

**APPENDIX I: TPP MEETING MINUTES
MILITARY MUNITIONS RESPONSE PROGRAM
REMEDIAL INVESTIGATION/FEASIBILITY STUDY**

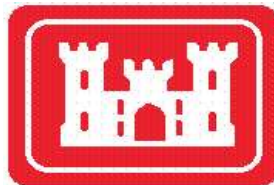
**FORMER CAMP MAXEY
Paris, Texas**

TECHNICAL PROJECT PLANNING (TPP) MEMORANDUM
For Remedial Investigation / Feasibility Study

Former Camp Maxey, Texas

Contract No. W912DY-04-D-0009
Task Order 0010

Prepared for:
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4820 University Square
Huntsville, Alabama 35807



The project is located in the
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February 2009

TECHNICAL PROJECT PLANNING (TPP) MEMORANDUM
For Remedial Investigation / Feasibility Study
Former Camp Maxey, Texas

MEETING MINUTES

DATE: 4 December 2008

LOCATION: Paris, Texas

TOPIC: TPP Meeting for the Former Camp Maxey

TITLE OF PROGRAM: Military Munitions Response Program (MMRP)

CONTRACT: Contract No. W912DY-04-D-0009; Task Order 0010

DIRECTIVE AGENCY: US Army Corps of Engineers (USACE)-Fort Worth District,
Stephen Swint

FACILITATOR: EOTI Project Manager, Kathy Rollow

NOTES:

- *This TPP Memorandum is a record of the discussions that took place on the above referenced date about said site.*
- *Approval of this TPP Memorandum does not signify agreement with any or all items, only that this is an accurate record of what was discussed.*
- *A representative of the Texas Parks and Wildlife Department was not present at the meetings.*

Introduction

This TPP Memorandum details the events of the Remedial Investigation / Feasibility Study at the Former Camp Maxey in Lamar County, Texas. TPP meetings were previously held in Powderly (June 2008) and Paris (September 2008), Texas. Participants of the meeting included representatives from the USACE (Huntsville and Fort Worth District), US Environmental Protection Agency (EPA), Texas Commission on Environmental Quality (TCEQ), Lamar County, the City of Paris, and the Explosive Ordnance Technology, Inc. (EOTI) Team (see attendance list below). This TPP Memorandum describes the purpose and objectives of the TPP, the meeting attendees, the materials and documentation discussed/reviewed during the TPP, the list of handouts, other TPP documentation, changes/deletions/modifications to the TPP material, Data Quality Objectives (DQOs) and discussion items. The Phase 1 Memorandum for Record is attached in Appendix D.

TPP Purpose and Objectives

The purpose of the TPP meeting was to provide community leaders, state regulators, and other interested parties/stakeholders with an understanding of the Formerly Used Defense Site (FUDS) program, an overview of the TPP process, and develop project DQOs. Meeting objectives included the following:

- Present the problem and identify possible decisions to the community leaders, state regulators, and other interested parties/ stakeholders.
- Obtain feedback and other site specific information from the community leaders, state regulators, and other interested parties/ stakeholders.
- Review the proposed project schedule and eliminate conflicts for the path forward.
- Develop Project Specific DQOs.
- Conduct an Ordnance and Explosive (OE) Safety Review.

Attendance List

Name	Title	Company	Phone	Fax	E-Mail
Shannon Barrentine	Assistant for Pete Kampfer	Paris Economic Development Corp.	903-784-2501	903-984-2503	pedc@paristexas.com
Clyde Crews	Deputy Chief	Paris Fire Department	403-784-5252		ccrews@paristexas.gov
Doug Crist	Project Manager	Texas Commission on Environmental Quality	512-239-2575		dcrist@tceq.state.tx.us
David Farmer	Project Manager	EOTI	865-220-8668	865-220-8857	dfarmer@eoti.net
Mike Gooding	Project Engineer	USACE - Huntsville	256-895-1635	256-895-1602	michael.r.gooding@usace.army.mil
Eric Kirwan	Geophysicist	USACE – Fort Worth	817-886-1673	817-886-6525	Eric.kirwan@us.army.mil
Mike Madl	Project Manager	Malcolm Pirnie	713-960-7432	713-840-1207	mmadl@pirnie.com
Richard Mayer	Project Manager	U.S. Environmental Protection Agency	274-665-7442		Mayer.Richard@epamail.epa.gov
Priscilla McAnally	Library Director	City of Paris	903-785-8531	903-784-6325	pmcanally@paristexas.com
William Noel	Project Manager	USACE - Huntsville	256-895-1933	256-895-1378	william.f.noel@usace.army.mil
Karl Louis	Chief of Police	City of Paris	903-784-5252	903-783-4710	klouis@paristexas.gov
Kathy Rollow	Project Manager	EOTI	865-220-8668	865-220-8857	krollow@eoti.net
Stephen Swint	Project Manager	USACE – Fort Worth	817-886-1364		Stephen.swint@usace.army.mil

Materials and Documentation Discussed/Reviewed During TPP

The following documents were discussed during the TPP in order to provide the

attendees with a familiarity of the site and a source of background information:

- Aerial Depictions of the Area Designated for Characterization including
 - Range Complex Locations
 - Historical Photo Analysis
 - Ordnance Previously Found on the Site Locations
- Conceptual Site Model (see Appendix A)

Handouts

The following handouts were distributed to the attendees of the TPP meeting for discussion:

- Agenda for TPP
- Slide presentation
- Attendee Sign-In Sheet
- Draft Data Quality Objectives

The Agenda set the stage for the meeting and was followed as provided. A copy of the slide presentations prepared and presented by the EOTI Team was provided to the attendees for future reference. At the conclusion of the TPP meeting the project schedule was reviewed.

Changes/Deletions/Modifications

No significant changes, deletions, or modifications were suggested among parties in attendance.

Discussion Items

Ms. Kathy Rollow, the Project Manager for the EOTI Team, gave the presentation and led the discussions that arose throughout. The following is a breakdown of the major discussion topics associated with the Former Camp Maxey:

- Community members expressed a concern about exposure risk on the lake shore during a severe drought and suggested including warnings as part of drought emergency procedures.
- Taking into consideration the various annual activities and events concurring around Pat Mayse Lake, the TPP Members concluded that February would be the least intrusive time to conduct field activities but agreed that the schedule would not allow for site work to begin before mid-March. The Project Schedule is attached as Appendix C.
- EOTI will perform digital geophysical mapping (DGM), utilizing the Geonics EM61 MK2 time domain electromagnetic (TDEM) system. Transects 3 feet wide with a 500 foot separation will be used over approximately 96 acres (see Appendix B, Figure B-3).

- Additional multi-incremental sampling decision unit sizes were proposed to augment the originally planned 10 meter squared (m²) sampling grid. The additional grid sizes include 30 m² and 50 m². These additional grid size types will provide better quality sampling results for the MC investigation.
- The MC sampling effort at the former ranges will consist of a two-phased approach. First, sampling grids (decision units) will be placed in areas of known munitions use based on the historical aerial review, residential properties in which munitions were removed during previous removal actions, background locations, and at areas where the currently occurring removal action is being performed (northeast section of property). This phase of the effort can begin once the work plan is approved. The second phase of sampling, which will generally occur on the western and central portions of Camp Maxey, will not be conducted until after the new geophysical investigation / MEC characterization work is completed. This is because the project team needs to pinpoint the locations of the suspect ranges and the specific areas in which munitions are likely to be present, including firing points and target/impact areas prior to conducting sampling activities. These areas will not be known until the geophysical investigation is completed.
- The TPP members agreed with conducting triplicate MC sampling at a rate of 10% of the total sampling sites/decision units. Screening levels will be set at a state base value (e.g., background levels for metals and Tier I protective concentration levels (PCLs) for explosives). TCEQ verified that background levels for metals are available for the state and the county. The agreed upon target compound list is as follows:

Analyte	CAS Number	TRRP PCLs		TestAmerica	
		TotSoilCom	GWSoilIng	Lab MDL	Lab RL
HMX	2691-41-0	354.711	2.344	0.0227	0.1
RDX	121-82-4	42.713	0.037	0.043	0.2
1,3,5-TNB	99-35-4	1996.961	1.819	0.0138	0.1
1,3-DNB	99-65-0	6.478	0.008	0.0166	0.1
Tetryl	479-45-8	59.022	1.104	0.0439	0.2
NB	98-95-3	31.425	0.088	0.085	2
2,4,6-TNT	118-96-7	22.734	0.171	0.0307	0.1
4-Am-DNT	19406-51-0	9.844	0.067	0.0299	0.1
2-AM-DNT	35572-78-2	10.063	0.099	0.0329	0.1
2,4-DNT	121-14-2	6.909	0.005	0.0147	0.1
2,6-DNT	606-20-2	6.909	0.005	0.0191	0.1
2-NT	88-72-2	390.885	1.844	0.0472	0.2
3-NT	99-08-1	377.223	1.844	0.064	0.2
4-NT	99-99-0	376.003	1.844	0.0365	0.2

NG	55-63-0	4.660	0.010	0.215	2
PETN	78-11-5	26626.140	2477.360	0.493	2
3,5-DNA	618-87-1	Not Listed	Not Listed	0.009	0.1

Analyte	CAS Number	Texas State Background*	TRRP PCLs		TestAmerica	
			TotSoilCom	GWSoilIng	Lab MDL	Lab RL
Antimony	7440-36-0	1.0	14.957	5.411	0.38	2
Copper	7440-50-8	15.0	547.889	1042.491	0.217	5
Lead	7439-92-1	15.0	500.000	3.029	0.27	0.9
Zinc	7440-66-6	30.0	9921.474	2360.479	0.398	8
Mercury	7439-97-6	0.04	3.649	0.008	0.00553	0.033

*State background metals concentrations may be replaced with site-specific or county-based levels.

- Soil samples will not be ground by the analytical laboratory during analysis for metals.
- Members of the community informed the TPP Team that a water study committee has been formed to discuss the possibility of increasing the size of Pat Mayse Lake. The decision whether or not to proceed should be made by the end of the calendar year. It would be five to seven years before the construction would begin. TPP Members discussed that a change in the shoreline would change the risk areas and agreed that submitted decisions will include a note regarding the fact that a change in the location of the shoreline could affect the recommendations. A contour map of the lake was forwarded to the TCEQ.
- Community members concluded that Rights of Entry and Funding will be obstacles for conducting this project. The TCEQ suggested that we begin collecting rights of entry (ROE) as soon as possible. The 1st public meeting will be conducted 6 – 8 weeks prior to field activities and will be used to collect ROE. Community members suggested conducting separate meetings for each surrounding community.

Project Specific Data Quality Objectives

Data Quality Objectives for MEC Investigation

1. State the Problem

- Information regarding the potential distribution of MEC at a site is limited or unavailable.
- The MEC site boundaries are unknown relative to the presence of MEC at

- a site.
 - The extent and location of field sampling for the identification of the quantity and distribution of MEC is unknown.
2. Identify the Decision
 - Obtain data regarding the presence of MEC at the site.
 - Define the site boundaries.
 - Define the MEC sectors.
 - Define the locations and the area to be covered during field sampling.
 3. Identify Inputs to the Decision
 - Historical information (e.g., interview records, field notes, aerial photos, maps) regarding potential MEC.
 - Observations:
 - Visual field MEC confirmation
 - Type(s) of MEC
 - Location(s) of MEC items
 - Proximity to inhabited locations and structures (public roads, recreation paths, homes, etc.)
 - Accessibility of the site
 - The Conceptual Site Model (i.e. historical information {interview records, field notes, aerial photographs, maps}, anticipated MEC type(s), anticipated MEC distribution, terrain and vegetation, current/proposed land use, and natural and cultural boundaries.)
 - Statistically calculated MEC densities based on historical use of area, previous MEC investigation and removals, and current field sampling data.
 - Present and/or future land use considerations (i.e., site coverage needs).
 - Statistical analysis tools.
 4. Define Boundaries of Study
 - Established Sectors from the EE/CA will be utilized to subdivide investigation areas.
 - Limited to the ground surface and near surface.
 - Exclusive of areas with thick vegetative cover.
 - Time frame for collection.
 - Spatial boundary based on geophysical equipment capabilities for particular MEC types and site conditions.
 - Rights of Entry
 5. Develop a Decision Rule
 - Sampling should be in an amount optimal to characterize the site.
 - Transects 3 feet wide
 - 500 foot separation
 - When reconnaissance indicates evidence of MEC use or proximity to areas of MEC use, field sampling for further characterization of MEC quantities and distribution will be recommended.

- If 1) historical information and 2) field sampling or statistical predictions indicate no evidence of MEC in an area, then the area may be reduced to contain only areas exhibiting evidence of MEC.
 - If each sector has an approximately homogeneous MEC density, then the sectors at the site have been defined.
 - If a sector is not homogenous with respect to MEC density, then the sector boundary must be redefined.
 - If a sampling methodology will provide for sampling of a statistically representative portion of the site, then it will be implemented to define the locations and the area to be covered during field sampling.
 - If a sampling methodology does not provide for sampling of a statistically representative portion of the site, it will be revised to do so by sampling design modification, or it will not be implemented.
6. Specify Tolerable Limits of Decision Error
- If all the inputs to the decision rule were performed to the standard of Quality Control/Quality Assurance (QC/QA) procedures as specified in the QAPP and the Work Plan, then the error is within tolerable limits.
7. Optimize the Design for Obtaining Data
- Each Sector will be prioritized systematically based on the recommended minimum survey requirement and statistical probability tools. Transects will be utilized to establish a contamination boundary and possibly reduce the area of interest.

Data Quality Objectives for MC Investigation

1. State the Problem
- Determine whether MC associated with munitions used during training activities is present in surface soil at the former Camp Maxey
 - Assess concentrations of MC of concern
 - Assess potential exposure of receptors to impacted surface soil
 - Assess other media (dependent on results of surface soil sampling)
2. Identify the Decision
- Determine the types of MC potentially released to the surface soil as a result of former Camp Maxey activities
 - Determine the range of MC concentrations in surface soil samples across the site
 - Estimate the spatial extent of MC in surface soil
3. Identify Inputs to the Decision
- Historical information from previous uses of the site
 - Location of MEC and munitions debris identified in previous investigations

- at the former Camp Maxey
- Location of range structures and other evidence of munitions based on additional MEC characterization/geophysical investigations to be completed in the field
- TRRP Protective Concentration Levels (PCLs) for soil
- Screening-level ecological risk assessment (if required)

4. Define the Boundaries of the Study

- Overall Camp Maxey boundary; MRS boundaries
- Multi-incremental surface soil samples
 - 10 meter (m) by 10 m sampling decision unit
 - 30 increments collected from top 2 inches of soil
 - 30 m by 30 m decision unit
 - 70 increments collected from top 2 inches of soil
 - 50 m by 50 m decision unit
 - 100 increments collected from top 2 inches of soil
- Decision units based on documentation of previous use and previous investigations/removals
 - MC is expected to be found in the known impact areas (especially areas with visible ground scarring or impact craters)
 - 50 m by 50 m grids to be used for impact areas
 - MC may be present in areas of previous removal actions and potentially areas outside the impact areas due to migration
- Decision units based on the intrinsic geophysical MEC investigation in fixed range locations
 - MC is expected to be found in front of and behind the firing lines, in target areas, and in other identified impact areas
 1. 30 m by 30 m grids to be used around firing lines, 10 m by 10 m grids to be used in target areas, and 50 m by 50 m grids to be used in down range impact areas
 - Surface soil from areas within the fixed ranges with identified MEC will also be sampled for MC

5. Develop a Decision Rule

- Compare analytical results to background levels (metals) and TRRP Tier 1 Residential PCLs (metals and explosives)
- If there are exceedances, additional samples will be collected to delineate the soil to the appropriate assessment levels
- If vertical delineation is necessary, a more extensive subsurface investigation will be conducted

6. Specify Tolerable Limits on Decision Errors

- Two possible decision errors for this project:
 - Concluding that the suspect medium (surface soil) within the boundaries of the study is contaminated when it is really not (Type I error)

- Concluding that the soil within the boundaries of the study is not contaminated when it really is (Type II error).
- Type I error is more tolerable; minimize Type II errors

7. Optimize the Design for Obtaining Data

- Utilize multi-incremental sampling design to assure representativeness of sampling
- Employ judgmental sampling – focus decision unit sampling locations at areas most likely to contain residual MC (firing points, target areas, impact areas)
- Analyze at method quantitation limits (MQLs) that are equal to or lower than PCLs to minimize Type II errors