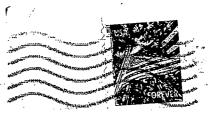
Jackson Surveying, Inc PO Box 1460 Clarksburg, WV 26302

PETH A ROCKES
COUNTY CLERK
JOURIOGE COUNTY, WV

CHARLESTON WY 25

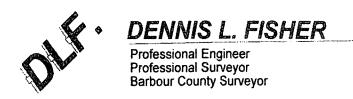
es lan auga ph 3



Dan Wellings
Doddridge Co. Floodplain Coordinator
Doddridge Co. Courthouse
118 E. Court Street
West Union, WV 26456

26456126227 %

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PO BOX 281, PHILIPPI, WEST VIRGINIA 26416 CELL (304) 677-4129 Fisher.Engineering@gmx.com

January 3, 2014

Dan Wellings

**Doddridge County Floodplain Coordinator** 

**Doddridge County Courthouse** 

118 E. Court Street

West Union, West Virginia 26456



Re: Jay Bee Oil & Gas Drilling

Robert M. Ash Pad

McClellan District

**Doddridge County** 

Dear Dan:

I am attaching a copy of the FEMA Firm Map Panel 540024 0045C showing the Robert M. Ash Pad in relation to the AE Flood Zone. This letter will serve to certify that no construction for the proposed pad and access road will be within the flood zone area. If you need any additional information, please do not hesitate to contact me.

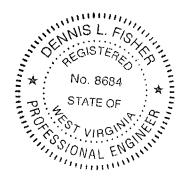
Cordially yours,

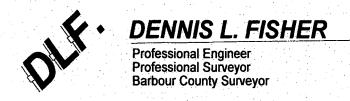
Dennis L. Fisher

Renner Fother

Alemnoh Adler

Dennis L. Fisher, WV PE # 8684





PO BOX 281, PHILIPPI, WEST VIRGINIA 26416 CELL (304) 677-4129 Fisher Engineering@gmx.com

January 3, 2014

**Dan Wellings** 

**Doddridge County Floodplain Coordinator** 

**Doddridge County Courthouse** 

118 E. Court Street

West Union, West Virginia 26456



Re: Jay Bee Oil & Gas Drilling

Robert M. Ash Pad

**McClellan District** 

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Cordially yours,

Renner Fisher

Dennis L. Fisher

Dennis L. Fisher, WV PE #8684

Dennish Alex

NO. 8684

NO. 8684

STATE OF

OFFICE VIRGINITY

SOLONAL ENGINEERS



# JAY-BEE OIL & GAS, INC.

December 26, 2013

Doddridge County Floodplain Commission 135 Court Street, Room 102 West Union, WV 26456

RE: Robert M Ash Pad Flood Zone

WIDDEC 27 PM 2:49
BETH A. ROGERS
COUNTY CLERK

Flood Permitting Commission:

We have recently applied for a well permit for the Robert M Ash Pad in Doddridge County, West Virginia. Included in this packet is the Doddridge County Floodplain Permit Application, set of construction plans, and WV Floodplain Tool snapshot.

Being that this location is an existing pad, and well out of the floodplain, we have reason to believe that this will not require a flood survey. We are asking for initial review prior to submitting a large volume check.

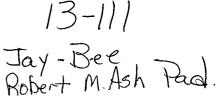
If I am incorrect, please call me at 304-628-3111 and let me know of the remaining steps that I need to take in this process.

Sincerely,

Shane Dowell Office Manager

# DODDRIDGE COUNTY FLOODPLAIN APPLICATION PERMIT FEES

Accessory Building and/ or Appurtenant Structures
(examples: garage, storage or pole building, carport)
(the total cost of which do not exceed \$10,000.00)
Accessory Building and/or Appurtenant Structures, Additions and/or Substantial Improvement
to Single Family Residential or Manufactured Homes, New Single or Multi-Family Residential and
Commercial Structures or Substantial Improvement to existing Commercial Structures, Commercial
Land Use Changes and Land Altering Activities
(commercial structures includes buildings used for business purposes)
(the total costs of which exceed \$10,000.00 but do not exceed \$50,000.00) — \$250.00
(110 100 100 100 100 100 100 100 100 100
Accessory Building and/or Appurtenant Structures, Additions and/or Substantial Improvement
to Single Family Residential or Manufactured Homes, New Single or Multi-Family Residential and
Commercial Structures or Substantial Improvement to existing Commercial Structures, Commercial
Land Use Changes and Land Altering Activities
(commercial structures includes buildings used for business purposes)
(the total costs of which exceed \$50,000.00 = \$350.00 fee plus \$2.00 additional fee per
\$1,000.00 in project costs to cover amounts over
\$50,000.00)
Al Is directed Christians on Additions and/or Ophstantial Improvement to Evicting Industrial
New Industrial Structures or Additions and/or Substantial Improvement to Existing Industrial
Structures, changes in Land Use and Land Altering Activities for Industrial purposes
(industrial structures includes oil and/or natural gas wells, roads, bridges, tank pads, and
Buildings used or associated with oil and natural gas purposes)
(the total costs of which do not exceed \$100,000.00) \$500.00
·
New Industrial Structures or Additions and/or Substantial Improvement to Existing Industrial
Structures, changes in Land Use and Land Altering Activities for Industrial purposes
(industrial structures includes oil and/or natural gas wells, roads, bridges, tank pads, and
Buildings used or associated with oil and natural gas purposes)
(the total costs of which exceed \$100,000.00 = \$1,000.00 fee plus \$5.00 additional fee per
\$1,000.00 in project costs over
\$1,000.00 in project costs over \$1,000.00 flat fee up to \$100,000.00 in project
costs ;
Maximum Fee: In no event shall any Floodplain Application Permit Fee charged under the Doddridg
County Hoodplain Ordinance exceed the sum of \$25,000.00.



# FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

# **SECTION 1: GENERAL PROVISIONS (APPLICANT TO READ AND SIGN)**

- 1. No work may start until a permit is issued.
- 2. The permit may be revoked if any false statements are made herein.
- 3. If revoked, all work must cease until permit is re-issued.
- 4. Development shall not be used or occupied until a Certificate of Companies issued.
- 5. The permit will expire if no work is commenced within six months of issuace.
- **6.** Applicant is hereby informed that other permits may be required to fulfill local state, and federal requirements.
- 7. Applicant hereby gives consent to the Floodplain Administrator/Manager or his/her representative to make inspections to verify compliance.
- 8. I, THE APPLICANT CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

**APPLICANT'S SIGNATURE** 

DATE 12-26-2013

# SECTION 2: PROPOSE DEVELOPMENT (TO BE COMPLETED BY APPLICANT).

IF THE APPLICANT IS NOT A NATURAL PERSON, THE NAME, ADDRESS, AND TELEPHONE NUMBER OF A NATURAL PERSON WHO SHALL BE APPOINTED BY THE APPLICANT TO RECEIVE NOTICE PURSUANT TO ANY PROVISION OF THE CURRENT DODDRIDGE COUNTY FLOODPLAIN ORDINANCE.

APPLICANT'S NAME: Jay-Bee Oil & Gas, Inc

ADDRESS: 3570 Shields Hill Rd, Cairo, WV 26337

TELEPHONE NUMBER: 304-628-3111

BUILDER'S NAME: Ellison Dozer Service

ADDRESS: 184 Butternut St, Elizabeth, WV 26143-9735

TELEPHONE NUMBER: 304-375-3220

**ENGINEER'S NAME:** Jackson Surveying

ADDRESS: 677 W. Main St, Clarksburg, WV 26301

**TELEHONE NUMBER:** 304-623-5851

## **PROJECT LOCATION:**

NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Robert M. Ash

ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) 2395 Whitehall Blvd

Whitehall, WV 26554

**DISTRICT:** McClellan

DATE/FROM WHOM PROPERTY

PURCHASED: Leased 3/2010

LAND BOOK DESCRIPTION: 55 Acres

**DEED BOOK REFERENCE: 242/442** 

TAX MAP REFERENCE: Map 11 Parcel 09

EXISTING BUILDINGS/USES OF PROPERTY: Road and Drilling pad is existing

NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT

**PROPERTY** Robert M. Ash (not residing, owning only)

ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE

SUBJECT PROPERTY 2395 Whitehall Blvd

Whitehall, WV 26554

To avoid delay in processing the application, please provide enough information to easily identify the project location.

DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES)

A. STRUCTURAL DEVELOPMENT

	<u> </u>	114111				SINOCIO	MALTIPE	•
0 0 <b>18</b> 0 0	New Struct Addition Alteration Relocation Demolition Manufactu		bil Home		0 0 0 0 0	Residential Non-reside	(1 – 4 Family) (more than 4 ntial (floodpro Use (res. & co nt	Family) oofing)
В.	OTHER DE	VEOPLI	MENT ACTIV	/ITIES:				
(1) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	Watercours Drainage In Road, Stree Subdivision Individual N Other (plea	se Altero nproven et, or Bri n (includi Water or ase speci	Mining for STRUCTUR cation (including dge Construct ing new expan Sewer System ify)  PLAN OR SI	ng dredgi ng culvert ion nsion)	ing and ch	T checked at	•	
1.			DARD SITE PLA				ARED.	
. 2.	SKETCH ON THE LOT. S	N A SEPA SHOW TI G BUILD ES OR LA	PLANS HAVE RATE 8 ½ X 11 HE LOCATION ING SETBACKS AND USES ON HE SKETCH.	. INCH SH OF THE II 5, SIZE & I	IEET OF P NTENDED HEIGHT.	APER THE SH	TION OR LANG	D USE
			RUCTION C					

D. ADJACENT AND/OR AFFECTED LANDOWNERS:

CONSTRUCTION PROJECT IS WITHIN THE FLOODPLAIN \$ 25,000

1. NAME AND ADDRESS OF ALL OWNERS OF SURFACE TRACTS ADJACENT TO THE AREA OF THE SURFACE TRACT (UP & DOWN STREAM) UPON WHICH THE PROPOSED ACTIVITY WILL OCCUR AND ALL OTHER SURFACE OWNERS UP & DOWN STREAM) WHO OWN PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY (IF ONE HAS BEEN COMPLETED).

NAME: Frank Simons

111111111111111111111111111111111111111	
DDRESS: 20013 Waterbeach Place	ADDRESS: 536 Elizabeth Lane
erling, VA 20165	Glenburnie, MD 21061
AME: Robert M Ash	NAME: Jack Lamp
DDRESS: 2395 Whitehall Blvd	ADDRESS: HC 67 Box 131
hitehall, WV 26554	
LOCATED UPON ANY ADJACENT I	NAME:

## E. CONFIRMATION FORM

THE APPLICANT ACKNOWLEDGES, AGREES, AND CONFIRMS THAT HE/IT WILL PAY WITHIN 30 DAYS OF RECEIPT OF INVOICE BY THE COUNTY FOR ALL EXPENSES RELATIVE TO THE PERMIT APPLICATION PROCESS GREATER THAN THE REQUIRED DEPOSIT FOR EXPENSES INCLUDING:

- (A) PERSONAL SERVICE OF PROCESS BY THE DODDRIDGE COUNTY SHERIFF AT THE RATES PERMITTED BY LAW FOR SUCH SERVICE.
- (B) SERVICE BY CERTIFIED MAIL RETURN RECEIPT REQUESTED.
- (C) PUBLICATION.

- (D) COURT REPORTING SERVICES AT ANY HEARINGS REQUESTED BY THE APPLICANT.
- (E) CONSULTANTS AND/OR HEARING EXPERTS UTILIZED BY DODDRIDGE COUNTY FLOODPLAIN ADMINISTRATOR/MANAGER OR FLOODPLAIN APPEALS BOARD FOR REVIEW OF MATERIALS AND/OR TESTIMONY REGARDING THE EFFICACY OF GRANTING OR DENYING THE APPLICANT'S FLOODPLAIN PERMIT.

NAN	ME (PRINT): Shane Dowell	71.5 - 1.5 -	
SIGN	NATURE: M.	DATE: 12-26	6-2013
	r completing SECTION 2, APPLICANT should submit form to ininistrator/Manager or his/her representative for review.	Floodplain	
		lokod by Fl	
	TION 3: FLOODPLAIN DETERMINATION (to be comninistrator/Manager or his/her representative)	pieted by Fi	oodpiain `
THE	PROPOSED DEVELOPMENT:		
THE	PROPOSED DEVELOPMENT IS LOCATED ON:		
FIRIN Date	1 Panel: 45 ed: 10/04/2011		
revio	Is <u>NOT</u> located in a Specific Flood Hazard Area (Notify agew is complete and <b>NO FLOOPLAIN DEVELOPMENT PERMI</b> )		
[]	Is located in Special Flood Hazard Area.	•	
	FIRM zone designation  100-Year flood elevation is:		NGVD (MSL)
[]	Unavailable	•	. :
	The proposed development is located in a floodway.  FBFM Panel No	Dated	· · · · · · · · · · · · · · · · · · ·
[] .	See section 4 for additional instructions.		

SIGNED Dan Welling

DATE 01/09/2014

# SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Floodplain Administrator/Manager or his/her representative)

The applicant must submit the documents checked below before the application can be processed.

]	A plan showing the location of all existing structures, water bodies, adjacent roads, lot dimensions and proposed development.
	Development plans, drawn to scale, and specifications, including where applicable: details for anchoring structures, storage tanks, proposed elevation of lowest floor, (including basement or crawl space), types of water resistant materials used below the first floor, details of flood proffing of utilities located below the first floor and details of enclosures below the first floor. Also
	Subdivision or other development plans (If the subdivision or development exceeds 50 lots or 5 acres, whichever is the lesser, the applicant must provide 100-year flood elevations if they are not otherwise available).
[]	Plans showing the extent of watercourse relocation and/or landform alterations.
[]	Top of new fill elevationFt. NGVD (MSL).  For floodproofing structures applicant must attach certification from registered engineer or architect.
[]	Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood. A copy of all data and calculations supporting this finding must also be submitted.
[]	Manufactured homes located in a floodplain area must have a West Virginia  Contractor's License and a Manufactured Home Installation License as required by the  Federal Emergency Management Agency (FEMA).

DIT D L.	MIT DETERMINATION (To be completed by Floodplain	
<u>Administra</u>	tor/Manager or his/her representative)	
provisions of	nined that the proposed activity (type is or is not) in conformand the Floodplain Ordinance adopted by the County Commission of lay 21, 2013. The permit is issued subject to the conditions attack this permit.	Dod
SIGNED	DATE	
with the prov	lain Administrator/Manager found that the above was not in convisions of the Doddridge County Floodplain Ordinance and/or dereshe applicant may complete an appealing process below.	
APPEALS:	Appealed to the County Commission of Doddridge County? [] Y	'es {]
	County Commission Decision - Approved [] Yes [] No	

# SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Compliance is issued).

The following information must be provided for project structures. This section must be completed by a registered professional engineer or a licensed land surveyor (or attach a certification to this application).

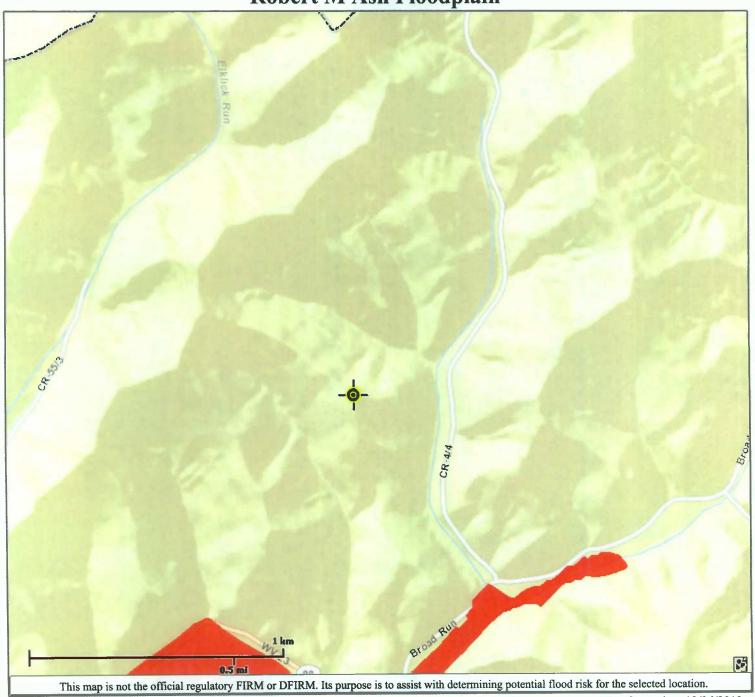
# COMPLETE 1 OR 2 BELOW:

Actual (As-Built) Elevation of the top of the lowest floor (including basement or	
crawl space isFT. NGVD (MSL)	
2 Actual (As Built) elevation of floodproofing isFT. NGVD (MSL)	
Note: Any work performed prior to submittal of the above information is at risk of the applicant.	
SECTION 7: COMPLIANCE ACTION (To be completed by the Floodplain	
SECTION 7: COMPLIANCE ACTION (To be completed by the Floodplain  Administrator/Manager or his/her representative).  The Floodplain Administrator/Manager or his/her representative will complete this section as applicable based on inspection of the project to ensure compliance with the Doddridge County Floodplain Ordinance.  INSPECTIONS:  DATE:	
as applicable based on inspection of the project to ensure compliance with the Doddridge	
INSPECTIONS:	
DATE: BY:	
DEFICIENCIES? Y/N	
COMMENTS	
SECTION 8: CERTIFICATE OF COMPLIANCE (To be completed by Floodplain	
Administrator/Manager or his/her representative).	
Certificate of Compliance issued: DATE:BY:	

# CERTIFICATE OF COMPLIANCE FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREA (OWNER MUST RETAIN)

	PERMIT NUMBER: PERMIT DATE:		, :
PL	JRPOSE –		
CONSTRUCTION LOC	ATION:		
OWNER'S ADDRESS:			
	IST BE COMPLETED BY THE F ANAGER OR HIS/HER AGENT		
	S HEREBY CERTIFIED WITH T		
	ANCE ADOPTED BY THE COU	NTY COMMISSION O	F `
DODDRIDGE COUNT	Y ON MAY 21, 2013.		
			. :
SIGNED		DATE	`

Robert M Ash Floodplain



Map Created on 12/26/2013



Location of the mouse click



Flood Hazard Zone (1% annual chance floodplain)

**User Notes:** 

## Disclaimer:

The online map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. To obtain more detailed information in areas where Base Flood Elevations have been determined, users are encouraged to consult the latest Flood Profile data contained in the official flood insurance study. These studies are available online at www.msc.fema.gov.

WV Flood Tool is supported by FEMA, WV NFIP Office, and WV GIS Technical Center (http://www.MapWV.gov/flood)

Flood Hazard Area: Selected site is NOT WITHIN any identified flood hazard area. Unmapped flood hazard areas may be present.

Elevation: About 1161 feet

Location (long, lat): 80.676235 W, 39.415105 N

**Location (UTM 17N): (527871, 4362893) FEMA Issued Flood Map: 54017C0045C** 

Contacts: Doddridge County

CRS Information: No CRS information available

Parcel Number:

# West Virginia State Plane NAD '83 North Zone RTK GPS

YOU DIG! Dial 811 or 800.245.4848

# Robert M. Ash Well Pad Site Plan

McCLELLAN DISTRICT, DODDRIDGE COUNTY, WV

Prepared for JAY BEE OIL & GAS

Date: October 03, 2013

PAD PLAN SHEET

TOTAL DISTURBED AREA: 3.7 ACRES ROAD DISTURBED AREA: 0.9 ACRES PAD DISTURBED AREA: 2.8 ACRES

Revisions: 12/19/13 Changed name revised reclamation plan.

Sheet Description Cover

- Notes
- Details
- Details
- Details
- Existing Contour Plan
- Pad Plan
- Pad Profile & Cross Sections Impoundment Plan & Road

- Reclamation Plan Access Road Plan & Profile
- Access Road Plan & Profile

CENTER PAD Geographic NAD 83 Latitude: 39.414900 Longitude: 80.674819

Geographic NAD 27 Latitude: 39.414817 Longitude: 80.674997

UTM, NAD 83 (METERS) North: 4362870.6 East: 527992.8

WELL ENTRANCE INT. Geographic NAD 83 Latitude: 39.415900 Longitude: 80.671875

Geographic NAD 27 Latitude: 39.415817 Longitude: 80.672053

UTM, NAD 83 (METERS) North: 4362982.5 East: 528245.9

# Design Certification The drawings, construction notes and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection, Office of Ol and Cas

The information reflects a gas well drilling pad.

Dennis L. Fisher RPE 8684:



IMPOUNDMENT & ROAD PLAN SHEET 9

## DLF.

Dennis L. Fisher, RPE PO Box 281 Philippi, WV 26416 Cell: 304-677-4129 E-Mail: Fisher.Engineering@gmx.com 677 W. Main St. Clarksburg, Wv 26301 304-623-5851

Jackson Surveying Inc.

Cover Sheet 1 of 12 Robert M. Ash Well Pad Site Plan

### General Construction Notes:

- 1. Best Management Practices shall be utilized for erosion and sediment control. The most effective method is concurrent seeding and mulching. Compost Filter Sock (prepadle) or filter fence shall be installed in areas down slope of construction where adequate brush filter strips cannot be maintained. Rock check dams or sumps shall be installed at culvert inlets and riprap protection at culvert exits.
- 2. The contractor shall contact Ms. Utility prior to any disturbance.
- 3. The attached drawings show existing and proposed grades and dimensions on which the estimated quantities are based. These grades and dimensions may need to be adjusted during construction to meet field conditions. If any adjustment is needed beyond a reasonable conformance with the drawings, the contractor shall contact the engineer.
- Clearing and grubbing shall be in conformance with Section 201 of the current WVDOH Specifications. All other earthwork shall be in conformance with Section 207 of the current WVDOH Specifications.
   Stockpile topsoil and protect for use in regrading the disturbed areas prior
- to seeding and mulching.
- 6. If subgrade is unsuitable, the exposed surface shall be compacted until a relatively unyielding surface is achieved.
- Surface water and subsurface water shall be prevented from flowing into the disturbed areas during construction.
- 8. Fill shall be placed in uniform twelve (12) inch lifts and compacted with appropriate equipment to a proctor density of 95%.
- 9. Any imported fill shall be approved by Engineer prior to placement.
- 10. Prevent surface water and subsurface water from flowing into excavations and flooding the work. Remove water from excavations to prevent softening of foundation soils and creating soil changes detriental to the stability of subgrades. Provide and maintain pumps, sumps, suction and discharge lines. suggrades. Frivitie that mitthin members seems to convey water away from the site. Convey water removed from excavations to collections or to runoff areas. During periods of inclimate weather, temporary slope drains may be utilized as
- 11. In areas to receive fill and at the final cut subgrade, proof roll and compact the exposed ground surface following clearing and grubbing and any required excaustion with a minimum of four passes of an approvade compactor and obtain at least the density required for a suitable impoundment pit foundation and as indicated below.

Proof rolling shall be under the observation of the Engineer as described herein. Proof rolling shall be under the observation of the Engineer as asserved interest, immediately following the completion of excavation to proposed subgrades in out areas, proof rolling shall be performed as specified. Any areas which deflect, rul or pump under the loaded dump truck shall be undercut and replaced with compacted fill material or stone base course as directed by the Engineer. Proof rolling methods shall be as follows:

- a. After the subgrade has been completed the subgrade shall then be proof rolled. The coverage areas and methods will be identified by the Engineer;
- b. The equipment shall be operated at a speed that the Engineer can comfortably and slowly walk along side the equipment.
- c. If it becomes necessary to take corrective action, such as but not limited to c. If it occomes necessary to take torrective factors, such assistable material, and underdrain installation, undervul and backful of an unswitable material, and aeration of excessive wet material in areas that have been proof rolled. These areas shall be proof rolled again, following the completion of the necessary
- 12. Photographic documentation shall include DAILY photos of before, during and after conditions of all construction activities.
- 13. The engineer shall be contacted to make site inspections:
- (a) after clearing and grubbing is complete
- to approve the general fill.
- half way through the cut and fill operations
- (d) at the conclusion of the cut and fill operations

- 14. Erosion Control Blanket(s) shall be installed on all fill slopes which are in excess of 20' in length. Slope water breaks shall be installed on all fill slopes which are in ezcess of 40' in length. In some instances flex-terra product may be used in place of erosion control blankets at the description of the project engineer.
- 15. There was no geotechnical analysis performed for this site.
- 16. Existing & proposed culverts shall have adequate cover of (12" minimum). If the cover requirement can not be met, the culvert shall be protected with steel plates or timber mats.

CONSTRUCTION SEQUENCE STAKE LIMITS OF DISTURBANCE CALL MS UTILITY OF WV INSTALL ENTRANCE SIGNS INSTALL CONSTRUCTION ENTRANCE INSTALL PRELIMINARY SEDIMENT CONTROL ON SITE INSTALL PRELIMINARY SEDIMENT CONTROL OF CLEAR AND GRUB SITE REMOVE TOPSOIL AND STOCKPILE GRADE ACCESS ROAD AND INSTALL DRAINAGE INSTALL FINAL SEDIMENT CONTROL ON ACCESS ROAD STONE ACCESS ROAD
PRELIMINARY CRADING OF SITE
INSTALL FINAL SEDIMENT CONTROL ON SITE CONCURRENT SEEDING AND MULCHING OF DISTURBED AREAS AS COMPLETED FINAL GRADING OF SITE AND PAD INSTALL CONTAINMENT BERM INSTALL STONE ON PAD INSTALL SAFETY FENCE (IF REQUIRED)

### TOPSOIL VOLUMES

PAD: +2,249 C.Y.

PROPOSED PAD

Top of Pad elevation: 1075.5' Cut Slope: 50%, Slope Ratio: 2:1 Fill Slope: 50%, Slope Ratio: 2:1 AREA: 82,764 Sq. Ft., 1.9 Ac.

PAD EARTHWORK VOLUMES Total Cut: 6,348.4 C.Y. Total Fill: 6,330.32 C.Y. Balance Export: 18.1 C.Y. Containment Berm: 7,062 C.F., 261.6 C.Y.

NOTE: Pad Cut Volume includes 1' of Topsoil Removed. Pad Fill Volume includes 1' of Stone.

> TOTAL DISTURBED AREA: 37 ACRES ROAD DISTURBED AREA: 0.9 ACRES PAD DISTURBED AREA: 2.8 ACRES

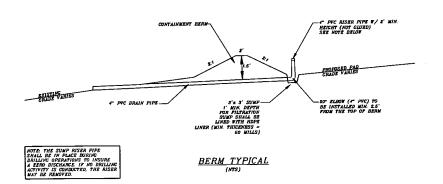
DLF.

Dennis L. Fisher, RPE PO Box 281 Philippi, WV 26416 Cell: 304-677-4129 E-Mail: Fisher.Engineering@gmx.com



Jackson Surveying Inc.

Details & Notes Sheet 2 of 12 Robert M. Ash Well Pad Site Plan



#### PERMANENT SEED CHART Stating Rate (Ibstace) Still Danniga Reference pkiRange KY Bluegress/ 5.5 - 7.5 Timothy/ 6,5 - 8,0 Well - Mod. Well Alfalfa 5.5 + 7.5 8 5.5 - 7.5 Well - Mod. Well Well - Mod. Well 5.5 - 7.5 Orchardorass/ 5.5 - 7.5 MAN, MAN MAN Creeping Red Fescus 5.6 - 7.6 Well - Mod. Well Orchardgrass or Ker 20 Well - Nod Well 8.0 - 7.5 Redtop/ Lathco Flat Peal 5.6 - 7.5 Perennial Ryegrass Lethco Flat Pea/ Well - Med Well 55.75 Table IV-5 Lime and Fertilizer Application Table photeon under the photography of 500 5.0 to 6.0 The pH can be determined with a portable pH custing let or by userding the and samples to a wall betting taboratory. When 4 tons of large per sure are applied it must be incorporated into the soil by distring, beatchleding or tracking up and down the stope.

Material	Minimum Rates Par Acro	Coverage	Remarks
Hay or Straw	2 to 3 Tons 100 to 150 Bates	Cover 75% to 90% of Surface	Subject to Wind blowing or washing unless tied down
Wood Fiber	1000 to 1500 lbs	Cover all	For Hydrosending
Putp Fiber		Disturbed Areas	
Wood-Cellutose			
Recirculated Pag	er		

### Table IV-1 Recommended seeding dates for permanent and temporary cover unless otherwise specified

Planting (Price)	Suitedaily
March 1 – April 15 and August 1 – October 1 April 15 – August 1	Best seeding periods HIGH RISK-moisture stress likely
October 1 - Dec. 1	HIGH RISK - Freeze damage to young seedlings
Dec. 1 - March 1	Good seeding period. Dormant seeding.

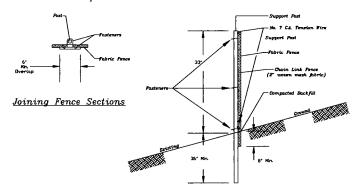
Table 2. Acceptable fertilization recommendation in absence of a soil test.

٦	Species -		(Defail)	(E350(Dasted)	EmploRes.(paraero)
-	Cool Season Grass	40	80	80	400 lbs. 10-20-20
	CS Grass & Legume	30	60	60	300 lbs. 10-20-20
	Temporary Cover	40	40	40	200 lbs. 19-19-19

Table 3. Temporary cover suitable for establishment in West Virginia

මයන්නල(මන්නල(මන්නෙම)	<u>ලබනගාම පිළුවනු වන්න</u>	Dengg	िराधिकारिक
s 40	3/1 - 6/15 or 8/15 - 9/15	Well - Poorty	5.5 - 7.5
s 40	3/1 - 6/15 or 8/15 - 9/15	Well - Mod, Well	6.0 - 7.0
96	3/1 - 6/15	Well - Poorty	5.5 - 7.0
40	5/15 - 8/15	Well - Poorty	5.5 - 7.5
168	8/15 - 10/15	Well - Poorty	5.5 - 7.5
180	8/15 - 11/15	Well - Mod. Well	5.5 - 7.0
30	8/15 - 8/15	Well	4.5 - 7.0
5	3/1 - 6/15	Well	4.0 - 7.5
s 26	3/1 - 6/15	Well Poorly	5.5 - 7.5
64	3/1 - 6/15	Well - Poorly	5.5 - 7.5
	s 40 s 40 96 40 168 180 30 5	5 40 3/1 - 6/15 or 8/15 - 9/15 18 40 3/1 - 6/15 or 8/15 - 6/15 96 3/1 - 6/15 40 5/15 - 6/15 168 8/15 - 10/15 160 8/15 - 10/15 30 6/15 - 8/15 5 3/1 - 6/15 5 3/1 - 6/15	8 40 3/1 -6/15 or 8/15 - 8/15 Wedl - Poorly 18 40 3/1 -6/15 or 8/15 -8/15 Wedl - Mood, Wedl 96 3/1 - 6/15 or 8/15 Wedl - Poorly 40 5/15 -8/15 Wedl - Poorly 168 8/15 - 10/15 Wedl - Poorly 160 8/15 - 11/15 Wedl - Poorly 30 6/15 - 6/15 Wedl 5 3/1 - 6/15 Wedl - Poorly 8 26 3/1 - 6/15 Wedl - Poorly

### Standard Construction Detail Super Filter Fabric Fence

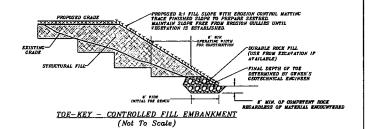


\*Post spaced 0 10' max. Use 2.5"dia. galvanized or aluminum post.

"Chain Link to Post Fasteners spaced © 14" max. Use No. 6 Ca. aluminum wire or No. 9 galumized steel pre-formed citys. Chain Link to Tension Wire Pasteners spaced © 60" max. Use No. 10 Ca. galumized steel wire. Pabric to Chain Pasteners spaced © 20" max. § to §.

No. 7 Ga. Tension Fire installed horizontally at top and bottom of chain link fence.
Filter Fabric Fence must be placed at existing level grade. Both ends of the barrier must be extended at least 8 feet upstops at 45 degrees to the main barrier alignment.

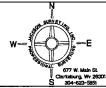
Sediment must be removed when accumulations reach if the above ground height of the fence.



1) EDECES SILLS AS EXCLUSION OF EXTITUE SLOPE AS SPECIFIC OR UPIL SERVICE OF LITTLES.
3) ALL RECESS SILLS ELEGIPD TO PROMOTE POSITIES SOLVED SOLVENESTICS (IN. 7. 8. 177.)
3) ALL PLICATES SILLS ELEGIPD TO VITALE SOLVED SOLVENIANCE SILLS OF PROMOTE CALLS WITE SPECIFICATION.
1) ALL PLICATES SILLS AS CAUGING TO WARD AND A "LEGIPLE CALLS WITE SPECIFICATION." IN ALL PLICATED SILLS AS COVERED WITE SPECIFICATION.
1) COPPLET MA PILL SURVEY TO SEX PRICING EXCLUSION."

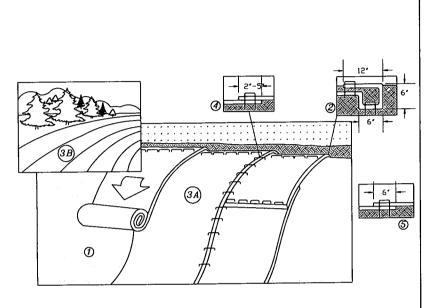
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Details Sheet 3 of 12 Robert M. Ash Well Pad Site Plan

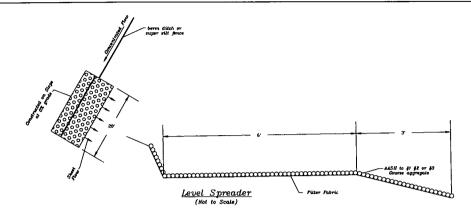


1. Prepare soil before installing rolled erosion control products (RECP's), including any neccessary application of lime, ferilizer, and seed. NOTE: When using Cell—0—Seed, DO NOT seed prepared area. Cell—0—Seed must be installed with paper side

- 2. Begin at the top of the slope by anchoring the RECP's in a 6" Deep X 6" Wide Trench with approximately 12" of RECP's over compacted soil with a row of staples/stakes spaced approximately 12" apart across the the width a row of staples/stakes. of the RECP's
- Roll the RECP's (A.) down or (B.) horizontally across the slope. RECP's will unroll with appropriate side against the soil suface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staples puttern guide. When using the DOT system, staples/stakes should be placed through each of the colored dots corresponding to the appropriate staple pattern.
- 4. The edge of parallel RECP's must be stapled with approximately 2"-5" overlap depending on RECP's type
- 5. Consecutive RECP's spliced down the slope must be placed end over end (shingle style) with an approximate 6" overlap. Staple through overlapped area, approximately 12" apart across entire RECP's width.

NOIL:
• In loose soil conditions, the use of staple or stake lengths greater than 6" may be necessary to property secure the ECP's.

> Erosion Control Blanket-Slope Installation Scale: NTS.



Construction Specifications

- 1. Level spreaders must be constructed on undisturbed soil (not fill material).
- 2. The entrance to the spreader must be shaped in such a manner as to insure that runoff enters directly onto the 0% channel.
- 3. Construct a 20-ft. transition section from the diversion channel to blend smoothly to the width and depth of of the spreader.
- 4. The level lip shall be constructed at 0% grade to insure uniform spreading stormwater runoff.
- 5. Protective covering (blanket) for vegetated lip should be a minimum of 4 feet wide extending 6 inches over the lip and buried 6 inches deep in a vertical trench on the lower edge. The upper edge should butt against smoothly cut sod and be securely held in place with closely spaced heavy-duty wire staples.
- 6. Rigid level lip should be entrenched at least 2 inches below existing ground and b. Might level trp should be enterwheld at least 2 thinks below existing ground and securely anchored to prevent displacement.

  An apron of AASHTO #1, #2 or #3 Coarse Aggregate should be placed to top of level lip and extended downslope at least 3 feet. Place filter fabric under stone and use galvanized wire meshed to hold stone securely in place.

  7. The released runoff must outlet onto undisturbed stabilized areas with slope not
- exceeding 10%. Slope must be sufficiently smooth to preserve sheet flow and prevent
- flow from concentrating.

  8. The level spreader should be sized to transfer 0.25 cfs per linear foot of spreader for the peak discharge from a ten-year/24-hour storm.
- 9. Immediately after its construction, appropriately seed and mulch the entire disturbed area of the spreader.

Maintenance The structure shall be inspected after every rainfall of 5" or more and repairs made, if required. After construction and until fully revegetated, the spreaders need to be carefully inspected for any signs of channelization and immediately repaired.

> Level spreader lip must remain at 0% slope to allow proper function of measure.

The contractor should avoid the placement of any material on and prevent construction traffic across the structure.

If the structure is damaged by construction traffic, it shall be repaired immediately.

Repeated failure of the structure will require the developer to replace the level lip spreader with a property designed stormwater conveyance channel from the diversion to the nearest natural waterway or stormwater basin.

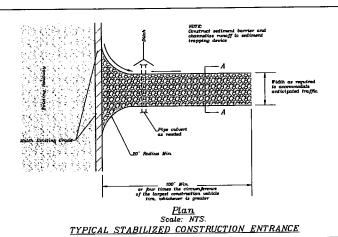
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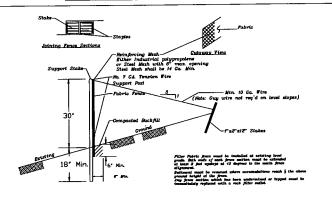
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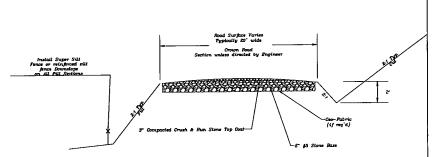
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DetailsSheet 4 of 12 Robert M. Ash Well Pad Site Plan

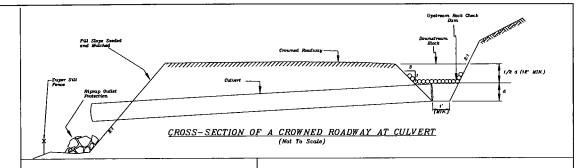


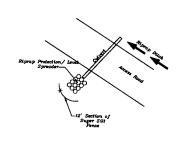


Reinforced Filter Fabric Fence (30" High)

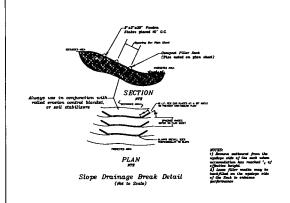


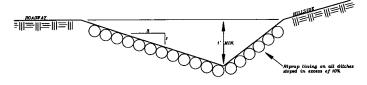
Typical Road Section A-A
(Not to Scale)





Typical Culvert Protection NTS.

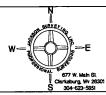




# CROSS SECTION OF A TYPICAL SIDE DITCH & DIVERSION DITCH (Not To Scale)

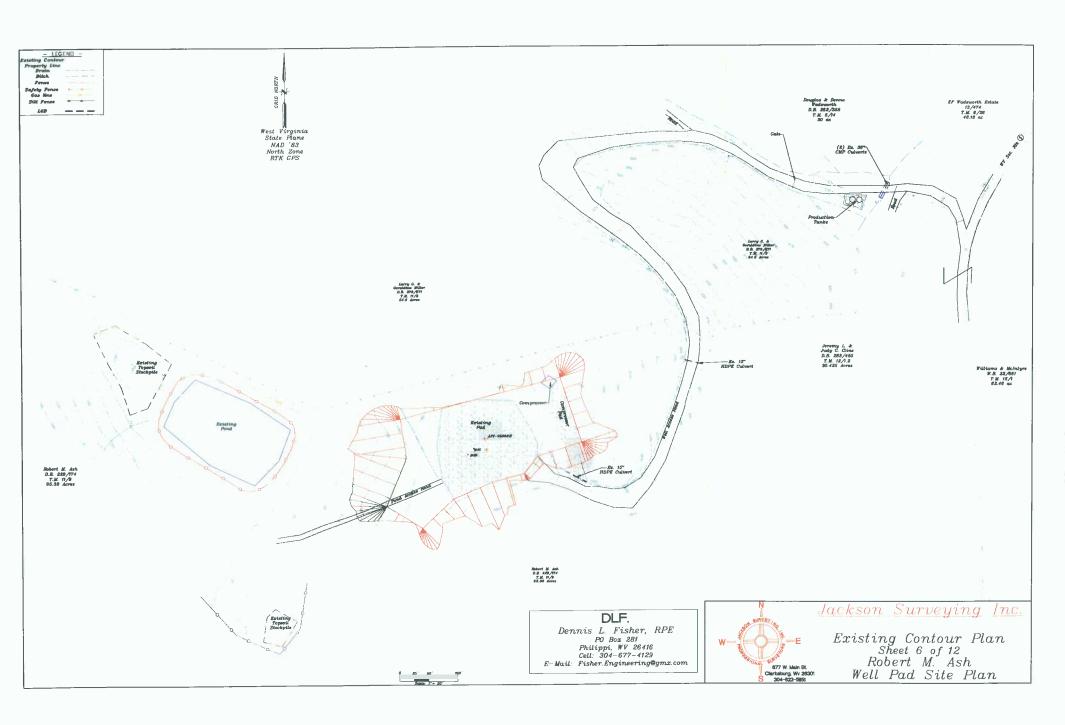
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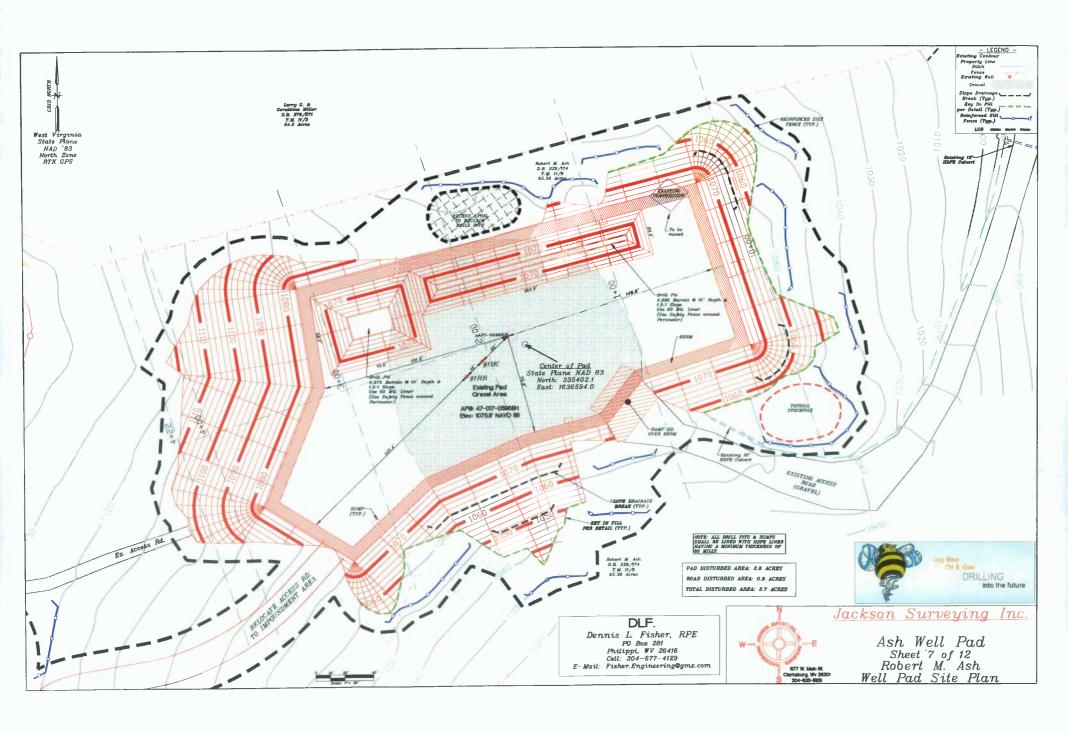
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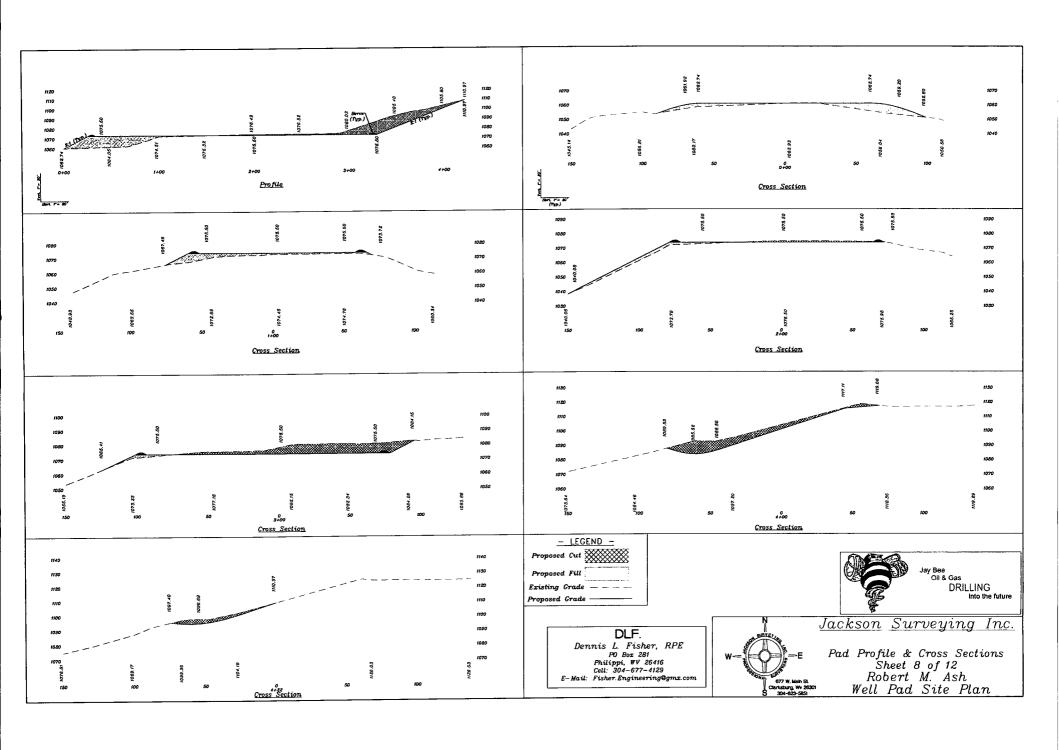


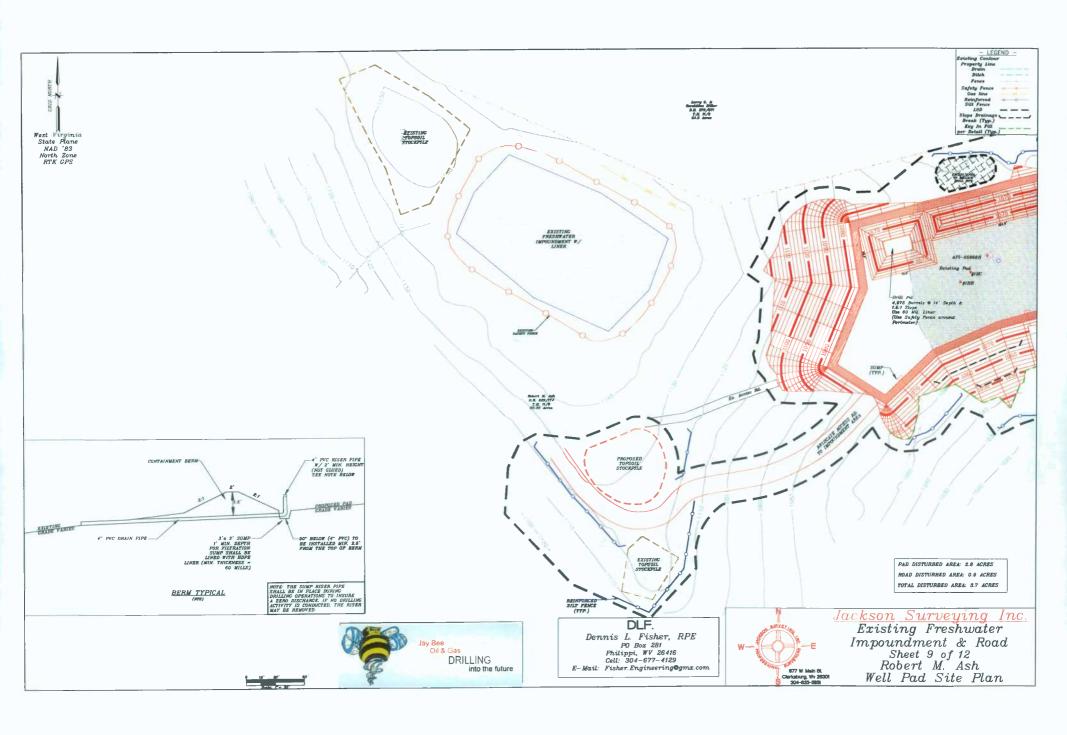
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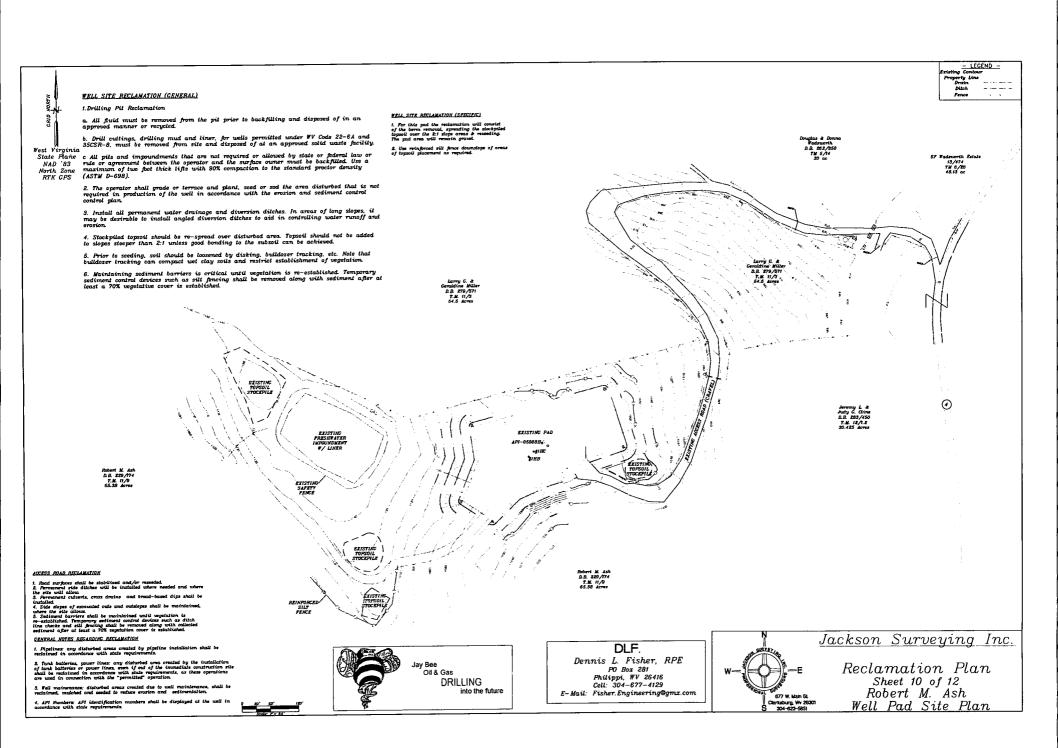
Details Sheet 5 of 12 Robert M. Ash Well Pad Site Plan

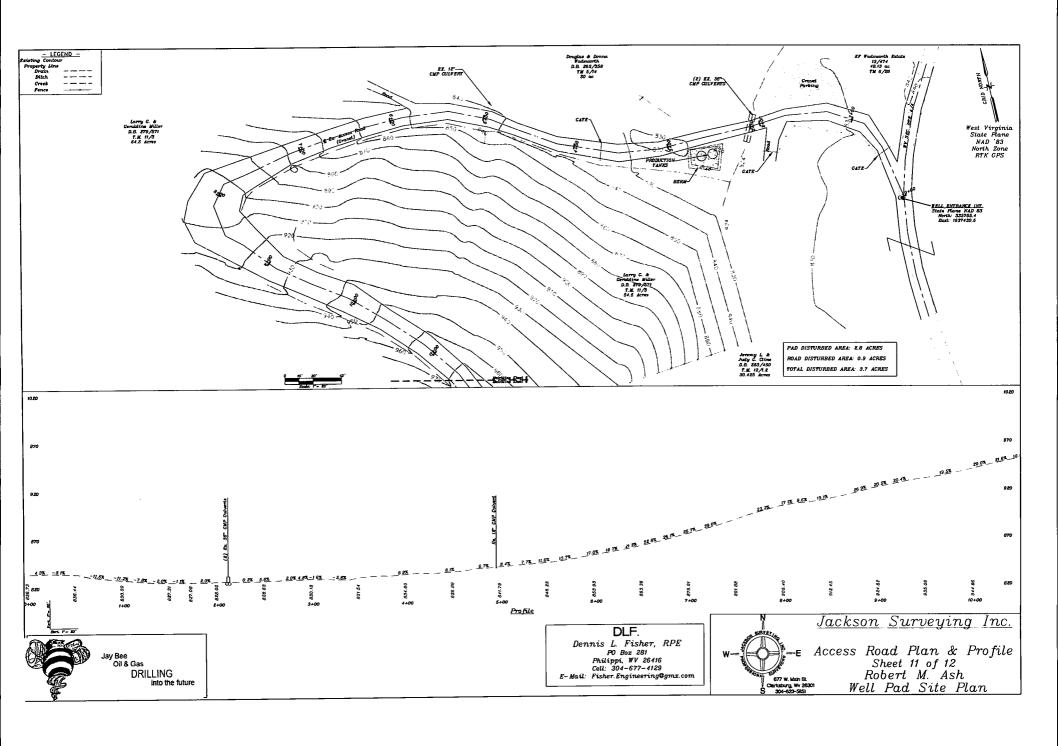


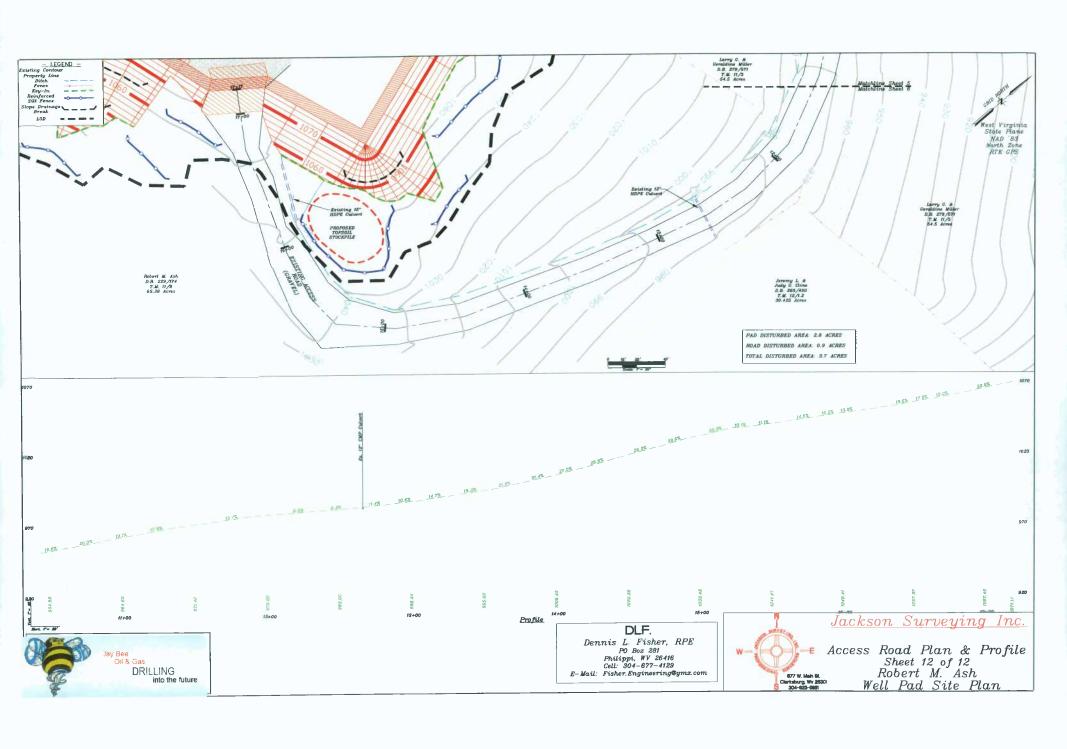


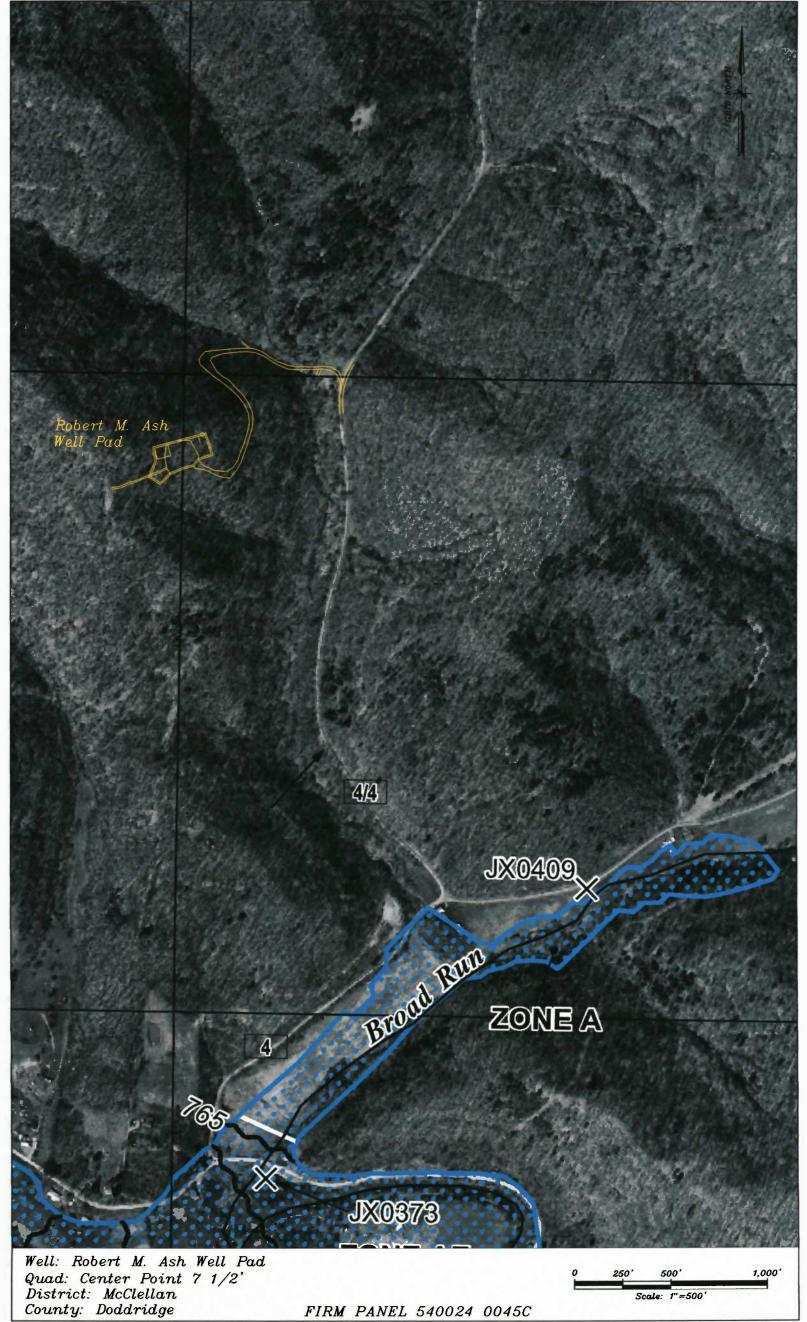












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