



west virginia department of environmental protection

Division of Water and Waste Management
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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
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**CONSENT ORDER
ISSUED UNDER THE
WATER POLLUTION CONTROL ACT
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 11
AND THE
GROUNDWATER PROTECTION ACT
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 12
AND THE
SOLID WASTE MANAGEMENT ACT
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 15**

TO: Shale Solutions, LLC
Eugene Haas
7 Red Lion Rd.
Vincetown, NJ 08088

DATE: March 12, 2014
ORDER NO.: MM-14-08

INTRODUCTION

This Consent Order is issued by the Director of the Division of Water and Waste Management (hereinafter "Director"), under the authority of West Virginia Code, Chapter 22, Article 11, Section 1 et seq., Chapter 22, Article 12, Section 1 et seq., and Chapter 22, Article 15, Section 1 et seq. to Shale Solutions, LLC (hereinafter, "Shale Solutions").

FINDINGS OF FACT

In support of this Order, the Director hereby finds the following:

1. Shale Solutions operates a drill mud processing facility located in New Martinsville, Wetzel County, West Virginia. Shale Solutions was issued WV/NPDES No Exposure Certification No. WVRNE0125 on March 23, 2012. Upon issuance of the Certification, the aforementioned activity was exempt from the terms and conditions of WV/NPDES Multi-Sector Industrial Storm Water General Permit No. WV0111457. A requirement of the Certification was that the operator must have maintained a condition of no exposure at its facility for the exclusion to have remained applicable. If conditions changed resulting in the exposure of materials and activities to storm water, the facility operator must have immediately obtained coverage under a WV/NPDES permit.

Promoting a healthy environment.

2. On July 17, 2012, West Virginia Department of Environmental Protection (WVDEP) personnel conducted an inspection of the facility. During the inspection, WVDEP personnel observed the following:
 - a. Spills were observed throughout the site, and no efforts to remove contaminants from spill areas were being conducted.
 - b. Spilled drill mud and contaminated fluids were entering into a stormwater drop inlet, and no attempts to contain releases were being conducted.
 - c. The wall on the south side of the building was compromised, allowing drilling material to discharge onto the ground.
 - d. Releases to the ground continued throughout the inspection, without intervention.
 - e. Vehicles with drill mud and other contaminants were being power washed outside on the gravel lot.

During the inspection, a violation of the following section of Shale Solutions' WV/NPDES No Exposure Certification was observed and documented:

- a. Requirement 2-The permittee failed to maintain a condition of no exposure at its facility or site. Specifically, drilling mud from on-site horizontal directional drilling activity was observed outside on the ground. Heavy equipment was being power washed on the gravel lot to remove drill mud.
3. On October 31, 2012, WVDEP personnel conducted an inspection of the facility. During the inspection, violations of the following sections of WV Legislative Rule and Shale Solutions' WV/NPDES No Exposure Certification were observed and documented:
 - a. 47CSR11 Section 2.5.a-Shale Solutions failed to take any and all measures necessary to clean up, remove and otherwise render such spill or discharge harmless. Several spills were observed throughout the site, and no attempts to remove contaminants from spill areas were being conducted.
 - b. 47CSR11 Section 2.5-Shale Solutions failed to immediately take any and all measures necessary to contain a spill or discharge. Spill materials were leaving the site through a drop inlet and the open building on the north side of the site. No attempts to contain releases were being conducted.
 - c. 47CSR11 Section 2.2.a-Shale Solutions failed to report a spill and/or accidental discharge. A spill that occurred in an area on the north end of the site was remediated, but not reported to WVDEP.
 - d. 47CSR58 Section 7.1-Shale Solutions deliberately allowed crude oil, or any petroleum product diverted from crude oil, or septage, or natural gas, or salt water, or any chemical mixture which may impact groundwater quality to escape from any well, pipeline, impoundment, storage tank, treatment unit, or storage container, or be deliberately allowed to flow onto or under the land surface in such a manner that could impact groundwater quality. Releases to the ground continued throughout the inspection without intervention from Shale Solutions. Specifically:
 - i. Drill mud was observed on the ground throughout the site.
 - ii. Secondary containers for the frac tanks were overflowing.
 - iii. Drill mud was present on the ground behind the building.

- e. Requirement 2-The permittee failed to maintain a condition of no exposure at its facility or site. Specifically, Shale Solutions began treatment of contaminated water in an outside area, and contaminated drill mud was off-loaded in outside areas.

As a result of the aforementioned violations, NOV Nos. W-NW-TAM-103112-001, W-NW-TAM-103112-002, W-NW-TAM-103112-003, W-NW-TAM-103112-004, and W-NW-TAM-103112-005 were issued to Shale Solutions.

- 4. On November 9, 2012, WVDEP issued Order No. 7787 to Shale Solutions. The Order revoked Shale Solutions' WV/NPDES No Exposure Certification No. WVRNE0125, because Shale Solutions no longer qualified for the no exposure exemption.
- 5. On November 9, 2012, WVDEP issued WV/NPDES Multi-Sector Industrial Storm Water Permit No. WV0111457, Registration No. WVG611625, to Shale Solutions for the aforementioned activity.
- 6. On March 13, 2013, WVDEP personnel conducted an inspection of the facility. During the inspection, violations of the following sections of the terms and conditions of Shale Solutions' WV/NPDES permit were observed and documented:
 - a. Section B.17.A.-The following Storm Water Pollution Prevention Plan (SWPPP) deficiencies were documented:
 - i. The site map was incomplete. It did not include the location for outside equalization basins, storage tanks for treated contaminated water, earthen dikes, outdoor secondary containment units, materials loading, and access areas.
 - ii. The pollution prevention committee personnel list was not current.
 - iii. The material inventory and risk assessment were incomplete.
 - iv. The preventative maintenance program was not being implemented.
 - v. Inspections did not include all stormwater apparatuses.
 - vi. Weekly inspections of all materials on site were not being properly documented.
 - vii. Routine inspections of secondary containment units were not being properly documented.
 - viii. Visual inspections were not being properly documented.
 - ix. Spill records were not being kept. On October 31, 2012, a spill was reported to WVDEP, but not documented by Shale Solutions.
 - b. Section B.17.B.-The following Groundwater Protection Plan (GPP) deficiencies were documented:
 - i. The plan did not include the equipment maintenance area, truck washing area, fueling area, and loading/offloading areas for contaminated water.
 - ii. Employee training was not being conducted.
 - iii. Quarterly inspections were not being conducted.

As a result of the aforementioned violations, NOV Nos. W-NW-TAM-030413-001 and W-NW-TAM-030413-002 were issued to Shale Solutions.

7. On August 6, 2013, WVDEP personnel conducted an inspection of the facility. During the inspection, violations of the following sections of WV Legislative Rule and Shale Solutions' WV/NPDES permit were observed and documented:
 - a. 47CSR11 Section 2.2.a-Shale Solutions failed to report spills and/or accidental discharges of pollutants. Drill mud was observed on the ground throughout the site, two vacuum boxes were leaking on the ground, drill mud leachate was exiting the back of the building and staining the ground, and drill mud was present at the outfall.
 - b. Section B.17.B.-The following GPP deficiencies were documented:
 - i. The plan did not include the equipment maintenance area, truck washing area, fueling area, and loading/offloading areas for contaminated water.
 - ii. Employee training was not being conducted.
 - iii. Quarterly inspections were being conducted; however, corrective measures were not occurring.
 - iv. An updated copy of the GPP was not submitted to WVDEP personnel, as stated in the response received from Shale Solutions regarding NOV No. W-NW-TAM-030413-002.
 - c. Section B.17.A.-The following SWPPP deficiencies were documented:
 - i. The description of potential pollution sources did not include all sources.
 - ii. The pollution prevention committee personnel list was not current.
 - iii. The material inventory and risk assessment was incomplete. Materials were observed onsite which were not included in the material inventory.
 - iv. The facility was not practicing good housekeeping. Specifically, an unmarked drum with an unknown substance was overturned in the secondary containment, spilling its contents. Plastic, wood, metal, connecting hoses, and other debris were located in traffic areas of the site. Uncontained municipal waste was present in several locations throughout the site.
 - v. The preventative maintenance program was not updated and was not being implemented.
 - vi. Record keeping and internal reporting for incidents were not being conducted. Specifically, spill records were not being kept. On October, 31, 2012, a spill was reported to WVDEP, but not documented by the facility.
 - vii. An updated copy of the SWPPP was not submitted to WVDEP personnel, as stated in the response received from Shale Solutions regarding NOV No. W-NW-TAM-030413-001.
 - d. Appendix A.II.1-The permittee failed to properly operate and maintain the facility. Specifically:
 - i. The back wall of the drill mud solidification building was pushed out, allowing drill mud leachate to drain outside of the building. Staining of the ground and stressed vegetation was present. Shale Solutions personnel stated that the wall had been in that condition for over one month. This release had not been reported to WVDEP.
 - ii. Several drums and totes were not labeled and were missing bungs and/or lids.
 - iii. The secondary containment units in several areas had been compromised. Several containment units showed evidence of overtopping, and staining of the ground was present in these areas.
 - iv. The gauges for both 55 gallon tanks were not functioning.

- v. A significant amount of drill mud was observed on the ground in several areas.
- vi. Drill mud and petroleum-like contaminants were visible inside the outfall 001 pipe. A large area of vegetation at the outfall was dead and/or stressed.
- vii. Outfall 001 was incorrectly labeled as Outfall 005.
- e. Appendix A.III.2-The permittee failed to submit Discharge Monitoring Reports (DMRs) within twenty (20) days following the end of the reporting period. Specifically, Shale Solutions had not submitted any DMRs since the issuance of its WV/NPDES permit.
- f. 47CSR58 Section 7.1-Shale Solutions deliberately allowed crude oil, or and petroleum product derived from crude oil, or septage, or natural gas, or salt water, or any chemical mixture which may impact groundwater quality to escape from any well, pipeline, impoundment, storage tank, treatment unit, or storage container, or be deliberately allowed to flow onto or under the land surface in such a manner that could impact ground water. Specifically, drill mud leachate was allowed to flow out of the building and onto the ground in several locations.

As a result of the aforementioned violations, NOV Nos. W-NW-TAM-080613-001, W-NW-TAM-080613-002, W-NW-TAM-080613-003, W-NW-TAM-080613-004, W-NW-TAM-080613-005, and W-NW-TAM-080613-006 were issued to Shale Solutions.

8. On September 24, 2013, WVDEP personnel conducted an inspection of the facility. During the inspection, violations of the following sections of WV State Code, WV Legislative Rule, and Shale Solutions' WV/NPDES permit were observed and documented:
- a. Appendix A.III.2-The permittee failed to submit DMRs within twenty (20) days following the end of the reporting period.
 - b. 47CSR58 Section 7.1-Shale Solutions deliberately allowed crude oil, or and petroleum product derived from crude oil, or septage, or natural gas, or salt water, or any chemical mixture which may impact groundwater quality to escape from any well, pipeline, impoundment, storage tank, treatment unit, or storage container, or be deliberately allowed to flow onto or under the land surface in such a manner that could impact ground water. Specifically, a petroleum-like substance was observed on a large area of the ground.
 - c. Appendix A.II.1-The permittee did not properly maintain all facility equipment and control devices. Specifically,
 - i. Drums and totes were not labeled, and several were missing bungs and/or lids.
 - ii. Secondary containment units were compromised.
 - iii. The gauges for both 55 gallon oil tanks were not functioning.
 - d. 33CSR7 Section 2.1-Shale Solutions failed to provide proof of proper solid waste disposal when requested. Specifically, records were not available for disposed contaminated fluids and/or slurry.
 - e. 47CSR11 Section 2.2.a-Shale Solutions failed to report a spill or accidental discharge. Specifically, a large area stained with a petroleum-like substance was not reported.
 - f. 22-15-10-Shale Solutions created, contributed to, and/or operated an open dump by unlawfully disposing of solid waste. Specifically, an excessive amount of drill mud deposits were on the ground behind a building near the outfall.

As a result of the aforementioned violations, NOV Nos. W-NW-TAM-092413-001, W-NW-TAM-092413-002, W-NW-TAM-092413-003, W-NW-TAM-092413-004, W-NW-TAM-092413-005, and W-NW-TAM-092413-006 were issued to Shale Solutions.

9. On December 12, 2013, Shale Solutions ceased operations and filed with WVDEP to terminate WV/NPDES Permit No. WV0111457, Registration No. WVG611625.
10. On January 8, 2014, WVDEP personnel conducted a pre-closure inspection. During the inspection, the following was requested from Shale Solutions:
 - a. Properly dispose of solid waste and all material suspected of being contaminated.
 - b. Provide sampling data and disposal records for the pit decontamination water.
 - c. Provide soil sampling data for areas of concern.
11. On January 27, 2014, WVDEP received soil sampling data conducted by Shale Solutions. The soil samples showed elevated results for the following contaminants:
 - a. Barium range of 3000 mg/kg
 - b. Total Petroleum Hydrocarbon Diesel Range of 143 mg/kg
 - c. Total Petroleum Hydrocarbon Oil Range of 496.4 mg/kg
12. On February 6, 2014, WVDEP personnel and representatives of Shale Solutions met to discuss the terms and conditions of this Order.

ORDER FOR COMPLIANCE

Now, therefore, in accordance with Chapter 22, Article 11, Section 1 et seq., Chapter 22, Article 12, Section 1 et seq., and Chapter 22, Article 15, Section 1 et seq. of the West Virginia Code, it is hereby agreed between the parties, and ORDERED by the Director:

1. Shale Solutions shall immediately take all measures to initiate compliance with all terms and conditions of its WV/NPDES permit and pertinent laws and rules.
2. Within twenty (20) days of the effective date of this Order, Shale Solutions shall submit for approval a proposed plan of corrective action and schedule, outlining action items and completion dates for how and when Shale Solutions will achieve compliance with all terms and conditions of its WV/NPDES permit and pertinent laws and rules. The plan of corrective action shall make reference to WV/NPDES Permit No. WV0111457, Registration No. WVG611625, and Order No. MM-14-08. The plan of corrective action shall include, but not be limited to, the following:
 - a. A detailed sampling plan to identify areas of contamination. A sampling map shall be submitted, and sample parameters shall consist of benzene, toluene, ethylbenzene, and xylene (BTEX), oil range organics (ORO), diesel range organics (DRO), gasoline range organics (GRO), barium, and chlorides.
 - b. A detailed map that shall include all culverts, streams, water drainages, water flow patterns, building footprints, and drop inlets.

- c. A containment, remediation, and disposal plan that shall include:
 - i. Emergency contacts.
 - ii. Certified environmental remediation contractor information.
 - iii. Containment procedures for contaminated soils and sediment from excavation activities.
 - iv. Remediation and disposal procedures for all solid waste and/or contaminated soils. Procedures shall include, but are not limited to, a proposed remediation timeline, provisions for required sample analysis, and disposal location.

The plan of corrective action shall be submitted to:

**WVDEP Environmental Inspector Supervisor
NW Regional Environmental Enforcement Office
2031 Pleasant Valley Road
Fairmont, WV 26554**

A copy of this plan shall be submitted to:

**Chief Inspector
Environmental Enforcement - Mail Code #031328
WVDEP
601 57th Street SE
Charleston, WV 25304**

Upon approval, the plan of corrective action and schedule shall be incorporated into and become part of this Order, as if fully set forth herein. Failure to submit an approvable plan of corrective action and schedule or failure to adhere to the approved schedule is a violation of this Order.

3. Within twenty (20) days of the effective date of this Order, Shale Solutions shall submit the following documentation:
 - a. Records of incoming and outgoing material from August 1, 2012 to present. Documentation shall include the origin of the material and final disposal location.
 - b. A manifest including the identification and quantity of all chemicals and material on site.

The documentation shall be submitted to:

**WVDEP Environmental Inspector Supervisor
NW Regional Environmental Enforcement Office
2031 Pleasant Valley Road
Fairmont, WV 26554**

A copy of this documentation shall be submitted to:

**Chief Inspector
Environmental Enforcement - Mail Code #031328
WVDEP
601 57th Street SE
Charleston, WV 25304**

4. Upon the effective date of this Order, Shale Solutions shall commence submittal of waste profiles for all material removed from the site from August 6, 2013 to present.

The documentation shall be submitted to:

**WVDEP Environmental Inspector Supervisor
NW Regional Environmental Enforcement Office
2031 Pleasant Valley Road
Fairmont, WV 26554**

A copy of the documentation shall be submitted to:

**Chief Inspector
Environmental Enforcement - Mail Code #031328
WVDEP
601 57th Street SE
Charleston, WV 25304**

5. Because of Shale Solutions' Legislative Rule and permit violations, Shale Solutions shall be assessed a civil administrative penalty of thirty-one thousand three hundred ten dollars (\$31,310) to be paid to the West Virginia Department of Environmental Protection for deposit in the Water Quality Management Fund in accordance with the following schedule:

Payment 1 in the amount of \$5,218.33 due on or before June 1, 2014.

Payment 2 in the amount of \$5,218.33 due on or before July 1, 2014.

Payment 3 in the amount of \$5,218.33 due on or before August 1, 2014.

Payment 4 in the amount of \$5,218.33 due on or before September 1, 2014.

Payment 5 in the amount of \$5,218.33 due on or before October 1, 2014.

Payment 6 in the amount of \$5,218.35 due on or before November 1, 2014.

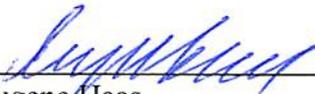
Payments made pursuant to this paragraph are not tax-deductible for purposes of State or federal law. **Payment shall include a reference to the Order No. and shall be mailed to:**

**Chief Inspector
Environmental Enforcement - Mail Code #031328
WV-DEP
601 57th Street SE
Charleston, WV 25304**

OTHER PROVISIONS

1. Shale Solutions hereby waives its right to appeal this Order under the provisions of Chapter 22, Article 11, Section 21, and/or Chapter 22, Article 12, Section 11, and/or Chapter 22, Article 15, Section 16 of the Code of West Virginia. Under this Order, Shale Solutions agrees to take all actions required by the terms and conditions of this Order and consents to and will not contest the Director's jurisdiction regarding this Order. However, Shale Solutions does not admit to any factual and legal determinations made by the Director and reserves all rights and defenses available regarding liability or responsibility in any proceedings regarding Shale Solutions other than proceedings, administrative or civil, to enforce this Order.
2. The Director reserves the right to take further action if compliance with the terms and conditions of this Order does not adequately address the violations noted herein and reserves all rights and defenses which he may have pursuant to any legal authority, as well as the right to raise, as a basis for supporting such legal authority or defenses, facts other than those contained in the Findings of Fact.
3. If any event occurs which causes delay in the achievement of the requirements of this Order, Shale Solutions shall have the burden of proving that the delay was caused by circumstances beyond its reasonable control which could not have been overcome by due diligence (i.e., force majeure). Force majeure shall not include delays caused or contributed to by the lack of sufficient funding. Within three (3) working days after Shale Solutions becomes aware of such a delay, notification shall be provided to the Director/Chief Inspector and Shale Solutions shall, within ten (10) working days of initial notification, submit a detailed written explanation of the anticipated length and cause of the delay, the measures taken and/or to be taken to prevent or minimize the delay, and a timetable by which Shale Solutions intends to implement these measures. If the Director agrees that the delay has been or will be caused by circumstances beyond the reasonable control of Shale Solutions (i.e., force majeure), the time for performance hereunder shall be extended for a period of time equal to the delay resulting from such circumstances. A force majeure amendment granted by the Director shall be considered a binding extension of this Order and of the requirements herein. The determination of the Director shall be final and not subject to appeal.
4. Compliance with the terms and conditions of this Order shall not in any way be construed as relieving Shale Solutions of the obligation to comply with any applicable law, permit, other order, or any other requirement otherwise applicable. Violations of the terms and conditions of this Order may subject Shale Solutions to additional penalties and injunctive relief in accordance with the applicable law.
5. The provisions of this Order are severable and should a court or board of competent jurisdiction declare any provisions to be invalid or unenforceable, all other provisions shall remain in full force and effect.
6. This Order is binding on Shale Solutions, its successors and assigns.

7. This Order shall terminate upon Shale Solutions' notification of full compliance with the "Order for Compliance" and verification of this notification by WVDEP.



Eugene Haas
Shale Solutions, LLC

3/18/14

Date

Public Notice begin:

Date

Public Notice end:

Date

Scott G. Mandirola, Director
Division of Water and Waste Management

Date

Photo 1:

Power washing contaminated vehicles outside. Drill mud all over lot.



Photo 2:

Drill mud spill over site.



Photo 3:

Drill mud.



Photo 4:

Drill mud.



Photo 5:

Drill mud and contaminated water on ground.



Photo 6:

Drill mud covering lot.



Photo 7:

Bore pit. A large amount of contaminated water present.



Photo 8:

Drill mud.



Photo 9:

Water hose going out of building. Contaminated water leaving site.



Photo 10:

Drill mud spill near frac tanks.



Photo 11:

Drill mud on ground. Secondary containment breached.



Photo 12:

Secondary containment filled with drill mud.



Photo 13:

Inadequate secondary containment.



Photo 14:

Drill mud on ground.

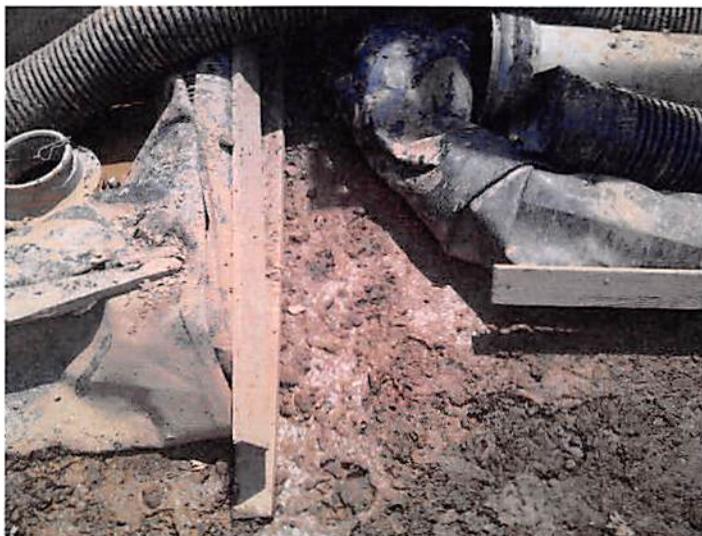


Photo 15:

Drill mud broke through building wall.



Photo 16:

Petroleum contaminated fluid leaching from drill mud onto ground.



Photo 17:

Drill mud entering bathroom and shower facilities. Potential potable water contamination site.



Photo18:

Drill mud.



Photo 19:

Drill mud and contaminated water going in drop inlet.



Photo 20:

Closer photo of photo 19.



Photo 21:

Contaminated water going into drop inlet.



Photo 22:

One of the areas trash was present.



Photo 23:

Oil coming from dumpster.



Photo 1:

Tote not in secondary containment.



Photo 2:

Process chemicals not in secondary containment near heavy equipment entrance.



Photo 3:

Drill mud where drill mud spilled through the wall of the building.



Photo 4:

Drill mud.



Photo 5:

A spill between roll of containers.



Photo 6:

Contaminated stormwater leaving site.



Photo 7:

*Area where a spill had occurred
on the north side of the site.*



Photo 8:

*Secondary containments of the
frac tanks.*



Photo 9:

*Over flow from secondary
containments of frac tanks.*



Photo 1;

Area where drill mud is offloaded and solidified.



Photo 2:

Polymers and chemicals for separators.



Photo 3:

Equalization tank and pump.



Photo 4:

Holding tank for treated contaminated water awaiting disposal.



Photo 5:

Earthen berm surrounding holding tank in photo 4.



Photo 6:

Compromised secondary containment unit for holding tank in photo 4.



Photo 7:

The lot.



Photo 8:

Holding tank area where contaminated water is offloaded and stored awaiting treatment.



Photo 9:

Blocked outlet.





Photo 1: Roll off container full of slurry.



Photo 2: Large pile of waste plastic.



Photo 3: Leaking vacuum tank.



Photo 4: Closer view of photo 3.



Photo 5: One of several areas with hoses.



Photo 6: Ground staining.



Photo 7: One of several areas where drill mud was present on the ground.



Photo 8: Outfall pipe.



Photo 9: Dead vegetation at outfall.

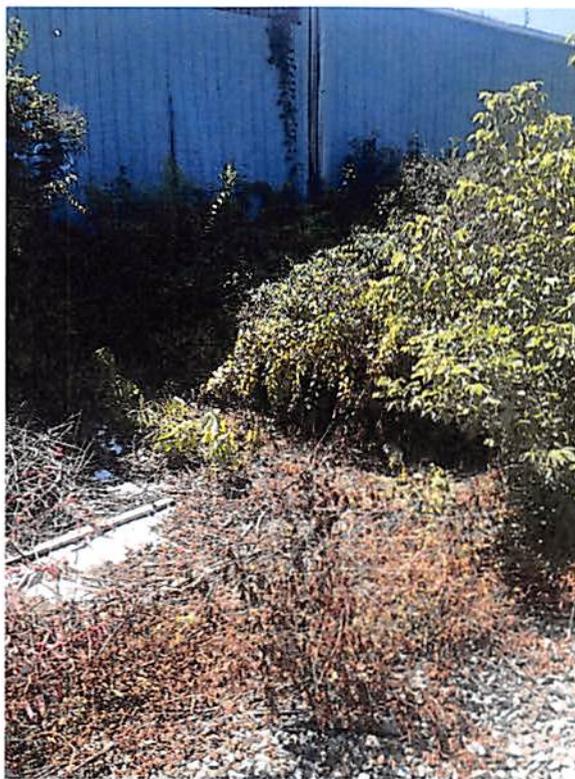


Photo 10: More dead vegetation at outfall.



Photo 11: Drill mud on the ground at outfall.



Photo 12: Compromised secondary containment. Ground staining.



Photo 13: Compromised secondary containment. Material in secondary containment leaving the unit.



Photo 14: Lids to totes missing.



Photo 15: Drill mud leachate coming from the drill mud building. Ground staining.

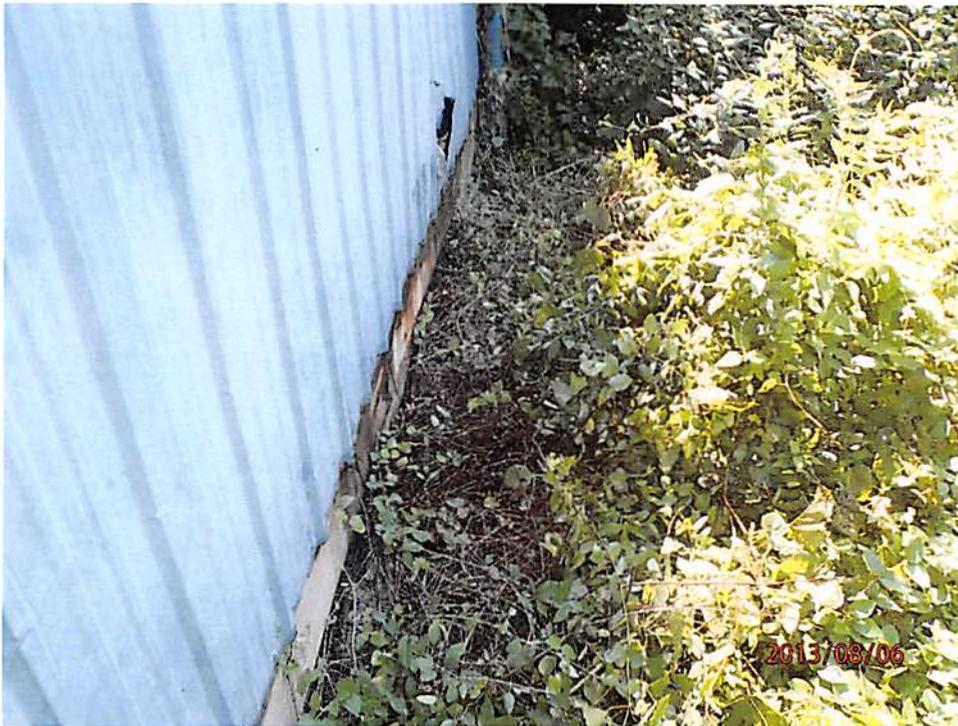


Photo 16: Ground staining and stressed vegetation from drill mud leachate coming from the building.

Base Penalty Calculation

(pursuant to 47CSR1-6.1)

Responsible Party: Shale Solutions **Receiving Stream:** Ohio River

Treatment System Design Maximum Flow: N/A MGD

Treatment System Actual Average Flow: N/A MGD (if known)

Enter FOF# and rate each finding as to Potential and Extent.

1)	Potential for Harm Factor	Factor Range	FOF#												
			3a	3b	3c	3e	6a	6b	7b	7c	7d	8a	8c	8e	
a)	Amount of Pollutant Released	1 to 3	3	3	1	3	1	1	1	1	1	1	1	1	
b)	Toxicity of Pollutant	0 to 3	1	1	0	1	0	0	0	0	1	0	1	0	
c)	Sensitivity of the Environment	0 to 3	1	1	0	1	0	0	0	0	1	0	1	0	
d)	Length of Time	1 to 3	2	2	2	2	1	1	2	2	1	1	2	3	
e)	Actual Exposure and Effects thereon	0 to 3	1	1	0	1	0	0	0	0	1	0	1	0	
Average Potential for Harm Factor			1.6	1.6	0.6	1.6	0.4	0.4	0.6	0.6	1	0.4	1.2	0.8	No
2)	Extent of Deviation Factor	Factor Range													
	Degree of Non-Compliance	1 to 3	2	2	3	2	2	2	2	2	2	3	2	3	

Potential for Harm Factors:

- 1)c - Sensitivity of the Environment Potentially Affected (0 for "dead" stream)
- 1)d - Length of Time of Violation
- 1)e - Actual Human/Environmental Exposure and Resulting Effects thereon

Examples/Guidance:

Note: Rate as 1 for Minor, 2 for Moderate and 3 for Major. Rate as 0 if it does not apply.

Minor = exceedance of permit limit by <=40% for Avg. Monthly or <=100% for Daily Max., exceed numeric WQ standard by <= 100%, or report doesn't contain some minor information.

Moderate = exceedance of permit limit by >= 41% and <= 300% for Avg. Monthly, >= 101% and <= 600% for Daily Max., exceed numeric WQ standard by >= 101% and <= of 600% or report doesn't fully address intended subject matter.

Major = exceedance of permit limit by >= 301% for Avg. Monthly, >= 601% for Daily Max., exceed numeric WQ standard by >= 601%, failure to submit a report, failure to obtain a permit, failure to report a spill, etc. Note that a facility in SNC should be rated as major for length of time and degree of non-compliance.

Narrative WQ standard violations - case-by-case.

		Extent of Deviation from Requirement		
		Major	Moderate	Minor
Potential for Harm to Human Health or the Environment	Major	\$8,000 to \$10,000	\$6,000 to \$8,000	\$5,000 to \$6,000
	Moderate	\$4,000 to \$5,000	\$3,000 to \$4,000	\$2,000 to \$3,000
	Minor	\$1,500 to \$2,000	\$1,000 to \$1,500	Up to \$1,000

FOF #	Potential for Harm	Extent of Deviation	Penalty	Multiple Factor	Base Penalty
3a	Moderate	Moderate	\$3,600	1	\$3,600
3b	Moderate	Moderate	\$3,600	1	\$3,600
3c	Minor	Major	\$1,800	1	\$1,800
3e	Moderate	Moderate	\$3,600	1	\$3,600
6a	Minor	Moderate	\$1,200	1	\$1,200
6b	Minor	Moderate	\$1,200	1	\$1,200
7b	Minor	Moderate	\$1,300	1	\$1,300
7c	Minor	Moderate	\$1,300	1	\$1,300
7d	Minor	Moderate	\$1,500	1	\$1,500
8a	Minor	Major	\$1,700	1	\$1,700
8c	Moderate	Moderate	\$3,200	1	\$3,200
8e	Minor	Major	\$1,900	1	\$1,900
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
0	FALSE	FALSE	FALSE	1	\$0
Total Base Penalty					\$25,900

Penalty Adjustment Factors

(pursuant to 47CSR1-6.2)

Penalty Adjustment Factor

6.2.b.1 - Degree of or absence of willfulness and/or negligence - 0% to 30% increase

6.2.b.4 - Previous compliance/noncompliance history - 0% to 100% increase - based upon review of last three (3) years - Warning = maximum of 5% each, N.O.V. = maximum of 10% each, previous Order = maximum of 25% each - Consistent DMR violations for <1 year = 10% maximum, for >1 year but <2 years = 20% maximum, for >2 years but <3 years = 30% maximum, for >3 years = 40 % maximum

6.2.b.6 - Economic benefits derived by the responsible party (increase to be determined)

6.2.b.7 - Public Interest (increase to be determined)

6.2.b.8 - Loss of enjoyment of the environment (increase to be determined)

6.2.b.9 - Staff investigative costs (increase to be determined)

6.2.b.10 - Other factors

Size of Violator: 0 - 50% decrease

NOTE: This factor is not available to discharges that are causing a water quality violation. This factor does not apply to a commercial or industrial facility that employees or is part of a corporation that employees more than 100 individuals.

Avg. Daily WW Discharge Flow (gpd)	% Reduction Factor
< 5,000	50
5,000 to 9,999	40
10,000 to 19,999	30
20,000 to 29,999	20
30,000 to 39,999	10
40,000 to 99,999	5
> 100,000	0

Additional Other factors to be determined for increases or decreases on a case-by-case basis.

Public Notice Costs (cost for newspaper advertisement)

6.2.b.2 - Good Faith - 10% decrease to 10% increase

6.2.b.3 - Cooperation with the Secretary - 0% to 10% decrease

6.2.b.5 - Ability to pay a civil penalty - 0% to 100% decrease

Base Penalty Adjustments

(pursuant to 47CSR1-6.2)

Penalty Adjustment Factor	% Increase	% Decrease	Base Penalty Adjustments
6.2.b.1 - Willfulness and/or negligence -	30		\$7,770
6.2.b.4 - Compliance/noncompliance history			\$0
6.2.b.6 - Economic benefits - (flat monetary increase)	\$200		\$200
6.2.b.7 - Public Interest - (flat monetary increase)			\$0
6.2.b.8 - Loss of enjoyment - (flat monetary increase)			\$0
6.2.b.9 - Investigative costs - (flat monetary increase)			\$0
6.2.b.10 - Other factors (size of violator)			\$0
6.2.b.10 - Additional Other Factors - Increase (flat monetary increase)			\$0
6.2.b.10 - Additional Other Factors - Decrease (flat monetary decrease)			\$0
Public Notice Costs (flat monetary increase)	\$30		\$30
6.2.b.2 - Good Faith - Increase			\$0
6.2.b.2 - Good Faith - Decrease			\$0
6.2.b.3 - Cooperation with the Secretary		10	(\$2,590)
6.2.b.5 - Ability to Pay			\$0
Penalty Adjustments			\$5,410
Penalty =			\$31,310

Estimated Economic Benefit Item	Estimated Benefit (\$)
Monitoring & Reporting	\$200
Installation & Maintenance of Pollution Control Equipment	
O&M expenses and cost of equipment/materials needed for compliance	
Permit Application or Modification	
Competitive Advantage	
Estimated Economic Benefit	\$200
Comments: \$200 avoided DMR sampling/submittal costs	