TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

July 2, 2001

Mr. David Little
Martin Marietta Materials Southwest, Ltd.
11467 Huebner Road, #300
San Antonio, Texas 78230

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Martin Marietta Materials New Braunfels Quarry; Located on north side of Wald Road, approximately 1.5 miles north of IH-35; New Braunfels, Texas
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer
Edwards Aquifer Protection Program File No. 1691.00

Dear Mr. Little:

The Texas Natural Resource Conservation Commission (TNRCC) has completed its review of the WPAP application for the referenced project submitted to the San Antonio Regional Office by Cara Tackett of Pape-Dawson Engineers, Inc. on behalf of Martin Marietta Materials Southwest, Ltd. (MMM) on May 16, 2001. Final review of the WPAP submittal was completed after additional material was received on June 21, 2001. As presented to the TNRCC, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed no later than 20 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

BACKGROUND

The subject site is 612 acres located within 991.92 acres owned by Chemical Lime Company. Portions of this property have been mined since 1908. Chemical Lime Company acquired the property in 1998.

PROJECT DESCRIPTION

The proposed industrial project will have an area of approximately 612 acres. As presented, the site is an existing quarry that has been operating since the 1940's, currently operated by Chemical Lime Corporation.

The mining operation will be subcontracted to MMM, which has developed a 30 year mine plan for the site. A processing and finishing plant for crushing rock, and a railroad spur will be constructed. A water storage pond with an impermeable liner will be constructed, and a trailer will also be placed on-site for use by MMM employees. The impervious cover will be 0.77 acres (0.001 percent). According to the Comal County Office of Environmental Health, License to Operate a Private Sewage Facility (License #75361), the site is approved for less than 500 gallons of wastewater per day.

PERMANENT POLLUTION ABATEMENT MEASURES

The subject site is an existing quarry that has been in operation since the 1940's. The proposed regulated activity is the construction of a rock crushing facility. The construction will involve the addition of 0.77 acres of impervious cover (0.001%). Permanent BMPs are not required per 30 TAC §213.5(b)(A)(4)(ii)(III) because the impervious cover is less than 20%. However, as added measures of protection, two vegetated filter strips will be installed downgradient of the processed rock material stockpiles. The remainder of stormwater runoff from the finishing plant will be directed to an on-site water storage and recycle pond and will not be discharged from the site.

GEOLOGY

According to the geologic assessment included with the application, the existing quarry is a sensitive feature, and a fault zone is a possibly sensitive feature. The San Antonio Regional Office did not conduct a site investigation.

SPECIAL CONDITIONS

If the impervious cover ever increases above 20 percent or the land use changes, the exemption for the whole site may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.

STANDARD CONDITIONS

1. Pursuant to §26.136 of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. Within 60 days of receiving written approval of an Edwards Aquifer protection plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TNRCC-0625) that you may use to deed record the approved WPAP is enclosed.

3. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.

4. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

5. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and file number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

6. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. _____If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TNRCC may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

7. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

<u>During Construction:</u>

8. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

9. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.

10. No wells exist on the site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.

11. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

12. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

13. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

14. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TNRCC-10263) is enclosed.

16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

17. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,

Bobby D. Caldwell

for Jeffrey A. Saitas, P.E.
Executive Director
Texas Natural Resource Conservation Commission

JAS/JKM/eg

Enclosure: Deed Recordation Affidavit, Form TNRCC-0625
Change in Responsibility for Maintenance on Permanent BMPs-Form TNRCC-10263

cc: Ms. Cara Tackett, Pape-Dawson Engineers, inc.
Mr. Harry Bennett, City of New Braunfels
Mr. John Bohuslav, TXDOT San Antonio District
Mr. Tom Hornseth, Comal County
Mr. Greg Ellis, Edwards Aquifer Authority
TNRCC Field Operations, Austin

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS

Water Pollution Abatement Plan

May, 2001

PAPE-DAWSON ENGINEERS, INC.

May 16, 2001

Mr. Richard Garcia
Texas Natural Resource Conservation Commission
Region 13
14250 Judson Road
San Antonio, Texas 78233-4480

Re: Martin Marietta New Braunfels Quarry Operations
Water Pollution Abatement Plan

Dear Mr. Garcia:

Please find attached one (1) original and three (3) copies of the Martin Marietta Comal County Quarry Water Pollution Abatement Plan. This Water Pollution Abatement Plan has been prepared to be consistent with the Texas Natural Resource Conservation Commission (30 TAC 213) and current policies for development over the Edwards Aquifer Recharge Zone.

This Water Pollution Abatement Plan applies to an approximate 612-acre site identified as the limits of the project. Please review the plan information for the items it is intended to address, and, if acceptable, provide a written approval of the plan in order that construction may begin at the earliest opportunity.

Appropriate review fees ($5,000) and fee application are included. If you have any questions regarding this information, please call our office.

Very truly yours,
Pape-Dawson Engineers, Inc.

Ruben Cervantes, P.E.
Vice President

STATE OF TEXAS
RUBEN CERVANTES
58464
LICENSED
PROFESSIONAL ENGINEER

Cara C. Tackett
Project Manager

Attachments

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PAPE-DAWSON ENGINEERS, INC.

555 East Ramsey | San Antonio, Texas 78216 | Phone. 210.375.9000 | Fax: 210.375.9010 | info@pape-dawson.com

EXECUTIVE SUMMARY

The proposed activities addressed by this WPAP are for an approximate 612-acre tract identified as the project limits. The site is an existing quarry where Martin Marietta Materials, Southwest (MMM) will be taking over the mining operations for the site. In addition to the mining activities, MMM will be constructing a processing and finishing plant for crushing rock and producing various rock products.

PROJECT DESCRIPTION

The project site is an existing mining facility previously operated by Chemical Lime Corporation (ChemLime). The mining operations have been ongoing by various operators since the 1940's. Martin Marietta Materials Southwest, Ltd. (MMM) have recently signed a lease agreement with ChemLime to conduct the mining and rock processing operations at the site. MMM will mine limestone for their process to be sold as various sized rock products. In addition, they will continue to supply ChemLime with the material necessary to produce their products. MMM currently has developed a thirty-year mine plan for the site.

The regulated activities covered by this application include the construction of a rock processing and finishing plant, the installation of a trailer on the site for use by MMM employees, the construction of a water storage pond including an impermeable lining, and the construction of a railroad spur for loading processed rock materials for transport offsite. This application refers to the "site" as the area controlled and under the responsibility of MMM. The ongoing operations by ChemLime, including the existing processing plant, their maintenance shop, and other operations are not included as part of this application. In addition, a second operator currently has a crusher and processing site within the limits of the MMM lease area adjacent to where the finishing plant will be constructed. This operation will remain in place and will continue to be run by the current operator. Because this operation is adjacent to the MMM finishing plant, stormwater runoff from this facility will be co-mingled with the runoff from the finishing plant stockpile and will also be treated by the permanent BMPs installed as part of this project.

The site is located within the extraterritorial jurisdiction of the City of New Braunfels in Comal County, Texas. Although there is no permanent population, the typical daily population of MMM employees is estimated to be thirteen (13) persons per day. Approximately 260 gallons per day (peak flow) of domestic wastewater is anticipated to be generated by this project. It will be disposed of by an existing, on-site sewage facility. Potable water will be supplied by bottled water brought in to the site and located in the MMM site trailer.

One water storage pond will be constructed on-site in an existing low area from previous mining operations. This pond will be lined with an impervious liner of either a minimum of 1-foot of clay or a synthetic liner. Water used to wash rock products will be pumped to the

recycle water storage pond. After fines contained in the wash water settle out in the pond, the clean water will be pumped back and recycled to wash additional rock products. This process is a closed circuit system. New water is only added to make up losses. An Edwards Aquifer well will be drilled and completed on site and will be used to supplement the water in the storage pond.

Numerous measures will be incorporated into the mining process to provide for the control and suppression of dust. Water is used in the crushing process to help control dust. It is also used during the sorting and sifting (gradation) process of producing the various rock products at the finishing plant which helps to further reduce dust. Dust generating areas such as haul roads will be sprinkled with recycled water from the water storage pond on an as needed basis to help control fugitive dust.

Equipment used on-site will include front-end loaders, water trucks, motor graders, haul trucks, rock drills, and bulldozers. Regularly scheduled equipment maintenance will be conducted off-site at the existing ChemLime maintenance shop. An existing aboveground diesel storage tank operated by ChemLime is located adjacent to the ChemLime maintenance shop. MMM equipment will be refueled at this tank. Quarry equipment such as crushers, conveyor systems, pumps, etc. may have to be repaired at their location within the quarry area. In some circumstances, some equipment may be replaced with a new or replacement part while the broken unit is repaired in the maintenance building.

Approximately 0.001% of the site will consist of impervious cover, which includes the rooftop for the site trailer, concrete footings for the finishing plant, and a railroad spur extension used for material loading and transport offsite.

This construction will involve the addition of 0.77 acres of impervious cover or 0.001%. Permanent best management practices (BMPs) are not required (per the 30 TAC §213.5(b)(A)(4)(ii)(III)) because the impervious cover is less than 20%. However, as added measures of protection, permanent BMPs including capture and recycling of stormwater and vegetative filter strips will be utilized to further minimize the discharge of pollutants.

On-site stormwater will be managed in three ways: 1) captured in the open mining areas and allowed to evaporate; 2) diverted to the on-site storage pond for use as process water; or 3) discharged on the south side of the site through vegetative filter strips to the existing natural lows. Two vegetative filter strips will be constructed downgradient of the processed rock stockpiles to provide treatment of stormwater runoff from the finishing plant and stockpiles prior to being discharged from the site. Minimal TSS should be associated with this runoff because it originates from a small amount of impervious cover and the stockpiles of rock that have been washed as part of the finishing plant and processing operations. Each vegetative filter strip will have berms constructed on the downstream sides. These berms will be constructed of a permeable material and will help maintain water flow across the vegetative

filter strips. In addition, water retained behind the berms will allow for some settling of TSS or will filter through the berm and receive additional treatment.

GEOLOGY

A total of one (1) geologic feature was identified within the limits of this project during the site geologic assessment. This feature is the manmade quarry pit. If potential geologic features are encountered during construction in areas outside the rock mining operations, construction activity in the vicinity of the feature will cease until TNRCC approval is obtained.

POLLUTION ABATEMENT

During Construction

The methodology for pollution prevention of on-site or up-gradient stormwater during construction will include the following:

1. Silt fencing located downgradient of the limits of construction of the railroad spur will be used for temporary erosion and sedimentation control during construction.

2. A construction staging area will be put in place for material stockpiles, machinery storage, and machinery maintenance.

3. A concrete truck washout pit will be put in place to prevent contamination of stormwater around the site.

4. The existing low that will be converted to the permanent water storage pond will be utilized as a temporary sediment trap during construction of the finishing plant.

After Construction

1. Silt fencing where appropriate will be maintained until the construction of the railroad spur, the finishing plant, and the vegetative filter strips are completed and adequate vegetation is established to minimize runoff.

2. Permanent BMPs are not required for the site per 30 TAC §213 due to the low impervious cover. However, some stormwater runoff will be treated. Runoff from the processing and finishing plant operations will either be diverted to the water storage pond where fines will be allowed to settle prior to the water being recycled in the rock processing operations or will be discharged to one of two vegetative filter strips constructed downgradient of the product stockpiles. Stormwater within the mining areas will be contained with the mine.

GENERAL INFORMATION FORM
FOR REGULATED ACTIVITIES ON THE
EDWARDS AQUIFER RECHARGE AND TRANSITION ZONES
AND RELATING TO 30 TAC §213.4(b) & §213.5(b)(2)(A), (B)
EFFECTIVE JUNE 1, 1999

PROJECT NAME: ***Martin Marietta New Braunfels Quarry Operations***

COUNTY: ***Comal*** STREAM BASIN: ***Dry Comal Creek***

EDWARDS AQUIFER: √ RECHARGE ZONE
__ TRANSITION ZONE

PLAN TYPE: √ WPAP __ AST __ EXCEPTION
__ SCS __ UST __ MODIFICATION

APPLICANT INFORMATION

1. Applicant:

Contact Person:	***David Little***
Entity:	***Martin Marietta Materials Southwest, Ltd.***
Mailing Address:	***11467 Huebner Road, Suite 300***
City, State:	***San Antonio, Texas*** Zip: ***78230***
Telephone:	***(210) 208-4566*** FAX: ***(210) 696-5412***

2. Agent/Representative (If any):

Contact Person:	***Cara C. Tackett***
Entity:	***Pape-Dawson Engineers, Inc.***
Mailing Address:	***555 E. Ramsey***
City, State:	***San Antonio, Texas*** Zip: ***78216***
Telephone:	***(210) 375-9000*** FAX: ***(210) 375-9020***

PROJECT LOCATION

3. Site Address: ***No address assigned at this time***
Street: ***Wald Road, approximately 1.5 miles north of IH-35***
City: ***New Braunfels, Texas*** Zip: ***78132***

4. __ This project is inside the city limits of _____.
√ This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of ***New Braunfels***.
__ This project is not located within any city's limits or ETJ.

5. The location of the project site is described below. The description provides sufficient detail and clarity so that the TNRCC's Regional staff can easily locate the project and site boundaries for a field investigation.

From TNRCC's Regional office, head south on Judson Road approximately 1.5 miles to Interstate Highway 35. Go north on I.H. 35 approximately 13.5 miles to Solms Road. Proceed north on Solms Road approximately 1mile to Wald Road. The site is located on the north side of Wald Road. The site is located on the west side of I.H. 35.

6. √ **ATTACHMENT A - ROAD MAP.** A road map showing directions to and the location of the project site is attached ~~at the end of this form~~ ***behind this sheet.***

7. √ **ATTACHMENT B - USGS / EDWARDS RECHARGE ZONE MAP.** A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached behind this sheet. The map(s) should clearly show:

   √ Project site.
   √ USGS Quadrangle Name(s).
   √ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
   √ Drainage path from the project to the boundary of the Recharge Zone.

8. √ Sufficient survey staking is provided on the project to allow TNRCC regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment. **The TNRCC must be able to inspect the project site or the application will be returned.**

9. √ **ATTACHMENT C - PROJECT DESCRIPTION.** Attached at the end of this form is a detailed narrative description of the proposed project.

   The project site is an existing mining facility previously operated by Chemical Lime Corporation (ChemLime). The mining operations have been ongoing by various operators since the 1940's. Martin Marietta Materials Southwest, Ltd. (MMM) have recently signed a lease agreement with ChemLime to conduct the mining and rock processing operations at the site. MMM will mine limestone for their process to be sold as various sized rock products. In addition, they will continue to supply ChemLime with the material necessary to produce their products. MMM currently has developed a thirty-year mine plan for the site.

   The regulated activities covered by this application include the construction of a rock processing and finishing plant, the installation of a trailer on the site for use by MMM employees, the construction of a water storage pond including an impermeable lining, and the construction of a railroad spur for loading processed rock materials for transport offsite. This application refers to the "site" as the area controlled and under the responsibility of MMM. The ongoing operations by ChemLime, including the existing processing plant, their maintenance shop, and other operations are not included as part of this application. In addition, a second operator currently has a crusher and processing site within the limits of the MMM lease area adjacent to where the finishing plant will be constructed. This operation will remain in place and will continue to be run by the current operator. Because this operation is adjacent to the MMM finishing plant, stormwater runoff from this facility will be co-mingled with the runoff from the finishing plant stockpile and will

MARTIN MARRIETTA - COMAL COUNTY QUARRY
WATER POLLUTION ABATEMENT PLAN

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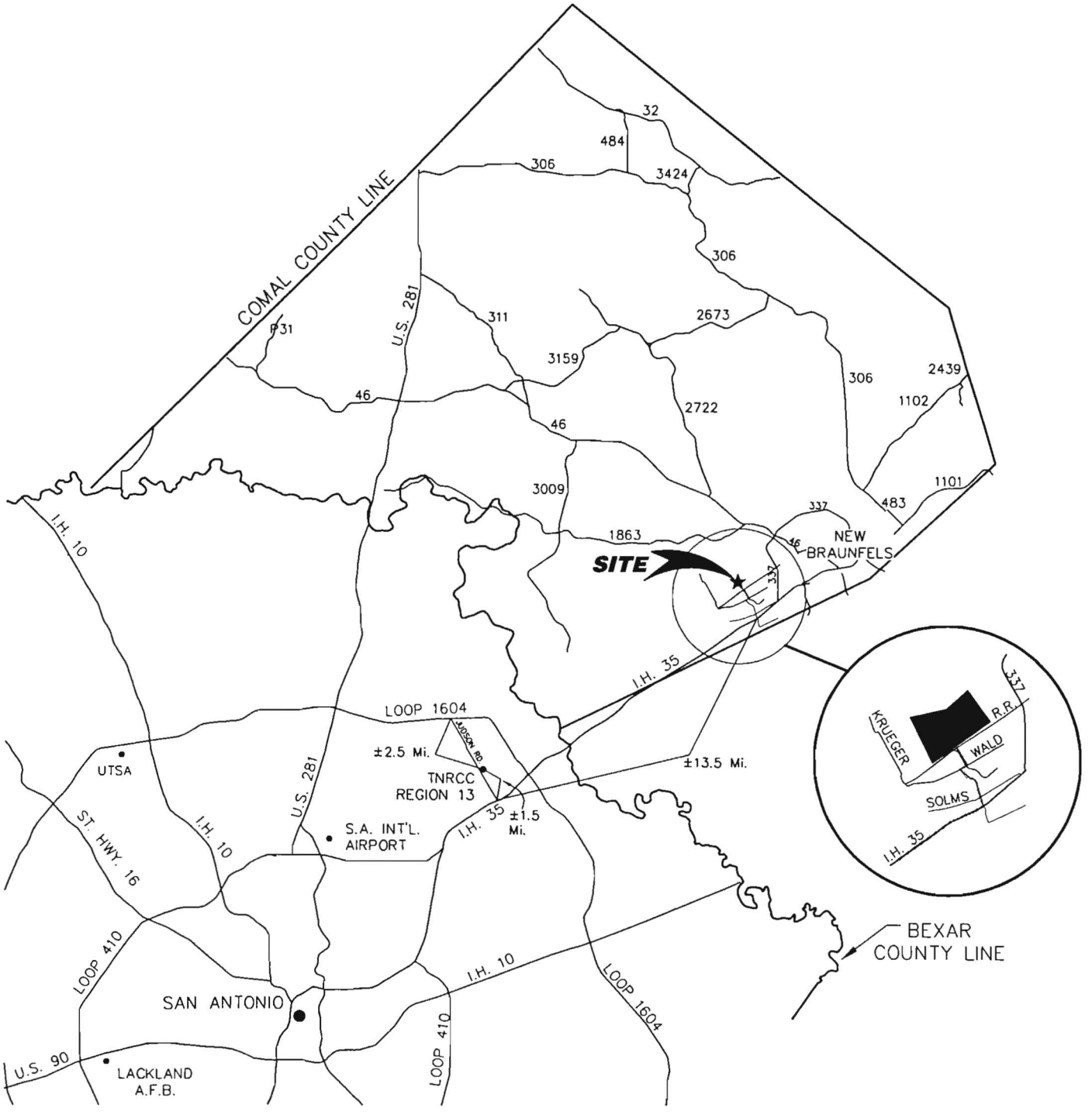
NOT TO SCALE



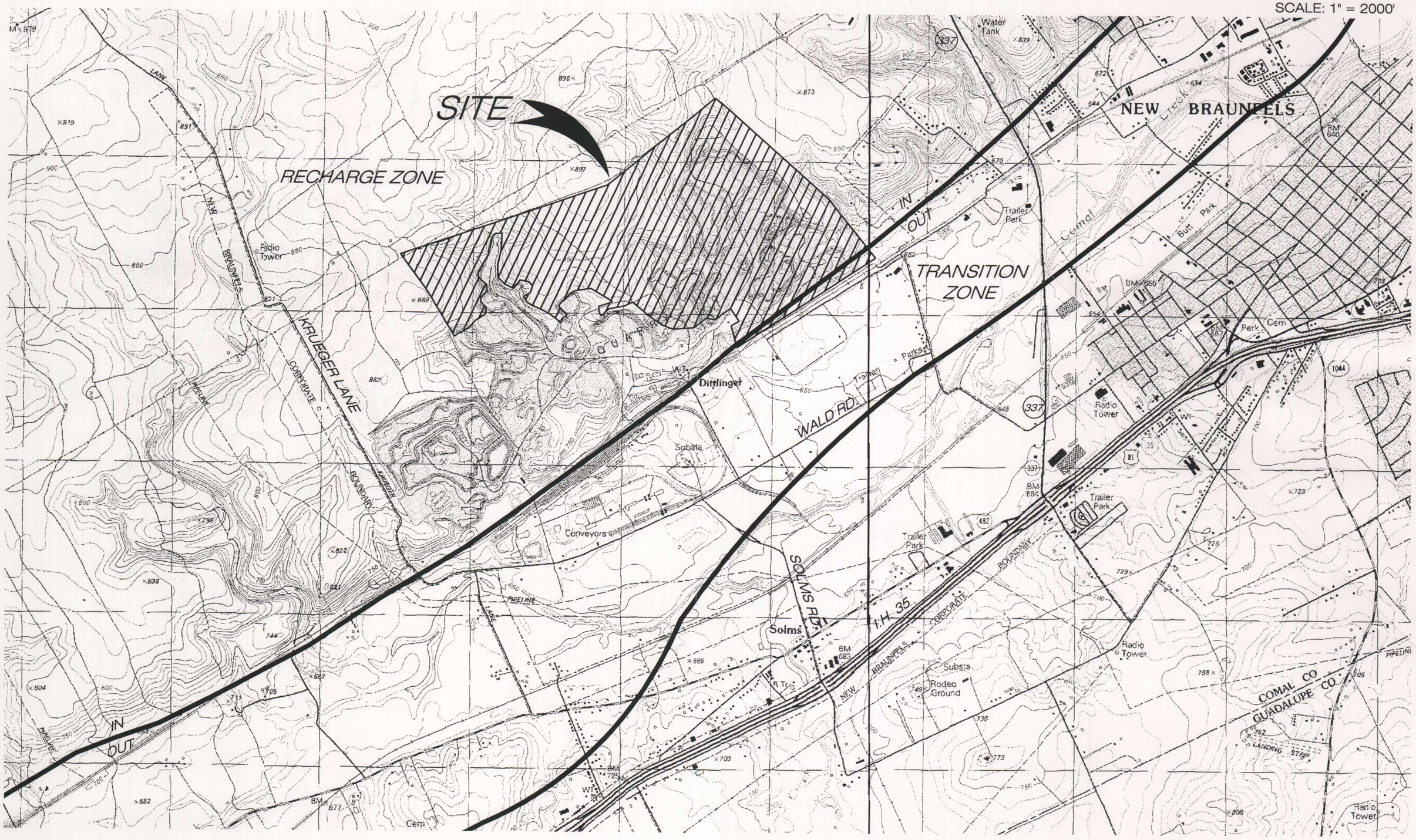
Pape-Dawson Engineers, Inc.

ATTACHMENT A
ROAD MAP

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS
WATER POLLUTION ABATEMENT PLAN

N

SCALE: 1" = 2000'



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NEW BRAUNFELS WEST TX, QUADRANGLE
→ → → DRAINAGE FLOW
Pape-Dawson Engineers, Inc.

USGS/EDWARDS RECHARGE ZONE MAP

ATTACHMENT B

also be treated by the permanent BMPs installed as part of this project.

The site is located within the extraterritorial jurisdiction of the City of New Braunfels in Comal County, Texas. Although there is no permanent population, the typical daily population of MMM employees is estimated to be thirteen (13) persons per day. Approximately 260 gallons per day (peak flow) of domestic wastewater is anticipated to be generated by this project. It will be disposed of by an existing, on-site sewage facility. Potable water will be supplied by bottled water brought in to the site and located in the MMM site trailer.

One water storage pond will be constructed on-site in an existing low area from previous mining operations. This pond will be lined with an impervious liner of either a minimum of 1-foot of clay or a synthetic liner. Water used to wash rock products will be pumped to the recycle water storage pond. After fines contained in the wash water settle out in the pond, the clean water will be pumped back and recycled to wash additional rock products. This process is a closed circuit system. New water is only added to make up losses. An Edwards Aquifer well will be drilled and completed on site and will be used to supplement the water in the storage pond.

Numerous measures will be incorporated into the mining process to provide for the control and suppression of dust. Water is used in the crushing process to help control dust. It is also used during the sorting and sifting (gradation) process of producing the various rock products at the finishing plant which helps to further reduce dust. Dust generating areas such as haul roads will be sprinkled with recycled water from the water storage pond on an as needed basis to help control fugitive dust.

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On-site stormwater will be managed in three ways: 1) captured in the open mining areas and allowed to evaporate; 2) diverted to the on-site storage pond for use as process water; or 3) discharged on the south side of the site through vegetative filter strips to the existing natural lows. Two vegetative filter strips will be constructed downgradient of the processed rock stockpiles to provide treatment of stormwater runoff from the finishing plant and stockpiles prior to being discharged from the site. Minimal TSS should be associated with this runoff because it originates from a small amount of impervious cover and the stockpiles of rock that have been washed as part of the finishing plant and processing operations. Each vegetative filter strip will have berms constructed on the downstream sides. These berms will be constructed of a permeable material and will help maintain water flow across the vegetative filter strips. In addition, water retained behind the berms will allow for some settling of TSS or will filter through the berm and receive additional treatment.

10. Existing project site conditions are noted below:

___	Existing commercial site
___	Existing industrial site
___	Existing residential site
___	Existing paved and/or unpaved roads
___	Undeveloped (Cleared)
√	Undeveloped (Undisturbed/Uncleared)
√	Other: ***Quarry***

PROHIBITED ACTIVITIES

11. √ I am aware that the following activities are prohibited on the **Recharge Zone** and are not proposed for this project:

(1) waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
(2) new feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
(3) land disposal of Class I wastes, as defined in 30 TAC §335.1;
(4) the use of sewage holding tanks as parts of organized collection systems; and
(5) new municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

12. √ I am aware that the following activities are prohibited on the **Transition Zone** and are not proposed for this project:

(1) waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
(2) land disposal of Class I wastes, as defined in 30 TAC §335.1; and
(3) new municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

ADMINISTRATIVE INFORMATION

13. The fee for the plan(s) is based on:

- √ For a Water Pollution Abatement Plan and Modifications, the total acreage of the site where regulated activities will occur.
- ___ For an Organized Sewage Collection System Plans and Modifications, the total linear footage of all collection system lines.
- ___ For a UST Facility Plan or an AST Facility Plan, the total number of tanks or piping systems.
- ___ A Contributing Zone Plan.
- ___ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
- ___ A request for an extension to a previously approved plan.

14. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TNRCC is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

- ___ TNRCC cashier
- ___ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- √ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

15. √ Submit one (1) original and three (3) copies of the completed application to the appropriate regional office for distribution by the TNRCC to the local municipality or county, groundwater conservation districts, and the TNRCC's Central Office.

16. √ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the executive director.
- ___ No person shall commence any regulated activity until the Contributing Zone Plan for the activity has been filed with the executive director.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **GENERAL INFORMATION FORM** is hereby submitted for TNRCC review. The application was prepared by:

Pape-Dawson Engineers, Inc.
By: Cara C. Tackett, E.I.T.
Print Name of ~~Applicant/Owner~~/Agent

Cara C. Tackett
Signature of ~~Applicant/Owner~~/Agent

05/16/01
Date

GEOLOGIC ASSESSMENT
FOR REGULATED ACTIVITIES
ON THE EDWARDS AQUIFER RECHARGE/TRANSITION ZONES
AND RELATING TO 30 TAC §213.5(b)(3), EFFECTIVE JUNE 1, 1999

PROJECT NAME: ***Martin Marietta New Braunfels Quarry Operations***

TYPE OF PROJECT: √ WPAP ____AST ___ SCS ___ UST

LOCATION OF PROJECT: √ Recharge Zone ___Transition Zone ___Contributing Zone within the Transition Zone

PROJECT INFORMATION

1. √ Geologic or manmade features are described and evaluated using the attached **GEOLOGIC ASSESSMENT TABLE**.

2. Soil cover on the project site is ***0-2*** feet thick. In general, the soil present appears to have the ability to:

   √ transmit fluid flow to the subsurface.
   ___ impede fluid flow to the subsurface.

3. √ **SOILS ATTACHMENT**. A narrative description of soil units and a soil profile, including thickness and hydrologic characteristics are attached at the end of this form.

4. √ A **STRATIGRAPHIC COLUMN** is attached at the end of this form that shows formations, members, and thicknesses. The outcropping unit should be at the top of the stratigraphic column.

5. √ A **NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY** is attached at the end of this form. The description must include a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure, and karst characteristics of the site.

6. √ Appropriate **SITE GEOLOGIC MAP(S)** are attached:

   The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1" : 400'

   Applicant's Site Plan Scale 1" = ***100***'
   Site Geologic Map Scale 1" = ***100***'

7. Method of collecting positional data:
   ___ Global Positioning System (GPS) technology.
   √ Other method(s).

8. √ The project site is shown and labeled on the Site Geologic Map.

9. √ Surface geologic units are shown and labeled on the Site Geologic Map.

10. √ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
___ Geologic or manmade features were not discovered on the project site during the field investigation.

11. √ The Recharge Zone boundary is shown and labeled, if appropriate.

12. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.):

___ There are ___ wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
___ The wells are not in use and have been properly abandoned.
___ The wells are not in use and will be properly abandoned.
___ The wells are in use and comply with 16 TAC §76.
√ There are no wells or test holes of any kind known to exist on the project site.

ADMINISTRATIVE INFORMATION

13. √ One (1) original and three (3) copies of the completed assessment has been provided.

Date(s) Geologic Assessment was performed: ***December 1, 2000***
Date(s)

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC 213.

Philip C. Pearce, P.G.
Print Name of Geologist

(210) 375-9000
Telephone

(210) 375-9020
Fax

Signature of Geologist

5-16-01
Date

Representing: ***Pape-Dawson Engineers, Inc.***
(Name of Company)

The following attachments are included and complete this submittal.

**** Attachment A - Geologic Assessment Table and Additional Comments***
**** Attachment B - Soil Profile/Narrative of Soil Units***
**** Attachment C - Stratigraphic Column***
**** Attachment D - Narrative of Site Specific Geology and Site Geologic Map***
**** Attachment E - References***

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS

FEATURE ID			FEATURE CHARACTERISTICS									
1A	1B	1C	2	3			4			5	6	7
LOCATION	TYPE (1)	POINTS	GEOLOGIC FORMATION	VERTICAL FEATURE (FEET)			HORIZONTAL FEATURE (FEET)			LENGTH & WIDTH (FEET)	TREND (C, CD, FR, FZ, SC, SH)	DENSITY
				C, CD, SC, SH			C, SC			FZ, FR, VR, Z		
				X	Y	Z	X	Y	Z			
S-1	MM	35	Kep									
S-2	FZ	15	Kep/Kpg							354		

PHYSICAL SETTING

10 RELATIVE INFILTRATION RATE	11 SUB-TOTAL	12 SENSITIVITY	13 DRAINAGE AREA (ACRES)	14 TOPOGRAPHY (2)	15 SUB-TOTAL	16 POTENTIAL RECHARGE	17 COMMENTS
			<1 (0), 1-10 (5), 10-50 (10), >50 (15)	WALL (0), FOOTHILL (5), HILLSIDE (10), FLOODPLAIN (15), STREAM BED (20)		NONE, MODERATE, HIGH	

(1) C = 35, CD = 10, FR = 0, FZ = 15, MM = 35
SC = 10, SH = 20, VR = 0, ZONE = 35

…n's Instructions to Geologists. The …onditions observed in the field.

(2) WALL = Vertical/near veritical wall above 100
FLOODPLAIN = 100-yr floodplain
STREAM BED = Ordinary High Water Mark

Attachment A

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS

FEATURE ID			FEATURE CHARACTERISTICS																					PHYSICAL SETTING																	
1A	1B	1C	2	3			4			5	6		7			8			9				10			11	12			13				14					15	16			17
LOCATION	TYPE (1)	POINTS	GEOLOGIC FORMATION	VERTICAL FEATURE (FEET)			HORIZONTAL FEATURE (FEET)			LENGTH & WIDTH (FEET)	TREND (C, CD, FR, FZ, SC, SH)		DENSITY (FR, VF)			APERTURE (FR, VR)			INFILLING (CD, FR, FZ, SC, SH, VR)				RELATIVE INFILTRATION RATE			SUB-TOTAL	SENSITIVITY			DRAINAGE AREA (ACRES)				TOPOGRAPHY (2)					SUB-TOTAL	POTENTIAL RECHARGE			COM-MENTS
				C, CD, SC, SH			C, SC			FZ, FR, VR, Z		10	0	5	10	0	5	10	0	5	10	15	0	10	30					0	5	10	15	0	5	10	15	20					
				X	Y	Z	X	Y	Z		DIRECTION	DOMINANT	LOW	MODERATE	HIGH	SMALL	MEDIUM	LARGE	CEMENTED	FINE	COARSE	NONE	NONE/LOW	MODERATE	HIGH		NOT	POSSIBLE	SENSITIVE	<1	<10	<50	>50	WALL	HILLTOP	HILLSIDE	FLOODPLAIN	STREAM BED		NONE/LOW	MODERATE	HIGH	YES
																																							<15	15 -20	>20	
S-1	MM	35	Kep																						30	65			65				15				20	35			35	Y
S-2	FZ	15	Kep/Kpg							3545' LONG	N53ºE	10												10		35		35					15					25			25	Y

(1) C = 35, CD = 10, FR = 0, FZ = 15, MM = 35
SC = 10, SH = 20, VR = 0, ZONE = 35

(2) WALL = Vertical/near veritical wall above 100-yr floodplain
FLOODPLAIN = 100-yr floodplain
STREAM BED = Ordinary High Water Mark

I have read, understood, and followed the Texas Natural Resource Conservation Commission's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

Phil C. Pearson 5-16-01

Geologist signature Date

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS

Additional Comments

Feature S-1
Feature S-1 is the quarry area, which is a manmade sensitive feature.

Feature S-2
Feature S-2 is a fault zone that juxtaposes the Edwards Group north of the fault and upper confining units south of the fault. The fault marks the southern boundary of the Edwards Aquifer Recharge Zone.

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS

Narrative of Soil Units/Soil Profile

Soil has been removed by quarrying operations over much of the site. In the southern portion of the site that has not been excavated, the land surface has been disturbed and is covered by crushed rock or base material. Very little area covered by the geologic assessment had natural soil over bedrock.

MARTIN MARIETTA COMAL COUNTY QUARRY

Stratigraphic Column

[Hydrogeologic subdivisions modified from Maclay and Small (1976); groups, formations, and members modified from Rose (1972); lithology modified from Dunham (1962); and porosity type modified from Choquette and Pray (1970); CU, confining unit; AQ, aquifer]

Hydrogeologic subdivision			Group, formation, or member			Hydrologic function	Thickness (feet)	Lithology	Field Identification	Cavern development	Porosity/ permeability type
Upper Cretaceous	Upper confining units		Pecan Gap Chalk (Kpg)			CU	100-400	Chalk and chalky marl	Seldom exposed; weathers to form moderately deep soil	None	Low porosity/ low permeability
			Austin Chalk (Kau)			CU	200-225	Limestone and argillaceous chalky limestone	Glauconitic; fossiliferous, *Gryphaea ancella*	Caves related to structure	Some fracture plane and bedding plane
			Eagle Ford Group (Kef)			CU	30 - 50	Brown, flaggy shale and argillaceous limestone	Thin flagstone; petroliferous	None	Primary porosity lost/low permeability
			Buda Limestone (Kbu)			CU	40 - 50	Buff, light gray, dense mudstone	Porcelaneous limestone with calcite-filled veins	Minor surface karst	Low porosity/ low permeability
			Del Rio Clay (Kdr)			CU	40 - 50	Blue-green to yellow-brown clay	Fossiliferous; *Ilymatogyra arietina*	None	None/primary upper confining unit
Lower Cretaceous	I	Edwards Aquifer	Georgetown Formation (Kgt)			Karst AQ; not karst CU	2 - 20	Reddish-brown, gray to light tan marly limestone	Marker fossil; *Waconella wacoensis*	None	Low porosity/ low permeability
	II		Edwards Group	Person Formation (Kep)	Cyclic and marine members, undivided	AQ	80 - 90	Mudstone to packstone; *miliolid* grainstone; chert	Thin graded cycles; massive beds to relatively thin beds; crossbeds	Many subsurface; might be associated with earlier karst development	Laterally extensive; both fabric and not fabric/water-yielding
	III				Leached and collapsed members, undivided	AQ	70 - 90	Crystalline limestone; mudstone to grainstone; chert; collapsed breccia	Bioturbated iron-stained beds separated by massive limestone beds; stromatolitic limestone	Extensive lateral development; large rooms	Majority not fabric/one of the most permeable
	IV				Regional dense member	CU	20 - 24	Dense, argillaceous mudstone	Wispy iron-oxide stains	Very few; only vertical fracture enlargement	Not fabric/low permeability; vertical barrier
	V			Kainer Formation (Kek)	Grainstone member	AQ	50 - 60	Miliolid grainstone; mudstone to wackestone; chert	White crossbedded grainstone	Few	Not fabric/ recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50 - 60	Highly altered crystalline limestone; chalky mudstone; chert	Boxwork voids, with neospar and travertine frame	Probably extensive cave development	Majority fabric/ one of the most permeable
	VII				Dolomitic member	AQ	110 - 130	Mudstone to grainstone; crystalline limestone; chert	Massively bedded light gray, *Toucasia* abundant	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane-fabric/water-yielding
	VIII				Basal nodular member	Karst AQ; not karst CU	50 - 60	Shaly, nodular limestone mudstone and *miliolid* grainstone	Massive, nodular and mottled, *Exogyra texana*	Large lateral caves at surface; a few caves near Cibolo Creek	Fabric; stratigraphically controlled/large conduit flow at surface no permeability in subsurface
	Lower confining unit		Upper member of the Glen Rose Limestone (Kgru)			CU; evaporite beds AQ	350 - 500	Yellowish tan, thinly bedded limestone and marl	Stair-step topography; alternating limestone and marl	Some surface cave development	Some water production at evaporite beds/ relatively impermeable

(Modified from Stein and Ozuna, 1995)

Attachment C

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS

Narrative Description

The overall potential for fluid movement to the Edwards Aquifer for the site is high. A portion of the site lies within a quarried area with exposed rock and no soil cover. At the time of the site visit on December 1, 200, water was present in the deepest excavation. The water is believed to be groundwater.

The portion of the site that has been excavated is located within the cyclic and marine members of the Person Formation (Kep). Karst development within the cyclic and marine members is characterized by large sinkholes. Caves are predominantly laterally extensive, but deep pits are also common. No caves or sinkholes were identified onsite.

A fault crosses the southern portion of the site that juxtaposes the Kep north of the fault and the Pecan Gap Chalk (Kpg) south of the fault. The fault marks the southern boundary of the Edwards Aquifer Recharge Zone.

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS

References

Arnow, Ted, 1959, Groundwater Geology of Bexar County, Texas: Texas Board of Water Engineers, Bulletin 5911, 62 pp., 18 figs.

Barnes, V.L., 1983, Geologic Atlas of Texas, San Antonio Sheet, Bureau of Economic Geology, The University of Texas at Austin, Texas.

Maclay, R.W., and Small, T.A., 1976, Progress Report on the Geology of the Edwards Aquifer, San Antonio Area, Texas and Preliminary Interpretation of Borehole Geophysical and Laboratory Data on Carbonate Rocks: U.S. Geol. Survey open file rept., 76-627, 62 pp., 20 figs.

Rose, P.R., 1972, Edwards Group, Surface and Subsurface, Central Texas: Bur. Econ. Geol., Rep of Invest. 74, 198 pp.

Small, T.A. and Hanson, J.A., 1994, Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Outhcrop, Comal County, Texas: U.S. Geol. Survey, Water - Resources Investigations 94-4117, 10 pp., 2 figs.

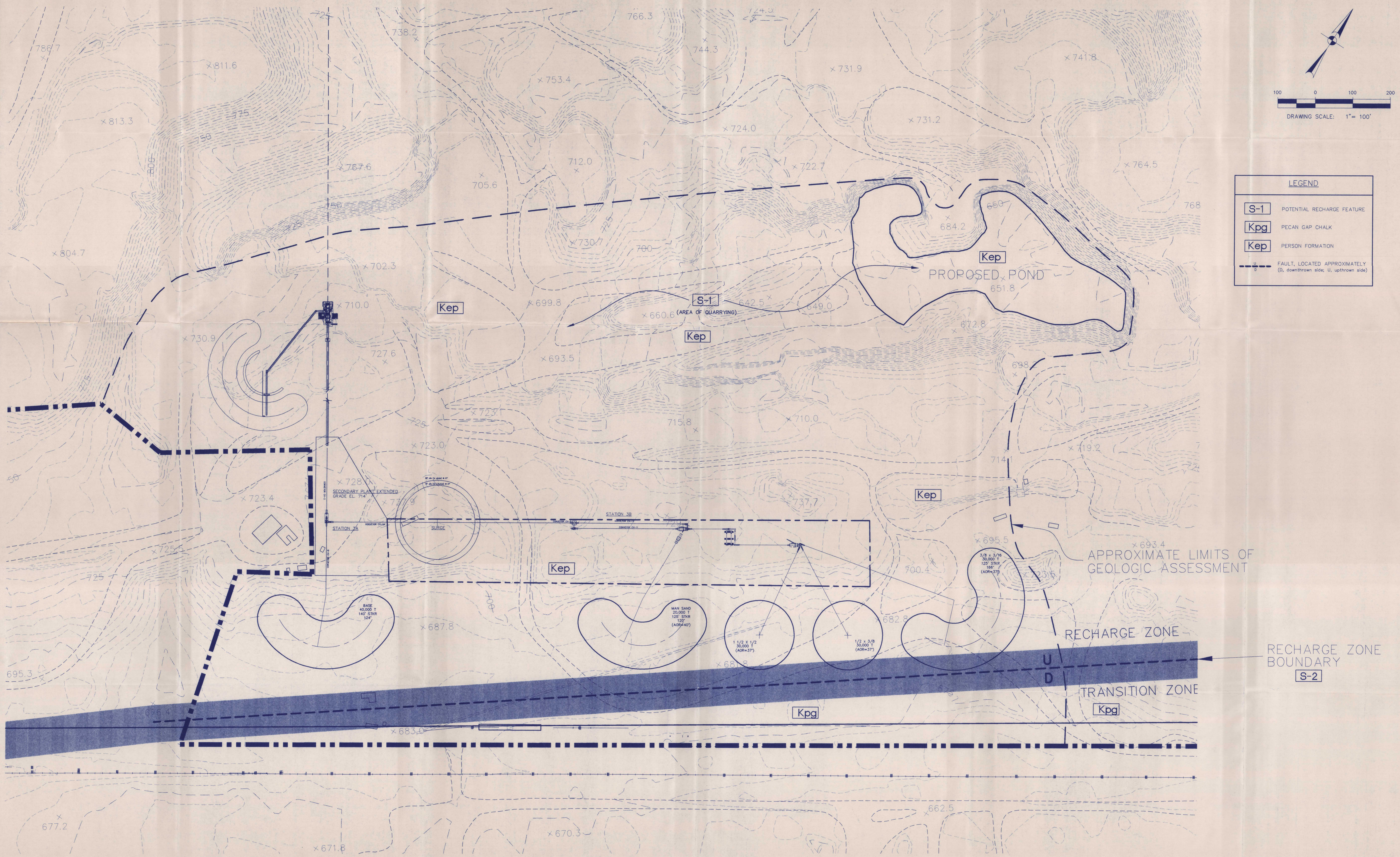
Texas Natural Resource Conservation Commission, 1999, Edwards Aquifer Recharge Zone Map, New Braunfels West Quadrangle, TNRCC, San Antonio, Texas.

United States Department of Agriculture, 1991, Soil Survey - Bexar County, Texas, USDA.

United States Geologic Survey, 1988, (USGS), New Braunfels West Quadrangle, USGS, Denver, Colorado.

Veni, G., 1988, The Caves of Bexar County, Second Edition, The Texas Memorial Museum, University of Texas, Austin, Texas.

Veni, George, and Associates, 1994, Geologic Controls in Cave Development and the Distribution of Cave Fauna in the San Antonio, Texas, Region: Report for the Texas Parks and Wildlife Department and U.S. Fish & Wildlife Service, 99 pp.



REVISIONS:

PAPE-DAWSON ENGINEERS

555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS SITE GEOLOGIC MAP

JOB NO. 3479-19-01

DATE MAY 2001

GEOLOGIST RCP

CHECKED PCP DRAWN RCP

SHEET 1 OF 1

WATER POLLUTION ABATEMENT PLAN APPLICATION
FOR REGULATED ACTIVITIES
ON THE EDWARDS AQUIFER RECHARGE ZONE
AND RELATING TO 30 TAC §213.5(b), EFFECTIVE JUNE 1, 1999

PROJECT NAME: ***Martin Marietta New Braunfels Quarry Operations***

PROJECT INFORMATION

1. The type of project is:
   ___ Residential: # of Lots: ___
   ___ Residential: # of Living Unit Equivalents: ___
   ___ Commercial
   √ Industrial
   √ Other: ***Quarry***

2. Total site acreage (size of property): ***612 Acres***

3. Projected population: ***13***

   There will be no permanent population, but average daily population is estimated to be approximately 13 Martin Marietta employees.

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	***1,437***	÷ 43,560 =	***0.03***
Railspur	***28,779***	÷ 43,560 =	***0.66***
Other ~~paved~~ surfaces ***(concrete footings)***	***3,325***	÷ 43,560 =	***0.08***
Total Impervious Cover	***33,541***	÷ 43,560 =	***0.77***
Total Impervious Cover ÷ Total Acreage x 100 =			***0.001%***

5. √ **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided ~~at the end of this form~~ ***below***.

   Potential sources of pollution that may reasonably be expected to affect the quality of stormwater within the site include:

   - ***Soil erosion due to the clearing of the site;***
   - ***Silt from rock processing areas;***
   - ***Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle drippings;***

- ***Dirt and dust which may fall off vehicles;***
- ***Miscellaneous trash and litter from workers and material wrappings.***

6. _√_ Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

Since this application is not exclusively for a road project, questions 7-12 do not apply.

7. Type of project:
   __ TXDOT road project.
   __ County road or roads built to county specifications.
   __ City thoroughfare or roads to be dedicated to a municipality.
   __ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:

   __ Concrete
   __ Asphaltic concrete pavement
   __ Other: _____

9. Length of Right of Way (R.O.W.): _____ feet.
   Width of R.O.W.: _____ feet.
   L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

10. Length of pavement area: _____ feet.
    Width of pavement area: _____ feet.
    L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
    Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = ____% impervious cover.

11. __ A rest stop will be included in this project.
    __ A rest stop will **not** be included in this project.

12. __ Maintenance and repair of existing roadways that do not require approval from the TNRCC Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (½) the width of one (1) existing lane require prior approval from the TNRCC.

STORMWATER TO BE GENERATED BY THE PROPOSED PROJECT

13. **ATTACHMENT B - Volume and Character of Stormwater.** A description of the volume and character (quality) of the stormwater runoff which is expected to occur from the proposed project is provided ~~at the end of this form~~ ***below***. The estimates of stormwater runoff quality and quantity should be based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Stormwater quality within the site will be impacted by the clearing and quarrying operations and will have the potential for increased levels of silt. Minimal impervious cover is associated with the quarry and processing plant operations. On-site stormwater from within the quarry will be retained within the mining areas and will not be discharged off-site. Runoff from the plant operations will be directed in two general directions. A portion of the runoff will be directed to and captured in an existing low area to be converted to a water storage pond. The pond will be lined with an impermeable liner of clay or a synthetic material. This storage pond will facilitate the settling of total suspended solids. The water will be recirculated for use as process water. The remaining runoff from the plant operations will be directed to one of two vegetative filter strips located on the downgradient side of the site prior to being discharged from the site.

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

14. The character and volume of wastewater is shown below:

100% Domestic ***260*** gallons/day
__ % Industrial _____gallons/day
__ % Commingled _____gallons/day

TOTAL ***260*** gallons/day

Estimated flow based on: 20 gal/day/person x 13 people = 260 gallons per day

15. Wastewater will be disposed of by:

N/A **On-Site** Sewage Facility (OSSF/Septic Tank):

ATTACHMENT C - Suitability Letter from Authorized Agent. An on-site sewage facility will be used to treat and dispose of the wastewater. The appropriate licensing authority's (authorized agent) written approval is provided at the end of this form. It states that the land is suitable for the use of an on-site sewage facility or identifies areas that are not suitable.

__ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC §285.

The job trailer will be located adjacent to an existing septic tank at the site. The restroom within the trailer will be connected to this septic tank.

N/A Sewage Collection System (Sewer Lines):

__ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.

__ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

__ The SCS was previously submitted on _____.
__ The SCS was submitted with this application.
__ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to executive director approval.

The sewage collection system will convey the wastewater to the _____(name).

The treatment facility is :

__ existing.

__ proposed.

16. _√_ All private service laterals will be inspected as required in 30 TAC 213.5.

SITE PLAN REQUIREMENTS

Items 17 through 27 must be included on the Site Plan.

17. The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = ***100'***.

18. 100-year floodplain boundaries

__ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

_√_ No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s):
FEMA, Flood Insurance Rate Map for Comal County, Texas and Incorporated Areas, Panel Numbers 4854630100C and 4854630120C dated September 29, 1986. For areas inside city limits of the City of New Braunfels see FEMA, Flood Insurance Rate Map for the City of New Braunfels, Texas and Comal and Guadalupe Counties Panel Number 485493004D, dated May 15, 1991.

19. __ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.

_√_ The layout of the development is shown with existing contours. Finished topographic contours will not differ ***significantly for areas other than mining operations*** from the existing topographic configuration and are not shown.

Only a minimal amount of excavation will be conducted to construct the permanent processing plant and the office trailer. For the remainder of the site to be mined, the existing drainage patterns will be maintained until such time as quarry operations commence.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

__ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

__ The wells test hole is are not in use and have been properly abandoned.

__ The wells are not in use and will be properly abandoned.

__ The wells are in use and comply with 30 TAC §238.

_√_ There are no wells or test holes of any kind known to exist on the project site.

An Edwards Aquifer water well will be drilled and completed on site. The well will provide water to the storage pond for use as process water.

21. Geologic or manmade features which are on the site:

_√_ All **sensitive and possibly sensitive** geologic or manmade features identified in the Geologic Assessment are shown and labeled.

___ No **sensitive and possibly sensitive** geologic or manmade features were identified in the Geologic Assessment.

___ **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained in ATTACHMENT D provided at the end of this form. Geologic or manmade features were found and are shown and labeled.

___ **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained in ATTACHMENT D provided at the end of this form. No geologic or manmade features were found.

22. _√_ The drainage patterns and approximate slopes anticipated after major grading activities.

In areas other than the mining operations, drainage patterns and slopes will not differ significantly from existing conditions.

23. _√_ Areas of soil disturbance and areas which will not be disturbed.

Areas of soil disturbance will be minimized to the extent possible until quarry operations commence in a specific area.

24. _√_ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

Temporary BMPs and Permanent BMPs are shown on Exhibit 2 and Exhibit 3, respectively.

25. _√_ Locations where soil stabilization practices are expected to occur.

26. _√_ Surface waters (including wetlands).

There are no surface waters on-site.

27. ___ Locations where stormwater discharges to surface water or sensitive features.
_√_ There will be no discharges to surface water or sensitive features.

ADMINISTRATIVE INFORMATION

28. _√_ One (1) original and three (3) copies of the completed application have been provided.

29. _√_ Any modification of this WPAP will require TNRCC executive director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **WATER POLLUTION ABATEMENT PLAN APPLICATION FORM** is hereby submitted for TNRCC review and executive director approval. The form was prepared by:

Pape-Dawson Engineers, Inc.
By: Cara C. Tackett, E.I.T.
Print Name of ~~Applicant/Owner~~/Agent

Cara C. Tackett
Signature of ~~Applicant/Owner~~/Agent

05/16/01
Date

TEMPORARY STORMWATER SECTION
FOR REGULATED ACTIVITIES
ON THE EDWARDS AQUIFER RECHARGE ZONE
AND RELATING TO 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); EFFECTIVE JUNE 1, 1999

PROJECT NAME: ***Martin Marietta New Braunfels Quarry Operations***

POTENTIAL SOURCES OF CONTAMINATION
Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

__ Aboveground storage tanks with a cumulative storage capacity of less that 250 gallons will be stored on the site for less than one (1) year.

__ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

__ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An **Aboveground Storage Tank Facility Plan** application must be submitted to the appropriate regional office of the TNRCC prior to moving the tanks onto the project.

_√_ Fuels and hazardous substances will not be stored on-site.

2. _√_ **ATTACHMENT A - Spill Response Actions**. A description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is provided ~~at the end of this form~~ ***below***.

In the event of accidental spills of hazardous materials or hydrocarbons, the sand material from onsite stockpiles will be used to provide dikes to contain large spills and to provide an absorbent material that can be disposed off the Recharge Zone during the cleanup process. The owner who will contact TNRCC to notify them in the event of a spill of regulated quantities of hazardous materials. All contaminated soils caused by a spill will be required to be removed from the project and disposed in accordance with applicable regulations off the Recharge Zone.

3. _√_ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. _√_ **ATTACHMENT B - Potential Sources of Contamination.** Describe ~~in an attachment at the end of this form~~ ***below*** any other activities or processes which may be a potential source of contamination.

__ The are no other potential sources of contamination.

Other potential sources of contamination during construction include:
Potential Source • ***Oil, grease, fuel and hydraulic fluid contamination from equipment and vehicle dripping.***

Preventative Measure	▪	***Vehicle maintenance when possible will be performed offsite.***
Potential Source	•	***Miscellaneous trash and litter from workers and material wrappings.***
Preventive Measure	▪	***Trash containers will be placed throughout the site to encourage proper trash disposal.***
Potential Source	•	***Construction debris.***
Preventive Measure	▪	***Construction debris will be monitored daily. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.***

SEQUENCE OF CONSTRUCTION

5. _√_ **ATTACHMENT C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is provided ~~at the end of this form~~ ***below***. For each activity described, an estimate of the total area of the site to be disturbed by each activity is given.

The two major activities on this site are mining operations and rock processing and finishing operations. The mining operations are ongoing and involve the clearing and grubbing of vegetation and mining of rock. This activity will involve approximately 475 acres of the site over the next 30 years. The other major activity, rock processing and finishing operations, will involve the construction of a primary crusher and conveyor, located near the working face of the quarry, to move rock to the finishing plant. The secondary/finishing plant will require the installation of concrete footings to support the rock processing equipment and the installation of a railroad spur to provide for loading and transport of materials. The finishing plant area will involve approximately 5 acres of the site which were already cleared by previous quarry operators.

6. _√_ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: ***Dry Comal Creek***

TEMPORARY BEST MANAGEMENT PRACTICES (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. **All structural BMPs must be shown on the site plan.**

7. _√_ **ATTACHMENT D - Temporary Best Management Practices and Measures.** A description of the TBMPs and measures that will be used during and after construction are provided ~~at the end of this form~~ **below**. For each activity listed in the sequence of construction, include appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

√ TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information has been provided ~~in the attachment at the end of this form~~ **below**.

a. A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

b. A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

c. A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

d. A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TNRCC inspections, or during excavation, blasting, or construction.

A small amount of upgradient runoff originating from undeveloped areas to the north of the mining operations will flow across the project site. This upgradient runoff is associated with undeveloped areas and therefore does not increase pollutant loads. It will be captured within the mining areas and not discharged from the site. On-site stormwater will be managed in three ways: 1) captured in the open mining areas and allowed to evaporate; 2) diverted to the on-site water storage pond for use as process water; or 3) discharged on the south side of the site to natural vegetated lows. During construction of the rock processing and finishing plant and the railroad spur, silt fence will be installed on the downgradient side of the construction activities. In addition, existing vegetated areas upstream of the two existing and south central portions of the site will serve as additional BMPs during construction to help filter stormwater runoff.

Before construction of the finishing plant railroad spur can begin, the installation of all on-site control measures will be required. The methodology for pollution prevention of on-site stormwater will include: (1) erection of silt fences along the downgradient boundary of construction activities for temporary erosion and sedimentation controls (2) installation of a construction staging area.

Prior to the initiation of construction, all previously installed control measures will be repaired or reestablished for their designed or intended purpose. Construction, which is the remainder of all activity on the project, may also disturb additional soil. Therefore, before this work can begin, the construction contractor will be responsible for the installation of all remaining on-site control measures which includes the installation of the concrete truck washout pit(s). Construction of the impervious liner for the storage pond will begin. The pond will be operational at the completion of the construction of the finishing plant.

8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

__ **ATTACHMENT E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is provided at the end of this form. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

_√_ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. _√_ **ATTACHMENT F - Structural Practices.** Describe the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site. Placement of structural practices in floodplains has been avoided.

The following structural measures will be installed prior to the initiation of site preparation activities:

- ***Erection of silt fences along the downgradient boundary of construction activities for the rail spur extension, as located on Exhibit 1 and illustrated in Exhibit 4.***
- ***Installation of a construction staging area, as located on Exhibit 1, and illustrated on Exhibits 5.***

The following structural measures will be installed prior to the initiation of construction activities:

- ***Installation of a concrete truck washout pit, as required and located on Exhibit 1 and illustrated on Exhibit 6.***

10. _√_ **ATTACHMENT G - Drainage Area Map**. A drainage area map is provided~~at the end of this form~~ ***behind this sheet*** to support the following requirements.

__ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

__ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

_√_ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

__ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

Design calculations for temporary sediment ponds have not been included. However, most of the stormwater runoff from the site will be captured within the quarry and where possible diverted to the water storage pond. This

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF POLLUTION ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

ATTACHMENT G

REVISIONS:

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS
OVERALL DRAINAGE AREA MAP

JOB NO. 3479-19-02
DATE MAY 2001
DESIGNER JD
CHECKED CCT DRAWN MTJ
SHEET 1 OF 1

pond will be lined and will allow for the settling of total suspended solids. On-site runoff from the mining operations not captured by the storage pond will be directed to the open mine areas and allowed to evaporate.

11. *N/A* **ATTACHMENT H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure has been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are provided as at the end of this form.

12. √ **ATTACHMENT I - Inspection and Maintenance for BMPs.** A plan for the inspection of temporary BMPs and measures and for their timely maintenance, repair, and, if necessary, retrofit is provided at the end of this form. A description of documentation procedures and recordkeeping practices is included in the plan.

13. √ All control measures must be properly selected, installed, and maintained in accordance with the manufacturers specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicates a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. √ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. √ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. √ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

SOIL STABILIZATION PRACTICES

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. √ **ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices.** A schedule of the interim and permanent soil stabilization practices for the site is ~~attached at the end of this form~~ **below**.

Interim on-site stabilization measures, which are continuous, will include minimizing soil disturbances by exposing only the smallest practical area of land

required for the shortest period of time and maximizing use of natural vegetation. As soon as practical, all disturbed soil will be stabilized as per the mining plan.

18. _√_ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. _√_ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

ADMINISTRATIVE INFORMATION

20. _√_ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. _√_ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered ***in areas other than the rock mining operations areas***, all regulated activities near the feature will be immediately suspended. The appropriate TNRCC Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TNRCC has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. _√_ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **TEMPORARY STORMWATER SECTION** is hereby submitted for TNRCC review and executive director approval. The application was prepared by:

Pape-Dawson Engineers, Inc.
By: Cara C. Tackett, E.I.T.
Print Name of ~~Applicant/Owner~~/Agent

Cara C. Tackett
Signature of ~~Applicant/Owner~~/Agent

05/16/01
Date

INSPECTIONS

Designated and qualified person(s) shall inspect Pollution Control Measures every fourteen days and within 24 hours after a storm event greater than 0.5 inches of rainfall. An inspection report that summarizes the scope of the inspection, names and qualifications of personnel conducting the inspection, date of the inspection, major observations, and actions taken as a result of the inspection shall be recorded and maintained on-site.

As a minimum, the inspector shall observe: (1) significant disturbed areas for evidence of erosion, (2) storage areas for evidence of leakage from the exposed stored materials, (3) structural controls (rock berm outlets, silt fences, drainage swales, etc.) for evidence of failure or excess siltation (over 6 inches deep), (4) vehicle exit point for evidence of off-site sediment tracking, (5) vehicle storage areas for signs of leaking equipment or spills, and (6) concrete truck rinse-out pit for signs of potential failure. Deficiencies noted during the inspection will be corrected and documented within seven (7) calendar days following the inspection or before the next anticipated storm event if practicable.

Pollution Prevention Measure	Inspected	Corrective Action	
		Description	Date Completed
General			
Revegetation			
Erosion/sediment controls			
Vehicle exits			
Material areas			
Equipment areas			
Concrete rinse			
Construction debris			
Trash receptacles			
Roadway surfaces			
Site cleanups			

By my signature below, I certify that all items are acceptable and the project site is in compliance with SWPPP.

Inspector's Name

Inspector's Signature

Name of Owner/Operator (Firm)

Date

Note: Inspector is to attach a brief statement of his qualifications to this report.

PERMANENT STORMWATER SECTION
FOR REGULATED ACTIVITIES
ON THE EDWARDS AQUIFER RECHARGE ZONE
AND RELATING TO 30 TAC §213.5(b)(4)(C), (D)(ii), (E), and (5), EFFECTIVE JUNE 1, 1999

PROJECT NAME: ***Martin Marietta New Braunfels Quarry Operations***

Permanent best management practices (BMPs) and measures that will be used during and after construction is completed.

1. √ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

2. √ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   √ The TNRCC Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

   — A technical guidance other than the TNRCC TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is provided below

   _____

   _____

3. √ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

4. √ Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   — This site will be used for low density single-family residential development and has 20% or less impervious cover.

   — This site will be used for low density single-family residential development but has more than 20% impervious cover.

   √ This site will not be used for low density single-family residential development.

5. √ The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less

impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

√ **ATTACHMENT A - 20% or Less Impervious Cover Waiver.** This site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is found at the end of this form.

__ This site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

__ This site will not be used for multi-family residential developments, schools, or small business sites.

This site is an existing quarry that has been in operation since the 1940's. The new regulated activity associated with this site is the construction of rock processing facilities. This construction will involve the addition of 0.77 acres of impervious cover or 0.001%. Permanent BMPs are not required (per the 30 TAC §213.5(b)(A)(4)(ii)(III) because the impervious cover is less than 20%. However, as added measures of protection, two vegetative filter strips will be installed downgradient of the processed rock material stockpiles. The remainder of stormwater runoff from the finishing plant will be directed to an on-site water storage and recycle pond and will not be discharged from the site.

6. **ATTACHMENT B - BMPs for Upgradient Stormwater.**

√ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is identified as **ATTACHMENT B** ~~at the end of this form~~ ***directly below***.

__ If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** ~~at the end of this form~~ ***below.***

__ If permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** at the end of this form.

A small amount of upgradient runoff originating from undeveloped areas to the north of the mining operations will flow across the project site. This upgradient runoff is associated with undeveloped areas and therefore does not increase pollutant loads. It will be captured within the mining areas and not discharged from the site.

7. **ATTACHMENT C - BMPs for On-site Stormwater.**

√ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused

by contaminated stormwater runoff from the site is identified as **ATTACHMENT C** ~~at the end of this form~~ **below**.

On-site stormwater will be managed in three ways: 1) captured in the open mining areas and allowed to evaporate; 2) diverted to the on-site storage pond for use as process water; or 3) discharged on the south side of the site. Two vegetative filter strips will be constructed downgradient of the processed rock stockpiles to provide treatment of stormwater runoff from the finishing plant and stockpiles prior to being discharged from the site. Minimal TSS should be associated with this runoff because it originates from a small amount of impervious cover and the stockpiles of rock that have been washed as part of the finishing plant and processing operations. Each vegetative filter strip will have berms constructed on the downstream sides. These berms will be constructed of a permeable material and will help maintain water flow across the vegetative filter strips. In addition, all water retained behind the berms will allow for some settling of TSS or may filter through the berm and receive additional treatment.

___ If permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, an explanation is provided as **ATTACHMENT C** at the end of this form.

8. √ **ATTACHMENT D - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is provided ~~at the end of this form~~ **below**. Each feature identified in the Geologic Assessment as "sensitive" or "possibly sensitive" has been addressed.

See Item C above for description of permanent BMPs.

9. √ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

√ The permanent sealing of or diversion of flow from a naturally-occurring "sensitive" or "possibly sensitive" feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring "sensitive" ~~or "possibly sensitive"~~ features on this site.

___ **ATTACHMENT E - Request to Seal Features.** A request to seal a naturally-occurring "sensitive" ~~or "possibly sensitive"~~ feature, that includes a justification as to why no reasonable and practicable alternative exists, is found ~~at the end of this form~~ ***below***. A request and justification has been provided for each feature.

Only one geologic feature was identified in the geologic assessment. This feature is the man-made existing quarry pit. Because this is an existing, man-made activity and no other geologic features were identified, no request to seal a feature is included in this application.

10. *N/A* **ATTACHMENT F - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct

supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TNRCC Construction Notes, all man-made or naturally occurring geologic features, all proposed structural measures, and appropriate details must be shown on the construction plans.

11. √ **ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.

12. ***N/A*** The TNRCC Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

— Pilot-scale field testing (including water quality monitoring) may be required for BMPs that are not contained in technical guidance recognized by or prepared by the executive director.

— **ATTACHMENT H - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.

13. √ **ATTACHMENT I** -Measures for Minimizing Surface Stream Contamination. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is provided ~~at the end of this form~~ ***directly below***. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity which increase erosion that results in water quality degradation.

The site is an existing quarry that has been in operation since the 1940's. The additional regulated activity addressed by this WPAP is the construction of a processing and finishing plant. The plant is being constructed in an area already cleared and disturbed and has minimal impervious cover associated with its construction. Therefore, there should be no increase in stream velocities or erosion due to this construction activity and plant operations.

Responsibility for maintenance of permanent BMPs and measures after construction is complete.

14. √ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

15. √ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **PERMANENT STORMWATER SECTION** is hereby submitted for TNRCC review and executive director approval. The application was prepared by:

Pape-Dawson Engineers, Inc.
By: Cara C. Tackett, E.I.T.
Print Name of ~~Applicant/Owner~~/Agent

Cara C. Tackett — 05/16/01
Signature of ~~Applicant/Owner~~/Agent — Date

AGENT AUTHORIZATION FORM
FOR REQUIRED SIGNATURE
EDWARDS AQUIFER PROTECTION PROGRAM
RELATING TO 30 TAC CHAPTER 213
EFFECTIVE JUNE 1, 1999

I ***David A. Little*** ,
Print Name

Title - Owner/President/Other

of ***Martin Marietta Materials Southwest, Ltd.***
Corporation/Partnership/Entity Name

have authorized ***Pape-Dawson Engineers, Inc.***
Print Name of Agent/Engineer

of ***Pape-Dawson Engineers, Inc.***
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Natural Resource Conservation Commission (TNRCC) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TNRCC's approval letter. The TNRCC is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and the forms must accompany the completed application.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TNRCC cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. For applicants who are not the property owner, but who have the right to control and possess and control the property, additional authorization is required from the owner.

D.A. Little
Applicant's Signature

5/14/01
Date

THE STATE OF Texas §

County of Bexar §

BEFORE ME, the undersigned authority, on this day personally appeared David A. Little known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 14 day of May, 01.

M.L. Champion
NOTARY PUBLIC

M.L. CHAMPION
NOTARY PUBLIC
State of Texas
Comm. Exp. 10-15-2001

M L Champion
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 10-15-01

MAINTENANCE PLAN AND SCHEDULE FOR PERMANENT POLLUTION ABATEMENT MEASURES AT MARTIN MARIETTA COMAL COUNTY QUARRY

VEGETATIVE FILTER STRIPS

Planted or preserved vegetative filter strips will be watered until fully established. After heavy rain, inspection will occur for erosion, concentrated flow or bare spots. Damaged areas will be repaired within 7 days by placement of seed in the disturbed area or block sodding as appropriate.

The attached Inspection Report form will be completed for each inspection and permanent records maintained for all inspections and subsequent corrective actions.

I acknowledge I have read the above Maintenance Plan and Schedule for Permanent Pollution Abatement Measures.

Owner/Responsible Party

5/14/01
Date

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
EDWARDS AQUIFER PROTECTION PLAN
APPLICATION FEE FORM

NAME OF PROPOSED PROJECT: ***Martin Marietta New Braunfels Quarry Operations***
PROJECT LOCATION: ***Wald Road approximately 1.5 miles north of IH-35***
NAME OF APPLICANT: ***Martin Marietta Materials Southwest, Ltd.***
APPLICANT'S ADDRESS: ***11467 Huebner Road, Suite 300, San Antonio, TX 78230***
CONTACT PERSON: ***David A. Little*** PHONE: ***(210)208-4566***
Please Print

AUSTIN REGIONAL OFFICE (3373)
☐ Hays
☐ Travis
☐ Williamson

SAN ANTONIO REGIONAL OFFICE (3362)
☐ Bexar
☒ Comal
☐ Kinney
☐ Medina
☐ Uvalde

APPLICATION FEES MUST BE PAID BY CHECK, CERTIFIED CHECK, OR MONEY ORDER, PAYABLE TO THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION. YOUR CANCELED CHECK WILL SERVE AS YOUR RECEIPT. **THIS FORM MUST BE SUBMITTED WITH YOUR FEE PAYMENT**. THIS PAYMENT IS BEING SUBMITTED TO (CHECK ONE):

☒ **SAN ANTONIO REGIONAL OFFICE**
☐ **Mailed to TNRCC**:
TNRCC - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ **AUSTIN REGIONAL OFFICE**
☐ **Overnight Delivery to TNRCC**:
TNRCC - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
512/239-0347

Type of Plan	Size	Fee Due
Water Pollution Abatement, One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement, Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement, Non-residential	***612 Acres***	***$ 5,000.00***
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature

05/16/01
Date

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

EDWARDS AQUIFER PROTECTION PLAN

APPLICATION FEE SCHEDULE

30 TAC §213.14 (effective 11/14/97) & 30 TAC §213.9 (effective 6/1/99)

WATER POLLUTION ABATEMENT PLANS AND MODIFICATIONS

PROJECT	PROJECT AREA IN ACRES	FEE
One Single Family Residential Dwelling	<5	$500
Multiple Single Family Residential and Parks	<5 5 < 10 10 < 50 ≥50	$1,000 $2,000 $3,000 $5,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 ≥10	$2,000 $3,000 $4,000 $5,000

ORGANIZED SEWAGE COLLECTION SYSTEMS AND MODIFICATIONS

PROJECT	COST PER LINEAR FOOT	MINIMUM FEE MAXIMUM FEE
Sewage Collection Systems	$0.50	$500 - $5,000

UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEM FACILITY PLANS AND MODIFICATIONS

PROJECT	COST PER TANK OR PIPING SYSTEM	MINIMUM FEE MAXIMUM FEE
Underground and Aboveground Storage Tank Facility	$500	$500 - $5,000

EXCEPTION REQUESTS

PROJECT	FEE
Exception Request	$250

EXTENSION OF TIME REQUESTS

PROJECT	FEE
Extension of Time Request	$100

Martin Marietta Materials

Southwest Division
11467 HUEBNER SUITE 300
SAN ANTONIO, TEXAS 78230

Check No. - 125766
Check Date - 05/16/01

Stub 1 of 1

INVOICE NUMBER	DATE	DESCRIPTION	GROSS	DEDUCTIONS	AMOUNT PAID
CKREQ05140	051401		5,000.00		[illegible]
			5,000.00		5,000.00

DETACH STATEMENT BEFORE DEPOSITING

Martin Marietta Materials

Southwest Division
11467 HUEBNER SUITE 300
SAN ANTONIO, TEXAS 78230

CHECK NO. 125766

00125766

179418

DATE	AMOUNT
05/16/01	$*****5,000.00

CHASE BANK OF TEXAS
SAN ANGELO, TEXAS

PAY
FIVE THOUSAND AND 00/100 **********

TO THE ORDER OF:

TNRCC
140 Heimer Rd #360
San Antonio TX 78232-5042

BY [signature] PRESIDENT

BY [signature] VICE PRESIDENT

AUTHORIZED SIGNATURES

⑈125766⑈ ⑆111300880⑆ 063000163111⑈

EXHIBITS

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF POLLUTION ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

EXHIBIT 1

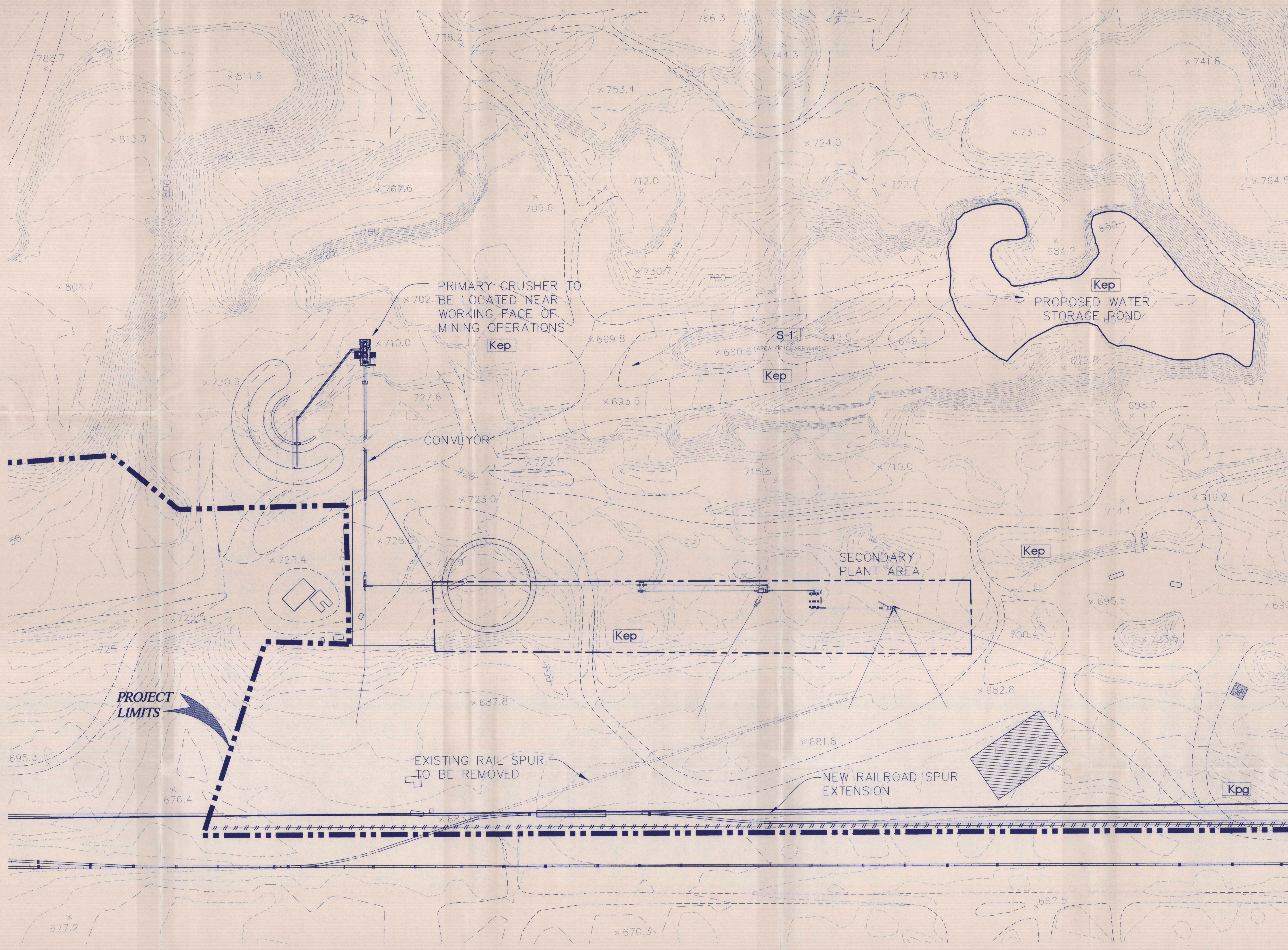
REVISIONS:

STATE OF TEXAS RUBEN CERVANTES 58464 LICENSED PROFESSIONAL ENGINEER

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS OVERALL SITE PLAN

JOB NO. 3479-19-02
DATE MAY 2001
DESIGNER JD
CHECKED CCT DRAWN MTJ
SHEET 1 OF 1



DRAWING SCALE: 1" = 100'

LEGEND

Kep	PERSON FORMATION
Kpg	PECAN GAP CHALK
S-1	POTENTIAL RECHARGE FEATURE (ON-SITE)
	CONCRETE TRUCK WASHOUT PIT
	CONSTRUCTION STAGING AREA (TO BE FIELD LOCATED)
	SILT FENCE
	EXISTING CONTOURS
	EXISTING ROADS
	PROJECT LIMITS

GENERAL NOTES:

1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.

2. CONCRETE WASHOUT PIT AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD.

3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.

4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.

5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.

6. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.

7. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.

8. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED.

9. ALL TEMPORARY BMP's WILL BE REMOVED ONCE WATERSHED IS STABILIZED.

10. MUD OR DIRT INADVERTENTLY TRACKED OFF-SITE AND ONTO EXISTING STREETS SHALL BE REMOVED IMMEDIATELY BY HAND OR MECHANICAL BROOM SWEEPING.

12. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES BUT NOT IN CONFLICT WITH IMPROVEMENTS. THIS PLAN IS FOR VISUAL CLARITY.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TNRCC REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TNRCC LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TNRCC REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TNRCC HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.

5. ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.

6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS TO WATER QUALITY (E.G., FUGITIVE SEDIMENT IN STREET BEING WASHED INTO SURFACE STREAMS OR SENSITIVE FEATURES BY THE NEXT RAIN).

7. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASE IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE. IN AREAS EXPERIENCING DROUGHTS WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SEASONAL ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TNRCC UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARDS AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:

A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;

B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;

C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

SAN ANTONIO REGIONAL OFFICE
14250 JUDSON RD.
SAN ANTONIO, TEXAS 78233-4480
PHONE: (210) 490-3096
FAX: (210) 545-4329

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF POLLUTION ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

EXHIBIT 2

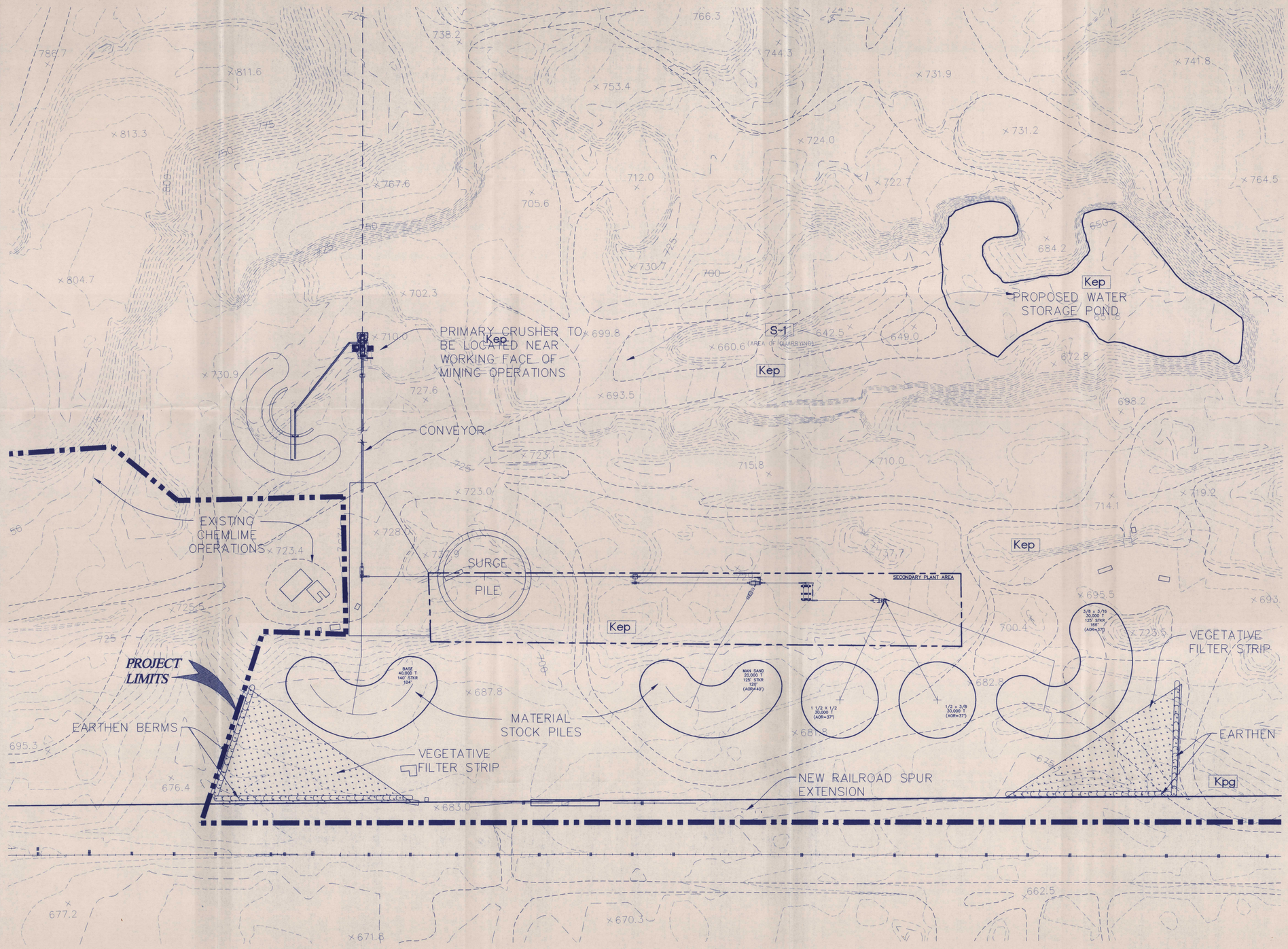
REVISIONS:

STATE OF TEXAS — RUBEN CERVANTES — 58464 — LICENSED

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS
TEMPORARY POLLUTION ABATEMENT PLAN

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

JOB NO. 3479-19-02
DATE MAY 2001
DESIGNER JD
CHECKED CCT DRAWN MTJ
SHEET 1 OF 1

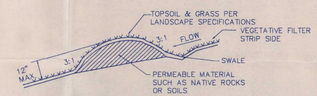


100 0 100 200

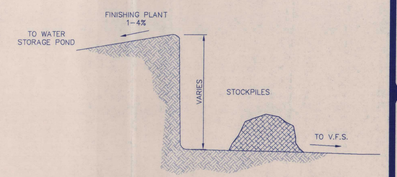
DRAWING SCALE: 1"= 100'

LEGEND

Kep	PERSON FORMATION
Kpg	PECAN GAP CHALK
S-1	POTENTIAL RECHARGE FEATURE (ON-SITE)
	VEGETATIVE FILTER STRIP
	BERM
	EXISTING CONTOURS
	EXISTING ROADS
	PROJECT LIMITS



TYPICAL BERM SECTION
N.T.S.



SECONDARY PLANT GRADING DETAIL
N.T.S.

SUMMARY OF PERMANENT POLLUTION ABATEMENT MEASURES:

1. SILT FENCING WHERE APPROPRIATE WILL BE MAINTAINED UNTIL THE CONSTRUCTION OF THE RAILROAD SPUR, THE FINISHING PLANT, AND THE VEGETATIVE FILTER STRIPS ARE COMPLETED AND ADEQUATE VEGETATION IS ESTABLISHED TO MINIMIZE RUNOFF.

2. PERMANENT BMPS ARE NOT REQUIRED FOR THE SITE PER 30 TAC §213 DUE TO THE LOW IMPERVIOUS COVER.

3. RUNOFF FROM THE PROCESSING AND FINISHING PLANT OPERATIONS WILL EITHER BE DIVERTED TO THE WATER STORAGE POND WHERE FINES WILL BE ALLOWED TO SETTLE PRIOR TO THE WATER BEING RECYCLED IN THE ROCK PROCESSING OPERATIONS OR WILL BE DISCHARGED TO ONE OF TWO VEGETATIVE FILTER STRIPS CONSTRUCTED DOWNGRADIENT OF THE PRODUCT STOCKPILES. STORMWATER WITHIN THE MINING AREAS WILL BE CONTAINED WITH THE MINE.

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EXHIBIT 3

REVISIONS:

STATE OF TEXAS
RUBEN CERVANTES
58464
LICENSED
PROFESSIONAL ENGINEER

PAPE-DAWSON ENGINEERS
555 EAST RAMSEY | SAN ANTONIO, TEXAS 78216 | PHONE: 210.375.9000 FAX: 210.375.9010

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS
PERMANENT POLLUTION ABATEMENT PLAN

JOB NO. 3479-19-02
DATE MAY 2001
DESIGNER JD
CHECKED COT DRAWN MTJ
SHEET 1 OF 2

Date: May 16, 2001, 1:14pm User ID: 1105
File: H:\3479\19\Design\Environmental\PM3479-19.dwg

1300TPH PEAK (1100TPH AVG)

CAT 775D (65T - 69T) HAUL UNIT

PRIMARY HOPPER (70T MIN)

VIBRATING GRIZZLY FEEDER

+6"

JAMBREAKER

-6"

PRIMARY CRUSHER HORIZONTAL IMPACTOR 1000TPH REQD MAX CAPACITY

1,000TPH MAX

BELT MAGNET

METAL DETECTOR

BELT SCALE#1

0-100%

REENING STATION #1

4"

1-3/4"

1/2"

0-100%

0-100%

100-0%

RADIAL STACKER #1

WASTE OR BASE
25,000 TONS CAPACITY

CV-OVERLAND CONV(S)
(OPTIONAL)

FEL

FEED HOPPER
18T

OVERFLOW CHUTE

SURGE BIN
180T
MINIMUM

(FUTURE ADDITION FOR PARALLEL PLANT)

RADIAL STACKER #2

FEL UNIT

SURGE PILE
40,000 TONS CAPACITY

VIB. FEEDER
650TPH MAX.

BELT SCALE#2

BELT SCALE#3

SECONDARY RE-CRUSH CIRCUIT SIZED TO FACILITATE REDUCING ALL MATERIAL TO -1 1/2"

REENING STATION #2

4"

2-1/2"

1-1/2"

GATE 0-100%

GATE

25% MIN 100% MAX

0% MIN 75% MAX

10 MINUTES OF STORAGE MINIMUM

SECONDARY CRUSHER HOPPER

VIB. FEEDER

SECONDARY CRUSHER HORIZONTAL IMPACTOR

FOR FLOP GATE MAX %AGE, SEE NOTE ABOVE REGARDING SIZING OF SECONDARY RE-CRUSH CIRCUIT

GATE 0-100%

BELT SCALE#4

RADIAL STACKER #3 (TELESCOPING REQD)

-1-1/2"+0 BASE
40,000 TONS CAPACITY

METAL DETECTOR

BELT MAGNET

10 MINUTES OF STORAGE MINIMUM

VIB. FEEDER

TERTIARY CONE CRUSHER

SCREENING STATION #3

1-1/2"

1/2"

3/16"

TOP DECK DRY

GATE

25% MIN 100% MAX

0% MIN 75% MAX

GATE 0-100%

GATE 50%-50%

SECOND STAGE WASHING

LOG WASHER

LOG/WASHER

PUMP

1,000 GAL SUMP TANK

SAND CLASSIFYING OR WATER SCALPING TANK (IF REQD)

SAND SCREW

H2O OVERFLOW

GRAVITY-FLUME

PONDS

PUMP

FRESH H2O

BELT SCALE#5

RADIA. STACKER #4

MAN SAND
20,000 TONS CAPACITY

MISC:
-WASH DOWN AT ALL STATIONS
-CRUSHER COOLING
-CLASSIFYING/SCALPING TANK IF REQD
-FUTURE DUST SUPPRESSION

WASH/RINSE WATER
SCREEN STATION #3
SCREEN STATION #4

SCREENING STATION #4

1/2"

3/8"

3/16"

BLENDING/ FINGER GATES

BELT SCALE#6

BELT SCALE#7

BELT SCALE#8

RADIAL STACKER #5

3/8"-3/16"
30,000 TONS CAPACITY

1/2"-3/8"
30,000 TONS CAPACITY

1-1/2"-1/2"
30,000 TONS CAPACITY

LEGEND

BELT MAGNET

METAL DETECTOR

BELT SCALE

	DATE	REVISION	BY
12			BY:
11			BY:
10			BY:
9			BY:
8			BY:
7			BY:
6			BY:
5			BY:
4			BY:
3			BY:
2			BY:
1			BY:

FILE NAME: CHEMLIME FLOW SPECS

DESIGN FIRM: MMA

Martin Marietta Aggregates

2710 Wycliff Rd Raleigh, NC 27607

PROPOSED NEW PLANT FLOW SPECIFICATIONS

QUARRY: CHEMLIME

DWN BY:	DATE:	DWNG. NO:	JOB. NO.
SWDIV	12-22-00	PP1-1	PNDG
CK. BY: CORP	SCALE: NTS	SHEET NO.	

FORSTER ENGINEERING

19915 Wittenburg
San Antonio, Texas 78256
p (210) 698-5544 c (210) 771-5721
fforster@forsterengineering.com
www.forsterengineering.com

September 21, 2010

Ms. Javier Anguiano
TCEQ Region 13
14250 Judson Road
San Antonio, Texas 78233-4480

Via Email: JAnguian@tceq.state.tx.us

Re: Martin Marietta Materials New Braunfels Quarry (Operations Modification)
Request for Modification of an Approved Water Pollution Abatement Plan (WPAP)
Edwards Aquifer Protection Program (EAPP) File No. 1691.02
Investigation No. 828728; Regulated Entity No. RN102747003
Response to Notice of Deficiency (NOD) Letter 2 September 10, 2010

Dear Mr. Anguiano:

Please accept this letter as written notification and formal request to withdraw the referenced permit application. Please retain the application fee for use on a future application on behalf of Martin Marietta Materials, Inc.

The following are partial responses to comments from your office dated September 10, 2010 regarding the above referenced project, for inclusion in the project files.

1. A copy of the laboratory results documenting the settling pond floor rock sample permeability is attached.

2. As stated in our August 27, 2010 meeting, the water depth in the settling pond will be less than eight feet from the top of the settled-out sediment to the water surface due to constant recycling of the process water.

Please confirm receipt of this communication. If you have any questions or require additional information, please fee free to contact me at your earliest convenience.

Sincerely,
Forster Engineering
TBPE Firm No. 12385

Charles P. "Frosty" Forster, P.E., P.G.
Principal

Attachments

Engineering · Testing · Environmental · Facilities · Infrastructure

Raba Kistner

Raba-Kistner Consultants, Inc.
12821 W. Golden Lane
P.O. Box 690287, San Antonio, TX 78269-0287
(210) 699-9090 • FAX (210) 699-6426
www.rkci.com
TBPE Firm F-3257

Project No. Project No. ASD10-010-01
Assignment No. S10-017805
May 11, 2010

Mr. Dale B. Martin, P.E.
Martin Marietta Materials SW, Ltd.
5710 West Hausman – Suite 121
San Antonio, Texas 78249

RE: Permeability Testing on Limestone Core from Proposed Settling Pond Location Floor Slab

Dear Mr. Martin:

On April 26, 2010, we received in our laboratory a solid bulk limestone sample for laboratory testing. A core was obtained for laboratory determination of permeability. Test results are presented below:

Dry Density (lbs/ft^3): 165.3

Moisture Content (%): 0.3

Permeability (ASTM D 5084 – Modified for Limestone:
average permeability less than 2.8 x 10^{-10} cm/sec

Note: This test was terminated after 10 days and would have been less permeable if allowed to proceed.

We appreciate the opportunity to be of technical service to you on this project. If we may be of additional assistance, please do not hesitate to call.

Very truly yours,

RABA-KISTNER CONSULTANTS, INC.

STATE OF TEXAS
KENNETH W. MARQUARDT
22371
LICENSED
PROFESSIONAL ENGINEER

V. Kathi Dixon
Supervisor, Geotechnical Lab

Kenneth W. Marquardt, P.E.
Project Manager

VKD/KWM/dgp

Copies submitted: Above (1)
Forster Engineering (1)

W:\Active Projects\San Antonio\2010\ASD10-010-01 (Martin Marietta) Testing Services\Letters\S10-017805.doc

FORSTER ENGINEERING

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San Antonio, Texas 78256
p (210) 698-5544 c (210) 771-5721
fforster@forsterengineering.com
www.forsterengineering.com

August 30, 2010

Ms. Javier Anguiano
TCEQ Region 13
14250 Judson Road
San Antonio, Texas 78233-4480

Re: Martin Marietta Materials New Braunfels Quarry (Operations Modification)
Request for Modification of an Approved Water Pollution Abatement Plan (WPAP)
Edwards Aquifer Protection Program (EAPP) File No. 1691.02
Investigation No. 828728; Regulated Entity No. RN102747003
Response to Notice of Deficiency (NOD) Letter

Dear Mr. Anguiano:

The following are responses to the comments from your office dated August 10, 2010, regarding the above referenced project. A copy of the comment letter is attached for reference.

General Concerns:

1. Please provide a supplemental handout that illustrates the drainage area of the proposed Pond-B (un-lined settling pond).

   Response: Exhibit 2 has been revised to illustrate the approximate drainage area of proposed Pond-B. A copy is attached.

TCEQ-0628 Concerns:

2. You requested an exception from the required practice of lining the industrial process water pond (un-lined settling pond) located in the above referenced quarry site. Multiple factors were stated in support of the proposed un-lined settling pond, however, no established studies, monitoring data, or other peer reviewed scientific data was submitted in support of technically justifying the use of this alternative BMP for the protection of the Edwards Aquifer. The TCEQ-EAPP requires that process water ponds be lined in order to meet the requirement of the prohibitions section of Chapter 213. As such, the exception requested is not granted. We ask that use the sizing criteria specified in the Concentrated Animal Feeding Operations (CAFO) rules (30 TAC 321.32(54)) and the liner requirements specified in the Design Criteria for Domestic Wastewater Systems rules (30 TAC 217.203(c)).

   Response: 30 TAC §213 Subchapter A does not contain any specific provision or rule which requires settling ponds to be lined. Although liners have been accepted as a viable permanent Best Management Practice for settling ponds, they are not specifically required by rule. Additionally, the TCEQ Region 13 office has previously approved

settling ponds which utilize only the very fine limestone particles and clay materials to self-seal the settling pond.

The NOD letter states the TCEQ-EAPP requires that process water ponds be sized in accordance with Concentrated Animal Feeding Operations 30 TAC 321.32(54). Furthermore, the TCEQ-EAPP requires the settling ponds be lined in accordance with the Design Criteria for Domestic Wastewater Systems rule 30 TAC 217.203(c). We understand there are regulations TCEQ must abide by and enforce. However, if TCEQ can't deviate from existing regulations even when it is apparent they were intended for other applications, how can TCEQ arbitrarily apply other regulations that are not part of the Edwards regulations? Please explain the process and confirm the legality of selecting and applying unrelated rules and regulations.

Although not required by regulation, the submitted exception request does propose a liner which takes advantage of the impermeable characteristic of the native unfractured limestone, and placement of impermeable flowable fill to seal or repair any areas identified by a Professional Geologist as sensitive karst features with conduit potential to the underlying groundwater. As documented in the Exception Request, the native rock permeability as demonstrated by laboratory testing is 2.8×10^{-10} cm/sec and is almost four hundred times less permeable than a constructed clay liner of 1×10^{-6} cm/sec. Furthermore, the flowable fill will be designed to meet or exceed a permeability 1×10^{-6} cm/sec. This Exception Request includes and demonstrates, with laboratory data, a liner constructed to criteria equivalent to or greater than a clay or synthetic liner. It is also a liner which can be practically constructed. A clay liner constructed to the suggested requirements is totally infeasible and impractical.

This whole issue is required because the settling ponds are to receive what is interpreted as "industrial process water". By regulation definition, we agree it is industrial process water. However, it is important to note that this "industrial process water" is Edwards Aquifer Water, used to wash Edwards Rocks. The wash water contains absolutely no additives, hydrocarbons, or wastes of any type. It certainly is not domestic waste water or sewage, and it is completely unrelated to a confined animal feeding operation where animal waste and sewage is involved.

TCEQ-0602 Concerns:

3. Item 5; As understood, the submitted "sequence of construction" appears to describe the current and future mining operations for the entire quarry site. Please Provide a project specific sequence of construction; i.e. the conversion/construction of the abandoned quarry pit into the proposed settling and recycling pond. Please be aware, based on the activities that will be associated on the revised sequence of construction, a more detail, project specific spill response action (Item 2, Attachment A) may be necessary.

Response: The sequence of construction for Pond B and all future settling ponds is as follows:

- Complete quarry excavation to final pit floor.

- Remove loose material in the quarry floor to bedrock in the proposed settling pond area.
- Conduct and document a detailed geologic assessment of the quarry floor and walls in the proposed settling pond area to identify karst features with conduit potential to the underlying ground water.
- Seal karst features identified as sensitive with flowable fill with a permeability of $1x10^{-6}$ cm/sec
- No surface drainage other than existing drainage which previously flowed into that portion of the quarry during active mining operations will occur.
- Any surface drainage with potential to carry hydrocarbons or contaminant other than native soil will be prevented from entering the settling ponds with berms or diversion ditches.
- Generally, no equipment will operate in the settling pond after the floor has been cleaned and flowable fill has been placed. Occasionally, berms may be constructed to subdivide the settling pond into smaller units or cells, and clay or base material may be placed and compacted on the settling pond floor.
- A water line from the wash-plant will be directed into the settling pond area to conduct and discharge the fines into the settling pond.
- A floating pump will be placed in the settling pond to recover and recycle water.
- No materials other than washed fine limestone particles and clays will be placed in the settling ponds.
- When the pond is full of material, a new mined out portion of the quarry will be identified and the process will be repeated.

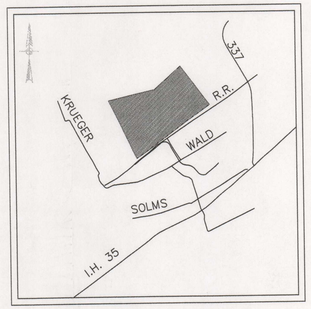
Your prompt attention to this submittal is greatly appreciated. Please do not hesitate to contact our office, if you have further questions or require additional information.

Sincerely,
Forster Engineering
TBPE Firm No. 12385

Charles P. "Frosty" Forster, P.E., P.G.
Principal

Attachments

8/30/10



LOCATION MAP
N.T.S.

LEGEND

S-1	POTENTIAL RECHARGE FEATURE
Kpg	PECAN GAP CHALK
Kep	PERSON FORMATION
U / D	FAULT, LOCATED APPROXIMATELY (D, downthrown side; U, upthrown side)
	DRAINAGE FLOW
	PERMIT BOUNDARY
	EXISTING CONTOURS
	EXISTING ROADS

"RECEIVED FOR RECORD" SAN ANTONIO TEXAS
2010 AUG 31 AM 11:22

NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.

REV. NO	DESCRIPTION	DATE
1	REVISED TOPO	9/21/10

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
CURRENT SITE PLAN

RECEIVED
DEC 02 2010
COUNTY ENGINEER

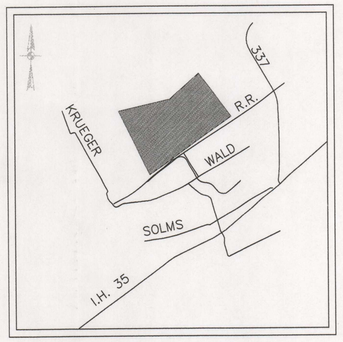
FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED PROFESSIONAL ENGINEER

Charles P. Forster 8/31/10

GENERAL NOTES AND DETAILS

DATE	08/30/2010	JOB NO.	1002-10
SCALE	1"=400'	DRG NO	
DRAWN BY	SNF		EXHIBIT- 1
CHECKED BY	CPF		



LOCATION MAP
N.T.S.

LEGEND

S-1	POTENTIAL RECHARGE FEATURE
Kpg	PECAN GAP CHALK
Kep	PERSON FORMATION
U D	FAULT, LOCATED APPROXIMATELY (D, downthrown side; U, upthrown side)
	DRAINAGE FLOW
	PERMIT BOUNDARY
	EXISTING CONTOURS
	EXISTING ROADS

RECEIVED TCEQ
SAN ANTONIO
REGION
2010 AUG 31 AM 11:22

NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.

REV. NO.	DESCRIPTION	DATE
1	REVISED TOPO	8/30/10
1	ADDED DRAINAGE AREA	8/30/10

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
PROPOSED SITE PLAN,
TEMPORARY & PERMANENT POLLUTION ABATEMENT PLAN

RECEIVED
DEC 0 2 2010
COUNTY ENGINEER

FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED
PROFESSIONAL ENGINEER

8/31/10

GENERAL NOTES AND DETAILS

DATE	08/30/2010	JOB NO.	1002-10
SCALE	1"=400'	DRG NO	EXHIBIT- 2
DRAWN BY	SNF		SHEET 1 OF 2
CHECKED BY	CPF		

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.

5. ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.

6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS TO WATER QUALITY (E.G., FUGITIVE SEDIMENT IN STREET BEING WASHED INTO SURFACE STREAMS OR SENSITIVE FEATURES BY THE NEXT RAIN).

7. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASE IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE. IN AREAS EXPERIENCING DROUGHTS WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SEASONAL ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARDS AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:

A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;

B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;

C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

SAN ANTONIO REGIONAL OFFICE
14250 JUDSON RD.
SAN ANTONIO, TEXAS 78233-4480
PHONE: (210) 490-3096
FAX: (210) 545-4329

GENERAL NOTES:

1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.

2. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASHOUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD FOR EACH PHASE OF CONSTRUCTION.

3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.

4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.

5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.

6. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.

7. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.

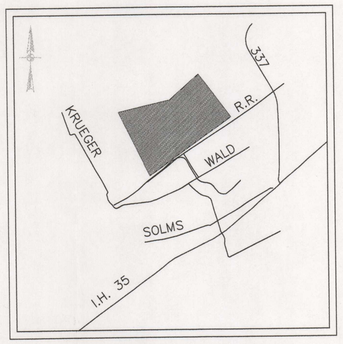
8. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED.

9. ALL TEMPORARY BMP's WILL BE REMOVED ONCE WATERSHED IS STABILIZED.

10. MUD OR DIRT INADVERTENTLY TRACKED OFF-SITE AND ONTO EXISTING STREETS SHALL BE REMOVED AS SOON AS POSSIBLE BY HAND OR MECHANICAL BROOM SWEEPING.

11. PRIOR TO INITIATION OF SUBSEQUENT PHASES OF CONSTRUCTION, TEMPORARY BMP'S INCLUDING SILT FENCING, CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND CONSTRUCTION STAGING AREA SHALL BE FIELD LOCATED AS APPROPRIATE FOR THE AREA OF CONSTRUCTION. MEASURES SHOWN HERE ARE TO SERVE AS GUIDELINES, BUT ARE TO BE ADJUSTED TO ACCOMODATE EXISTING IMPROVEMENTS.

12. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES BUT NOT IN CONFLICT WITH IMPROVEMENTS. THIS PLAN IS FOR VISUAL CLARITY.



LOCATION MAP
N.T.S.

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SAN ANTONIO
REGION
2010 AUG 31 AM 11:22

NOTES:
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REV. NO.	DESCRIPTION	DATE

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
PROPOSED SITE PLAN,
TEMPORARY & PERMANENT POLLUTION ABATEMENT PLAN

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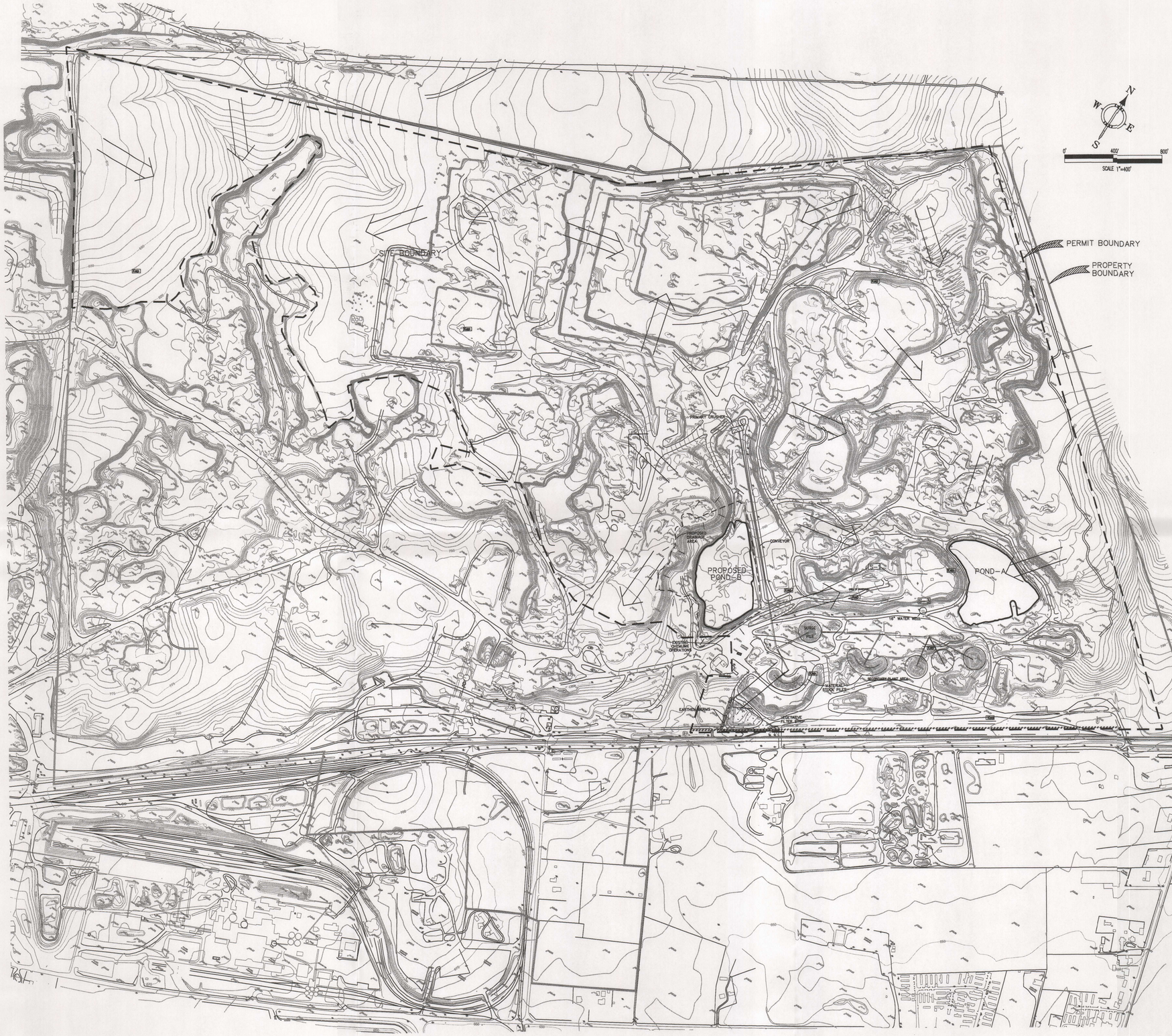
DEC 0 2 2010
COUNTY ENGINEER

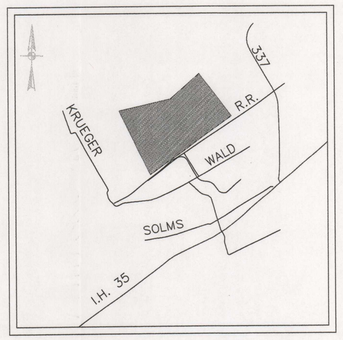
FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED
PROFESSIONAL ENGINEER
8/31/10

GENERAL NOTES AND DETAILS

DATE	08/30/2010	JOB NO.	1002-10
SCALE		DRG NO	EXHIBIT- 2
DRAWN BY	SNF		SHEET 2 OF 2
CHECKED BY	CPF		





LOCATION MAP
N.T.S.

LEGEND

- S-1 — POTENTIAL RECHARGE FEATURE
- Kpg — PECAN GAP CHALK
- Kep — PERSON FORMATION
- FAULT, LOCATED APPROXIMATELY (D, downthrown side; U, upthrown side)
- DRAINAGE FLOW
- PERMIT BOUNDARY
- EXISTING CONTOURS
- EXISTING ROADS

NOTES:
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REV. NO.	DESCRIPTION	DATE
1	REVISED TOPO	9/30/10
1	ADDED DRAINAGE AREA	9/30/10

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SAN ANTONIO
REGION
2010 AUG 31 AM 11:23

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DEC 02 2010
COUNTY ENGINEER

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
OVERALL DRAINAGE AREA MAP

FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED PROFESSIONAL ENGINEER

Charles P. Forster 8/31/10

GENERAL NOTES AND DETAILS

DATE	08/30/2010	JOB NO.	1002-10
SCALE	1"=400'	DRG NO	EXHIBIT- 3
DRAWN BY	SNF		
CHECKED BY	CPF		

LOCATION MAP
N.T.S.

LEGEND

- S-1 — POTENTIAL RECHARGE FEATURE
- Kpg — PECAN GAP CHALK
- Kep — PERSON FORMATION
- FAULT, LOCATED APPROXIMATELY (D, downthrown side; U, upthrown side)
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- EXISTING ROADS

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REV. NO.	DESCRIPTION	DATE
1	REVISED TOPO	8/30/10

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REGION
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COUNTY ENGINEER

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
GEOLOGICAL ASSESSMENT

FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
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STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED
PROFESSIONAL ENGINEER

8/31/10

GENERAL NOTES AND DETAILS

DATE	08/30/2010	JOB NO.	1002-10
SCALE	1"=400'	DRG NO	EXHIBIT- 4
DRAWN BY	SNF		
CHECKED BY	CPF		

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 28, 2010

Mr. Jason Reed
Martin Marietta Materials Southwest, Ltd.
5710 West Hausman Road, Suite 121
San Antonio, Texas 78249-1646

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Martin Marietta New Braunfels Quarry (Operations Modification); Located on Apg Lane off Wald Road, north of IH 35; New Braunfels, Texas
TYPE OF PLAN: Request for Modification of an Approved Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer; Edwards Aquifer Protection Program San Antonio File No. 1691.02; Investigation No. 828728; Regulated Entity No. RN102747003

Dear Mr. Reed:

The TCEQ received confirmation from your authorized agent, Forster Engineering, to withdraw the above referenced water pollution abatement plan application from review on September 23, 2010. Because you have voluntarily withdrawn the plan, the application fee of $10,000 can be refunded. However, per your request, the review fee will be retained by the TCEQ and applied to the future submittal of the revised water pollution abatement plan application.

If you have any questions or require additional information, please contact Javier Anguiano of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4019.

Sincerely,

Todd Jones
Water Section Team Leader
Texas Commission on Environmental Quality

TJ/JA/eg

cc: Mr. Charles P. Forster, P.E., P.G., Forster Engineering
Mr. James C. Klein, P.E., City of New Braunfels
Mr. Thomas H. Hornseth, P.E., Comal County
Mr. Karl J. Dreher, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 18, 2010

RECEIVED
JUN 21 2010
COUNTY ENGINEER

Mr. Thomas H. Hornseth, P.E.
Comal County Engineer
195 David Jonas Drive
New Braunfels TX 78132-3710

Re: Edwards Aquifer, Comal County
PROJECT NAME: Martin Marietta New Braunfels Quarry, located at 381 APG Lane, New Braunfels, Texas
PLAN TYPE: Application for Approval of a Water Pollution Abatement Plan (WPAP) 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program
EAPP File No.: 1691.02

Dear Mr. Hornseth:

The referenced application administratively complete on June 17, 2010, is being forwarded to you pursuant to the Edwards Aquifer Rules. The Texas Commission on Environmental Quality (TCEQ) is required by 30 TAC Chapter 213 to provide copies of all applications to affected incorporated cities and underground water conservation districts for their comments prior to TCEQ approval.

Please forward your comments to this office by July 16, 2010.

The Texas Commission on Environmental Quality appreciates your assistance in this matter and your compliance efforts to ensure protection of the State's environment. If you or members of your staff have any questions regarding these matters, please feel free to contact the San Antonio Region Office at (210) 490-3096.

Sincerely

Lynn M. Bumguardner
Water Section Manager
San Antonio Regional Office

LMB/eg

MARTIN MARIETTA
NEW BRAUNFELS QUARRY
OPERATIONS MODIFICATION

WATER POLLUTION ABATEMENT PLAN MODIFICATION

JUNE 2010

FORSTER
ENGINEERING
19915 Wittenburg
San Antonio, Texas 78256

FORSTER
ENGINEERING

19915 Wittenburg
San Antonio, Texas 78256
p (210) 698-5544 c (210) 771-5721
fforster@forsterengineering.com
www.forsterengineering.com

June 15, 2010

Mr. Todd Jones
Texas Commission on Environmental Quality (TCEQ)
San Antonio Region 13
14250 Judson Road
San Antonio, Texas 78233

Subject: Martin Marietta New Braunfels Quarry Operations Modification
Water Pollution Abatement Plan

Dear Mr. Jones:

Please find attached one (1) original and four (4) copies of the Martin Marietta New Braunfels Quarry Operations Modification Water Pollution Abatement Plan Modification (WPAP). This WPAP has been prepared in accordance with Texas Administrative Code (30 TAC §213) for development over the Edwards Aquifer Recharge Zone.

This WPAP is a modification of a prior approved permit covering approximately 612 acres of active quarry operations in Comal County, Texas. The regulated activity addressed by this permit modification application consists of the construction of additional settling ponds, which will be required over the life of the quarry operations. An exception request for an alternative liner procedure for the additional settling ponds is included in this application. Other activities covered by the original permit are on-going and no changes are proposed or requested.

We are requesting your review and approval of this permit application. The required review fee of $10,000 is included herewith. If you have any questions or require additional information, please do not hesitate to contact me at your earliest convenience.

Sincerely,
Forster Engineering (TBPE # F-12385)

Charles P. "Frosty" Forster, P.E., P.G.
Principal

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED
PROFESSIONAL ENGINEER
6/14/10

General Information Form
For Regulated Activities on the
Edwards Aquifer Recharge and Transition Zones
and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B)
Effective June 1, 1999

REGULATED ENTITY NAME: ***Martin Marietta New Braunfels Quarry Operations Modification***

COUNTY: ***Comal*** STREAM BASIN: ***Dry Comal Creek***

EDWARDS AQUIFER: ✓ RECHARGE ZONE
__ TRANSITION ZONE

PLAN TYPE: __ WPAP __ AST __ EXCEPTION
__ SCS __ UST ✓ MODIFICATION

CUSTOMER INFORMATION

1. Customer (Applicant):

Contact Person: ***Jason Reed***
Entity: ***Martin Marietta Materials Southwest, Ltd.***
Mailing Address: ***5710 West Hausman Road, Suite 121***
City, State: ***San Antonio, Texas*** Zip: ***78249***
Telephone: ***(210) 208-4020*** FAX: ***(210) 208-4065***

Agent/Representative (If any):

Contact Person: ***Charles P. "Frosty" Forster, P.E., P.G.***
Entity: ***Forster Engineering***
Mailing Address: ***19915 Wittenburg***
City, State: ***San Antonio, Texas*** Zip: ***78256***
Telephone: ***(210) 698-5544*** FAX: ***(210) 698-5544***

2. __ This project is inside the city limits of _____.
✓ This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of ***New Braunfels***.
__ This project is not located within any city's limits or ETJ.

3. The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

From TCEQ's Regional office, head south on Judson Road approximately 1.5 miles to Interstate Highway 35. Go north on I.H. 35 approximately 13.5 miles to Solms Road. Proceed north on Solms Road approximately 1 mile to Wald Road and turn right. Proceed 0.1 mile and turn left on Apg Lane. Continue 0.5 miles to end of Apg Lane, cross railroad tracks, veer right and continue 0.1 miles to the quarry office on the right.

4. ✓ **ATTACHMENT A - ROAD MAP**. A road map showing directions to and the location of the project site is attached at the end of this form.

5. ✓ **ATTACHMENT B - USGS / EDWARDS RECHARGE ZONE MAP**. A copy of the

official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached behind this sheet. The map(s) should clearly show:

✓ Project site.
✓ USGS Quadrangle Name(s).
✓ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
✓ Drainage path from the project to the boundary of the Recharge Zone.

6. ✓ Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment. **The TCEQ must be able to inspect the project site or the application will be returned.**

7. ✓ **ATTACHMENT C - PROJECT DESCRIPTION**. ~~Attached at the end of this form~~ ***Directly below*** is a detailed narrative description of the proposed project.

The New Braunfels Quarry is an existing mining facility previously operated by Chemical Lime Corporation (ChemLime). The mining operations have been conducted by various operators since the 1940's. Martin Marietta Materials Southwest, Ltd. (MMM) has a lease agreement with ChemLime to conduct the mining and rock processing operations at the site. This application refers to the "site" as the area controlled and under the responsibility of MMM.

The site is located within the extraterritorial jurisdiction of the City of New Braunfels, in Comal County, Texas. Although there is no permanent population, the typical daily population of MMM employees is approximately thirteen (13) persons per day. The impervious cover is less than 20% and permanent BMPs are not required (30 TAC §213.5(b)(A)(4)(ii)(III)). However, as added measures of protection, permanent BMPs including storm water capture and recycling and a vegetative filter strip are utilized to minimize pollutant discharge.

On-site mining equipment is maintained off site at an existing ChemLime maintenance shop. Fuel is provided by an off-site aboveground diesel storage tank operated by ChemLime. To the maximum degree practicable, all equipment maintenance and repairs are conducted off site.

The quarry produces rock products for many commercial and industrial applications such as chemical lime, concrete, road base, road aggregate, landscaping, etc. These products are created by first blasting in situ rock into fragments small enough they can be processed through a primary crusher. The primary crusher creates a nominal rock size 8-inches or smaller. These 8-inch rocks are transported by conveyor to a secondary crusher system. The secondary crusher system reduces the 8-inch rocks into various final product sizes referred to as aggregates. Before the aggregates can be sold, they must be washed and cleaned of fine limestone particles and clay materials. Edwards Aquifer water is utilized to wash and clean the aggregates. No detergents, flocculants, or any other chemicals are used in the washing process, only clean groundwater. The resulting slurry of fine limestone particles, clay and water is currently pumped to a clay-lined settling pond where the solids settle-out and the water is re-cycled.

The fine limestone particles and clay material comprise 20 to 30 percent by volume of the total quarried rock, have no commercial value, and require large

disposal areas. The obvious and historical location to locate settling ponds to accept these large volumes of un-marketable material is back in the quarry pit itself. As the quarry progresses, and the active settling pond fills up with fine materials, additional mined-out areas are identified and utilized for settling ponds. This is a standard and typical part of the complete quarry process; quarry areas are mined, material is crushed and washed, fine materials are returned to settling ponds in mined-out portions of the quarry, and the process repeats. Because of the large volume of materials, there is no other logical, practical, or economical location to place the fines.

The regulated activity addressed by this permit modification application consists of the construction of additional settling ponds which will be required over the life of the quarry operations. An exception request for an alternative liner procedure for the additional settling ponds is also included in this application. Other activities covered by the original permit are on-going and no changes are requested.

The proposed location of the first additional settling pond is identified as Pond B. The existing permitted settling pond, identified as Pond A, is near capacity for sediment storage. Following construction of Pond B, Pond A will no longer be utilized as a settling pond. Pond B will be located in a previously quarried pit. The walls and floor on the pit consist of massively bedded limestone. As described in the Exception Request, after a detailed geologic assessment of the proposed settling pond location, sensitive karst features with conduit potential to the underlying aquifer located in the proposed settling pond area will be sealed with flowable fill. As described in the Exception Request, the resulting settling pond area will have a permeability less than or equal to liner requirements identified in the Technical Guidance Manual. As the quarry operations continue through the mine life, future settling ponds will also be located in previously quarried pit locations. Each of these future settling ponds will undergo the same detailed level of geologic assessment and sensitive karst feature sealing procedures.

8. Existing project site conditions are noted below:

- ___ Existing commercial site
- ✓ Existing industrial site
- ___ Existing residential site
- ✓ Existing paved and/or unpaved roads
- ✓ Undeveloped (Cleared)
- ✓ Undeveloped (Undisturbed/Uncleared)
- ✓ Other: ***Active Quarry Operations***

PROHIBITED ACTIVITIES

9. ✓ I am aware that the following activities are prohibited on the **Recharge Zone** and are not proposed for this project:

(1) waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);

(2) new feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;

(3) land disposal of Class I wastes, as defined in 30 TAC §335.1;
(4) the use of sewage holding tanks as parts of organized collection systems; and
(5) new municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

10. ✓ I am aware that the following activities are prohibited on the **Transition Zone** and are not proposed for this project:

(1) waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
(2) land disposal of Class I wastes, as defined in 30 TAC §335.1; and
(3) new municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

ADMINISTRATIVE INFORMATION

11. The fee for the plan(s) is based on:

✓ For a Water Pollution Abatement Plan and Modifications, the total acreage of the site where regulated activities will occur.
___ For an Organized Sewage Collection System Plans and Modifications, the total linear footage of all collection system lines.
___ For a UST Facility Plan or an AST Facility Plan, the total number of tanks or piping systems.
___ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
___ A request for an extension to a previously approved plan.

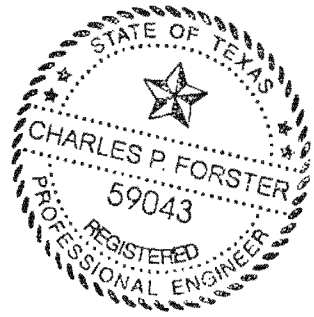
12. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

___ TCEQ cashier
___ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
✓ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

13. ✓ Submit one (1) original and three (3) copies of the completed application to the appropriate regional office for distribution by the TCEQ to the local municipality or county, groundwater conservation districts, and the TCEQ's Central Office.

14. ✓ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **GENERAL INFORMATION FORM** is hereby submitted for TCEQ review. The application was prepared by:



Forster Engineering
By: Charles P. "Frosty" Forster, P.E, P.G.
Print Name of ~~Customer~~/Agent

Signature of ~~Customer~~/Agent

6/14/10
Date

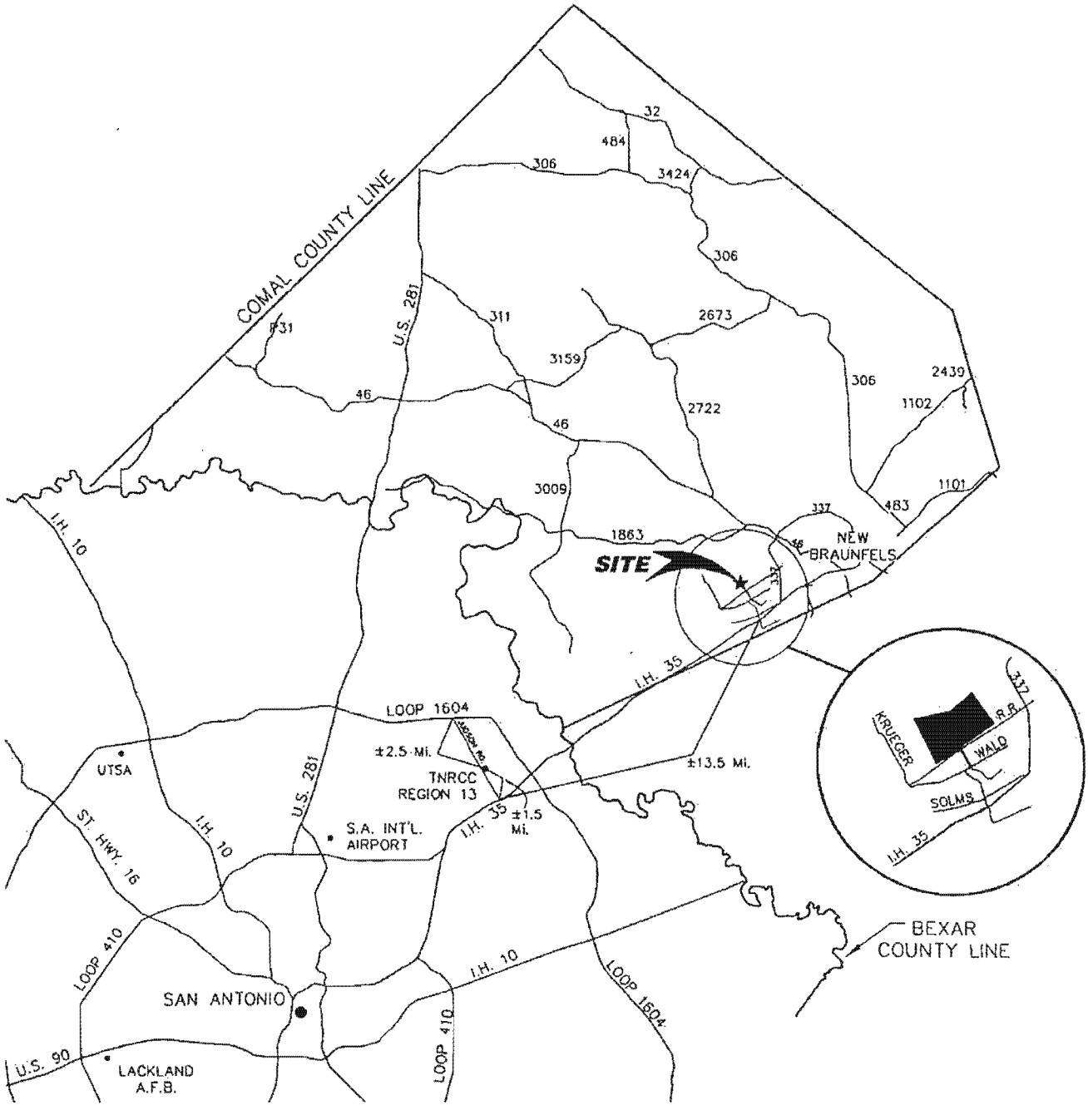
If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

MARTIN MARRIETTA - COMAL COUNTY QUARRY
WATER POLLUTION ABATEMENT PLAN

N

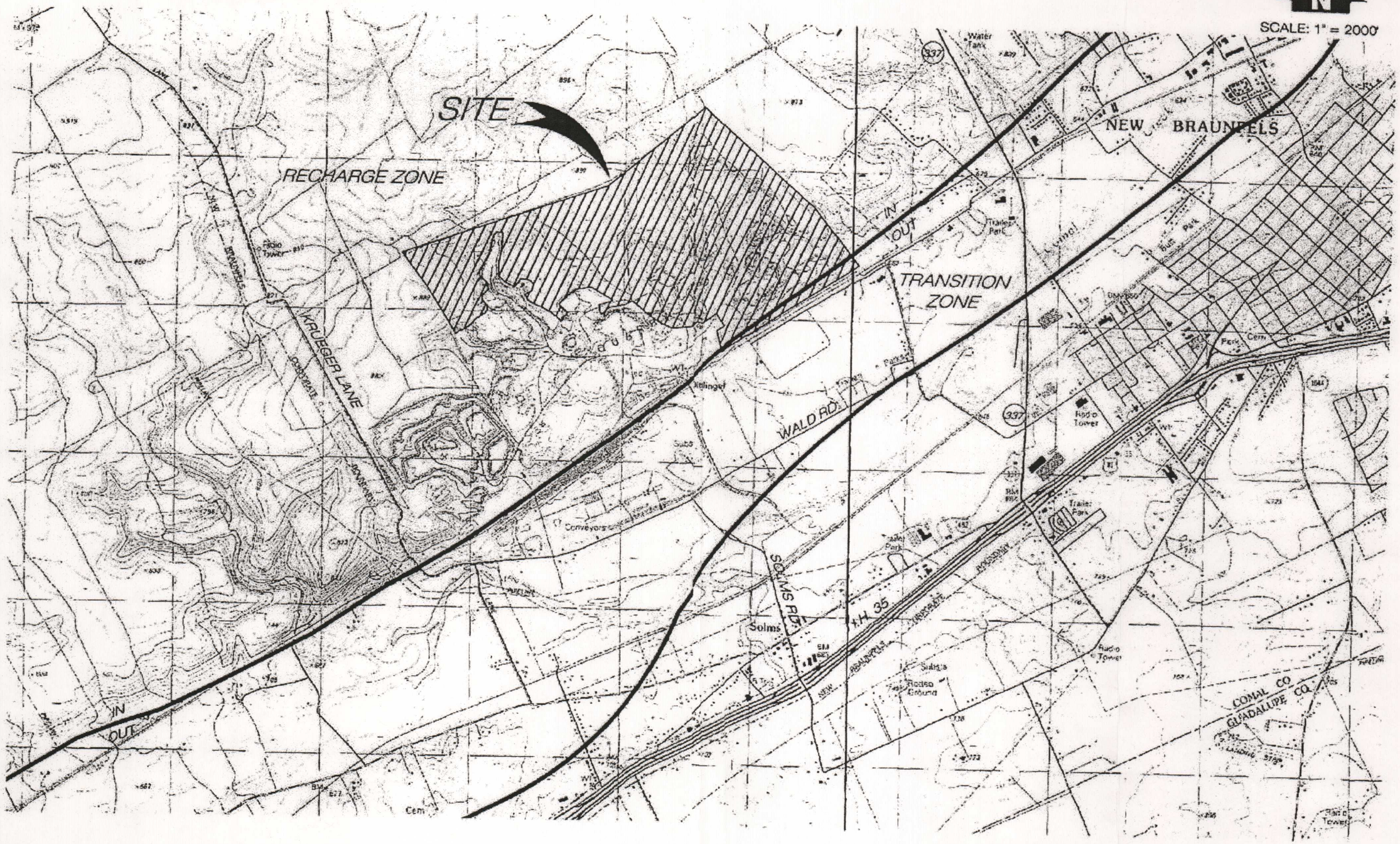
NOT TO SCALE



ATTACHMENT A
ROAD MAP

FORSTER ENGINEERING

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS
WATER POLLUTION ABATEMENT PLAN



NEW BRAUNFELS WEST TX, QUADRANGLE

FORSTER ENGINEERING

USGS/EDWARDS RECHARGE ZONE MAP

ATTACHMENT B

Geologic Assessment

For Regulated Activities
on The Edwards Aquifer Recharge/transition Zones
and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

REGULATED ENTITY NAME: ***Martin Marietta New Braunfels Quarry Operations Modification***

TYPE OF PROJECT: _✓_ WPAP __ AST __ SCS __ UST

LOCATION OF PROJECT: _✓_ Recharge Zone __ Transition Zone __ Contributing Zone within the Transition Zone

PROJECT INFORMATION

1. _✓_ Geologic or manmade features are described and evaluated using the attached **GEOLOGIC ASSESSMENT TABLE (Attachment A)**.

2. Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (*Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A*, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map. **(Attachment B)**

Soil Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (feet)
Comfort-Rock Outcrop	**D**	**.75 - 1.67**
Eckrant-Rock Outcrop	**D**	**.67 - 1.67**
Rumple-Comfort	**C**	**.75 - 3.33**
Branyon Clay	**D**	**0 - 6.7**

* Soil Group Definitions (Abbreviated)

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

3. _✓_ A **STRATIGRAPHIC COLUMN** is attached at the end of this form that shows formations, members, and thicknesses. The outcropping unit should be at the top of the stratigraphic column. **(Attachment C)**

4. _✓_ A **NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY** is attached at the end of this form. The description must include a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure, and karst characteristics of the site. **(Attachment D)**

5. _✓_ Appropriate **SITE GEOLOGIC MAP(S)** are attached: **(Exhibit 4)**

   The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1" : 400'

   Applicant's Site Plan Scale 1" = ***400'***
   Site Geologic Map Scale 1" = ***400'***
   Site Soils Map Scale (if more than 1 soil type) 1" = ***1000'***

6. Method of collecting positional data:

_✓_ Global Positioning System (GPS) technology.
___ Other method(s).

7. _✓_ The project site is shown and labeled on the Site Geologic Map.

8. _✓_ Surface geologic units are shown and labeled on the Site Geologic Map.

9. _✓_ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
___ Geologic or manmade features were not discovered on the project site during the field investigation.

10. _✓_ The Recharge Zone boundary is shown and labeled, if appropriate.

11. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.):

_✓_ There are _1_ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
___ The wells are not in use and have been properly abandoned.
___ The wells are not in use and will be properly abandoned.
_✓_ The wells are in use and comply with 16 TAC Chapter 76.
___ There are no wells or test holes of any kind known to exist on the project site.

ADMINISTRATIVE INFORMATION

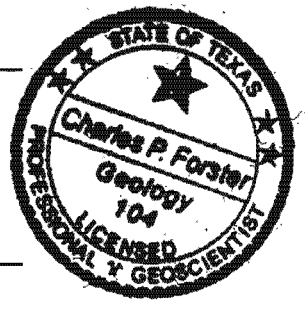
12. _✓_ One (1) original and three (3) copies of the completed assessment has been provided.

Date(s) Geologic Assessment was performed: December 1, 2000 and June 4, 2010
Date(s)

A Geologic Assessment was originally performed by Pape-Dawson Engineers on December 1, 2000. The Geologic Assessment conducted June 4th was limited to evaluation of the sensitivity of the fault, and to update the prior Geologic Assessment on current forms.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Charles P. "Frosty" Forster, P.E., P.G. — Print Name of Geologist



(210) 698-5544 — Telephone

(210) 698-5544 — Fax

Signature of Geologist

6/14/10 — Date

Representing: ***Forster Engineering***
(Name of Company)

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

GEOLOGIC ASSESSMENT TABLE			PROJECT NAME: *Martin Marietta New Braunfels Quarry Operations Modification*																	
LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	RQD	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	≥40	<1.6	≥1.6	
S-1	29°41'18"	98°10'23"	MB	30	Kep/Kpg					0			X	5	35	35			X	Streambed
S-2	29°41'14.7"	98°10'14.1"	F	20	Kep/Kpg		3545		N53°E	10			F	5	35	35			X	Streambed
S-3	29°41'16.3"	98°10'22.5"	MB	30	Kep					0		16"		15	45		45	X		Hillside

* DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Charles P. Forster Date 6/14/10

STATE OF TEXAS
Charles P. Forster
Geology
104
LICENSED
PROFESSIONAL GEOSCIENTIST

ATTACHMENT A

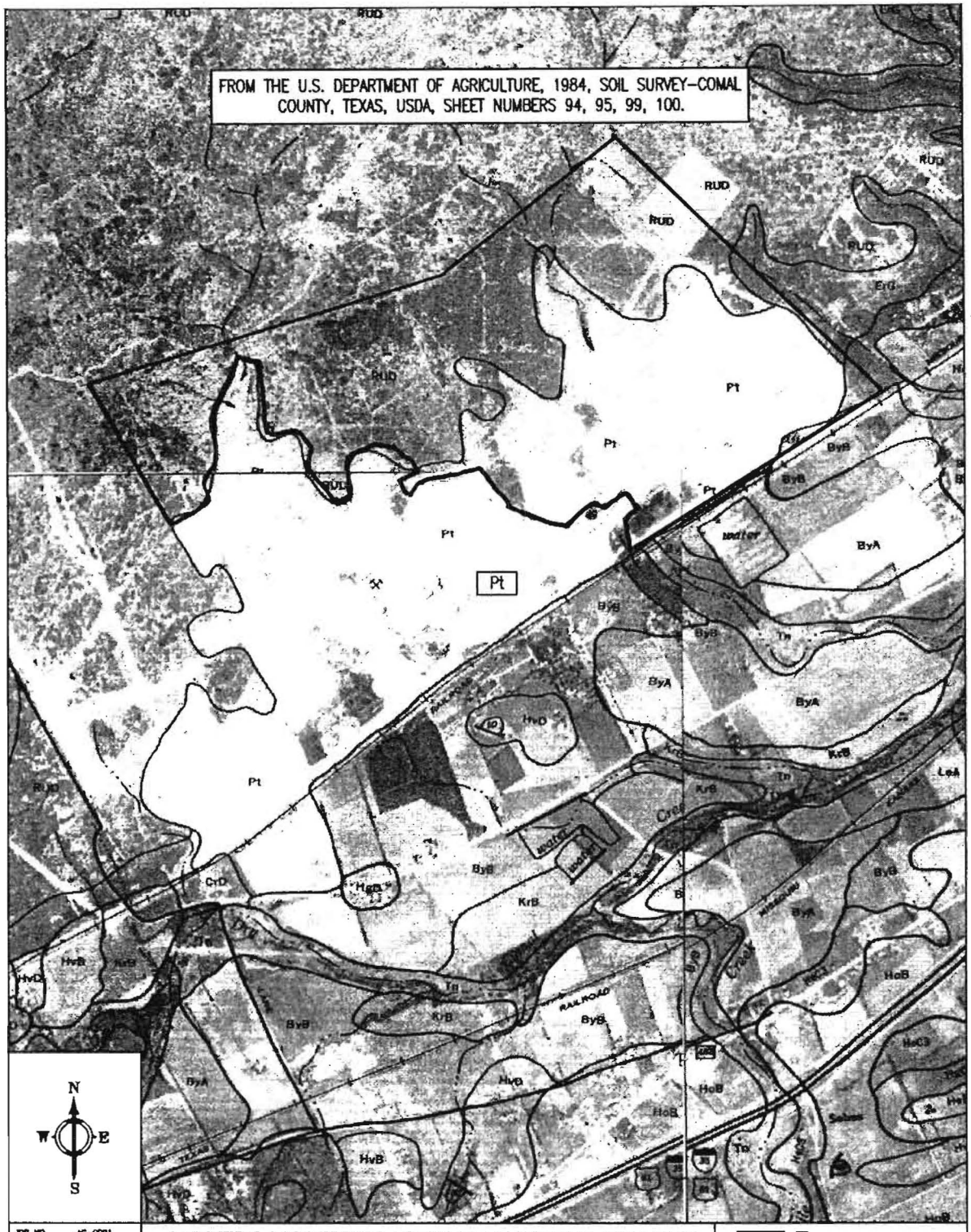
MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION GEOLOGIC ASSESSMENT

Comments to the Geologic Assessment Table

Feature S-1
Feature S-1 is the quarry area, which constitutes a man-made feature in bedrock. The limestone itself has minimal permeability, and excavation within intact limestone is not considered to increase the infiltration rate. Due to the presence of standing water in the excavations, and the presence of intact limestone with no observed sensitive geologic recharge features, the probability of rapid infiltration is low.

Feature S-2
Feature S-2 is a fault coinciding with the Edwards Aquifer Recharge Zone boundary identified by review of aerial photographs, published maps and previous mapping performed by Pape-Dawson Engineers. The fault juxtaposes the Kepcm north of the fault to the Kpg south of the fault. Forster Engineering revisited the fault June 4, 2009 to establish a sensitivity ranking. The majority of the fault trace has been disturbed or developed over. However, several portions of the fault within areas of minimal disturbance were observed. No evidence of enhanced permeability at the ground surface was noted. Therefore, the lack of direct evidence of enhanced permeability at the ground surface and the presence of a well-developed soil profile in undisturbed areas of the fault suggest the probability of rapid infiltration is low.

Feature S-3
Feature S-3 is an active 16" Edwards Aquifer water well used for material processing operations at the quarry. Because the well is cased, in use, and maintained in good repair, the probability of rapid infiltration is low. However, because of its direct connection to the aquifer, it was assigned a conservative sensitivity rating of 15 for probability of rapid infiltration



JOB NO.	AC-0001
DATE	08/10/10
SCALE	1"=2000'
DRAWN BY	JRL
CHECKED BY	CFF

ATTACHMENT B
SHEET 3 OF 3

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION

ON-SITE SOIL TYPES

GEOLOGIC ASSESSMENT

FORSTER ENGINEERING
TBPE firm # 12383
19015 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
GEOLOGIC ASSESSMENT

Stratigraphic Column

Hydrogeologic subdivision			Group, formation, or member			Hydrologic function	Thickness (feet)	Lithology	Field Identification	Cavern development	Porosity/ permeability type
Upper Cretaceous	Upper confining units		Pecan Gap Chalk (Kpg)			CU	100-400	Chalk and chalky maryl	Seldom exposed; weathers to form moderately deep soil	None	Low porosity/low permeability
			Austin Chalk (Kau)			CU	200-225	Limestone and argillaceous chalky limestone	Glauconitic; fossiliferous, Gryphaea ancella	Caves related to structure	Some fracture plane and bedding plane
			Eagle Ford Group (Kef)			CU	30-50	Brown, flaggy shale and argillaceous limeston	Thin Flagstone; petroliferous	None	Primary porosity lost/low permeability
			Buda Limestone (Kbu)			CU	40-50	Buff, light gray, dense mudstone	Porcelaneous limestone with calcite-filled veins	Minor surface karst	Low porosity/low permeability
			Del Rio Clay (Kdr)			CU	40-50	Blue-green to yellow-brown clay	Fossiliferous; Ilymatogyra arietina	None	None/primary upper confining unit
Lower Cretaceous	I	*Edwards Aquifer*	Georgetown Formation (Kgt)			Karst AQ; no karst CU	2-20	Reddish-brown, gray to light tan marly limestone	Marker fossil; *Waconella wacoensis*	None	Low porosity/low permeability
	II		*Edwards Group*	*Person Formation (Kep)*	Cyclic and marine members, undivided	AQ	80-90	Mudstone to packstone; *miliolid* grainstone; chert	Thin graded cycles; massive beds to relatively thin beds; crossbeds	Many subsurface; might be associated with earlier karst development	Laterally extensive; both fabric and not fabric/water-yielding
	III				Leached and collapsed members, undivided	AQ	70-90	Crystalline limestone; mudstone to grainstone; chert; collapsed breccia	Bioturbated iron-stained beds separated by massive limestone beds; stromatolitic limestone	Extensive lateral development; large rooms	Majority not fabric/one of the most permeable
	IV				Regional dense member	CU	20-24	Dense, argillaceous mudstone	Wispy iron-oxide stains	Very few; only vertical fracture enlargement	Not fabric/low permeability; vertical barrier
	V			*Kainer Formation (Kek)*	Grainstone member	AQ	50-60	*Miliolid* grainstone; mudstone to wackestone; chert	White crossbedded grainstone	Few	Not fabric/ recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50-60	Highly altered crystalline limestone; chalky mudstone; chert	Boxwork voids, with neospar and travertine frame	Probably extensive cave development	Majority fabric/one of the most permeable

	VII			Dolomitic member	AQ	110 -130	Mudstone to grainstone; crystalline limestone; chert	Massively bedded light gray, *Toucasia* abundant	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane-fabric/water-yielding
	VIII			Basal nodular member	Karst AQ; not karst CU	50-60	Shaly, nodular limestone mudstone and *miliolid* grainstone	Massive, nodular and mottled, *Exogyra texana*	Large lateral caves at surface; a few caves near Cibolo Creek	Fabric; stratigraphically controlled/large conduit flow at surface; no permeability in subsurface
	Lower confining unit	Upper member of the Glen Rose Limestone (Kgru)			CU; evaporite beds AQ	350-500	Yellowish tan, thinly bedded limestone and marl	Stair-step topography; alternating limestone and marl	Some surface cave development	Some water production at evaporite beds / relatively impermeable

Reference: U.S.G.S. Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas; Water-Resources Investigations Report 95-4030

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
GEOLOGIC ASSESSMENT

Narrative of Site Specific Geology

The site is an existing mining facility. As such, very little area covered by the geologic assessment had natural soil over bedrock. The overall potential of recharge to the Edwards Aquifer at the site is low. No geologic features that would be considered sensitive by current TCEQ criteria were identified on site during the geologic mapping for the original geologic assessment performed in 2001. The predominant trend for the site is approximately N53°E based on the on-site fault coincident with the Edwards Aquifer Recharge Zone boundary.

According to the original geologic assessment, the portion of the site that has been excavated is located within the cyclic and marine (Kepcm) members of the Person Formation. The Kepcm is characterized by a mudstone to packstone *milliolid* grainstone, and chert. Karst development within the Kepcm is characterized by small sinkholes, and caves developed as vertical shafts as well as lateral rooms. The southeastern portion of the site is located within the Pecan Gap Chalk (Kpg). The Kpg consists of chalk and chalky marl, is bluish gray in the subsurface and weathers to tan, gray, and buff. The Kpg has a blocky structure with closely spaced joints, often filled with calcite and gypsum. Karst development within the Kpg is essentially nonexistent. No caves or sinkholes were identified on site.

A Geologic Assessment for the site was performed by Pape-Dawson Engineers, dated May 16, 2001. Because the Geologic Assessment report was submitted on outdated TCEQ forms, the Geologic Assesment report has been updated on recent forms. Geologic information from the referenced report has been relied upon during preparation of this report. Due to the previous "possibly sensitive" ranking of the on-site fault, the fault was reevaluated using current TCEQ criteria.

Modification of a Previously Approved Plan
for Regulated Activities on the
Edwards Aquifer Recharge Zone and Transition Zone
and Relating to 30 TAC 213.4(j), Effective June 1, 1999

1. Current Regulated Entity Name: ***Martin Marietta ~~Materials Southwest Ltd.~~*** NEW BRAUNFELS QUARRY
   Original Regulated Entity Name: ***Martin Marietta ~~Materials Southwest Ltd.~~*** NEW BRAUNFELS QUARRY
   Assigned Regulated Entity Numbers (RN): 1) **102747003**, 2) _____, 3) _____

   ✓ The applicant has not changed and the Customer Number (CN) is: CN ***600134696***
   ___ The applicant has changed. A new Core Data Form has been provided.

2. ✓ **Attachment A: Original Approval Letter and Approved Modification Letters:** A copy of the original approval letter and copies any letters approving modification are found at the end of this form.

3. A modification of a previously approved plan in requested for (check all that apply):

   ✓ physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   ___ change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   ___ development of land previously identified as undeveloped in the original water pollution abatement plan;
   ___ physical modification of the approved organized sewage collection system;
   ___ physical modification of the approved underground storage tank system;
   ___ physical modification of the approved aboveground storage tank system.

4. Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	Approved Project	Proposed Modification
Acres	***612***	***612***
Type of Development	***Quarry***	***Quarry***
Number of Residential Lots	***0***	***0***
Impervious Cover (acres)	***0.77***	***0.77***
Impervious Cover (%)	***0.001***	***0.13****
Permanent BMPs	***Vegetated filter strips and on-site water settling pond***	**** Correct typo of original WPAP Impervious Cover % Vegetated filter strips and on-site water settling ponds***
Other	***Impermeable clay liner for original water settling pond***	***Sealing sensitive karst features with conduit potential to the underlying aquifer with flowable fill. Establishing process for location and construction of life-of-quarry settling ponds.***

SCS Modification Summary	Approved Project	Proposed Modification
Linear Feet		
Pipe Diameter		

Other		

AST Modification Summary	Approved Project	Proposed Modification
Number of ASTs		
Volume of ASTs		
Other		

UST Modification Summary	Approved Project	Proposed Modification
Number of USTs		
Volume of USTs		
Other		

5. ✓ **Attachment B: Narrative of Proposed Modification**. A narrative description of the nature of the proposed modification is provided ***below*** ~~at the end of this form~~. It discusses what was approved, including previous modifications, and how this proposed modification will change the approved plan.

The WPAP approved July 2, 2001 included construction of an on-site water storage pond with an impermeable liner (Pond A) in a previously quarried pit area. Water used to wash rock products was pumped to the water settling pond and recycled after the fines settled out. The water storage pond (Pond A) is nearing its capacity for sediment storage. Therefore, the modification proposed by this application consists of the construction of a new water settling pond (Pond B), as well as provisions for future settling ponds.

As with Pond A, Pond B and subsequent ponds will also be constructed in mined-out portions of the quarry, contain water used to wash rock products, and provide a storage area for settling fines and water reclamation. Since all future ponds will be constructed to the same detailed specifications identified in the attached Exception Request, this modification is structured to provide the quarry with operational flexibility, reduce the burden of regulatory review efforts, reduce paper-work, and reduce permitting fees. As additional settling ponds are required to accommodate the quarry process, a letter submittal and exhibit illustrating the proposed location for each new settling pond will be provided to the TCEQ as an update to this modification.

This modification also includes an Exception Request submitted as an alternative to clay or other synthetic liners by incorporating the following process:

- ***Remove loose material in the quarry floor in the proposed settling pond area to bedrock.***
- ***A Professional Geologist will conduct and document a detailed geologic assessment of the quarry floor and walls in the proposed settling pond area sufficient to identify karst features with conduit potential to the underlying ground water.***
- ***Karst features identified as sensitive by the Professional Geologist will be sealed with flowable fill with a permeability of 1 x 10-6 cm/sec or less as directed by a Professional Engineer.***

6. ✓ **Attachment C: Current site plan of the approved project.** A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is provided at the end of this form **as Exhibit 1**. A site plan detailing the changes proposed in the submitted modification is required elsewhere.

___ The approved construction has not commenced. The original approval letter, and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.

___ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.

___ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.

✓ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.

___ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ___ The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.

✓ Acreage has not been added to **or** removed from the approved plan.

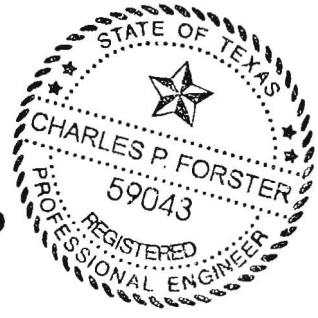
8. ✓ One (1) original and 3 copies of the complete application has been provided.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This request for a **MODIFICATION TO A PREVIOUSLY APPROVED PLAN** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Forster Engineering
Charles P. "Frosty" Forster, P.E, P.G.
Print Name of ~~Customer~~/Agent

Charles P Forster
Signature of ~~Customer~~/Agent

6/14/10
Date



TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

July 2, 2001

Mr. David Little
Martin Marietta Materials Southwest, Ltd.
11467 Huebner Road, #300
San Antonio, Texas 78230

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Martin Marietta Materials New Braunfels Quarry; Located on north side of Wald Road, approximately 1.5 miles north of IH-35; New Braunfels, Texas
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer
Edwards Aquifer Protection Program File No. 1691.00

Dear Mr. Little:

The Texas Natural Resource Conservation Commission (TNRCC) has completed its review of the WPAP application for the referenced project submitted to the San Antonio Regional Office by Cara Tackett of Pape-Dawson Engineers, Inc. on behalf of Martin Marietta Materials Southwest, Ltd. (MMM) on May 16, 2001. Final review of the WPAP submittal was completed after additional material was received on June 21, 2001. As presented to the TNRCC, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed no later than 20 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

BACKGROUND

The subject site is 612 acres located within 991.92 acres owned by Chemical Lime Company. Portions of this property have been mined since 1908. Chemical Lime Company acquired the property in 1998.

PROJECT DESCRIPTION

The proposed industrial project will have an area of approximately 612 acres. As presented, the site is an existing quarry that has been operating since the 1940's, currently operated by Chemical Lime Corporation.

The mining operation will be subcontracted to MMM, which has developed a 30 year mine plan for the site. A processing and finishing plant for crushing rock, and a railroad spur will be constructed. A water storage pond with an impermeable liner will be constructed, and a trailer will also be placed on-site for use by MMM employees. The impervious cover will be 0.77 acres (0.001 percent). According to the Comal County Office of Environmental Health, License to Operate a Private Sewage Facility (License #75361), the site is approved for less than 500 gallons of wastewater per day.

PERMANENT POLLUTION ABATEMENT MEASURES

The subject site is an existing quarry that has been in operation since the 1940's. The proposed regulated activity is the construction of a rock crushing facility. The construction will involve the addition of 0.77 acres of impervious cover (0.001%). Permanent BMPs are not required per 30 TAC §213.5(b)(A)(4)(ii)(III) because the impervious cover is less than 20%. However, as added measures of protection, two vegetated filter strips will be installed downgradient of the processed rock material stockpiles. The remainder of stormwater runoff from the finishing plant will be directed to an on-site water storage and recycle pond and will not be discharged from the site.

GEOLOGY

According to the geologic assessment included with the application, the existing quarry is a sensitive feature, and a fault zone is a possibly sensitive feature. The San Antonio Regional Office did not conduct a site investigation.

SPECIAL CONDITIONS

If the impervious cover ever increases above 20 percent or the land use changes, the exemption for the whole site may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.

STANDARD CONDITIONS

1. Pursuant to §26.136 of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. Within 60 days of receiving written approval of an Edwards Aquifer protection plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TNRCC-0625) that you may use to deed record the approved WPAP is enclosed.

3. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.

4. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

5. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and file number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

6. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. _____If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TNRCC may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

7. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

<u>During Construction:</u>

8. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

9. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.

10. No wells exist on the site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.

11. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

12. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

13. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

14. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TNRCC-10263) is enclosed.

16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

17. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,

Bobby D. Caldwell

for Jeffrey A. Saitas, P.E.
Executive Director
Texas Natural Resource Conservation Commission

JAS/JKM/eg

Enclosure: Deed Recordation Affidavit, Form TNRCC-0625
Change in Responsibility for Maintenance on Permanent BMPs-Form TNRCC-10263

cc: Ms. Cara Tackett, Pape-Dawson Engineers, inc.
Mr. Harry Bennett, City of New Braunfels
Mr. John Bohuslav, TXDOT San Antonio District
Mr. Tom Hornseth, Comal County
Mr. Greg Ellis, Edwards Aquifer Authority
TNRCC Field Operations, Austin

Water Pollution Abatement Plan Application
for Regulated Activities
on the Edwards Aquifer Recharge Zone
and Relating to 30 TAC §213.5(b), Effective June 1, 1999

REGULATED ENTITY NAME: **Martin Marietta New Braunfels Quarry Operations Modification**

REGULATED ENTITY INFORMATION

1. The type of project is:
   - ___ Residential: # of Lots: _____
   - ___ Residential: # of Living Unit Equivalents: _____
   - ___ Commercial
   - ✓ Industrial
   - ✓ Other: **Quarry**

2. Total site acreage (size of property): **612 Acres**

3. Projected population: **13**

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	**1,437**	÷ 43,560 =	**0.03**
Railspur	**28,779**	÷ 43,560 =	**0.66**
Other ~~paved~~ surfaces **(concrete footings)**	**3,325**	÷ 43,560 =	**0.08**
Total Impervious Cover	**33,541**	÷ 43,560 =	**0.77**
Total Impervious Cover ÷ Total Acreage x 100 =			**0.13%**

5. ✓ **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided ~~at the end of this form~~ **below**.

   Potential sources of pollution which may reasonably be expected to affect the quality of storm water within the permitted site boundaries includes the following:
   - **Soil erosion due to site clearing**
   - **Silt from rock processing areas**
   - **Oil, grease, fuel and hydraulic fluids from construction equipment or vehicles**
   - **Dirt or dust from process equipment, construction equipment or vehicles**
   - **Miscellaneous trash and litter from workers or material wrappings**

6. ✓ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

7. Type of project:
   - __ TXDOT road project.
   - __ County road or roads built to county specifications.
   - __ City thoroughfare or roads to be dedicated to a municipality.
   - __ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:
   - __ Concrete
   - __ Asphaltic concrete pavement
   - __ Other: _____

9. Length of Right of Way (R.O.W.): ____ feet.
   Width of R.O.W.: ____ feet.
   L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.

10. Length of pavement area: ____ feet.
    Width of pavement area: ____ feet.
    L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.
    Pavement area ____ acres ÷ R.O.W. area ____ acres x 100 = ___% impervious cover.

11. __ A rest stop will be included in this project.
    __ A rest stop will **not** be included in this project.

12. __ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

STORMWATER TO BE GENERATED BY THE PROPOSED PROJECT

13. __ **ATTACHMENT B - Volume and Character of Stormwater.** A description of the volume and character (quality) of the stormwater runoff which is expected to occur from the proposed project is provided ~~at the end of this form~~ **below**. The estimates of stormwater runoff quality and quantity should be based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Storm water quality within the site is impacted by clearing and quarrying operations and has the potential for increased levels of silt. Minimal impervious cover is associated with the quarry and processing plant operations. On-site storm water within the quarry is retained within the mining areas and will not be discharged off site. Runoff from the plant operations is directed into the quarry pit, water storage pond, or directed through a down-gradient vegetative filter strip site prior to being discharged from the site.

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

14. The character and volume of wastewater is shown below:

100% Domestic	**260** gallons/day
___% Industrial	_____ gallons/day
___% Commingled	_____ gallons/day

TOTAL **260** gallons/day

Estimated flow based on: 20gal/day/person x 13 persons=260 gallons/day

15. Wastewater will be disposed of by:

N/A **On-Site** Sewage Facility (OSSF/Septic Tank):

__ **ATTACHMENT C - Suitability Letter from Authorized Agent.** An on-site sewage facility will be used to treat and dispose of the wastewater. The appropriate licensing authority's (authorized agent) written approval is provided at the end of this form. It states that the land is suitable for the use of an on-site sewage facility or identifies areas that are not suitable.

__ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

The job trailer was connected to an existing septic tank at the site. The restroom in the trailer is connected to this septic system.

N/A Sewage Collection System (Sewer Lines):

__ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.

__ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

- __ The SCS was previously submitted on _____.
- __ The SCS was submitted with this application.
- __ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

The sewage collection system will convey the wastewater to the _____ (name) Treatment Plant. The treatment facility is:

- __ existing.
- __ proposed.

16. ✓ All private service laterals will be inspected as required in 30 TAC §213.5.

SITE PLAN REQUIREMENTS

Items 17 through 27 must be included on the Site Plan. (Exhibit 2)

17. The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = **400**'.

18. 100-year floodplain boundaries

__ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

✓ No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s):
FEMA, Flood Insurance Rate Map for Comal County, Texas and Incorporated Areas, Panel Numbers 4854630100C and 4854630120C dated September 29, 1986. For areas inside city limits of the City of New Braunfels see FEMA, Flood Insurance Rate Map for the City of New Braunfels, Texas and Comal and Guadalupe Counties Pan Number 485493004D, dated May 15, 1991.

19. __ The layout of the development is shown with existing and finished contours at

appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.

✓ The layout of the development is shown with existing contours. **Other than in areas where mining operations will occur**, finished topographic contours will not differ **significantly** from the existing topographic configuration and are not shown.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

✓ There are **1** (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

__ The wells are not in use and have been properly abandoned.

__ The wells are not in use and will be properly abandoned.

✓ The wells are in use and comply with 16 TAC §76.

__ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

✓ All **sensitive** geologic or manmade features identified in the Geologic Assessment are shown and labeled.

__ No **sensitive** geologic or manmade features were identified in the Geologic Assessment.

__ **ATTACHMENT D - Exception to the Required Geologic Assessment**. An exception to the Geologic Assessment requirement is requested and explained at the end of this form.

22. ✓ The drainage patterns and approximate slopes anticipated after major grading activities.

Drainage patterns and slopes will not differ significantly from existing conditions in areas other than the mining operations.

23. ✓ Areas of soil disturbance and areas which will not be disturbed.

24. ✓ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices .

Temporary BMPs and Permanent BMPs are shown on Exhibits 4 and 5 respectively.

25. ✓ Locations where soil stabilization practices are expected to occur.

26. ✓ Surface waters (including wetlands).

There are no surface waters on site other than constructed settling ponds.

27. __ Locations where stormwater discharges to surface water or sensitive features.

✓ There will be no discharges to surface water or sensitive features.

ADMINISTRATIVE INFORMATION

28. ✓ One (1) original and three (3) copies of the completed application have been provided.

29. ✓ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

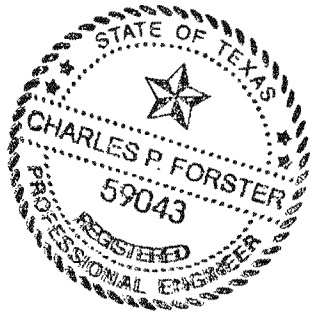
To the best of my knowledge, the responses to this form accurately reflect all information requested

concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **WATER POLLUTION ABATEMENT PLAN APPLICATION FORM** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Forster Engineering
Charles P. "Frosty" Forster, P.E., P.G.
Print Name of ~~Customer~~/Agent

Signature of ~~Customer~~/Agent

6/14/10
Date



Recharge And Transition Zone
Exception Request Form
30 TAC §213.9 Effective June 1, 1999

Regulated Entity Name: ***Martin Marietta New Braunfels Quarry Operations Modification***

1. ✓ **ATTACHMENT A - Nature of Exception.** A narrative description of the nature of each exception requested is provided as **ATTACHMENT A** at the end of this form. All provisions of 30 TAC §213 Subchapter A for which an exception is being requested have been identified in the description.

2. ✓ **ATTACHMENT B - Documentation of Equivalent Water Quality Protection.** Documentation demonstrating equivalent water quality protection for the Edwards Aquifer is provided as **ATTACHMENT B** at the end of this form.

ADMINISTRATIVE INFORMATION

3. ✓ One (1) original and three (3) copies of the completed application has been submitted to the appropriate regional office of the TCEQ.

4. ✓ The applicant understands that no exception will be granted for a prohibited activity in Chapter 213.

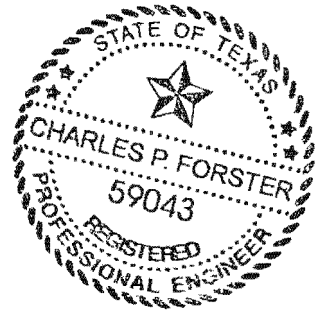
5. ✓ The applicant understands that prior approval under this section must be obtained from the executive director for the exception to be authorized.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **RECHARGE AND TRANSITION ZONE EXCEPTION REQUEST FORM** application is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Forster Engineering
By: Charles P. "Frosty" Forster, P.E, P.G.
Print Name of ~~Customer~~/Agent

Signature of ~~Customer~~/Agent

6/14/10
Date



MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION EXCEPTION REQUEST FORM

Process Explanation

The New Braunfels Quarry produces rock products for many commercial and industrial applications such as chemical lime, concrete, road base, road aggregate, landscaping, etc. These products are created by first blasting in situ rock into fragments small enough they can be processed through a primary crusher. The primary crusher creates a nominal rock size 8-inches or smaller. These 8-inch rocks are transported by conveyor to a secondary crusher system. The secondary crusher system reduces the 8-inch rocks into various final product sizes referred to as aggregates. Before the aggregates can be sold, they must be washed and cleaned of fine limestone particles and clay materials. Edwards Aquifer water is utilized to wash and clean the aggregates. No detergents, flocculants, or any other chemicals are used in the washing process, only clean groundwater. The resulting slurry of fine limestone particles, clay, and water is pumped to settling ponds where the solids settle-out and the water is re-cycled.

The fine limestone particles and clay material comprise 20 to 30 percent by volume of the total quarried rock, have no commercial value, and require large disposal areas. The obvious and historical location to locate settling ponds to accept these large volumes of un-marketable material is back in the quarry pit itself. As the quarry progresses, and settling ponds fill up with fine materials, additional mine-out areas are identified and utilized for settling ponds. This is a standard and typical part of the complete quarry process; quarry areas are mined, material is crushed and washed, fine materials are returned to settling ponds in mined out portions of the quarry, and the process repeats. Because of the large volume of materials, there is no other logical, practical, or economical location to place the fines.

Nature of Exception

Based upon thorough review of 30 TAC §213 Subchapter A, there does not appear to be any specific provision or rule which requires settling ponds to be lined. Although liners have been accepted as a viable permanent Best Management Practice for settling ponds, the TCEQ Region 13 office has also previously approved settling ponds which utilize only the very fine limestone particles and clay materials to self-seal the settling pond. (eg Vulcan Materials Medina Quarry EAPP ID No. 2502.00)

This Exception Request is submitted as an alternative to clay or other synthetic liners, as a method of equivalent water quality protection for settling ponds located within quarried out areas. Multiple factors supporting this alternative approach include the following:

- Previous TCEQ permit approvals allowing un-lined settling ponds self-sealed by fine limestone and clay particles.
- Based on communication with the Austin TCEQ Water Quality Division, Subchapter D 321.61-321.66 does not require liners for settling ponds in sand & gravel operations where industrial process water is involved.
- Despite an 80+ year history of significant quarry activity over the Edwards Aquifer Recharge Zone, there has not been one documented incidence of groundwater contamination resulting from settling ponds.
- Only Edwards Aquifer groundwater and Edwards Formation rocks are involved in the process. No detergents, flocculants, or chemicals of any sort are use in the washing process.
- In the absence of significant geologic features (caves, sinkholes, or other karst features), the nature of the very fine limestone and clay particles will serve to self-seal the settling pond surface.
- Data provided in Attachment B demonstrates the native permeability of non-karstic Edwards Limestone far exceeds the permeability requirements of clay or synthetic liners
- Significant geologic features (caves, sinkholes, or other karst features) can be identified and

sealed with flowable fill with permeability values meeting or exceeding the permeability requirements of clay or synthetic liners.

- Traditional liners (clay, concrete, synthetic fabrics, etc.) are impractical for settling pond of the size and volume required for economical quarry operations.
- This is an environmentally effective, pragmatic, and cost-effective solution in keeping with the TCEQ's Mission Statement:
    - "The Texas Commission on Environmental Quality strives to protect our state's human and natural resources consistent with sustainable economic development. Our goal is clean air, clean water, and the safe management of waste."

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION

Documentation for Equivalent Water Quality Protection

The Edwards Aquifer Technical Guidance Manual cites the requirements for impermeable liners used for water quality basins. This criteria has occasionally been applied as a standard for quarry settling pond liners. According to ASTM D-2434, the permeability value for a clay liner should meet 1×10^{-6} cm/sec.

To provide equivalent water quality protection, the following actions will be taken:

- Remove loose material in the quarry floor in the proposed settling pond area to bedrock.
- A Professional Geologist will conduct and document a detailed geologic assessment of the quarry floor and walls in the proposed settling pond area sufficient to identify karst features with conduit potential to the underlying ground water.
- Karst features identified as sensitive by the Professional Geologist will be sealed with flowable fill with a permeability of 1×10^{-6} cm/sec or less as directed by a Professional Engineer.

A representative sample of Edwards Formation limestone from the quarry floor in the proposed settling pond area was collected for permeability testing. Laboratory reports for the permeability test performed by Raba Kistner, Inc. on May 11, 2010, indicates a minimum permeability value of 2.8×10^{-10} cm/sec for the representative sample. The test was terminated after 10 days and the results would have yielded a lower permeability if allowed to proceed. A copy of the laboratory test is attached for your review.

These above described actions result in a settling pond with a floor permeability of 1×10^{-6} cm/sec or less, which is equivalent to or exceeding the requirements of a clay liner. The permeability of in situ non-karstic Edwards Formation limestone, which comprises the majority of the proposed settling pond floor, is actually almost four orders of magnitude less permeable than a clay liner. To put this dimension difference in perspective relative to a linear object such as a road, four orders of magnitude is the difference between a 1 foot road and a 10,000 foot (~2 miles) road.

Given that TCEQ has previously permitted quarries with un-lined settling ponds using fine limestone and clay particles as a self-sealing mechanism, we believe this methodology provides more than equivalent water quality protection. Additionally, it should be emphasized the only materials being deposited in the settling pond are natural fine particles of limestone and clay, which were washed from native rock aggregates quarried on site, utilizing Edwards Aquifer groundwater.

Temporary Stormwater Section
for Regulated Activities
on the Edwards Aquifer Recharge Zone
and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

REGULATED ENTITY NAME: ***Martin Marietta New Braunfels Quarry Operations Modification***

POTENTIAL SOURCES OF CONTAMINATION
Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ___ Aboveground storage tanks with a cumulative storage capacity of less that 250 gallons will be stored on the site for less than one (1) year.
   ___ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
   ___ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An **Aboveground Storage Tank Facility Plan** application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
   ✓ Fuels and hazardous substances will not be stored on-site.

2. ✓ **ATTACHMENT A - Spill Response Actions**. A description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is provided ~~at the end of this form~~ **below**.

   In the event of accidental spills of hazardous materials or hydrocarbons, the sand material from on-site stockpiles will be used to construct dikes to contain large spills and to provide an absorbent material that can be disposed off the Recharge Zone during the cleanup process. The owner will contact TCEQ to notify them in the event of a spill of regulated quantities of hazardous materials. All contaminated soils caused by a spill will be required to be removed from the project and disposed in accordance with applicable regulations off the Recharge Zone.

3. ✓ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ✓ **ATTACHMENT B - Potential Sources of Contamination.** Describe ~~in an attachment at the end of this form~~ ***below*** any other activities or processes which may be a potential source of contamination.
   ___ There are no other potential sources of contamination.

   Other potential sources of contamination during construction include:

   Potential Source – Oil, grease, fuel and hydraulic fluid contamination from equipment and vehicle dripping.
   Preventative Measure – Vehicle maintenance when possible will be performed off site

Potential Source – Miscellaneous trash and litter from workers and material wrappings.
Preventive Measure – Trash containers will be placed throughout the site to encourage proper trash disposal.

Potential Source – Construction debris.
Preventive Measure – Construction debris will be monitored daily. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.

SEQUENCE OF CONSTRUCTION

5. ✓ **ATTACHMENT C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is provided ~~at the end of this form~~ **below**. For each activity described, an estimate of the total area of the site to be disturbed by each activity is given.

The two major activities on this site are mining operations and material processing. The mining operations are ongoing and involve clearing and grubbing of vegetation, drilling, blasting, and material loading and hauling. This activity will include approximately 475 acres of the site over the next 20 years. The other major activity, material processing, includes primary and secondary crushing, conveying, screening/separation, washing, material settling ponds and water recycling, and material stockpiling/loadout. The material processing operations utilize concrete footings to support the processing equipment and a railroad spur to provide for loading and transport of materials. The material processing operations occupy approximately 5 acres of area cleared by previous quarry operations. Material settling and water recycling ponds typically vary in size from a few acres to approximately 25 acres, depending on the available mined-out area in which these ponds are located.

6. ✓ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: ***Dry Comal Creek***

TEMPORARY BEST MANAGEMENT PRACTICES (TBMPs)
Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. **All structural BMPs must be shown on the site plan. (Exhibit 2)**

7. ✓ **ATTACHMENT D - Temporary Best Management Practices and Measures.** A description of the TBMPs and measures that will be used during and after construction are provided ~~at the end of this form~~ **below**. For each activity listed in the sequence of construction, include appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

✓ TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information has been provided in the attachment ~~at the end of this form~~ **below.**

a. A description of how BMPs and measures will prevent pollution of surface water,

groundwater or stormwater that originates upgradient from the site and flows across the site.

b. A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

c. A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

d. A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

This proposed modification does not alter or impact currently approved temporary measures. Up-gradient runoff is minimal, is associated with undeveloped areas, is captured within the mining area, is not discharged from the site, and does not increase pollutant load. Aside from construction of additional settling ponds, no new construction is proposed, and all proposed activity in this modification occurs in the bottom of a previously excavated pit. For this reason, storm water from the proposed activities will be contained within the quarry and will not discharge from the site. Other on-site storm water will continue to be captured in the active mining areas and allowed to evaporate, diverted to a settling pond for use as process water, or discharged on the south side of the site through a natural vegetated low or permanent vegetated filter strip.

8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

__ **ATTACHMENT E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is provided at the end of this form. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

✓ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ✓ **ATTACHMENT F - Structural Practices.** Describe the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site. Placement of structural practices in floodplains has been avoided.

This proposed modification does not create additional exposed areas. Since all activity in this modification occurs in the bottom of a previously mined-out quarry pit, flow will be contained within the pit itself and no flow diversion or storage is proposed.

10. ✓ **ATTACHMENT G - Drainage Area Map**. A drainage area map is provided at the end of this form to support the following requirements. **(Exhibit 3)**

__ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

__ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

✓ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

— There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

The mined-out quarry pits function as a sediment basin, but with substantially more storage capacity than is required for a temporary measure. Storm water falling in the pits is permanently captured and allowed to evaporate. Due to the significant storage capacity of the mine-out quarry pits, there is no surface water runoff from these areas. For this reason, design calculations for temporary sediment ponds are not included. Additionally, to the maximum extent practicable, on-site runoff is directed back to the mined-out quarry or into a settling pond for recycling as process water.

11. ***N/A*** **ATTACHMENT H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure has been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are provided as at the end of this form.

12. ✓ **ATTACHMENT I - Inspection and Maintenance for BMPs.** A plan for the inspection of temporary BMPs and measures and for their timely maintenance, repairs, and, if necessary, retrofit is provided at the end of this form. A description of documentation procedures and recordkeeping practices is included in the plan.

13. ✓ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ✓ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ✓ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ✓ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

SOIL STABILIZATION PRACTICES

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature

vegetation.

17. ✓ **ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices.** A schedule of the interim and permanent soil stabilization practices for the site is ~~attached at the end of this form~~ **below**.

All activity in this modification occurs in the bottom of a previously mined-out pit. Therefore, no soil stabilization practices are needed.

18. ✓ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ✓ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

ADMINISTRATIVE INFORMATION

20. ✓ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ✓ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

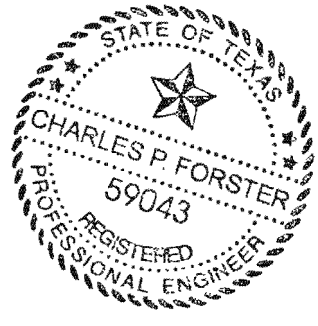
22. ✓ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **TEMPORARY STORMWATER SECTION** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Forster Engineering
By: Charles P. "Frosty" Forster, P.E, P.G.
Print Name of ~~Customer~~/Agent

Signature of ~~Customer~~/Agent

6/14/10
Date



Permanent Stormwater Section
for Regulated Activities
on the Edwards Aquifer Recharge Zone
and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

REGULATED ENTITY NAME: ***Martin Marietta New Braunfels Quarry Operations Modification***

Permanent best management practices (BMPs) and measures that will be used during and after construction is completed.

1. ✓ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

2. ✓ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   NA The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

   ___ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is provided below:

   _____

   _____

3. ✓ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

4. ✓ Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ___ This site will be used for low density single-family residential development and has 20% or less impervious cover.

   ___ This site will be used for low density single-family residential development but has more than 20% impervious cover.

   ✓ This site will not be used for low density single-family residential development.

5. ✓ The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the

property owner must notify the appropriate regional office of these changes.

__ **ATTACHMENT A - 20% or Less Impervious Cover Waiver.** This site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is found at the end of this form.

__ This site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

✓ This site will not be used for multi-family residential developments, schools, or small business sites.

This modification does not alter or impact the currently permitted impervious cover (0.77 acres or 0.13%). The new regulated activity proposed by this modification is utilization of additional portions of the previously mined-out quarried pit as settling ponds. Permanent BMPs are not required (per 30 TAC §213.5(b)(A)(4)(ii)(III)) because impervious cover is less than 20%.

6. **ATTACHMENT B - BMPs for Upgradient Stormwater.**

__ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is identified as **ATTACHMENT B** at the end of this form.

__ If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** at the end of this form.

✓ If permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, an explanation is provided ~~as **ATTACHMENT B** at the end of this form~~ ***below***.

A small amount of up-gradient runoff originating from undeveloped areas to the north of the mining operations will flow across the project site. This up-gradient runoff is associated with undeveloped areas and therefore does not increase pollutant loads. It will be captured within the mining areas and not discharged from the site.

7. **ATTACHMENT C - BMPs for On-site Stormwater.**

✓ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is identified ~~as **ATTACHMENT C** at the end of this form~~ **below**.

__ If permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, an explanation is provided as **ATTACHMENT C** at the end of this form.

This modification does not alter or impact the approved BMP's for on-site storm water management. On-site storm water will continue to be managed by the three approved methods: 1) captured in the open mining areas and allowed to evaporate; 2) diverted to an active on-site storage pond for use as process water; or 3) discharged on the south side of the site through a vegetative filter strip to provide treatment of storm water runoff from the finishing plant and stockpiles prior to being discharged from the site. Minimal TSS is associated with this runoff as it originates from a small area of impervious cover, and the

aggregate stockpiles have been washed as part of the finishing plant and processing operations. The vegetative filter strip has berms constructed on the downstream sides. These berms were constructed of a permeable material and help maintain water flow across the vegetative filter strip. Water retained behind the berms enhances TSS settlement and additional treatment is achieved as the water passes through the berms.

8. ✓ **ATTACHMENT D - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is provided ~~at the end of this form~~ **below**. Each feature identified in the Geologic Assessment as "sensitive" has been addressed.

This modification does not alter or impact the BMP's for protection of surface water as described in Attachment C above. Sensitive karst features with conduit potential to the underlying aquifer which are identified in proposed settling pond locations will be filled with flowable fill with a permeability of 1 x 10-6 cm/sec or less as directed by a Professional Engineer.

9. ✓ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

— The permanent sealing of or diversion of flow from a naturally-occurring "sensitive" or "possibly sensitive" feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring "sensitive" or "possibly sensitive" features on this site.

✓ **ATTACHMENT E - Request to Seal Features.** A request to seal a naturally-occurring "sensitive" or "possibly sensitive" feature, that includes a justification as to why no reasonable and practicable alternative exists, is found ~~at the end of this form~~ **below**. A request and justification has been provided for each feature.

One sensitive geologic feature, an active water well, was identified in the geologic assessment. Two geologic features were identified as not sensitive, the quarry area which is man-made, and a naturally occurring fault. There is no request to seal a naturally occurring sensitive feature.

10. ***N/A*** **ATTACHMENT F - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TCEQ Construction Notes, all man-made or naturally occurring geologic features, all proposed structural measures, and appropriate details must be shown on the construction plans.

11. ***N/A*** **ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.

12. ***N/A*** The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

__ Pilot-scale field testing (including water quality monitoring) may be required for BMPs that are not contained in technical guidance recognized by or prepared by the executive director.

__ **ATTACHMENT H - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.

13. ✓ **ATTACHMENT I -Measures for Minimizing Surface Stream Contamination.** A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is provided ~~at the end of this form~~ **below**. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity which increase erosion that results in water quality degradation.

The site is an existing quarry that has been in operation since the 1940's. The new regulated activity proposed by this modification is utilization of additional portions of the previously mined-out quarried pit as settling ponds. The ponds will be located in areas already cleared and disturbed. Conversion of the mined-out quarry pit to a settling pond will not result in surface stream contamination or changes in the way water enters streams.

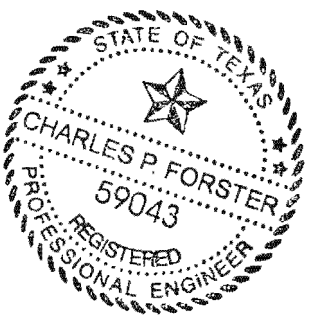
Responsibility for maintenance of permanent BMPs and measures after construction is complete.

14. ✓ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

15. ✓ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **PERMANENT STORMWATER SECTION** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Forster Engineering
By: Charles P. "Frosty" Forster, P.E, P.G.
Print Name of ~~Customer~~/Agent



Signature of Customer/Agent

6/14/10
Date

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Larry J. Roberts,
Print Name

President, Southwest Division,
Title - Owner/President/Other

of Martin Marietta Materials Southwest, Ltd.,
Corporation/Partnership/Entity Name

have authorized Charles P. "Frosty" Forster, P.E., P.G.
Print Name of Agent/Engineer

of Forster Engineering
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

June 11, 2010
Date

THE STATE OF TEXAS §

County of BEXAR §

BEFORE ME, the undersigned authority, on this day personally appeared LARRY J. ROBERTS known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 11th day of June, 2010

NOTARY PUBLIC

SHARON L. McCARTY
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 7/10/2013

SHARON L. MCCARTY
My Commission Expires
July 10, 2013

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Application Fee Form

NAME OF PROPOSED REGULATED ENTITY: ***Martin Marietta New Braunfels Quarry Operations Modification***
REGULATED ENTITY LOCATION: ***Wald Road approximately 1.5 miles north of IH-35, New Braunfels, TX***
NAME OF CUSTOMER: ***Martin Marietta Materials Southwest, Ltd.***
CONTACT PERSON: ***Jason Reed*** PHONE: (210) 208-4020
(Please Print)

Customer Reference Number (if issued): CN ***600134696*** (nine digits)

Regulated Entity Reference Number (if issued): RN **102747003** (nine digits)

Austin Regional Office (3373) ☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362) ☐ Bexar ☒ Comal ☐ Medina ☐ Kinney ☐ Uvalde

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to (Check One):

☐ **Austin Regional Office**

☐ **Mailed to TCEQ:**
TCEQ – Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☒ **San Antonio Regional Office**

☐ **Overnight Delivery to TCEQ:**
TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
512/239-0347

Site Location (Check All That Apply): ☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	Size	Fee Due
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	***612*** Acres	$ ***10,000***
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature

6/14/10
Date

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Application Fee Schedule
30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications
Contributing Zone Plans and Modifications

PROJECT	PROJECT AREA IN ACRES	FEE
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

PROJECT	COST PER LINEAR FOOT	MINIMUM FEE MAXIMUM FEE
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

PROJECT	COST PER TANK OR PIPING SYSTEM	MINIMUM FEE MAXIMUM FEE
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

PROJECT	FEE
Exception Request	$500

Extension of Time Requests

PROJECT	FEE
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided)*

☐ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☒ Other **WPAP Mod/Exception Request**

2. Attachments **Describe Any Attachments:** *(ex. Title V Application, Waste Transporter Application, etc.)*

☒ Yes ☐ No WPAP Modification and Exception Request

3. Customer Reference Number *(if issued)*: **CN 600134696**

Follow this link to search for CN or RN numbers in Central Registry**

4. Regulated Entity Reference Number *(if issued)*: **RN 102747003**

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy): 6/1/2010

6. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check only one of the following:*

☐ Owner ☒ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other: _____

7. General Customer Information

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☒ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:	☐ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other:

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)* | *If new Customer, enter previous Customer below* | *End Date:*

10. Mailing Address:

City	State	ZIP	ZIP + 4

11. Country Mailing Information *(if outside USA)* | **12. E-Mail Address** *(if applicable)*

13. Telephone Number ( ) - | **14. Extension or Code** | **15. Fax Number** *(if applicable)* ( ) -

16. Federal Tax ID *(9 digits)* | **17. TX State Franchise Tax ID** *(11 digits)* | **18. DUNS Number** *(if applicable)* | **19. TX SOS Filing Number** *(if applicable)*

20. Number of Employees
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?
☐ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☒ No Change** *(See below)*

If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

24. Street Address of the Regulated Entity: *(No P.O. Boxes)*							
	City		State		ZIP		ZIP + 4	
25. Mailing Address:							
	City		State		ZIP		ZIP + 4	

26. E-Mail Address:		
27. Telephone Number	28. Extension or Code	29. Fax Number *(if applicable)*
( ) -		( ) -

30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)	32. Primary NAICS Code (5 or 6 digits)	33. Secondary NAICS Code (5 or 6 digits)

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:			
36. Nearest City	County	State	Nearest ZIP Code

37. Latitude (N) In Decimal:			38. Longitude (W) In Decimal:		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Industrial Hazardous Waste	☐ Municipal Solid Waste
☐ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
☐ Stormwater	☐ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Charles P. "Frosty" Forster, P.E., P.G.	41. Title:	Principal

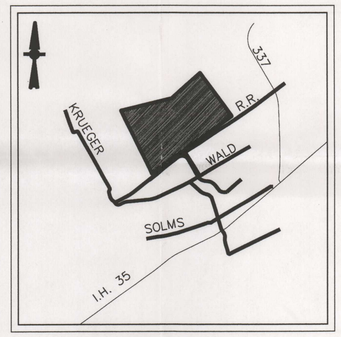
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(210) 698-5544		(210) 698-5544	fforster@forsterengineering.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	Forster Engineering	Job Title:	Principal
Name *(In Print)*:	Charles P. "Frosty" Forster, P.E., P.G.	Phone:	(210) 698-5544
Signature:	Charles P. Forster	Date:	6/14/10



LOCATION MAP
N.T.S.

LEGEND

- PRF — POTENTIAL RECHARGE FEATURE
- Kpg — PECAN GAP CHALK
- Kep — PERSON FORMATION
- U / D — FAULT, LOCATED APPROXIMATELY (D, downthrown side; U, upthrown side)
- DRAINAGE FLOW
- SITE BOUNDARY
- EXISTING CONTOURS
- EXISTING ROADS

NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.

REV. NO.	DESCRIPTION	DATE

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION

CURRENT SITE PLAN

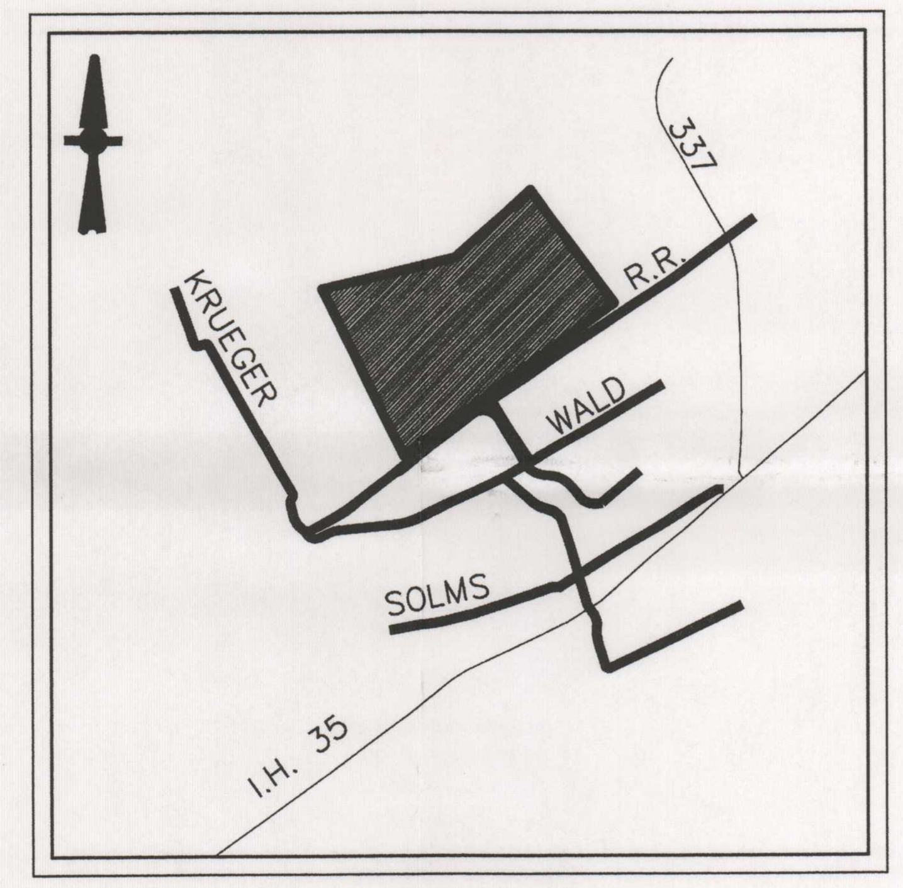
FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED
PROFESSIONAL ENGINEER

Charles P. Forster 6/15/10

GENERAL NOTES AND DETAILS

DATE	06/10/2010	JOB NO.	1002-10
SCALE	1"=400'	DRG NO	EXHIBIT- 1
DRAWN BY	MHR		
CHECKED BY	CPF		



LOCATION MAP
N.T.S.

LEGEND

S-1	POTENTIAL RECHARGE FEATURE
Kpg	PECAN GAP CHALK
Kep	PERSON FORMATION
U / D	FAULT, LOCATED APPROXIMATELY (D, downthrown side; U, upthrown side)
⇒	DRAINAGE FLOW
▬ ▬ ▬	SITE BOUNDARY
	EXISTING CONTOURS
	EXISTING ROADS

NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.

REV. NO.	DESCRIPTION	DATE

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
PROPOSED SITE PLAN,
TEMPORARY & PERMANENT POLLUTION ABATEMENT PLAN

FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED PROFESSIONAL ENGINEER

Charles P. Forster 6/15/10

GENERAL NOTES AND DETAILS

DATE	06/10/2010	JOB NO.	1002-10
SCALE	1"=400'	DRG NO	EXHIBIT- 2
DRAWN BY	MHR		
CHECKED BY	CPF		SHEET 1 OF 2

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.

5. ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.

6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS TO WATER QUALITY (E.G., FUGITIVE SEDIMENT IN STREET BEING WASHED INTO SURFACE STREAMS OR SENSITIVE FEATURES BY THE NEXT RAIN).

7. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASE IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE. IN AREAS EXPERIENCING DROUGHTS WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SEASONAL ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARDS AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:

A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;

B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;

C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

SAN ANTONIO REGIONAL OFFICE
14250 JUDSON RD.
SAN ANTONIO, TEXAS 78233-4480
PHONE: (210) 490-3096
FAX: (210) 545-4329

GENERAL NOTES:

1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.

2. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASHOUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD FOR EACH PHASE OF CONSTRUCTION.

3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.

4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.

5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.

6. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.

7. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.

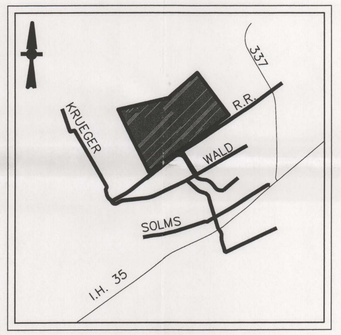
8. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED.

9. ALL TEMPORARY BMP's WILL BE REMOVED ONCE WATERSHED IS STABILIZED.

10. MUD OR DIRT INADVERTENTLY TRACKED OFF-SITE AND ONTO EXISTING STREETS SHALL BE REMOVED AS SOON AS POSSIBLE BY HAND OR MECHANICAL BROOM SWEEPING.

11. PRIOR TO INITIATION OF SUBSEQUENT PHASES OF CONSTRUCTION, TEMPORARY BMP'S INCLUDING SILT FENCING, CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND CONSTRUCTION STAGING AREA SHALL BE FIELD LOCATED AS APPROPRIATE FOR THE AREA OF CONSTRUCTION. MEASURES SHOWN HERE ARE TO SERVE AS GUIDELINES, BUT ARE TO BE ADJUSTED TO ACCOMODATE EISISTING IMPROVEMENTS.

12. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES BUT NOT IN CONFLICT WITH IMPROVEMENTS. THIS PLAN IS FOR VISUAL CLARITY.



LOCATION MAP
N.T.S.

TCEQ-R13
JAN 17 2010
SAN ANTONIO

NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.

REV. NO.	DESCRIPTION	DATE

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
PROPOSED SITE PLAN,
TEMPORARY & PERMANENT POLLUTION ABATEMENT PLAN

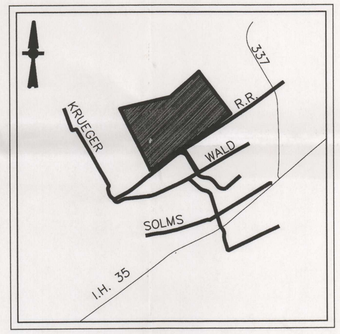
FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED
PROFESSIONAL ENGINEER

Charles P. Forster 6/15/10

GENERAL NOTES AND DETAILS

DATE 06/10/2010	JOB NO. 1002-10
SCALE	DRG NO EXHIBIT- 2
DRAWN BY MHR	SHEET 2 OF 2
CHECKED BY CPF	



LOCATION MAP
N.T.S.

LEGEND

- e-1 — POTENTIAL RECHARGE FEATURE
- Kpg — PECAN GAP CHALK
- Kap — PERSON FORMATION
- U / D — FAULT, LOCATED APPROXIMATELY (D, downthrown side; U, upthrown side)
- DRAINAGE FLOW
- SITE BOUNDARY
- EXISTING CONTOURS
- EXISTING ROADS

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REV. NO.	DESCRIPTION	DATE

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION
OVERALL DRAINAGE AREA MAP

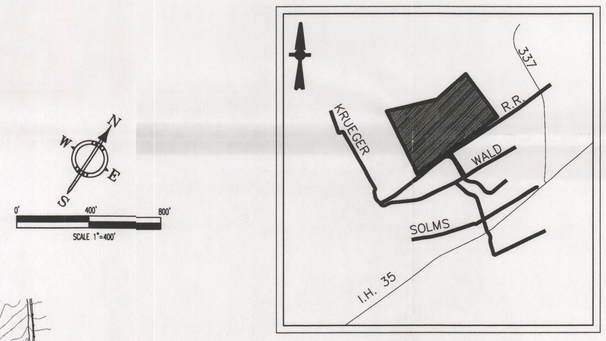
FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS
CHARLES P. FORSTER
59043
REGISTERED
PROFESSIONAL ENGINEER

6/15/10

GENERAL NOTES AND DETAILS

DATE	06/10/2010	JOB NO.	1002-10
SCALE	1"=400'	DRG NO	EXHIBIT- 3
DRAWN BY	MHR		
CHECKED BY	CPF		



LOCATION MAP
N.T.S.

LEGEND

- POTENTIAL RECHARGE FEATURE
- Kpg — PECAN GAP CHALK
- Kep — PERSON FORMATION
- FAULT, LOCATED APPROXIMATELY (D, downthrown side; U, upthrown side)
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REV. NO.	DESCRIPTION	DATE

MARTIN MARIETTA NEW BRAUNFELS QUARRY OPERATIONS MODIFICATION

GEOLOGICAL ASSESSMENT

FORSTER ENGINEERING
TBPE firm # 12385
19915 WITTENBURG, SAN ANTONIO, TEXAS 78256
PHONE: (210) 698-5544, Fax (210) 698-5544
WWW.FORSTERENGINEERING.COM

STATE OF TEXAS — Charles P. Forster — Geology — 1914 — LICENSED PROFESSIONAL GEOSCIENTIST

Charles P. Forster 6/15/10

GENERAL NOTES AND DETAILS

DATE	06/10/2010	JOB NO.	1002-10
SCALE	1"=400'	DRG NO	EXHIBIT- 4
DRAWN BY	MHR		
CHECKED BY	CPF		