

# **Storm Water Pollution Prevention Plan**

**Mundy Stone Company  
Rockydale – Flatrock Quarry  
477 Limestone Road  
Quicksburg, Virginia 22847**

**Prepared for:  
Rockydale Quarries Corporation  
2343 Highland Farm Road, NW  
Roanoke, Virginia 24017**

**Prepared By:  
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**November 2017**

**Ward Environmental Services PLLC**

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## **INTRODUCTION**

The Virginia Department of Environmental Quality (DEQ) has issued the facility a Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges of Storm Water Associated with Nonmetallic Mineral Mining to Mundy Stone Corporation, which owns and operates the Rockydale - Flatrock Quarry located at 477 Limestone Road in Quicksburg, Virginia. This facility was issued General Permit No. VAG840043, which became effective July 1, 2014 and expires June 30, 2019.

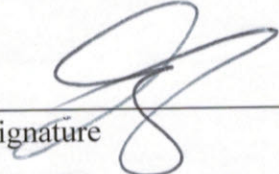
As a requirement of the General Permit, Rockydale - Flatrock Quarry must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The purpose of the plan is to identify potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility, and to describe the best management practices (BMPs) developed and implemented to minimize storm water pollution.

The format of this SWPPP is in general conformance with the requirements of the State Water Control Board's Final Regulation, 9VAC25-151, adopted December 17, 2013.

The overall purpose of the SWPPP is to address contaminants that can adversely affect water characteristics. A copy of the SWPPP is maintained on-site at the facility. The SWPPP is available for inspection during normal public business hours, 7:00 a.m. to 4:00 p.m. Monday through Friday, except for holidays, at this location.

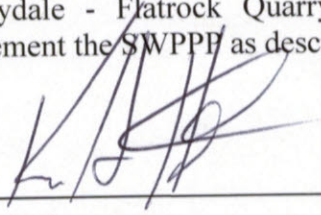
**OWNER CERTIFICATION**

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons 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 fines and imprisonment for known violations."

Signature		CFO
		Title
Printed	Joseph W. Altizer II	12/8/17
		Date

**MANAGEMENT REVIEW AND APPROVAL**

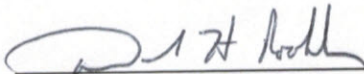
This SWPPP is fully approved by the management of the Mundy Stone Company and the Rockydale - Flatrock Quarry. The necessary resources have been committed to implement the SWPPP as described.



\_\_\_\_\_  
Keith Holt  
Environmental, Health & Safety Coordinator  
Rockydale Quarries Corporation

11/27/17

\_\_\_\_\_  
Date



\_\_\_\_\_  
David Rooklin  
General Manager  
Rockydale - Flatrock Quarry

1-10-18

\_\_\_\_\_  
Date

## DIRECTIONS TO THE FACILITY

**Mundy Stone Company  
Rockydale - Flatrock Quarry  
477 Limestone Road  
Quicksburg, Virginia 22847  
(540) 833-2016**

### **To facility from Interstate 81:**

1. Take the **US-11** exit, Exit 257, toward **VA-259/Mauzy/Broadway/Timberville**.
2. Turn **left** onto US-11 S/N Valley Pike.
3. Turn **right** toward **Broadway/Timberville**.
4. Turn **right** onto Mayland Rd/VA-259.
5. Mayland Rd/VA-259 becomes S Timber Way.
6. S Timber Way becomes VA-42.
7. Turn **left** onto Limestone Road/VA-733.
8. The facility, located at 477 Limestone Road, is on the **right**.

## FACILITY INFORMATION

**Owner:** Mundy Stone Company

**Owner Address:** 11261 Turleytown Road  
Linville, Virginia 22834

**Operator:** Mundy Stone Company

**Name of Facility:** Rockydale – Flatrock Quarry

**SIC Code:** 1422 (Crushed and Broken Limestone)

**Mailing and Site Address:** 477 Limestone Road  
Quicksburg, Virginia 22847

### **Pollution Prevention Team:**

#### **Pollution Prevention Coordinator: Jonathan Ruddock**

Position: Foreman

Contact Number: (540) 430-7318

Responsibilities: Implementation of the SWPPP. Coordination with SWPPP team member(s) and assign tasks to supervisors. Performs inspections, cleans up spills, and implements O&M erosion and sediment control programs

#### **Team Member: Howard May, Jr.**

Position: Foreman

Contact Number: (540) 820-9278

#### **Team Member: Keith Holt**

Position: Environmental, Health & Safety Coordinator

Contact Number: (540) 597-5017

Responsibilities: Management of the VPDES General Permit and incorporates changes into SWPPP as necessary. Ensures the SWPPP and storm water monitoring requirements are up to date, annual training is performed, and communicates with the executive level of the company.

The SWPPP is maintained in the Environmental, Health & Safety Coordinator's Office and is also available for onsite inspection during normal working hours in the Mine Manager's Office. Please contact the Pollution Prevention Team, which includes the Foreman (Jonathan Ruddock), Foreman (Howard May, Jr.), and the Environmental, Health & Safety Coordinator (Keith Holt).



## 1.0 GENERAL REQUIREMENTS FOR AN SWPPP

### 1.1 Facility Description and Layout

The Rockydale - Flatrock Quarry is located at 477 Limestone Road in Quicksburg, Virginia (Shenandoah County). The facility is a multi-bench, nonmetallic mine manufacturing a variety of construction aggregates erosion control products. The main process area include overburden removal, drilling/blasting, loading/hauling, crushing, conveying, screening, shipping/receiving, maintenance, and stockpiling storage areas.

**Figure 1**, General Location Map, shows the graphical location and access routes to the facility. The facility is currently owned and operated by the Mundy Stone Company. Coordinates for the facility are 38° 42' 18"N, 78° 44' 19"W at an altitude of 1,168 feet above mean sea level. The Rockydale - Flatrock Quarry property consists of approximately 65 acres with the active mining pit encompassing approximately 20 acres. Less than one percent of the ground surface at the facility is covered with impervious structures.

The local topography is characterized by rolling hills and narrow drainage valleys. The storm water drainage pathway for the oil handling areas at the facility is shown on **Figure 2**, the Facility Site Plan. In general, natural drainage is to an unnamed tributary to Holmans Creek, which is located east of the quarry.

### 1.2 Potential Source of Storm Water Pollution

The Rockydale - Flatrock Quarry's potential pollutant storage is entirely outdoor and includes a multiple aboveground storage tanks (ASTs) and product storage areas (stockpiles). There are no underground storage tanks located at the facility. SWPPP planning requires the development of a list of significant materials that were exposed to storm water during the past three years and/or are currently exposed. Exposure includes any lack of complete shelter from rainfall contact even if the materials are stored within a pile, drum, tank, etc. *Significant materials* as defined in 40CFR Part 122.26(b)(12) are substances related to industrial activities such as process chemicals, raw materials, petroleum products, paints, solvents, pesticides, fertilizers, and associated waste products.

**Figure 2** shows the layout of the facility, including the location of all potential pollutant areas. **Table 1** on the following page lists the outdoor potential sources of storm water pollution and corresponding BMP.

<b>Table 1</b> <b>Outdoor Potential Sources of Storm Water Pollution</b> <b>Rockydale - Flatrock Quarry</b>		
Potential Pollutant Area	Contents	BMP(s)
Maintenance Shop	525-Gallon Single-Walled Steel AST Used Oil	<ul style="list-style-type: none"> <li>• Secondary Containment Dike</li> <li>• Good Housekeeping</li> <li>• Periodic Visual Inspections</li> </ul>
	55-Gallon Steel Drums Various Fluids	<ul style="list-style-type: none"> <li>• Visual Monitoring During Fueling</li> <li>• Spill Kits</li> </ul>
Near Scale House	10,000-Gallon Horizontal Double-Walled Steel AST Diesel Fuel	<ul style="list-style-type: none"> <li>• Integrated Steel Double-Walled AST</li> <li>• Good Housekeeping</li> <li>• Periodic Visual Inspections</li> <li>• Spill Kits</li> </ul>
Plant Motor Control Center	500-Gallon Vertical Double-Walled Steel AST Motor Oil	<ul style="list-style-type: none"> <li>• Integrated Steel Double Walled ASTs</li> <li>• Remote Fill Box and Dispenser</li> <li>• Good Housekeeping</li> </ul>
	500-Gallon Vertical Double-Walled Steel AST Motor Oil	<ul style="list-style-type: none"> <li>• Visual Monitoring During Fueling</li> <li>• Periodic Visual Inspections</li> <li>• Spill Kits</li> </ul>
Near Foremen's Office	500-Gallon Horizontal Single-Wall Steel AST Unleaded Gasoline	<ul style="list-style-type: none"> <li>• Covered Steel Secondary Containment Dike</li> <li>• Good Housekeeping</li> <li>• Visual Monitoring During Fueling</li> <li>• Periodic Visual Inspections</li> <li>• Spill Kits</li> </ul>
Processing Areas	Mobile Hydraulic Equipment Oil/Lube Reservoirs	<ul style="list-style-type: none"> <li>• Good Housekeeping</li> <li>• Periodic Visual Inspections</li> </ul>
	Aggregates Stockpiles	<ul style="list-style-type: none"> <li>• Spill Kits</li> </ul>
	Haul and Access Roads	<ul style="list-style-type: none"> <li>• Rock Filter Berms</li> <li>• Sediment Traps</li> </ul>
	Soil Erosion	<ul style="list-style-type: none"> <li>• Dust Control Methods</li> <li>• Reduce Vehicle Speed</li> </ul>

### 1.3 Discharge Prevention Measures

#### Aboveground Storage Tanks

General facility containment from refueling releases and piping releases is provided by active containment measures, good housekeeping, and periodic inspections. These measures include following the safe-filling and pumping procedures, having spill kits immediately accessible, and training individuals to stop releases before they reach the nearest outfall. Spill response procedures, notification requirements and AST specifications are detailed in the facility's Spill Prevention, Control, and Countermeasure (SPCC) Plan.

#### Handling and Storage of Aggregate Materials

Although minimal, handling and storage of crushed aggregate has the potential to contribute particulate pollutants to storm water through contact with the materials. Additionally, there is a potential for storm water contamination through incidental leaks and spills from the mobile material handling equipment. Transport of materials over haul roads also has the potential to contribute pollutants to storm water. Off-site discharge of impacted storm water will be minimized through the use of sediment and erosion controls and preventive maintenance of the facility's equipment.

#### Processing Equipment and Maintenance

Processing equipment will be inspected daily prior to start up to assure no unusual conditions exist, and is to be maintained in accordance with the manufacturer's and/or the facility's recommended preventive maintenance procedures. Personnel are to be present and alert, and proper procedures are to be employed during fueling activities. Observed leaks are to be immediately controlled with drip pans and absorbents and the cause of release is to be promptly corrected. To minimize the potential for exposure, fueling areas are subject to inspection, good housekeeping, and SPCC practices.

#### Bulk Fluid Loading and Unloading

Bulk fluid loading and unloading (fuel, lubes, and hydraulic tanks) will be performed at the site of the storage tank, or at the location of the mobile equipment. Personnel are to be present and alert, and proper procedures are to be employed during fueling activities. Observed leaks are to be immediately controlled with drip pans and absorbents and the cause of release is to be promptly corrected. To minimize the potential for exposure, fueling areas are subject to inspection, good housekeeping, and SPCC practices.

#### Traffic on Unpaved Surfaces

Trucks delivering and shipping materials, and mobile processing equipment operating on unpaved surfaces (access and haul roads) have the potential to contribute particulate matter to storm water. To minimize this potential, the main access roads at the facility will be subject to a dust control method, as a water spraying during dry months as well as the enforcement of reduced speed while within the facility.

The area of the active pit and haul roads are prone to erosion. Daily visual inspections of this areas are performed to ensure the integrity of the erosion and sediment controls. If areas of erosion are noted, immediate repair of the controls will be performed. Disturbed areas which are not scheduled for earthmoving activities will be protected in accordance with the *Division of Mines, Minerals, and Energy (DMME) Mineral Mining Operator's Guide*.

#### Solid Waste Handling and Disposal

Solid wastes are permitted by the DMME to be disposed of onsite.

#### Wastewater Handling and Disposal

Wastewater is not generated at this facility. No municipal storm systems are located on the property.

## 1.4 Countermeasures and Response

### Small Spills

Small spills will be contained and cleaned up by facility personnel using spill response equipment and materials. The infrastructure is in place to provide facility personnel training on the use and proper disposal of spill equipment, which is located throughout the facility.

### Large Spills

In the event of a “reportable oil spill or discharge,” the following procedures should be initiated:

1. Survey the area carefully before proceeding, to prevent endangering yourself or your fellow employees.
2. If possible, stop the leak or spill at the source and turn off any ignition switches to nearby vehicles and/or equipment.
3. Ensure the spill has been adequately contained by secondary containment or diversionary structures.
4. Notify the General Manager who will notify the spill response contractor, the local fire department, and federal, state and local organizations as appropriate.
5. Deploy absorbent materials downstream from the spill to block all migration pathways to the storm water conveyance channels that eventually discharge into an unnamed tributary to Holmans Creek, which are the nearest body of navigable water.
6. Oil should be collected and prevented from flowing or being carried off-site.

### Spill Clean-Up

After the source of the spill has been stopped, and the released product is contained, clean-up of the impacted areas should begin. Quick clean-up of a released substance substantially reduces the potential for the product to migrate downward through the soil or migrate off site.

Free product should be pumped into a tank truck and properly recycled or disposed. Contaminated soils should be excavated and placed in drums or roll-off containers depending on the quantity of product spilled. After excavation has been completed to the satisfaction of supervisory personnel at the facility, the remaining soils should be sampled to ensure that all impacted soils were removed. Soils placed in drums and roll-off containers should also be sampled to determine the proper method of disposal. The Virginia DEQ guidelines should be followed for characterization and disposal of all excavated soils.

In the event oil or chemical products from a spill at the site reach a navigable body of water, the facility should contact the local emergency response group and an appropriate cleanup contractor. The DEQ should be consulted, as necessary, during clean-up operations to ensure that cleanup actions taken by facility personnel satisfy DEQ requirements.

## 1.5 Spill Response Equipment

Spill response kits are maintained at the near the Maintenance Shop and near the 10,000-gallon diesel fuel AST. The facility will contact WEL or Environmental Options, 911, the Virginia Department of Environmental Quality (or the Virginia Department of Emergency

Management) and the National Response Center, as necessary, to provide resources and manpower to respond to major releases that cannot be safely controlled and cleaned-up using on-site equipment.

Spill response equipment and supplies consisting of, but not limited to, 10-foot absorbent booms and 60-pack bundles of absorbent pads, and related labels, bags and ties, hand tools and other spill response equipment necessary to protect the storm water drop inlets will be readily accessible during petroleum transfer operations.

## **1.6 Pollution Prevention Team**

The Rockydale - Flatrock Quarry has identified a Pollution Prevention Team (PPT) that is responsible for the implementation of the SWPPP. The PPT for the facility will be responsible for overseeing storm water pollution prevention activities. The SWPPP identifies points of contact and individuals that have a role in the facility's spill response.

### Responsibilities of the Team

The team is the driving force behind the future development, implementation, maintenance and revision of the SWPPP. The team will perform annual evaluations to measure the effectiveness of the SWPPP. To ensure effectiveness, the team will document changes to facilities operations and determine if changes need to be made within the SWPPP. The General Manager is designated as the Pollution Prevention Coordinator. These responsibilities of the Pollution Prevention Coordinator include but are not limited to the following:

- Overall responsibility for SWPPP implementation;
- Signs documents and submits to the DEQ;
- Approves SWPPP modifications and updates;
- Coordinates preparation, review and approval of the SWPPP;
- Prepares cost estimates of implementation of plan for BMPs;
- Maintains updated records of spills;
- Conducts or contracts annual inspection and certification of dry weather discharges from outfalls;
- Conducts or contracts periodic inspections;
- Updates the Standard Operating Procedures;
- Coordinates the management and disposal of hazardous materials; and
- Develops appropriate training program.

Team members are selected by the Pollution Prevention Coordinator. Their responsibilities include but are not limited to the following:

- Responsible for the implementation of the SWPPP;
- Attend annual Storm Water Pollution Prevention training;
- Ensure personnel receive annual training;
- Review the SWPPP annually; and
- Notify Team Leader of any significant changes.

PPT Team Activation

To activate the PPT, the Pollution Prevention Coordinator will notify all team members of their duties and responsibilities. The team members will be trained and able to perform all assigned duties.

PPT Members include:

- Jonathan Ruddock – Foreman (Pollution Prevention Coordinator)
- Keith Holt – Environmental, Health & Safety Coordinator (Member)
- Howard May, Jr. – Foreman (Member)

**1.7 Contact List and Phone Numbers**

The Facility Information page in the front of this document provide a complete list of contacts and their phone numbers for use in the event of a spill.

## 2.0 POLLUTANT DISCHARGE DETECTION

### 2.1 Potential Equipment Failure

Potential causes of spillage at the facility include:

- Leaking outer wall or secondary containment structure of container;
- Overfill of containers; or
- Leak during fuel transfer operations.

### 2.2 Direction of Flow

Drainage patterns for the facility are indicated on **Figure 2**. Surface water runoff from the facility flows to an unnamed tributary to Holmans Creek, which flows through the permitted mining area from southwest to northeast. A brief description of the facility's outfalls is as follows:

- Storm water runoff from the active quarry pit is pumped in a sediment trap before being discharge via Outfall #001 through a buried pipe situated under Limestone Road. Storm water flows overland by grassy ditch into the southern unnamed tributary to Holmans Creek.
- Storm water runoff from the active lower quarry pit is pumped in a sediment trap before being discharge via Outfall #002 through a buried pipe situated under Limestone Road. Storm water flows overland by grassy ditch into the southern unnamed tributary to Holmans Creek.
- Storm water runoff from the processing area and internal haul roads flows into a series of check dams before being discharged via Outfall #003 through a buried pipe under Limestone Road. Storm water flows overland by grassy ditch into the southern unnamed tributary to Holmans Creek.
- Storm water runoff from the processing area, aggregate stockpiles and internal haul roads is discharged via Outfall #004 through a buried pipe under Limestone Road. Storm water flows overland by grassy ditch into the southern unnamed tributary to Holmans Creek.
- Storm water runoff from the upper quarry shelf, aggregate stockpiles, processing areas, and the ASTs flow into a sediment trap before being discharges via Outfall #005 into the northern unnamed tributary to Holmans Creek.

### 2.3 Baseline Best Management Practices (BMPs) Identification

Best Management Practices (BMPs) are measures used to prevent or reduce the potential for pollution from any type of activity. BMPs are a broad class of measures and include processes, procedures, schedules of activities, prohibitions on practices, and other management practices to prevent or reduce the potential for pollution of storm water runoff. The baseline BMPs that will be implemented are described below.

- Preventive Maintenance;
- Periodic Inspections;
- Sediment and Erosion Control;
- Management of Runoff;

- Good Housekeeping; and
- Employee Training.

### 2.3.1 Preventive Maintenance

Preventive maintenance involves the regular inspection and testing of equipment and the storm water management system. These inspections will identify conditions such as cracks or slow leaks, or other conditions which could cause breakdowns or failures resulting in the potential discharge of pollutants to storm drains and/or surface waters. The preventive maintenance program at the facility will include the following:

- Maintaining an inventory of each facility/system/equipment that, upon failure, could result in leaks or spills of potential pollutants
- Conducting periodic inspections of equipment that could result in leaks or spills to be documented in a checklist report listing each facility/system/equipment inspected and any deficiencies noted

### 2.3.2 Quarterly Facility Inspections

Routine inspections of the facility will be performed on a quarterly basis to ensure that all SWPPP elements are in place and working properly as well satisfying the facility's preventative maintenance routine inspections discussed above. These inspections are performed by a member of the PPT. Areas that will be inspected include:

- Equipment and facilities;
- Material storage piles; and
- Material handling areas (loading and unloading areas).

The routine facility inspections will also include general visual observations of the storm water drainage systems. A list of storm water drainage system observations to be made during the inspection as follows:

1. Inspection of grassed swales and ditches for garbage, debris, or eroded areas. Remove garbage and debris as necessary. Seed exposed areas as necessary.
2. Inspection of the concrete culvert discharge point for garbage, debris, vegetation, and/or eroded areas. Remove garbage, debris, and vegetation as necessary.

Inspection records will note when inspections were done, who conducted the inspection, what areas were inspected, what problems were found, steps taken to correct any problems and who has been notified. Records of the Quarterly Facility Inspection will be maintained in **Appendix A**.

### 2.3.3 Sediment and Erosion Control

The property will be inspected for general drainage discharge patterns that may be affecting erosion over time and for the buildup of sediment in the facility's storm water conveyance system.



### 2.3.4 Management of Runoff

Traditional management practices used to reduce pollutants in storm water runoff include:

- Maintaining grass and vegetative buffers surrounding facility;
- Maintaining erosion and sediment control devices; and
- Spill management methods and materials as covered by the facility SWPPP.

At this facility, runoff is managed principally via pipes, ditches, culverts and open outfalls that discharge into unnamed tributary to Holman Creek. These conveyances will be inspected quarterly and after major storm events to ensure proper operation.

### 2.3.5 Good Housekeeping

Good housekeeping is the maintenance of a clean and orderly work environment that contributes to overall facility pollution control efforts. Occupational Safety and Health Administration (OSHA) includes housekeeping regulations in 29 CFR 1910, Sections 22(a), 141, and 176(c) that apply to industry, in general, and not specifically for toxic substances control. The principal elements in good housekeeping include proper storage of oil, prompt removal of spillage, floor maintenance, and unobstructed pathways and walkways. Housekeeping at this facility also includes all outside areas that are visually inspected for cleanliness by facility personnel.

Poor housekeeping can result in more waste being generated than necessary and an increased potential for storm water contamination. Poor housekeeping can also lead to accidents that might cause spills of significant materials. The following will be completed as part of Good Housekeeping procedures:

- Conducting a formal weekly inspection for housekeeping procedures and maintaining a log of such inspections (Quarterly Housekeeping and Facility Inspection Checklists are maintained in **Appendix A**);
- Conducting an annual inventory of chemical substances currently used, stored or produced onsite;
- Maintaining a current file of Safety Data Sheets (SDS) for chemical products used onsite; and
- Labeling of chemical containers in each building per OSHA, EPA, DOT or other applicable regulations.

### 2.3.6 Employee Training

Employee training is essential to effective implementation of the SWPPP. The purpose of a training program is to teach personnel at all levels of responsibility for the components and goals SWPPP. Effective training can include a variety of techniques to enhance participation and learning including:

- Lectures and visual aids;
- Written handouts;
- Video and slide presentations;
- Mock spill drills; and/or

- Employee handbooks.

Employee training must be provided for all employees who handle petroleum products, work in areas where industrial materials or activities are exposed to storm water, and who are responsible for implementing activities identified in the SWPPP.

Training documentation (sign-in sheets) are provided in **Appendix B** and is maintained in the Scalehouse.

## **2.4 Annual Comprehensive Site Compliance Evaluation**

At least once per year, PPT members must conduct site compliance evaluations, which are comprehensive inspections. The team members involved should be familiar with facility operations and SWPPP goals. The compliance evaluations include:

- Reviewing the SWPPP and listing items, which are part of material handling and storage areas, covered by the plan.
- Reviewing facility operations to determine if new areas or modifications to plant operations have occurred that should be incorporated into the SWPPP.
- Inspecting storm water drainage areas for evidence of pollutants entering the drainage system.
- Evaluating the effectiveness of storm water pollution prevention measures to reduce pollutant loadings and whether additional measures are needed.
- Observe structural measures, sediment controls and other BMPs to ensure proper operation.
- Inspect equipment needed to implement the plan, such as spill response equipment.
- Revising the SWPPP as necessary within two weeks if it is determined that potential pollutant sources and pollution prevention control measures are not adequate.
- Implementing necessary changes in a timely manner but in no case more than twelve weeks after the evaluation.

The Annual Site Compliance Evaluation (ASCE) report form summarizing the evaluation, personnel making the evaluation, the date of the evaluation, major observations related to the implementation of the VPDES General Permit, and actions taken is presented in **Appendix A**. The ASCE shall identify incidents of non-compliance, if any. Where a report does not identify any incidents of non-compliance, the ASCE shall contain a certification that the facility is in compliance with the SWPPP and related VPDES General Permit. The report shall be signed by the Mine Manager.

### 3.0 STORM WATER MONITORING PROGRAM

#### 3.1 General Information

VDEQ has issued the Mundy Stone Company a VPDES General Permit for Storm Water Discharge Associated with Industrial Activity (VAG840043) to operate the Rockydale - Flatrock Quarry. A copy of the permit is presented in **Appendix C**.

#### 3.2 Storm Water Drainage/Outfall

Drainage patterns for the facility are indicated on **Figure 2**. Surface water runoff from the facility flows to an unnamed tributary to Holmans Creek, which flows through the permitted mining area from southwest to northeast. A brief description of the facility's outfalls is as follows:

- Storm water runoff from the active quarry pit is pumped in a sediment trap before being discharge via Outfall #001 through a buried pipe situated under Limestone Road. Storm water flows overland by grassy ditch into the southern unnamed tributary to Holmans Creek.
- Storm water runoff from the active lower quarry pit is pumped in a sediment trap before being discharge via Outfall #002 through a buried pipe situated under Limestone Road. Storm water flows overland by grassy ditch into the southern unnamed tributary to Holmans Creek.
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- Storm water runoff from the upper quarry shelf, aggregate stockpiles, processing areas, and the ASTs flow into a sediment trap before being discharges via Outfall #005 into the northern unnamed tributary to Holmans Creek.

#### 3.3 Mining Industry Specific Conditions

The VPDES General Permit requires the Rockydale - Flatrock Quarry to conduct analytical monitoring of their storm water discharge associated with the mining industry. The facility is also required to conduct quarterly visual examinations of their storm water discharges for pollutants to determine the presence of unauthorized discharges.

#### 3.4 Quarterly Visual Monitoring

Each of the five outfalls must be visually checked four times per year at least once during each of the following intervals:

1. January 1 through March 31
2. April 1 through June 30
3. July 1 through September 30
4. October 1 through December 31

Forms for recording the inspections are contained in **Appendix C**. Table 70-4 of the General Permit explains which reports are required to be submitted to the VDEQ. In the case of Quarterly Visual Monitoring, the reports DO NOT need to be submitted unless requested, but all reports must be maintained in the SWPPP.

### 3.5 Storm Water Monitoring Requirements

Rockydale - Flatrock Quarry will conduct effluent monitoring of each of storm water discharge associated with nonmetallic mineral mining. Monitoring must be performed from July 2014 through June 2019 during the following frequencies:

- Outfall #001 – 1/3 Months (Quarterly)
- Outfall #002 – 1/3 Months (Quarterly)
- Outfall #004 – 1/Year (Annually)

Outfalls #003, and #005 are substantially similar to Outfall #004. Therefore, only Outfall #004 is considered the representative outfall and will be the only outfall monitored on an annual basis.

Rockydale - Flatrock Quarry will monitor by laboratory analyses the following parameters with their corresponding limitations:

<b>Limitations for Outfalls #001 and #002</b>			
<b>Effluent Monitoring Parameter</b>	<b>Permit Limitation</b>	<b>DMR Limitation</b>	<b>Units</b>
Flow	No Limits	No Limits	MGD
pH	6.0 Min/9.0 Max	6.5 Min/9.5 Max	SU
Total Suspended Solids (TSS)	60 Mg/l Max 30 Mg/l Avg	60 Mg/l Max 30 Mg/l Avg	Mg/l

<b>Limitations for Outfall #004</b>			
<b>Effluent Monitoring Parameter</b>	<b>Permit Limitation</b>	<b>DMR Limitation</b>	<b>Units</b>
Flow	No Limits	No Limits	MGD
pH	No Limits	No Limits	SU
Total Suspended Solids (TSS)	No Limits	No Limits	Mg/l

For each storm event sampled, the following storm parameters will be recorded and reported:

- Date, exact place, and time of sampling;
- The individual(s) who performed the sampling;
- Duration of storm event (in hours);
- Total precipitation received during storm event;

- Time duration since last measurable storm event (greater than 0.1 inch rainfall); and
- Estimate of total runoff volume (in gallons).

A minimum of one grab sample will be collected from the outfall and must be taken during the first 30 minutes of the discharge. If corrective actions are required to address a deficiency in the handling of storm water runoff, this SWPPP must be updated to indicate the reason for the corrective action, and the action taken.

Part 1.B Special Conditions of the General Permit references specific discharges which are permissible under the General Permit. This section also references activities which are prohibited.

### **3.5.1 Flow Measurement**

The Rockydale - Flatrock Quarry measures flow using a sized container (i.e. 5-gallon bucket) and a timer. The units of measurement must be calculated and reported as million gallons per day (MGD).

### **3.5.2 pH Measurement**

The field measurement of pH will be performed using the method of analysis prescribed in the 21<sup>st</sup> Edition of Standard Methods – 4500-H\*B-2000. The following guidelines must be followed:

- Verify the pH thermistor annually against a certified reference thermometer over a range of temperatures that bracket the expected range of measurement;
- Calibrate the pH meter using three buffers (pH of 4, 7, and 10) at the same temperature on each day of use;
- Maintain a stock of pH buffer solutions within manufacturer expiration date and batteries sufficient to operate the meter available at all times for pH analysis.
- Conduct a successful completed initial demonstration of capability (IDC) of the pH meter that will be used for pH analysis by each analyst that analyzes pH for VDPES monitoring. A copy of the IDC form and instructions are provided in Appendix B. 4 replicates of a secondary source standard (for example testing 4 samples of a different pH 7 buffer than the one used to calibrate the meter). Completed IDC forms shall be kept in Appendix B;
- Analyze the sample within 15 minutes of collection; and
- Clearly document the specific pH sample analysis time, the meter calibration time, and the analyst initials. Sampling information will be kept in **Appendix C**.

### **3.6 Sampling Waiver**

When Rockydale - Flatrock Quarry is unable to collect a sample within a specific period due to adverse climatic conditions, Rockydale - Flatrock Quarry shall collect a substitute sample from a separate qualifying event in the next period and submit this data along with the data for the routine sampling in that period.

### **3.7 Reporting Monitoring Results**

Rockydale - Flatrock Quarry is required to submit effluent monitoring results to the DEQ. One signed Discharge Monitoring Report (DMR) form must be completed and submitted to the DEQ Valley Regional Office located in Harrisonburg, VA. The DMR forms will be submitted to the DEQ no later than the 10<sup>th</sup> day of April, July, October, and January. Copies of the completed DMR forms submitted to the DEQ will be maintained on-site with the Plan in **Appendix C**.

Should analytical results exceed the limitations for pH and/or TSS for Outfalls #001 and #002, the facility may sample the outfall(s) again after investigating, mitigating, and documenting the probable cause. Should this occur, the average and maximum analytical results for TSS must be shown on the DMR along with the number of exceedances. Similarly, the minimum and maximum analytical results for pH must be shown on the DMR along with the number of exceedances.

### **3.8 Reports of Noncompliance**

Rockydale - Flatrock Quarry will report to the DEQ any noncompliance that may adversely affect state waters or may endanger public health.

### **3.9 Non-Storm Water Discharges**

The discharge of process wastewater and commingled storm water is specifically authorized under General Permit VAG810043. The current operations generate process wastewater via the washing of crushed aggregate. The process wastewater is commingled with groundwater/storm water in the pit sump located in the bottom of the active pit. The size of the sump and the volume of water contained therein provide adequate for the quiescence of suspended solids prior to being discharged at Outfall #001.

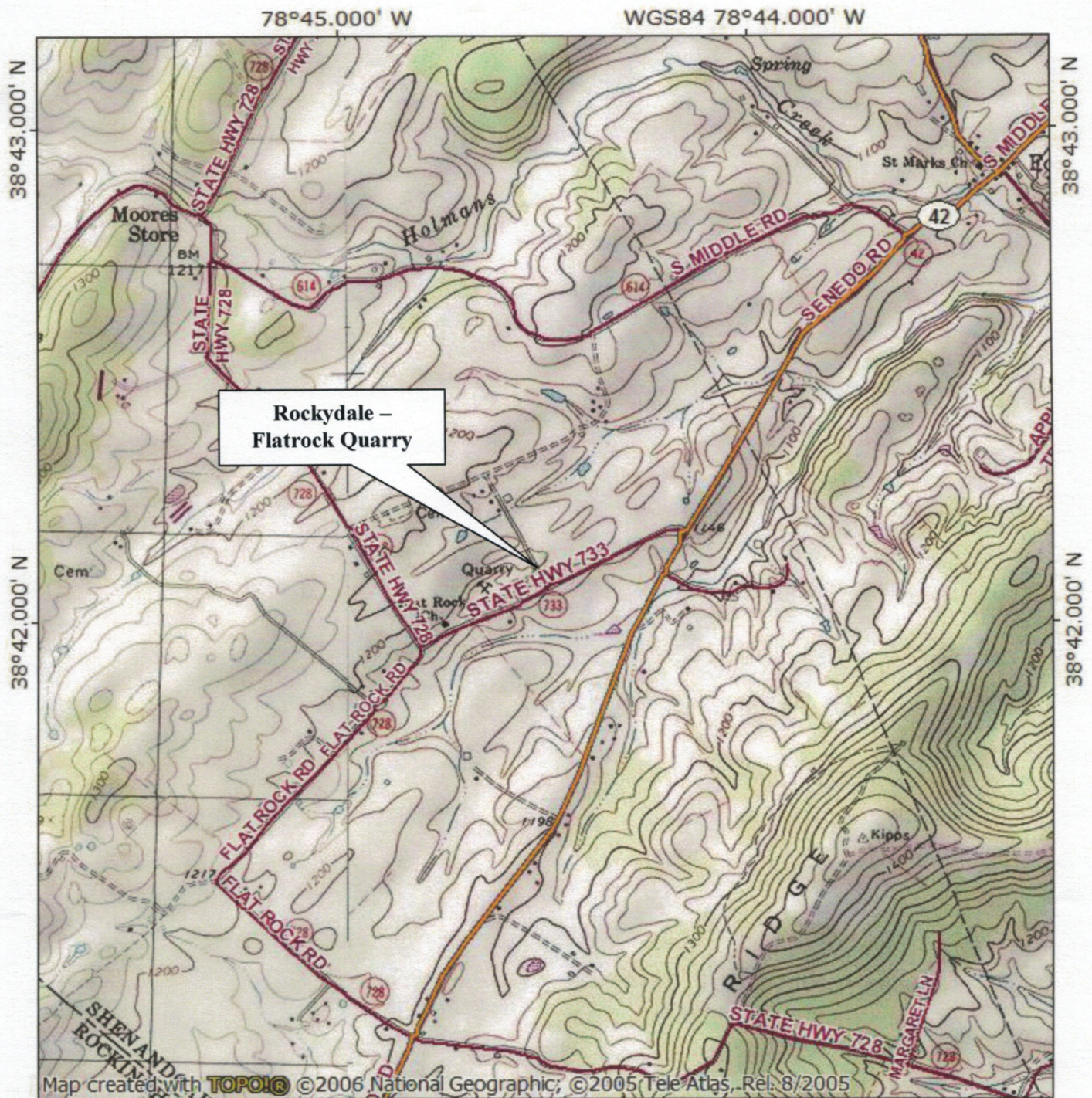
For other non-storm water discharges not authorized by General Permit VAG810043, the Rockydale - Flatrock Quarry performs or subcontracts monitoring of its discharges annually during a dry period of no rainfall. Conditions indicative of a non-storm water discharge such as color, floating or suspended material, a petroleum sheen, foam, etc., suggesting that the source of the standing water was surface or ground water have not been observed during the inspections.

The Rockydale - Flatrock Quarry will continue to perform or subcontract the inspections to ensure compliance with the non-storm water discharge requirement on an annual basis. A “Non-Storm Water Discharge Assessment and Certification” form, included in **Appendix A**, will be completed to document this activity.

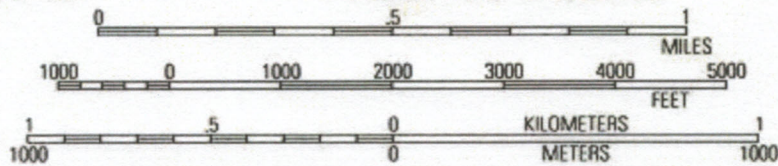
**FIGURES**

**FIGURE 1 – GENERAL LOCATION MAP**

**FIGURE 2 – FACILITY SITE PLAN**



Map created with TOPO! ©2006 National Geographic; ©2005 Tele Atlas, Rel. 8/2005



MN 1  
10 1/2°  
03/31/17

FIGURE 1			
Site Location and Topography Map			
Date: March 2017		WES Project No.: 17-016	
Drawn by: RAW	Checked by: RAW	Reviewed by: RAW	Approved by: RAW
Scale: As Shown		File name: Figure 1 Site Location Map	

**Rockydale – Flatrock Quarry**  
477 Limestone Road  
Quicksburg, Virginia

**Ward Environmental Services**  
10077 Amelia Manor Court  
Mechanicsville, Virginia

Source: USGS Quad, New Market, Virginia, 1987, Photorevised 1994, TOPO! National Geographic Holdings WWW.TOPO.COM



**APPENDIX A**

**ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION  
QUARTERLY HOUSEKEEPING AND FACILITY INSPECTION CHECKLISTS  
NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION**

**ROCKYDALE - FLATROCK QUARRY**  
**ANNUAL SITE COMPLIANCE EVALUATION (VAG840043)**

DATE:

EVALUATORS:

REVIEW OF SWPPP & SWP:

REVIEW OF FACILIT OPERATIONS (TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING):

Industrial materials, residue or trash that may have or could come into contact with stormwater. Leaks or spills that have occurred within the past three years. Off-site tracking of industrial or waste materials or sediment where vehicles enter or exit the site. Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas. Review of training performed, inspections completed, maintenance performed, quarterly visual examinations, and effective operation of BMPs

INSPECTION OF POLLUTANT SOURCES AND STORMWATER OUTFALLS (TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING):

Evidence of, or the potential for, pollutants entering the drainage system  
Evidence of pollutants discharging to surface waters at all facility outfalls, and the condition of and around the outfall

EVALUATION OF BMP EFFECTIVENESS:

ANNUAL OUTFALL EVALUATION FOR UNAUTHORIZED DISCHARGES

SUMMARY:

EVLUATORS SIGNATURES:

I certify under penalty of law that the preceding document and all 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 person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

---

Signature

Print Name

Title

Date

---

Signature

Print Name

Title

Date

**ROCKYDALE - FLATROCK QUARRY**  
**STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**  
**\*QUARTERLY HOUSEKEEPING AND FACILITY INSPECTION CHECKLIST\***

**QUARTER:**

**DATE:**

**AREA INSPECTED:** MATERIAL STORAGE AREAS

**INSPECTOR:**

1. APPEARANCE OF SURROUNDING AREAS:
  
2. CONDITION OF EROSION CONTROLS (IF PRESENT):
  
3. EVIDENCE OF NEW EROSION OR DETERIORATION:
  
4. CHECK CONDITION OF ANY STORM WATER CONVEYANCE STRUCTURES (CULVERTS, PIPES, RIPRAP):

\*LIST ANY SPECIFIC PROBLEMS NOTED DURING THE INSPECTION AND ACTION

**ROCKYDALE - FLATROCK QUARRY**  
**STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**  
**\*QUARTERLY HOUSEKEEPING AND FACILITY INSPECTION CHECKLIST\***

**QUARTER:**

**DATE:**

**AREA INSPECTED:** MAINTENANCE SHOP

**INSPECTOR:**

1. APPEARANCE OF AREA (CLEAN, ORDERLY):
  
2. CHECK FOR ADEQUATE SPACE IN WORK AREAS TO MINIMIZE SPILLS:
  
3. CHECK AREAS WHERE ANY CHEMICALS (INCLUDING FUEL, LUBES, AND OIL) ARE STORED FOR CONTAINER INTEGRITY AND CONDITION OF AREA WHERE STORED (I.E, FLOOR, SHELVES, COUNTERTOP):
  
4. ENSURE WALKWAY IS CLEAR AND THAT MATERIALS ARE READILY ACCESSIBLE:

**\*LIST ANY SPECIFIC PROBLEMS NOTED DURING THE INSPECTION AND ACTION TAKEN TO CORRECT BEFORE NEXT INSPECTION:**

**ROCKYDALE - FLATROCK QUARRY**  
**STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**  
**\*QUARTERLY HOUSEKEEPING AND FACILITY INSPECTION CHECKLIST\***

**QUARTER:**

**DATE:**

**AREA INSPECTED:** ABOVEGROUND STORAGE TANKS

**INSPECTOR:**

1.      CONDITION OF TANK:
  
  
  
  
  
  
  
  
  
  
2.      CONDITION OF TRANSFER PIPING:
  
  
  
  
  
  
  
  
  
  
3.      CONDITION OF CONTAINMENT PAD:
  
  
  
  
  
  
  
  
  
  
4.      INVENTORY O.K. ON SPILL KIT SUPPLIES:

**\*LIST ANY SPECIFIC PROBLEMS NOTED DURING THE INSPECTION AND ACTION TAKEN TO CORRECT BEFORE NEXT INSPECTION:**

**NON-STORM WATER DISCHARGE  
ASSESSMENT AND CERTIFICATION**

Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the Presence of Non- Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation

**CERTIFICATION**

I, \_\_\_\_\_, (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons 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 and imprisonment for knowing violations.

A. Name & Official Title (type or print)	B. Area Code and Telephone No.
C. Signature	D. Date Signed

**ROCKYDALE - FLATROCK QUARRY**  
**STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**  
**ANNUAL STAFF TRAINING/PLAN REVIEW**

DATE:

TRAINER:

ATTENDEES: (SWPPP Team Members; AWWTP Personnel)

SUBJECT: Annual review of the SWPPP to inform AWWTP staff of their responsibilities as well as the goals of the Plan. Training addressed each component of the Plan, including how, why, and when tasks are to be implemented. Session also defined the elements of the SPCC Plan, staff responsibilities, and how to initiate implementation.

TRAINING MATERIALS:

1. SWPPP WRITTEN PROGRAM
2. CHECKLISTS AND FORMS
2. SWPPP TRAINING SESSION RECAP NOTES

**APPENDIX B**

**TRAINING DOCUMENTATION**



**APPENDIX C**

**VPDES GENERAL PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH  
INDUSTRIAL ACTIVITY (VAG840043)**

**DISCHARGE MONITORING REPORT (DMR) FORMS**

**QUARTERLY RAINFALL TRACKING**

**QUARTERLY VISUAL OUTFALL MONITORING FORMS**

DEPARTMENT OF ENVIRONMENTAL QUALITY  
NONMETAL MINING

PERMITTEE NAME AND ADDRESS (INCLUDE FACILITY NAME IF DIFFERENT)  
Rockydale - Flat Rock Quarry  
PO Box 8425  
Roanoke VA 24014

DISCHARGE MONITORING REPORT (DMR)  
VAG840043 001  
PERMIT NUMBER DISCHARGE NUMBER  
MONITORING PERIOD  
YEAR MO DAY TO YEAR MO DAY  
FROM

DEPT. OF ENVIRONMENTAL QUALITY  
Valley Regional Office  
4411 Early Road  
P.O. Box 3000  
Harrisonburg VA 22801  
NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE			
001 FLOW	REPORTED			*****	*****			
	REQUIREMENT	NL	MGD	*****	*****		1/3M	EST
002 pH	REPORTED	*****		*****	*****			
	REQUIREMENT	*****		6.5	*****	9.5	1/3M	GRAB
004 TSS	REPORTED	*****		*****	*****			
	REQUIREMENT	*****		30	*****	60	1/3M	GRAB

DEQ Comments :

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW (M.G.)	TOTAL BOD5 (K.G.)	OPERATOR IN RESPONSIBLE CHARGE		DATE	
				TYPED OR PRINTED NAME	SIGNATURE	YEAR	MO.
<p>I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER THE DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS 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 AND IMPRISONMENT FOR KNOWING VIOLATIONS.</p>				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE	
				TYPED OR PRINTED NAME		SIGNATURE	

PERMITTEE NAME: ADDRESS(INCLUDE FACILITY) LOCATION IF DIFFERENT  
 NAME: Rockydale - Flat Rock Quarry  
 ADDRESS: PO Box 8425 Roanoke VA 24014  
 FACILITY'S PHYSICAL ADDRESS: 477 Limestone Rd Quicksburg VA 22847

DEPARTMENT OF ENVIRONMENTAL QUALITY  
 NONMETAL MINING  
 DISCHARGE MONITORING REPORT(DMR)  
 VAG840043 002  
 PERMIT NUMBER DISCHARGE NUMBER  
 MONITORING PERIOD  
 YEAR MO DAY TO YEAR MO DAY  
 FROM

06/24/2014  
 DEPT. OF ENVIRONMENTAL QUALITY  
 (REGIONAL OFFICE)  
 Valley Regional Office  
 4411 Early Road  
 P.O. Box 3000  
 Harrisonburg VA 22801  
 NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE			
001 FLOW	REPORTED			*****	*****			
	REQUIREMENT	NL	MGD	*****	*****		1/3M	EST
002 pH	REPORTED	*****		*****	*****			
	REQUIREMENT	*****	6.5	*****	*****	9.5	1/3M	GRAB
004 TSS	REPORTED	*****		*****	*****			
	REQUIREMENT	*****	*****	*****	*****	60	1/3M	GRAB

DEQ Comments :

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE		DATE	
				TYPED OR PRINTED NAME	SIGNATURE	YEAR	MO.
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS 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 AND IMPRISONMENT FOR VIOLATIONS.				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		
				TYPED OR PRINTED NAME	SIGNATURE	YEAR	MO.

PERMITTEE NAME: ADDRESS(INCLUDE FACILITY LOCATION IF DIFFERENT)  
 NAME: Rockydale - Flat Rock Quarry  
 ADDRESS: PO Box 8425 Roanoke VA 24014  
 FACILITY'S PHYSICAL ADDRESS: 477 Limestone Rd Quicksburg VA 22847

DEPARTMENT OF ENVIRONMENTAL QUALITY  
 NONMETAL MINING  
 DISCHARGE MONITORING REPORT(DMR)  
 VAG840043 004  
 PERMIT NUMBER DISCHARGE NUMBER  
 MONITORING PERIOD  
 YEAR MO DAY TO YEAR MO DAY

DEPT. OF ENVIRONMENTAL QUALITY  
 (REGIONAL OFFICE)  
 Valley Regional Office  
 4411 Early Road  
 P.O. Box 3000  
 Harrisonburg VA 22801  
 NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

06/24/2014

This is Representative Outfall 004. Submission of DMRs for the Substantially Identical Outfalls is not required.

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION		NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	AVERAGE	MAXIMUM	MINIMUM	AVERAGE			
001 FLOW	REPORTED	*****	*****	*****			
	REQUIREMENT	*****	*****	*****			
002 pH	REPORTED	NL	*****	*****		1/YR	EST
	REQUIREMENT	*****	*****	NL		1/YR	GRAB
004 TSS	REPORTED	*****	*****	*****			
	REQUIREMENT	*****	*****	NL		1/YR	GRAB

DEQ Comments :

PRECEDING MEASURABLE STORM EVENT	HOURS
DAYS	

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE		DATE				
				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	TELEPHONE	YEAR	MO.	DAY
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL, PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS 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 AND IMPRISONMENT FOR EXCESSIVE VIOLATIONS.				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	TELEPHONE	YEAR	MO.	DAY
				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	TELEPHONE	YEAR	MO.	DAY

# QUARTERLY RAINFALL TRACKING

Facility Name:

VPDES Permit #:

Calendar Year:

1<sup>st</sup> Qtr:

2<sup>nd</sup> Qtr:

3<sup>rd</sup> Qtr:

4<sup>th</sup> Qtr:

Quarterly stormwater outfall checks completed?:

(If still pending, note why samples weren't obtained/conditions not met for rain event)

\*Separate inspection/sampling forms must be completed

Note when SPCC AST Inspections are performed (Required at greater than or equal to 1" rain event)

\*Separate inspection/sampling forms must be completed

Date of Rain Event	Rain Event Amount of Precipitation	Stormwater Outfall Sampling/Inspections	SPCC Diesel AST Sampling Inspections
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
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28			

# QUARTERLY VISUAL OUTFALL MONITORING

OUTFALL #

001

Facility Name: Rockydale - Flatrock Quarry

VPDES Permit #: VAG840043

Calendar Year:

1<sup>st</sup> Qtr:2<sup>nd</sup> Qtr:3<sup>rd</sup> Qtr:4<sup>th</sup> Qtr:

Name of Individual conducting Visual Monitoring:

Monitoring Date/Time (use am/pm or 24-hr time):

\*(Must be during daylight hours)

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff?)  Yes  No

Amount on Rainfall: Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):

B. Was there **no qualifying storm event** resulting in runoff during this quarter?  Yes\*

\*If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.

**Note:** For the questions below include probable sources/causes of stormwater pollution observed.

- |            |                                |                                       |                                      |                                      |   |
|------------|--------------------------------|---------------------------------------|--------------------------------------|--------------------------------------|---|
| 1. Color   | <input type="checkbox"/> None  | <input type="checkbox"/> Light Tan    | <input type="checkbox"/> Light Brown | <input type="checkbox"/> Brown       | <input type="checkbox"/> Other (describe) |
| 2. Odor    | <input type="checkbox"/> None  | <input type="checkbox"/> Earthy       | <input type="checkbox"/> Gas/Oil     | <input type="checkbox"/> Chemical    | <input type="checkbox"/> Other (describe) |
| 3. Clarity | <input type="checkbox"/> Clear | <input type="checkbox"/> Almost Clear | <input type="checkbox"/> Cloudy      | <input type="checkbox"/> Very Cloudy | <input type="checkbox"/> Other (describe) |

4. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)

5. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)

6. Were **Suspended Solids** present (i.e. solids that do not settle within 30-60 minutes)?  Yes  No

7. Was any **Foam** present (if so, describe color, amount/extent)?  Yes  No

8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)?  Yes  No

9. Were any other **Indicators** of stormwater pollution observed (if so, describe)?  Yes  No

I certify under penalty of law that the preceding document and all 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 person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Print Name

Title

Date

# QUARTERLY VISUAL OUTFALL MONITORING

OUTFALL #	002
-----------	-----

Facility Name: Rockydale - Flatrock Quarry

VPDES Permit #: VAG840043

Calendar Year:  1<sup>st</sup> Qtr:  2<sup>nd</sup> Qtr:

3<sup>rd</sup> Qtr:  4<sup>th</sup> Qtr:

Name of Individual conducting Visual Monitoring:

Monitoring Date/Time (use am/pm or 24-hr time):  *\*(Must be during daylight hours)*

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff?)  Yes  No

Amount on Rainfall:  Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):

B. Was there **no qualifying storm event** resulting in runoff during this quarter?  **Yes\***  
*\*If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.*

**Note:** For the questions below include probable sources/causes of stormwater pollution observed.

- 8. Color  None  Light Tan  Light Brown  Brown  Other (describe)
- 9. Odor  None  Earthy  Gas/Oil  Chemical  Other (describe)
- 10. Clarity  Clear  Almost Clear  Cloudy  Very Cloudy  Other (describe)

11. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)

12. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)

13. Were **Suspended Solids** present (i.e. solids that do not settle within 30-60 minutes)?  Yes  No

14. Was any **Foam** present (if so, describe color, amount/extent)?  Yes  No

8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)?  Yes  No

9. Were any other **Indicators** of stormwater pollution observed (if so, describe)?  Yes  No

I certify under penalty of law that the preceding document and all 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 person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
 Signature                                      Print Name                                      Title                                      Date

# QUARTERLY VISUAL OUTFALL MONITORING

OUTFALL #

003

Facility Name: Rockydale - Flatrock Quarry

VPDES Permit #: VAG840043

Calendar Year:

1<sup>st</sup> Qtr:2<sup>nd</sup> Qtr:3<sup>rd</sup> Qtr:4<sup>th</sup> Qtr:

Name of Individual conducting Visual Monitoring:

Monitoring Date/Time (use am/pm or 24-hr time):

\*(Must be during daylight hours)

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff?)  Yes  No

Amount on Rainfall: \_\_\_\_\_ Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):  
  

B. Was there **no qualifying storm event** resulting in runoff during this quarter?  Yes\*

\*If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.

**Note:** For the questions below include probable sources/causes of stormwater pollution observed.

15. Color  None  Light Tan  Light Brown  Brown  Other (describe)16. Odor  None  Earthy  Gas/Oil  Chemical  Other (describe)17. Clarity  Clear  Almost Clear  Cloudy  Very Cloudy  Other (describe)18. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)  
  
19. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)  
  
20. Were **Suspended Solids** present (i.e. solids that do not settle within 30-60 minutes)?  Yes  No21. Was any **Foam** present (if so, describe color, amount/extent)?  Yes  No8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)?  Yes  No9. Were any other **Indicators** of stormwater pollution observed (if so, describe)?  Yes  No

I certify under penalty of law that the preceding document and all 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 person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Print Name

Title

Date



# QUARTERLY OUTFALL MONITORING

OUTFALL #	004
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Facility Name:	Rockydale - Flatrock Quarry
Calendar Year:	<input type="text"/> <input type="text"/> 1 <sup>st</sup> Qtr: <input type="text"/> <input type="text"/> 2 <sup>nd</sup> Qtr: <input type="text"/>

VPDES Permit #:	VAG840043
3 <sup>rd</sup> Qtr:	<input type="text"/>
4 <sup>th</sup> Qtr:	<input type="text"/>

Name of Individual conducting Visual Monitoring:	<input type="text"/>
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Monitoring Date/Time (use am/pm or 24-hr time):	<input type="text"/>	*(Must be during daylight hours)
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A. Qualifying Runoff Event met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff?)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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Amount on Rainfall:	<input type="text"/>	Inches
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Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):	<input type="text"/>
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B. Was there <b>no qualifying storm event</b> resulting in runoff during this quarter?	<input type="checkbox"/> Yes*
*If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.	

**Note:** For the questions below include probable sources/causes of stormwater pollution observed.

22. Color	<input type="checkbox"/> None	<input type="checkbox"/> Light Tan	<input type="checkbox"/> Light Brown	<input type="checkbox"/> Brown	<input type="checkbox"/> Other (describe)
23. Odor	<input type="checkbox"/> None	<input type="checkbox"/> Earthy	<input type="checkbox"/> Gas/Oil	<input type="checkbox"/> Chemical	<input type="checkbox"/> Other (describe)
24. Clarity	<input type="checkbox"/> Clear	<input type="checkbox"/> Almost Clear	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Very Cloudy	<input type="checkbox"/> Other (describe)

25. Were <b>Floating Solids</b> present? If so, describe (e.g. bark leaves, grass, trash/litter, other)	<input type="text"/>
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26. Were <b>Settled Solids</b> present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)	<input type="text"/>
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27. Were <b>Suspended Solids</b> present (i.e. solids that do <u>not</u> settle within 30-60 minutes)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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28. Was any <b>Foam</b> present (if so, describe color, amount/extent)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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8. Was an <b>Oil Sheen</b> present (if, so describe consistency, color, amount/ extent)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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9. Were any other <b>Indicators</b> of stormwater pollution observed (if so, describe)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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Signature	Print Name	Title	Date
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# QUARTERLY OUTFALL MONITORING

OUTFALL #	005
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Facility Name:	Rockydale - Flatrock Quarry
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VPDES Permit #:	VAG840043
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Calendar Year:	1 <sup>st</sup> Qtr:	2 <sup>nd</sup> Qtr:
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3 <sup>rd</sup> Qtr:	4 <sup>th</sup> Qtr:
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Name of Individual conducting Visual Monitoring:
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Monitoring Date/Time (use am/pm or 24-hr time):	*(Must be during daylight hours)
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A. Qualifying Runoff Event met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff?)	Yes	No
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Amount on Rainfall:	Inches
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Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):
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B. Was there <b>no qualifying storm event</b> resulting in runoff during this quarter?	Yes*
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*\*If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.*

**Note:** For the questions below include probable sources/causes of stormwater pollution observed.

29. Color	None	Light Tan	Light Brown	Brown	Other (describe)
30. Odor	None	Earthy	Gas/Oil	Chemical	Other (describe)
31. Clarity	Clear	Almost Clear	Cloudy	Very Cloudy	Other (describe)

32. Were <b>Floating Solids</b> present? If so, describe (e.g. bark leaves, grass, trash/litter, other)
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33. Were <b>Settled Solids</b> present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)
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34. Were <b>Suspended Solids</b> present (i.e. solids that do <u>not</u> settle within 30-60 minutes)?	Yes	No
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35. Was any <b>Foam</b> present (if so, describe color, amount/extent)?	Yes	No
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8. Was an <b>Oil Sheen</b> present (if, so describe consistency, color, amount/ extent)?	Yes	No
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9. Were any other <b>Indicators</b> of stormwater pollution observed (if so, describe)?	Yes	No
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I certify under penalty of law that the preceding document and all 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 person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Print Name

Title

Date

# QUARTERLY OUTFALL MONITORING

OUTFALL # **006**

Facility Name: Rockydale - Flatrock Quarry

VPDES Permit #: VAG840043

Calendar Year: \_\_\_\_\_

1<sup>st</sup> Qtr: \_\_\_\_\_

2<sup>nd</sup> Qtr: \_\_\_\_\_

3<sup>rd</sup> Qtr: \_\_\_\_\_

4<sup>th</sup> Qtr: \_\_\_\_\_

Name of Individual conducting Visual Monitoring: \_\_\_\_\_

Monitoring Date/Time (use am/pm or 24-hr time): \_\_\_\_\_

\*(Must be during daylight hours)

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff?)  Yes  No

Amount on Rainfall: \_\_\_\_\_ Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):  
 \_\_\_\_\_  
 \_\_\_\_\_

B. Was there **no qualifying storm event** resulting in runoff during this quarter?  Yes\*  
 \*If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.

**Note:** For the questions below include probable sources/causes of stormwater pollution observed.

- |             |                                |                                       |                                      |                                      |   |
|-------------|--------------------------------|---------------------------------------|--------------------------------------|--------------------------------------|---|
| 29. Color   | <input type="checkbox"/> None  | <input type="checkbox"/> Light Tan    | <input type="checkbox"/> Light Brown | <input type="checkbox"/> Brown       | <input type="checkbox"/> Other (describe) |
| 30. Odor    | <input type="checkbox"/> None  | <input type="checkbox"/> Earthy       | <input type="checkbox"/> Gas/Oil     | <input type="checkbox"/> Chemical    | <input type="checkbox"/> Other (describe) |
| 31. Clarity | <input type="checkbox"/> Clear | <input type="checkbox"/> Almost Clear | <input type="checkbox"/> Cloudy      | <input type="checkbox"/> Very Cloudy | <input type="checkbox"/> Other (describe) |

32. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)  
 \_\_\_\_\_  
 \_\_\_\_\_

33. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)  
 \_\_\_\_\_  
 \_\_\_\_\_

34. Were **Suspended Solids** present (i.e. solids that do not settle within 30-60 minutes)?  Yes  No

35. Was any **Foam** present (if so, describe color, amount/extent)?  Yes  No

8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)?  Yes  No

9. Were any other **Indicators** of stormwater pollution observed (if so, describe)?  Yes  No

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Signature

Print Name

Title

Date