

Memorandum

August 13, 2019

To: Gary Baumgarten, U.S. Environmental Protection Agency

From: John Laplante, David Keith, Wendell Mears, and Josef Hoffmann, Anchor QEA, LLC

cc: Judy Armour, McGinnes Industrial Maintenance Corporation
Philip Slowiak and Brent Sasser, International Paper Company

**Re: Northwest Slope Enhancement Completion Report
San Jacinto River Waste Pits Time Critical Removal Action**

Introduction

This document provides a summary of the northwest slope enhancement work completed on the armored cap constructed as part of the Time Critical Removal Action (TCRA) for the San Jacinto River Waste Pits Superfund (SJRWP) site. The TCRA was implemented by International Paper Company and McGinnes Industrial Maintenance Corporation (collectively, the Respondents) under an Administrative Settlement Agreement and Order on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA) – Docket No. 06-12-10, effective May 17, 2010 (USEPA 2010).

The slope enhancement work was completed pursuant to the USEPA-approved construction execution plan (CEP, GHD Services Inc. [GHD] 2019) and entailed the installation of articulated concrete block mat (ACBM) on the northwestern submerged slope of the TCRA armored cap. The northwest slope enhancement area is shown in Figure 1.

The ACBM is a new element of the TCRA armored cap. As such, the Respondents have separately submitted an amendment to the TCRA *Operations, Monitoring and Maintenance Plan* (OMMP) to describe revised procedures for future cap inspection events.

Construction Activities

GHD Services Inc. (GHD) was the contractor for the slope enhancement work and was supported by subcontractors Community Construction, Inc. (CCI), Shallow Water Equipment (SWE), and Underwater Technology Services, Inc. (UTS). Construction activities at the SJRWP site began on May 20, 2019 and concluded on June 21, 2019. Anchor QEA was present on site for the Respondents for the duration of construction. Field reports of daily activities were provided to USEPA by Anchor QEA during construction and are provided as Attachment 1. The following sections provide a summary of the construction activities and the information contained in the field reports.

Mobilization and Site Preparation

Mobilization of equipment and personnel to the SJRWP site occurred from May 20, 2019 to May 28, 2019. The components of the mobilization included the following:

- Mobilized GHD personnel, utility trailer, equipment trailer, roll-off boxes, front end loader, skid steer, push barge, and work boat.
- Mobilized CCI personnel, utility trailer, equipment trailer, grout pump, grout hoses, forklift, and skid steer.
- Mobilized SWE personnel, marsh buggy, long-reach excavator, spud barge, and crew boat.
- Mobilized UTS dive crew, equipment, and dive shack.

Site preparation activities for the slope enhancement work occurred from May 21, 2019 to May 24, 2019 and consisted of the following components:

- Maintenance of the gravel Laydown and Stockpile Area located near the access gate within the Texas Department of Transportation's right-of-way and the gravel access road located on the western side of the central berm.
- Preparation of a grout pumping pad in the northeast region of the western cell, consisting of riprap, timber cross ties, and timber board mats.

Placement of Geotextile Layer on Articulated Concrete Block Mat Panels

ACBM fabric form panels for the northwest slope enhancement were manufactured by Construction Techniques, Inc. (CTI) and delivered to the SJRWP site on May 20, 2019, along with non-woven geotextile fabric. Each panel was manufactured to unique dimensions to fit the geometry of its installation location within the slope enhancement area, based on pre-construction survey data. A total of 27 ACBM panels were pre-fabricated for the slope enhancement area, as shown in the shop drawings provided in Appendix A of the CEP (GHD 2019). As noted in the shop drawings, the panels were manufactured for an average cast-in-place (CIP) thickness of 6 inches and contained reinforcing cables in both the longitudinal and lateral directions.

After receiving the materials and performing the requisite site maintenance activities, the contractor utilized the southwest corner of the Laydown and Stockpile Area for preparation of the ACBM panels and geotextile fabric. These preparation activities occurred from May 22, 2019 to May 30, 2019 and consisted of the following components:

- Cutting the non-woven geotextile fabric to the appropriate dimensions and sewing it to the underside of each ACBM panel.
- Sewing sandbags to the ACBM panels to serve as weights for sinking and temporarily anchoring the fabric to the water bottom prior to grout placement.
- Rolling each ACBM panel, geotextile fabric, and sandbag assembly around a metal spreader bar to facilitate transport and deployment at the slope enhancement installation area.

Installation of Articulated Concrete Block Mat Cap Protection System

ACBM installation at the northwest slope enhancement area began on May 31, 2019 and concluded on June 18, 2019. The ACBM installation process consisted of deploying the prepared ACBM panel, geotextile fabric, and sandbag assemblies into position at the installation location and pumping the ACBM panels with concrete grout. For fabrication and installation purposes, the 27 pre-fabricated ACBM panels were divided into four numbered series as follows, corresponding to four differently aligned regions of the slope enhancement area: SJR-101 (1 panel), SJR-201 to SJR-210 (10 panels), SJR-301 to SJR-305 (5 panels), and SJR-401 to SJR-411 (11 panels).

To achieve a continuous ACBM mat throughout the slope enhancement area, two types of joints were utilized between adjacent ACBM panels. Adjacent panels within each of the four numbered series above were joined together with pre-fabricated zippered connections prior to grouting. At the transitions between the four numbered series, where the alignments of the panels changed direction, overlap joints were utilized in lieu of zippered connections, as depicted in the shop drawings. The sequence of installation for the four ACBM panel series occurred as follows:

1. Panels SJR-201 to SJR-207
2. Panel SJR-101
3. Panels SJR-208 to SJR-210
4. Panels SJR-301 to SJR-305
5. Panels SJR-401 to SJR-411

In tandem with the installation of panels SJR-409, SJR-410, and SJR-411, two additional panels were delivered to the site and field fit for installation at the interface of panels SJR-209, SJR-210, and SJR-301. The two additional panels measured approximately 80 feet by 25 feet (CIP dimensions).

Prior to the start of the ACBM installation, stakeout of installation boundary points on the landside of the slope enhancement area was completed from May 22, 2019 to May 23, 2019. Subsequent supplemental stakes for individual panels were placed as needed throughout the installation process. The installation process for each ACBM panel typically consisted of the following steps:

- ACBM Panel Deployment
 - The roll of assembled ACBM panel, geotextile fabric, and anchoring sandbags was transported to the slope enhancement area either by forklift or push barge and placed in the water at its approximate installation location by marsh buggy.
 - Once placed in the water, the assembly was unrolled by a barge-mounted excavator, via ropes attached to the excavator's bucket.
 - Once unrolled, the dive crew would perform underwater zippering of the ACBM panel, if applicable, and tether temporary floats to its edges for use in marking the panel's position above the waterline. The panel position was then evaluated based on one or both of the following:

- The locations of the panel edges relative to the staked-out termination points on the landside of the slope enhancement area
- The locations of the temporary floats were surveyed relative to the termination points.
 - Repositioning of the panel assembly was then performed as needed. Once in position, the panel assembly was tied off to supersacks of sandbags temporarily placed in the water as anchor points, in preparation for grouting.
- ACBM Panel Grouting
 - Concrete grout for injection into the ACBM panel was delivered to the site in 9-cubic-yard truckloads. The concrete grout was offloaded from the delivery trucks into a remotely operated grout pump and conveyed through flexible hoses to the ACBM panel.
 - Prior to the start of pumping, the discharge nozzle of the grout hose was inserted into the fabric form panel. During pumping, the filling of above- and below-water portions of the ACBM panel were monitored, until the grouting was completed. Occasionally, the grout hose would be relocated to a different insertion point in order to facilitate more efficient filling.
 - After the grouting of each panel was completed, the edges of the grouted panel were surveyed.

Throughout the ACBM installation process, a sorbent boom was deployed around the work area each day. Beginning on June 13, 2019, at the request of USEPA, a silt curtain was also deployed around the work area in addition to the sorbent boom.

After completion of the ACBM installation process, an 18-inch-thick, 10-foot-wide section of riprap was installed along the landside termination edge of the ACBM mat to serve as scour protection, and an additional anchoring and armoring measure for the edge of the mat. Riprap for this purpose was delivered and stockpiled at the site from June 14, 2019 to June 17, 2019 and installed by marsh buggy on June 15, 2019 and June 19, 2019.

After completion of the ACBM and riprap installations, final hydrographic and topographic surveying of the ACBM installation area was performed by Morrison Surveying, LLC from June 19, 2019 to June 20, 2019. The limits of installed ACBM are shown in Figure 2 and, excluding panel overlaps, cover a surface area of approximately 4,096 square yards.

Buoy Relocation and Additional Anchor Installation

While deployed to perform the slope enhancement work, GHD also performed maintenance, relocation and supplemental anchoring of the existing perimeter buoy system for the TCRA armored cap. The perimeter buoy system consists of approximately 1,800 feet of continuously connected

orange ball buoys, anchored incrementally along the length of the buoy line, and six individually anchored regulatory buoys. The purpose of the buoy relocation and supplemental anchoring was to realign the perimeter buoy system more closely with the boundary of the armored cap and to install approximately 600 pounds of additional anchor weight at 17 locations along the ball buoy line, spaced approximately 100 feet apart. The approximate location of the relocated perimeter buoy system and the supplemental ball buoy anchor points are shown in Figure 3. The buoy relocation and supplemental anchoring work consisted of the following components:

- On May 29, 2019, GHD temporarily removed the portion of the perimeter buoy system on the west side of the central berm that was blocking access to the slope enhancement area, to be relocated after ACBM installation was completed.
- On June 11, 2019, GHD poured 34 cast-in-place concrete anchors, each weighing approximately 300 pounds, with concrete delivered to the site by SRM Concrete. (To facilitate manageability during transport and installation, GHD opted to install two 300-pound anchors at each of the 17 supplemental buoy anchor points, rather than one 600-pound anchor.)
- On June 17, 2019, GHD replaced the batteries for the lights atop the six regulatory buoys.
- On June 18, 2019, GHD relocated the portion of the perimeter buoy system on the east side of the central berm.
- On June 19, 2019, GHD installed the new anchors for the relocated buoy system.
 - On the east side of the central berm, the new anchors were connected to the relocated buoy line.
 - On the west side of the central berm, where the buoy system had not yet been relocated, the anchors were deployed at their target locations, with floats attached to the tops of the anchor cables for connection to the buoy line after relocation.
- On June 20, 2019, GHD relocated the portion of the perimeter buoy system on the west side of the central berm and connected the new anchors to the relocated buoy line.

Site Restoration and Demobilization

Site restoration and demobilization from the SJRWP site occurred from June 18, 2019 to June 21, 2019 and included the following components:

- Removed timber cross ties and board mats from the grout pumping pad in the northeast region of the western cell and demobilized them from the site.
- Incrementally demobilized all personnel, materials, and equipment.

Final housekeeping and demobilization tasks were completed on June 21, 2019.

References

GHD (GHD Services, Inc.), 2019. *Construction Execution Plan, Northwest Cap Slope Enhancement, San Jacinto River Waste Pits Site, Harris County, Texas*. International Paper Company and McGinnes Industrial Management Corporation.

USEPA (U.S. Environmental Protection Agency), 2010. Administrative Settlement Agreement and Order on Consent for Removal Action. U.S. Environmental Protection Agency Region 6 CERCLA Docket No. 06-03-10. In the matter of: San Jacinto River Waste Pits Superfund Site Pasadena, Harris County, Texas. International Paper Company and McGinnes Industrial Management Corporation, Respondents.

Figures

- Figure 1 Northwest Slope Enhancement Area
- Figure 2 Northwest Slope Enhancement As-Built Conditions
- Figure 3 Buoy Relocation and Additional Anchor Installation

Attachments





Attachment 1 Anchor QEA Northwest Slope Enhancement Daily Reports

FIGURES

K:\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_02 Construction Management Support and Reporting\0557-RP-001.dwg Figure 1
Jul 29, 2019 10:02am dholmer

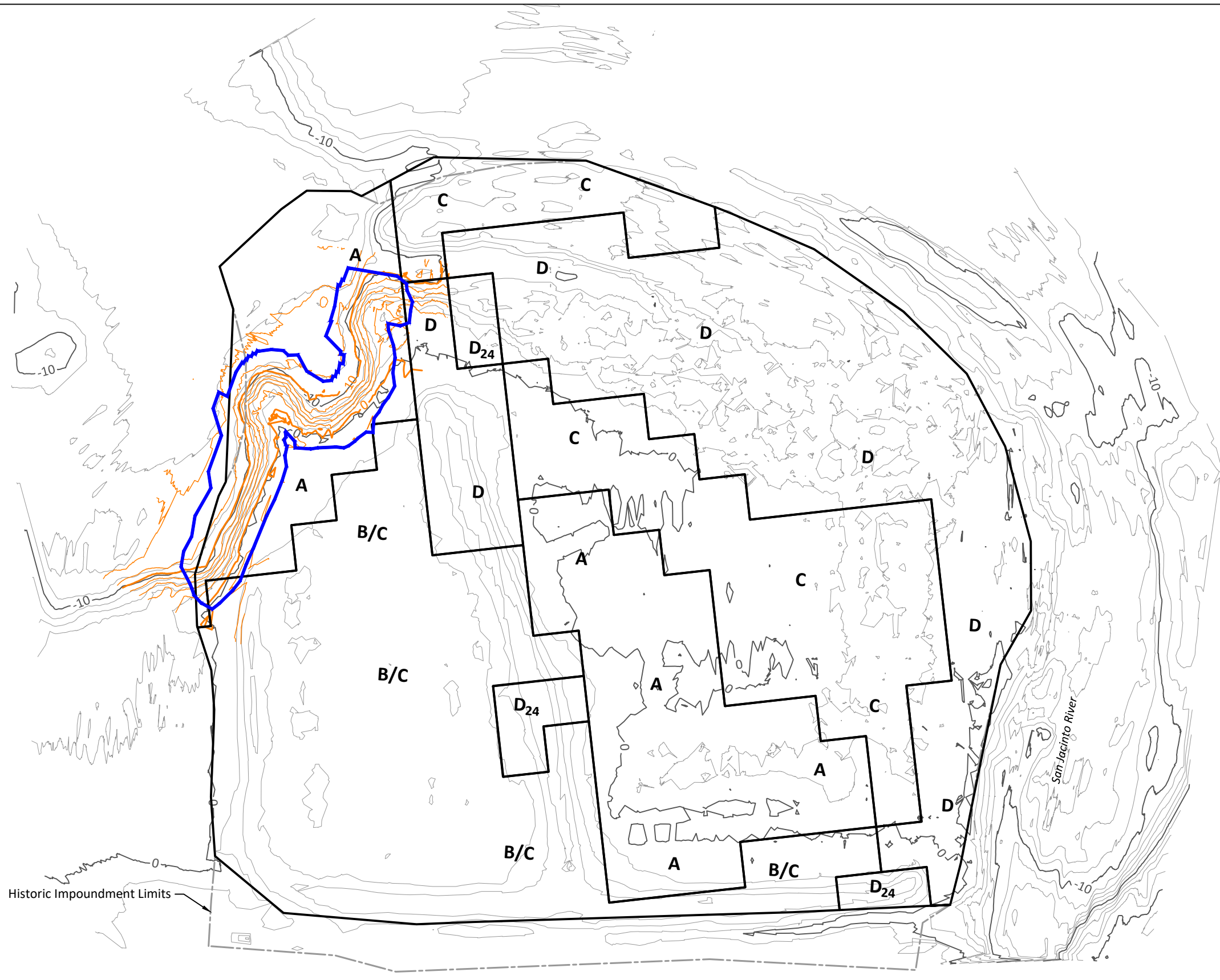


LEGEND:

-  April 2019 Bathymetric and Topographic Contours (1-Foot Interval)
-  **B/C** Armored Cap Type and Boundary
-  Historic Impoundment Limits
-  Slope Enhancement Area

SOURCE: Drawing prepared from survey provided by Hydrographic Consultants dated April 2019.
HORIZONTAL DATUM: Texas State Plane South Central, North American Datum of 1983 (NAD83), U.S. Survey Feet
VERTICAL DATUM: North American Vertical Datum of 1988 (NAVD 88)

K:\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_02 Construction Management Support and Reporting\0557-RP-002.dwg Figure 2
Jul 29, 2019 10:02am dholmer



LEGEND:

- June 2019 Bathymetric and Topographic Contours (2-Foot Interval)
- April 2019 Bathymetric and Topographic Contours (2-Foot Interval)
- B/C** Armored Cap Type and Boundary
- Historic Impoundment Limits
- Limit of Installed ACBM

SOURCE: Drawing prepared from April 2019 survey provided by Hydrographic Consultants and June 2019 survey provided by Morrison Surveying, Inc.
HORIZONTAL DATUM: Texas State Plane South Central, North American Datum of 1983 (NAD83), U.S. Survey Feet
VERTICAL DATUM: North American Vertical Datum of 1988 (NAVD 88)

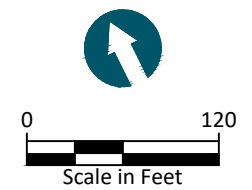
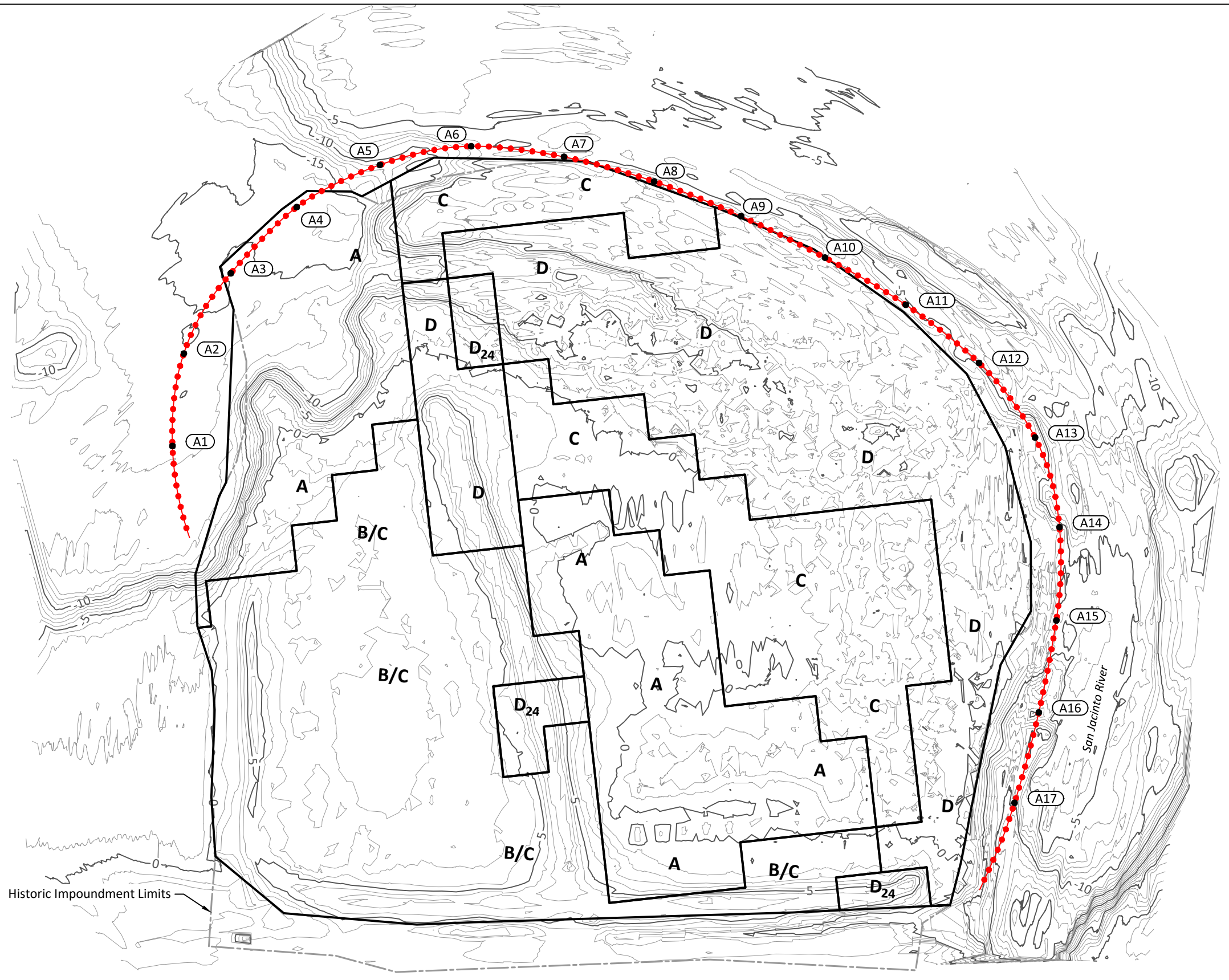


Figure 2
Northwest Slope Enhancement As-Built Conditions
Time Critical Removal Action (TCRA) Armored Cap
San Jacinto River Waste Pits Superfund Site



LEGEND:

- 2019 Bathymetric and Topographic Contours (1-Foot Interval)
- B/C** Armored Cap Type and Boundary
- Historic Impoundment Limits
- Approximate Location of Relocated Perimeter Buoy System
- (A17)** Designation and Approximate Location of Supplemental Buoy Anchors

NOTE:

Original buoy anchor locations not shown.

SOURCE: Bathymetric and topographic data from April 2019 survey provided by Hydrographic Consultants.

HORIZONTAL DATUM: Texas State Plane South Central, North American Datum of 1983 (NAD83), U.S. Survey Feet

VERTICAL DATUM: North American Vertical Datum of 1988 (NAVD 88)

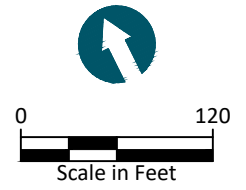


Figure 3
 Buoy Relocation and Additional Anchor Installation
 Time Critical Removal Action (TCRA) Armored Cap
 San Jacinto River Waste Pits Superfund Site

ATTACHMENT 1

ANCHOR QEA NORTHWEST SLOPE
ENHANCEMENT DAILY REPORTS



DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Monday, May 20, 2019		REPORT NO.	001
WEATHER		TEMPERATURE	L:74 H:85 degrees F	
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
18 – GHD, CCI & AQ		Small fork lift, Bobcat T740, Cat 920M forklift		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1530 Height: 2.92 ft		No incidents or near misses on this date.		

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.59 (reference to MLLW = 0).
Tidal data based on Barbours Cut at Morgans Point. Preliminary high tide ~3 ft (MLLW), predicted high tide was 1.7 ft.

0700 – 1530 Equipment and materials delivered to project site.

- Staged geotextile material.
- Equipment on site (crane, forklift, crane, bulldozer, bobcat) and misc pipes and hoses.
- Delivery of 4 phase grout pump, hoses, roll-out pipes.

1600 to 1645 – Health and Safety Tailgate meeting near the west gate, north bank, immediately inside entry gate.
Meeting covered heat and fluids; onsite construction plan, communications and safety as priorities.
Introduced project work expectatinos, tentative daily working schedule, and supervisors.

1700 – Project site closed and locked.

Summary of Progress on this Date:

- Initial mobilization of equipment and materials.

Persons On-Site on this Date:

Cris Weber (Anchor QEA)
Mitch Blanchard (GHD)
Damian Dovin (GHD)
Ben Bufkin (CTI)
(~15 general site workers for CCI.)

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Geotextile fabric	Roll	25	count	0	25

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

4 photos (descriptions provided underneath photo)

None



Photo 1 – Geotextile fabric rolls for ACBM.



Photo 2 – Grouting hoses and roll-out pipes.



Photo 3 – Bobcat and Cat bulldozer.



Photo 4 – Small fork lift, and 4phase grout pump. (Crane belongs to bridge contractor).

FIELD REPRESENTATIVE	Cris Weber	HRS	8	DATE	05/20/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Tuesday, May 21, 2019		REPORT NO.	002
WEATHER		TEMPERATURE	L:75 H:86 degrees F	
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
18 – GHD, CCI & AQ		Small fork lift, Bobcat T740, Cat 920M forklift		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1400 Height: 3.94 ft at High Tide		No incidents or near misses on this date.		

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.59 (reference to MLLW = 0).
 Tidal data based on Barbours Cut at Morgans Point. 2pm is predicted high-tide at 1.97 ft MLLW. Preliminary high tide ~2p is 3.94 ft (MLLW).

0600 – 1130 Personnel onsite and equipment and materials delivered to project site.

- Geotextile underlayment
- Timber mats and lumber cross-ties
- High water levels noted onsite
- Initial bathymetric survey began

1130 to 1400 – Delivery of gravel to maintain laydown area for ACBM construction.

- Surveyors tied-in benchmarks for project site control. Roadway staked-off at shoulders to mark ROW.

1400 to 1700 – Continued delivery of gravel to maintain laydown area for ACBM construction and ROW for installation.

- Completed laydown area maintenance for ACBM construction.

1730 – Project site closed and locked.

Summary of Progress on this Date:

- Continued mobilization of equipment and materials.

Persons On-Site on this Date:

Cris Weber 512-484-1688 - AQ
 Damian Dovin-269-270-7063 - GHD
 Ben Bufkin-985-226-0899 - CCI
 Ryan Proulx-906-370-1925 - GHD
 Clint Guillory-337-764-5802 - GHD
 Mitch Blanchard - 225 773 9631 - GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Wooden roadway pallets			Truck		
Lumber cross-ties			Truck		
Gravel			Truck		

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

5 photos (descriptions provided underneath photo)

None



Photo 1 – Sand bags for ACBM construction.



Photo 2 – Timber cross-ties



Photo 3 – Timber crane mats



Photo 4 – Incoming tide at worksite.



Photo 5 – Completion of laydown area maintenance

FIELD REPRESENTATIVE	Cris Weber	HRS	8	DATE	05/21/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Wednesday, May 22, 2019		REPORT NO.	003
WEATHER		TEMPERATURE	L:77 H:89 degrees F	
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
19 – GHD, CCI & AQ		Small fork lift, Bobcat T740, Cat 920M forklift, Cat bobcat.		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1330	Height: 3.94 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).
 Tidal data based on Barbours Cut at Morgans Point. 3:30p is predicted high-tide at 1.74 ft MLLW. Preliminary high tide
 ~3:30p is 3.39 ft (MLLW).

0600 to 0630 Personnel onsite and safety briefing for ~15 general site workers.

0700 to 1630 – Onsite construction operations:

- Survey crew setting stakes for mat locations below waterline
- Initial construction/assembly of ACBM mattresses forms
- Ongoing maintenance of ACBM installation access roadway

1400 to 1700 – Site deliveries:

- Delivery of gravel to maintain laydown area for ACBM construction and roadway
- Small barge for floating construction platform

1730 – Project site closed and locked.

Summary of Progress on this Date:

- Initiated construction/assembly of ACBM mattresses forms
- Continued maintenance of construction access roadway
- Survey and staking of ACBM locations along NW shoreline

Persons On-Site on this Date:

Cris Weber 512-484-1688 - AQ
 Damian Dovin-269-270-7063 - GHD
 Ben Bufkin-985-226-0899 - CCI
 Ryan Proulx-906-370-1925 - GHD
 Clint Guillory-337-764-5802 - GHD
 ~19 general site workers

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Gravel			Truck		
Deck barge			Truck		

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

4 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None



Photo 1 – Maintenance of construction access roadway



Photo 2 – ACBM mattress form assembly



Photo 3 – Floating barge delivery



Photo 4 – Access road with incoming tide

FIELD REPRESENTATIVE	Cris Weber	HRS	8	DATE	05/22/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD		SUPERINTENDENT	Damian Dovin
DAY OF WEEK & DATE:	Thursday, May 23, 2019		REPORT NO.	004
WEATHER			TEMPERATURE	L:75 H:87 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
18 – GHD, CCI & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat.		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1518 Height: 3.23 ft at High Tide		No incidents or near misses on this date.		

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).
 Tidal data based on Barbours Cut at Morgans Point. 4:15p is predicted high-tide at 1.74 ft MLLW. Preliminary high tide occurred at ~3:15p measured at 3.23 ft (MLLW).

0600 to 0630 Personnel onsite and safety briefing for ~18 general site workers.

- 0700 to 1700 – Onsite construction operations:
- Survey crew continued setting stakes for mat locations
 - Continued construction/assembly of ACBM mattresses
 - Substantial completion of access roadway maintenance

1730 – Project site closed and locked.

Summary of Progress on this Date:

- Divers visited the site for initial recon for installation (5/22)
- Continued construction/assembly of ACBM mattresses forms
- Substantial completion of access roadway maintenance
- Continued survey and staking of ACBM locations

Persons On-Site on this Date:

Cris Weber 512-484-1688 - AQ
 Damian Dovin-269-270-7063 - GHD
 Ben Bufkin-985-226-0899 - CCI
 Ryan Proulx-906-370-1925 - GHD
 Clint Guillory-337-764-5802 - GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Gravel			Truck		

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

4 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None



Photo 1 – Completion of ACBM form assembly



Photo 2 – Completed ACBM form assembly being moved to installation staging location



Photo 3 – Bathymetric site survey and ACBM layout



Photo 4 – Grout pump staging area.

FIELD REPRESENTATIVE	Cris Weber	HRS	8	DATE	05/22/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD		SUPERINTENDENT	Damian Dovin
DAY OF WEEK & DATE:	Friday, May 24, 2019		REPORT NO.	005
WEATHER	Cool (74 deg F, strong breeze (6-8 mph)		TEMPERATURE	L:73 H:89 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
19 – GHD, CCI & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat.		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1606	Height: 3.03 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- predicted high-tide at 4:15p is 1.74 ft MLLW.
- Preliminary high tide occurred at ~4:00p measured at 3.03 ft (MLLW).

0600 to 0615: Personnel onsite and safety briefing.

0630 to 1700 – Onsite construction operations:

- Continued construction/assembly of ACBM mattresses
- Final site prep of access roadway
- Storage and lock-up of site equipment for holiday weekend.

1700 – Project site closed and locked.

Summary of Progress on this Date:

- Continued construction/assembly of ACBM mattresses forms
- Completion and final prep of access roadway
- Close and locked site for holiday weekend

Persons On-Site on this Date:

Cris Weber 512-484-1688 - AQ
 Damian Dovin-269-270-7063 - GHD
 Ben Bufkin-985-226-0899 - CCI
 Ryan Proulx-906-370-1925 - GHD
 Clint Guillory-337-764-5802 - GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

5 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None



Photo 1 – Ongoing ACBM assembly



Photo 2 – Staging of ACBM near installation site



Photo 3 – Staging of ACBM near installation site



Photo 4 – Crane mats at installation site



Photo 5 – Crane mats at installation site

FIELD REPRESENTATIVE	Cris Weber	HRS	8	DATE	05/24/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Tuesday, May 28, 2019		REPORT NO.	006
WEATHER	Partly cloudy, winds SSE at 10-20 mph, intermittent light showers between 1200 and 1400		TEMPERATURE	L:78 H:88 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
26 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1842	Height: 2.82 ft	at High Tide	No incidents or near misses on this date.	
<u>CHRONOLOGICAL ACCOUNT OF DAY'S WORK:</u>				
<p>NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0). Tidal data based on Barbours Cut at Morgans Point.</p> <ul style="list-style-type: none"> • Predicted high-tide at 5:54p is 1.41 ft MLLW • Preliminary high tide occurred at ~7:00p measured at 2.82 ft (MLLW). <p>0600 to 0615: Personnel onsite and safety briefing.</p> <p>0630 to 1730 – Onsite construction operations:</p> <ul style="list-style-type: none"> - Continued construction/assembly of ACBM mattresses - Mobilization of Underwater Technology Services dive crew and equipment - Mobilization of SWE marsh buggy, long reach excavator, spud barge, and crew boat <p>1730 – Project site closed and locked.</p> <p><u>Summary of Progress on this Date:</u></p> <ul style="list-style-type: none"> • Continued construction/assembly of ACBM mattresses forms • Mobilization of dive crew and equipment, marsh buggy, long reach excavator, spud barge, and crew boat for ACBM panel transport and installation <p><u>Persons On-Site on this Date:</u></p> <p>Josef Hoffmann - 225-802-4914 - AQ Damian Dovin - 269-270-7063 - GHD Ben Bufkin - 985-226-0899 - CCI Ryan Proulx - 906-370-1925 - GHD Clint Guillory - 337-764-5802 - GHD Mitch Blanchard - 225 773 9631 - GHD</p>				

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

5 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None



Photo 1 – Sewing of geotextile fabric to ACBM form during mattress assembly



Photo 2 – Rolling of assembled ACBM mattress for staging at installation site



Photo 3 – Staging of divers equipment near installation site



Photo 4 – Delivery of SWE Marsh Buggy



Photo 5 – Assembly of SWE spud barge

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	05/28/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD		SUPERINTENDENT	Damian Dovin
DAY OF WEEK & DATE:	Wednesday, May 29, 2019		REPORT NO.	007
WEATHER	Partly cloudy, winds SSE at 10-20 mph		TEMPERATURE	L:77 H:87 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:			MAJOR EQUIPMENT ON JOB (Size/capacity and hours):	
26 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ			Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy	
TIDE INFORMATION: Morgans Point, Barbours Cut, TX			HEALTH AND SAFETY INFORMATION:	
Time: 0724	Height: 2.92 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).
Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 5:36p is 1.34 ft MLLW
- Preliminary high tide occurred at ~7:30a measured at 2.92 ft (MLLW).

0600 to 0615: Personnel onsite and safety briefing.

0630 to 1630 – Onsite construction operations:

- Continued construction/assembly of ACBM mattresses
- Placed dive equipment adjacent to ACBM installation site
- Temporarily removed portion of perimeter buoys that was blocking construction access to the ACBM installation site
- Assembled grout pump hoses near ACBM installation site

1630 – Project site closed and locked.

Summary of Progress on this Date:

- Continued construction/assembly of ACBM mattresses
- Made the following preparations for beginning ACBM installation operations:
 - Placed dive equipment adjacent to ACBM installation site
 - Temporarily removed portion of perimeter buoys that was blocking construction access to the ACBM installation site
 - Assembled grout pump hoses near ACBM installation site

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 - AQ
 Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 - GHD
 Mitch Blanchard - 225 773 9631 - GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

5 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None



Photo 1 – Sewing of anchoring sandbags to geotextile fabric during ACBM mattress assembly



Photo 2 – Sewing of geotextile fabric to ACBM form during mattress assembly



Photo 3 – Placement of dive equipment adjacent to ACBM installation site



Photo 4 – Temporary removal of perimeter buoy segment for construction access to ACBM installation site



Photo 5 – Assembly of grout pump hoses near ACBM installation site

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	05/29/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Thursday, May 30, 2019		REPORT NO.	008
WEATHER	Overcast, winds SSE at 5-10 mph. Afternoon thunderstorm with observations of lightning caused temporary suspension of work from approximately 1330 to 1500.		TEMPERATURE	L:74 H:85 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 0654	Height: 2.51 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 5:24p is 1.30 ft MLLW
- Preliminary high tide occurred at ~7:00a measured at 2.51 ft (MLLW).

0600 to 0615: Personnel onsite and safety briefing.

0630 to 1330 – Onsite construction operations:

- Completed construction/assembly of ACBM mattress forms
- Staged grout pump near the ACBM installation site and continued assembly of grout pump hoses
- Began replacement of 20-foot spuds on SWE spud barge with longer 35-foot spuds

1330 to 1500 – Lightning was observed multiple times as a thunderstorm passed through the site, causing work to be temporarily suspended.

1500 to 1900 – Onsite construction operations:

- Completed replacement of 20-foot spuds on SWE spud barge with longer 35-foot spuds

1900 – Project site closed and locked.

Summary of Progress on this Date:

- Completed assembly of ACBM mattress forms
- Made the following preparations for beginning ACBM installation operations:
 - Staged grout pump near the ACBM installation site and continued assembly of grout pump hoses
 - Replaced 20-foot spuds on SWE spud barge with longer 35-foot spuds

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 - AQ

Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED:	None
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PHONE LOG:

<u>SITE PHOTOS/VIDEOS TAKEN: (attached below)</u>	<u>FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:</u>
4 photos (descriptions provided underneath photo)	None



Photo 1 – Sewing of geotextile fabric to ACBM form during mattress assembly



Photo 2 – Rolling of assembled ACBM mattress for staging at installation site



Photo 3 – CCI's grout pump staged near ACBM installation site



Photo 4 – Longer spuds being installed on SWE spud barge

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	05/30/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Friday, May 31, 2019		REPORT NO.	009
WEATHER	Partly cloudy, winds E at 5-10 mph		TEMPERATURE	L:73 H:94 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 0918	Height: 2.16 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).
Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 9:12a is 1.34 ft MLLW
- Preliminary high tide occurred at ~9:30a measured at 2.16 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 1815 – Onsite construction operations:

- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site for deployment of panels 201 and 202.
- Deployed sorbent boom around the ACBM installation work area.
- Deployed ACBM panels 201 and 202 and anchored them in place on the water bottom.

1815 to 1830 – Site prepared for personnel departure.

- Work crews exited the water.
- Sorbent boom detached and brought to shore.
- Marsh buggy staged at the shoreline near the ACBM installation site and the Central Berm.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.

1830 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM panels 201 and 202 and anchored them in place on the water bottom.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 - AQ
 Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

5 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

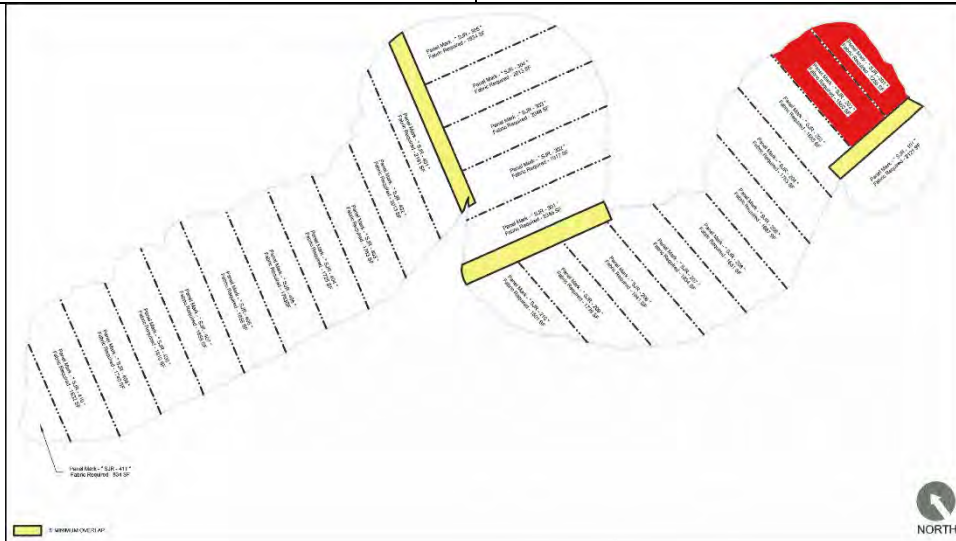


Photo 1 – Progress of ACBM installation. Red panels have been deployed but not yet grouted.



Photo 2 – Deployment of sorbent boom around ACBM installation work area



Photo 3– Marsh buggy placing roll of ACBM form and geotextile fabric into the water for unrolling and positioning



Photo 4 – Barge-mounted excavator pulling a rope attached to its bucket to unroll underwater roll of ACBM form and geotextile fabric



Photo 5 – GHD verifying position of unrolled ACBM form

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	05/31/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Saturday, June 1, 2019		REPORT NO.	010
WEATHER	Sunny, winds SE at 5-10 mph		TEMPERATURE	L:74 H:91 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 0912	Height: 2.21 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 10:24a is 1.49 ft MLLW
- Preliminary high tide occurred at ~9:00a measured at 2.21 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 1815 – Onsite construction operations:

- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site.
- Deployed sorbent boom around the ACBM installation work area.
- Completed underwater zippering of the connection between fabric form panels 201 and 202, deployed on 5/31.
- Upon completion of the zippering, panel forms were re-positioned and re-anchored in place on the water bottom.

1815 to 1830 – Site prepared for personnel departure.

- Work crews exited the water.
- Sorbent boom detached and brought to shore.
- Marsh buggy staged at the shoreline near the ACBM installation site and the Central Berm.
- Barge mounted excavator staged at the shoreline near the Western Berm.

1830 – Project site closed and locked.

Summary of Progress on this Date:

- Completed underwater zippering of the connection between ACBM panels 201 and 202.
- Re-positioned and re-anchored panels 201 and 202 in place on the water bottom.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 - AQ
 Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI

Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

5 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

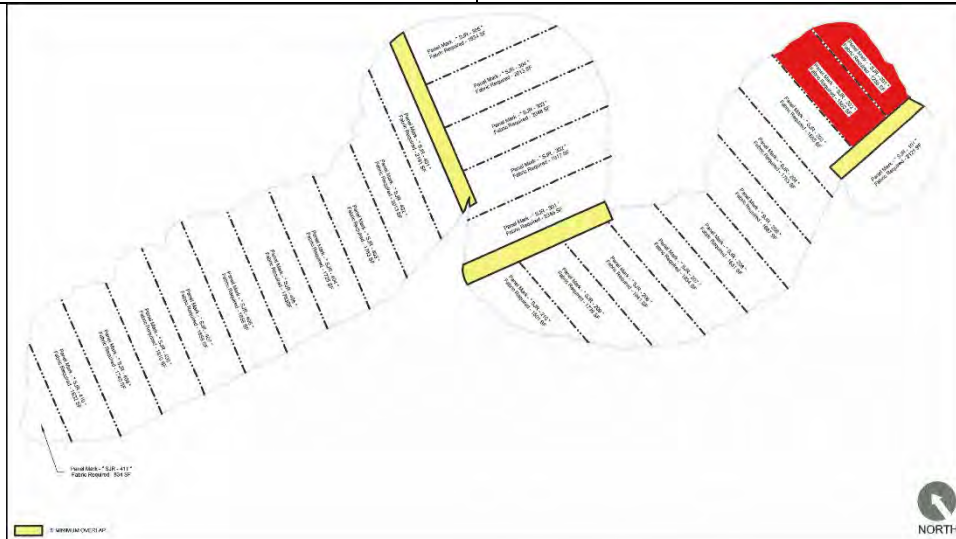


Photo 1 – Completed progress of ACBM installation. Red panels have been deployed but not yet grouted.



Photo 2 – Diver entering water to perform ACBM panel zippering, as CCI provides assistance with air hose



Photo 3 – SWE marsh buggy assisting with panel re-positioning after completion of zippering



Photo 4 – GHD and CCI verifying position of ACBM panel



Photo 5 – SWE excavator lowering sandbags into the water to anchor ACBM forms in place

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/01/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Monday, June 3, 2019		REPORT NO.	011
WEATHER	Sunny, winds SE at 5-10 mph		TEMPERATURE	L:74 H:91 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
26 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1100	Height: 2.14 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 12:00p is 1.71 ft MLLW
- Preliminary high tide occurred at ~11:00a measured at 2.14 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0900 – Onsite construction operations:

- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site.
- Deployed sorbent boom around the ACBM installation work area.
- Setup grout pump and hoses in preparation for concrete delivery.

0915 to 1300 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 201 and 202.
 - 45 cubic yards of concrete was delivered in 5 truckloads by SRM Concrete.
 - During grouting operations, a leak occurred in a segment of the in-water portion of the grout hose. Pumping of grout was immediately halted and grouting operations ceased for approximately 30 minutes while the segment of hose was replaced.

1300 to 1745 – Onsite construction operations:

- Deployed ACBM forms 203 and 204 and anchored them in place on the water bottom.

1745 to 1800 – Site prepared for personnel departure.

- Work crews exited the water.
- Sorbent boom detached and brought to shore.
- Marsh buggy staged at the shoreline near the ACBM installation site and the Central Berm.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.

1815 – Project site closed and locked.



DAILY REPORT

Summary of Progress on this Date:

- Completely grouted ACBM form 201; partially grouted ACBM form 202.
- Deployed ACBM forms 203 and 204 and anchored them in place on the water bottom.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 - AQ
Damian Dovin - 269-270-7063 - GHD
Ben Bufkin - 985-226-0899 - CCI
Ryan Proulx - 906-370-1925 - GHD
Clint Guillory - 337-764-5802 – GHD
Mitch Blanchard - 225 773 9631 – GHD
Judy Armour – MIMC
Phil Slowiak – IP
Brent Sasser – IP

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

5 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

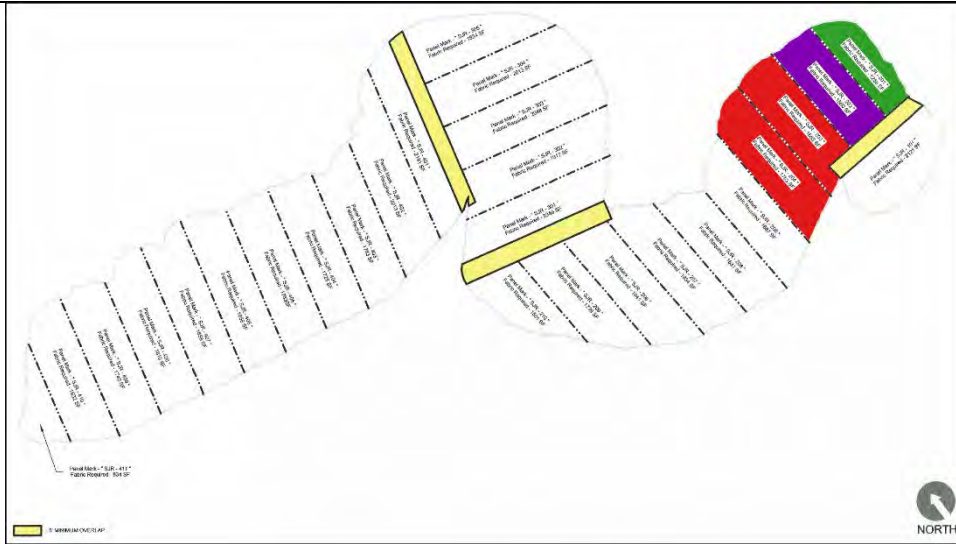


Photo 1 – Completed progress of ACBM installation. Green panels have been completely grouted. Purple panels have been partially grouted. Red panels have been deployed but not yet grouted.



Photo 2 – Concrete being offloaded into grout pump during ACBM panel grouting



Photo 3 – Segment of grout hose being replaced during a break in pumping after a leak was observed



Photo 4 – Roll of ACBM and geotextile fabric being loaded onto barge for transport to the installation site



Photo 5 – Roll of ACBM and geotextile fabric being placed in the water for unrolling and positioning

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/03/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Tuesday, June 4, 2019		REPORT NO.	012
WEATHER	Sunny, winds SE at 10-15 mph		TEMPERATURE	L:78 H:89 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
27 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1236	Height: 2.44 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).
Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 12:54p is 1.75 ft MLLW
- Preliminary high tide occurred at ~11:30a measured at 2.40 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 1015 – Onsite construction operations:

- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site.
- Deployed sorbent boom around the ACBM installation work area.
- Repositioned and anchored ACBM forms 203 and 204 on the water bottom.
- Deployed ACBM form 205 and anchored it in place on the water bottom.
- Prepared grout pump and grout hoses for delivery of concrete and grouting of ACBM forms.

1215 – Exxon Mobile Pipeline representative visited the site and confirmed that a warning sign observed near the shoreline of the ACBM installation area, just west of the Central Berm, was not an official pipeline marking and that there is not a pipeline located there. The warning sign was therefore removed.

1245 – Delivery of manlift for use in performing maintenance on the spud cable system of SWE's spud barge.

1330 to 1740 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 202, 203, 204, and 205.
 - 63 cubic yards of concrete was delivered in 7 truckloads by SRM Concrete.
 - One truck was rejected upon visual observation of coarse aggregate in the mix as it was being offloaded from the truck into the grout pump. The truck was sent back and the concrete plant notified.

1630 to 1820 – Site prepared for forecasted inclement weather and personnel departure.

- Sorbent boom detached and brought to shore.
- Marsh buggy staged near the ACBM installation site on the eastern slope of the Central Berm.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.



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- Dive shack and generators strapped down.
- Work crews exited the water.
- Grout hose staged atop the Central Berm.
- Grout pump staged near the entrance of the site.

1840 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM form 205 and anchored it in place on the water bottom.
- Completed grouting of ABCM form 202; completely grouted ACBM forms 203 and 204; partially grouted ACBM form 205.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
Damian Dovin - 269-270-7063 - GHD
Ben Bufkin - 985-226-0899 - CCI
Ryan Proulx - 906-370-1925 - GHD
Clint Guillory - 337-764-5802 – GHD
Mitch Blanchard - 225 773 9631 – GHD
John Laplante – 206-795-2676 – AQ
Judy Armour – MIMC
Phil Slowiak – IP
Brent Sasser – IP
Charles Munce – GHD
Janie Smith – GHD
Nick Casten – GHD
Mario Leal – S. Oliver & Associates LP (Exxon Mobile Pipeline representative)

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

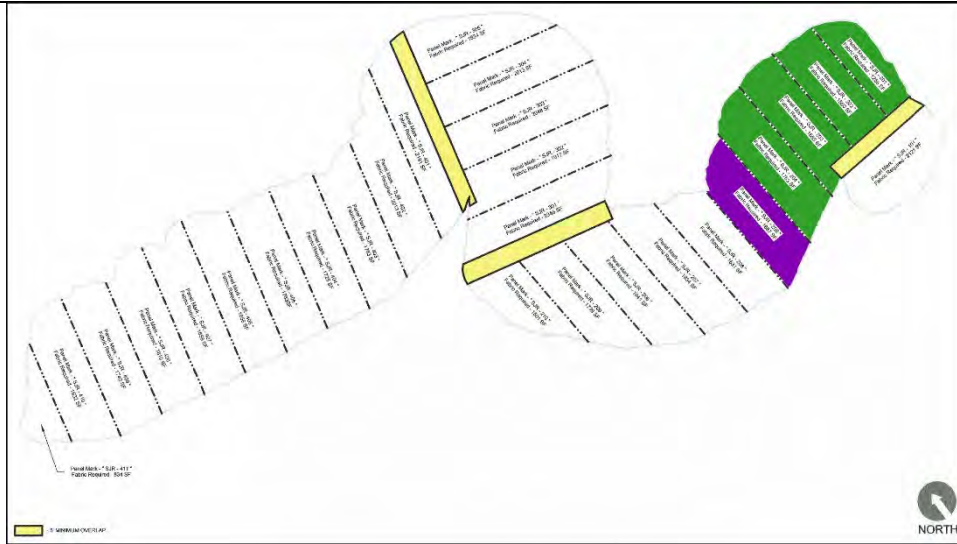


Photo 1 – Completed progress of ACBM installation. Green panels have been completely grouted. Purple panels have been partially grouted.



Photo 2 – Placement of ACBM form 205 in the water for unrolling and positioning



Photo 3 – Setup of grout hose at the ACBM installation site in preparation for grout pumping



Photo 4 – Concrete being offloaded from delivery trucks into grout pump during ACBM panel grouting



Photo 5 – Concrete truck being washed out into designated onsite roll off box



Photo 6 – Manlift staged in preparation for maintenance of SWE spud barge cable system

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/04/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD		SUPERINTENDENT	Damian Dovin
DAY OF WEEK & DATE:	Thursday, June 6, 2019		REPORT NO.	013
WEATHER	Variable clouds, winds WNW at 5-10 mph. Lightning observed twice throughout the day resulted in a safety standdown on each occurrence.		TEMPERATURE	L:76 H:90 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1518	Height: 2.48 ft	at High Tide	No incidents or near misses on this date.	
<u>CHRONOLOGICAL ACCOUNT OF DAY'S WORK:</u>				
<p>NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0). Tidal data based on Barbours Cut at Morgans Point.</p> <ul style="list-style-type: none"> • Predicted high-tide at 3:24p is 1.76 ft MLLW • Preliminary high tide occurred at ~3:30p measured at 2.48 ft (MLLW). <p>0555 to 0625 – Personnel onsite and lightning standdown.</p> <ul style="list-style-type: none"> • Lightning was observed during morning arrival to the site, prompting all personnel to shelter in their vehicles for 30 minutes prior to the morning safety briefing. <p>0625 to 0650 – Safety briefing.</p> <p>0700 to 0810 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Setup dive equipment and grout pump near ACBM installation site. • Replaced board mats at ACBM form barge-loading location. • Positioned marsh buggy at ACBM installation site. <p>0810 to 0855 – Performed manlift-assisted maintenance of spud barge spud cable system.</p> <p>0850 – Delivery and setup of handwash station for port-o-let near ACBM installation site.</p> <p>0855 to 1330 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Transported and positioned barge-mounted excavator at the ACBM installation site. • Deployed sorbent boom around the ACBM installation work area. • Deployed ACBM forms 206 and 207. <ul style="list-style-type: none"> ○ During the deployment of ACBM form 207, the form was pulled by the barge-mounted excavator while tied-off to a Warning/No Trespassing sign on the shoreline for anchoring, causing the sign to be pulled and tipped over. No personnel were in the immediate vicinity of the sign when it tipped over. Upon standing the sign back upright, no damage to its integrity from the fall was apparent. 				



DAILY REPORT

1345 to 1500 – Terry Andrews with TCEQ visited the site, met with GHD and AQ personnel, and observed construction operations.

1410 to 1830 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 205, 206, and 207.
 - 81 cubic yards of concrete delivered in 9 truckloads by SRM Concrete.
 - Lightning observed during pumping of grout from the 8th truck at approximately 1830 caused a halting of grouting operations for the day.
 - The 8th and 9th trucks departed the site, with an estimated total of 15 cubic yards of concrete grout not offloaded.
 - Machinery was staged and work crews exited the water as quickly as possible.

1910 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM forms 206 and 207.
- Completed grouting of ACBM form 205; completely grouted ACBM form 206; partially grouted ACBM form 207.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
 Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD
 Terry Andrews - 337-764-5802 – TCEQ

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED:	None
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PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

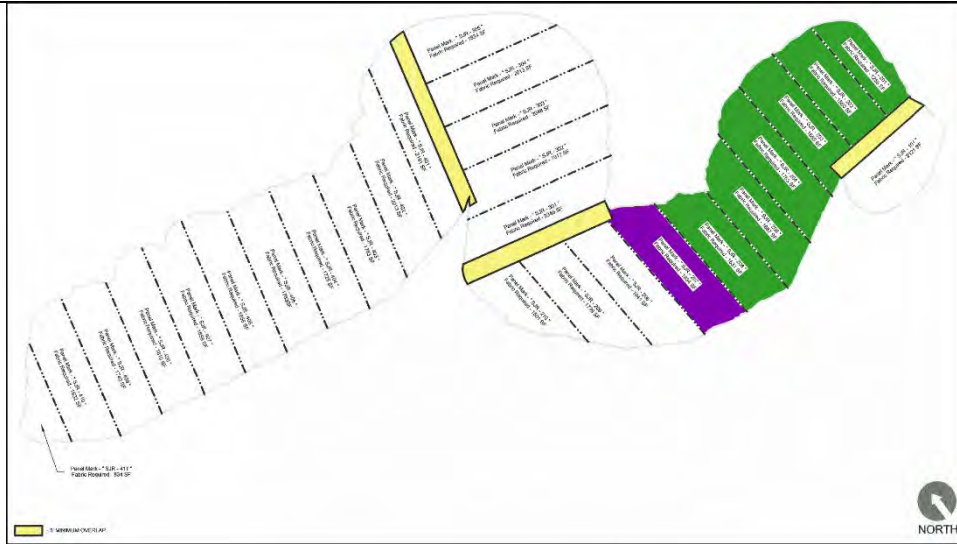


Photo 1 – Completed progress of ACBM installation. Green panels have been completely grouted. Purple panels have been partially grouted.



Photo 2 – Re-connection of discharge line to grout pump during morning setup activities



Photo 3 – Manlift-assisted maintenance of spud barge spud cable system



Photo 4 – ACBM form 207 being lowered into the water for positioning and unrolling



Photo 5 – Concrete grout being offloaded from delivery truck into the grout pump



Photo 6 – Warning/No Trespassing sign, positioned upright after being pulled over during ACBM form deployment

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/06/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Friday, June 7, 2019		REPORT NO.	014
WEATHER	Mostly sunny, winds WNW at 10-15 mph.		TEMPERATURE	L:73 H:94 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1418	Height: 1.95 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).
Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 4:06p is 1.73 ft MLLW
- Preliminary high tide occurred at ~2:15p measured at 1.95 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0810 – Onsite construction operations:

- Surveyed current grouted boundaries of installed ACBM.
- Loaded ACBM form 101 onto barge for deployment.
- Refueled barge-mounted excavator.
- Transported barge-mounted excavator to ACBM installation site.

0830 to 1000 – Onsite construction operations:

- Deployed ACBM form 101 and anchored it in place in preparation for grouting.

0900 to 1110 – Onsite construction operations:

- Delivery and placement of riprap and gravel next to grout pumping platform.
 - 3 truckloads of riprap and 5 truckloads of gravel were delivered, each containing approximately 20 tons.
 - The material was placed and graded next to the grout pumping platform, to serve as the location for a port-o-let, a handwash station, and future access to the dive shack, which will be relocated as the ACBM installation operations continue westward.

1015 to 1220 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM form 101.
 - 36 cubic yards of concrete was delivered in 4 truckloads by SRM Concrete.
 - ACBM forms were filled using approximately 33 of the 36 cubic yards delivered. Approximately 3 cubic yards was not offloaded from the 4th truck.

1300 to 1815 – Onsite construction operations:

- Barge-loaded ACBM forms 208, 209, and 210 and transported them to the ACBM installation site.



DAILY REPORT

- Deployed sorbent boom around the ACBM installation work area.
- Deployed ACBM forms 208 and 209 and anchored them in place on the water bottom.

1815 to 1830 – Site prepared for personnel departure.

- Work crews exited the water.
- Sorbent boom detached and brought to shore.
- Marsh buggy staged at the shoreline near the ACBM installation site and the Central Berm.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.

1850 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed and grouted ACBM form 101.
- Deployed ACBM forms 208 and 209 and anchored them in place on the water bottom.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
 Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Riprap			Truck		
Gravel			Truck		

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

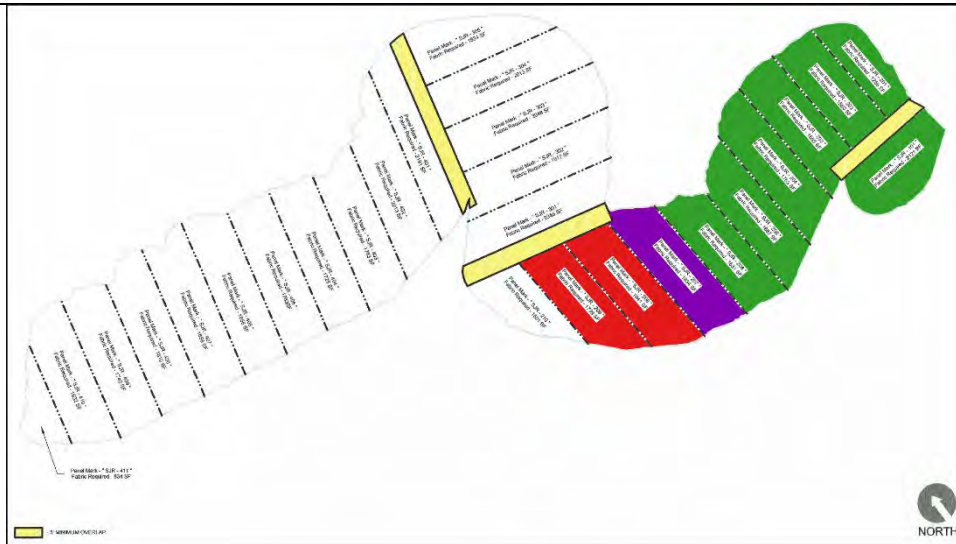


Photo 1 – Completed progress of ACBM installation. Green panels have been completely grouted. Purple panels have been partially grouted. Red panels have been deployed but not yet grouted.



Photo 2 – Grouted ACBM panels visible during morning low tide



Photo 3 – ACBM form being loaded onto barge for deployment



Photo 4 – Delivery of riprap near the grout pumping platform



Photo 5 – Concrete grout being offloaded from delivery truck into grout pump



Photo 6 – Marsh buggy assisting with the positioning of ACBM form 209 during deployment

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/07/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Saturday, June 8, 2019		REPORT NO.	015
WEATHER	Sunny, winds NW at 10-15 mph.		TEMPERATURE	L:74 H:95 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1648	Height: 1.89 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 4:36p is 1.65 ft MLLW
- Preliminary high tide occurred at ~4:45p measured at 1.89 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0755 – Onsite construction operations:

- Setup of grout pump and hoses.
- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site.
- Deployed sorbent boom around the ACBM installation work area.

0810 to 1220 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM form 207, 208, 209, and 210.
 - 72 cubic yards of concrete was delivered in 8 truckloads by SRM Concrete.
 - ACBM forms were filled using approximately 71 of the 72 cubic yards delivered. Approximately 1 cubic yard was not offloaded from the 8th truck.

0820 to 0930 – Onsite construction operations:

- Deployed ACBM form 210.

1220 to 1300 – Site prepared for personnel departure.

- Work crews exited the water.
- Sorbent boom detached and brought to shore.
- Marsh buggy staged at the shoreline near the ACBM installation site and the Central Berm.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.

1315 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM form 210.
- Completed grouting of ACBM form 207; grouted ACBM forms 208, 209, and 210.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
 Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED:	None
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PHONE LOG:

<u>SITE PHOTOS/VIDEOS TAKEN: (attached below)</u>	<u>FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:</u>
6 photos (descriptions provided underneath photo)	None

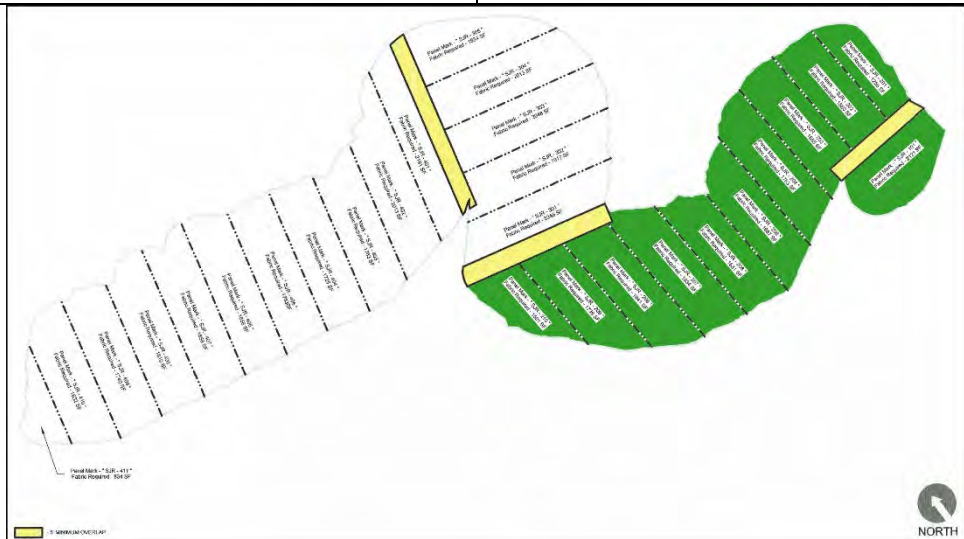


Photo 1 – Completed progress of ACBM installation. Green panels have been completely grouted.



Photo 2 – Deployed ACBM forms 208 and 209 prior to the start of grouting operations



Photo 3 – Insertion of the grout hose into an ACBM form during grout pumping operations



Photo 4 – Grouting of ACBM form from the shoreline, as dive crew monitors filling of underwater portion of the form



Photo 5 – Positioning of ACBM form 210 for unrolling



Photo 6 – Barge-mounted excavator assisting with the unrolling of ACBM form 210

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/08/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Monday, June 10, 2019		REPORT NO.	016
WEATHER	Variable clouds, winds N at 10-15 mph.		TEMPERATURE	L:73 H:91 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1654	Height: 1.46 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 5:06p is 1.41 ft MLLW
- Preliminary high tide occurred at ~5:00p measured at 1.46 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0800 – Onsite construction operations:

- Discovered damage to security fence and stolen generator.
 - During site setup activities, a hole in the security fence to the south of the main gate was discovered.
 - Additionally, it discovered that the lock on CCI's trailer was broken and that a generator had been stolen over the weekend.
 - Two supersacks of sandbags were subsequently placed in front of the damaged portion of the security fence to temporarily cover the hole.
- Surveyed current grouted boundaries of installed ACBM.
- Loaded ACBM forms onto barge for transport and deployment.
- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site.
- Deployed sorbent boom around the ACBM installation work area.

0800 to 1140 – Onsite construction operations:

- Deployed ACBM forms 301 and 302; partially deployed ACBM form 303.
- Continued placement and grading of gravel next to grout pumping platform, for relocation of the port-o-let, handwash station, and access to the dive shack once ACBM installation operations move westward.

1140 to 1350 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 301 and 302.
 - 60 cubic yards of concrete was delivered in 7 truckloads by SRM Concrete.

1315 to 1420 – AQ and GHD discussed the positioning of the equipment used in deploying ACBM form 303.

1350 to 1515 – Onsite construction operations:



DAILY REPORT

- Completed deployment of ACBM form 303.

1355 – Manlift used for the repair of SWE’s spud barge cables on Thursday, 6/6 was picked up from the site.

1500 to 1630 – Terry Andrews with TCEQ visited the site, met with GHD and AQ personnel, and observed construction operations.

1640 to 1740 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 302 and 303.
 - 27 cubic yards of concrete was delivered in 3 truckloads by SRM Concrete.

1740 to 1800 – Site prepared for personnel departure.

- Work crews exited the water.
- Sorbent boom detached and brought to shore.
- Marsh buggy staged near the shoreline of the western cell near the ACBM installation site.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.

1800 to 1820 – AQ and GHD discussed logistics of pouring and installing the additional concrete anchors for the perimeter buoy system. The forms for the anchors were delivered on Friday, 6/7.

1825 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM forms 301, 302, and 303.
- Completely grouted ACBM forms 301 and 302; partially grouted ACBM form 303.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
 Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD
 Terry Andrews - 337-764-5802 – TCEQ

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED:	None
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PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

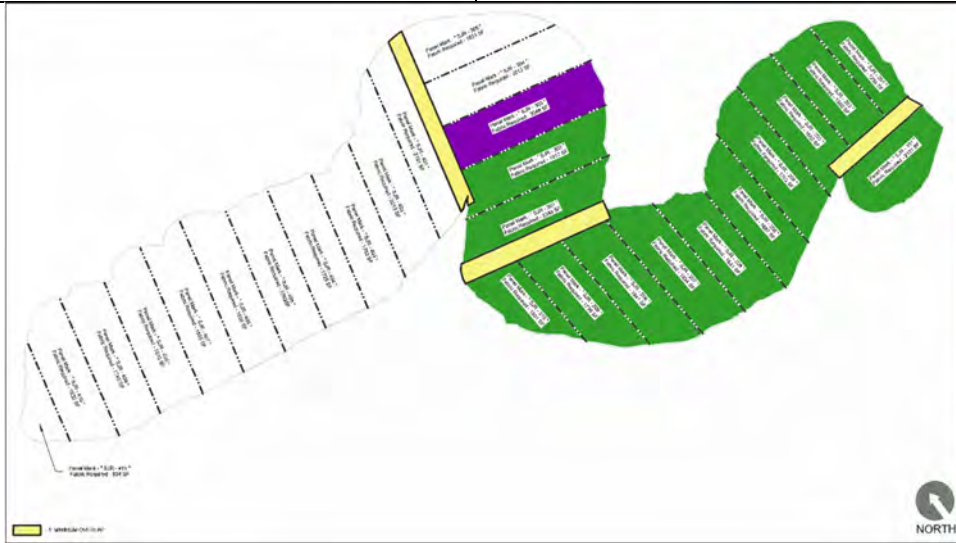


Photo 1 – Completed progress of ACBM installation. Green panels have been completely grouted. Purple panels have been partially grouted.



Photo 2 – Hole in security fence, observed during morning setup activities



Photo 3 – Supersacks of sandbags placed in front of hole in security fence



Photo 4 – Surveying of grouted boundaries of installed ACBM



Photo 5 – Barge loading of ACBM form for transport and deployment at the installation site



Photo 6 –Pumping of grout into ACBM form 301

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/10/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Tuesday, June 11, 2019		REPORT NO.	017
WEATHER	Variable clouds, winds NE at 5-10 mph.		TEMPERATURE	L:71 H:87 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
26 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1718	Height: 2.14 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 5:12p is 1.29 ft MLLW
- Preliminary high tide occurred at ~5:15p measured at 2.14 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0805 – Onsite construction operations:

- Surveyed current grouted boundaries of installed ACBM.
- Loaded ACBM forms 304 and 305 onto barge for transport and deployment at the ACBM installation site.
- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site.
 - Before transport to the ACBM installation site, the lifting of one of the spud barge's spuds caused damage to one of the pulleys of the spud cable system. The damage, however, did not prevent transport and positioning of the spud barge and excavator at the ACBM installation site.
- Deployed sorbent boom around the ACBM installation work area.

0805 to 0930 – Onsite construction operations:

- Deployed ACBM form 304 and anchored it in place on the water bottom.
 - During deployment operations, one of the spuds of SWE's spud barge became damaged to the point of being non-operational. GHD explained to AQ that the lifting of a supersack of sandbags by the barge-mounted excavator caused the barge to roll while the barge's spuds were lowered, bending the spud at its contact point with the barge. With the bent spud non-operational, deployment of additional ACBM forms was suspended until spud repairs could be made.

0815 to 0900:

- GHD and AQ discussed extents of grouted ACBM in the 200-series panels.
 - GHD to follow-up with AQ project manager.
- GHD and AQ discussed logistics of installing the additional concrete anchors for the perimeter buoy system.

1020 to 1150 – Onsite construction operations:

- Delivery of concrete and pouring of the additional concrete anchors for the perimeter buoy system.



DAILY REPORT

- 4 cubic yards of concrete was delivered in 2 truckloads by SRM Concrete.
- The anchor forms were filled using approximately 3 of the 4 cubic yards delivered. Approximately 1 cubic yard was not offloaded from the 2nd truck.

1200 to 1400– Onsite construction operations:

- Dive crew performed underwater cutting/removal of a portion of the damaged spud just below the waterline at the bottom of the barge.
- Sorbent boom detached and brought to shore.
- Spud barge and excavator transported to the adjacent San Jacinto River Fleet facility for repair of damaged spud and spud cable pulley.
- Marsh buggy staged near the shoreline of the western cell near the ACBM installation site.

1330 to 1920 – Onsite construction operations:

- Manlift delivered for repair of the spud cable pulley.
- Repair of damaged spud and spud cable pulley at San Jacinto River Fleet facility.

2030 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM form 304 and anchored it in place on the water bottom.
- Poured additional concrete anchors for the perimeter buoy system.
- Made repairs to damaged spud and spud cable pulley.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
Damian Dovin - 269-270-7063 - GHD
Ben Bufkin - 985-226-0899 - CCI
Ryan Proulx - 906-370-1925 - GHD
Clint Guillory - 337-764-5802 – GHD
Mitch Blanchard – 225-773-9631 – GHD
Ashley Howard – EPA

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)	FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:
6 photos (descriptions provided underneath photo)	None

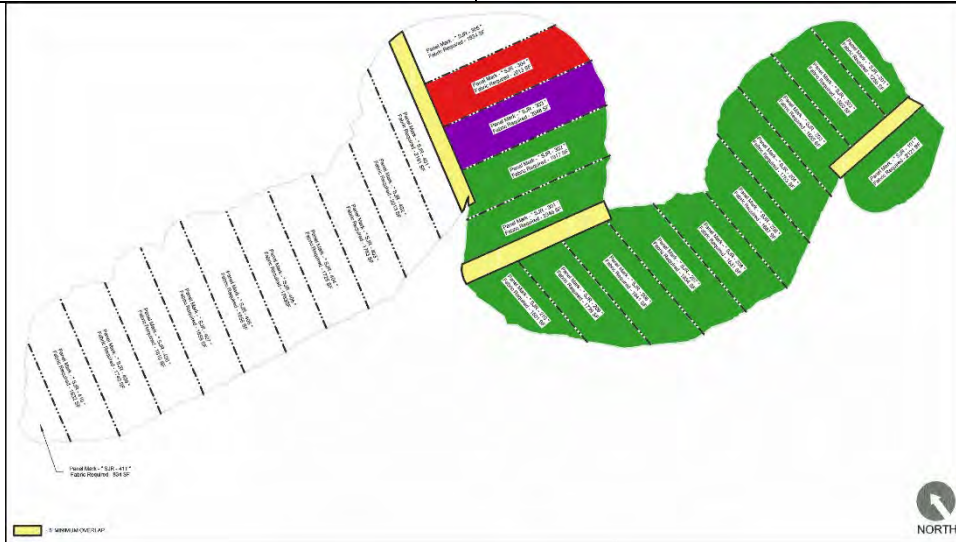


Photo 1 – Completed progress of ACBM installation. Green panels have been completely grouted. Purple panels have been partially grouted. Red panels have been deployed but not yet grouted.



Photo 2 – ACBM form 304 being lowered into the water for positioning and unrolling



Photo 3 – Forms for concrete buoy anchors being filled



Photo 4 – Filled anchor forms with lifting eyes set in place



Photo 5 – Spud repairs being performed



Photo 6 – Repairs to spud cable pulley being performed

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/11/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Wednesday, June 12, 2019		REPORT NO.	018
WEATHER	Variable clouds, winds NE at 5-10 mph.		TEMPERATURE	L:70 H:92 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1700	Height: 1.96 ft	at High Tide	No incidents or near misses on this date.	
<u>CHRONOLOGICAL ACCOUNT OF DAY'S WORK:</u>				
<p>NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0). Tidal data based on Barbours Cut at Morgans Point.</p> <ul style="list-style-type: none"> • Predicted high-tide at 4:54p is 1.21 ft MLLW • Preliminary high tide occurred at 5:00p measured at 1.96 ft (MLLW). <p>0600 to 0615 – Personnel onsite and safety briefing.</p> <p>0630 to 0930 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Surveyed current grouted boundaries of installed ACBM. • Completed repairs to spud barge’s spud cable pulley at the San Jacinto River Fleet facility. • Transported and positioned barge-mounted excavator at the ACBM installation site. • Transported ACBM form 305 and anchoring sandbags to the ACBM installation site for deployment. • Deployed sorbent boom around the ACBM installation work area. <p>0930 to 1200 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Completed underwater zippering of the connection between ACBM forms 303 and 304. <p>0930 to 1030 – EPA, AQ, and GHD discussed position of barge during operation of the spuds.</p> <p>1200 to 2025 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Deployed ACBM form 305 and anchored it in place on the water bottom. <p>1330 – GHD notified AQ that a stop-work was called to discuss management of the spud barge.</p> <p>2025 to 2035– Onsite construction operations:</p> <ul style="list-style-type: none"> • Work crews exited the water. • Sorbent boom detached and brought to shore. • Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm. <p>2105 – Project site closed and locked.</p>				



DAILY REPORT

Summary of Progress on this Date:

- Completed repairs to spud barge's spud cable pulley.
- Completed underwater zippering of the connection between ACBM forms 303 and 304.
- Deployed ACBM form 305 and anchored it in place on the water bottom.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
Damian Dovin - 269-270-7063 - GHD
Ben Bufkin - 985-226-0899 - CCI
Ryan Proulx - 906-370-1925 - GHD
Clint Guillory - 337-764-5802 – GHD
Ashley Howard – EPA

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

5 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

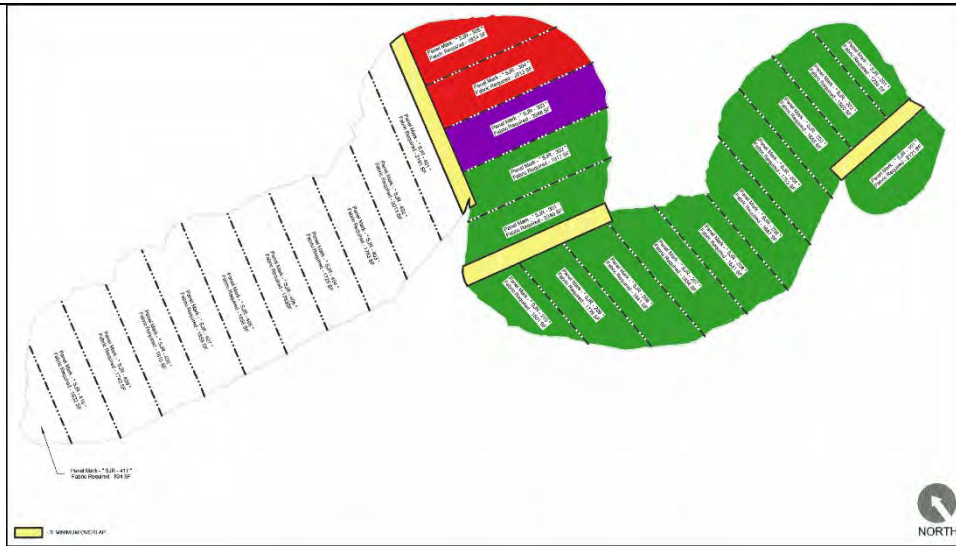


Photo 1 – Completed progress of ACBM installation. Green panels have been completely grouted. Purple panels have been partially grouted. Red panels have been deployed but not yet grouted.



Photo 2 – Repairs to spud barge's spud cable pulley being performed



Photo 3 – ACBM form 305 and anchoring sandbags being transported by barge to the installation site for deployment



Photo 4 – Barge-mounted excavator assisting with the underwater unrolling of ACBM form 305



Photo 5 – Sandbags being lowered into the water as anchoring points during ACBM deployment operations

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/12/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Thursday, June 13, 2019		REPORT NO.	019
WEATHER	Sunny, winds NNE at 5-10 mph.		TEMPERATURE	L:72 H:91 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 0712	Height: 1.68 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 7:48a is 1.29 ft MLLW
- Preliminary high tide occurred at ~7:15a measured at 1.68 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0730 – Onsite construction operations:

- Setup grout pump in preparation for delivery of concrete and ACBM grouting.
- Staged ACBM forms 401 and 402 at the shoreline near the ACBM installation site in preparation for deployment.
- Transported and positioned barge-mounted excavator at the ACBM installation site.
- Deployed sorbent boom around the ACBM installation work area.

0645 to 0715 – EPA, GHD, and AQ discussed anticipated spud barge positioning for the remainder of the project in the deployment of the 400-series ACBM forms.

0730 to 1155 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 303, 304, and 305.
 - 63 cubic yards of concrete was delivered in 7 truckloads by SRM Concrete.

0815 to 0845 – Onsite construction operations:

- Deployed silt curtain around the ACBM installation work area.

1230 to 1635 – Onsite construction operations:

- Deployed ACBM forms 401 and 402 and anchored them in place on the water bottom.

1635 to 1945 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 401 and 402.
 - 54 cubic yards of concrete was delivered in 6 truckloads by SRM Concrete.

1945 to 2005 – Onsite construction operations:



DAILY REPORT

- Work crews exited the water.
- Sorbent boom detached and brought to shore.
- Silt curtain detached and brought to shore.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.

2020 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM forms 401 and 402 and anchored them in place on the water bottom.
- Completed grouting of ACBM form 303; gouted ACBM forms 304, 305, and 401; partially grouted ACBM form 402.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
Damian Dovin - 269-270-7063 - GHD
Ben Bufkin - 985-226-0899 - CCI
Ryan Proulx - 906-370-1925 - GHD
Clint Guillory - 337-764-5802 – GHD
Ashley Howard – EPA
Nick Gannon – EPA

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED:	None
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PHONE LOG:

<u>SITE PHOTOS/VIDEOS TAKEN: (attached below)</u>	<u>FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:</u>
5 photos (descriptions provided underneath photo)	None

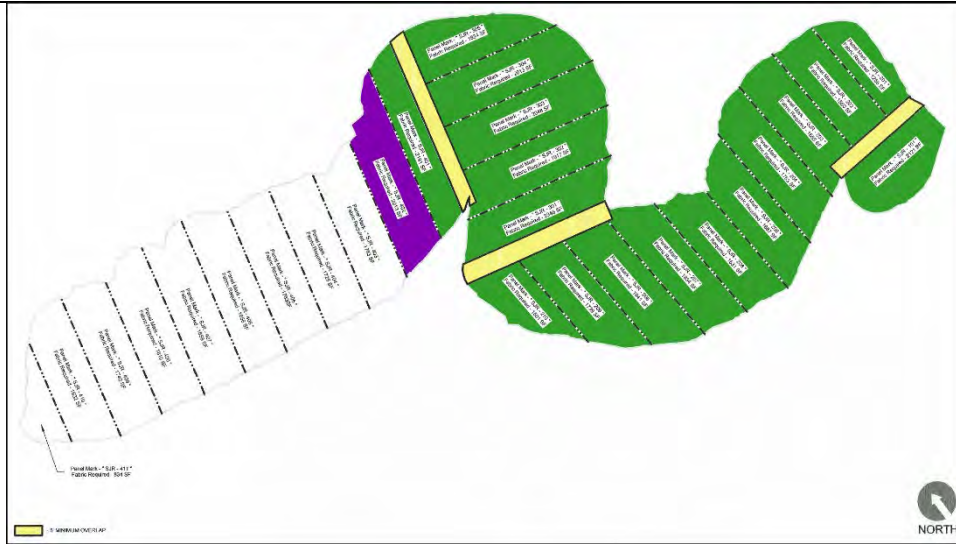


Photo 1 – Completed progress of ACBM installation. Green panels have been grouted. Purple panels have been partially grouted.



Photo 2 – Deployment of silt curtain around the ACBM installation work area



Photo 3 – Concrete grout being offloaded from delivery truck into the grout pump



Photo 4 – Marsh buggy preparing to place ACBM form 401 into the water during deployment operations



Photo 5 – Unrolling of ACBM form 401 during deployment operations

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/13/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Friday, June 14, 2019		REPORT NO.	020
WEATHER	Sunny, winds S at 5-10 mph.		TEMPERATURE	L:77 H:90 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 0906	Height: 1.97 ft	at High Tide	No incidents or near misses on this date.	
<u>CHRONOLOGICAL ACCOUNT OF DAY'S WORK:</u>				
<p>NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0). Tidal data based on Barbours Cut at Morgans Point.</p> <ul style="list-style-type: none"> • Predicted high-tide at 9:00a is 1.44 ft MLLW • Preliminary high tide occurred at ~9:00a measured at 1.97 ft (MLLW). <p>0600 to 0615 – Personnel onsite and safety briefing.</p> <p>0630 to 0730 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Staged ACBM forms at the shoreline near the installation site in preparation for deployment. • Relocated dive shack and equipment westward, near the installation site of the 400-series ACBM panels. • Transported and positioned barge-mounted excavator at the ACBM installation site. • Deployed sorbent boom and silt curtain around the ACBM installation work area. <p>0800 to 1600 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Deployed ACBM forms 403, 404, 405, and 406 and anchored them in place on the water bottom. <ul style="list-style-type: none"> ○ SRM Concrete was not able to supply concrete grout to the project site today; the four ACBM forms deployed were anchored in place for grouting on Monday (6/17), when delivery of concrete is scheduled to resume. <p>0915 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Surveyed grouted boundaries of installed ACBM panels. <p>1320 to 1610 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Received riprap for armoring the southern edge of the installed ACBM. <p>1500 to 1545 – Terry Andrews with TCEQ visited the site, met with GHD and AQ, and observed onsite activities.</p> <p>1600 to 1640 – Onsite construction operations:</p> <ul style="list-style-type: none"> • Work crews exited the water. • Silt curtain and sorbent boom detached and brought to shore. 				



DAILY REPORT

- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.

1710 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM forms 403, 404, 405, and 406 and anchored them in place on the water bottom.
- Began receiving riprap for armoring the southern edge of the installed ACBM.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ

Damian Dovin - 269-270-7063 - GHD

Ben Bufkin - 985-226-0899 - CCI

Ryan Proulx - 906-370-1925 - GHD

Clint Guillory - 337-764-5802 – GHD

Terry Andrews - 337-764-5802 – TCEQ

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Riprap			Truck		

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

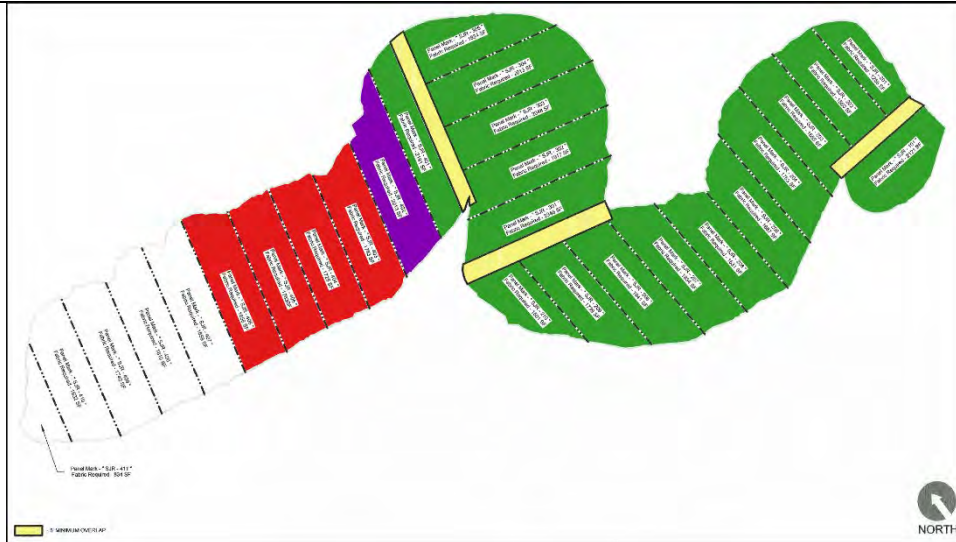


Photo 1 – Completed progress of ACBM installation. Green panels have been grouted. Purple panels have been partially grouted. Red panels have been deployed but not yet grouted.



Photo 2 – Relocation of dive shack near the installation site of 400-series ACBM panels



Photo 3 – Surveying of grouted extents of installed ACBM panels



Photo 4 – Delivery of riprap for ACBM armoring



Photo 5 – Lowering of ACBM form 405 into the water for unrolling and positioning



Photo 6 – Barge-mounted excavator placing anchoring sandbags into the water for deployed ACBM forms

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/14/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD		SUPERINTENDENT	Damian Dovin
DAY OF WEEK & DATE:	Saturday, June 15, 2019		REPORT NO.	021
WEATHER	Partly cloudy, winds S at 10-20 mph.		TEMPERATURE	L:80 H:92 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
7 – GHD, CCI, SWE, & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1030	Height: 2.54 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 10:30a is 1.56 ft MLLW
- Preliminary high tide occurred at 10:30a measured at 2.54 ft (MLLW).

0700 to 0740 – Personnel onsite, safety briefing, and outline of the day's work plan.

- ACBM installation activities are on hold until Monday 6/17, when SRM concrete will resume supplying concrete grout to the site. The dive crew and most CCI and SWE personnel were offsite for the day.
- Select personnel from GHD, CCI, and SWE were onsite for work items related to:
 - Riprap armoring of the southern edge of installed ACBM.
 - Perimeter buoy realignment and additional anchor installation.

0740 to 0800 – GHD and AQ discussed details of the gradation, stakeout, and placement of the riprap armor stone along the southern edge of installed ACBM.

0800 to 0845 – Onsite construction operations:

- Stakeout of limits for riprap placement along the southern edge of installed ACBM.

0810 to 1140 – Onsite construction operations:

- Received and stockpiled riprap for armoring the southern edge of the installed ACBM.

0825 – Onsite construction operations:

- Deployed sorbent boom around the riprap placement work area.

0845 to 0905 – GHD and AQ discussed details of the perimeter buoy anchor installations.

0910 – Onsite construction operations:

- Deployed silt curtain around the riprap placement work area.

0915 to 1100 – Onsite construction operations:

- Surveyed existing perimeter buoy anchor locations on the east side of the Central Berm.



DAILY REPORT

- Began staging new/additional buoy anchors near the shoreline for barge deployment.
- Began preparing cabling for the new/additional buoy anchors.

1100 to 1110 – Onsite construction operations:

- GHD attempted replacement of the batteries for the regulatory buoy lights. Upon inspection by GHD and AQ, removal of the light fixture to access the battery compartment required a tool that was not on site. Procurement of the tool will be attempted prior to Monday 6/17.

1100 to 1145 – Onsite construction operations:

- Placement of riprap armoring along the southern edge of ACBM panel 101.

1110 to 1145 – GHD and AQ discussed details of the perimeter buoy realignment and anchor installations on the east side of the Central Berm, in light of the morning’s survey results.

1145 to 1215 – Onsite construction operations:

- Marsh buggy staged at the shoreline near the Central Berm and the ACBM installation site.
- Silt curtain and sorbent boom detached and brought to shore.
- GHD work boat brought out of the water and staged in the stockpile area at the front of the site.

1230 – Project site closed and locked.

Summary of Progress on this Date:

- Performed stakeout of limits for riprap placement along the southern edge of installed ACBM.
- Continued receiving and stockpiling riprap for ACBM armoring.
- Placed riprap armoring along the southern termination edge of ACBM panel 101.
- Made preparations for perimeter buoy realignment and additional anchor installation on the east side of the Central Berm.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
 Damian Dovin - 269-270-7063 - GHD
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Riprap			Truck		

TESTS PERFORMED:	None
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PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

4 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

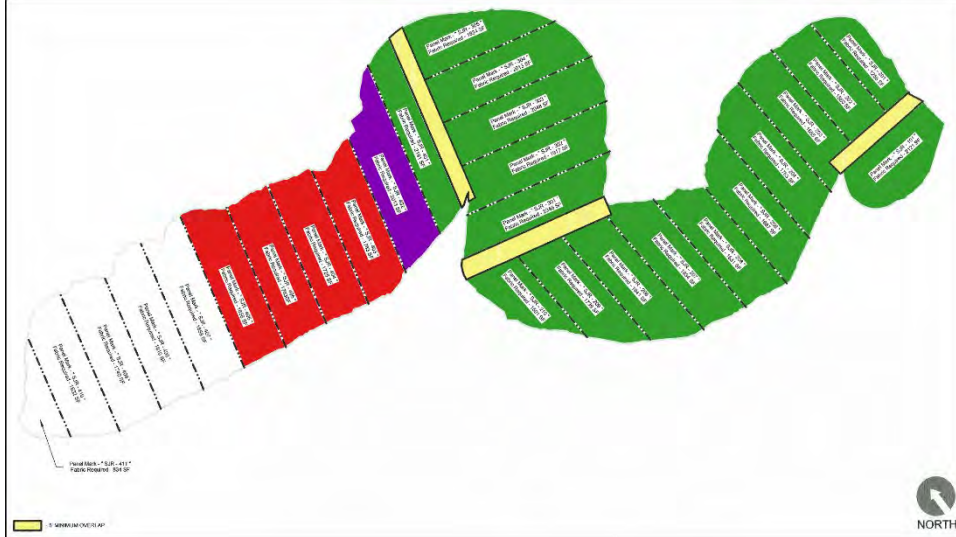


Photo 1 – Completed progress of ACBM installation. Green panels have been grouted. Purple panels have been partially grouted. Red panels have been deployed but not yet grouted.



Photo 2 – Delivery of riprap for armoring the southern edge of the installed ACBM



Photo 3 – Stakeout of limits for riprap placement along southern edge of installed ACBM



Photo 4 – Stockpiles of riprap staged near the shoreline of the ACBM installation site

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/15/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Monday, June 17, 2019		REPORT NO.	022
WEATHER	Variable clouds, winds S at 5-10 mph.		TEMPERATURE	L:76 H:87 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
25 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1548	Height: 2.59 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 12:30p is 1.64 ft MLLW
- Preliminary high tide occurred at ~4:00p measured at 2.59 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0845 – Onsite construction operations:

- Staked-out placement locations for ACBM forms 407 to 411.
- Staged ACBM forms 407 to 411 near the shoreline for deployment.
- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site.
- Deployed sorbent boom and silt curtain around the ACBM installation work area.
- Setup grout pump and hoses in preparation for concrete delivery.

0845 to 1815 – Onsite construction operations:

- Deployed ACBM forms 407 to 411 and anchored them in place on the water bottom.

0900 to 1745 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 402 to 409.
 - 189 cubic yards of concrete was delivered in 21 truckloads by SRM Concrete.
 - Three trucks were rejected upon visual observation of coarse aggregate in the mix as it was being offloaded from the truck into the grout pump. The trucks were sent back and the concrete plant notified.

0945 to 1430 – Onsite construction operations:

- Received and stockpiled riprap for armoring the southern edge of the installed ACBM.

1630 to 1720 – Onsite construction operations:

- Replaced the batteries for the lights of the six regulatory buoys located on the east side of the Central Berm.



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1815 to 1830 – Onsite construction operations:

- Work crews exited the water.
- Silt curtain and sorbent boom detached and brought to shore.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.
- Marsh buggy staged near the shoreline in the western cell, near the ACBM installation site.

1905 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed ACBM forms 407 to 411 and anchored them in place on the water bottom.
- Finished grouting of ACBM form 402; grouted ACBM forms 403 to 408; partially grouted ACBM form 409.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
Damian Dovin - 269-270-7063 - GHD
Ben Bufkin - 985-226-0899 - CCI
Ryan Proulx - 906-370-1925 - GHD
Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project
Riprap			Truck		

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None

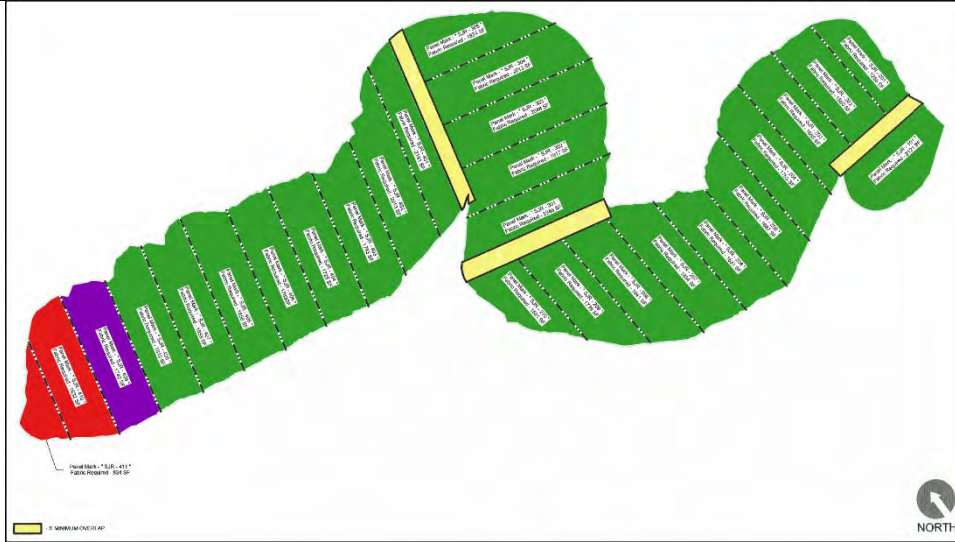


Photo 1 – Completed progress of ACBM installation. Green panels have been grouted. Purple panels have been partially grouted. Red panels have been deployed but not yet grouted.



Photo 2 – Staging of ACBM forms near the shoreline of the installation site for deployment



Photo 3 – Unrolling of ACBM form 407 during deployment operations



Photo 4 – Concrete grout being offloaded from delivery truck into grout pump



Photo 5 – Removal of observed coarse aggregate from rejected delivery trucks from the screen of the grout pump



Photo 6 – Delivery of riprap for armoring the southern edge of the installed ACBM

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/17/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Tuesday, June 18, 2019		REPORT NO.	023
WEATHER	Sunny, winds SW at 5-10 mph.		TEMPERATURE	L:76 H:93 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
20 – GHD, CCI, Underwater Technology Services, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1412	Height: 2.16 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 1:30p is 1.61 ft MLLW
- Preliminary high tide occurred at ~2:00p measured at 2.16 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0830 – Onsite construction operations:

- Positioned barge-mounted excavator and marsh buggy at the ACBM installation site.
- Deployed the first of two additional ACBM forms required to cover a gap between installed ACBM panels 209, 210, and 301.
- Deployed sorbent boom and silt curtain around the ACBM installation work area.
- Adjusted the positions of deployed ACBM forms 410 and 411 in preparation for grouting.
- Setup grout pump and hoses in preparation for concrete delivery.

0835 to 1345 – Onsite construction operations:

- Delivery of concrete and grouting of ACBM forms 409, 410, 411, and two additional forms required to cover a gap between installed ACBM panels 209, 210, and 301.
 - 117 cubic yards of concrete was delivered in 13 truckloads by SRM Concrete.
 - The grouting operations for the aforementioned ACBM forms were sequenced as follows:
 - Grouting of the first additional ACBM form overlaying panels 209, 210, and 301 was performed first.
 - Grouting operations then moved to ACBM forms 409, 410, and 411, while the second additional ACBM form was deployed over the gap between panels 209, 210, and 301.
 - Once the grouting of ACBM form 411 was completed, the second additional ACBM form overlaying panels 209, 210, and 301 was then grouted.

1015 to 1240 – Onsite construction operations:

- Realigned the portion of the perimeter buoy system on the east side of the Central Berm.



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1400 to 1515 – Onsite construction operations:

- Work crews exited the water.
- Cleaned and disassembled grout pump and hoses and transferred them to the staging area at front of site.
- Silt curtain and sorbent boom detached and brought to shore.
- Barge mounted excavator staged at the shoreline south of the ACBM installation site near the Western Berm.

1530 – CCI personnel and dive crew departed the site for the day.

1530 to 1700 – Onsite construction operations:

- Removed board mats from the grout pumping pad and staged them for pickup.

1725 – Project site closed and locked.

Summary of Progress on this Date:

- Deployed two additional ACBM forms required to cover a gap between installed ACBM panels 209, 210, and 301.
- Completed grouting of ACBM form 409; grouted ACBM forms 409, 410, and the two additional forms required to cover the gap between installed ACBM panels 209, 210, and 301.
- Realigned the portion of the perimeter buoy system on the east side of the Central Berm.
- Removed board mats from the grout pumping pad and staged them for pickup.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
 Damian Dovin - 269-270-7063 - GHD
 Ben Bufkin - 985-226-0899 - CCI
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED:	None
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PHONE LOG:

<u>SITE PHOTOS/VIDEOS TAKEN: (attached below)</u>	<u>FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:</u>
6 photos (descriptions provided underneath photo)	None

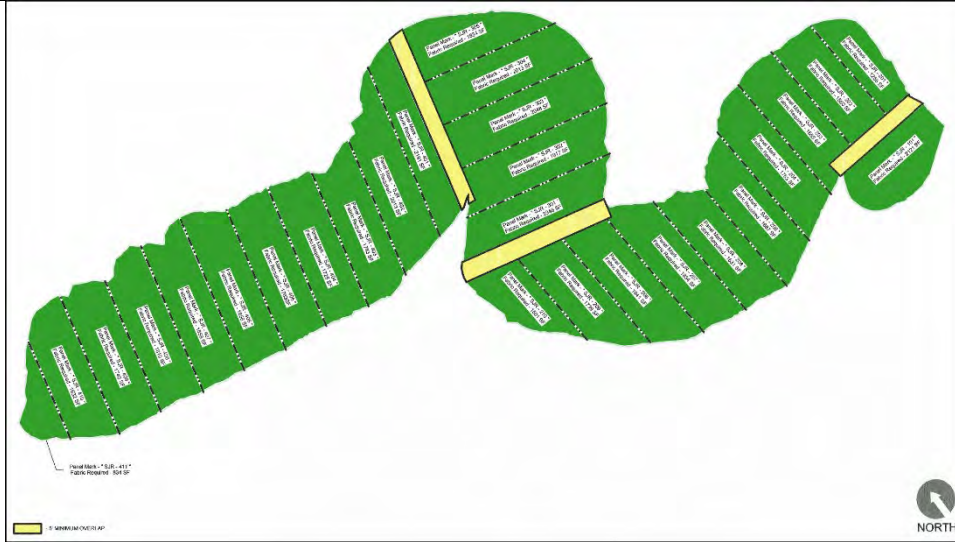


Photo 1 – Completed progress of ACBM installation. Green panels have been deployed and grouted.



Photo 2 – Repositioning of ACBM forms 410 and 411 prior to grouting



Photo 3 – Deployment of additional ACBM panel over gap between panels 209, 210, and 301



Photo 4 – Concrete grout being offloaded from delivery truck into grout pump



Photo 5 – CCI preparing to insert the grout hose into an ACBM form during grouting operations



Photo 5 – Removal of board mats from the grout pumping pad

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/18/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Wednesday, June 19, 2019		REPORT NO.	024
WEATHER	Sunny, winds S at 10-20 mph.		TEMPERATURE	L:79 H:95 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
15 – GHD, CCI, Underwater Technology Services (UTS), Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1424	Height: 2.06 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 2:30p is 1.58 ft MLLW
- Preliminary high tide occurred at ~2:30p measured at 2.06 ft (MLLW).

0600 to 0615 – Personnel onsite and safety briefing.

0630 to 0705 – Onsite construction operations:

- Demobilization of dive shack and equipment. UTS departed the site at approximately 0705.

0705 to 0745 – Onsite construction operations:

- Collected supersacks of sand from the ACBM installation area and transferred to staging area at front of site.

0745 to 1110 – Onsite construction operations:

- Transported spud barge and barge-mounted excavator to the San Jacinto River Fleet (SJRF) facility.
- Disassembled spud barge spudding components (spuds, spud guides, spud cabling system). Staged spud barge and long-reach excavator at the SJRF facility for demobilization.

0745 to 1215 – Onsite construction operations:

- Deployed silt curtain around the riprap armoring work area.
- Placed riprap armoring along the southern edge of installed ACBM.
- At the completion of riprap placement, the marsh buggy was staged at the southern end of the Central Berm for demobilization. SWE personnel departed the site at approximately 1215.

1030 to 1430 – Onsite construction operations:

- Installed additional anchors for the realigned perimeter buoy system.
 - On the east side of the Central Berm, the anchors were installed along and connected to the realigned line of buoys.
 - On the west side of the Central Berm, the realigned buoys have not yet been installed. The anchors were deployed at their target locations, with floats attached to the tops of the anchor cables. Once the

realigned buoys are installed, the floating cables of the deployed anchors will be connected to the buoy line.

1030 to 1230 – Onsite construction operations:

- Morrison Surveying arrived onsite, setup instruments, and prepared work boat for post-construction hydrographic surveying of the ACBM installation area.

1100 to 1200 – Onsite construction operations:

- Surveyed boundaries of riprap armoring along the southern edge of installed ACBM.

1140 to 1215 – Onsite construction operations:

- Loaded board mats onto flatbed truck for removal from site (first load).

1225 to 1545 – Onsite construction operations:

- Post-construction hydrographic surveying of the ACBM installation area by Morrison Surveying.

1245 to 1320 – Onsite construction operations:

- Loaded board mats onto flatbed truck for removal from site (second load).

1325 to 1350 – Onsite construction operations:

- Loaded board mats onto flatbed truck for removal from site (third load).

1430 – Onsite construction operations:

- Pickup of port-o-lets and handwash stations by Waste Management.
- Demobilization of CCI personnel and equipment.

1545 to 1630 – Onsite construction operations:

- Morrison Surveying removed work boat from the water, took down their instruments, and departed the site.

1710 to 1740 – Onsite construction operations:

- Removed silt curtain from the water and staged it for demobilization.

1745 – Project site closed and locked.

Summary of Progress on this Date:

- Completed placement of riprap armoring along the southern edge of installed ACBM.
- Installed additional anchors for the realigned perimeter buoy system.
- Performed post-construction hydrographic surveying of the ACBM installation area.
- Demobilized UTS dive shack and equipment from the site.
- Demobilized CCI equipment and personnel from the site.
- Demobilized board mats from the grout pumping pad from the site.
- Prepared additional equipment and materials for demobilization.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ

Damian Dovin - 269-270-7063 - GHD

Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None



Photo 1 – Disassembly of spud barge components in preparation for demobilization



Photo 2 – Placement of riprap armor along the southern edge of installed ACBM



Photo 3 – Surveying of riprap armor extents along the southern edge of installed ACBM



Photo 4 – Loading of board mats onto flatbed truck for removal from site



Photo 5 – Installation of additional anchors along the perimeter buoy system on the east side of the Central Berm



Photo 6 – Post-construction hydrographic surveying of the ACBM installation area

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/19/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD		SUPERINTENDENT	Damian Dovin
DAY OF WEEK & DATE:	Thursday, June 20, 2019		REPORT NO.	025
WEATHER	Mostly cloudy, winds S at 10-20 mph.		TEMPERATURE	L:84 H:91 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
6 – GHD, Shallow Water Equipment (SWE), & AQ		Small fork lift, Bobcat T740, Cat 920M loader, Cat bobcat, Cat long reach excavator, marsh buggy		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1706	Height: 2.06 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 3:18p is 1.54 ft MLLW
- Preliminary high tide occurred at ~5:00p measured at 2.06 ft (MLLW).

0600 to 0615 – Personnel onsite.

0630 to 0730 – Demobilization of SWE's marsh buggy from the site.

0630 to 1130 – Morrison Surveying performed post-construction topographic surveying of the ACBM installation area.

0700 to 1030 – Demobilization of SWE's spud barge and long-reach excavator from the San Jacinto River Fleet facility.

0750 – Demobilization of yellow rolloff box from the site.

0800 – Demobilization of SWE's crew boat from the site.

0845 – Demobilization of small fork lift from the site.

0930 – Onsite construction operations:

- Demobilization of black rolloff box from the site.
- Smoothing/backdragging of heavily trafficked northeastern portion of the staging area at the front of the site.

1015 to 1120 – Loaded board mats onto flatbed truck for removal from site.

1115 to 1140 – Demobilization of small white barge from the site.

1145 to 1230 – Bundling of silt curtain for transport offsite.

1415 – Demobilization of Cat loader.



DAILY REPORT

1435 to 1745 – Onsite construction operations:

- Installed the portion of realigned perimeter buoys on the west side of the Central Berm.
- Surveyed the locations of the realigned perimeter buoys.

1745 to 1900 – Onsite construction operations:

- Removed workboat from the water.
- Loaded bundled silt curtain segments onto trailer for transport offsite.
- Staged manlift in the parking area outside of the main gate for pickup.

1915 – Project site closed and locked.

Summary of Progress on this Date:

- Installed the portion of realigned perimeter buoys on the west side of the Central Berm.
- Performed post-construction topographic surveying of the ACBM installation area.
- Demobilized the following items from the site: SWE’s marsh buggy, spud barge, long-reach excavator, and crew boat; rolloff boxes; small fork lift; remaining board mats; small white barge; and Cat loader.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ
 Ryan Proulx - 906-370-1925 - GHD
 Clint Guillory - 337-764-5802 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None



Photo 1 – Demobilization of SWE's marsh buggy



Photo 2 – Post-construction topographic surveying of the ACBM installation area



Photo 3 – Demobilization of SWE's spud barge



Photo 4 – Demobilization of SWE's long-reach excavator



Photo 5 – Smoothing/backdragging of heavily trafficked northeastern portion of the staging area



Photo 6 – Western-most portion of realigned perimeter buoys

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/20/2019
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DAILY REPORT

PROJECT	San Jacinto River Waste Pits ACBM Installation		CONTRACT NO.	
CONTRACTOR	GHD	SUPERINTENDENT	Damian Dovin	
DAY OF WEEK & DATE:	Friday, June 21, 2019		REPORT NO.	026
WEATHER	Mostly cloudy, winds SSE at 10-20 mph.		TEMPERATURE	L:81 H:91 degrees F
NUMBER/CLASS OF CONTRACTOR'S PERSONNEL:		MAJOR EQUIPMENT ON JOB (Size/capacity and hours):		
3 – GHD & AQ		Bobcat T740, manlift		
TIDE INFORMATION: Morgans Point, Barbours Cut, TX		HEALTH AND SAFETY INFORMATION:		
Time: 1554	Height: 2.31 ft	at High Tide	No incidents or near misses on this date.	

CHRONOLOGICAL ACCOUNT OF DAY'S WORK:

NOAA Tide Station data indicates MHHW = 1.31 (reference to MLLW = 0).

Tidal data based on Barbours Cut at Morgans Point.

- Predicted high-tide at 3:36p is 1.50 ft MLLW
- Preliminary high tide occurred at ~4:00p measured at 2.31 ft (MLLW).

0545 to 0600 – GHD and AQ arrived onsite.

0600 to 0610 – Onsite construction operations:

- GHD collected a trailer of materials for transport to Sulphur, LA.
- Project site closed and locked.

0610 to 1430

- GHD and AQ offsite.
- Pickup of manlift from the parking area outside of the main gate.

1430 to 1630 – Onsite construction operations:

- GHD and AQ arrived back onsite.
- Demobilized an extra spudding pipe from the staging area at the front of the site.
- Performed miscellaneous final housekeeping tasks:
 - Removed two logs from near the shoreline of the ACBM installation area and placed them at the northeast edge of the staging area at the front of the site.
 - Gathered miscellaneous loose materials (i.e., loose pallets, boards, cinder blocks, ropes, slings, floats, and scrap pipe) and brought them to the front of the site for removal.
 - Gathered trash from along the access road, presumably blown there from the interstate.
 - Smoothed/backdragged frequently trafficked areas of the site during the course of the project:
 - Barge-loading site adjacent to the access road.
 - Northeast corner of the staging area.
- Installed a temporary wire-mesh patch over the hole in the security fence that was discovered on 6/10/19.
 - AQ to coordinate repair of the fence with National Fence.

1600 – Demobilized GHD work boat from the site.



DAILY REPORT

1810 – Demobilized GHD equipment trailer and miscellaneous materials from the site.

1910 – Demobilized GHD Bobcat and utility trailer from the site.

1910 – Project site closed and locked.

Summary of Progress on this Date:

- Installed a temporary wire-mesh patch over the hole in the security fence.
- Performed miscellaneous final housekeeping tasks.
- Demobilized the following items from the site: manlift, work boat, Bobcat, equipment trailer, utility trailer, and miscellaneous materials.

Persons On-Site on this Date:

Josef Hoffmann - 225-802-4914 – AQ

Clint Guillory - 337-764-5802 – GHD

Jeremy Rast - 936-402-6262 – GHD

Material Delivery Summary as of this Date:

Material	Units	Delivered (units)	Delivery Verification Method	Preceding Delivered Total	Total Delivered for Project

TESTS PERFORMED: None

PHONE LOG:

SITE PHOTOS/VIDEOS TAKEN: (attached below)

6 photos (descriptions provided underneath photo)

FORCE ACCOUNT WORK/ CHANGES ENCOUNTERED:

None



Photo 1 – Manlift staged for pickup



Photo 2 – Removal of logs near the shoreline of the ACBM installation area



Photo 3 – Smoothing/backdragging of area previously used for barge-loading of materials



Photo 4 – Smoothing/backdragging of the northeastern corner of staging area



Photo 5 – Bobcat and utility trailer prepared for demobilization



Photo 6 – Temporary wire-mesh patch installed over the hole in the security fence

FIELD REPRESENTATIVE	Josef Hoffmann	HRS	8	DATE	06/21/2019
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