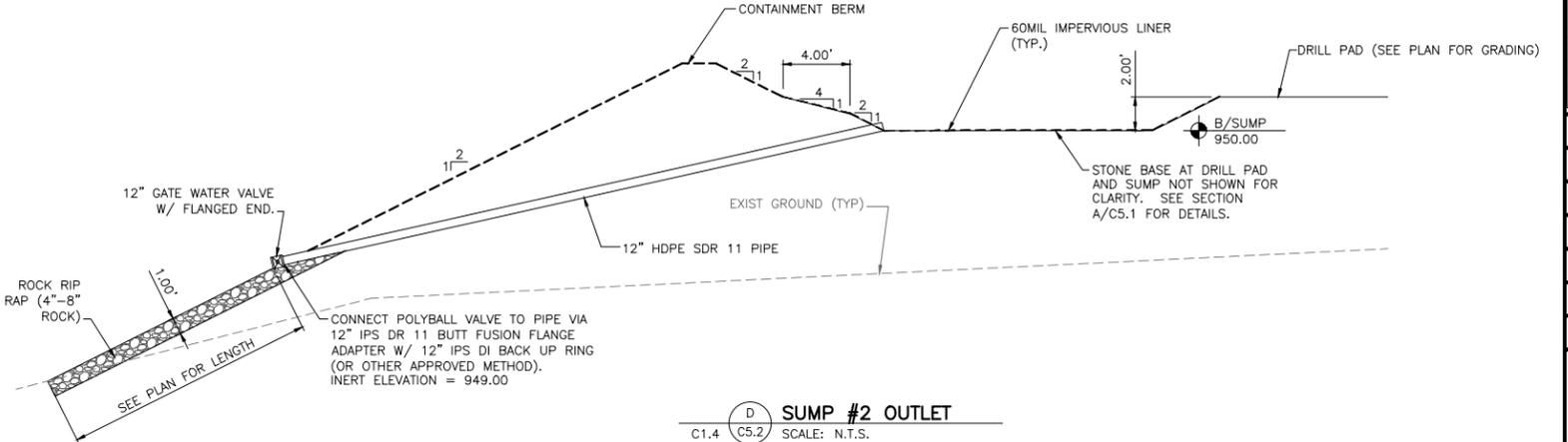
EXPANSION JOINT



3 TYPICAL JOINT DETAILS
C5.2 SCALE: 1"=1'-0"

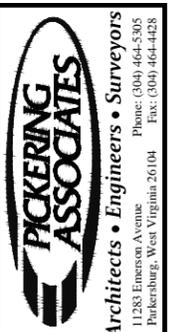


D SUMP #2 OUTLET
C1.4 C5.2 SCALE: N.T.S.



D SUMP #2 OUTLET
C1.4 C5.2 SCALE: N.T.S.

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Date	By	Description
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0		Rev.

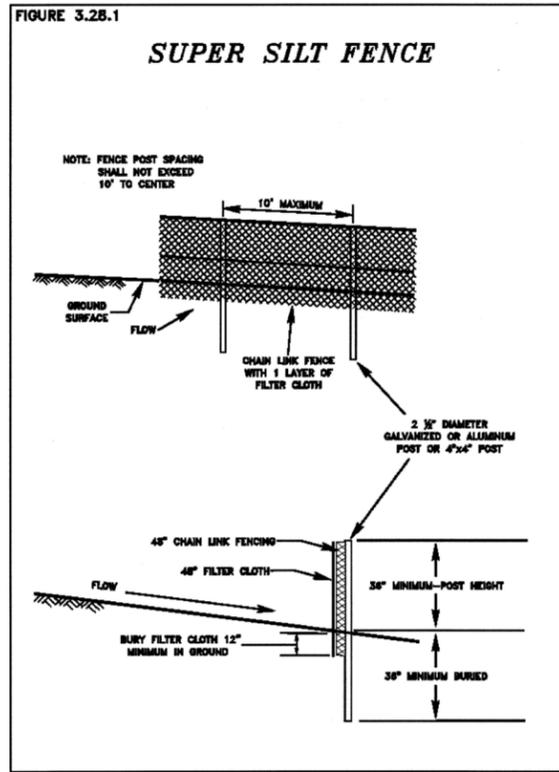
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TRIAD HUNTER, LLC
TYLER COUNTY, WEST VIRGINIA
WELLS MECKLEY LOCATION
SECTIONS AND DETAILS (2 OF 2)



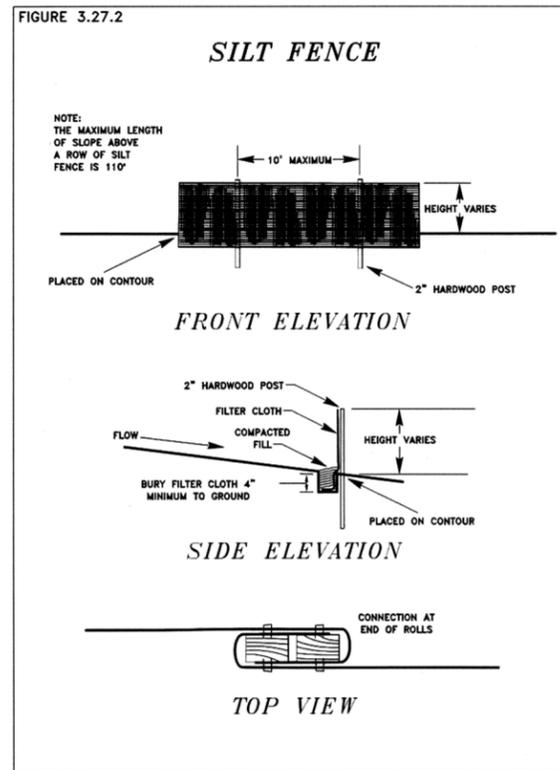
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Plot Date: 01/31/14
Revision: 0
Drawing Number:

C5.2

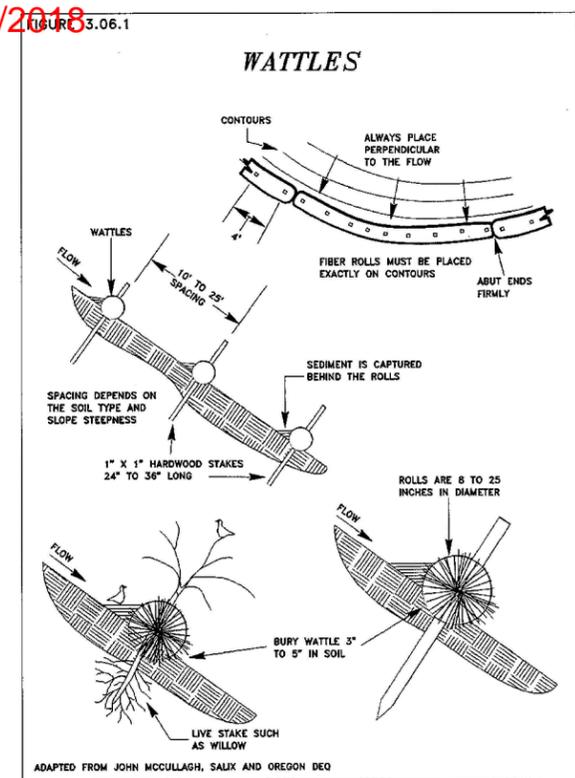
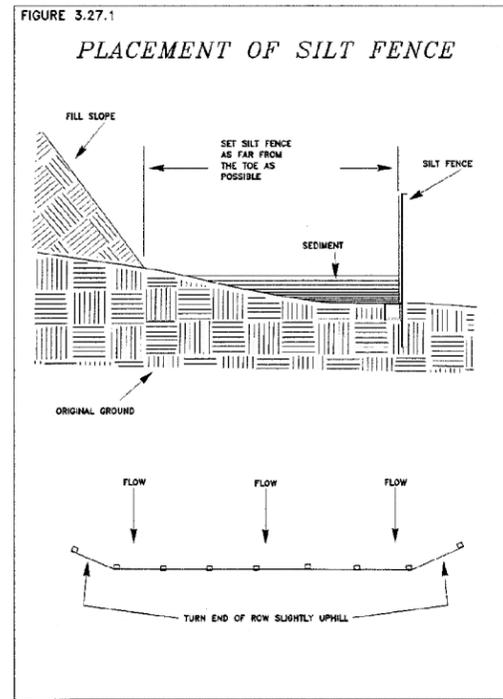
11/16/2018



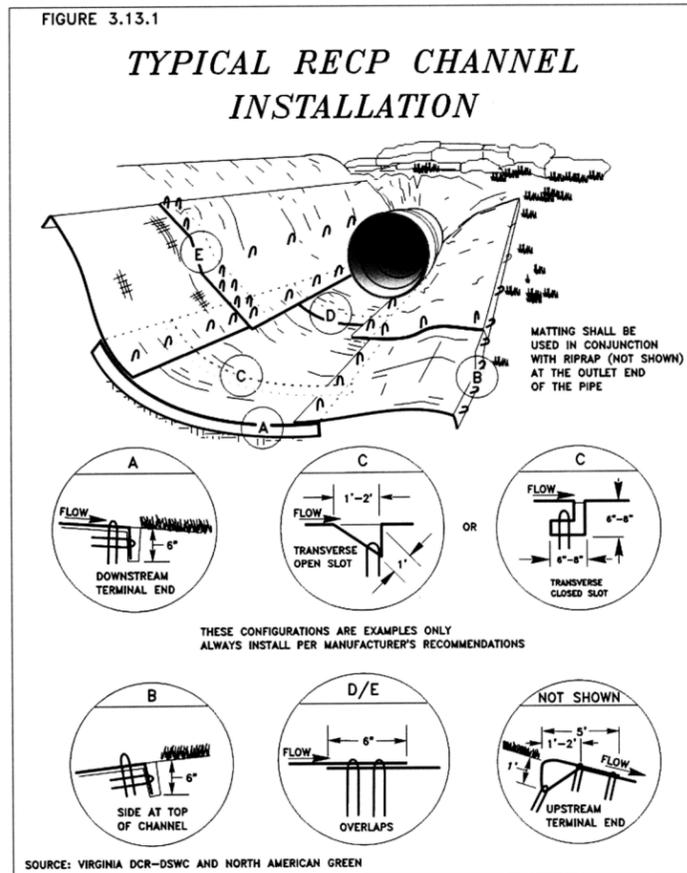
1 SUPER SILT FENCE
C5.3 SCALE: N.T.S.



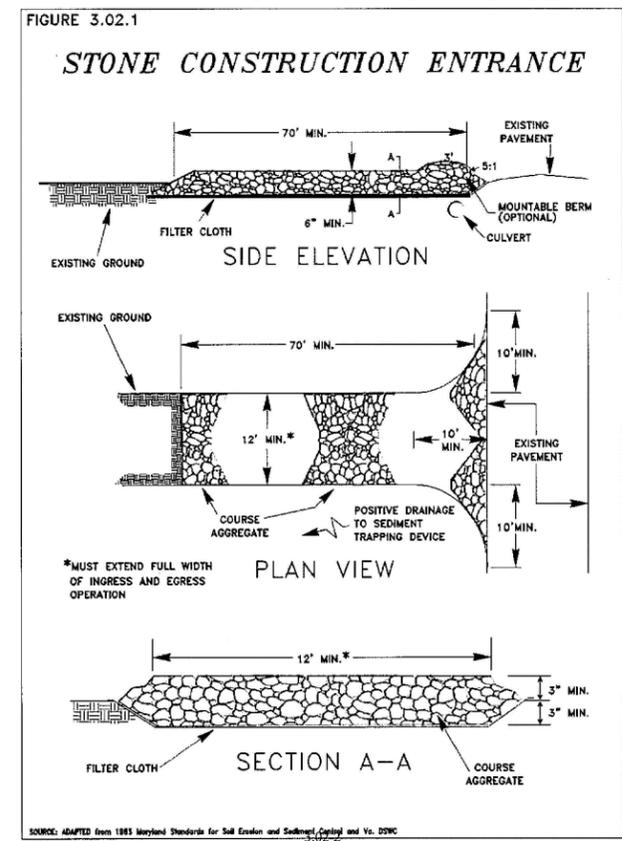
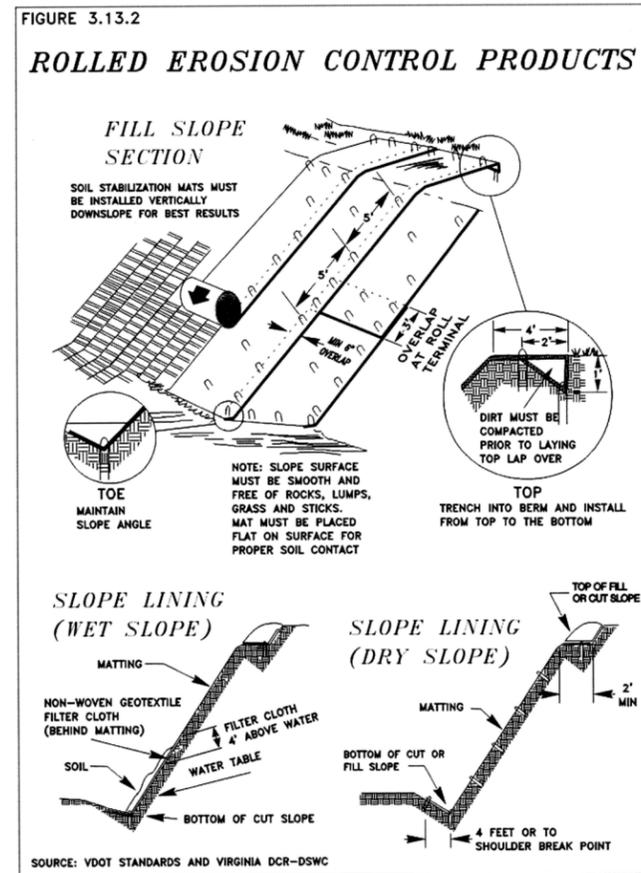
2 SILT FENCE
C5.3 SCALE: N.T.S.



3 WATTLES
C5.3 SCALE: N.T.S.



4 ROLLED EROSION CONTROL PRODUCTS
C5.3 SCALE: N.T.S.



5 STABILIZED CONSTRUCTION ENTRANCE
C5.3 SCALE: N.T.S.

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0	ISSUED FOR PERMIT	MAW	01/31/14	Date
				By
				Description
				Rev.

Drawing Description
 TRIAD HUNTER, LLC
 TYLER COUNTY, WEST VIRGINIA
 WELLS MECKLEY LOCATION
 SEDIMENT/EROSION CONTROL SPECIFICATIONS (1 OF 3)



Project: 2129036.2
 Designed By: AMZ
 Drawn By: AMZ
 Checked By: MAW
 Scale: AS NOTED
 Plot Date: 01/31/14
 Revision: 0
 Drawing Number:

C5.3

Table 3.10.1 Temporary seed chart

PLANT NAMES		PLANTING DATES	APPLICATION RATE LBS/ACRE
COMMON	SCIENTIFIC		
Annual Ryegrass	<i>Lolium multiflorum</i>	3/16 - 3/15 8/1 11/1	40
Field Bromegrass	<i>Bromus tectorum</i>	3/1 - 6/15 8/1 9/15	40
Spring Oats	<i>Avena sativa</i>	3/1 6/15	100
Winter Rye	<i>Secale cereale</i>	8/15 2/28	170
Winter Wheat	<i>Triticum aestivum</i>	8/15 2/28	180
Japanese Millet	<i>Panicum polyanthum</i>	5/15 - 8/15	30
Redtop	<i>Agrostis alba</i>	3/1 6/15	10
Annual Ryegrass and Spring Oats	<i>Lolium multiflorum</i> <i>Avena sativa</i>	3/1 - 6/15	30 70
German Fescue Millet	<i>Syntherisma trichoides</i>	5/1 8/1	40
Hairy Vetch	<i>Vicia villosa</i>	8/15 4/1	60

*Seeds should be treated with fungicide if hydroseeding is utilized.
**Use appropriate rate if hydroseeding is utilized.

TABLE IV-1
TEMPORARY SEEDING FOR CRITICAL AREAS

SEED	RATES IN LBS. PER ACRE	RECOMMENDED DATA
ANNUAL RYEGRASS	40	MAR. 1 TO JUNE 1 AUG. 15 TO SEPT. 15
SPRING OATS	96	MAR. 1 TO JUNE 15
RYE GRAIN	140	AUG. 15 TO OCT. 15
ANNUAL RYEGRASS	26	MAR. 1 TO JUNE 15
SPRING OATS	64	MAR. 1 TO JUNE 15

TABLE IV-2
PERMANENT SEEDING FOR ALL DISTURBED

SEED	RATES IN LBS. PER ACRE	RECOMMENDED DATA
TALL FESCUE LADINO CLOVER	40 5	BEST USED IN WOODED AREA OR PASTURE
TALL FESCUE BIRDSFOOT TREFOIL	30 10	WOODED OR PASTURE OVER 1500 ELEV.
TALL FESCUE CROWNVECH	30 10	WOODED AREAS, STEEP BANKS LOW MAINTENANCE
ORCHARDGRASS BIRDSFOOT TREFOIL	12 10	MEADOW ELEV. OVER 1500
ORCHARDGRASS LADINO	12 5	MEADOW
KENTUCKY BLUEGRASS RED TOP WHITE CLOVER	20 5 2	PASTURE
KENTUCKY BLUEGRASS RED TOP BIRDSFOOT TREFOIL	20 5 10	PASTURE ELEV. OVER 1500

TABLE IV-3
LIME AND FERTILIZER APPLICATION TABLE

pH OF SOIL	LIME IN TONS PER ACRE	FERTILIZER, LBS. PER ACRE 10-20-20-DR EQUIVALENT
ABOVE 6.0	2	500
5.0 TO 6.0	3	500
BELOW 5.0	4	500

TABLE IV-4
MULCH MATERIALS RATES AND USES

MATERIAL	MINIMUM RATES PER ACRE	COVERAGE	REMARKS
HAY OR STRAW	2 TO 3 TONS 100 TO 150 BALES	COVER 75 TO 90% OF SURFACE	SUBJECT TO WIND BLOWING OR WASHING UNLESS TIED DOWN
WOOD FIBER PULP FIBER WOOD CELLULOSE RECYCLED PAPER	1000 TO 1500 LBS.	COVER ALL DISTURBED AREAS	FOR HYDROSEEDING

1 TEMPORARY SEEDING
SCALE: N.T.S.

11/16/2018

NOTES:

- TEMPORARY SEEDING:**
- GENERAL
TEMPORARY VEGETATIVE COVER MUST BE ESTABLISHED WHERE RUNOFF WILL GO DIRECTLY INTO A STREAM IMMEDIATELY UPON CONSTRUCTION OF THE SITE (SITE INCLUDES ROAD AND LOCATION), AND MUST BE ESTABLISHED ON ROAD BANK AND LOCATION SLOPES WHEN RECLAMATION CANNOT BE COMPLETED WITHIN PRESCRIBED 6 MONTHS ALLOWED.
 - SEED MIXTURE
TABLE 1 GIVES RECOMMENDED TYPES OF TEMPORARY VEGETATION, CORRESPONDING RATES OF APPLICATION, AND PLANTING SEASONS. IN SITUATIONS WHERE ANOTHER COVER IS DESIRED, CONTACT THE LOCAL SOIL CONSERVATION DISTRICT FOR SEEDING RECOMMENDATIONS. APPROVAL OF THE OIL AND GAS INSPECTOR IS NEEDED.
 - ESTABLISHMENT
APPLY SEED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATIONS ACCORDING TO THE RATE INDICATED IN TABLE IV-1. PERFORM ALL PLANTING OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
- PERMANENT SEEDING:**
- GENERAL
PLANTING OF PERMANENT VEGETATIVE COVERS SHALL BE PERFORMED ON ALL DISTURBED AREAS. AFTER PROPER GRADING AND SEEDBED PREPARATION, THE VEGETATION WILL REESTABLISH GROUND COVER FOR THE CONTROL OF SURFACE WATER RUNOFF AND EROSION.
 - LIME AND FERTILIZER
1.) LIME SHALL BE APPLIED TO ALL PERMANENT SEEDINGS. THE pH OF THE SOIL IS TO BE DETERMINED AND SHOWN ON THE CONSTRUCTION RECLAMATION PLAN. ONCE THE pH IS KNOWN, SELECT THE AMOUNT OF LIME TO BE APPLIED FROM TABLE IV-3.
2.) FERTILIZER SHALL BE APPLIED TO ALL PERMANENT SEEDINGS. APPLY THE EQUIVALENT OF 500 LBS. MINIMUM 10-20-30 FERTILIZER PER ACRE.
3.) APPLICATION: FOR BEST RESULTS AND MAXIMUM BENEFITS THE LIME AND FERTILIZER ARE TO BE APPLIED AT THE TIME OF SEEDBED PREPARATION.
 - SEED MIXTURES
SELECTION: FROM TABLE IV-2, SELECT SEED MIXTURES THAT ARE BEST SUITED FOR CONDITIONS AT THE SITE.
 - SEEDING FOR WILDLIFE HABITAT
WHEN DEVELOPING CONSTRUCTION AND RECLAMATION PLANS FOR SITES, PLANNERS ARE ENCOURAGED TO CONSIDER THE NEEDS OF WILDLIFE. THE PUBLICATION "MANAGING GAS AND OIL WELL SITE FOR WILDLIFE" PROVIDES DETAILED PLANNING GUIDELINES. THIS PUBLICATION IS AVAILABLE FROM THE OIL AND GAS SECTION OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION OF THE WV DIVISION OF NATURAL RESOURCES.
- MULCHING:**
- GENERAL
MULCH CAN BE USED ALONE FOR TEMPORARY EROSION CONTROL ON IN CONJUNCTION WITH OTHER STRUCTURAL OR VEGETATIVE CONTROL MEASURES. MULCH MUST BE APPLIED TO ALL TEMPORARY AND PERMANENT SEEDINGS ON ALL DISTURBED AREAS. MULCH HELPS PRESERVE MOISTURE, AND TO PREVENT SUN SCOLD AND FREEZING OF THE NEW GROWTH OF SEEDLINGS.
 - SPECIFICATIONS:
FROM TABLE IV-4 SELECT THE TYPE OF MULCH AND RATE OF APPLICATION THAT WILL BEST SUIT THE CONDITIONS AT THE SITE.
 - ANCHORING
DEPENDENT ON THE FIELD SITUATION, MULCH MAY NOT STAY IN PLACE BECAUSE OF WIND ACTION OR RAPID WATER RUNOFF. IN SUCH CASES, MULCH IS TO BE ANCHORED MECHANICALLY OR WITH MULCH NETTING.
 - MECHANICAL ANCHORING
APPLY MULCH AND PULL A MULCH ANCHORING TOOL OVER THE MULCH. WHEN A DISK IS USED, SET THE DISK STRAIGHT AND PULL ACROSS THE SLOPE. MULCH MATERIAL SHOULD BE TUCKED INTO THE SOIL ABOUT THREE INCHES.
 - MULCH NETTING
FOLLOW MANUFACTURER'S RECOMMENDATIONS WHEN POSITIONING AND STAPLING THE MULCH NETTING TO THE SOIL SURFACE.

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Table 3.11.1 Permanent seeding

SEED MIX	PLANT NAMES		APPLICATION RATE LBS/ACRE
	COMMON	SCIENTIFIC	
A	Kentucky 31 Fescue	<i>Festuca arvensis</i>	65
	Red Fescue	<i>Festuca rubra</i>	20
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	5
B	Switchgrass	<i>Panicum virgatum</i>	15
	Orchardgrass	<i>Lolium perenne</i>	20
	Redtop	<i>Agrostis alba</i>	5
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	15
C	Red Fescue	<i>Festuca rubra</i>	20
	Kentucky Bluegrass	<i>Poa pratensis</i>	20
	Marion Bluegrass	<i>Poa pratensis</i>	20
D	Kentucky 31 Fescue	<i>Festuca arvensis</i>	45
	Red Fescue	<i>Festuca rubra</i>	20
	Kentucky Bluegrass	<i>Poa pratensis</i>	25
	White Dutch Clover	<i>Trifolium repens</i>	5
E	Orchardgrass	<i>Lolium perenne</i>	20
	Switchgrass	<i>Panicum virgatum</i>	15
	Crownvetch or	<i>Coronilla varia</i>	20
	Orchardgrass	<i>Lolium perenne</i>	20
F	Orchardgrass	<i>Lolium perenne</i>	20
	Ladino Clover	<i>Trifolium repens</i>	5
	Redtop	<i>Agrostis alba</i>	5
G	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	15
	Winged Lovegrass	<i>Eragrostis ciliaris</i>	45
	Orchardgrass	<i>Lolium perenne</i>	10
H	Crownvetch	<i>Coronilla varia</i>	25
	Orchardgrass	<i>Lolium perenne</i>	40
I	Crownvetch	<i>Coronilla varia</i>	25
	Orchardgrass	<i>Lolium perenne</i>	20
J	Orchardgrass	<i>Lolium perenne</i>	20
	Redtop	<i>Agrostis alba</i>	20
K	Orchardgrass	<i>Lolium perenne</i>	20
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	15
	Winged Lovegrass	<i>Eragrostis ciliaris</i>	5
L	Orchardgrass	<i>Lolium perenne</i>	20
	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
M	Orchardgrass	<i>Lolium perenne</i>	20
	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
N	Orchardgrass	<i>Lolium perenne</i>	20
	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5

Q	Annual Ryegrass	<i>Lolium perenne</i>	40
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	5
	Redtop	<i>Agrostis alba</i>	5
R	Spring Oats	<i>Avena sativa</i>	40
	Orchardgrass	<i>Lolium perenne</i>	30
	Redtop	<i>Agrostis alba</i>	5
S	Orchardgrass	<i>Lolium perenne</i>	20
	Redtop	<i>Agrostis alba</i>	5
	Ladino Clover	<i>Trifolium repens</i>	5
T	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
	White Clover	<i>Trifolium repens</i>	5
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	15
U	Seed Canarygrass	<i>Phalaris arvensis</i>	40
	Winged Lovegrass	<i>Eragrostis ciliaris</i>	5
V	Annual Ryegrass	<i>Lolium perenne</i>	40
	Seed Canarygrass	<i>Phalaris arvensis</i>	10
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	5
W	Timothy	<i>Phleum pratense</i>	10
	Milkvetch	<i>Medicago sativa</i>	18
X	Ladino Clover	<i>Trifolium repens</i>	10
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	15
Y	Redtop	<i>Agrostis alba</i>	5
	Parliament Ryegrass	<i>Lolium perenne</i>	25
	Orchardgrass	<i>Lolium perenne</i>	25
Z	Seed Canarygrass	<i>Phalaris arvensis</i>	40
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	20
	Redtop	<i>Agrostis alba</i>	5
AA	Switchgrass	<i>Panicum virgatum</i>	15
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	20
AB	Switchgrass	<i>Panicum virgatum</i>	15
	Birdsfoot Trefoil	<i>Lotus corniculatus</i>	20
AC	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AD	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AE	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AF	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AG	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AH	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AI	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AJ	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AK	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AL	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AM	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5
AN	Switchgrass	<i>Panicum virgatum</i>	15
	Redtop	<i>Agrostis alba</i>	5

NOTE: When utilizing a pre-mix prepared seedbed, the rates of application can be reduced by 20 percent except for the following:
 * Seed Canarygrass should be used at 40 lbs/acre and/or south of Charleston.
 * White Dutch Clover at 10 lbs/acre and 20 lbs/acre.
 * Redtop at 5 lbs/acre.

Table 3.11.2 Nurse crops

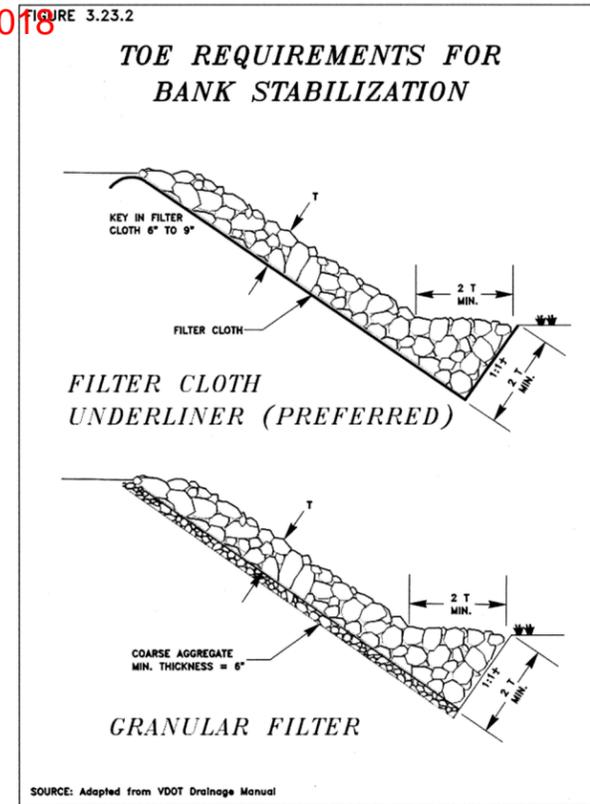
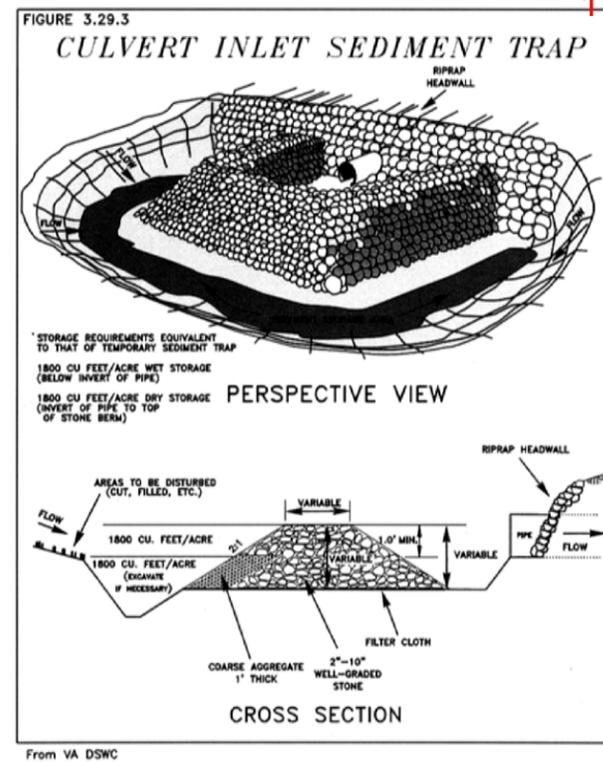
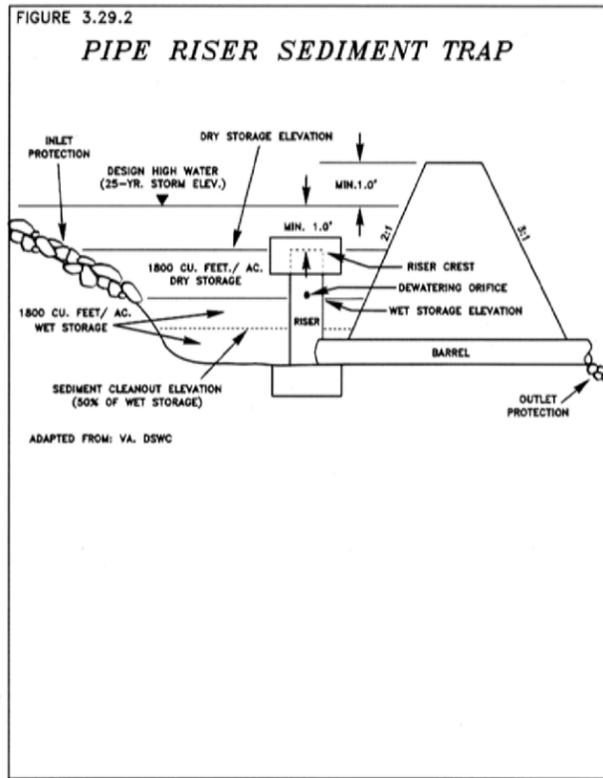
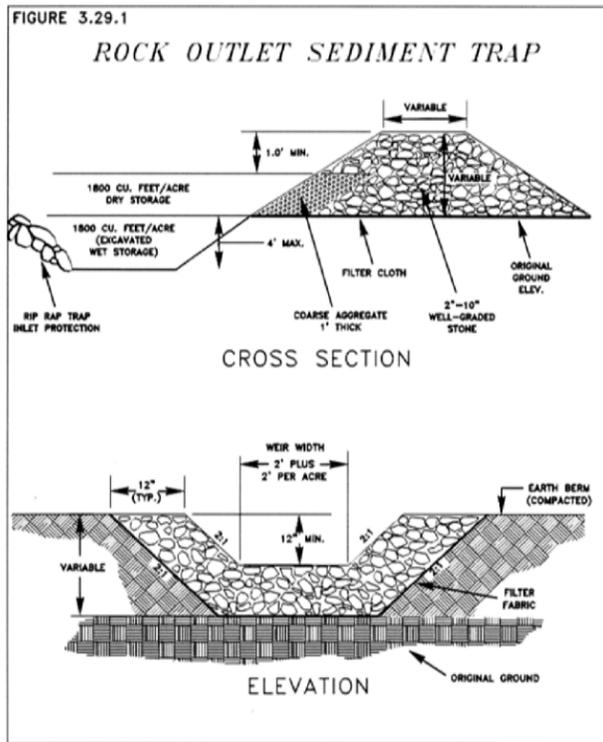
PLANT NAMES		PLANTING DATES	APPLICATION RATE LBS/ACRE
COMMON	SCIENTIFIC		
Annual Ryegrass	<i>Lolium multiflorum</i>	3/16 - 3/15 5/1 11/1	25
Field Bromegrass	<i>Bromus tectorum</i>	3/1 6/15 8/1 9/15	70
Spring Oats	<i>Avena sativa</i>	3/1 6/15	90
Winter Rye	<i>Secale cereale</i>	8/15 - 2/28	85
Winter Wheat	<i>Triticum aestivum</i>	8/15 2/28	70
Japanese Millet	<i>Panicum polyanthum</i>	5/15 - 8/15	15
Redtop	<i>Agrostis alba</i>	3/1 - 6/15	10
Annual Ryegrass and Spring Oats	<i>Lolium multiflorum</i> <i>Avena sativa</i>	3/1 6/15	25 35
German Fescue Millet	<i>Syntherisma trichoides</i>	5/1 8/1	25
Hairy Vetch	<i>Vicia villosa</i>	8/15 4/1	30

*Seeds should be treated with fungicide if hydroseeding is utilized, the application rate is 20 lbs/acre for the recommended rate.

Table 3.11.3 Permanent seeding requirements

SEED MIX	PLANT NAME	SEEDING RATE LBS/ACRE	LIME	FERTILIZER	PASTURE	SLOPE	SOIL TYPE	WATER	WIND	EQUIVALENT NUTRIENT RATES			
										N	P	K	S
A		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
B		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
C		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
D		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
E		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
F		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
G		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
H		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
I		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
J		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
K		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
L		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
M		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
N		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
O		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
P		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
Q		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
R		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
S		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
T		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
U		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
V		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
W		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
X		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
Y		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
Z		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
AA		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
AB		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
AC		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
AD		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	✓
AE		40-75	NO	WELL	FULL SUN	✓	*	✓	✓	✓	✓	✓	

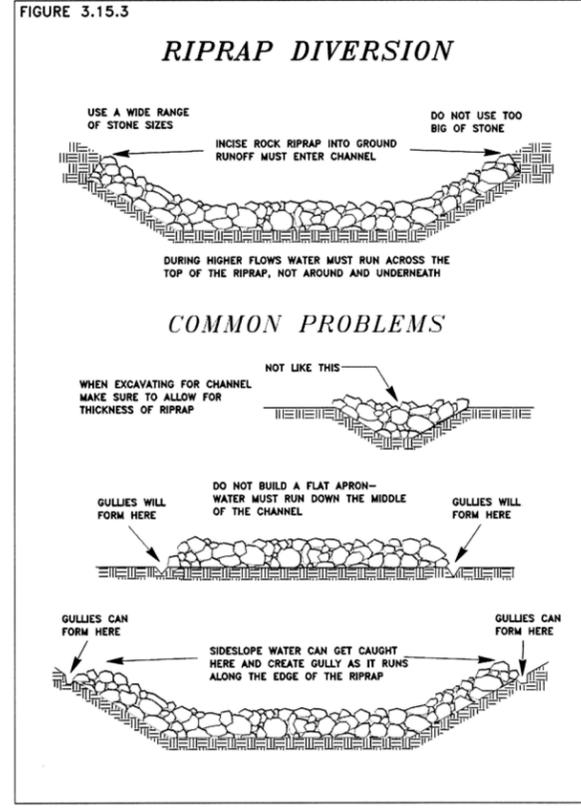
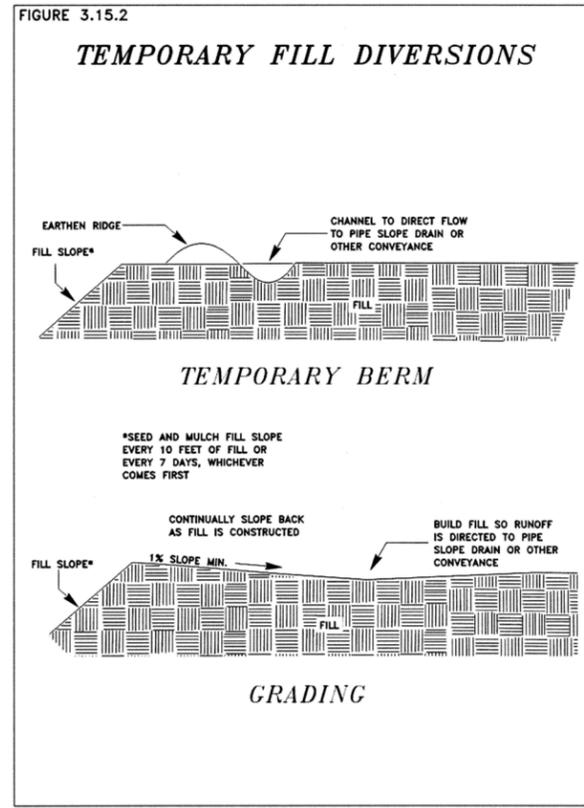
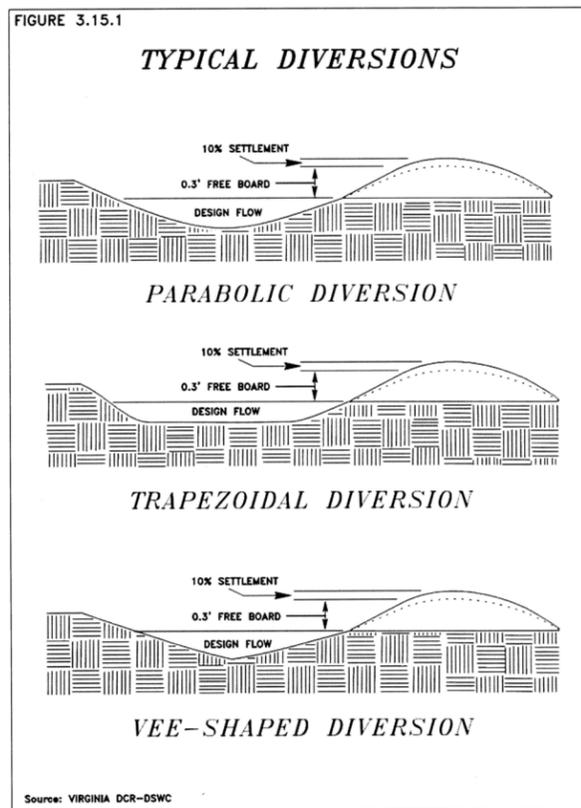
11/16/2018



1 SEDIMENT TRAP
C5.5 SCALE: N.T.S

2 RIPRAP
C5.5 SCALE: N.T.S

APPROVED
WVDEP OOG
SAY 5/20/2014



3 TEMPORARY DIVERSION
C5.5 SCALE: N.T.S



0	ISSUED FOR PERMIT	MAW	01/31/14	Date
				By
				Description
				Rev.

Drawing Description	TRIAM HUNTER, LLC TYLER COUNTY, WEST VIRGINIA WELLS MECKLEY LOCATION SEDIMENT/EROSION CONTROL SPECIFICATIONS (3 OF 3)
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Project:	2129036.2
Designed By:	AMZ
Drawn By:	AMZ
Checked By:	MAW
Scale:	AS NOTED
Plot Date:	01/31/14
Revision:	0
Drawing Number:	C5.5

GEOMETRIC LAYOUT TABLE			
MARK	NORTHING	EASTING	COMMENTS
DP1	380038.8446	1567221.9705	DRILL PAD
DP2	380218.7036	1567599.1848	DRILL PAD
DP3	380401.8759	1567343.2578	DRILL PAD
DP4	380500.2866	1567310.0131	DRILL PAD
DP5	380422.4438	1567080.7889	DRILL PAD
DP6	380191.1933	1567032.3560	DRILL PAD
DP7	380113.4471	1567144.4485	DRILL PAD
PP1	380476.7296	1567071.9820	PRODUCTION PAD
PP2	380551.0251	1567283.7714	PRODUCTION PAD
PP3	380594.6357	1567280.8154	PRODUCTION PAD
PP4	380881.0317	1567194.5456	PRODUCTION PAD
PP5	380795.8574	1566906.8945	PRODUCTION PAD
PP6	380682.3954	1566967.5334	PRODUCTION PAD
PP7	380511.4559	1567021.1784	PRODUCTION PAD
R1	378779.3759	1567273.2796	MAIN ACCESS ROAD STA. 0+00.00
R2	378903.3607	1567180.1756	MAIN ACCESS ROAD PC: STA. 1+55.05
R3	378936.1314	1567137.4234	MAIN ACCESS ROAD PT: STA. 2+09.59
R4	379000.1287	1566977.7942	MAIN ACCESS ROAD PC: STA. 3+81.81
R5	379326.7849	1566910.3960	MAIN ACCESS ROAD PT: STA. 7+76.08
R6	379422.3384	1567004.9623	MAIN ACCESS ROAD PC: STA. 9+10.75
R7	379514.1894	1567056.9259	MAIN ACCESS ROAD PT: STA. 10+17.55
R8	380073.5928	1567198.4890	MAIN ACCESS ROAD STA. 15+95.00
R9	380394.3989	1567075.4763	PRODUCTION PAD ACCESS ROAD STA. 0+00.00
R10	380436.7548	1567011.5241	PRODUCTION PAD ACCESS ROAD PC: STA. 0+76.71
R11	380594.5352	1566999.9330	PRODUCTION PAD ACCESS ROAD PT: STA. 2+59.20
SP1	378876.8764	1567148.0596	STAGING PAD
SP2	378823.3346	1567095.5450	STAGING PAD
SP3	378768.1395	1567146.3225	STAGING PAD
SP4	378812.9629	1567204.4942	STAGING PAD

DRAINAGE TABLE										
MARK	TYPE	NORTHING	EASTING	NORTHING	EASTING	T/GRATE	INV. IN	INV. OUT	LENGTH	COMMENTS
P-1	12" HDPE	378783.5511	1567214.6737	378819.1741	1567286.3047	-	732.25	731.85	80.00	FLARED END SECTION-BOTH ENDS
P-2	12" HDPE	378831.9740	1567308.9586	378845.2857	1567323.8276	-	731.80	731.70	20.00	FLARED END SECTION-BOTH ENDS
P-3	12" HDPE	379139.9039	1566872.4953	379121.9073	1566843.6488	-	813.00	812.50	34.00	FLARED END SECTION-BOTH ENDS
P-4	12" HDPE	379249.9711	1566878.0476	379240.7737	1566845.3172	-	833.00	832.25	34.00	FLARED END SECTION-BOTH ENDS
P-5	12" HDPE	379333.1351	1566936.5425	379339.6824	1566903.1361	-	846.00	845.50	34.00	FLARED END SECTION-BOTH ENDS
P-6	12" HDPE	380434.3181	1567056.2905	380400.6767	1567031.1958	-	954.00	953.00	42.00	FLARED END SECTION-BOTH ENDS
P-7	12" HDPE	379406.3637	1567007.2888	379417.5175	1566979.4393	-	859.00	858.00	30.00	FLARED END SECTION-BOTH ENDS
P-8	12" HDPE	379533.2431	1567044.8725	379529.4550	1566978.9813	-	874.75	874.00	66.00	FLARED END SECTION-BOTH ENDS
P-9	12" HDPE	379545.1918	1567079.5815	379536.2437	1567047.8178	-	876.00	875.00	33.00	FLARED END SECTION-BOTH ENDS
P-10	12" HDPE	379699.7375	1567087.3409	379700.1289	1567020.3420	-	895.00	894.00	67.00	FLARED END SECTION-BOTH ENDS
P-11	12" HDPE	379712.3705	1567122.0585	379703.7887	1567090.1939	-	897.00	896.00	33.00	FLARED END SECTION-BOTH ENDS
P-12	12" HDPE	379866.8635	1567129.0161	379863.5412	1567093.1698	-	925.00	924.00	36.00	FLARED END SECTION-BOTH ENDS
P-13	12" HDPE	379875.8891	1567162.9742	379869.9365	1567133.5707	-	928.00	926.00	30.00	FLARED END SECTION-BOTH ENDS

11/16/2018

APPROVED
WVDEP OOG
SAY 5/20/2014



ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
201001-000	CLEARING AND GRUBBING	LS	1
204001-000	MOBILIZATION	LS	1
207001-001	UNCLASSIFIED EXCAVATION	CY	120.400
207034-000	FABRIC FOR SEPARATION	SY	30.050
307001-000	AGGREGATE BASE COURSE, CLASS 1	CY	5.340
	#2 LIMESTONE	CY	5.340
633003-001	DUMPED ROCK GUTTER (4" X 8" STONE)	CY	280
636017-000	TEMPORARY CONCRETE BARRIER	LF	180
642004-001	SEED MIXTURE, MULCH, LIME, ETC. (TEMPORARY & PERMANENT)	LS	1
	ROCK CHECK DAM	EA	6
642012-001	SUPER SILT FENCE	LF	4,375
	W/ATTLES	LF	10,075
	TYPE 20 DOUBLE-NET EROSION CONTROL BLANKETS	SY	27,120
	4" DIA. PERFORATED PIPE	LF	1,185
	8" DIA. PERFORATED PIPE	LF	220
	8" DIA. NON-PERFORATED PIPE	LF	140
207034-000	FABRIC FOR SEPARATION (FRENCH DRAIN)	SY	1,820
	NO. 57 STONE BACKFILL (FRENCH DRAIN)	CY	280
	12" HDPE PIPE	LF	540
	12" HDPE SDR 11 PIPE	LF	40
	12" GATE VALVE (W/ FLANGE ADAPTER & RING)	EA	6
501001-008	8" PORTLAND CEMENT CONCRETE PAVEMENT (ENTRANCE)	SY	265
	CLEAN SAND PIPE BEDDING (GAS LINE TRENCH)	CY	67

ESTIMATE OF QUANTITIES - ALTERNATE #1 (CONCRETE CELLARS)			
ITEM	DESCRIPTION	UNIT	QUANTITY
	96" CONDUIT, TYPE A, METALLIC COATED CORRUGATED STEEL PIPE	LF	40
501001-008	8" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT (CONCRETE CELLARS)	SY	50

ESTIMATE OF QUANTITIES - ALTERNATE #2 (CONCRETE SEPARATOR PADS)			
ITEM	DESCRIPTION	UNIT	QUANTITY
501001-008	8-INCH REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT (SEPARATOR PAD)	SY	382

SUMMARY NOTES:

- THE PARTIAL SUMMARY OF QUANTITIES IS ESTIMATED AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED TO COMPLETE THE PROJECT ACCORDING TO THE PROJECT DOCUMENTS. THE ESTIMATED QUANTITIES SHOWN ABOVE ARE GIVEN AS A GUIDE TO ASSIST THE CONTRACTOR IN BIDDING THE PROJECT. THE PROJECT WILL BE AWARDED ON A LUMP SUM CONTRACT AND THE SUCCESSFUL CONTRACTOR WILL BE REQUIRED TO MEET THE FULL INTENT OF THE DRAWINGS REGARDLESS IF THE QUANTITIES ABOVE ARE CORRECT, ALL INCLUSIVE, ETC. CONTRACTOR SHALL NOTIFY ENGINEER DURING BIDDING PROCESS IF THERE ARE ANY DISCREPANCIES WITH THE QUANTITIES SHOWN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATING ALL WORK INTO APPROPRIATE PHASES ACCORDING TO THE CONSTRUCTION AND AS DIRECTED BY THE OWNER. THE PARTIAL SUMMARY CONTAINS THE TOTAL ESTIMATED QUANTITIES FOR ALL PHASES OF WORK. ALL PHASES SHALL BE BID TOGETHER AND CONSTRUCTED UNDER ONE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALLOTMENT OF WORK ITEMS PER PHASE AND COMPLETING THE RESPECTIVE WORK ACCORDINGLY.
- THE COST OF ALL INSPECTIONS, SAMPLING, AND TESTING SHALL BE INCIDENTAL TO EACH RESPECTIVE WORK ITEM.

*MULCH, FERTILIZER, LIME, WATER, ETC. QUANTITIES ARE NOT SHOWN. WVDH SECTIONS 642 AND 652 SHALL BE REFERENCED FOR SPECIFIC REQUIREMENTS.
 **TEMPORARY AND PERMANENT SEEDING AND MULCHING SHALL BE PERFORMED AS REQUIRED IN ACCORDANCE WITH THE PROJECT DOCUMENTS.
 ***THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SITE LAYOUT INCLUDING BENCH MARKS, CENTERLINES, ETC. IN ACCORDANCE WITH SECTION 639.

Date	By	Description
01/31/14	MAW	ISSUED FOR PERMIT
0		Rev.

Drawing Description
 TRIAD HUNTER, LLC
 TYLER COUNTY, WEST VIRGINIA
 WELLS MECKLEY LOCATION
 TABLES AND SCHEDULES



Project: 2129036.2
 Designed By: AMZ
 Drawn By: AMZ
 Checked By: MAW
 Scale: AS NOTED
 Plot Date: 01/31/14
 Revision: 0
 Drawing Number:
C6.1