ANCHOR QEA

614 Magnolia Avenue
Ocean Springs, Mississippi 39564
Phone 228.818.9626
Fax 228.818.9631

April 15, 2013

Mr. Gary Miller, Remedial Project Manager
U.S. Environmental Protection Agency, Region 6
Superfund Division (6SF-RA)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: San Jacinto River Waste Pits Superfund Site
Monthly Progress Report No. 41 March 2013/April 2013;
U.S. EPA Region 6, CERCLA Docket No. 06-03-10 UAO for RI/FS

Project Number: 090557-01

Dear Mr. Miller:

Attached please find the Monthly Progress Report No. 41 for March 2013/April 2013. This report was prepared on behalf of the International Paper Company and McGinnes Industrial Maintenance Corporation for the San Jacinto River Waste Pits Superfund Site in Channelview, Texas. Should you have any questions, please contact me at (228) 818-9626 or email me at dkeith@anchorqea.com.

Sincerely,

David C. Keith

David C. Keith
Project Coordinator

9424094

cc: Steve Tzhone, USEPA
Barbara Nann, USEPA
Phil Slowiak, International Paper
David Moreira, MIMC
Jennifer Sampson, Integral

Attachments

DCK/tlf

Monthly Progress Report No. 41 March 2013/April 2013
Submitted April 15, 2013
San Jacinto River Waste Pits Superfund Site
USEPA Region 6, CERCLA Docket No. 06-03-10 UAO for RI/FS
Channelview, Texas

The Unilateral Administrative Order (UAO) for the Remedial Investigation/Feasibility Study (RI/FS) at the San Jacinto River Waste Pits Superfund Site (Site) in Channelview, Texas (USEPA Region 6, CERCLA Docket No. 06-03-10 UAO for RI/FS) was issued on November 20, 2009. The Respondents include International Paper Company (IP) and McGinnes Industrial Maintenance Corporation (MIMC).

A. Summary of Work Performed – March 2013/April 2013

The Respondents, Anchor QEA, and Integral Consulting, completed work on the following tasks:

- Submitted Monthly Progress Report No. 40 to the United States Environmental Protection Agency (USEPA) on March 15, 2013.
- Received a letter dated March 25, 2013 from USEPA regarding the Draft Baseline Human Health Risk Assessment (BHHRA) by email on March 25, 2013 and by regular mail on March 28, 2013 (March 25 Letter), and began working to address comments regarding the Draft BHHRA provided in the letter.
- Received a letter dated April 2, 2013 from USEPA regarding the Draft Remedial Investigation (RI) Report by email on April 4, 2013 and by regular mail on April 8, 2013 (April 2 Letter), and began working to address comments provided in the letter.
- Requested a meeting with USEPA to be conducted on April 24, 2013 to discuss USEPA comments on the Draft BHHRA and the Draft RI Report.
- On April 1, 2013, submitted a letter to Gary Miller of USEPA addressing USEPA's comments on the Draft BHHRA in the March 25 Letter and addressing the impact of these comments on the current approved RI/FS schedule, the November 2012 RI/FS Schedule (November 2012 Schedule).
- On April 4, 2013, notified Gary Miller of USEPA verbally of a possible delay under Paragraph 92 of the UAO with respect to the November 2012 Schedule, based on the timing of receipt of comments on the Draft BHHRA and the RI Report, and then submitted a letter to Mr. Miller dated April 8, 2013 regarding the possible delay, in accordance with the requirements of Paragraph 92 of the UAO.
- Began working on a proposed revised RI/FS schedule (Proposed Revised Schedule), as requested by Mr. Miller in discussions with him on April 4, 2013.

- On behalf of IP, submitted the Draft Groundwater Sampling and Analysis Plan (SAP) Addendum 2 for additional groundwater investigations in the area south of I-10 on April 4, 2013.
- Continued work on the Draft Feasibility Study (Draft FS) for the Site including providing a presentation to USEPA on April 4, 2013, on preliminary remedial alternatives being developed, and working with USEPA on issues associated with the classification of Principal Threat Waste at the Site.
- Continued to address comments from the conditional approval letter for the Draft Final Baseline Ecological Risk Assessment (BERA), including conducting a conference call with USEPA on March 19, 2013 to obtain clarification on USEPA comment numbers 4 and 8. Additional correspondence between the Respondents and USEPA related to these comments occurred by email on March 20, 2013 and on April 10, 2013. USEPA is currently considering the Respondents' latest findings related to these comments.

B. Summary of Agency Communications

The written communications between Respondents and USEPA subsequent to the issuance of the UAO are summarized in the attached Table 1.

C. Summary of Sampling Results

No additional data have been collected or reported.

D. Problems, Delays, and Solutions

San Jacinto River Fleet Operations (SJRF)

Respondents continue to be concerned about the potential impacts of the SJRF operations in the immediate vicinity of the Site. Respondents have not received any information indicating that USEPA has taken action to change or prevent SJRF's activities in the area. Pursuant to an email dated February 9, 2012, USEPA's counsel forwarded to Respondents' counsel a copy of a Draft Sampling and Analysis Plan prepared for SJRF (SJRF Draft SAP). The SJRF Draft SAP purports to address "existing environmental impact that could be disturbed by SJRF's commercial operations" in the vicinity of the Site. The Respondents submitted correspondence dated March 8, 2012, to USEPA on the

Respondents' concerns regarding potential impacts of SJRF's operations on the TCRA armored cap. The March 8, 2012 correspondence included the Respondents' comments on the SJRF Draft SAP. On May 1, 2012, the Respondents' counsel were informed by USEPA's counsel that the SJRF Draft SAP remained under review by USEPA. On May 16, 2012, USEPA's counsel provided Respondents' counsel with comments from the U.S. Department of Commerce National Oceanic and Atmospheric Administration (NOAA), the Texas Commission on Environmental Quality (TCEQ), and the Harris County Pollution Control Services Department regarding the SJRF Draft SAP. On June 12, 2012, USEPA forwarded Respondents' Project Coordinator a copy of USEPA's June 12, 2012 correspondence with the SJRF pursuant to which it transmitted to SJRF its comments on the SJRF Draft SAP. On September 17, 2012, Respondents received a revised sampling plan submitted to USEPA by the SJRF on June 18, 2012 (Revised SJRF Draft SAP). Based on the Respondents' review of the Revised SJRF Draft SAP, the Respondents continue to have the same concerns with the approach proposed by SJRF, as previously outlined to USEPA on March 8, 2012. On January 2, 2013, Respondents submitted their comments on the Revised SFRF Draft SAP, via email, to USEPA. The Respondents will continue to work with USEPA on this issue. Respondents will also continue to work with USEPA and SJRF, if necessary, should there be a need for access to the SJRF property for purposes of RI/FS activities. Those discussions would be based on prior communications in that regard, which are described in the monthly reports, submitted under the Administrative Settlement Agreement and Order on Consent for Removal Action for the Site.

Project Schedule

The attached November 2012 Schedule was approved by USEPA on December 6, 2012. The Draft FS is due to USEPA on May 2, 2013 according to the November 2012 Schedule; however, that Schedule assumes timely review and submittal of comments on the Draft Remedial Investigation (Draft RI) Report and related risk assessment documents by USEPA.

Because the remedial alternatives to be considered for purposes of the Draft FS are dependent on information and conclusions presented in the RI Report and Baseline Human Health Risk Assessment (BHHRA), it is not possible for the Respondents to

develop, evaluate, and screen a final set of remedial alternatives for the Site without addressing comments received from USEPA regarding two documents sent via email: the March 25 Letter for the Draft BHHRA, and the April 2 Letter for the Draft RI Report. The Respondents' Project Coordinator first provided a letter to USEPA on April 1, 2013 explaining the nature of the possible delays. On April 4, 2013, Respondents' Project Coordinator had a telephone conference with USEPA's Remedial Project Manager regarding the possible delays in the November 2012 Schedule caused by the receipt of USEPA's comments on the Draft BHHRA approximately 60 days after they were due under the November 2012 Schedule. On April 8, 2013, the Respondents' Project Coordinator provided the written notice required under Paragraph 92 of the UAO with respect to possible delays in the performance of certain actions set forth in the approved November 2012 Schedule. A copy of the April 8, 2013 letter to USEPA is attached to this monthly report for reference. The Respondents will work with USEPA to revise the November 2012 Schedule and developed a Proposed Revised Schedule as progress continues on addressing comments received from USEPA on the Draft BERA, the Draft BHHRA, and the Draft RI Report.

E. Projected Work for Next 2 Reporting Periods – March 2013/April 2013

The Respondents, Anchor QEA, and Integral Consulting, expect to conduct the following tasks during the remainder of the month of March 2013 and through April 2013:

- Complete the response to USEPA's comments on the Draft Final BERA for the area north of I-10 and the aquatic environment and submit a Final BERA.
- Continue to address comments provided by USEPA on the Draft BHHRA via the March 25 Letter and submit a Final BHHRA.
- Continue to address comments provided by USEPA on the Draft RI Report via the April 2 Letter and submit a Final RI Report.
- Continue work on the Draft FS for the Site.
- Prepare and submit to USEPA for approval a revised proposed RI/FS schedule to USEPA that takes into account the timing of Respondents' receipt of comments on the Draft BHHRA and Draft RI Report and the need for those and other documents to be completed in order for Respondents to submit a Draft FS.

- Continue to participate in and support USEPA on community awareness and outreach issues.
- Continue to work with USEPA, and SJRF if necessary, on issues associated with SJRF's potential impacts on the Site.

F. Schedule

The attached November 2012 Revised RI/FS Schedule was prepared in cooperation with USEPA to reflect revised due dates for deliverables and was approved by USEPA on December 6, 2012. As summarized in Section D above, the November 2012 Schedule will require further adjustments based on the necessity for the Respondents and USEPA to work through and address comments received from USEPA on the Draft Final BERA, the Draft BHHRA, and the Draft RI Report prior to completion of a Draft FS. In accordance with discussions between the Respondents' Project Coordinator and USEPA's RPM on April 4, 2013, the Respondents intend to complete their review of the March 25 Letter and the April 2 Letter and then prepare a Proposed Modified Schedule for USEPA's consideration and discussion. The Proposed Modified Schedule will include, at a minimum, new proposed submission dates for the Draft Final BHHRA, Draft Final RI Report, and Draft Interim Final FS. In the meantime, Respondents are continuing to work with USEPA to address the comments on the Draft BHHRA contained in the March 25 Letter and the comments on the Draft RI Report contained in the April 2 Letter.

Prepared by:

David C. Keith

Project Coordinator

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
12/4/2009	Required Notifications pursuant to Paragraphs 51 and 75 of UOA	None	NA	Provided notice of intent to comply and “sufficient cause” defenses and identified Project Coordinator.
12/7/2009	Copies of Letters to McGinnes Heirs Regarding Site Access	None	NA	
12/10/2009	Draft Scoping Meeting Minutes	None	NA	
12/14/2009	Copy of Response from Big Star Barge & Boat Company Regarding Site Access	None	NA	
12/15/2009	Monthly Progress Report No. 1	None	NA	
12/18/2009	Status Report on Site Access	1/12/2010	Actions to date did not constitute "best efforts" to gain access.	Respondents and EPA spoke regarding the matter in further detail on 1/8/10.
12/21/2009	HASP	None	NA	
12/21/2009	Anchor QMP	None	NA	
12/21/2009	Integral QMP	None	NA	
1/7/2010	Request for comments regarding access agreement for Big Star Barge & Boat Company	None	NA	
1/11/2010	Proposed Draft AOC for time critical removal action	1/12/2010	Respondents’ proposed AOC has been forwarded to headquarters and Philip Allen for comment. Time critical removal action requires imminent and substantial endangerment finding.	
1/12/2010	Copy of Consent Form for Site Access from Big Star Barge & Boat Company	None	NA	
1/12/2010	Notice of UAO Deficiency	None	Actions to date did not constitute “best efforts” to gain access.	
1/13/2010	Draft Sediment Sampling and Analysis Plan Minutes	None	NA	
1/13/2010	Draft Database and Data Exchange Minutes	None	NA	
1/15/2010	Monthly Progress Report No. 2	None	NA	
1/15/2010	Update Regarding Respondents' Efforts to Obtain Access Agreement, Response to Letter from Barbara Nann and Request for Extension	1/21/2010	Efforts to obtain Site access are "encouraging."	
1/20/2010	Correspondence from Port of Houston Authority regarding access	None	NA	
1/21/2010	Copies of Site Access Letter From Attorney for McGinnes Heirs	1/22/2010	EPA requested another copy of the letter	
1/21/2010	Correspondence with Port of Houston Authority Regarding revised fence alignment	None	NA	

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San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
1/22/2010	Copies of Site Access Letter From Attorney for McGinnes Heirs	None	NA	
1/25/2010	Copies of Letters Sent to Gary Gladfelter and Tanya Ammons Regarding Site Access	None	NA	
1/27/2010	Draft 1/20/10 Alignment Meeting Minutes	None	NA	
1/27/2010	Copy of Correspondence with Big Star Barge & Boat Company Regarding Site Access	None	NA	
1/27/2010	EPA's response to Respondents' proposed AOC regarding Time Critical Removal Action	None	EPA will give Respondents additional time to respond as to whether Group wants to enter into AOC for Site stabilization.	
1/29/2010	Copy of Revised Consent Form for Site Access from Big Star Barge & Boat Company	None	NA	
2/2/2010	Copy of Correspondence with Big Star Barge & Boat Company Regarding Site Access	None	NA	
2/4/2010	Respondents' proposed changes/comments on proposed AOC for Time Critical Removal Action	3/5/2010	Awaiting finalization of action memo for site stabilization before making additional changes to the AOC for site stabilization.	
2/10/2010	Draft Memorandum San Jacinto River Waste Pits Superfund Site Time Critical Removal Action	Non	NA	
2/11/2010	Copy of Revised Consent Form for Site Access from Big Star Barge & Boat Company	None	NA	
2/11/2010	Copy of executed Consent Form for Site Access from Big Star Barge & Boat Company	2/17/2010	EPA approved of the form and will await an access agreement allowing for the RI/FS to take place.	
2/15/2010	Monthly Progress Report No. 3	None	NA	
2/16/2010	Draft Sediment Sampling and Analysis Plan/QAPP	None	Comments received March 10, 2010	
2/16/2010	Correspondence to EPA regarding update to Respondents' efforts to obtain access to the site	None	NA	
2/17/2010	Submitted the Agency Review Draft of the Quality Assurance Project Plan and Field Sampling Plan for Sediment Sampling	Consolidated comments received on March 10, 2010	Follow up meeting conducted with EPA, TCEQ and Trustees on March 16 and comment/response table developed for submittal with Draft Final report	Draft Final document submitted on 4/9/2010.
2/18/2010	Sampling Plan for sediment sampling on February 17, 2010	2/19/2010	EPA will forward for review to EPA's financial assurance expert.	
2/18/2010	Correspondence from MIMC regarding financial assurance bond	2/19/2010	EPA will forward for review to EPA's financial assurance expert.	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
2/19/2010	Copy of presentation regarding Short-Term Communications Plan	None	NA	
2/22/2010	Letter to Barbara Nann regarding MIMC's responsibility to provide access to the V.C. McGinnes, Trustee tract	None	NA	
3/18/2010	Draft Sediment Sampling and Analysis Plan Comment Review Meeting Minutes March 16, 2010, TCEQ, Austin Texas	None	NA	
4/7/2010	Draft Field Sampling Plan and Job Safety Analyses for the TCRA sampling	None	NA	This sampling was requested by EPA in an email on March 26, 2010.
4/9/2010	Submitted the Draft RI/FS Work Plan and SLERA	June 3, 1010	Comments received from EPA by email	
4/9/2010	Submitted the Draft Final of the Quality Assurance Project Plan and Field Sampling Plan for sediment sampling	None	NA	
4/15/2010	Submitted Monthly Progress Report No. 5 on April 15, 2010	None	NA	
		4/26/2010	Approval letter from EPA for implementation of the RI/FS Sediment QAPP/SAP.	Agency requested replacement pages for Final QAPP/SAP.
4/30/2010	Submitted replacement pages to EPA, TCEQ and the trustees for the Final SAP/QAPP on April 30, 2010	None	NA	
5/11/2010	Submitted the Draft Chemical Fate and Transport Modeling Study design and sampling and analysis plan addendum on May 11	None	NA	
5/14/2010	Submitted a Soil Sampling and Analysis Plan for the TxDOT right-of-way to TxDOT and EPA	None	NA	Submitted to TxDOT as part of effort to obtain access into the TxDOT right-of-way for RI/FS and TCRA activities.
5/17/2010	Submitted Monthly Progress Report No. 6 on May 17, 2010	None		
5/21/2010	Submitted revised TxDOT right-of-way sampling and analysis plan	None		Comments received from TxDOT on May 25, 2010.

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
5/25/2010	Submitted email outlining sediment sampling and analysis deviations	5/26/2010	EPA agreed to recommendations and asked that human health locations on west bank be reconsidered.	Human health locations on west bank moved with EPA concurrence in email on May 28, 2010.
5/27/2010	Submitted revised TxDOT right-of-way sampling and analysis plan	None		TxDOT approved the revised sampling and analysis plan on June 11, 2010.
5/28/2010	Submitted email summary of VOC data from sediment sampling	5/28/2010	EPA concurred that no further VOC analyses were required.	
6/7/2010	Response to 6/4/10 email from Barbara Nann regarding access for 3 soil samples in western impoundment	None		
6/11/2010	Submitted Draft Tissue Sampling and Analysis Plan and Draft Technical Memorandum on Bioaccumulation Modeling on June 11, 2010	None		
6/15/2010	Submitted Monthly Progress Report No. 7 on June 15, 2010	None		
6/25/2010	Submitted comments and responses on Draft RI/FS Work Plan	None		
7/9/2010	Submitted Revised Draft RI/FS Work Plan	7/12/2010 8/26/2010	Email from B. Nann forwarding edits to RI/FS work plan. Email from Steve Tzhone with additional comments concerning Site History and soil sampling in the area of former impoundments south of I-10.	
7/15/2010	Submitted Monthly Progress Report No. 8 on July 15, 2010	None		
7/27/2010	Provided EPA a draft response to comments on the Draft Fate and Transport Memorandum Review	8/12/2010	Email from S. Tzhone forwarding two additional comments on the Fate and Transport Modeling Memorandum	
8/16/2010	Submitted Monthly Progress Report No. 9 on August 16, 2010	None		

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
8/17/2010	Submitted revised response to comments on the Fate and Transport Sampling and Analysis Plan	8/31/2010 9/7/2010	Email from S. Tzhone approving the revised response to comments and authorizing submittal of the Final Draft document. Email from S. Tzhone providing comments from USGS on sampling and analysis plan and direction to incorporate comments as EPA comments by phone. Comments need to be addressed prior to implementing field work.	
8/18/2010	Submitted Draft Addendum to the Sampling and Analysis Plan (SAP): Sediment Study	8/23/2010	Email from S. Tzhone approving the addendum SAP and authorizing sampling in Cedar Bayou.	
8/18/2010	Submitted revised response to comments on the Bioaccumulation Modeling and Tissue Sampling and Analysis Plan	8/31/2010	Email from S. Tzhone approving the revised response to comments and authorizing submittal of the Final Draft documents.	
8/19/2010	Submitted Draft Meeting Minutes - Agency Comments on Tissue SAP and Technical Memorandum on Bioaccumulation Modeling	None		
9/3/2010	Submitted Draft Final RI/FS Work Plan	10/7/2010	Letter of deficiency from S. Tzhone requiring Respondents to incorporate EPA's Comment Number 4 (sampling of south impoundment) provided to the respondents on August 26, 2010, as part of the RI/FS.	Respondents have 14 days to comply from the date of the letter.
9/9/2010	Submitted letter to Steve Tzhone regarding Site Warning and Protective Measures	9/1/2010	Email from S. Tzhone approving the proposed scope of work for additional fencing and signs and requesting clarification and final design for impoundment signs and buoy placement.	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
9/10/2010	Submitted letter to Steve Tzhone and Barbara Nann concerning MIMC's participation in soil sampling in the area of former impoundment south of I-10	10/8/2010	Letter to MIMC counsel from B. Nann expressing disagreement with MIMC's letter and reiterating position that south impoundment must be sampled.	
9/10/2010	Submitted the Draft Soil Sampling and Analysis Plan for the RI/FS	None		
9/10/2010	Submitted Draft Final Tissue SAP, and Draft Final Technical Memorandum on Bioaccumulation Modeling			
9/15/2010	Submitted Monthly Progress Report No. 10 on September 15, 2010	10/7/2010	Letter of deficiency from S. Tzhone requiring Respondents to submit all raw data with monthly progress reports.	Respondents have 14 days to comply from the date of the letter.
9/16/2010	Submitted letter outlining proposed buoy and warning signs at impoundments	9/16/2010	Email from S. Tzhone approving final design for signs and buoy system	
9/23/2010	Submitted an email with clarifications required for the final Sampling and Analysis Plan: Tissue Study on the following topics: Laboratory Certification, selection of tissue analytes, and a few editorial changes to the tables and text re: lipid analysis methods.	9/24/2010	Email from Steve Tzhone indicating that EPA agreed with the response to EPA's concerns about laboratory certification, and agreeing to the proposed edits. EPA approved the final Tissue SAP and Technical Memorandum on Bioaccumulation Modeling on September 24, 2010.	
9/28/2010	Submitted Final Sampling and Analysis Plan: Tissue Study and Final Technical Memorandum on Bioaccumulation Modeling on September 28, 2010.	9/29/2010	EPA approved of the Tissue SAP Addendum.	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
9/30/2010	Submitted Draft TxDOT Right-Of-Way Data Report on September 30, 2010.	None		
10/1/2010	Submitted Draft Groundwater QAPP and FSP on October 1, 2010.	None		
		10/7/2010	Email from B. Nann regarding status of access efforts.	
		10/11/2010	Email from B. Nann encouraging diligent efforts on access.	
10/13/2010	Email to B. Nann regarding the status of access efforts and need for a conference call between TxDOT, EPA and respondents to discuss	10/14/2010	Email from B. Nann agreeing to conference call.	
10/15/2010	Submitted Monthly Progress Report No. 11 on October 15, 2010			
10/18/2010	IP Letter responding to NOD regarding south area investigation			
10/20/2010	Submitted revised monthly reports for June, July, August, and September 2010 and accompanying raw data on discs			
10/21/2010	MIMC letter responding to NOD regarding south area investigation			
10/21/2010	Joint letter responding to NOD regarding raw data			
10/21/2010	Submitted Draft Final RI/FS Work Plan	11/2/2010	Draft Final RI/FS Work Plan approval letter from S. Tzhone provided by email	
		10/25/2010	Email from B. Nann approving use of TxDOT right-of-way for gravel road	

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San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
		10/29/2010	Received certified letter from B. Nann regarding UAO deliverables	
11/1/2010	Certified letter to B. Nann from IP counsel detailing Respondents' efforts to obtain Site Access Agreements with TxDOT and Big Star Barge and Boat			
		11/2/2010	Received certified letter from B. Nann regarding best efforts for obtaining Site Access	
		11/3/2010	Email from S. Tzhone to D. Keith expressing concerns with field sampling procedures used during the week of October 25, 2010	
11/5/2010	Email from D. Keith to S. Tzhone regarding compliance with UAO deliverable procedures and proposed future deliverable procedures	11/5/2010	Email from S. Tzhone to D. Keith concurring with proposed procedures	
		11/8/2010	Email from B. Nann concurring with proposed procedures	
11/8/2010	Email from D. Keith to S. Tzhone concerning revisions to field procedures to be used in the future.			
11/8/2010	Re-submitted Revised Draft Groundwater Study SAP	11/22/2010	Email from S. Tzhone with comments on Groundwater SAP	
11/8/2010	Re-submitted Draft Soil Sampling and Analysis Plan	11/22/2010	Email from S. Tzhone with comments on Soil SAP	Additional comments received from S. Tzhone on 11/30/2010
11/12/2010	Certified letter to B. Nann from Al Axe reiterating and detailing Respondents' efforts to obtain Site Access Agreements with TxDOT and Big Star Barge and Boat			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
11/15/2010	Submitted Monthly Progress Report No. 12 on November 15, 2010			
11/30/2010	Submitted Draft Final Comment/Response Matrix of the Fate and Transport Modeling Memorandum	12/8/2010	Email from S. Tzhone approving the Draft Final Comment/Response matrix	
11/30/2010	Transferred preliminary Big Star soils data to USEPA as a mix of excel and PDF files via email, and then submitted the complete preliminary invalidated data to USEPA via email December 1, 2010			
12/6/2010	Submitted Draft Comment/Response Matrix for Groundwater SAP	12/14/2010	Email from S. Tzhone approving the Draft Final Comment/Response matrix	
12/9/2010	Submitted Draft Comment/Response Matrix for Soil SAP			
12/15/2010	Submitted Monthly Progress Report No. 13 on December 15, 2010			
12/16/2010	Submitted the Draft Final Groundwater Study Sampling and Analysis Plan on December 16, 2010	12/23/2010	Email and letter from S. Tzhone approving the Groundwater Study Sampling and Analysis Plan	Requested final copies be provided to remove "Draft" from "Draft Final" - implementation of field work approved
12/17/2010	Submitted the Draft Final Chemical Fate and Transport Modeling Memorandum December 17, 2010	1/10/2011	Email and letter from S. Tzhone approving the Chemical Fate and Transport Modeling Memorandum	Requested final copies be provided to remove "Draft" from "Draft Final"
12/17/2010	Submitted an Addendum to the Soil SAP to describe a soil investigation in the area South of I-10 on December 17, 2010	1/18/2011 2/3/11	Emailed letter from S. Tzhone providing comments to the Draft Addendum to the Soil SAP Additional comments from TCEQ on Draft Addendum to the Soil SAP received from S. Tzhone by email	Conference calls to discuss comments with agencies on January 25 and February 7
12/22/2010	Submitted the Draft Final Sampling and Analysis Plan: Soil Study on December 22, 2010	1/10/2011	Email and letter from S. Tzhone approving the Sampling and Analysis Plan: Soil Study	Requested final copies be provided to remove "Draft" from "Draft Final"
1/13/2011	Submitted Final Groundwater Study Sampling and Analysis Plan			
1/13/2011	Submitted Final Chemical Fate and Transport Modeling Memorandum			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
1/14/2011	Submitted the Final Sampling and Analysis Plan: Soil Study			
1/14/2011	Submitted Monthly Progress Report No. 14			
1/24/2011	Email from D. Keith to S. Tzhone regarding schedule for soil sampling activities			
1/27/2011	Letter from IPs counsel submitted to USEPA regarding International Papers efforts to obtain access for the south area investigation			
1/27/2011	Provided USEPA a compilation of historical aerial photographs of the project area on the project web portal			
2/1/2011	Submitted a DVD containing all draft documents for the SJRWP RI/FS submitted to USEPA via the project portal through January 25, 2011			
2/11/2011	Submitted Draft Contaminants of Potential Concern Memorandum	3/10/2011	Received comments on Draft COPC Technical Memorandum	
2/14/2011	Submitted Draft Revised RI/FS Schedule	2/15/2011	Approval letter from EPA for revised RI/FS schedule	
2/15/2011	Submitted Monthly Progress Report No. 15			
2/15/2011	Submitted the Draft Bed Property Study Field Sampling Plan	3/3/2011	Received emailed comments from S. Tzhone on Draft Bed Property Study FSP	
2/15/2011	Submitted the Draft Bathymetry Survey Field Sampling Plan	3/3/2011	Received emailed comments from S. Tzhone on Draft Bathymetry Survey FSP	
2/22/2011	Submitted Draft Final Sampling and Analysis Play, Soil Study Addendum 1	3/4/2011	Approval letter from USEPA for Draft Final Sampling and Analysis Play, Soil Study Addendum 1	
3/2/2011	Submitted Draft Current Velocity Study Field Sampling Plan			
3/8/2011	Submitted Draft Comment Response Matrices for the Draft Bed Property Study and Draft Bathymetry Survey FSPs	3/9/2011	Phone conversation with Steve Tzhone indicated that responses were approved	
3/9/2011	Submitted Final Sampling and Analysis Plan, Soil Study Addendum 1			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
3/11/2011	Phone call from J. Sampson (proxy for D. Keith) to S. Tzhone to report field observations of a petroleum odor and oily sheen on some subsurface soil samples from the south impoundment soil study area	3/11/2011	Received an email from S. Tzhone acknowledging the phone report, and with direction to: 1) proceed with sampling according to the approved Soil SAP Addendum 1, and 2) to provide a summary report of field observations when the sampling event is complete	
3/15/2011	Submitted Monthly Progress Report No. 16			
3/15/2011	Submitted the Draft Final Bed Property Study and the Draft Final Bathymetric Survey Field Sampling Plans	3/21/2011	Approval letter from USEPA for Draft Final Bed Property Study and the Draft Final Bathymetric Study FSP	
3/16/2011	Submitted the Draft Sedflume Study FSP, the Draft Radioisotope Coring Study FSP, and the Draft Upstream Sediment Load Study FSP	4/8/2011	Received emailed comments from S. Tzhone on the Draft Sedflume Study FSP, the Draft Radioisotope Coring Study FSP, and the Draft Upstream Sediment Load Study FSP	Conference call to discuss comments with agencies on April 15, 2011
3/16/2011	Submitted Field Report on south impoundment soil sampling			
3/18/2011	Submitted a letter to USEPA on behalf of International Paper regarding the completion of the south impoundment sampling			
3/25/2011	Submitted the Final Bed Property Study and the Final Bathymetric Survey Field Sampling Plans			
3/28/2011	Submitted the Draft Comment/Response Matrix for the Draft Currently Velocity Study Field Sampling Plan	4/6/2011	Received emailed comments from S. Tzhone with two additional comments on the Draft Current Velocity Study FSP	
		3/29/2011	Received emailed letter from S. Tzhone requesting Respondents participate in Residential Soil Sampling as part of USEPA's Community Engagement Initiative	Respondents provided USEPA their response to this request on April 15, 2011
3/30/2011	Submitted the Draft Comment/Response matrix with responses to USEPA comments on the COPC Technical Memorandum	4/1/2011	Conference call with USEPA to discuss comments	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
4/7/2011	Submitted an email request for assistance in obtaining Quality Assurance Project Plan and laboratory validation packages for the TCEQ Total Maximum Load programs. These documents are necessary to meet all requirements of USEPA comments on the COPC Technical Memorandum			
4/8/2011	Submitted Revised Comment/Response Matrix for USEPA comments on the COPC Technical Memorandum	5/5/2011	Received approval letter from Carlos Sanchez for Gary Miller on the Draft COPC Technical Memorandum	
4/8/2011	Submitted the Draft Final Current Velocity Study FSP	5/3/2011	Received approval letter from Carlos Sanchez for Gary Miller on the Draft Final Current Velocity Study Field Sampling Plan	
4/14/2011	Submitted the Draft Comments/Responses matrices for the Draft Sedflume Study, Draft Radioisotope Coring Study, and the Draft Upstream Sediment Load Study Field Sampling Plans	4/15/2011	Conference call with USEPA to discuss comments	
4/15/2011	Submitted Monthly Progress Report No. 17			
4/15/2011	Provided USEPA and TCEQ Site groundwater data maps and tables associated with implementation of the north impoundment Groundwater Field Sampling Plan			
		4/19/2011	Received letter from Carlos Sanchez notifying Respondent's that USEPA has changed the designated EPA Project Coordinator under the UAO to M. Gary Miller effective April 19, 2011	
4/25/2011	Submitted Draft Final Upstream Sediment Load Field Sampling Plan	5/5/2011	Received phone request form Gary Miller to provide redline/strikeout version of Word document for EPA review.	Provided redline strikeout version of document for review by email from Teri Freitas on behalf of David Keith
4/28/2011	Submitted Draft Final Radioisotope Coring Study Field Sampling Plan	5/5/2011	Received approval letter from Carlos Sanchez on behalf of Gary Miller for the Draft Final Radioisotope Coring Study Field Sampling Plan	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
		4/29/2011	Received email from Gary Miller with three additional questions on the Draft Sedflume Study Field Sampling Plan	
5/5/2011	Submitted Draft Final Sedflume Field Sampling Plan	5/20/2011	Received approval letter from USEPA on the Draft Final Sedflume Study Field Sampling Plan	
5/9/2011	Submitted Final Current Velocity Study Field Sampling Plan			
5/9/2011	Submitted Final Radioisotope Coring Study Field Sampling Plan			
5/16/2011	Submitted Monthly Progress Report No. 18			
		5/18/2011	Received approval letter from USEPA on the Draft Final Upstream Sediment Load Field Sampling Plan	
		5/23/2011	Received letter from Gary Miller directing Respondents sample residential soils in the area	Respondents provided USEPA their response to this request on May 31, 2011
5/24/2011	Submitted Final Upstream Sediment Load Study Field Sampling Plan			
5/24/2011	Submitted Final Sedflume Field Sampling Plan			
5/25/2011	Submitted email request to USEPA for approval to begin monitoring well decommissioning	6/2/2011	Received email approval from Gary Miller to proceed with this work in accordance with the work plan	
5/27/2011	Submitted all Working Documents from the SJRWP Site Portal on DVD			
6/10/2011	Submitted Draft Soil Sampling and Analysis Plan Addendum 2	7/19/2011	Received draft approval and comments on the Draft Addendum 2 Sampling and Analysis Plan for Residential Soil Sampling	This is the sampling and analysis plan for residential soil sampling. The sampling and analysis plan was approved with modifications noted in the letter from USEPA
6/14/2011	Posted an updated Site database to the project web portal			
6/15/2011	Submitted Monthly Progress Report No. 19			
7/15/2011	Submitted Monthly Progress Report No. 20			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
7/20/2011	Correspondence between MIMC counsel and USEPA regarding draft Preliminary Site Characterization Report and south impoundment issue			
7/20/2011	Correspondence between International Paper counsel and USEPA regarding draft Preliminary Site Characterization Report and south impoundment issue			
7/20/2011	Submitted the Draft Preliminary Site Characterization Report			
7/21/2011	Submitted Field Sampling Report: 2010 Sediment Study			
7/21/2011	Submitted Field Sampling Report: Tissue Study			
7/21/2011	Submitted Field Sampling Report: 2010-2011 Soil Study			
7/21/2011	Submitted Field Sampling Report: Groundwater Study			
7/22/2011	Submitted letter to USEPA regarding modeling schedule - due to drought in the Houston area	10/19/2011	Received letter from Gary Miller approving change in submittal date for the Chemical Fate and Transport Modeling Study to February 1, 2012	
7/25/2011	Submitted a Final Addendum 2 to the Soil Sampling and Analysis Plan for Residential Sampling			
7/25/2011	Provided USEPA draft language for an information sheet for residential sampling			
		7/29/2011	Received email from Steve Tzhone regarding potential CenterPoint Energy pipeline planned for construction within the project area	
8/1/2011	Email from Respondents' Project Coordinator to USEPA transmitting draft consent to access for residential sampling			
		8/2/2011	Received copy of email prepared by USEPA counsel regarding comments on draft consent to access for residential sampling	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
		8/2/2011	Email from A. Foster to Respondents' counsel transmitting draft letters designating Respondents as EPA's representatives for Big Star access	
		8/3/2011	Email from A. Foster to Respondents' counsel transmitting copy of letter from EPA to San Jacinto River Fleet regarding its activities at the Site, expressing intent to pursue access from Big Star/San Jacinto River Fleet, and requesting summary of Respondents' problems in obtaining access from Big Star	
		8/3/2011	Email from A. Foster to Respondents' counsel regarding fact sheet associated with residential sampling	
8/3/2011	Submitted email to Gary Miller requesting change to approved Addendum 2 to the Soil Sampling and Analysis Plan. The requested revision involved a change from archiving deeper samples to including a second potential soil sampling mobilization and collection of deeper samples if required based on the results of the surface sampling. The revision was requested on the basis of a meeting between USEPA and Respondents on August 3, 2011 during which it was decided to limit the underground utility locate effort prior to mobilization for sampling so that sampling could occur sooner.	8/3/2011	Received email from Gary Miller approving proposed change to residential soil sampling and requesting a revised final soil sampling plan addendum	
8/3/2011	Email between MIMC counsel, on behalf of Respondents, and USEPA regarding revised version of consent to access for residential soil sampling			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
8/3/2011	Email between MIMC counsel, on behalf of Respondents, and USEPA regarding revised version of consent to access for residential soil sampling and providing contact information for lessee of Big Star property and for Big Star counsel.			
8/4/2011	Submitted Revised Addendum 2 to the Soil Sampling and Analysis Plan for Residential Sampling			
8/8/2011	Submitted Memorandum to Gary Miller outlining data gap issues identified in the Draft Preliminary Site Characterization Report			A meeting was held with USEPA and other agencies in Austin on August 30, 2011 to discuss these issues. A revised memorandum was submitted on September 7, 2011 based on verbal comments received from USEPA following that meeting
		8/9/2011	Email from A. Foster to Respondents' counsel regarding revised letter of designation	
		8/10/2011	Email from J. Hernandez to Respondents' counsel regarding revised letter of designation	
		8/10/2011	Received a draft letter from USEPA describing additional study in the area of the impoundment south of I-10	
8/15/2011	Submitted Monthly Progress Report No. 21			
8/26/2011	Submitted preliminary unvalidated residential soil sampling data to USEPA			Followed electronic data deliverables from the analytical laboratory with an Excel summary spreadsheet on August 29, 2011
9/2/2011	Submitted validated residential soil sampling data to USEPA			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
9/2/2011	Submitted email to Gary Miller and Valmichael Leos requesting clarification on a potential chemical monitoring program for the TCRA armored cap			In order to start the development of a sampling plan for this program, respondents need to know the following from USEPA: (1) Is the use of passive SPME acceptable to USEPA for the cap monitoring (2) Will this program be conducted as part of the TCRA AOC or RI/FS UAO program, and (3) Who will be the lead contact from USEPA for development and approval of the TCRA chemical monitoring program
9/7/2011	Submitted a revised memorandum outlining data gap issues identified in the Draft Preliminary Site Characterization Report to reflect changes requested by USEPA			
9/11/2011	Submitted a Draft Fact Sheet for the Site to USEPA for consideration			This fact sheet was requested by USEPA
9/15/2011	Submitted Monthly Report No. 22			
9/19/2011	Submitted Draft Addendum 1 to the Sediment Sampling and Analysis (SAP) for additional sediment sampling	10/3/2011	Received letter from Gary Miller providing conditional approval of the SAP	
9/19/2011	Submitted Draft Addendum 1 to the Tissue Sampling and Analysis Plan (SAP) for additional background catfish and crab sampling	10/3/2011	Received letter from Gary Miller providing conditional approval of the SAP	
9/21/2011	Submitted letter to USEPA regarding ADCP servicing issue and San Jacinto River Fleet Operations	10/19/2011	Received letter from Gary Miller to continue deployment of the acoustic doppler profiler and the re-deployment of the suspended sediment sampler when water is again flowing over the Lake Houston dam	
9/22/2011	Submitted Attachment B2 (Toxicity of Dioxin-Like Compounds to Invertebrates, Fish, Reptiles, Birds and Mammals) in Appendix B of the Final RI/FS Work Plan			
10/4/2011	Submitted Addendum 1 to the Sediment Sampling and Analysis (SAP) for additional sediment sampling			Addressed conditions outlined in conditional approval letter received on 10/3/2011
10/5/2011	Submitted Addendum 1 to the Tissue Sampling and Analysis Plan (SAP) for additional background catfish and crab sampling			Addressed conditions outlined in conditional approval letter received on 10/3/2011
10/12/2011	Submitted Draft Dioxin Treatability Study Literature Review			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
10/14/2011	Submitted letter to USEPA regarding Field Studies Issues	11/10/2011	Received an email from Gary Miller to David Keith stating that after discussions with partner agencies, the request to remove the ADCP and discontinue data collection for the current velocity and upstream sediment load studies is approved	If a high flow event occurs, or appears likely at any time within the next two months, then the ADCP shall be re-installed and data collection for the current velocity and upstream sediment load studies resumed. Based on the timing of any such high flow event during this time, a request for extension of the submittal date for the Fate and Transport Model Study will be considered to allow sufficient time for inclusion and evaluation of any new velocity and sediment load data
10/17/2011	Submitted Monthly Report No. 23			
		10/19/2011	Received letter from Gary Miller approving change in submittal date for the Chemical Fate and Transport Modeling Study to February 1, 2012	
10/28/2011	Email from Jennifer Sampson with Integral Consulting to Gary Miller requesting approval to include three additional samples with percent fines of 81.5, 82.3, and 83.2 be added to seven other samples from the Addendum 1 to the Sediment Sampling and Analysis (SAP) for analysis of dioxins and furans and organic carbon	11/1/2011	Email approval from Gary Miller to Jennifer Sampson for the analysis of additional samples as requested	
11/15/2011	Submitted Monthly Report No. 24			
11/16/2011	Prepared and submitted a meeting summary for the proposed armored cap monitoring program to USEPA			
		11/16/2011	Received and reviewed draft comments from USEPA on the draft Preliminary Site Characterization Report (PSCR)	
		11/23/2011	Received and reviewed revised draft comments from USEPA on the draft PSCR	
		11/29/2011	Received and reviewed a draft letter from USEPA regarding comments and directives for additional sampling on the southern impoundment area on behalf of IP	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
11/29/2011	Email from David Keith to Mr. Miller forwarding technical literature on the use of sediment traps			
		12/1/2011	Received and reviewed a fingerprint analysis on the southern impoundment area from Mr. Miller on behalf of IP. The analysis was prepared by Dr. Linda Broach with TCEQ	
12/5/2011	Provided copies of residential soil sampling consent forms to Mr. Miller			
12/6/2011	Provided Mr. Miller a table pairing residential soil sample identification numbers and physical street addresses			
		12/9/2011	Received a letter from Mr. Miller providing conditional approval of the PSCR. The letter further instructed the Respondents to provide a comment response matrix to USEPA for approval, followed by submittal of the Final PSCR	
		12/9/2011	Received a letter from Mr. Miller providing final comments and directives for additional sampling in the southern impoundment area on behalf of IP	
12/13/2011	Prepared and submitted a meeting summary for the Fate and Transport Modeling Workshop #2 to USEPA			
12/15/2011	Submitted Monthly Report No. 25			
12/29/2011	On behalf of International Paper, submitted Draft Soil SAP Addendum 3, Draft Sediment SAP Addendum 2, and Draft Groundwater SAP Addendum 1			
1/3/2012	Submitted a draft matrix summarizing the Respondents proposed revisions to the PSCR to address USEPA comments received on December 8, 2011	1/5/2012	Received email from Mr. Miller approving the proposed revisions to the PSCR	Revisions will be incorporated into the Final PSCR

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
		1/5/2012	Received approval in a phone call from Mr. Miller on the conceptual TCRA chemical monitoring approach and was directed to develop a SAP for that program	
1/10/2012	Provided email notification to Mr. Miller that the project database had been updated and posted the project web portal			
1/17/2012	Submitted Monthly Report No. 26			
1/19/2012	Submitted the Draft Alternatives Memorandum, Draft Toxicological and Epidemiological Studies Memorandum, and Draft Exposure Assessment Memorandum			
2/1/2012	Submitted Chemical Fate and Transport Modeling Report on February 1, 2012			
		2/9/2012	Email from J. Hernandez to Respondents' counsel forwarding draft pre-construction baseline site assessment work plan for San Jacinto River Fleet project ("SJRF Draft SAP")	
2/14/2012	Submitted a letter to USEPA regarding revisions to the RI/FS schedule			
		2/14/2012	Email from J. Hernandez to Respondents' counsel forwarding copy of USEPA letter to San Jacinto River Fleet dated 12/1/2012	
		2/15/2012	Email from J. Hernandez to Respondents' counsel regarding deadline for comments on the SJRF Draft SAP	
2/15/2012	Submitted Monthly Report No. 27			
2/28/2012	Submitted Final Preliminary Site Characterization Report on February 28, 2012			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
		3/1/2012	Received comments from Mr. Miller on: 1) Draft Addendum 1 to the Groundwater Study Sampling and Analysis Plan for Additional Sampling South of Interstate Highway 10	
			2) Draft Addendum 2 to the Sediment Sampling and Analysis Plan for Additional Sampling South of Interstate Highway 10	
			3) Draft Addendum 3 to the Soil Sampling and Analysis Plan for Additional Sampling South of Interstate Highway 10	
3/8/2012	Submitted a letter to USEPA regarding the Respondents' concerns about the San Jacinto River Fleet operations, and provided comments on the Draft SAP			
3/15/2012	Submitted Draft Baseline Ecological Risk Assessment on March 15, 2012			
3/15/2012	Submitted Monthly Report No. 28			
4/2/2012	Submitted Soil SAP Addendum 3, Sediment SAP Addendum 2, and Groundwater SAP Addendum 1 to USEPA	4/11/2012	Received approval on the Soil Sampling and Analysis Plan (SAP) Addendum 3, Sediment SAP Addendum 2, and Groundwater SAP Addendum 1 from USEPA by letter and email from Gary Miller	
4/5/2012	Submitted cover letter and Revised Schedule for RI/FS deliverables to USEPA	4/11/2012	Received approval on the Revised RI/FS Schedule from USEPA by email from Gary Miller	
4/16/2012	Submitted Monthly Report No. 29			
4/16/2012	Submitted Draft Sampling and Analysis Plan (SAP) for the TCRA Cap Porewater Assessment	5/9/2012	Received approval with modifications on the Draft SAP: Time Critical Removal Action (TCRA) Cap Porewater Assessment on May 9, 2012	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
		4/24/2012	Received comments from Gary Miller on the Draft Exposure Assessment Memorandum (EA) and the Draft Toxicological and Epidemiological Studies (TES) Memorandum	Received clarification on comments regarding the EA and TES Memos from USEPA by email to the Respondents' Project Coordinator on May 10, 2012
		5/1/2012	Email from J. Hernandez to Respondents' counsel regarding SJRF Draft SAP currently under USEPA review	
		5/8/2012	Received comments from USEPA on the Draft Chemical Fate and Transport Modeling Study	
5/15/2012	Submitted Monthly Report No. 30			
		5/16/2012	Emails from J. Hernandez to Respondents' counsel providing comments to the SJRF Draft SAP from NOAA, TCEQ, and the Harris County Pollution Control Services	
5/22/2012	Submitted Sampling and Analysis Plan (SAP) for the TCRA Cap Porewater Assessment			
5/22/2012	Submitted Final Exposure Assessment Memorandum and Final Toxilogical and Epidemiological Studies Memorandum to USEPA			
		6/6/2012	Received additional comments from USEPA on the Draft Chemical Fate and Transport Modeling Study	
		6/12/2012	Received copy of 6/12/2012 correspondence from USEPA to SJRF providing USEPA's comments to the SJRF Draft SAP	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
6/13/2012	Provided USEPA a letter regarding the installation of two additional Performance Reference Compound samplers in the TCRA Cap Porewater Assessment implementation to provide an intermediate check on equilibrium conditions between the samplers and cap porewater on June 13, 2012			
6/15/2012	Provided USEPA a letter and updated RI/FS schedule on June 15, 2012			
6/15/2012	Submitted Monthly Report No. 31			
		6/22/2012	Received comments from USEPA on the Draft Baseline Ecological Risk Assessment	
7/10/2012	Provided USEPA a letter outlining a process to resolve comments from USEPA on the draft BERA, and requested the draft final BERA be submitted on August 22, 2012	7/17/2012	Received approval letter from G. Miller	
7/16/2012	Submitted Monthly Report No. 32			
7/18/2012	Submitted Draft Final Chemical Fate and Transport Modeling Study	9/13/2012	Received approval of the Draft Final Chemical Fate & Transport on September 13, 2012, with requirements to address additional comments for the final report in the approval letter	Received clarification on modifications requested by USEPA on the Draft Final Chemical Fate and Transport Modeling Report by email from Gary Miller on September 25, 2012, conducted additional analyses, and prepared and submitted the final report to USEPA on October 11, 2012. Mr. Miller agreed to extending the submittal due date on the Final Fate and Transport Modeling Report to allow time for the Respondents to conduct additional evaluations requested by EPA in the approval letter in a phone call with the Respondents Project Coordinator on October 3, 2012.
		8/13/2012	Received comments from USEPA on the Draft Remedial Alternatives Memorandum	
8/15/2012	Provided email notification to Mr. Miller that the project database had been updated and posted to the project web portal			
8/15/2012	Submitted Monthly Report No. 33			

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
8/22/2012	Submitted Draft Final Baseline Ecological Risk Assessment	2/26/2013	Received conditional approval of Draft Final Baseline Ecological Risk Assessment	The approval letter provided by USEPA was date stamped February 7, 2013; however it was not transmitted to the Respondents until February 26, 2013. The approval letter included comments and directives from USEPA that require additional revisions be made in the final report.
9/11/2012	Submitted Draft Final Remedial Alternative Memorandum	11/14/2012	Received approval of the Draft Final Remedial Alternatives Memorandum on November 14, 2012, with requirements to address additional comments for the report in the approval letter	
9/17/2012	Submitted Monthly Report No. 34			
		10/4/2012	Received approval letter from G. Miller for TES Memorandum	
		10/4/2012	Received approval letter from G. Miller for the EA Memorandum	
10/4/2012	Provided email notification to Mr. Miller that the project database had been updated and posted to the project web portal			Included validated Armored Cap Porewater Assessment Data
10/11/2012	Submitted the Final Chemical Fate and Transport Modeling Report to USEPA			
10/15/2012	Submitted Monthly Report No. 35			
10/19/2012	On behalf of IP, provided USEPA with boring logs on the three South Impoundment monitoring wells, water table levels, and well construction information			
10/30/2012	Provided USEPA a draft summary presentation of the armored cap porewater monitoring evaluation and results to use in a planned community meeting			
11/14/2012	Provided USEPA a letter confirming that delivery of the draft RI Report and BHHRA on December 5, 2012 was approved, and providing an updated RI/FS schedule reflecting that change, and other associated changes in the Feasibility Study schedule that were made to maintain the overall project schedule	12/6/2012	Received email approval from Gary Miller that the November 2012 RI/FS schedule was approved as presented	

Table 1
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
		11/14/2012	Received approval of the Draft Final Remedial Alternatives Memorandum on November 14, 2012, with requirements to address additional comments for the report in the approval letter	
11/15/2012	Submitted Monthly Report No. 36			
12/3/2012	Submitted Final Remedial Alternatives Memorandum to USEPA			
12/5/2012	Submitted Draft Remedial Investigation Report and Draft Baseline Human Health Risk Assessment to USEPA. Also submitted five field sampling reports including: • Field Sampling Report: 2011 – 2012 Sediment Study • Field Sampling Report: 2011 Tissue Study • Field Sampling Report: 2012 Soil Study • Field Sampling Report: TCRA Cap Porewater Assessment • Field Sampling Report Addendum 1 Groundwater Study	3/25/2013	Received conditional approval of the Draft Baseline Human Health Risk Assessment	
12/17/2012	Submitted Monthly Report No. 37			
1/2/2013	Respondents submitted their comments on the Revised San Jacinto River Fleet Draft Sampling and Analysis Plan, via email, to USEPA			
1/15/2013	Submitted Monthly Report No. 38			
2/15/2013	Submitted Monthly Report No. 39			
		2/26/2013	Received conditional approval of the Draft Final Baseline Ecological Risk Assessment	The approval letter provided by USEPA was date stamped February 7, 2013; however it was not transmitted to the Respondents until February 26, 2013. The approval letter included comments and directives from USEPA that require additional revisions be made in the final report.
3/15/2013	Submitted Monthly Report No. 40			
		3/25/2013	Received conditional approval of the Draft Baseline Human Health Risk Assessment (BHHRA) by email on March 25, 2013, followed by regular mail on March 28, 2013.	

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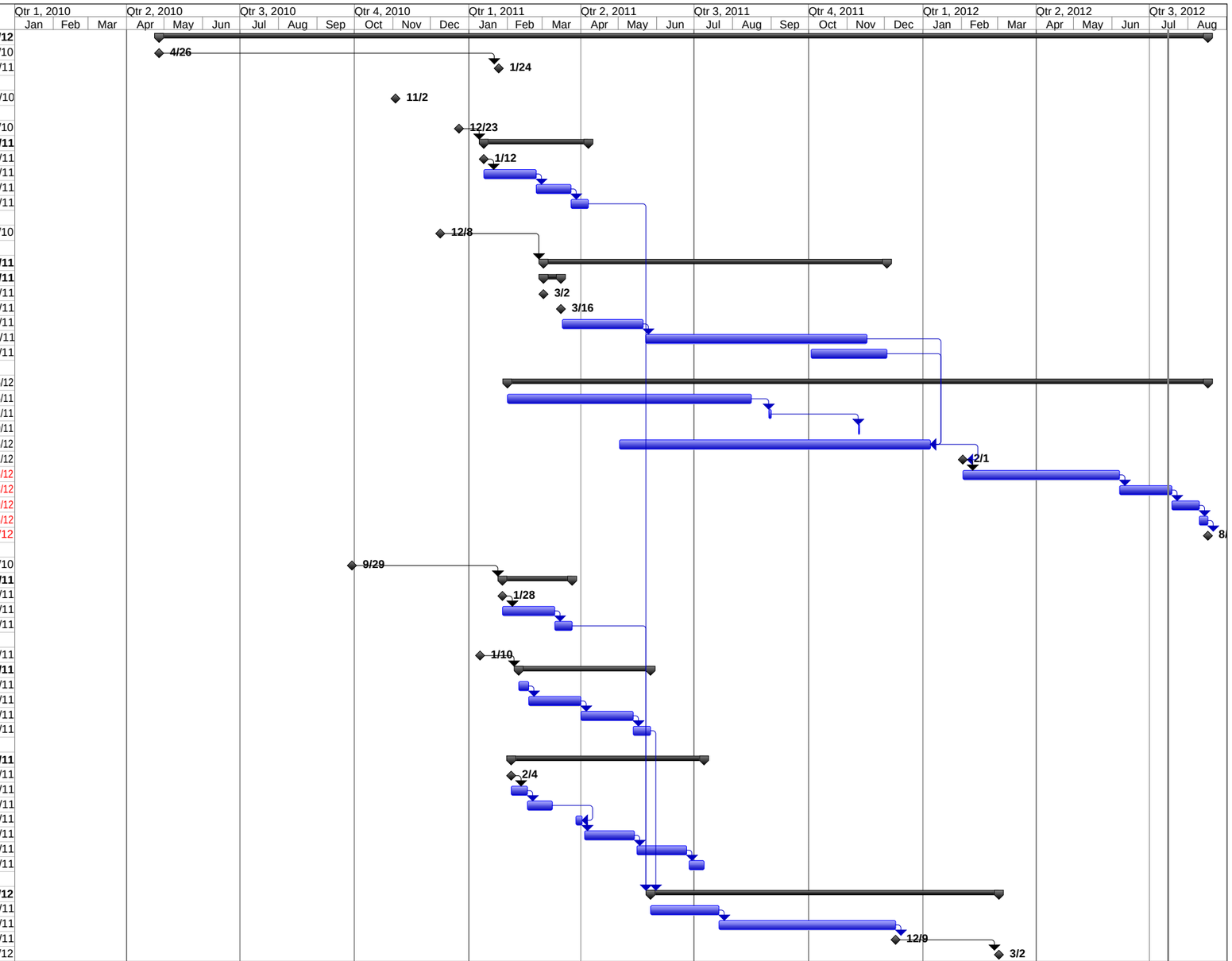
Summary of Agency Communication
San Jacinto River Waste Pits Superfund Site

Respondents Submittal Date	Respondents Communication Summary	Response from USEPA Date	USEPA Communication Summary	Notes
3/20/2013	Sent an email to USEPA to obtain clarification on USEPA comments number 4 and 8 on the Draft BERA. Additional email correspondence between the Respondents and USEPA related to these comments occurred on April 10, 2013.			USEPA is currently considering the Respondents latest findings related to these comments.
4/1/2013	Respondents submitted a letter to USEPA explaining the nature of the possible delays regarding the November 2012 RI/FS Schedule.			
		4/4/2013	Received conditional approval of the Draft Remedial Investigation (RI) Report by email on April 4, 2013, followed by regular mail on April 8, 2013.	
4/4/2013	On behalf of IP, submitted the Draft Groundwater Sampling and Analysis Plan (SAP) Addendum 2 for additional groundwater investigations in the area south of I-10.			
4/8/2013	Respondents provided written notice required under Paragraph 92 with respect to possible delays in the performance of certain actions set forth in the approved November 2012 RI/FS Schedule.			
4/10/2013	Sent an email to USEPA to follow up on correspondence related to USEPA comments number 4 and 8 ont eh Draft BERA.			USEPA is currently considering the Respondents latest findings related to these comments.
4/10/2013	Sent an email to USEPA to obtain clarification on the USEPA Guidance on the classification of Principal Threat Waste.			USEPA is currently considering the Respondents inquiry.
4/12/2013	Provided an email to USEPA requesting a meeting be conducted on April 24, 2013 to discuss USEPA comment 38 on the Draft RI Report.			

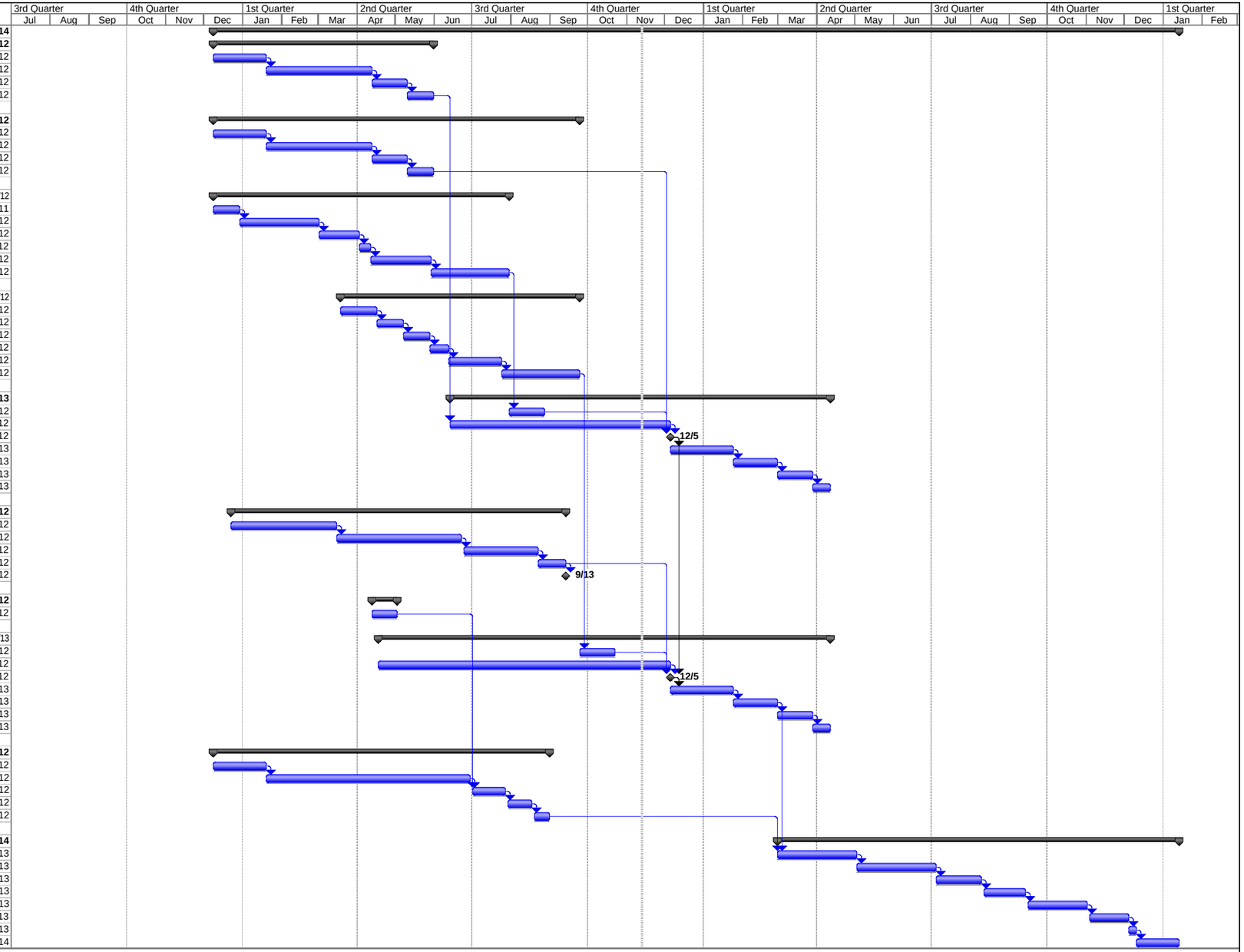
ID	Task Name	Duration	Start	Finish
1	**Preliminary Site Characterization Report Studies and Preparation**	**604 days**	**Mon 4/26/10**	**Thu 8/16/12**
2	**EPA Approval San Jacinto Sediment Sampling and Analysis Plan**	0 days	Mon 4/26/10	Mon 4/26/10
3	**Completed Field Implementation, Data Validation and Data Management**	0 days	Mon 1/24/11	Mon 1/24/11
4				
5	**EPA Approval of RI/FS Work Plan**	0 days	Tue 11/2/10	Tue 11/2/10
6				
7	**EPA Approval of Groundwater QAPP/FSP**	0 days	Thu 12/23/10	Thu 12/23/10
8	**Groundwater Field Sampling and Analysis**	**60 days**	**Wed 1/12/11**	**Wed 4/6/11**
9	Well Installation and Sampling Completed	0 days	Wed 1/12/11	Wed 1/12/11
10	Laboratory Analysis	30 days	Thu 1/13/11	Wed 2/23/11
11	Data Validation	20 days	Thu 2/24/11	Wed 3/23/11
12	Data Management	10 days	Thu 3/24/11	Wed 4/6/11
13				
14	**EPA Approval of Tech. Memo. On Fate&Transport Modeling Memo and QAPP**	0 days	Wed 12/8/10	Wed 12/8/10
15				
16	**Field Sampling, F&T Study**	**198 days**	**Wed 3/2/11**	**Fri 12/2/11**
17	**Submittal of FSPs**	**10 days**	**Wed 3/2/11**	**Wed 3/16/11**
18	Bed Property Study, Bathymetric Survey, Current Velocity Study	0 days	Wed 3/2/11	Wed 3/2/11
19	Radio Isotope Coring, SedFlume Study, Upstream Sediment Load Study	0 days	Wed 3/16/11	Wed 3/16/11
20	Agency Review and Response	47 days	Thu 3/17/11	Fri 5/20/11
21	Field Studies	128 days	Mon 5/23/11	Wed 11/16/11
22	Data Validation and Data Management	45 days	Mon 10/3/11	Fri 12/2/11
23				
24	F&T Model Development, Calibration and Application	404 days	Tue 2/1/11	Thu 8/16/12
25	F&T Model Development	140 days	Tue 2/1/11	Mon 8/15/11
26	Agency Coordination Workshop #1	2 days	Tue 8/30/11	Wed 8/31/11
27	Agency Coordiantion Workshop #2	1 day	Thu 11/10/11	Thu 11/10/11
28	F&T Model Calibration/Validation	180 days	Mon 5/2/11	Fri 1/6/12
29	Submit Draft F&T Modeling Report	0 days	Wed 2/1/12	Wed 2/1/12
30	Agency Review	91 days	Thu 2/2/12	Wed 6/6/12
31	Prepare Draft Final	30 days	Thu 6/7/12	Wed 7/18/12
32	Agency Review and Approval of Draft Final	16 days	Thu 7/19/12	Thu 8/9/12
33	Prepare Final Report	5 days	Fri 8/10/12	Thu 8/16/12
34	Submit Final Report	0 days	Thu 8/16/12	Thu 8/16/12
35				
36	**EPA Approval of Tech Memo on Bioaccumulation & QAPP/FSP**	0 days	Wed 9/29/10	Wed 9/29/10
37	**Field Sampling Tissue**	**40 days**	**Fri 1/28/11**	**Thu 3/24/11**
38	Field Study and Laboratory Analysis Completed	0 days	Fri 1/28/11	Fri 1/28/11
39	Data Validation	30 days	Fri 1/28/11	Thu 3/10/11
40	Data Management	10 days	Fri 3/11/11	Thu 3/24/11
41				
42	**EPA Approval of Soil QAPP/FSP**	0 days	Mon 1/10/11	Mon 1/10/11
43	Soil Field Sampling and Analysis, North of I-10	**76 days**	**Thu 2/10/11**	**Thu 5/26/11**
44	Mobilization and Field Study	6 days	Thu 2/10/11	Thu 2/17/11
45	Laboratory Analysis	30 days	Fri 2/18/11	Thu 3/31/11
46	Data Validation	30 days	Fri 4/1/11	Thu 5/12/11
47	Data Management	10 days	Fri 5/13/11	Thu 5/26/11
48				
49	**Soil SAP Addendum, South of I-10**	**111 days**	**Fri 2/4/11**	**Fri 7/8/11**
50	Agency Meeting	0 days	Fri 2/4/11	Fri 2/4/11
51	Document Revisions	9 days	Fri 2/4/11	Wed 2/16/11
52	Agency Review and Approval	14 days	Thu 2/17/11	Tue 3/8/11
53	Soil Sampling South of I-10 (assuming access issues are resolved)	5 days	Mon 3/28/11	Fri 4/1/11
54	Laboratory Analysis	30 days	Mon 4/4/11	Fri 5/13/11
55	Data Validation	30 days	Mon 5/16/11	Fri 6/24/11
56	Data Management	10 days	Mon 6/27/11	Fri 7/8/11
57				
58	**Preliminary Site Characterization Report**	**200 days**	**Fri 5/27/11**	**Fri 3/2/12**
59	Draft PSC Report	39 days	Fri 5/27/11	Wed 7/20/11
60	Agency Review	102 days	Thu 7/21/11	Fri 12/9/11
61	EPA Conditional Approval of PSC Report	0 days	Fri 12/9/11	Fri 12/9/11
62	Final PSC Report Submittal	0 days	Fri 3/2/12	Fri 3/2/12



Project: Draft San Jac Schedule Pre-P
Date: Mon 7/16/12

Task		Summary		External Milestone		Inactive Summary		Manual Summary Rollup		Finish-only	
Split		Project Summary		Inactive Task		Manual Task		Manual Summary		Progress	
Milestone		External Tasks		Inactive Milestone		Duration-only		Start-only		Deadline	

ID	Task Name	Duration	Start	Finish
1	**Post Site Characterization Report Deliverables**	**547 days**	**Fri 12/9/11**	**Mon 1/13/14**
2	**Exposure Assessment (EA) Memorandum**	**125 days**	**Fri 12/9/11**	**Thu 5/31/12**
3	Submit Draft of EA Memo	30 days	Fri 12/9/11	Thu 1/19/12
4	Agency Review	60 days	Fri 1/20/12	Thu 4/12/12
5	Final EA Memorandum Submitted	20 days	Fri 4/13/12	Thu 5/10/12
6	EPA Approval of EA Memorandum	15 days	Fri 5/11/12	Thu 5/31/12
7				
8	**Toxicological and Epidemiological Studies (TES) Memorandum**	**207 days**	**Fri 12/9/11**	**Mon 9/24/12**
9	Submit Draft of TES Memo	30 days	Fri 12/9/11	Thu 1/19/12
10	Agency Review	60 days	Fri 1/20/12	Thu 4/12/12
11	Final TES Memorandum Submitted	20 days	Fri 4/13/12	Thu 5/10/12
12	EPA Approval of TES Memorandum	15 days	Fri 5/11/12	Thu 5/31/12
13				
14	South Impoundment Investigation Phase II	167 days	Fri 12/9/11	Mon 7/30/12
15	Submittal of Draft Soil, GW and Sediment SAP Addenda	15 days	Fri 12/9/11	Thu 12/29/11
16	Agency Review and comments on SAP Addenda	45 days	Fri 12/30/11	Thu 3/1/12
17	Prepare Draft Final SAP Addenda	22 days	Fri 3/2/12	Mon 4/2/12
18	EPA Review and Approval of SAP Addenda	7 days	Tue 4/3/12	Wed 4/11/12
19	Field Sampling Phase II	34 days	Thu 4/12/12	Tue 5/29/12
20	Sample analysis, data validation and data management	44 days	Wed 5/30/12	Mon 7/30/12
21				
22	Cap Porewater Study	136 days	Mon 3/19/12	Mon 9/24/12
23	Submittal of Draft Cap Porewater Study SAP/FSP	21 days	Mon 3/19/12	Mon 4/16/12
24	Agency Review and comments on SAP/FSP	15 days	Tue 4/17/12	Mon 5/7/12
25	Prepare Draft Final SAP/FSP	15 days	Tue 5/8/12	Mon 5/28/12
26	EPA Review and Approval of SAP/FSP Addenda	11 days	Tue 5/29/12	Tue 6/12/12
27	Field Sampling	30 days	Wed 6/13/12	Tue 7/24/12
28	Sample analysis, data validation and data management	44 days	Wed 7/25/12	Mon 9/24/12
29				
30	Baseline Human Health Risk Assessment BHHRA Report	**216 days**	**Thu 6/14/12**	**Thu 4/11/13**
31	Evaluate South Impoundment Data	20 days	Tue 7/31/12	Mon 8/27/12
32	Prepare Draft of BHHRA Report	125 days	Thu 6/14/12	Wed 12/5/12
33	Submit Draft BHHRA Report	0 days	Wed 12/5/12	Wed 12/5/12
34	Agency Review	36 days	Thu 12/6/12	Thu 1/24/13
35	Draft Final BHHRA Submitted	25 days	Fri 1/25/13	Thu 2/28/13
36	EPA Review and Approval of BHHRA Report	20 days	Fri 3/1/13	Thu 3/28/13
37	Final BHHRA Submittal	10 days	Fri 3/29/13	Thu 4/11/13
38				
39	**Baseline Ecological Risk Assessment (BERA) Report**	**190 days**	**Fri 12/23/11**	**Thu 9/13/12**
40	Submit Draft of BERA Report	60 days	Fri 12/23/11	Thu 3/15/12
41	Agency Review	71 days	Fri 3/16/12	Fri 6/22/12
42	Draft Final BERA Submitted	43 days	Mon 6/25/12	Wed 8/22/12
43	EPA Approval of BERA Memorandum	16 days	Thu 8/23/12	Thu 9/13/12
44	Final BERA Submittal	0 days	Thu 9/13/12	Thu 9/13/12
45				
46	**Treatability Studies (TS)**	**14 days**	**Fri 4/13/12**	**Wed 5/2/12**
47	To be determined	14 days	Fri 4/13/12	Wed 5/2/12
48				
49	**Remedial Investigation (RI) Report**	257 days	Wed 4/18/12	Thu 4/11/13
50	Evaluate Armored Cap Data for Report	20 days	Tue 9/25/12	Mon 10/22/12
51	Prepare Draft of RI Report	166 days	Wed 4/18/12	Wed 12/5/12
52	Submit Draft RI Report	0 days	Wed 12/5/12	Wed 12/5/12
53	Agency Review	36 days	Thu 12/6/12	Thu 1/24/13
54	Draft Final Submittal of RI Report	25 days	Fri 1/25/13	Thu 2/28/13
55	EPA Review, RI Report Presentation, & EPA Approval	20 days	Fri 3/1/13	Thu 3/28/13
56	Final RI Report Submittal	10 days	Fri 3/29/13	Thu 4/11/13
57				
58	**Remedial Alternatives Memorandum**	**191 days**	**Fri 12/9/11**	**Fri 8/31/12**
59	Submit Draft of RA Memorandum	30 days	Fri 12/9/11	Thu 1/19/12
60	Agency Review	116 days	Fri 1/20/12	Fri 6/29/12
61	Prepare Final Draft RA Report	20 days	Mon 7/2/12	Fri 7/27/12
62	EPA Approval of Final RA Report	15 days	Mon 7/30/12	Fri 8/17/12
63	Submit Final RA Report	10 days	Mon 8/20/12	Fri 8/31/12
64				
65	**Feasibility Study (FS) Report**	**227 days**	**Fri 3/1/13**	**Mon 1/13/14**
66	Submit Draft Interim Final FS Report	45 days	Fri 3/1/13	Thu 5/2/13
67	Agency Review	45 days	Fri 5/3/13	Thu 7/4/13
68	Final Interim FS Report	26 days	Fri 7/5/13	Fri 8/9/13
69	Submit Final FS Report	25 days	Mon 8/12/13	Fri 9/13/13
70	EPA Prepares "Proposed Plan"	35 days	Mon 9/16/13	Fri 11/1/13
71	EPA Accepts Public Comment on Proposed Plan	23 days	Mon 11/4/13	Wed 12/4/13
72	EPA Provides Comments to Respondents	4 days	Thu 12/5/13	Tue 12/10/13
73	Prepare Final FS Report	24 days	Wed 12/11/13	Mon 1/13/14



Project: EPAs UAO-RI Schedule after
Date: Tue 11/13/12

Task | Milestone | Project Summary | External Milestone | Deadline
Split | Summary | External Tasks | Progress

ANCHOR QEA

614 Magnolia Avenue
Ocean Springs, Mississippi 39564
Phone 228.818.9626
Fax 228.818.9631

VIA FEDEX

April 8, 2013

Gary Miller, Remedial Project Manager
U.S. Environmental Protection Agency, Region 6
Superfund Division (6SF-RA)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: San Jacinto River Waste Pits Superfund Site
U.S. EPA Region 6, Unilateral Administrative Order, CERCLA Docket No. 06-03-10
Notice of Possible Delays in Performance

Dear Mr. Miller:

This letter is submitted pursuant to Paragraph 92 of the above-referenced Unilateral Administrative Order (UAO) on behalf of International Paper Company and McGinnes Industrial Maintenance Corporation, the Respondents named in the UAO. It provides the written notice required under Paragraph 92 with respect to possible delays in the performance of certain actions set forth in the approved November 2012 Remedial Investigation/Feasibility Study (RI/FS) Schedule (Schedule). The possible delays were reported to you in a telephone call on April 4, 2013.

My letter to you dated April 1, 2013 (a copy of which is attached as Attachment 1) explained the nature of the possible delays addressed further by this letter. As explained in that letter, your letter dated March 25, 2013 (March 25 Letter, a copy of which is attached as Attachment 2) stated that USEPA was "approving with modifications" the Respondents' draft Baseline Human Health Risk Assessment (BHHRA), submitted to USEPA in accordance with the Schedule on December 5, 2012. The "modifications" include nineteen substantive

comments on the draft BHHRA which must be evaluated by Respondents and addressed in a revised submission of the BHHRA to USEPA. The Schedule contemplated that the same process that has been followed with respect to previous submissions by Respondents under the UAO would be followed for the BHHRA. That is, the Respondents would submit a draft report, USEPA would review and provide comments on the draft report, Respondents would evaluate USEPA's comments and submit a draft final version of the report, and then USEPA would review and approve the draft final report or approve it with modifications. To the extent that USEPA regards its March 25 Letter to require Respondents to submit a final BHHRA, it would thus skip over two steps contemplated and agreed to by USEPA and Respondents as part of the approved Schedule – USEPA's comments on the draft report and the Respondents' preparation of a draft final report for USEPA's review and approval.

The Schedule contemplated that USEPA's comments on the draft BHHRA would be received by January 24, 2013, that Respondents would have 25 business days from receipt to address USEPA's comments and to submit a draft final BHHRA. It further contemplated that within 20 business days thereafter, USEPA would approve that document or to approve it subject to modifications, and that Respondents would then have an additional ten business days to submit a final BHHRA. The March 25 Letter, received by regular mail on March 28, 2013, was thus received about 60 days after the agreed-upon date for receipt of USEPA's initial comments on the draft BHHRA.

In addition to the above-described concerns regarding the potentially truncated approval process for the draft BHHRA, the Respondents received a letter dated April 2, 2013 from USEPA (April 2 Letter, a copy of which is attached as Attachment 3), via email on April 4, 2013 and by regular mail on April 8, 2013. The April 2 Letter purports to "approve," subject to modifications, the draft Remedial Investigation (RI) report that was submitted to USEPA, along with the draft BHHRA, on December 5, 2012. As with the draft BHHRA, the modifications referenced in the April 2 Letter include many substantive comments that will need to be analyzed and addressed in a revised submittal to USEPA. Again, to the extent USEPA regards its April 2 Letter to require Respondents to directly submit a final RI report, this would skip over the steps agreed-upon as part of the approved Schedule for USEPA comments on the draft RI report and the Respondents' preparation of a draft final RI report.

The approved Schedule provided for USEPA to provide comments on the draft RI report and for Respondents to evaluate those comments and submit a draft final RI report on the same timetable as for the BHHRA. As in the case of the BHHRA, USEPA's comments on the draft RI report were received by Respondents long after the date contemplated by the Schedule -- in the case of draft RI report, 70 days after the January 24, 2013 date for receipt of such comments.

To the extent, the "approval with modification" letters are interpreted as final approval of the respective documents, then Respondents' submissions of the final BHHRA and the final RI report are arguably due within ten business days of the receipt of those approvals under the UAO and approved Schedule. Respondents respectfully contend that the "approval with modification" letters should not be construed as final approval letters because many of the "modifications" required under the letters are not mere wording changes; they are substantive comments that will require technical evaluation and preparation of substantive revisions to the documents. The Schedule currently provides for a period of 25 business days to address USEPA comments on the draft BHHRA and draft RI report and then ten additional business days to finalize the reports after receiving USEPA's approval of the draft final reports submitted by Respondents. Respondents commenced an assessment of the substantive comments on the BHHRA contained in the March 25 Letter promptly following receipt of that letter; that assessment is ongoing. The process of addressing the comments in the April 2 Letter began shortly after its first receipt by e-mail on April 4, 2013, but is only in its initial stages. Notwithstanding their diligence, given the scope of the comments, Respondents have no reasonable means of submitting final documents by the dates set forth above.

As USEPA is well aware, the BHHRA and RI report, which are lengthy and complex documents, are extremely important to the RI/FS process and form the basis for the preparation of the draft Interim Final Feasibility Study (FS), which under the Schedule is due 45 business days after submission of the final BHHRA and RI report. Given the current uncertainty regarding timing for issuance of the BHHRA and RI report in final form and regarding their content in light of the substantive comments contained in the March 25 Letter and April 2, Letter, it is not possible for Respondents to proceed at this time with completion of the draft Interim Final FS.

In accordance with our discussion on April 4, 2012, Respondents intend to complete their review of the March 25 Letter and the April 2 Letter and then prepare proposed modifications to the Schedule (Proposed Modified Schedule) for your consideration and discussion. The Proposed Modified Schedule will include, at a minimum, new proposed submission dates for the draft final BHHRA, draft final RI report, and draft Interim Final FS. In the meantime, Respondents will continue to address the comments on the draft BHHRA contained in USEPA's March 25 Letter and the comments on the draft RI report contained in USEPA's April 2 Letter.

We look forward to working with you to resolve these issues. Please do not hesitate to call if you have any questions.

Sincerely,

David C. Keith
Project Coordinator
Anchor QEA, LLC

cc: Barbara Nann, USEPA
Anne Foster, USEPA
Amy Salinas, USEPA
Phil Slowiak, International Paper Company
Dave Moreira, McGinnes Industrial Maintenance Corporation
Jennifer Sampson, Integral Consulting Incorporated

Attachments

ATTACHMENT 1

ANCHOR QEA

614 Magnolia Avenue
Ocean Springs, Mississippi 39564
Phone 228.818.9626
Fax 228.818.9631

April 1, 2013

Gary Miller, Remedial Project Manager
U.S. Environmental Protection Agency, Region 6
Superfund Division (6SF-RA)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: Remedial Investigation/Feasibility Study (RI/FS) Schedule – Correspondence dated March 25, 2013 regarding Draft Baseline Human Health Risk Assessment (BHHRA) San Jacinto River Waste Pits Superfund Site, Harris County, Texas, Unilateral Administrative Order, CERCLA Docket No. 06-03-10

Dear Gary:

This letter is submitted on behalf of the Respondents for the San Jacinto River Waste Pits Superfund Site (International Paper Company and McGinnes Industrial Maintenance Corporation), in response to your correspondence dated March 25, 2013 regarding USEPA's "approval" of the Draft BHHRA, subject to modifications as set forth in the Agency's comments.[1] These comments are the first substantive comments that have been provided to Respondents with respect to the Draft BHHRA, which was submitted to USEPA on December 5, 2012. The comments raise at least 19 substantive issues related to this document.

Under the current agreed-upon schedule for the RI/FS, the approved November 2012 Revised RI/FS Schedule (Schedule), USEPA had committed to provide comments on the Draft BHHRA by January 24, 2013 and Respondents were to have 25 business days to submit a revised Draft of the BHHRA to USEPA (by February 28, 2013, assuming timely receipt of

[1] A PDF version of the letter was received by email from Gary Miller to David Keith on March 25, 2013; the hard copy of the letter was received by David Keith on March 28, 2013.

USEPA's comments). USEPA was to then complete a review of the Draft Final BHHRA and provide approval of the BHHRA by March 28, 2013, with a Final BHHRA to be submitted 10 business days later (or by April 11, 2013, assuming receipt of no additional USEPA comments on the Draft Final BHHRA). This schedule was worked out between USEPA and the Respondents to ensure that there would be an opportunity for Respondents to address USEPA's substantive comments on the Draft BHHRA. It was also intended to ensure that the BHHRA (together with the Remedial Investigation (RI) Report), which provide the underpinnings for the Draft Feasibility Study, would be completed sufficiently in advance of the May 2, 2013 deadline by which, under the Schedule, Respondents are to submit the Draft Feasibility Study.

USEPA's "approval" of the BHHRA on March 25, 2013, subject to numerous substantive comments and requiring extensive modifications to the Draft BHHRA, is inconsistent with the agreed-upon Schedule and process. It comes 60 days after the deadline by which USEPA had agreed to provide comments on the Draft BHHRA. By proceeding in this fashion, USEPA appears to have unilaterally eliminated the interim period for review and response to substantive comments and shortened the review period. USEPA's actions are of particular concern because USEPA has yet to provide comments on the Draft RI Report, which was submitted to USEPA along with the Draft BHHRA on December 5, 2012. Per the Schedule, comments on the Draft RI Report were also due on January 24, 2013, and it is also our understanding the Draft RI Report may be "approved" in a similar manner (i.e., approval subject to substantive comments and requiring Agency-mandated modifications).

In light of USEPA's recent delivery of the "approval" of the Draft BHHRA and the anticipated "approval" of the Draft RI Report, the Respondents request an opportunity to discuss with you a revised Schedule that provides Respondents with a reasonable response time to address USEPA's comments and to make modifications to the BHHRA, to address USEPA's comments on the Draft RI Report once such comments are provided, and a revised date for submittal of the Draft Feasibility Study. In the meantime, we are diligently working to address comments received from USEPA on the Draft BHHRA.

Sincerely,

David C. Keith
Project Coordinator
Anchor QEA, LLC

Cc: Phil Slowiak, International Paper Company
Dave Moreira, McGinnes Industrial Maintenance Corporation
Jennifer Sampson, Integral Consulting Incorporated

ATTACHMENT 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

MAR 2 5 2013

Mr. David Keith
Project Coordinator
Anchor QEA, LLC
614 Magnolia Avenue
Ocean Springs, MS 39654

RE: Draft Baseline Human Health Risk Assessment
San Jacinto River Waste Pits Superfund Site, Harris County, Texas
Unilateral Administrative Order, CERCLA Docket No. 06-03-10

Dear Mr. Keith:

The Environmental Protection Agency (EPA) and other agencies have performed reviews of the above referenced document dated December 2012. The EPA approves this document with the enclosed modifications.

Please provide copies of the final document to the distribution list. If you have any questions, please contact me at (214) 665-8318, or send an e-mail message to miller.garyg@epa.gov.

Sincerely yours,

Gary Miller
Remediation Project Manager

Enclosure

cc: Luda Voskov (TCEQ)
Bob Allen (Harris County)
Linda Henry (Port of Houston)
Jane Sarosdy (TGLO)

Comments
Draft Baseline Human Health Risk Assessment

1. (General Comment): Due to the lack of certainty, lack of consensus, and controversial nature of cancer toxicity assessment of dioxins, specifically TDI versus cancer slope factors, the BHHRA shall include a side-by-side risk analysis (sensitivity analysis) of the use of the TDI of 2.3 pg/kg-day and the CSF of 156,000 $(mg/kg\text{-}day)^{-1}$ values. Although several citations are provided suggesting EPA and TCEQ may be moving in the direction of use of non-linear cancer assessment for TCDD, they have not made this practice official policy as of yet. It is clear, that the use of 156,000 $(mg/kg\text{-}day)^{-1}$ will show additional risk in some areas. This additional risk may or not change the need for certain remedial actions; hence why this analysis should be performed.

2. (P. 1-3, Last sentence of Section 1.2): "There is no basis for assuming… that baseline conditions would have continued to exist had the TCRA not been implemented." Though it may be true that exact conditions may have been somewhat different, there is basis to assume a large degree of contamination existed before the TCRA and would have continued had the TCRA not been implemented. Data that contributed to site discovery and listing dates long before implementation of the TCRA. This statement shall be modified accordingly or removed.

3. (Section 2.2, Demographics): This section does not identify the demographics of the Highlands community nor does it refer to Highlands as a residential area adjacent to the USEPA's Preliminary Site Perimeter. This section does, however, recognize Channelview and its residential demographics given information from the 2010 Census. Demographic information shall be included for the Highlands community.

4. (P. 2-6, Section 2.3.2.1, Trespasser): The HHRA shall better define trespasser/ hypothetical trespasser as referred in the BHHRA. The only exposure medium for which a theory of exposure scenario was assessed was soil. The HHRA shall describe the activity the trespasser would be engaged in while present at the site North of IH-10 and activity on the Peninsula South of IH-10.

5. (P. 3-2, Section 3.1.2.2 Tissue): The discussion correctly notes the uncertainty in relating the catfish tissue analyses for COPCs to ingestion risks. It is asserted in this section that no data are available on use of the Site for fishing, but the absence of this data is a data gap of the RI, and the deficiency must be met with conservative assumptions. There is uncertainty in fish tissue analyses and use of those data. No records have been offered as to the sizes / ages of fish used in the tissue analyses compared to those eaten. Justification shall be provided to document why the analyses of tissue from the RI program represents the tissue concentrations of the COPCs used in the BHHRA. In addition, data/ references/justification shall be provided that supports the claim that use of catfish data are more conservative than use of other fish. Documentation shall be provided that the fish tissue analyzed is representative of the ages of fish likely to be consumed. If such is not available, a credible projection of contaminants in mature catfish shall be included.

6. (P. 3-3, Section 3.1.2.2): This section first mentions the uncertainty of the various finfish and shellfish caught and eaten in the USEPA's Preliminary Site Perimeter. Thus the hardhead catfish was used as the bases of the assessment. The HHRA shall provide what, if any, information that was gathered in the profile survey (conducted by the PRP's independent contractor) regarding the fishing bounty. If the data from this activity was utilized in developing the BHHRA, it shall be included; and if not utilized, then the HHRA shall justify that. See comment above for page 3-2, Section 3.1.2.2.

7. (P. 3-4, Section 3.1.2.3, Soil): Use of shallow subsurface soil data (6" – 12" below grade) is used for the commercial worker receptor in the area south of I-10. However, construction-type activities may take place in this area in the future. The HHRA shall evaluate deeper (> 2 ft) soil data for risk.

8. (P. 5-1, Section 5.1.1, Exposure Scenarios): This section describes the exposure a recreational fisher would encounter as well as what exposure a subsistence fisher would encounter. The differing factor is the inclusion of the descriptor "incidental ingestion and dermal contact" in reference to sediment and soils for the recreational fisher. The HHRA shall define why this was used and clarify what difference it signifies in the identification of the types of fisher.

9. (P. 5-8, Section 5.1.2.2.2, Exposure Parameters): This section seeks to detail the differences in activity and intake for exposure based on age categories. It goes on the explain that the assumption that "young children would have higher potential exposures (on a per unit body weight basis) relative to other age groups" is a *conservative assumption* based on the upper-bound RME scenario. It continues to say that the individuals considered most likely to use the area under study under baseline conditions are adults. Given this only adult exposures were evaluated for the CTE evaluation. Children are likely brought to the site by adults, and although they may be too young to fish, they are more likely to be exposed through incidental ingestion and dermal contact of sediment and soil. Therefore, this group and exposure scenario shall be included in the BHHRA.

10. (P. 5-14, Section 5.1.2.2.2, Relative Bioavailability Adjustment): The use of RBA's less than 100% in the deterministic baseline assessment shall be explained in more detail. Specifically, clear justification shall be provided regarding use of a relative bioavailability adjustment (RBA) of 50% for the two COPCs, arsenic and dioxin/furans, for soil and sediment ingestion exposures.

11. (P. 5-41 Bottom of 1st paragraph, Section 5.2.3.3.1): The probabilistic risk assessment (PRA) assumes (referencing Tables 5-8, 5-9) that each variable is independent, except for dependence of skin area on body weight. The PRA discussion shall also recognize the relationships among other exposure factors (i.e., ingestion rates may be dependent on body weight and age). The PRA shall clearly specify what exposure factors / exposure factor statistics were applied to develop the 50th, 90th, and 95th percentile risk estimates.

12. (P. 5-42 line 20, Section 5.2.3.3.1): The reference to Table 5-22 shall cite values of 0.4, 2, and 3 (not 4). If 4 is asserted to be correct, however, the PRPs shall clarify the reference and

source of this value. The same error appears on P. 5-43, line 12. The PRA summary tables shall be double checked against the text.

13. (P. 5-43 bottom sentence, Section 5.2.3.3.1): Reference to Figure 5-8 claims "incremental additional hazard" relative to background, however, the Figure somewhat minimizes the effect by using such a wide range of hazard index values. A figure (either new or revised 5-8) shall show a more narrow range of interest (e.g., hazard indices between 0.1 and 10), the difference between the HI of the area evaluated and background would be shown more clearly. The site area has approximately 22% greater risk index than background in this illustration, and the text shall therefore objectively reflect this.

14. (P. 5-44, Section 5.2.3.3.2, Hypothetical Young Child Recreational Visitor): To better understand the exposure scenario, the HHRA shall clarify/elaborate on activity expected by the recreational visitor north of I-10.

15. (P. 5-45, Section 5.2.4.1): This section shall note and discuss the known biases in fish sampling. No sampling truly represents the population sizes caught by fishers. Most sampling techniques catch smaller fish than those sought and eaten by anglers. This bias is especially significant in this analysis, because the COPCs (including mercury, dioxins and PCBs) accumulate to higher tissue concentrations in older and larger fish. This fact is potentially a major bias, and the BHHRA may significantly underestimate Site risks based on fish consumption. The bias is compounded by the uncertainty in this key variable because few fish were caught and analyzed. See also the comment offered above for Section 3.1.2.2, Tissue.

16. (P. 5-49, Section 5.2.4.3.2, The Presence of Subsistence Fishers): The section states that it is rare that true subsistence fishing populations are found. The HHRA shall provide references and support for this statement. This evaluation seems to have been made without consideration of the current economical state the county is in, and without apparent complete review of all nearby communities from which fishers may come (Baytown, Highlands, McNair, Barrett Station, and Crosby). The 2010 Census data related to demographics and socioeconomic levels of these areas of Harris County shall be investigated to determine whether or not the probability of true subsistence fishers is possible.

17. (P. 5-51, Top paragraph, Section 5.2.4.3.2 and Section 5.2.4.3.3): The general population description shall discuss potential differences with minority communities and whether they are likely to consume more or less fish.

18. (P. 5-51, Section 5.2.4.3.3, Estimated Exposure from Fish Consumption): This section introduces the plausibility of a reduction of chemical contamination due to "typical cooking methods". The HHRA shall identify the methods referred to which may contribute to this loss. The FDA indicates that trimming the fat and broiling the fish may help to reduce the dioxin exposure. (http://www.fda.gov/Food/FoodSafety/FoodContaminantsAdulteration/ChemicalContaminants/DioxinsPCBs/ucm077524.htm#4). Evaluating cooking methods and providing the information on preparation may need to be addressed in the fish advisory documents.

19. (Table 5-4): The first and second values for RME EPCs for dioxins/furans in Table 5-4 shall be confirmed as the TEQ value calculated using zero for nondetects is higher than that calculated using ½ the detection limit for nondetects.

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David Keith
Project Coordinator
Anchor QEA, LLC
614 Magnolia Avenue
Ocean Springs, MS 39654

ATTACHMENT 3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

APR 02 2013

Mr. David Keith
Project Coordinator
Anchor QEA, LLC
614 Magnolia Avenue
Ocean Springs, MS 39654

RE: Draft Remedial Investigation Report
San Jacinto River Waste Pits Superfund Site, Harris County, Texas
Unilateral Administrative Order, CERCLA Docket No. 06-03-10

Dear Mr. Keith:

The Environmental Protection Agency (EPA) and other agencies have performed reviews of the above referenced document dated December 2012. The EPA approves this document with the enclosed modifications.

Please provide copies of the final document to the distribution list. If you have any questions, please contact me at (214) 665-8318, or send an e-mail message to miller.garyg@epa.gov.

Sincerely yours,

Gary Miller
Remediation Project Manager

Enclosure

cc: Luda Voskov (TCEQ)
Bob Allen (Harris County)
Linda Henry (Port of Houston)
Jane Sarosdy (TGLO)

Comments
Draft Remedial Investigation (RI) Report dated December 2012

1. (General): The RI Report shall include a discussion of why the species sampled for tissue concentrations are representative of other species that may be consumed and impact human health risk.

2. (General): Several acronyms are not defined at the first use in the text. All acronyms shall be defined at their first use in the text. Also, the acronym list shall include "QC", which is used in the text.

3. (Section 2, p. 2-1): It was stated that "no historical chemistry data for soil, groundwater, or air from locations within USEPA's Preliminary Site Perimeter were found..." The statement is not correct. The historical chemistry data for soil and sediment are available from the USEPA and TCEQ Screening Site Assessment (September 2006) and the HRS Documentation Record (September 2007). Additional historical data for sediment and soil are available from the Texas Department of Transportation (Weston, 2006; Draft Field Activities Report for Sediment Sampling; San Jacinto River Bridge Dolphin Project IH-10 at the San Jacinto River). The report shall be revised to recognize this.

4. (Section 2.1.1.6, p. 2-15): Information gathered from the TCRA Cap porewater sampling event will not address the long-term effectiveness of the cap to prevent the release of dioxins and furans from the area within the 1966 perimeter. Only long-term monitoring will do this. The sampling completed will not address any potential releases resulting from future erosional forces, for example The discussion states that this pore water study was intended to address uncertainties associated with the potential for transport of dioxins and furans detected in perched water within the waste in the impoundments north of I-10 into surface water. However, this uncertainty still exists for the long term. The report shall be revised to discuss this long term uncertainty.

5. (Section 2.1.1.6, p. 2-15): The report shall include a reference to the study that was conducted to address uncertainties about the potential for transport of dioxins and furans detected in perched water within the waste in the impoundments north of I-10 into surface water.

6. (Section 2.1.2, p. 2-20): The report shall provide the particular section(s) where the results of sampling conducted according to Sediment SAP Addenda 1and 2 were presented.

7. (Section 2.1.2.2, p. 2-22): The report shall provide the particular section(s) where the results of sampling conducted according to Tissue SAP Addenda 1 are presented.

8. (Section 2.1.2.3, p. 2-23): The report shall include text references to the figures showing locations of soil investigations.

9. (Section 2.1.2.3, p. 2-23): The report shall correct the description of the groundwater monitoring well locations from "in the western cell of the northern impoundments" to the berms surrounding the northern impoundments".

10. (Section 2.1.2.4.2, p. 2-26): The reference for Miller 2011g is not listed in the reference list. This reference shall be added to list of the references.

11. (Section 2.1.2.4.2, p. 2-27): The report shall provide the particular section(s) where the results of groundwater sampling in the area south of I-10 are presented.

12. (Section 2.1.2.4.5, p. 2-27): The report shall provide the particular section(s) where the results of the TCRA armored cap porewater study are presented.

13. (Section 2.1.3.3, p. 2-31): The reference to "EPA 2009b", which describes the draft recommended preliminary remediation goals for dioxin, has been superseded by the final non-cancer dioxin reassessment released on February 17, 2012. The 2012 final non-cancer dioxin reassessment shall be used and referenced in the RI Report instead of the 2009 draft recommended preliminary remediation goals for dioxin.

14. (Section 2.1.3.3, p. 2-31): The text includes an "Anchor QEA 2012c" reference, but it is not listed in the Reference list. The Reference list shall be revised to include the reference, or the text revised as appropriate.

15. (Section 2.4.1, p. 2-45 and p. 2-46): The report shall provide additional discussion on the rationale for not including the data collected in 2005. For example, what was the statistically significant difference, and did the 2005 results show lower or higher numbers? The discussion shall indicate that the 2010 dioxin and furan concentrations were determined to be lower based on a variety of statistical analyses.

16. (Section 2.5.1, p. 2-48): The descriptions for the various TEQ bullets shall include "for mammals" to the end of each bullet. The TEQ definitions for birds and fish shall be added here as well.

17. (Section 3.3.1, p. 3-7): The 2001 fish advisory reference in the text is shown as "TDH 2001", but is shown in the Reference list as "TDH 2001b". This reference shall be corrected.

18. (Section 3.5.2, p. 3-14): In the "Gray silty sand" section, the "NAVD 88" acronym in the text shall be added to acronym list.

19. (Section 4.2, p. 4-5; and Section 4.5, p. 4-16): The discussion presents the background dataset only in terms of toxicity equivalency factors for mammals. Similarly, the various statistical comparisons present the chemicals of potential concern in terms of toxicity equivalency factors for mammals only. The discussion in the report shall also include statistical assessments in terms of toxicity equivalency factors for birds and fish, or provide an acceptable rationale for limiting the evaluation to mammals.

20. (Section 4.2.2, p. 4-7): The mean BEHP concentration in background surface sediment is shown to be "12" in text, but Table 4-6 lists the mean BEHP as "11". The report shall be corrected to show the correct concentrations.

21. (Section 4.3, p. 4-10): The discussion explains that the outlier analysis affects the calculation of exposure point concentrations for the baseline human health risk assessment. The discussion is silent on the potential impacts to the background analysis in the baseline ecological risk assessment. The report shall include additional explanation relative to the baseline ecological risk assessment.

22. (Section 4.3.4.2, p. 4-13): The text states "…..total PCBs with nondetects set to zero or set to one-half the detection limit…." An explanation shall be added that describes why values were set to zero.

23. (Section 4.5.3, p. 4-19): The last paragraph of this section closes with an unproven opinion regarding the source of COPCs that shall be deleted. The report may note that a number of sources, including the site, may contribute to the COPCs for the site. Any such statement shall include the specific COPCs and the specific sources, with supporting documentation and references.

24. (Section 4.5.3.2, p. 4-20): Additional discussion shall be added to discuss whole body catfish. Dioxins, PCBs, arsenic, and other compounds had significantly different values than background.

25. (Section 5.1, p. 5-3): The reference to TNRCC Docket No. "97-0453-IHW-E" shall be corrected to "1997-0453-IHW-E". In the next sentence the "hazardous material" shall be changed to "hazardous waste" as noted in the agreed order.

26. (Section 5.2.1.1.1, p. 5-8): The text provides an average concentration for 2,3,7,8-TCDF of 5,480 ng/kg, but Table 5-1 shows a mean of 6,680 ng/kg for 2,3,7,8- TCDF. The table or the text shall be corrected with the proper value.

27. (Section 5.2.1.1.2, p. 5-9): The text provides an average concentration for 2,3,7,8-TCDF of 15,300 ng/kg, but Table 5-2 shows a mean of 17,000 ng/kg for 2,3,7,8- TCDF. The table or the text shall be corrected with the proper value.

28. (Section 5.2.1.2.3, p. 5-12): Table 5-3 shall be referenced in this section.

29. (Section 5.2.2.5, p. 5-19): During the oversight activities, the TCEQ observed a completely saturated condition of the sediment/waste in the Northern Impoundment. The physical appearance of the sediment/waste was more like a "grayish silty muck". The report shall include a discussion or reference on how the hydraulic conductivity of the impoundment sediment/waste was measured.

30. (Section 5.2.3.1, p. 5-23): The fact that contaminant concentrations correlate with fine and organic carbon (OC) content is helpful. In reviewing the distribution maps (Figures 5-4, 6, 8), contaminant concentrations at several points appear to be anomalously high or low. If one marks the apparently anomalously low (or high) concentrations, they nearly all are at locations with low (or high) fines and/or organic carbon content. Figures 5-4, 6, and 8 shall be labeled to distinguish locations with high and low fines/OC, so that the distribution figures do not appear to show outliers, but instead convey the understanding of the causes for the distribution. A similar label of low (or high) fines/OC on Figure 4-1 areas where the TEQ exceeds the REV shall be included to provide a more coherent understanding of the data.

31. (Section 5.2.3.3.1, p. 5-26): The text states that there were matrix interference issues in regards to the analysis of the PCB Aroclors within the northern impoundments. There were detection limits of almost three orders of magnitude different from samples collected out of the same boring. The report shall include an explanation (lab chemist) on why there

were problems with the Aroclor analysis.

32. (Section 5.2.3.3.3, p. 5-30): The reference to Figure 5-17 states that it portrays TEQ. The graphed data has no label of units on its vertical axis, however, and the vertical axis appears to represent the relative TEQs, as compared to the mean in the Northern Impoundments. On the same Figure 5-17, the preliminary investigation perimeter data apparently excludes the Northern Impoundments data. The report shall provide explanations for this as well as accurate labeling of Figure 5-17.

33. (Section 5.2.4, p. 5-32): The data summaries are limited to toxicity equivalency factors for mammals only. The discussion and the summary tables shall also present the tissue dataset in terms of toxicity equivalency factors for birds and fish or provide an acceptable rationale for limiting the evaluation to mammals in this manner.

34. (Section 5.2.4, p. 5-32; and on p. 5-40): The section fails to note the major uncertainties in tissue contaminant data relating to the size, age, and sex of the specimens; ranges; stomach contents (food sources); and other key variables. For example, TDSHS study *Analysis of Risk from Consumption of Fish Taken from Toledo Bend,* 1995, shows the relationship between fish length and mercury levels at that site. If the fish caught from sampling were half the length of those typically consumed, the measured mercury content used for the tissue risk analyses could be several fold lower than the concentrations consumed by receptors. The uncertainties in the deductions derived from the limited scope of studies performed shall be described in more detail.

35. (Section 5.2.4.1.6, p. 5-37): Reference is made to Figure 5-18, which states that transect locations are on Figure 2-6, but Transects 7 and 8 are not shown on Figure 2-6. The report shall include all transects on the figure, or identify their location in another figure.

36. (Section 5.3.2, p. 5-49): Regarding the sampling objective of determining whether vertical gradients in concentrations of dioxins and furans in pore water of the TCRA armored cap exist, the draft text states that "these data indicate the absence of vertical concentration gradients of dissolved 2,3,7,8-TCDD or 2,3,7,8-TCDF in the pore water within the TCRA armored cap." There is additional text stating that "these results indicate the TCRA armored cap is effective in eliminating any release of dioxins and furans associated with waste materials within the northern impoundments, and the TCRA armored cap is also effective in reducing or eliminating the potential release of dissolved-phase dioxins and furans from the northern impoundments into the surface water of the river." The text shall be modified to indicate that these results reflect conditions at the time of sampling and is not conclusive that releases of dioxins and furans associated with waste materials will not occur after the armored cap has been in place for some time. It is possible that if a vertical gradient does exist, it would be more apparent after any large pore spaces are filled with sediment fines.

37. (Section 5.4.1.2, p. 5-54): The interpretation of Figure 5-24 shall provide an explanation for the wide variation in octachlorinated dibenzo-p-dioxin (OCDD) content for the samples with significant TCDD. Additionally, the figure does not appear to show the black circles. The figure shall be clarified.

38. (Section 5.5.1, p. 5-70): The report states that 10^{-4} is an acceptable cancer risk. For any remediation, the EPA will select the relevant protective cancer risk level, between 10^{-4} and 10^{-6}, in the Record of Decision. The report shall include quantitative risk analyses for receptors with any cancer risk greater than 10^{-6}. The slope factor approach, in addition to the target hazard quotient approach, shall be reported, and PCL calculations based on 10^{-6} shall be included in the RI report.

39. (Section 5.5.2.5.1 p. 5-82): The report shall state definitively to what extent Transect 3 has been capped by the TCRA.

40. (Section 5.5.2.5.1, p. 5-82): In the last paragraph of this discussion, there is a statement that "concentrations of 2,3,7,8-TCDD in clam tissue from two of five samples directly adjacent to the upland sand separation area exceed a threshold of histological effects in individual female oysters." The text shall be modified to state a threshold of "histological effects related to impaired reproduction and larval survival" or simply "histological effects related to impaired reproduction."

41. (Section 5.5.2.5.5, p. 5-84): The summary shall acknowledge that the reptile risk assessment was a qualitative evaluation.

42. (Section 5.6.3, p. 5-90): The Fate and Transport Report estimates that some areas have net erosion and some areas have net deposition. While the isotope dating data are useful, the text of this section fails to provide a balanced description, noting that erosion occurs in some areas and that during high flow conditions and storm surges, different erosion and deposition patterns from those shown likely occur. The report shall be modified to reflect such limitations on the interpretation of the deposition data presented. Further, the report states that vertical profiles of cesium-137 and lead-210 produce a range of net sedimentation rates (NSRs) of 0.4 to 3 cm/year at six of the core locations. However, the cesium-137 data fails to provide any estimate of NSR in any of the eight cores. This statement shall be revised to reflect the fact that NSRs at six of the eight cores were based only on lead-210 data. The report shall discuss the uncertainty of model predictions in light of the data limitations.

43. (Section 5.6.5, p. 5-97): The report states that, overall, the calibration and validation of the fate and transport model demonstrate that the model is able to simulate the hydrodynamics within the study area with sufficient accuracy. The planned approach to the modeling effort was to collect river condition data during times of high flow conditions to improve the accuracy of the model calibration. However, there was little rainfall during the study period and mostly low-flow conditions in the river, so there were no significant high-flow conditions to measure. The report shall discuss the lack of data for high-flow conditions and how it may impact the accuracy and uncertainty of the model results, especially in light of increased sediment transport during high-flow conditions.

44. (Section 5.7.4.2, p. 5-108): The likelihood of actual pathway completion to pore water (sediment) or surface water is considered low because of the assumed low hydraulic conductivity of the waste. The absence of significant congener concentration in sample analyses of the top six inches of the TCRA "porewater" is interpreted to signify that there are no releases occurring

now. However, the TCRA does not comprise a complete impermeable barrier between the waste and the sediment/surface water at their interface. Long-term testing of "porewater" is required to insure that this pathway does not become a future conduit for transfer of contamination.

45. (Section 5.8, p. 5-110): The first sentence of the second paragraph shall be modified to remove the words, "or ecological" since the PCLs are derived for human health pathways only.

46. (Section 6.1, p. 6-3): The additional site historical information below shall be incorporated into the existing narrative for the purpose of supplementing the aerial photo interpretation. On September 13, 1965, McGinnes Industrial Maintenance Corporation took over the settled waste disposal from the previous operator (pg 1, TSDH, 1966). The "... older site on the south side of the Highway ..." was " ... used prior to McGinnes Corp. taking over the operation and appears to consist of a pond covering between 15 and 20 acres ..." (pg 2, TSDH, 1966). In 1966, the depth of water in parts of the south pond was reported to range between 3 to 5 feet (pg 3, TSDH, 1966). The southern waste pond was filled and taken out of service by 1966 and the western waste pond was filled by 1966.

47. (Section 6.1, p. 6-4): The report states that available historical aerial photographs were not possible to obtain due to the compressed schedule for the RI Report. The report shall clarify which aerial photographs are being referred to, their date and location covered, whether they are currently available, and the timeframe needed to obtain them.

48. (Section 6.1.1, p. 6-4): In the second paragraph, second line, "an" shall be changed to "a" before "historical".

49. (Section 6.1.4.2.1, p. 6-13): In the 1st and 2nd lines on page 6-13 the reference to "substances" and "materials" shall be changed to "wastes".

50. (Section 6.1.4.2.2, p. 6-13): On the 3rd line of 1st paragraph the "materials" reference shall be changed to "wastes".

51. (Section 6.2.2, p. 6-28): The reference in the text "Miller 2011" is missing the proper suffix for this reference and shall be corrected.

52. (Section 6.3.3, p. 6-41): In the next to last sentence in paragraph 2 the references to "materials" and "substances" shall be "waste" if referring to the 1997 TNRCC Agreed Order.

53. (Section 7.1, p. 7-3): The discussion states that implementation of the TCRA has eliminated the associated secondary transport mechanisms resulting from erosion due to the river flowing over the wastes and due to storm related sediment resuspension. The discussion continues that as a result of the TCRA, RAO 1 has been achieved for the northern impoundments. This discussion does not mention the apparent erosion of the armor rock on the west side of the TCRA in July 2012. Further, the TCRA is not the final long term remedy, which will be selected in the Record of Decision. The report recognize the erosion that occurred, and shall state that the TCRA is preventing release of dioxins and furans for the time being, and that the final remedy to achieve RAO 1 in the long term will be selected in the Record of Decision.

54. (References): The Reference section is missing a reference for ASTM D-5084, which shall be included.

55. (Table 4-3): The table shows in several instances a 0% detection frequency, yet minimum, maximum, and mean concentrations are provided. The table shall include a footnote to explain this.

56. (Figure 3-5): The Pleistocene Beaumont Formation is represented by two colors. The figure shall be clarified to explain the difference between the two areas/formations.

57. (Appendix D, Draft Baseline Ecological Risk Assessment for the Peninsula South of I-10): For invertivorous birds (killdeer as measurement receptor), the lowest-observed- adverse-effects level (LOAEL)-based hazard quotients for lead and zinc were greater than one. For lead, the central tendency (i.e., based on mean concentrations) LOAEL-based hazard quotient was two, and the reasonable maximum (i.e., based on 95% UCL concentrations) LOAEL-based hazard quotient was eight. For zinc, the central tendency LOAEL-based hazard quotient was one, and the reasonable maximum LOAEL-based hazard quotient was three. The BERA conclusions state that baseline risks to individual terrestrial invertivorous birds represented by the killdeer from exposure to lead and zinc are present, and risks to terrestrial bird populations from exposures to lead and zinc may be present. The discussion also cautions that the risk management approaches regarding these metals should consider a number of uncertainties (e.g., exposure estimates, bioavailability, toxicity under field conditions relative to potential toxicity in the laboratory, and actual tissue concentrations of food items). Based on probabilistic analyses of exposure and risk, the BERA also states that the probability that exposure to these metals will exceed the respective LOAEL is 88% for lead, and 68% for zinc. The uncertainties associated with these metals/exposure pathways are not unlike those typically outlined in any "desktop" ecological risk assessment where site-specific tissue data is not available. With this in mind, the spatial distribution of the elevated metals concentrations, site conditions, infrastructure, and maintenance activities (e.g., routine mowing) are also important risk management considerations and shall be reflected in this discussion.

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APR 05 2013
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Received 4/8/13

Mr. David Keith
Project Coordinator
Anchor QEA, LLC
614 Magnolia Avenue
Ocean Springs, MS 39654