

S 124292
P 245430.1
F 142.3

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES INDIVIDUAL PERMIT APPLICATION**

SURFACE & UNDERGROUND MINERAL & ORE OR MINERAL PRODUCT MINING, QUARRYING, EXCAVATION, BORROWING, HYDRAULIC MINING, STORAGE, PROCESSING, PREPARATION, RECOVERY, HANDLING, LOADING, STORING, OR DISPOSING ACTIVITIES AND ASSOCIATED AREAS INCLUDING PRE-MINING SITE DEVELOPMENT, CONSTRUCTION, EXCAVATION, CLEARING, DISTURBANCE, RECLAMATION, AND ASSOCIATED AREAS

R#15-34290 M. Bergh

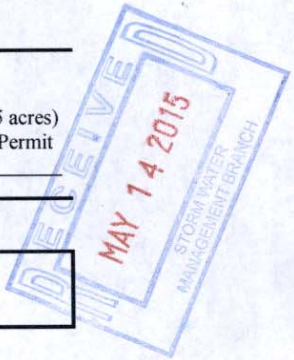
\$5695.00

INSTRUCTIONS: PLEASE READ THE ACCOMPANYING INSTRUCTIONS CAREFULLY BEFORE COMPLETING THIS FORM. COMPLETE ALL QUESTIONS. RESPOND WITH "N/A" AS APPROPRIATE. INCOMPLETE OR INCORRECT ANSWERS OR MISSING SIGNATURES WILL DELAY PROCESSING. ATTACH ADDITIONAL COMMENTS OR INFORMATION AS NEEDED. IF SPACE IS INSUFFICIENT, CONTINUE ON AN ATTACHED SHEET(S) AS NECESSARY. COMMENCEMENT OF ACTIVITIES APPLIED FOR AS DETAILED IN THIS APPLICATION ARE NOT AUTHORIZED UNTIL PERMIT COVERAGE HAS BEEN ISSUED BY THE DEPARTMENT.

PLEASE TYPE OR PRINT IN INK ONLY.

PURPOSE OF THIS APPLICATION

- Initial Permit Application for New Facility
 Initial Permit Application for Existing Facility (e.g. facility previously permitted less than 5 acres)
 Modification of Existing Permit
 Reissuance of Existing Permit
 Reissuance & Modification of Existing Permit
 Reissuance & Transfer of Existing Permit
 Revocation and Reissuance of Existing Permit
 Other _____



I. GENERAL INFORMATION

NPDES Permit Number (Not applicable if initial permit application): <u>AL 0069647</u>	County(s) in which Facility is Located: Jackson
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Company/Permittee Name: <u>Red Mesa Energy, LLC</u>	Facility Name (e.g., Mine Name, Pit Name, etc.): <u>Bledsoe Mine No. 1</u>
Mailing Address of Company/Permittee: <u>722 Overbridge Ln</u>	Physical Address of Facility (as near as possible to entrance): From the intersection of CR 254 and CR 158, take CR 158 to north and go 6 miles to the mine entrance
City: <u>Chattanooga</u> State: <u>TN</u> Zip: <u>37405</u>	City: <u>Stevenson</u> State: <u>AL</u> Zip: <u>35772</u>
Permittee Phone Number: <u>(508) 819-7632</u>	Permittee Fax Number: _____ Latitude and Longitude of entrance: <u>N34 57' 36" W85 50' 44"</u>

Responsible Official (as described on page 13 of this application): <u>Punkaj Rishi</u>	Responsible Official Title: <u>Managing Member</u>
Mailing Address of Responsible Official: <u>275 Indies Way, Unit 603</u>	Physical Address of Responsible Official: <u>275 Indies Way, Unit 603</u>
City: <u>Naples</u> State: <u>FL</u> Zip: <u>34110</u>	City: <u>Naples</u> State: <u>FL</u> Zip: <u>34110</u>
Phone Number of Responsible Official: <u>502-819-7632</u>	Fax Number of Responsible Official: _____ Email Address of Responsible Official: <u>prishi@yahoo.com</u>

Facility Contact: <u>None at this time</u>	Facility Contact Title: _____
Physical Address of Facility Contact: _____	Phone Number of Facility Contact: _____ Fax Number of Facility Contact: _____
City: _____ State: _____ Zip: _____	Email Address of Facility Contact: _____

II. MEMBER INFORMATION

A. Identify the name, title/position, and unless waived in writing by the Department, the residence address of every officer, general partner, LLP partner, LLC member, investor, director, or person performing a function similar to a director, of the applicant, and each person who is the record or beneficial owner of 10 percent or more of any class of voting stock of the applicant, or any other responsible official(s) of the applicant with legal or decision making responsibility or authority for the facility:

Name:	Title/Position:	Physical Address of Residence (P.O. Box is Not Acceptable)
<u>Punkaj Rishi</u>	<u>Managing Member</u>	<u>275 Indies Way, Unit 603, Naples, FL 34110</u>
<u>Black Mesa Energy, LLC</u>	<u>Member</u>	<u>275 Indies Way, Unit 603, Naples, FL 34110</u>
<u>PRR Group Holdings, LLC</u>	<u>Manager</u>	<u>275 Indies Way, Unit 603, Naples, FL 34110</u>

B. Other than the "Company/Permittee" listed in Part I., identify the name of each corporation, partnership, association, and single proprietorship for which any individual identified in Part II.A. is or was an officer, general partner, LLP partner, LLC member, investor, director, or individual performing a function similar to a director, or principal (10% or more) stockholder, that had an Alabama NPDES permit at any time during the five year (60 month) period immediately preceding the date on which this form is signed:

Name of Corporation, Partnership, Association, or Single Proprietorship:	Name of Individual from Part II.A.:	Title/Position in Corporation, Partnership, Association, or Single Proprietorship:
<u>Ridgeholm Energy Partners, LLC</u>	<u>Punkaj Rishi</u>	<u>Managing Member</u>
<u>Ridgeholm Energy Partners, LLC</u>	<u>PRR Group Holdings, LLC</u>	<u>Managing Member</u>

III. LEGAL STRUCTURE OF APPLICANT

A. Indicate the legal structure of the "Company/Permittee" listed in Part I:

Corporation
 Association
 Individual
 Single Proprietorship
 Partnership
 LLP
 LLC
 Government Agency: _____
 Other: _____

B. If not an individual or single proprietorship, is the "Company/Permittee" listed in Part I. properly registered and in good standing with the Alabama Secretary of State's Office? (If the answer is "No," attach a letter of explanation.)
 Yes
 No

C. Parent Corporation and Subsidiary Corporations of Applicant, if any: Black Mesa Energy, LLC (parent)

D. Land Owner(s): IKL Properties, LLC

E. Mining Sub-contractor(s)/Operator(s), if known: None at this time

IV. COMPLIANCE HISTORY

A. Has the applicant ever had any of the following:

	Yes	No
(1) An Alabama NPDES, SID, or UIC permit suspended or terminated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2) An Alabama license to mine suspended or revoked?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3) An Alabama or federal mining permit suspended or terminated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4) A reclamation bond, or similar security deposited in lieu of a bond, or portion thereof, forfeited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5) A bond or similar security deposited in lieu of a bond, or portion thereof, the purpose of which was to secure compliance with any requirement of the Alabama Water Improvement Commission or Alabama Department of Environmental Management, forfeited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(If the response to any item of Part IV.A. is "Yes," attach a letter of explanation.)

B. Identify every Warning Letter, Notice of Violation (NOV), Administrative Action, or litigation issued to the applicant, parent corporation, subsidiary, general partner, LLP partner, or LLC member and filed by ADEM or EPA during the three year (36 months) period preceding the date on which this form is signed. Indicate the date of issuance, briefly describe alleged violations, list actions (if any) to abate alleged violations, and indicate date of final resolution:

None

V. OTHER PERMITS/AUTHORIZATIONS

A. List any other NPDES or other environmental permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, Alabama Surface Mining Commission (ASMC), Alabama Department of Industrial Relations (ADIR), or other agency, to the applicant, parent corporation, subsidiary, or LLC member for this facility whether presently effective, expired, suspended, revoked, or terminated:

ASMC Permit application has undergone 10 Day review. Additional requirements and modifications to application are being prepared.

B. List any other NPDES or other ADEM permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, ASMC, or ADIR, to the applicant, parent corporation, subsidiary, or LLC member for other facilities whether presently effective, expired, suspended, revoked, or terminated:

ADEM NPDES Permit # AL0082252

VI. PROPOSED SCHEDULE

Anticipated Activity Commencement Date: 08/01/2015 Anticipated Activity Completion Date: 08/01/2020

VII. ACTIVITY DESCRIPTION & INFORMATION

A. Proposed Total Area of the Permitted Site: 26.3 acres Proposed Total Disturbed Area of the Permitted Site: 26.3 acres

B. Township(s), Range(s), Section(s): T16, R7E, Sections 12 & 13

C. Detailed Directions to Site: From State Hwy 75 in Stevenson, take County Road 71 N. to County Road 158.
Turn left, go another 5 miles to the mine site.

D. Is/ will this facility:	Yes	No
(1) an existing facility which currently results in discharges to State waters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(2) a proposed facility which will result in a discharge to State waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3) be located within any 100-year flood plain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4) discharge to Municipal Separate Storm Sewer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5) discharge to waters of or be located in the Coastal Zone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6) need/have ADEM UIC permit coverage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(7) be located on Indian/ historically significant lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(8) need/have ADEM SID permit coverage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(9) need/have ASMC permit coverage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(10) need/have ADIR permit coverage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(11) generate, treat, store, or dispose of hazardous or toxic waste ? (If "Yes," attach a detailed explanation.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(12) be located in or discharge to a Public Water Supply (PWS) watershed or be located within 1/2 mile of any PWS well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VIII. MATERIAL TO BE REMOVED, PROCESSED, OR TRANSLOADED

List relative percentages of the mineral(s) or mineral product(s) that are proposed to be and/or are currently mined, quarried, recovered, prepared, processed, handled, transloaded, or disposed at the facility. If more than one mineral is to be mined, list the relative percentages of each mineral by tonnage for the life of the mine.

___ Dirt &/or Chert	___ Sand &/or Gravel	___ Chalk	___ Talc	___ Crushed rock (other)
___ Bentonite	___ Industrial Sand	___ Marble	___ Shale &/or Common Clay	___ Sandstone
<u>100%</u> Coal	___ Kaolin	___ Coal fines/refuse recovery	___ Coal product, coke	___ Slag, Red Rock
___ Fire clay	___ Iron ore	___ Dimension stone	___ Phosphate rock	___ Granite
___ Bauxitic Clay	___ Bauxite Ore	___ Limestone, crushed limestone and dolomite		
___ Gold, other trace minerals:	_____	Other:	_____	
Other:	_____	Other:	_____	
Other:	_____	Other:	_____	

IX. PROPOSED ACTIVITY TO BE CONDUCTED

A. Type(s) of activity presently conducted at applicant's existing facility or proposed to be conducted at facility (check all that apply):

<input type="checkbox"/> Surface mining	<input checked="" type="checkbox"/> Underground mining	<input type="checkbox"/> Quarrying	<input type="checkbox"/> Auger mining	<input type="checkbox"/> Hydraulic mining
<input type="checkbox"/> Within-bank mining	<input type="checkbox"/> Solution mining	<input checked="" type="checkbox"/> Mineral storing	<input type="checkbox"/> Lime production	<input type="checkbox"/> Cement production
<input type="checkbox"/> Synthetic fuel production	<input type="checkbox"/> Alternative fuels operation	<input type="checkbox"/> Mineral dry processing (crushing & screening)	<input type="checkbox"/> Mineral wet preparation	
<input type="checkbox"/> Other beneficiation & manufacturing operations	<input checked="" type="checkbox"/> Mineral loading		<input type="checkbox"/> Chemical processing or leaching	
<input type="checkbox"/> Construction related temporary borrow pits/areas	<input checked="" type="checkbox"/> Mineral transportation ___rail ___barge <input checked="" type="checkbox"/> truck			
<input type="checkbox"/> Preparation plant waste recovery	<input type="checkbox"/> Hydraulic mining, dredging, instream or between stream-bank mining			
<input checked="" type="checkbox"/> Grading, clearing, grubbing, etc.	<input type="checkbox"/> Pre-construction ponded water removal		<input type="checkbox"/> Excavation	
<input type="checkbox"/> Pre-mining logging or land clearing	<input type="checkbox"/> Waterbody relocation or other alteration		<input type="checkbox"/> Creek/stream crossings	
<input type="checkbox"/> Onsite construction debris or equipment storage/disposal	<input type="checkbox"/> Onsite mining debris or equipment storage/disposal			
<input checked="" type="checkbox"/> Reclamation of disturbed areas	<input type="checkbox"/> Chemicals used in process or wastewater treatment (coagulant, biocide, etc.)			
<input type="checkbox"/> Adjacent/associated asphalt/concrete plant(s)	<input type="checkbox"/> Low volume sewage treatment package plant			
<input type="checkbox"/> Other: _____				

B. Primary SIC Code: 1222 Description: Underground Coal Mining
 Secondary SIC Code(s): _____ Description: _____

C. Narrative Description of the Activity: This operation will be an underground coal mining operation. The mine mouth will consist of refurbishing the New Hope Mine #1 entries and resuming mining operations.

X. FUEL – CHEMICAL HANDLING, STORAGE & SPILL PREVENTION CONTROL & COUNTERMEASURES (SPCC) PLAN

A. Will fuels, chemicals, compounds, or liquid waste be used or stored onsite? Yes No

B. If "Yes," identify the fuel, chemicals, compounds, or liquid waste and indicate the volume of each:

Volume	Contents	Volume	Contents	Volume	Contents
10,000 gallons	Diesel Fuel	_____ gallons	_____	_____ gallons	_____
_____ gallons	_____	_____ gallons	_____	_____ gallons	_____

C. If "Yes," a detailed SPCC Plan with acceptable format and content, including diagrams, must be attached to application in accordance with ADEM Admin. Code R. 335-6-6-.12(r). Unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis, Material Safety Data Sheets (MSDS) for chemicals/compounds used or proposed to be used at the facility must be included in the SPCC Plan submittal.

XI. POLLUTION ABATEMENT & PREVENTION (PAP) PLAN

A. For non-coal mining facilities, a PAP Plan in accordance with ADEM Admin. Code r. 335-6-9-.03 has been completed and is attached as part of this application. Yes No

B. For coal mining facilities, a detailed PAP Plan has been submitted to ASMC according to submittal procedures for ASMC regulated facilities. Yes No

(1) If "Yes" to Part XI.B., provide the date that the PAP Plan was submitted to ASMC: _____

(2) If "No" to Part XI.B., provide the anticipated date that the PAP Plan will be submitted to ASMC: 10 day review submitted on 03/17/15

XII. TOPOGRAPHIC MAP SUBMITTAL

Attach to this application a 7.5 minute series U.S.G.S. topographic map(s) or equivalent map(s) no larger than, or folded to a size of 8.5 by 11 inches (several pages may be necessary), of the area extending to at least one mile beyond property boundaries. The topographic or equivalent map(s) must include a caption indicating the name of the topographic map, name of the applicant, facility name, county, and township, range, & section(s) where the facility is located. Unless approved in advance by the Department, the topographic or equivalent map(s), at a minimum, must show:

(a) An outline of legal boundary of entire property (property lines and lease boundaries)	(i) All surrounding unimproved/improved roads
(b) An outline of the facility	(j) High-tension power lines and railroad tracks
(c) All existing and proposed disturbed areas	(k) Buildings and structures, including fuel/water tanks
(d) Location of discharge areas	(l) Contour lines, township-range-section lines
(e) Proposed and existing discharge points	(m) Drainage patterns, swales, washes
(f) Perennial, intermittent, and ephemeral streams	(n) All drainage conveyance/treatment structures (ditches, berms, etc.)
(g) Lakes, springs, water wells, wetlands	(o) Any other pertinent or significant feature
(h) All known facility dirt/improved access/haul roads	

XIII. DETAILED FACILITY MAP SUBMITTAL

Attach to this application a 1:500 scale or better, detailed auto-CAD map(s) or equivalent map(s) no larger than, or folded to a size of 8.5 by 11 inches (several pages may be necessary), of the facility. The facility map(s) must include a caption indicating the name of the facility, name of the applicant, facility name, county, and township, range, & section(s) where the facility is located. Unless approved in advance by the Department, the facility or equivalent map(s), at a minimum, must show:

- (a) Information listed in Item XII (a) – (o) above
- (b) If noncoal, detailed, planned mining progression
- (c) If noncoal, location of topsoil storage areas
- (d) Location of ASMC bonded increments (if applicable)
- (e) Location of mining or pond cleanout waste storage/disposal areas
- (f) Other information relevant to facility or operation
- (g) Location of facility sign showing Permittee name, facility name, and NPDES Number

XIV. RECEIVING WATERS

List the requested permit action for each outfall (issue, reissue, add, delete, move, etc.), outfall designation including denoting "E" for existing and "P" for proposed outfalls, name of receiving water(s), whether or not the stream is included in a TMDL, latitude and longitude (to seconds) of location(s) of each discharge point, distance of receiving water from outfall in feet, number of disturbed acres, the number of drainage acres which will drain through each treatment system, outfall, or BMP, and if the outfall discharges to an ADEM listed CWA Section 303(d) waterbody segment at the time of application submittal.

Action	Outfall E/P	Receiving Water	Latitude	Longitude	Distance to Rec. Water	Disturbed Acres	Drainage Acres	ADEM WUC	303(d) Segment (Y/N)	TMDL Segment* (Y/N)
Reissue	001-E	U.T. to Widows Creek	34 57' 36"	85 50' 44"	150'	26.3	45.3	F & W	No	No

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation: (1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.); (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be reported as available); (3) Requested interim limitations, if applicable; (4) Date of final compliance with the TMDL limitations; and (5) Any other additional information available to support the requested compliance schedule.

XV. DISCHARGE CHARACTERIZATION

A. Modified EPA Form 2C Submittal

- Yes, pursuant to 40 CFR 122.21, the applicant requests a waiver for completion of the modified EPA Form 2C and certifies that the operating facility will discharge treated stormwater only, unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis that chemical/compound additives are not used, and that there are no process, manufacturing, or other industrial operations or wastewaters, including but not limited to lime or cement production, synfuel operations, etc., and that coal and coal products are not mined nor stored onsite.
- No, the applicant does not request a waiver and a complete modified EPA Form 2C is attached.

B. The applicant is required to supply the following information separately for every P or E outfall. If necessary, attach extra sheets. List expected average daily discharge flow rate in cfs and gpd, frequency of discharge in hours per day and days per month, average summer and winter temperature of discharge(s) in degrees centigrade (C), average pH in standard units, average daily discharge in pounds per day of BOD₅, Total Suspended Solids, Total Iron, Total Manganese, and Total Aluminum (if bauxite or bauxitic clay): **BPE - Best Professional Estimate**

Outfall E/P	Information Source - # of Samples	Flow cfs	Flow gpd	Frequency hours/day	Frequency days/mth	Sum/Win Temp, °C	pH s.u.	BOD ₅ lbs/day	TSS lbs/day	Tot Fe lbs/day	Tot Mn lbs/day	Tot Al lbs/day
001-E	BPE	0.032	0.059	Precipitation	Precipitation	26/6	7.73		1.27	0.50	0.09	0.39

C. The applicant is required to supply the following information separately for every P or E outfall. If necessary, attach extra sheets. Identify and list expected average daily discharge in pounds per day of any other pollutant(s) listed in EPA Form 2C, Item V - Intake And Effluent Characteristics, Parts A, B, & C that are not referenced in Part XV.B., that you know is present or have reason to believe could be present in the discharge(s) at levels of concern: **None believed present at levels of concern.**

Outfall E/P	Reason Believed Present	Information Source - # of Samples								
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
001-E	See Attached Form 2C									

XVI. DISCHARGE STRUCTURE DESCRIPTION & POLLUTANT SOURCE

The applicant is required to supply outfall number(s) as it appears on the map(s) required by this application [if this application is for a new permit to an existing permit do not change the numbering sequence of the permitted outfalls], describe each, (e.g., pipe, spillway, channel, ditch, gravel pit, well, discrete fissure, or container), and identify the origin of pollutants. The response must be precise for each outfall. If the discharge of pollutants from any outfall is the result of commingling of waste streams from different origins, each origin must be completely described.

Outfall	Discharge structure Description	Description of Origin Of pollutants	Surface Discharge	Groundwater Discharge	Wet Prep -Other Production Plant	Pumped or Controlled Discharge	Volume STP	Other
001E	Conc. Channel w/ skimmer board	1, 10	X	N/A	N/A	N/A	N/A	N/A

Origin of Pollutants – typical examples: **(1)** Discharge of drainage from the underground workings of an underground coal mine, **(2)** Discharge of drainage from a coal surface mine, **(3)** Discharge of drainage from a coal preparation plant and associated areas, **(4)** Discharge of process wastewater from a gravel-washing plant, **(5)** Discharge of wastewater from an existing source coal preparation plant, **(6)** Discharge of drainage from a sand and gravel pit, **(7)** Pumped discharge from a limestone quarry, **(8)** Controlled surface mine drainage (pumped or siphoned), **(9)** Discharge of drainage from mine reclamation, **(10) Other:** Rainfall runoff from the surface disturbance around the mouth of the underground mine.

XVII. PROPOSED NEW OR INCREASED DISCHARGES

Pursuant to ADEM Admin. Code Chapter 335-6-10-.12(9), responses to the following questions must be provided by the applicant requesting NPDES permit coverage for new or expanded discharges of pollutant(s) to Tier 2 waters (except discharges eligible for coverage under general permits). As part of the permit application review process, the Department is required to determine, based on the applicant's demonstration, that the proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the waters are located.

- Yes. New/increased discharges of pollutant(s) or discharge locations to Tier 2 waters are proposed. Complete items 1 – 6 below.
- No. New/increased discharges of pollutants(s) or discharge locations to Tier 2 waters are not proposed.

If "Yes", applicant is requesting issuance, modification, or reissuance & modification of permit coverage for new or expanded discharges of pollutant(s) not previously permitted. Complete this Item, Item XV, and Item XVI as necessary. **Attach additional sheets/documentation and supporting information as needed.**

1) What environmental or public health problem will the discharge be correcting? _____

2) How much will the discharger be increasing employment (at its existing facility or as a result of locating a new facility)?

3) How much reduction in employment will the discharger be avoiding? _____

4) How much additional state or local taxes will the discharger be paying? _____

5) What public service to the community will the discharger be providing? _____

6) What economic or social benefit will the discharger be providing to the community? _____

XVIII. ALTERNATIVES ANALYSIS – ADEM Form 311 3/02

Pursuant to ADEM Admin. Code Chapter 335-6-10, an evaluation of the discharge alternatives identified below has been completed and the following conclusions were reached. All proposed new or expanded discharges of pollutant(s) covered by the Individual NPDES permitting program are subject to the provisions of the antidegradation policy. As part of the permit application review process, the Department is required to determine, based on the applicant's demonstration, that the proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the waters are located. As a part of this demonstration, a registered professional engineer (PE) licensed to practice in the State of Alabama must complete an evaluation of the discharge alternatives, to include calculation of total annualized project costs (Item XIX) for each technically feasible alternative. Technically feasible alternatives with total annualized pollution control project costs that are less than 110% of the preferred alternative total annualized pollution control project costs for the Tier 2 new or increased discharge proposal are considered viable alternatives. Supporting documentation is attached, referenced, or otherwise handled as appropriate.

Alternative	Viable	Non-Viable	Reason/Rationale For Indicating Non-Viable
1) Treatment/Discharge Proposed In This Application	X		Best Management Practice
2) Land Application			N/A
3) Pretreatment/Discharge to POTW By SID Permit			N/A
4) Relocation of Discharge			N/A
5) Reuse/Recycle – Pollution Prevention			N/A
6) Other Process/Treatment Alternatives			N/A
7) Underground Injection By UIC Permit			N/A
8) Other Project Specific Alternative(s) Identified By the Applicant Or The ADEM			N/A
9) Other Project Specific Alternative(s) Identified By the Applicant Or The ADEM			N/A

COMMENTS: _____

XIX. CALCULATION OF TOTAL ANNUALIZED PROJECT COSTS FOR PRIVATE SECTOR PROJECTS - ADEM Form 313 8/02
 (ADEM Form 312 3/02 - Public Sector Project is available upon request)

This item must be completed for each technically feasible alternative evaluated in Item XVIII. Copy, complete, and attach additional blocks/sheets and supporting information as needed.

Capital Costs of pollution control project to be expended or financed by applicant (Supplied by applicant)	\$ <u>100,000.00</u> (1)	* While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.
Interest Rate for Financing (Expressed as a decimal)	<u>0.05</u> (i)	
Time Period of Financing (Assume 10 years *)	<u>10 years</u> (n)	
Annualization Factor ** = $\frac{i}{(1+i)^n - 1} + i$ i = Interest Rate	<u>0.13</u> (2)	** Or refer to Appendix B (application information) for calculated annualization factors.
Annualized Capital Cost [Calculate: (1) x (2)]	\$ <u>12,950.46</u> (3)	
Annual Cost of Operation & Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration & replacement) ***	\$ <u>1,500.00</u> (4)	*** For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).
Total Annual Cost of Pollution Control Project [(3) + (4)]	\$ <u>14,450.46</u> (5)	

XXI. POLLUTION ABATEMENT PLAN (PAP) - APPENDIX A& B INFORMATION

Y	N	N/A	Outfall(s):
X			
X			
	X1		
	X2		
X			
X			
	X3		
X			
X			
X			
X			
X			
X			
X			
X			
X			
X			
X			
	X4		
X			
	X5		
	X6		
X			
X			
	X7		
X			
	X8		
X			
X			
X			
	X9		
X			
X			
		X10	
X			
X			

The applicant has completed the surface water discharge alternatives analysis and has supporting documentation, including annualized costs for each technically feasible alternative available for review upon request

IDENTIFY AND PROVIDE DETAILED EXPLANATION FOR ANY "N" OR "N/A" RESPONSE(s):

X1: During the design of each basin a sediment storage volume and detention volume will be determined and approved by ASMC.
X2: Sediment will be removed from each basin prior to the design sediment volume or level being reached.
X3: The side slopes of the embankment of each basin will be designed to provide a minimum static factor of safety of 1.2 as required by ASMC regulations.
X4: No anti-seep collars are proposed along the discharge pipe. The discharge will be a concrete channel and skimmer board.
X5: As per ASMC regulations the emergency spillways of each basin will be designed to pass a 25 year – 6 hour storm event.
X6: The facility does not discharge to a public water supply.
X7: The entire emergency overflow spillway channel from each basin will be stabilized upon completion of construction as specified within the detailed design plans using prudent engineering measures. These measures may consist of lining the spillway with concrete or a durable rock riprap, or the spillway being constructed in consolidated non-erodible material and planted with a mixture of both annual and perennial grasses, and a combination of any or all of the above.
X8: During the design of each basin a minimum freeboard between normal overflow and emergency overflow will be determined, reviewed and approved by ASMC. ASMC regulations allow for a minimum freeboard of 1.0 feet from the maximum height of a 25 year – 6 hour storm event to the top of the dam.
X9: ASMC regulation allows for a maximum grade of 17% on primary haulroads.
10: This facility does not require stream crossings.

XXII. POLLUTION ABATEMENT PLAN (PAP) REVIEW CHECKLIST

Y	N	N/A
X		
X		
X		

PE Seal with License #
 Name and Address of Operator
 Legal Description of Facility

General Information:

X		
		X1
X		
		X1
X		

Name of Company
 Number of Employees
 Products to be Mined
 Hours of Operation
 Water Supply and Disposition

Topographic Map:

X		
X		
X		
X		
X		

Mine Location
 Location of Prep Plant
 Location of Treatment Basins
 Location of Discharge Points
 Location of Adjacent Streams

1"- 500' or Equivalent Facility Map:

X		
X		
X		
X		

Drainage Patterns
 Mining Details
 All Roads, Structures Detailed
 All Treatment Structures Detailed

Detailed Design Diagrams:

X		
X		
X		

Plan Views
 Cross-section Views
 Method of Diverting Runoff to Treatment Basins

Narrative of Operations:

X		
X		
X		

Raw Materials Defined
 Processes Defined
 Products Defined

Schematic Diagram:

X		
X		
X		

Points of Waste Origin
 Collection System
 Disposal System

Post Treatment Quantity and Quality of Effluent:

X		
X		
X		
X		

Flow
 Suspended Solids
 Iron Concentration
 pH

Description of Waste Treatment Facility:

X		
X		
X		
X		

Pre-Treatment Measures
 Recovery System
 Expected Life of Treatment Basin
 Schedule of Cleaning and/or abandonment

Other:

X		
X		
X		
X		
X		
X		

Precipitation/Volume Calculations/Diagram Attached
 BMP Plan for Haul Roads
 Measures for Minimizing Impacts to Adjacent Stream i.e., Buffer Strips, Berms, etc.
 Methods for Minimizing Nonpoint Source Discharges
 Facility Closure Plans
 PE Rationale(s) For Alternate Standards, Designs or Plans

IDENTIFY AND PROVIDE DETAILED EXPLANATION FOR ANY "N" OR "N/A" RESPONSE(s):

X1: The number of employees and hours of operation will vary as market demands.
X2: No alternate standards, designs or plans are proposed.

XXII. INFORMATION

Contact the Department prior to submittal with any questions or to request acceptable alternate content/format. Be advised that you are not authorized to commence regulated activity until this application can be processed, publicly noticed, and approval to proceed is received in writing from the Department.

EPA Form(s) 1 and 2F need not be submitted unless specifically required by the Department. EPA Form(s) 2C and/or 2D are required to be submitted unless the applicant is eligible for a waiver and the Department grants a waiver.

Planned/proposed mining sites that are greater than 5 acres, that mine/process coal or metallic mineral/ore, or that have wet or chemical processing, must apply for and obtain coverage under and Individual NPDES Permit prior to commencement of any land disturbance. Such coverage may be requested via this ADEM Form 315.

The applicant is advised to contact:

- (1) The Alabama Surface Mining Commission (ASMC) if coal, coal fines, coal refuse, or other coal related materials are mined, transloaded, processed, *etc.*;
- (2) The Alabama Department of Industrial Relations (ADIR) if conducting non-coal mining operations;
- (3) The Alabama Historical Commission for requirements related to any potential historic or culturally significant sites;
- (4) The Alabama Department of Conservation and Natural Resources (ADCNR) for requirements related to potential presence of threatened/endangered species; and
- (5) The US Army Corps of Engineers, Mobile or Nashville Districts, if this project could cause fill to be placed in federal waters or could interfere with navigation.

The Department must be in receipt of a completed version of this form, including any supporting documentation, and the appropriate processing fee (including Greenfield Fee and Biomonitoring & Toxicity Limits fee(s), if applicable), prior to development of a draft NPDES permit. Send the completed form, supporting documentation, and the appropriate fees to:

Water Division
Alabama Department of Environmental Management
Post Office Box 301463
Montgomery, Alabama 36130-1463
Phone: (334) 271-7823
Fax: (334) 279-3051
h2omail@adem.state.al.us
www.adem.alabama.gov

XXIII. PROFESSIONAL ENGINEER (PE) CERTIFICATION

A detailed, comprehensive Pollution Abatement/Prevention Plan (PAP) must be prepared, signed, and certified by a professional engineer (PE), registered in the State of Alabama as follows:

"I certify on behalf of the applicant, that I have completed an evaluation of discharge alternatives (Item XV) for any proposed new or increased discharges of pollutant(s) to Tier 2 waters and reached the conclusions indicated. I certify under penalty of law that technical information and data contained in this application, and a comprehensive PAP Plan including any attached SPCC plan, maps, engineering designs, etc. acceptable to ADEM, for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff has been prepared under my supervision for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B. If the PAP plan is properly implemented and maintained by the permittee, discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other permit requirements. The applicant has been advised that appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices as detailed in the PAP plan must be fully implemented and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices, permit requirements, and other ADEM requirements to ensure protection of groundwater and surface water quality."

Address 421 OFFICE PARK DRIVE, BIRMINGHAM AL 35223 PE Registration # 14373

Name and Title (type or print) RONALD T. THOMPSON

Phone Number 205-790-2262

Signature Ronald T. Thompson

Date Signed May 12, 2015

XXIV. RESPONSIBLE OFFICIAL SIGNATURE

This application must be signed by a Responsible Official of the applicant pursuant to ADEM Admin. Code Rule 335-6-6-.09 who has overall responsibility for the operation of the facility.

"I certify under penalty of law that this document, including technical information and data, the PAP plan, including any SPCC plan, maps, engineering designs, and all other attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the PE and other person or persons under my supervision who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

A comprehensive PAP Plan to prevent and minimize discharges of pollution to the maximum extent practicable has been prepared at my direction by a PE for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B, and information contained in this application, including any attachments. I understand that regular inspections must be performed by, or under the direct supervision of, a PE and all appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices identified by the PE must be fully implemented prior to and concurrent with commencement of regulated activities and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices and ADEM requirements. I understand that the PAP plan must be fully implemented and regularly maintained so that discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other requirements to ensure protection of groundwater and surface water quality. I understand that failure to fully implement and regularly maintain required management practices for the protection of groundwater and surface water quality may subject the permittee to appropriate enforcement action.

I certify that this form has not been altered, and if copied or reproduced, is consistent in format and identical in content to the ADEM approved form.

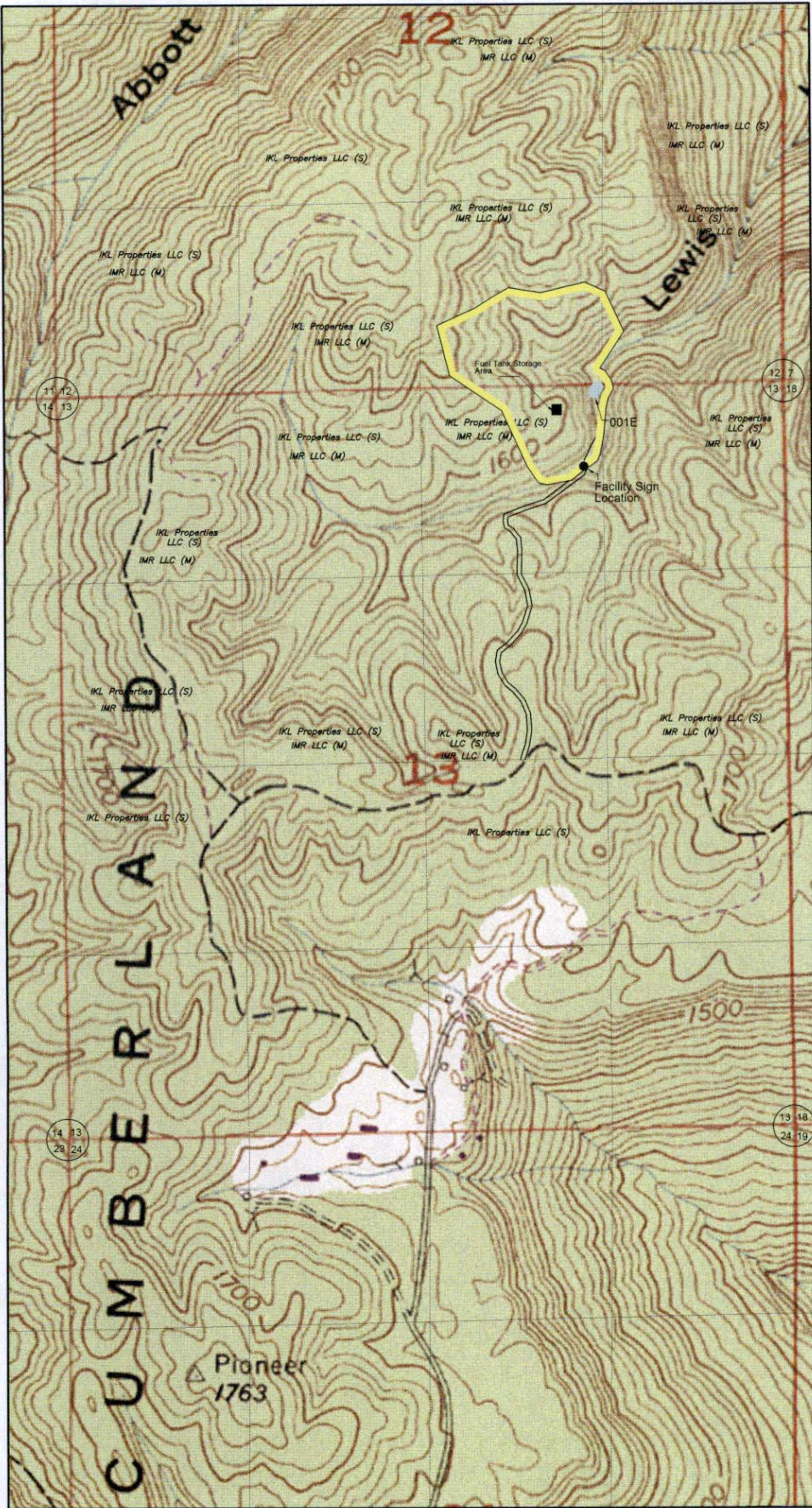
I further certify that the discharges described in this application have been tested or evaluated for the presence of non-stormwater discharges and any non-mining associated beneficiation/process pollutants and wastewaters have been fully identified."

Name (type or print) PUNKAJ RISHI

Official Title MANAGING PARTNER

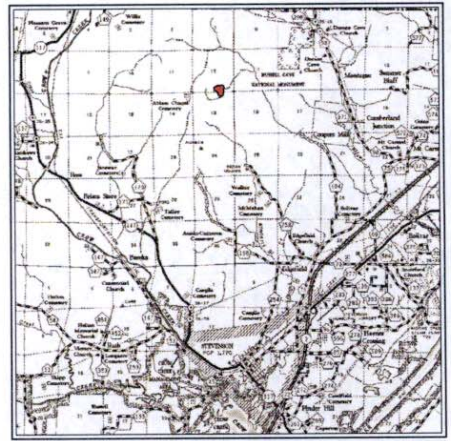
Signature Punraj Rishi

Date Signed APRIL 27th 2015



PERMIT AREA
 Scale: 1" = 500'
 Contour Interval = 20'

Base Map is the U.S.G.S. Doran Cove and Eureka 7.5' Quadrangle
 Facility Latitude 34 57' 31" Longitude 085 50' 44"



VICINITY MAP
 Scale: 1" = 2 Miles

NOTES

- All spoil and topsoil will be stockpiled within the permit boundary.
- There are no buildings within a 1000' of the permit area, other than shown on the permit map.
- Surface and mineral ownership by 1/4-1/4, unless shown otherwise.
- Coal stockpile locations are subject to change.
- There are no city or town limits within the permit area.
- County Sheriff Has Jurisdiction Within 1000' Of Permit Area.

LEGEND

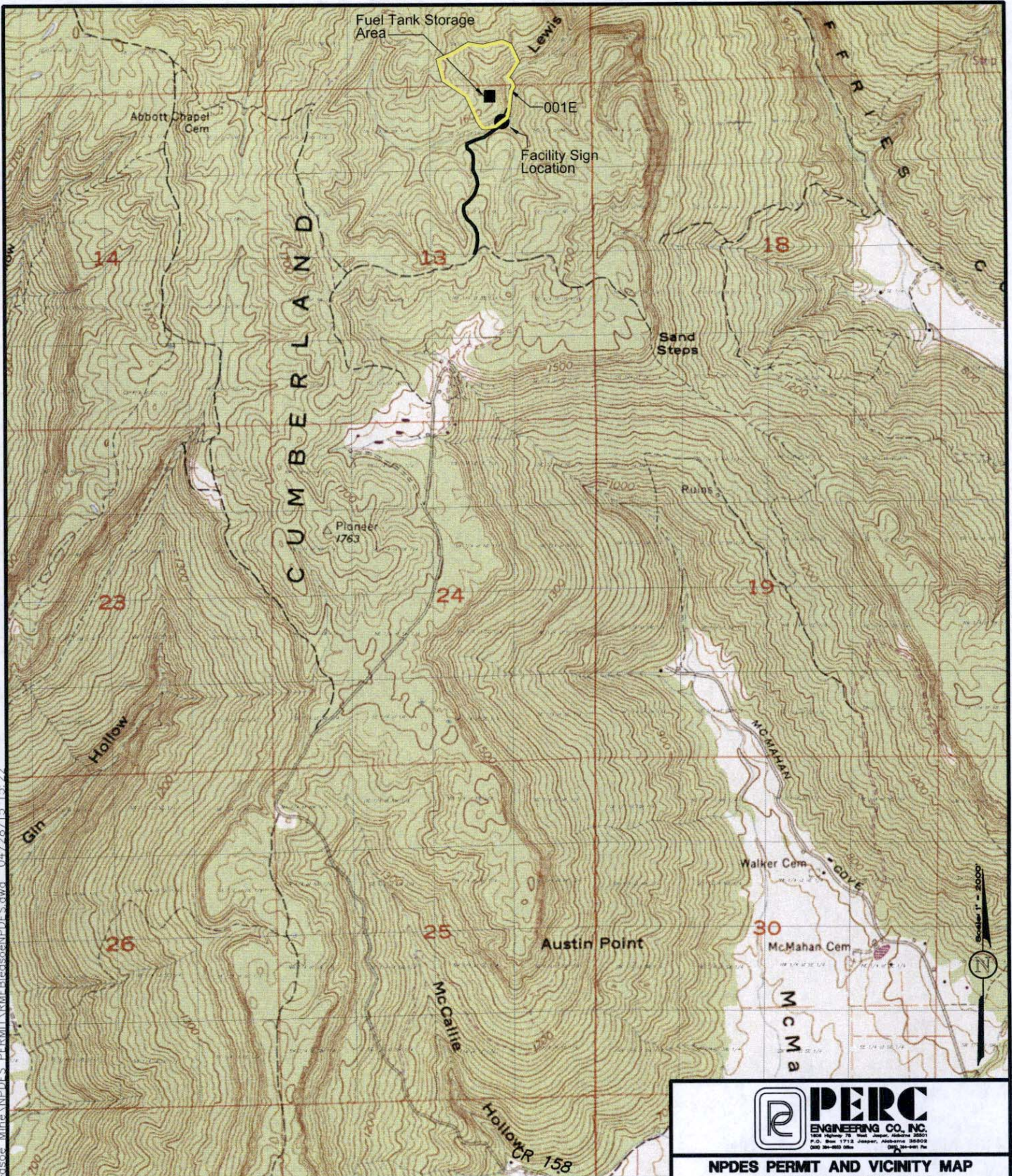
- NPDES Permit Boundary
- Sediment Basin



NPDES PERMIT AND VICINITY MAP
RED MESA ENERGY, LLC
BLEDSOE MINE NO. 1
 Part of Sections 12, & 13
 Township 1 South, Range 7 East
 Jackson County, Alabama




DRAWN BY: S.W.L.	DATE: 04-28-2014
DWG. NAME: RMEBledsoeNPDES	
APPROVED BY: L.G.S.	SCALE: 1" = 500'

V:\Mining\Red Mesa Bledsoe Mine\NPDES PERMIT\RMFBledsoeNPDES.dwg 04/28/15 15:22



Base Map is the U.S.G.S. Doran Cove and Eureka 7.5' Quadrangle

MAP LEGEND:

-  Permit Boundary
-  600 Surface Contour
-  Existing Roads

Facility Latitude 34 57' 31"
Longitude 085 50' 44"

PERC
ENGINEERING CO., INC.
104 Highway 78 West Jasper, Alabama 35093
P.O. Box 1712 Jasper, Alabama 35093
(205) 281-8833 Fax (205) 281-8831

NPDES PERMIT AND VICINITY MAP
RED MESA ENERGY, LLC
BLEDSOE MINE NO. 1
Part of Sections 12, & 13
Township 1 South, Range 7 East
Jackson County, Alabama

DRAWN BY: S.W.L.	DATE: 04-28-2014
DWG. NAME: RMEBledsoeNPDES	
APPROVED BY: L.G.S.	SCALE: 1" = 2000'

EPA Form 2C- Modified

NPDES MINING AND PREPARATION PLANT OUTFALL DATA FOR METALS, CYANIDE, AND TOTAL PHENOLS

NPDES Permit No.: A10069647				Applicant: Red Mesa Energy, LLC				Facility: Bledsoe Mine No. 1										
Outfall Sampled ¹ : 001-E		Date of Sampling: 2/11/15		Was Sample Taken In-Pond? No	Was Sample Taken from Discharge? Yes	Substantially Identical Outfalls: None		Description of Discharge: Discharge from area of coal mining operation and surface water into sedimentation pond										
Please supply the following information separately for every P or E outfall evaluated or tested. If necessary, attach extra sheets. If you are a coal facility, mark "X" in appropriate columns for all listed metals, cyanide, and total phenols. If the outfall is existing, you must provide the results of at least one representative analysis for that pollutant for a substantially identical existing outfall at the facility. If the outfall is proposed, you must either submit at least one representative analysis for a substantially identical existing outfall at the facility or, if not available, at least one representative analysis for a substantially identical outfall at another similar facility.																		
Pollutant and CAS No. (If available)	Mark "X"			Effluent								Instream						
	Existing Outfall (Testing Required)	Proposed Outfall - Parameter Believed Present	Proposed Outfall - Parameter Believed Absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		# of Analyses	Frequency of Discharge (Days/Month/Hours/Day)	EPA Approved Method Analysis Used ²	Method Detect on Limit (µg/L)	Receiving Water TQ10 Flow (cfs)	Discharge Flow (cfs)	Background Instream Concentration (µg/L)	Instream Hardness (optional) (mg/L CaCO ₃) ³	Instream Flow (optional) (cfs)
				Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)	Concentration (µg/L)	Mass (lbs)									
1M. Antimony, Total (7440-36-0)			X	.44	0.07					1	Precip. Based	EPA200.8 0.031 RL 0.5	0	.059	.031			
2M. Arsenic, AsIII (7440-38-2)			X	<MDL	<MDL					1	Precip. Based	IC-ICPMS 0.13 RL 0.5	0	.059	0.13			
3M. Beryllium, Total (7440-41-7)		X		.53	0.09					1	Precip. Based	EPA200.8 0.025 RL 0.5	0	.059	.025			
4M. Cadmium, Total (7440-43-9)			X	.15	0.03					1	Precip. Based	EPA200.8 0.03 RL 0.5	0	.059	.030			
5M. Chromium, Total (744-47-3)		X		1.66	0.28					1	Precip. Based	EPA200.8 0.044 RL 1.0	0	.059	.17			
6M. Copper, Total (7440-50-8)		X		5.23	0.89					1	Precip. Based	EPA200.8 0.5 RL 2.0	0	.059	.50			
7M. Lead, Total (7439-92-1)		X		2.38	0.40					1	Precip. Based	EPA200.8 0.041 RL 0.5	0	.059	.10			
8M. Mercury, Total (7439-97-6)			X	<MDL	<MDL					1	Precip. Based	EPA245.1 0.045 RL 0.10	0	.059	.053			
9M. Nickel, Total (7440-02-0)		X		21.6	3.67					1	Precip. Based	EPA200.8 0.025 RL 0.5	0	.059	.46			
10M. Selenium, Total (7782-49-2)			X	.48	0.08					1	Precip. Based	EPA200.8 0.069 RL 0.5	0	.059	.10			
11M. Silver, Total (7440-22-4)			X	<MDL	<MDL					1	Precip. Based	EPA200.8 0.025 RL 0.5	0	.059	.025			
12M. Thallium, Total 74440-28-0)			X	.076	0.01					1	Precip. Based	EPA200.8 0.025 RL 0.20	0	.059	.025			
13M. Zinc, Total (7440-66-6)		X		309	52.56					1	Precip. Based	EPA200.8 2.5 RL 10.0	0	.059	2.58			
14M. Cyanide, Total (57-12-5)			X	<MDL	<MDL					1	Precip. Based	EPA-600 20	0	.059	<MDL			
15M. Phenols, Total			X	<MDL	<MDL					1	Precip. Based	EPA-600 100	0	.059	<MDL			

<MDL represents less than the Method Detection Limit, <RL represents less than the Reporting Limit

¹ Sampling results must be representative of the discharge.

² Test methods used must be in accordance with 40 CFR Part 136 and 40 CFR 122.21(g)(7)(I).

³ Instream Hardness (CaCO₃) will be assumed to be either 50 mg/L or 100 mg/L based on the location of the discharge if Hardness data is not submitted.

Attachment A – Appendix A & B

Pond Construction Criteria

Specifications for the Construction, Maintenance and Reclamation of
Primary Roads

Specifications for the Construction, Maintenance and Reclamation of
Ancillary Roads

ATTACHMENT A

Pond Construction Criteria

The embankment for sediment basins (temporary and permanent) shall be designed and built using the following as minimum criteria:

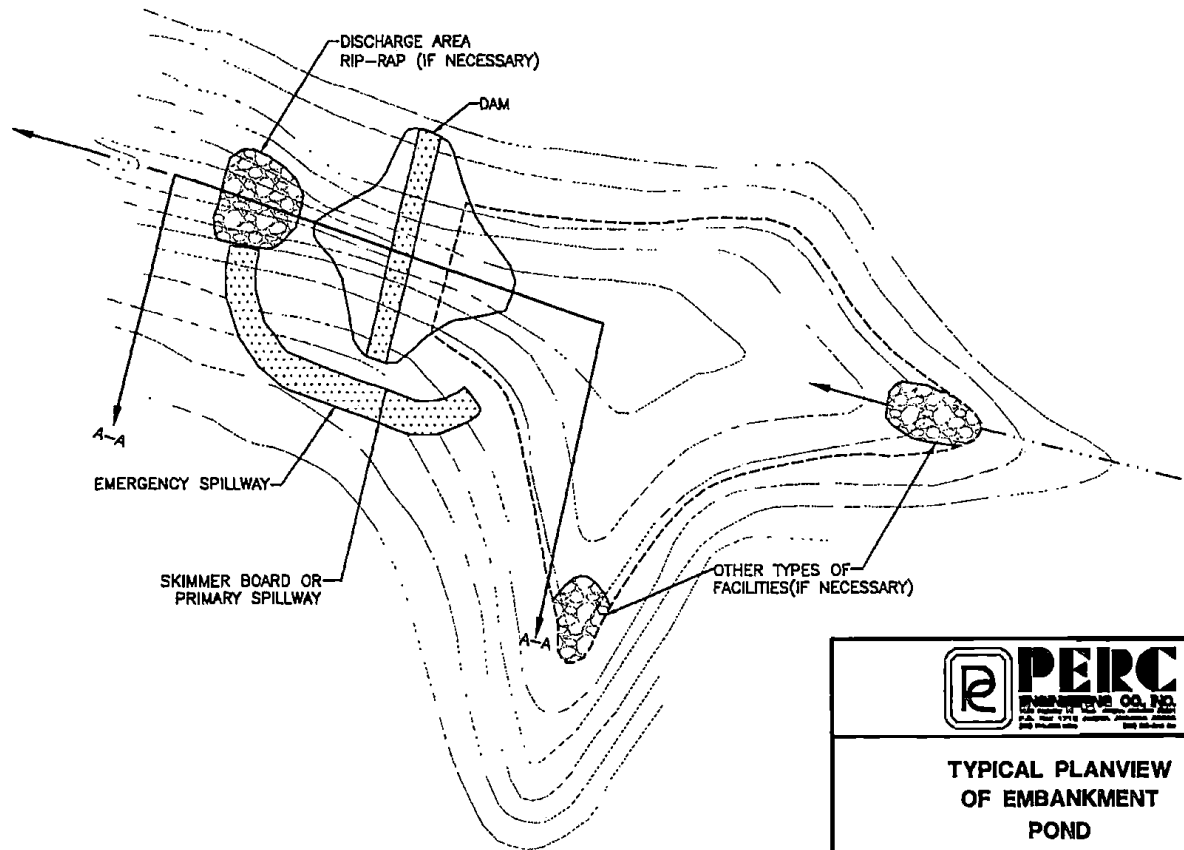
1. The top of the dam shall be no less than 12 feet wide.
2. See design sheet for maximum and minimum embankment slopes.
3. The foundation and abutments for the impounding structure shall be designed to be stable under all conditions of construction and operation of the impoundments, with a minimum static safety factor of 1.5 for the normal pool with steady seepage saturation conditions, and a seismic safety factor of at least 1.20.
4. The dam shall be constructed with a cutoff trench based upon prudent engineering practices for the site. The cutoff shall be located on the dam centerline and be of sufficient depth to extend into a relatively impervious material from which the core of the dam shall also be constructed.
5. The embankment foundation area shall be cleared of all organic matter, all surfaces sloped to no steeper than 1v:1h, and the entire foundation surface scarified.
6. The entire embankment and cutoff trench shall be compacted to 95 percent density, based on standard proctor as outlined in ASTM.
7. The material placed in the embankment shall be free of sod, roots, stones over 6 inches in diameter, and other objectionable materials. The fill material shall be placed and spread over the entire fill area, starting at the lowest point of the foundation, in layers not to exceed 12 inches in thickness. Construction of the fill shall be undertaken only at such times that the moisture content of the fill material will permit satisfactory compaction in accordance with paragraph 5.
8. The pool area of the basin will be cleared of timber and large undergrowth.
9. The primary decant system when consisting of a pipe shall be installed according to Class C pipe installation for embankment bedding.
10. The primary decant system shall be equipped with a device, or constructed, such as to insure that subsurface withdrawal is accomplished to prevent discharge of floating solids. If a channel is used as the primary decant a skimmer shall be installed to prevent floating solids from discharging.
11. A splash pad or riprap may be required under the discharge of the primary decant system where necessary to insure that the discharge does not erode the embankment.
12. The combination primary and secondary decant system shall be designed to safely carry the expected peak flow from a 25 year - 6 hour storm. The entire emergency overflow spillway channel will be a stabilized channel and will be stabilized upon completion of construction as specified within the detailed design plans using prudent engineering measures. These measures may consist of lining the spillway with concrete or a durable rock riprap, or the spillway being constructed in consolidated non-erodible material and planted with a mixture of both annual and perennial grasses, or a combination of any or all of the above.

ATTACHMENT A (Continued)

13. Sediment basins using a single spillway system shall be an open channel of non-erodible construction consisting of concrete, durable rock riprap or its being constructed in consolidated non-erodible material as specified in the detailed design plans.
14. The settled embankment for temporary impoundments shall be a minimum of 1.0 foot above the maximum water elevation for the runoff from a 25 year - 6 hour, or a 10 year - 24 hour precipitation event (whichever has the greatest runoff). The settled embankment for permanent impoundments shall be a minimum of 1.0 foot above the maximum water elevation for the runoff from a 25 year - 6 hour, or a 10 year - 24 hour precipitation event (whichever has the greatest runoff).
15. If basins are built in series, then the combined decant system for each shall be designed to accommodate the entire contributing drainage area.
16. The dam and all disturbed areas shall be seeded with both perennial and annual grasses, fertilized and mulched in order to insure erosion is minimized. Hay bales or riprap may be placed at the toe of the dam immediately upon completion of construction.
17. The constructed height of the dam shall be increased a minimum of 5 percent over the design height to allow for settlement over the life of the embankment.
18. Final graded slopes of the entire permanent water impoundment area shall not exceed 2.5H-1.0V to provide for adequate safety and access for proposed water users.
19. Prior to Phase II bond release, additional data concerning water quality, water quantity, depth, size, configuration, postmining land use, etc., for each proposed permanent water impoundment, shall be submitted to the Regulatory Authority for permanent water impoundment approval.
20. All sediment basins will be inspected for stability, erosion, etc. two (2) times a month until removal of the structure or release of the reclamation bond.
21. The embankment and spillway will be maintained by repairing any damage such as erosion, slope failure or spillway damage until removal of the structure or release of the performance bond.
22. All ponds shall be examined quarterly for structural weakness, instability, erosion, or other hazardous conditions and maintenance performed as necessary. Formal inspections shall be made on an annual basis, including any reports or modifications, in accordance with 880-X-10C-.20[l(j)] of the Alabama Surface Mining Commission Regulations.
23. Sediment will be removed from each pond when the accumulated sediment reaches the sediment storage volume as shown on the detailed design sheet.


ATTACHMENT A (Continued)

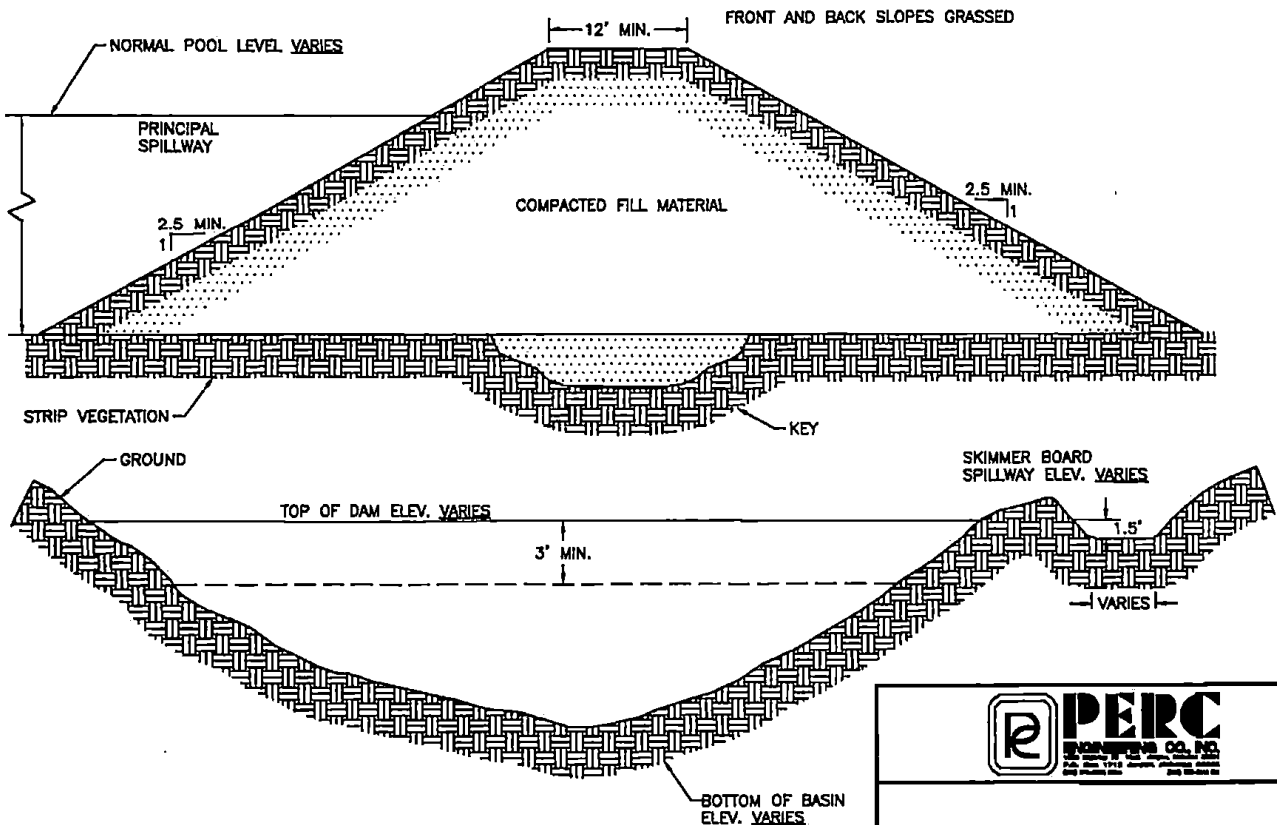
24. Upon completion of mining, successful reclamation and effluent standards being met, each sediment basin not remaining as a permanent water impoundment will be dewatered in an environmentally safe manner (such as siphoning, pumping, etc.) and reclaimed to approximate original contours by the following procedure: A permanent diversion channel (designed for a 10 year - 24 hour precipitation event) shall be cut along the outer edge of the basin to re-route drainage around the basin and back through the stabilized spillway to allow reclamation of the sediment basin. The diversion channel shall be designed and grassed as per enclosed information. (See permanent diversion for basin disposal). Upon completion of the diversion channel the back slope of the dam shall be graded to a minimum 3H to 1V slope. The dewatered sediment basin area shall be seeded with some combination of the following: Fescue, bermuda, rye grass, canary grass and willows. After seeding the area shall be mulched. Any additional sediment or embankment material not used to meet original contour, if non-toxic, shall be spread in thin layers within the permit area and vegetated as stated in the approved reclamation plan. All toxic material encountered in the basin disposal shall be buried and covered with 4 feet of non-toxic material and vegetated as stated in the approved reclamation plan.
25. A qualified registered professional engineer or other qualified professional specialist, under the direction of the professional engineer shall conduct regular inspections during construction and upon completion shall inspect each basin for certification purposes.
26. Point source discharge embankments shall be constructed and abutments keyed into desirable material if at all possible. In the event that undesirable material is encountered, additional design and construction criteria shall be submitted prior to certification.



PLANVIEW OF EMBANKMENT POND

ATTACHMENT III-B-2-A

		
<p>TYPICAL PLANVIEW OF EMBANKMENT POND</p>		
DRAWN BY:	P.T.O.	DATE: 8-10-05
DWG. NAME:	TYPICALS	
APPROVED BY:	W.K.M.	SCALE: NONE



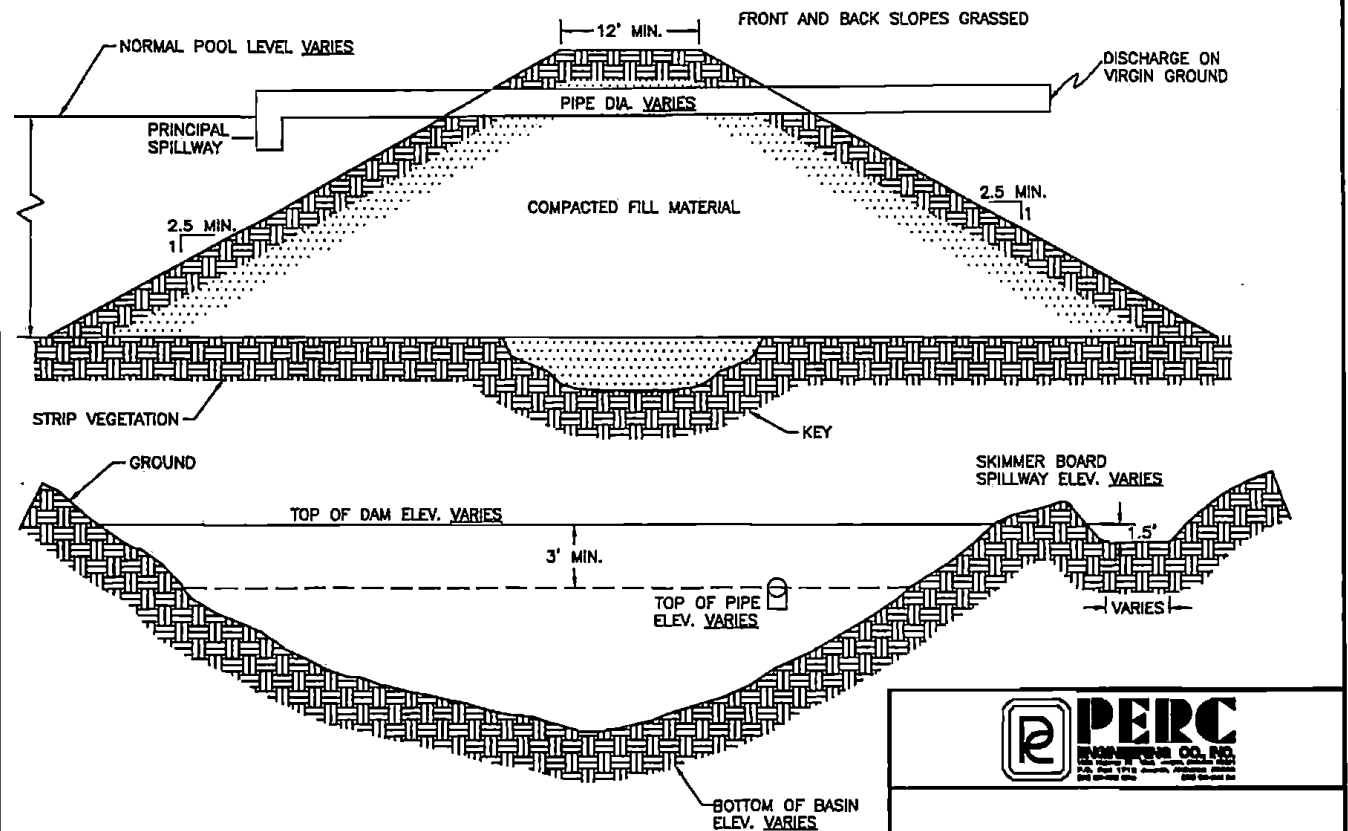
TYPICAL DAM DETAIL
NO SCALE

ATTACHMENT III-B-2-A




TYPICAL DAM DETAIL

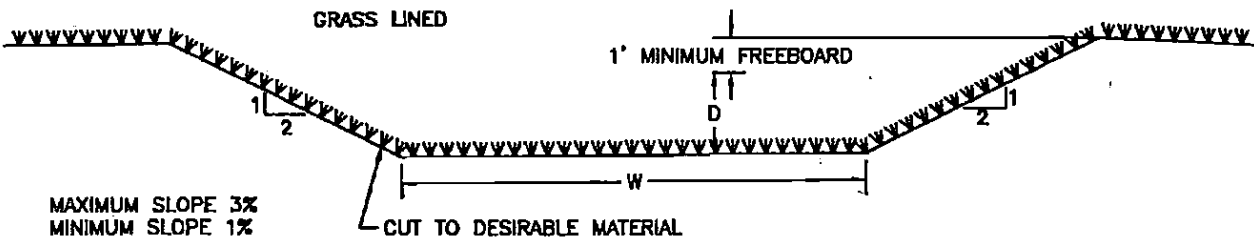
DRAWN BY: P.T.O.	DATE: 8-10-05
DWG. NAME: TYPICALS	
APPROVED BY: W.K.M.	SCALE: NONE



TYPICAL DAM DETAIL
NO SCALE

ATTACHMENT III-B-2-A

	
TYPICAL DAM DETAIL	
DRAWN BY: P.T.O. DWG. NAME: TYPICALS	DATE: 8-10-05
APPROVED BY: W.K.M.	SCALE: NONE



MAXIMUM SLOPE 3%
MINIMUM SLOPE 1%

$$Q = \frac{1.49}{N} A R^{2/3} S^{1/2}$$

N (LOOSE STONE OR GRASS LINED) = 0.035
 A = AREA
 R = AREA/WETTED PERIMETER
 S = SLOPE

* GRASS LINING: FESCUE, BERMUDA, RYE GRASS

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 8.0 FT.	
PEAK FLOW Q (CFS)	DEPTH D (FT)
0-15	0.5
15-50	1.0
50-100	1.5
100-180	2.0
180-270	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 10.0 FT.	
PEAK FLOW Q (CFS)	DEPTH D (FT)
0-15	0.5
15-60	1.0
60-120	1.5
120-210	2.0
210-320	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 12.0 FT.	
PEAK FLOW Q (CFS)	DEPTH D (FT)
0-20	0.5
20-70	1.0
70-150	1.5
150-250	2.0
250-383	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 15.0 FT.	
PEAK FLOW Q (CFS)	DEPTH D (FT)
0-25	0.5
25-90	1.0
90-180	1.5
180-300	2.0
300-450	2.5



TYPICAL PERMANENT DIVERSION FOR BASIN DISPOSAL

DRAWN BY: S.D.M.	DATE: 1/4/2011
DWG. NAME: TYPICALS	
APPROVED BY: L.G.S.	SCALE: NONE

ATTACHMENT A (Continued)

SPECIFICATIONS FOR THE CONSTRUCTION, MAINTENANCE AND RECLAMATION OF PRIMARY ROADS

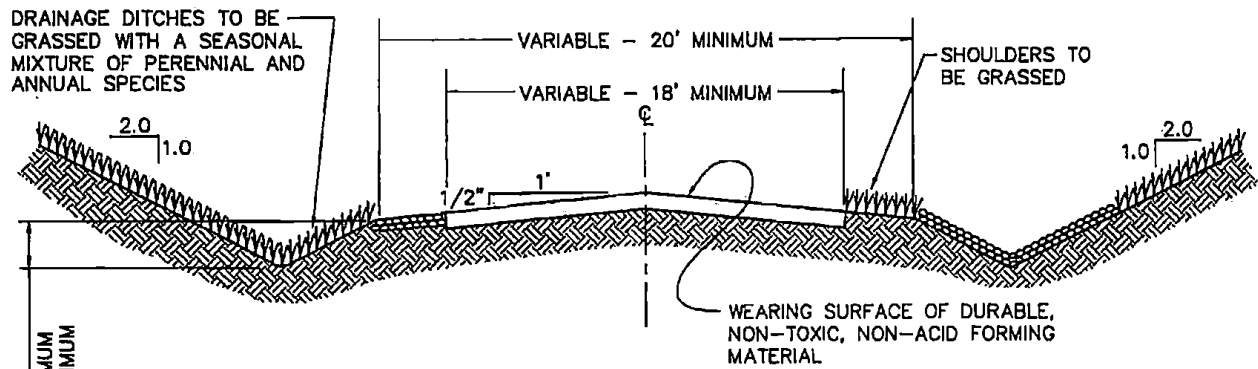
1. Primary roads shall be designed by or under the direction of a registered professional engineer in accordance with the Alabama Surface Mining Commission rules and regulations and prudent engineering practice.
2. Each roadway embankment will be designed and constructed so as to have a minimum static safety factor of 1.3.
3. To the extent possible, roads will be located on ridges or on the most stable available slopes to prevent or minimize erosion, downstream sedimentation and flooding in an effort to prevent adverse effects to fish, wildlife and related environmental values.
4. To the extent possible, roads will be located above the sediment basins to be constructed for the mining operation in an effort to control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area and to comply with State and Federal water quality standards applicable to receiving waters and avoid the alteration of the normal flow of water in streambeds or drainage channels while preventing or controlling damage to public or private property. Where it is not possible or is impractical to locate roads in this manner, sediment control devices such as silt fencing, hay bale check dams and rock filter check dams will be used as necessary to maintain water quality. No fording of intermittent or perennial streams will be conducted unless specifically approved by the Alabama Surface Mining Commission as temporary routes to be used during road construction.
5. Prior to construction, the roadway will be cleared, grubbed and will have the topsoil removed. The clearing limits will be kept to the minimum necessary to accommodate the roadbed and associated ditch construction.
6. Roads will be constructed of suitable compacted subgrade material. The material will be free of sod, roots, stones over 12 inches in diameter, and other objectionable materials. The material will be placed and spread over the entire fill area, starting at the lowest point in layers not to exceed 12 inches in thickness. The material will be compacted to 95 percent of the density, based on standard proctor as outlined in ASTM.
7. Primary roads will have a minimum width of eighteen feet and a maximum width necessary to accommodate the largest equipment traveling the road.
8. Roadbeds will be cut to consolidated non-erodible material or will be surfaced with durable non-toxic, non-acid forming substances. The wearing surface will consist of durable sandstone, chert, crushed limestone, crushed concrete, crushed asphalt, red rock, ironore refuse, gravel, or other durable non-toxic, non-acid forming material approved by the Regulatory Authority. The wearing surface will be placed on the roadbed to a depth of four inches.
9. No sustained grades will exceed ten percent unless deemed necessary, in which case appropriate sediment control facilities will be constructed. If grades in excess of fifteen percent are required, cross drains, ditch relief drains and road drainways will be located at a minimum distance of three-hundred feet.

ATTACHMENT A (Continued)

10. Roads will be constructed so as to have adequate drainage utilizing ditches, culverts, cross drains and ditch relief drains designed to safely pass the peak runoff from a ten year, six hour precipitation event. Drainage pipes and culverts shall be installed as designed and will be maintained in a free and operating condition to prevent and control erosion at inlets and outlets. Culverts have been designed to support the load of the heaviest equipment to travel the road and are based on the Handbook of Steel Drainage and Highway Construction Products by the American Iron and Steel Institute and the equipment specifications. Drainage ditches will be constructed and maintained in accordance with the approved design to prevent uncontrolled drainage over the road surface and embankment. Roads will not be located in the channel of an intermittent or perennial stream unless specifically approved by the Alabama Surface Mining Commission. Additionally, no relocation and/or alteration of an intermittent or perennial stream will be done unless specifically approved by the Alabama Surface Mining Commission. In the event that it becomes evident that any drainage structures including culverts, bridges and/or low water crossings will be required in order to cross an intermittent or perennial stream, the structure will be designed and constructed in accordance with Alabama Surface Mining Commission requirements and prudent engineering practice and the approval of the design(s) will be acquired prior to the commencement of construction. Hay bale check dams and silt fences will be used at strategic locations when necessary to control sediment runoff. Immediately upon completion of construction, the side slopes of the road embankments and/or cuts will be fertilized, seeded with annual and perennial grasses and mulch will be added to aid in the prevention of erosion and to enhance seed germination. The seed mix will consist of, but is not limited to, some combination of the following species: bermuda grass, fescue, lespedeza, rye grass, brown top millet, clover and vetch. The particular species to be planted will vary with the planting season at the time of seed application. Upon completion of construction of each phase of the roadway the construction will be certified to the Alabama Surface Mining Commission as having been done in accordance with the approved plans for the roadway and associated facilities.
11. Routine maintenance will be required to assure that the road continually meets performance standards and will consist of periodic grading, resurfacing, dust suppression and maintenance of sediment control facilities. Dust suppression will consist of the application of water, chemical binders and/or other dust suppressants. No oil will be utilized in this process. Spot seeding, fertilizing and mulching will be performed as necessary to improve vegetative cover on roadway slopes. A road damaged by a catastrophic event shall be repaired as soon as practicable after the damage has occurred.
12. Roads not to be retained as part of the post mine land use shall be reclaimed in accordance with the approved reclamation plan for this permit as soon as practicable after they are no longer needed as part of the mining and reclamation operation, using the following procedures:
 - a. The road will be closed to traffic.
 - b. All bridges, culverts and other drainage structures not approved as part of the post mine land use will be removed.
 - c. All road surfacing materials that are not compatible with the post mine land use or revegetation requirements will be properly disposed of on-site or removed from the site for re-use.
 - d. Roadway cut and fill slopes shall be regraded and reshaped to be compatible with the post mine land use and to compliment the natural drainage pattern of the surrounding terrain.
 - e. The natural drainage patterns shall be protected from surface runoff and erosion utilizing the installation of dikes and/or cross drains as necessary.
 - f. The roadbed shall be ripped or scarified as necessary, the topsoil or substitute or approved growing medium shall be replaced and revegetated in accordance with the approved reclamation plan for this permit.
13. The drawings and data contained in the specific design plans illustrate typical roadbed configurations for primary roads as well as site specific design of drainage structures, stability analysis and ditch sections.

TYPICAL HAUL ROAD CUT SECTION

NO SCALE



VARIES
 2'-0" MINIMUM
 3'-0" MAXIMUM



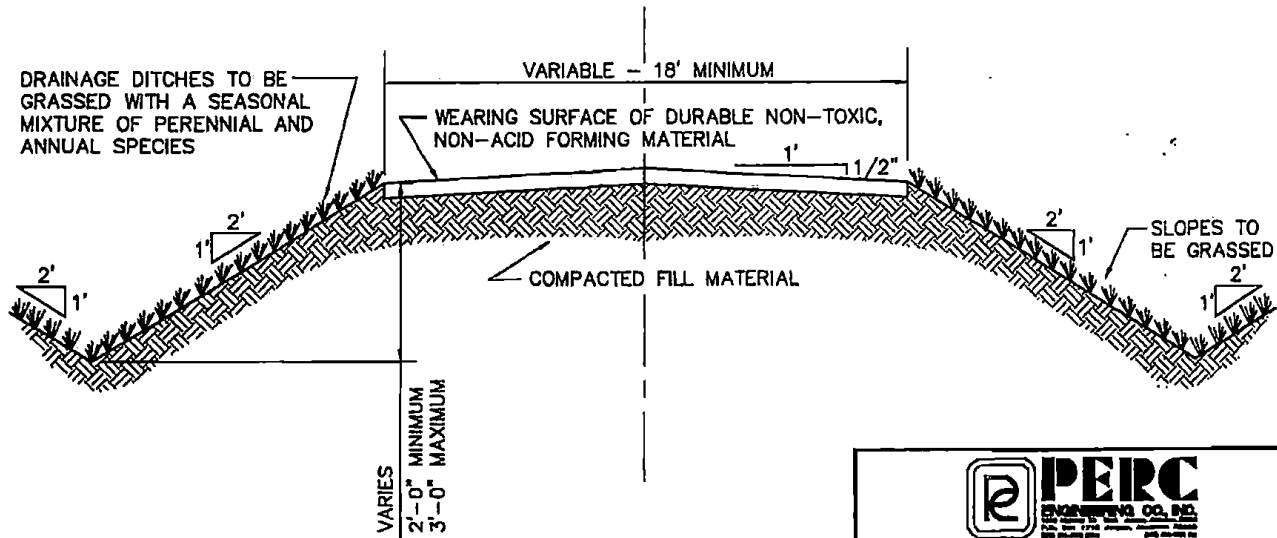
TYPICAL CUT SECTION PRIMARY HAUL ROAD

DRAWN BY: K.D.P.	DATE: 2-3-97
DWG. NAME: TYPHAULC	
APPROVED BY: S.R.I.	SCALE: NONE

13/1/2005 10:50:00 AM

TYPICAL HAUL ROAD FILL SECTION

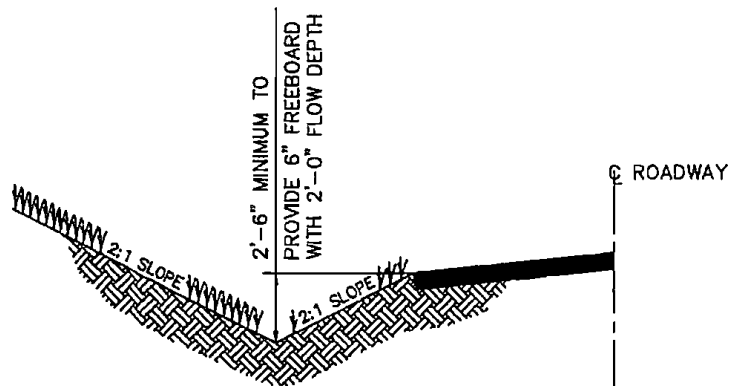
NO SCALE



TYPICAL FILL SECTION PRIMARY HAUL ROAD

DRAWN BY: K.D.P.	DATE: 2-3-97
DWG. NAME: TYPHAULF	
APPROVED BY: S.R.L.	SCALE: NONE

ATTACHMENT III - B, -5.



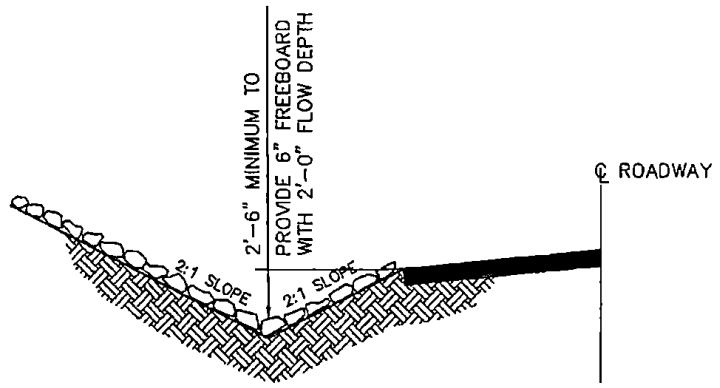
MINIMUM DITCH GRADIENT = 1%
 MAXIMUM DITCH GRADIENT = 5%

DITCH CHANNEL TO BE VEGETATED WITH
 A MIXTURE OF BERMUDA GRASS, FESCUE,
 AND LESPEDEZA TO CONFORM TO CLASS
 "D" RETARDANT CLASS.



**TYPICAL PRIMARY ROADWAY DITCH
 CROSS SECTION**

DRAWN BY:	K.D.P.	DATE:	2-4-87
DWG. NAME:	PRIMROAD		
APPROVED BY:	R.E.P.	SCALE:	NONE



DITCH GRADIENT 5% TO 10%

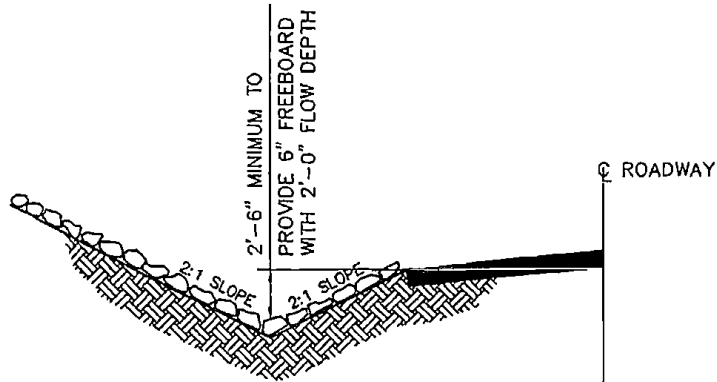
DITCH CHANNEL TO BE LINED WITH NON-ERODIBLE NON-TOXIC, NON-ACID FORMING SANDSTONE OR LIMESTONE RIP-RAP. THE RIP-RAP WILL BE "CLASS 1" RIP-RAP AND HAVE A MINIMUM THICKNESS OF 12".



TYPICAL PRIMARY ROADWAY DITCH CROSS SECTION

DRAWN BY: S.D.M.	DATE: 11/8/2011
DWG. NAME: PRIMRD1	
APPROVED BY: L.G.S.	SCALE: NONE

C:\Users\james\OneDrive\Documents\Projects\2011\11-08-2011\11-08-2011.dwg



DITCH GRADIENT 11% TO 17%

DITCH CHANNEL TO BE LINED WITH NON-ERODIBLE
NON-TOXIC, NON-ACID FORMING SANDSTONE OR
LIMESTONE RIP-RAP. THE RIP-RAP WILL BE "CLASS 2"
RIP-RAP AND HAVE A MINIMUM THICKNESS OF 16".



TYPICAL PRIMARY ROADWAY DITCH
CROSS SECTION

DRAWN BY:	S.D.M.	DATE:	11/8/2011
DWG. NAME:	PRIMRD2		
APPROVED BY:	L.G.S.	SCALE:	NONE

ATTACHMENT A (Continued)

**SPECIFICATIONS FOR THE CONSTRUCTION, MAINTENANCE
AND RECLAMATION OF ANCILLARY ROADS**

1. To the extent possible, roads will be located on ridges or on the most stable available slopes to prevent or minimize erosion, downstream sedimentation and flooding in an effort to prevent adverse effects to fish, wildlife and related environmental values.
2. To the extent possible, roads will be located above the sediment basins to be constructed for the mining operation in an effort to control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area and to comply with State and Federal water quality standards applicable to receiving waters and avoid the alteration of the normal flow of water in streambeds or drainage channels while preventing or controlling damage to public or private property. Where it is not possible or is impractical to locate roads in this manner, sediment control devices such as silt fencing, hay bale check dams and rock filter check dams will be used as necessary to maintain water quality.
3. Prior to construction, the roadway will be cleared, grubbed and will have the topsoil removed. The clearing limits will be kept to the minimum necessary to accommodate the roadbed and associated ditch construction.
4. Roads will be constructed of suitable compacted subgrade material. The material will be free of sod, roots, stones over 12 inches in diameter, and other objectionable materials. The material will be placed and spread over the entire fill area, starting at the lowest point in layers not to exceed 12 inches in thickness. The material will be compacted to 95 percent of the density, based on standard proctor as outlined in ASTM.
5. Ancillary roads will have a minimum width of ten feet and a maximum width necessary to accommodate the largest equipment traveling the road.
6. Roadbeds will be cut to consolidated non-erodible material or will be surfaced with durable non-toxic, non-acid forming substances. It is anticipated that durable sandstone overburden on site will be utilized as surfacing material. If there should not be adequate sandstone on site, then a durable sandstone material, chert, crushed limestone, crushed concrete, crushed asphalt, red rock, ironore refuse, gravel, or other durable non-toxic, non-acid forming material approved by the Regulatory Authority will be hauled in from off site and placed on the roadbed to a depth of two inches.
7. No sustained grades will exceed ten percent unless deemed necessary, in which case appropriate sediment control facilities will be constructed. If grades in excess of fifteen percent are required, cross drains, ditch relief drains and road drainways will be located at a minimum distance of three-hundred feet.
8. Roads will be constructed so as to have adequate drainage utilizing ditches, cross drains and ditch relief drains. Roads will not be located in the channel of an intermittent or perennial stream unless specifically approved by the Alabama Surface Mining Commission. Additionally, no relocation and/or alteration of an intermittent or perennial stream will be done unless specifically approved by the Alabama Surface Mining Commission. In the event that it becomes evident that any drainage structures including culverts, bridges and/or low water crossings will be required in order to cross an intermittent or perennial

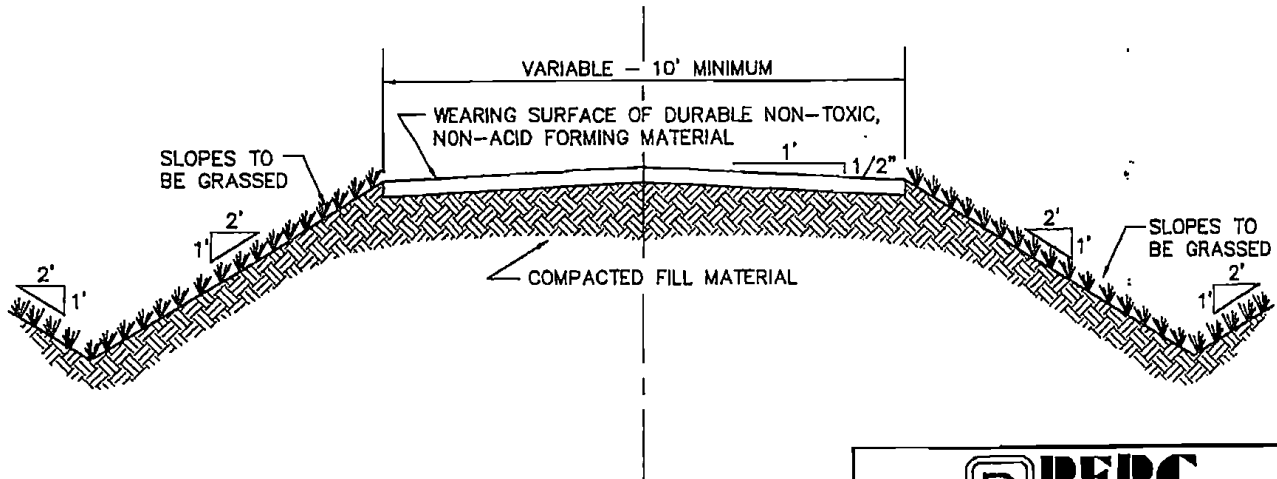
ATTACHMENT A (Continued)

stream, the structure will be designed in accordance with Alabama Surface Mining Commission requirements and prudent engineering practice and the approval of the design(s) will be acquired prior to the commencement of construction. Hay bale check dams and silt fences will be used at strategic locations when necessary to control sediment runoff. Immediately upon completion of construction, the side slopes of the road embankments and/or cuts will be fertilized, seeded with annual and perennial grasses and mulch will be added to aid in the prevention of erosion and to enhance seed germination. The seed mix will consist of, but is not limited to, some combination of the following species: bermuda grass, fescue, lespedeza, rye grass, brown top millet, clover and vetch. The particular species to be planted will vary with the planting season at the time of seed application.

9. Routine maintenance will be required to assure that the road continually meets performance standards and will consist of periodic grading, resurfacing, dust suppression and maintenance of sediment control facilities. Dust suppression will consist of the application of water, chemical binders and/or other dust suppressants. No oil will be utilized in this process. Spot seeding, fertilizing and mulching will be performed as necessary to improve vegetative cover on roadway slopes. A road damaged by a catastrophic event shall be repaired as soon as practicable after the damage has occurred.
10. Roads not to be retained as part of the post mine land use shall be reclaimed in accordance with the approved reclamation plan for this permit as soon as practicable after they are no longer needed as part of the mining and reclamation operation, using the following procedures:
 - a. The road will be closed to traffic.
 - b. All bridges, culverts and other drainage structures not approved as part of the post mine land use will be removed.
 - c. All road surfacing materials that are not compatible with the post mine land use or revegetation requirements will be properly disposed of on-site or removed from the site for re-use.
 - d. Roadway cut and fill slopes shall be regraded and reshaped to be compatible with the post mine land use and to compliment the natural drainage pattern of the surrounding terrain.
 - e. The natural drainage patterns shall be protected from surface runoff and erosion utilizing the installation of dikes and/or cross drains as necessary.
 - f. The roadbed shall be ripped or scarified as necessary, the topsoil or substitute or approved growing medium shall be replaced and revegetated in accordance with the approved reclamation plan for this permit.
11. The following drawings illustrate typical roadbed configurations for ancillary roads.

TYPICAL HAUL ROAD FILL SECTION

NO SCALE



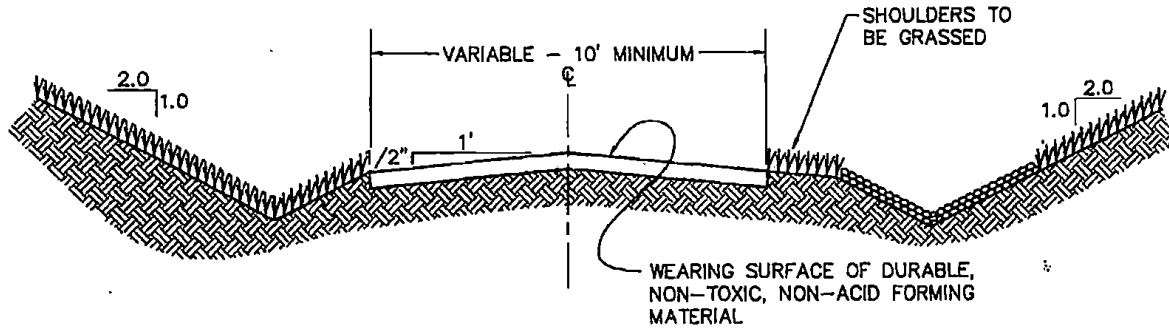
TYPICAL FILL SECTION ANCILLARY HAUL ROAD

DRAWN BY: K.D.P.	DATE: 2-3-97
DWG. NAME: TYPHAULA	
APPROVED BY: S.R.L.	SCALE: NONE

ATTACHMENT III - B. - 5.

TYPICAL HAUL ROAD CUT SECTION

NO SCALE



TYPICAL CUT SECTION ANCILLARY HAUL ROAD

DRAWN BY: K.D.F.
DWG. NAME: TYPHAULB

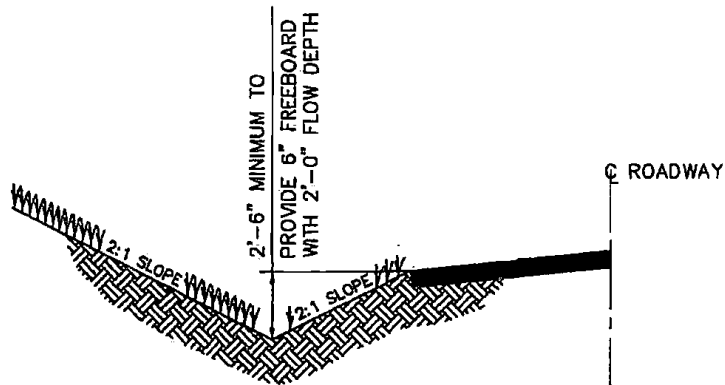
DATE: 2-3-97

APPROVED BY: S.R.I.

SCALE: NONE

ATTACHMENT III - B - 6.

11/10/2004 10:27:01 AM



MINIMUM DITCH GRADIENT = 1%
 MAXIMUM DITCH GRADIENT = 5%

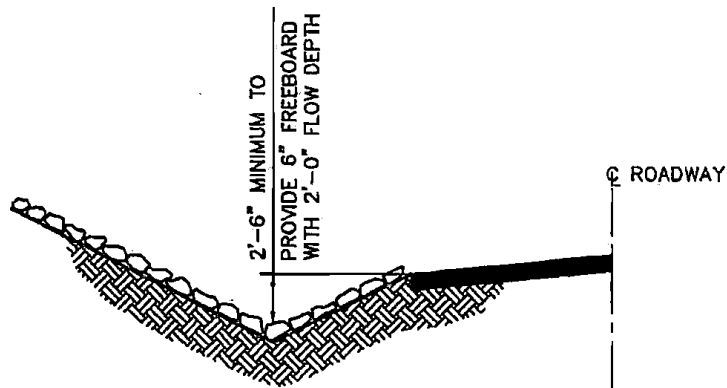
DITCH CHANNEL TO BE VEGETATED WITH
 A MIXTURE OF BERMUDA GRASS, FESCUE,
 AND LESPEDEZA TO CONFORM TO CLASS
 "D" RETARDANT CLASS.



**TYPICAL ANCILLARY ROADWAY DITCH
 CROSS SECTION**

DRAWN BY: K.D.P.	DATE: 2-4-97
DWG. NAME: ANCIROAD	
APPROVED BY: R.E.P.	SCALE: NONE

4-10-97 PERC 010017.dwg



DITCH GRADIENT 5% TO 10%

DITCH CHANNEL TO BE LINED WITH NON-ERODIBLE
NON-TOXIC, NON-ACID FORMING SANDSTONE OR
LIMESTONE RIP-RAP. THE RIP-RAP WILL BE "CLASS 1"
RIP-RAP AND HAVE A MINIMUM THICKNESS OF 12".



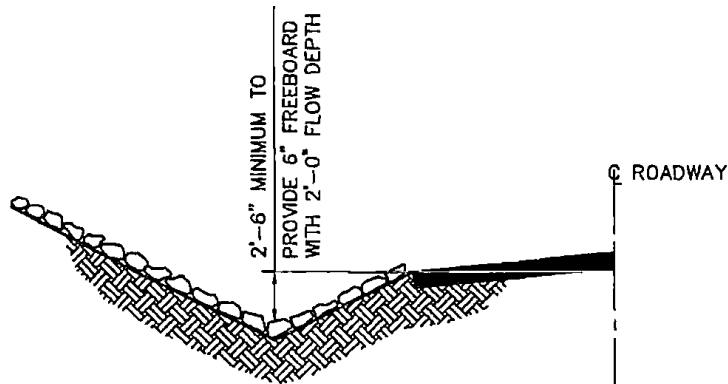
**TYPICAL ANCILLARY ROADWAY DITCH
CROSS SECTION**

DRAWN BY: K.D.P.
DWG. NAME: PRIMRD1

DATE: 2-4-97

APPROVED BY: R.E.P.

SCALE: NONE



DITCH GRADIENT 11% TO 17%

DITCH CHANNEL TO BE LINED WITH NON-ERODIBLE
NON-TOXIC, NON-ACID FORMING SANDSTONE OR
LIMESTONE RIP-RAP. THE RIP-RAP WILL BE "CLASS 2"
RIP-RAP AND HAVE A MINIMUM THICKNESS OF 16".



TYPICAL ANCILLARY ROADWAY DITCH CROSS SECTION

DRAWN BY: K.D.P.
DWG. NAME: PRIMRD2

DATE: 2-4-97

APPROVED BY: R.E.P.

SCALE: NONE

ATTACHMENT B - Alternatives Analysis

2) Land Application

The Alabama Surface Mining Commission will not allow this method. As stated in Section 880-X-10C.(1) (a) and (b) of the Alabama Surface Mining Commission Regulations, all surface drainage from disturbed areas shall pass through an approved sedimentation pond, a series of sediment ponds or other treatment facilities before leaving the permit area. Other treatment facilities shall mean any chemical treatment system, such as flocculation or mechanical structures such as clarifiers that have a point source discharge & are utilized to prevent additional contributions of suspended solids to stream flow. Also, the quantity of stormwater runoff from coal mining operations is too great to use this method.

3) Pretreatment/Discharge to POTW by SID Permit

There is no Publicly Owned Treatment Works Facility located in the general area of the mine site. This mine site is located in a very rural area with no POTW located within approximately 10 to 20 miles of the site. Therefore, this application would not be economically feasible.

4) Relocation of Discharge

Based on topographic mapping, aerial photography, and reconnaissance of the mine site proposed outfalls are located at the most economically feasible locations to control surface runoff from the mine site. Also, the surrounding topography is of such steepness that the outfalls cannot be relocated.

5) Reuse/Recycle – Pollution Prevention

This is a coal processing operation; The wastewater will be reused/recycled whenever possible. Also, wastewater will be used for dust suppression on haulroads. However, all discharge of storm water shall be made in compliance with all applicable state and federal water quality effluent limitation guidelines for coal mining operations as required by Section 880-X-10C-.13.(5) of the Alabama Surface Mining Commission Regulations.

6) Other Process/Treatment Alternatives

The Alabama Surface Mining Commission Regulations do not allow any other process or treatment alternatives of stormwater runoff other than treatment through approved sediment basins.

7) Underground Injection by UIC Permit

The water quantity is too great and there are no zones of injection within or adjacent to this site, therefore this option would not be technically feasible.

Spill Prevention Control and Containment (SPCC) Plan

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

Prepared for:

Alabama Department of Environmental Management



Red Mesa Energy, LLC

BLEDSON MINE NO. 1

NPDES Permit Application

Prepared by:

Southeast Engineering + Consulting, LLC

421 Office Park Drive
Birmingham, AL 35223
(205) 637-3777
www.secllc.net



LOCATION:

FACILITY Bledsoe Mine No. 1
TOWNSHIP(s), RANGE(s), SECTION(s) Township 1 South, Range 7 East, Sections 12 & 13
COUNTY, STATE Jackson County, AL
QUADRANGLE As found on the Flat Rock U.S.G.S. Quadrangle

Facility Phone Number:

Not Yet Determined

Facility Contact and Address:

Not Yet Determined

1. This facility has never experienced a spill from any fuel or other chemical storage tanks.
2. The containment structures will be located in an area that is not subject to periodic flooding.
3. This plan provides for the containment of the following:

<u>No. Of Tanks</u>	<u>Total Capacity</u>	<u>Material</u>
1	10,000 gal	Diesel Fuel

Tanks containment will be provided by a dike which is capable of containing 110 percent of the volume of the largest tank.

4. The nearest surface water of the State is unnamed tributary (UT) to Widows Creek.
5. The dikes are constructed of impervious material around the tank area. A pipeline with a manual gate valve will be provided that allows accumulated rainwater to discharge when necessary. The valve will remain closed and locked at all times until the diked area collects enough rainwater to require draining. After an inspection of the water to determine if any pollutants are present, the valve is opened to allow the proper drainage, and then immediately closed and re-locked. The containment system is setup such that rainwater released through normal de-watering is transported to a permitted treatment structure. If pollutants (oil) are present in the rainwater, the pollutants will be removed from the water prior to discharging the water from the diked area. Pollutants will be disposed of in accordance with existing State and Federal regulations.

A log will be maintained which indicates the date when the containment structure was de-watered, the person conducting the de-watering, and a brief description of the water discharged(i.e., oily sheen, clear, slightly turbid, oily smell, etc.).
6. If a spill should occur, the usable fuel oil within the diked area shall immediately be pumped into tanker trucks for transporting to another storage tank. Oil absorbent material will be maintained onsite to contain any spills. The unusable fuel oil and the contaminated soil in the area will be excavated and disposed of in accordance with existing State and Federal regulations.
7. A written record shall be maintained by the Site Manager of any spill which occurs, and the actions taken to properly dispose of all spilled material and the cleanup procedures.
8. All unloading of transport vehicles to fill the tanks will meet minimum requirements and regulations established by the Department of Transportation. The tanks will be attended while filling to prevent overflow, and to note visible leaks from seams, gaskets, valves, etc. The Operations Manager of the facility will make periodic inspections of the unloading area to detect signs of minor spills. If spills are evident the contaminated

soil will be disposed of in accordance with existing State and Federal regulations. If the spills continue, a paved unloading ramp equipped with an oil-water separator will be constructed.

9. All personnel who are in any way connected with unloading transport vehicles, use of fuel oil, maintenance of the facility, or responsible for storm water drainage and spill cleanup will be made familiar with this plan, and a copy of this plan will be posted and readily available to all personnel at the facility.

Potential Sources of Spills:

A. Tank or Tank Valve Rupture:

Prevention: Tanks, valves, and fittings will be properly maintained and kept in good condition. A visual inspection of all tanks, valves, and fittings will be conducted periodically for leaks, and tank foundations for cracks and unusual settling.

B. Tank Overfill:

Prevention: Truck drivers should follow correct operating procedures when unloading diesel fuel and stay with the equipment at all times during unloading operations. Key personnel will be present when fuel and/or other chemicals are delivered to assure that the delivery personnel follow proper procedures. Any spillage will be immediately cleaned-up or mitigated in accordance with this plan.

C. Hose Rupture During Unloading and Spillage from Hoses after Disconnection:

Prevention: Periodic inspections will be conducted of all hoses and replacement hoses will be kept at the facility office. In addition, personnel will use the proper hose drainage procedure.

10. Notification

In the event of a reportable quantity spill, immediately call:

The National Response Center: 1-800-424-8802

The Alabama Emergency Management Agency: 1-800-843-0699

Alabama Department of Environmental Management Field Operations
1400 Coliseum Boulevard
Montgomery, Alabama 36110
Telephone Number: (334) 271-7700
After Hours Numbers: (334) 242 4378, (334) 254-5054, (334) 254-5056

Report the following information:

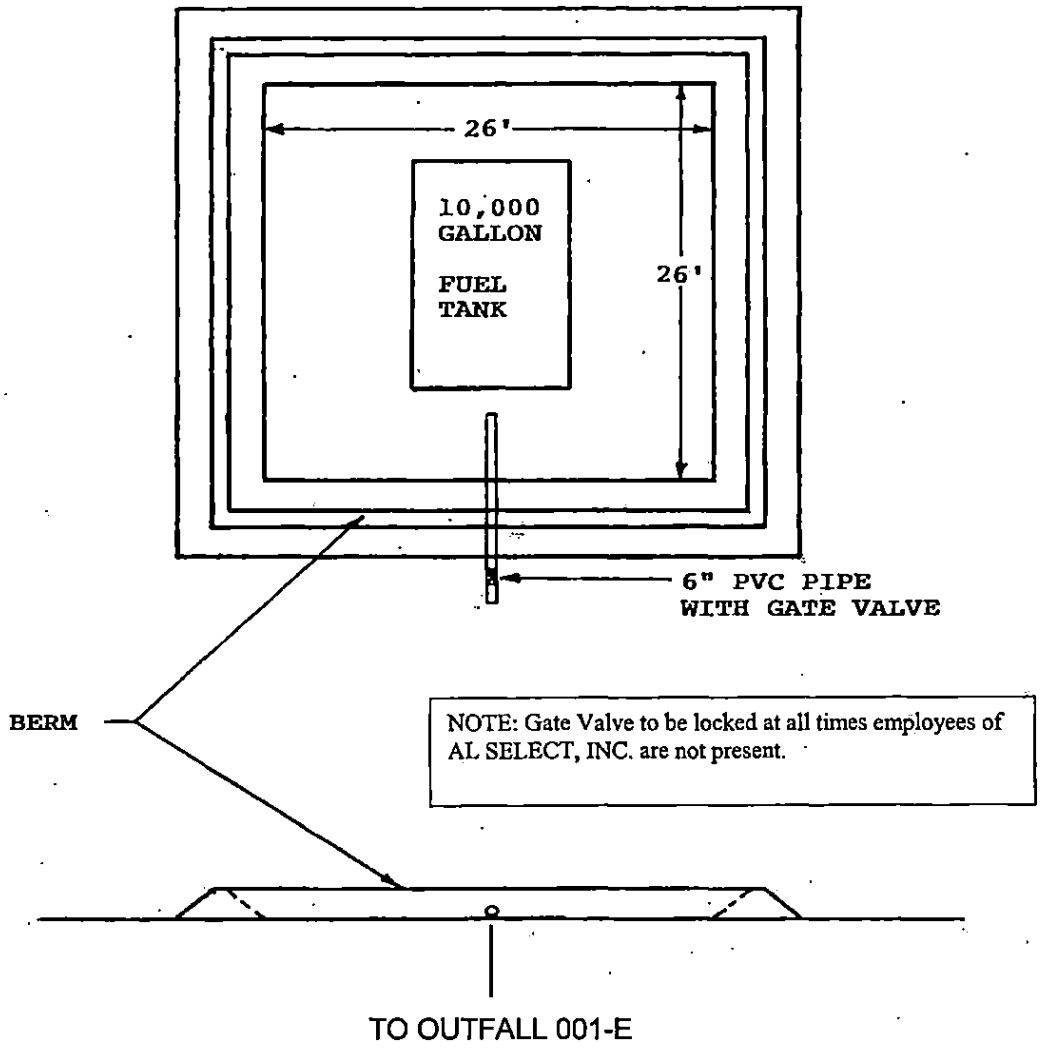
1. Name, address and telephone number of person reporting spill
2. Exact location of facility and spill
3. Company name, number and location
4. Material spilled
5. Estimated quantity
6. Source of spill
7. Cause of spill
8. Nearest downstream body of water to receive spill
9. Request actions to take for containment and cleanup

11. The facility will be kept gated and locked to prevent vandalism or theft whenever personnel are not present.

All key personnel will be fully trained in all aspects of this plan, the proper use of personal protective gear, and all reporting and record keeping procedures.

SPILL PREVENTION PLAN
ATTACHMENT QUESTION X.

BERM DETAIL

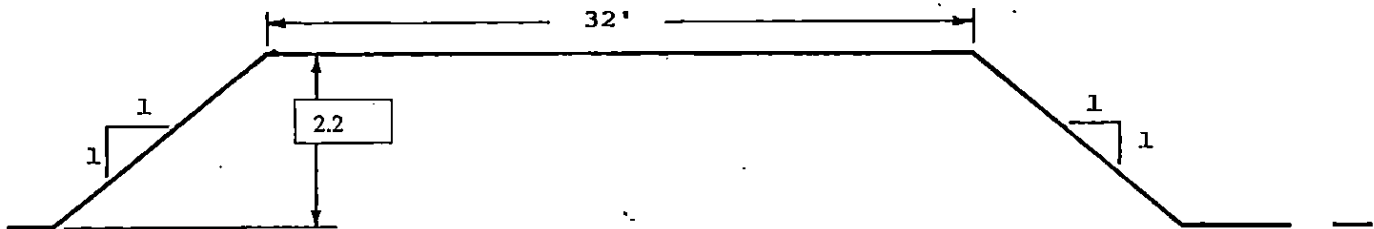


SCALE: 1" = 10'

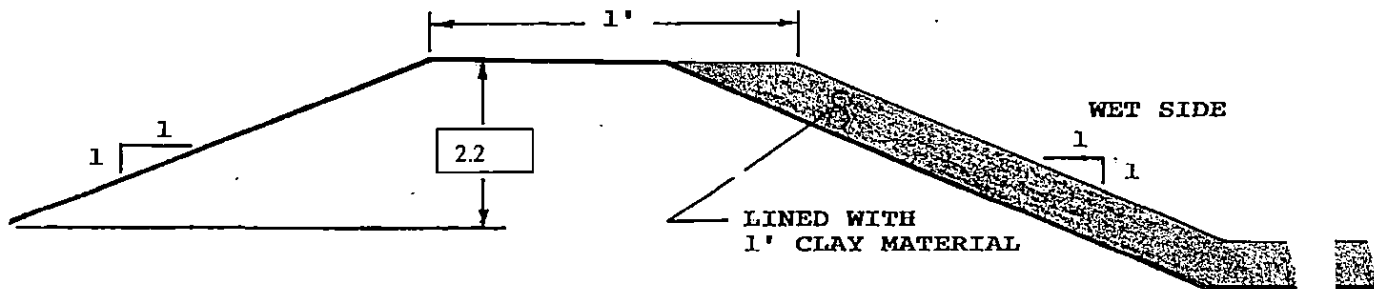
SPILL PREVENTION PLAN
ATTACHMENT QUESTION X.

BERM DESIGN
TYPICAL SECTIONS

FRONT VIEW



SIDE VIEW



NOT TO SCALE

NOTE: Containment berm to be lined with a clay material with a permeability of 1×10^{-6} cm/sec or less.

Material Safety Data Sheet

Diesel Fuel No. 2

Safety Data Sheet



SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

DIESEL FUEL No. 2

Product Use: Fuel [See Section 16 for Additional Product Numbers]

Synonyms: 15 S Diesel Fuel 2, Alternative Low Aromatic Diesel (ALAD), Calco LS Diesel 2, CALCO ULS C-B0-B5 DF2, CALCO ULS C-B0-B5 DF2 DYED, CALCO ULS C-B2 DF2, CALCO ULS C-B2 DF2 DYED, CALCO ULS C-B5 DF2, CALCO ULS C-B5 DF2 DYED, Calco ULS DF2, Calco ULS Diesel 2, CALCO ULS S-B0-B5 DF2 DYED, Calco ULS S-B5 DF2, Calco ULS S-B5 DF2 DYED, CALCO ULS TC-B1 DF2, CALCO ULS TC-B1 DF2 DYED, CALCO ULS TC-B2 DF2, CALCO ULS TC-B2 DF2 DYED, CALCO ULS TC-B3 DF2, CALCO ULS TC-B3 DF2 DYED, CALCO ULS TC-B4 DF2, CALCO ULS TC-B4 DF2 DYED, CALCO ULS TC-B5 DF2, CALCO ULS TC-B5 DF2 DYED, CALCO ULS TX-B1 DF2, CALCO ULS TX-B1 DF2 DYED, CALCO ULS TX-B2 DF2, CALCO ULS TX-B2 DF2 DYED, CALCO ULS TX-B3 DF2, CALCO ULS TX-B3 DF2 DYED, CALCO ULS TX-B4 DF2, CALCO ULS TX-B4 DF2 DYED, CALCO ULS TX-B5 DF2, CALCO ULS TX-B5 DF2 DYED, Chevron LS Diesel 2, Chevron ULS Diesel 2, CT ULS C-B0-B5 DF2, CT ULS C-B0-B5 DF2 DYED, CT ULS C-B2 DF2, CT ULS C-B5 DF2, CT ULS S-B0-B5 DF2 DYED, CT ULS S-B5 DF2, CT ULS S-B5 DF2 DYED, CT ULS S-BO-B5 DF2, CT ULS SPECIAL DF2 DYED, CT ULS TC-B1 DF2, CT ULS TC-B2 DF2, CT ULS TC-B3 DF2, CT ULS TC-B4 DF2, CT ULS TC-B5 DF2, CT ULS TX-B1 DF2, CT ULS TX-B2 DF2, CT ULS TX-B3 DF2, CT ULS TX-B4 DF2, CT ULS TX-B5 DF2, Diesel Fuel Oil, Diesel Grade No. 2, Diesel No. 2-D S15, Diesel No. 2-D S500, Diesel No. 2-D S5000, Distillates, straight run, Gas Oil, HS Diesel 2, HS Heating Fuel 2, Light Diesel Oil Grade No. 2-D, LS Diesel 2, LS Heating Fuel 2, Marine Diesel, RR Diesel Fuel, Texaco Diesel, Texaco Diesel No. 2, ULS C-B0-B5 DF2, ULS C-B0-B5 DF2 DYED, ULS C-B2 DF2, ULS C-B2 DF2 DYED, ULS C-B5 DF2, ULS C-B5 DF2 DYED, ULS S-B0-B5 DF2 DYED, ULS S-B5 DF2, ULS S-BO-B5 DF2, ULS TC-B1 DF2, ULS TC-B1 DF2 DYED, ULS TC-B2 DF2, ULS TC-B2 DF2 DYED, ULS TC-B3 DF2, ULS TC-B3 DF2 DYED, ULS TC-B4 DF2, ULS TC-B4 DF2 DYED, ULS TC-B5 DF2, ULS TC-B5 DF2 DYED, ULS TX-B1 DF2, ULS TX-B1 DF2 DYED, ULS TX-B3 DF2, ULS TX-B3 DF2 DYED, ULS TX-B4 DF2, ULS TX-B4 DF2 DYED, ULS TX-B5 DF2, ULS TX-B5 DF2 DYED, Ultra Low Sulfur Diesel 2

Company Identification

Chevron Products Company
Marketing, MSDS Coordinator
6001 Bollinger Canyon Road
San Ramon, CA 94583
United States of America

Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

Product Information

MSDS Requests: <http://www.chevron.com/contact/>
Technical Information: (510) 242-5357

SPECIAL NOTES: This MSDS covers all Chevron, Texaco and Calco CARB & non-CARB Diesel No. 2 Fuels. The sulfur content is less than 0.5% (mass). Red dye is added to non-taxable fuel. (MSDS 6894)
SPECIAL NOTES: This MSDS covers all Chevron and Calco CARB Low Sulfur Diesel No. 2 Fuels. Red dye is added to non-taxable fuel. (MSDS 7098)

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION: Flammable liquid: Category 3. Aspiration toxicant: Category 1. Carcinogen: Category 1B. Skin irritation: Category 2. Target organ toxicant (repeated exposure): Category 2. Target organ toxicant (central nervous system): Category 3. Acute inhalation toxicant: Category 4. Acute aquatic toxicant: Category 2. Chronic aquatic toxicant: Category 2.



Signal Word: Danger

Physical Hazards: Flammable liquid and vapor.

Health Hazards: May be fatal if swallowed and enters airways. May cause cancer. Causes skin irritation. Harmful if inhaled. May cause drowsiness or dizziness.

Target Organs: May cause damage to organs (Blood/Blood Forming Organs, Liver, Thymus) through prolonged or repeated exposure.

Environmental Hazards: Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:

General: Keep out of reach of children. Read label before use.

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. -- No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. Wash thoroughly after handling. Avoid release to the environment.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. IF SWALLOWED: Immediately call a poison center or doctor/physician. Do NOT induce vomiting. Call a poison center or doctor/physician if you feel unwell. In case of fire: Use media specified in the SDS to extinguish. Specific treatment (see Notes to Physician on this label). Collect spillage.

Storage: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

HAZARDS NOT OTHERWISE CLASSIFIED: Not Applicable

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Diesel Fuel No. 2	68476-34-6	95 - 100 %vol/vol
Fatty Acid Methyl Esters (FAME)	Mixture	0 - 5 %vol/vol
Alkanes,C10-C20-Branched And Linear	928771-01-1	0 - 5 %vol/vol
Naphthalene	91-20-3	0.02 - 0.2 %vol/vol
Total sulfur	Mixture	0 - 5000 ppm (weight)

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

Skin: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue or if any other symptoms develop.

Most important symptoms and effects, both acute and delayed

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation.

Skin: Contact with the skin causes irritation. Symptoms may include pain, itching, discoloration, swelling, and blistering. Contact with the skin is not expected to cause an allergic skin response.

Ingestion: Highly toxic; may be fatal if swallowed. Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death. May be irritating to mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting, and diarrhea.

Inhalation: The vapor or fumes from this material may cause respiratory irritation. Mists of this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. Excessive or prolonged breathing of this material may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

DELAYED OR OTHER HEALTH EFFECTS:

Cancer: Whole diesel engine exhaust has been classified as a Group 2A carcinogen (probably carcinogenic to humans) by the International Agency for Research on Cancer (IARC). Prolonged or repeated exposure to this material may cause cancer. Contains naphthalene, which has been classified as

a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Target Organs: Contains material that may cause damage to the following organ(s) following repeated inhalation at concentrations above the recommended exposure limit based on animal data: Liver Blood/Blood Forming Organs Thymus Risk depends on duration and level of exposure. See Section 11 for additional information.

Indication of any immediate medical attention and special treatment needed

Note to Physicians: Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Unusual Fire Hazards: See Section 7 for proper handling and storage.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Precautionary Measures: Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 29C (85F).

Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe vapor or fumes. Do not breathe mist. Wash thoroughly after handling. Keep out of the reach of children.

Unusual Handling Hazards: WARNING! Do not use as portable heater or appliance fuel. Toxic fumes may accumulate and cause death. Slow heat generation may occur with oil-soaked rags, spent filter aids

and spent absorbent material and may cause spontaneous combustion if stored near combustibles and not handled properly. Store biodiesel soaked rags, filter aids, and spill absorbent material in approved safety disposal containers and dispose of properly. Biodiesel soaked rags may be washed with soap and water and allowed to dry in well ventilated area.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

General Storage Information: DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces . USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Chlorinated Polyethylene (or Chlorosulfonated Polyethylene), Nitrile Rubber, Polyurethane, Viton.

Respiratory Protection: Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapors.

When used as a fuel, this material can produce carbon monoxide in the exhaust. Determine if airborne concentrations are below the occupational exposure limit for carbon monoxide. If not, wear an approved positive-pressure air-supplying respirator.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Diesel Fuel No. 2	ACGIH	100 mg/m3	--	--	Skin A3 total hydrocarbon
Diesel Fuel No. 2	CVX	--	1000 mg/m3	--	--
Fatty Acid Methyl Esters (FAME)	Not Applicable	--	--	--	--
Alkanes,C10-C20-Branched And Linear	Not Applicable	--	--	--	--
Naphthalene	ACGIH	10 ppm (weight)	15 ppm (weight)	--	Skin
Naphthalene	OSHA Z-1	50 mg/m3	--	--	--
Total sulfur	Not Applicable	--	--	--	--

Consult local authorities for appropriate values.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Varies depending on specification

Physical State: Liquid

Odor: Petroleum odor

Odor Threshold: No data available

pH: Not Applicable

Vapor Pressure: 0.04 kPa (Approximate) @ 40 °C (104 °F)

Vapor Density (Air = 1): >1

Initial Boiling Point: 175.6°C (348°F) - 370°C (698°F)

Solubility: Soluble in hydrocarbons; insoluble in water

Freezing Point: Not Applicable

Melting Point: Not Applicable

Specific Gravity: 0.8 - 0.88 @ 15.6°C (60.1°F) (Typical)

Viscosity: 1.9 cSt - 4.1 cSt @ 40°C (104°F)

Decomposition temperature: No data available

Octanol/Water Partition Coefficient: No data available

FLAMMABLE PROPERTIES:

Flammability (solid, gas): No Data Available

Flashpoint: (Pensky-Martens Closed Cup) 52 °C (125 °F) Minimum

Autoignition: 257 °C (494 °F)

Flammability (Explosive) Limits (% by volume in air): Lower: 0.6 Upper: 4.7

SECTION 10 STABILITY AND REACTIVITY

Reactivity: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: Avoid contact with heat, sparks, fire and oxidizing agents

Incompatibility With Other Materials: Not applicable

Hazardous Decomposition Products: None known (None expected)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Serious Eye Damage/Irritation: The eye irritation hazard is based on evaluation of data for similar materials.

Skin Corrosion/Irritation: The skin irritation hazard is based on evaluation of data for similar materials.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials.

Acute Toxicity Estimate: Not Determined

Germ Cell Mutagenicity: The hazard evaluation is based on data for components or a similar material.

Carcinogenicity: The hazard evaluation is based on data for components or a similar material. Whole diesel engine exhaust has been classified as a Group 2A carcinogen (probably carcinogenic to humans) by the International Agency for Research on Cancer (IARC). Contains naphthalene, which has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Reproductive Toxicity: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Single Exposure: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Repeated Exposure: The hazard evaluation is based on data for components or a similar material.

ADDITIONAL TOXICOLOGY INFORMATION:

The National Institute of Occupational Safety and Health (NIOSH) has recommended that whole diesel exhaust be regarded as potentially causing cancer. This recommendation was based on test results showing increased lung cancer in laboratory animals exposed to whole diesel exhaust.

This product contains naphthalene.

GENERAL TOXICITY: Exposure to naphthalene has been reported to cause methemoglobinemia and/or hemolytic anemia, especially in humans deficient in the enzyme glucose-6-phosphate dehydrogenase. Laboratory animals given repeated oral doses of naphthalene have developed cataracts. **REPRODUCTIVE TOXICITY AND BIRTH DEFECTS:** Naphthalene did not cause birth defects when administered orally to rabbits, rats, and mice during pregnancy, but slightly reduced litter size in mice at dose levels that were lethal to the pregnant females. Naphthalene has been reported to cross the human placenta. **GENETIC**

TOXICITY: Naphthalene caused chromosome aberrations and sister chromatid exchanges in Chinese hamster ovary cells, but was not a mutagen in several other in-vitro tests. **CARCINOGENICITY:** In a study conducted by the National Toxicology Program (NTP), mice exposed to 10 or 30 ppm of naphthalene by inhalation daily for two years had chronic inflammation of the nose and lungs and increased incidences of metaplasia in those tissues. The incidence of benign lung tumors (alveolar/bronchiolar adenomas) was significantly increased in the high-dose female group but not in the male groups. In another two-year inhalation study conducted by NTP, exposure of rats to 10, 30, and 60 ppm naphthalene caused increases in the incidences of a variety of nonneoplastic lesions in the nose. Increases in nasal tumors were seen in both sexes, including olfactory neuroblastomas in females at 60 ppm and adenomas of the respiratory epithelium in males at all exposure levels. The relevance of these effects to humans has not been established. No carcinogenic effect was reported in a 2-year feeding study in rats receiving naphthalene at 41 mg/kg/day.

This product contains gas oils.

CONCAWE (product dossier 95/107) has summarized current health, safety and environmental data available for a number of gas oils, typically hydrodesulfurized middle distillates, CAS 64742-80-9, straight-run middle distillates, CAS 64741-44-2, and/or light cat-cracked distillate CAS 64741-59-9.

CARCINOGENICITY: All materials tested have caused the development of skin tumors in mice, but all featured severe skin irritation and sometimes a long latency period before tumors developed. Straight-run and cracked gas oil samples were studied to determine the influence of dermal irritation on the carcinogenic activity of middle distillates. At non-irritant doses the straight-run gas oil was not carcinogenic, but at irritant doses, weak activity was demonstrated. Cracked gas oils, when diluted with mineral oil, demonstrated carcinogenic activity irrespective of the occurrence of skin irritation. Gas oils were tested on male mice to study tumor initiating/promoting activity. The results demonstrated that while a straight-run gas oil sample was neither an initiator or promotor, a blend of straight-run and FCC stock was both a tumor initiator and a promotor.

GENOTOXICITY: Hydrotreated & hydrodesulfurized gas oils range in activity from inactive to weakly positive in in-vitro bacterial mutagenicity assays. Mouse lymphoma assays on straight-run gas oils without subsequent hydrodesulphurization gave positive results in the presence of S9 metabolic activation. In-vivo bone marrow cytogenetics and sister chromatic exchange assay exhibited no activity for straight-run components with or without hydrodesulphurization. Thermally or catalytically cracked gas oils tested with in-vitro bacterial mutagenicity assays in the presence of S9 metabolic activation were shown to be mutagenic. In-vitro sister chromatic exchange assays on cracked gas oil gave equivocal results both with and without S9 metabolic activation. In-vivo bone marrow cytogenetics assay was inactive for two cracked gas oil samples. Three hydrocracked gas oils were tested with in-vitro bacterial mutagenicity assays with S9, and one of the three gave positive results. Twelve distillate fuel samples were tested with in-vitro bacterial mutagenicity assays & with S9 metabolic activation and showed negative to weakly positive results. In one series, activity was shown to be related to the PCA content of samples tested. Two in-vivo studies were also conducted. A mouse dominant lethal assay was negative for a sample of diesel fuel. In the other study, 9 samples of No 2 heating oil containing 50% cracked stocks caused a slight increase in the number of chromosomal aberrations in bone marrow cytogenetics assays. **DEVELOPMENTAL**

TOXICITY: Diesel fuel vapor did not cause fetotoxic or teratogenic effects when pregnant rats were exposed on days 6-15 of pregnancy. Gas oils were applied to the skin of pregnant rats daily on days 0-19 of gestation. All but one (coke light gas oil) caused fetotoxicity (increased resorptions, reduced litter weight, reduced litter size) at dose levels that were also maternally toxic.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

This material is expected to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. A series of studies on the acute toxicity of 4 diesel fuel samples were conducted by

one laboratory using water accommodated fractions. The range of effective (EC50) or lethal concentrations (LC50) expressed as loading rates were:

72 hour(s) EC50: 2.6-25 mg/l (Selenastrum capricornutum)
96 hour(s) LC50: 21-210 mg/l (Salmo gairdneri)
48 hour(s) EC50: 20-210 mg/l (Daphnia magna)

MOBILITY

No data available.

PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. On release to the environment the lighter components of diesel fuel will generally evaporate but depending on local environmental conditions (temperature, wind, mixing or wave action, soil type, etc.) the remainder may become dispersed in the water column or absorbed to soil or sediment. Diesel fuel would not be expected to be readily biodegradable. In a modified Strum test (OECD method 301B) approximately 40% biodegradation was recorded over 28 days. However, it has been shown that most hydrocarbon components of diesel fuel are degraded in soil in the presence of oxygen. Under anaerobic conditions, such as in anoxic sediments, rates of biodegradation are negligible.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: For packages with an Initial Boiling Point > 35 deg C and a Flash Point (PM Closed Cup) >= 23 deg C but <= 60 deg C: UN1202, GAS OIL, 3, III; OPTIONAL DISCLOSURE: UN1202, GAS OIL, 3, III, MARINE POLLUTANT (DIESEL FUEL) Optional disclosure per 49 CFR when Flash Point (PM Closed Cup) > 38 deg C < 93 deg C per 49 173.150 (f): UN1202, GAS OIL, COMBUSTIBLE LIQUID, III; NON-BULK PACKAGES ARE NOT REGULATED IN USA JURISDICTIONS Optional disclosure as a GHS Environmental Hazard/Marine Pollutant when Flash Point (PM Closed Cup) > 60 deg C: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(DIESEL FUEL), 9, III, MARINE POLLUTANT (DIESEL FUEL)

IMO/MDG Shipping Description: For packages with an Initial Boiling Point > 35 deg C and a Flash Point (PM Closed Cup) >= 23 deg C, <= 60 deg C: UN1202, GAS OIL, 3, III, FLASH POINT SEE SECTION 5 OR 9, MARINE POLLUTANT (DIESEL FUEL); OPTIONAL DISCLOSURE: UN1268, PETROLEUM DISTILLATES, N.O.S. (DIESEL FUEL), 3, III, FLASH POINT SEE SECTION 5 OR 9, MARINE POLLUTANT (DIESEL FUEL) For packages with a Flash Point (PM Closed Cup) > 60 deg C: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIESEL FUEL), 9, III, MARINE

POLLUTANT (DIESEL FUEL)

ICAO/IATA Shipping Description: For packages with an Initial Boiling Point > 35 deg C and a Flash Point (PM Closed Cup) >= 23 deg C, <= 60 deg C: UN1202, GAS OIL, 3, III For packages with a Flash Point (PM Closed Cup) > 60 deg C: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIESEL FUEL), 9, III, MARINE POLLUTANT (DIESEL FUEL)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:
Not applicable

SECTION 15 REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects:	YES
2. Delayed (Chronic) Health Effects:	YES
3. Fire Hazard:	YES
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

The following components of this material are found on the regulatory lists indicated.

Naphthalene	01-2B, 02, 03, 04, 05, 06, 07
Diesel Fuel No. 2	07

CERCLA REPORTABLE QUANTITIES(RQ)/EPCRA 302 THRESHOLD PLANNING QUANTITIES(TPQ):

Component	Component RQ	Component TPQ	Product RQ
Naphthalene	100 lbs	None	40000 lbs

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: DIESEL FUEL

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 1 Flammability: 2 Reactivity: 0

HMIS RATINGS: Health: 2* Flammability: 2 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

Additional Product Number(s): 203408, 203410, 203413, 203417, 203431, 203436, 203437, 203441, 203443, 203447, 203449, 203450, 220122, 225114, 225115, 225150, 266176, 270000, 270005, 270030, 270031, 270032, 270033, 270034, 270040, 270041, 270042, 270043, 270044, 270045, 270046, 270047, 270048, 270049, 270050, 270051, 270052, 270053, 270054, 270058, 270059, 270060, 270062, 270063, 270064, 270065, 270068, 270069, 270070, 270081, 270082, 270083, 270084, 270085, 270086, 270087, 270088, 270089, 270090, 270091, 270094, 270095, 270096, 270100, 270101, 270102, 270103, 270104, 270105, 270106, 270107, 270108, 270109, 270110, 270111, 270112, 270113, 270114, 270115, 270116, 270117, 270118, 270119, 270120, 270121, 270122, 270123, 270124, 271006, 272006, 272007, 272008, 272009, 272010, 272011, 272012, 272013, 272093, 272102, 272126, 272129, 272130, 272131, 272152, 272185, 272190, 272195, 272593, 272601, 272602, 272693, 272793, 273003, 273030, 273053, 275000

REVISION STATEMENT: This revision updates the following sections of this Safety Data Sheet:
2,3,4,12,16

Revision Date: MAY 07, 2015

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Transmittal Letter

May 14, 2015

Southeast Engineering + Consulting

421 Office Park Drive
Birmingham, AL 35223
205-637-3777, 205-789-5362
DBURTON@SECLLC.NET



To:

ADEM

PO Box 301463
Montgomery, AL 36130-1463

Attention: Michael Bergh
AL0069647 NPDES Reissuance
Re: Application
Job Number: SEC0119-02

We are sending you

<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Under Separate Cover via: [Type text here] the following:		
<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Prints	<input type="checkbox"/> Plans	<input checked="" type="checkbox"/> Other: NPDES Permit App. AL0069647 ADEM Form 315 EPA Form 2C SPCC Plan
<input type="checkbox"/> Copy of Letter	<input type="checkbox"/> Change Order	<input type="checkbox"/> Samples	
<input type="checkbox"/> Total Quantity	<input type="checkbox"/> Reproducible	<input type="checkbox"/> Specification	

Submittal	Quantity	Date	DWG. #	Description
#1	pp.59	05/14/15	N/A	ADEM form 315 and EPA Form 2C, Application payment*
				*Check # 1071, Original wet ink signatures. Hand delivered.

These are transmitted as checked below

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> For Approval | <input type="checkbox"/> Approved as Submitted | <input type="checkbox"/> Resubmit copies for approval |
| <input type="checkbox"/> For Your Use | <input type="checkbox"/> Approved as Noted | <input type="checkbox"/> Submit [#] copies for distribution |
| <input type="checkbox"/> As Requested | <input type="checkbox"/> Returned for Corrections | <input type="checkbox"/> Return [#] corrected prints |
| <input type="checkbox"/> For Review and Comment | <input type="checkbox"/> Revise and Resubmit/Work May Not Proceed | |
| <input type="checkbox"/> FOR BIDS DUE: [Type text here] | <input type="checkbox"/> PRINTS RETURNED AFTER LOAN | |

Comments:

NPDES Application, completed and submitted by SE+C on behalf of Red Mesa Energy, LLC.

Copy to:

Michael Bergh
PR Rishi


Signature