



# JACOBS ENGINEERING GROUP INC.

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4 April 1990

Mr. Herb Padro  
Contracting Officer, Code 0213  
Naval Facilities Engineering Command  
Southwest Division  
1220 Pacific Highway  
San Diego, CA 92132-5190

SUBJECT: Contract N68711-89-D-9296  
Navy CLEAN - Southwest Division  
Jacobs Document Control #CLE-C01-F0018-00-B1-0003  
**Contract Task Order #0018, Revised Implementation Plan  
Marine Corps Air Station El Toro, Santa Ana, California**

Dear Mr. Padro:

Enclosed please find the Jacobs revised Implementation Plan (IP) for the development of a comprehensive Remedial Investigation/Feasibility Study (RI/FS) Work Plan for the Marine Corps Air Station (MCAS) El Toro, Santa Ana, California. This revised IP was prepared in response to Modification #03 (16 March 1990) to the referenced CTO. The basic content of Modification #03 requires that Jacobs provide total support for (operate, maintain, and report on) the operational interim groundwater pumping and treatment (activated carbon) system at MCAS El Toro for the purpose of a treatability study.

Jacobs has developed the attached schedule and cost estimates based upon the SOW and schedule of submittals as specified in Modification #03, as well as recent discussions with the RPM, J.M. Montgomery (JMM), and the Calgon Carbon Co. (Calgon). This revision to the IP has been prepared as an amendment to the approved IP submitted 7 February 1990 in response to CTO #0018 issued on 27 November 1989. The 7 February 1990 IP was recently revised and resubmitted (20 March 1990) for the purpose of adding the off-station investigation to the RI/FS, as specified in Modification #02. Although this amendment contains updated cost and schedule information for the overall CTO, only the scope of work specific to the operation, maintenance, and reporting associated with the groundwater pumping and treatment system is discussed herein. The scope of work specific to the RI/FS (on- and off-station) has been fully described in the previous IP submittals and has not been altered by addressing this modification.

## 1.0 INTRODUCTION

### 1.1 Basic Requirements

The basic requirements of Modification #03 to CTO #0018 include:

- (1) Existing wells PS-1, PS-3, and PS-4 will be used.
- (2) The project is to be conducted as a treatability study.
- (3) The revised IP shall include a separate schedule for system inspections, reporting, sampling, maintenance, and contaminant disposal.

In addition to the nine tasks previously specified in the CTO statement-of-work, a Task 10 is to be added facilitating the following:

- (1) A review of existing data (reports, data, studies, and analyses) associated with the existing system. The RPM and the base point-of-contact (POC) will assist in acquiring this information.
- (2) Operate and maintain the system for a duration of 12 months from the date Jacobs assumes the responsibility from the current operator (JMM). O&M shall include components of the system from the wells to the reclaim line. The fence surrounding the system is also included. A brief statement shall be included in the monthly report regarding the condition of the system.
- (3) Water flows shall be recorded using existing instream devices for measurement.
- (4) Samples shall be collected and analyzed monthly from the combined raw water stream and the treated water stream.
- (5) Samples shall be collected and analyzed quarterly from each of the three wells connected to the system.
- (6) Samples shall be analyzed for volatile organic compounds (VOC's) by GC/MS technique (EPA624).
- (7) A report shall be prepared and submitted monthly which includes:
  - \* activities completed - current period
  - \* operational and maintenance data - current period
  - \* water flow rates - current period
  - \* analytical results from current and previous month
  - \* summary of analytical results and flow rates

Two copies of each monthly report are to be submitted to both the RPM and the POC at the end of each month beginning with the first full month of responsibility.

A discussion regarding the effectiveness of the system and recommendations regarding the continued use, expansion, relocation, and/or demobilization of the system shall be incorporated into the RI/FS.

## **1.2 Special Conditions**

Jacobs shall notify the RPM and the POC before traveling to the base. In addition, Jacobs shall immediately notify the RPM and the POC if the system fails or at the time any carbon unit requires replacement.

## **1.3 Jacobs Assumptions**

- (1) An operators license is not required.
- (2) An NPDES permit does not exist and is not required.
- (3) Flow measurement devices will be calibrated by JMM prior to transition.

## 2.0 TECHNICAL APPROACH

In accordance with the statement-of-work as presented in Modification #03 to CTO #0018, Jacobs will operate, maintain, and report on the interim groundwater pumping and treatment system at the MCAS El Toro for a period of 12 months. Each subtask is described in detail below.

### 2.1 Task 10.1 - Revise/Resubmit the Implementation Plan

This document constitutes the execution and completion of this task.

### 2.2 Task 10.2 - Existing Data Review

In addition to the data refereed to in 1.1 above, Jacobs will procure and review (if available) design calculations, O&M manuals, and vendor and warranty information. No deliverables are anticipated, however, a set of system-specific acceptance criteria will be established by Jacobs. These criteria will need to be met by JMM for Jacobs to accept responsibility for the system.

Estimated level-of-effort involved includes:

|   |                                     |          |
|---|-------------------------------------|----------|
| * | Existing data review .....          | 64 hours |
| * | Site visit w/JMM .....              | 16 hours |
| * | Establish acceptance criteria ..... | 56 hours |
| * | Task support .....                  | 16 hours |

### 2.3 Task 10.3 - System Operation and Maintenance

JMM is presently contracted to perform system O&M through April 1990. Their ninth and final round of sampling is scheduled to occur the week of 23 April 1990. It is assumed that JMM will:

- (1) Prepare and submit the monthly report for April 1990.
- (2) Allow Jacobs' representatives to attend/observe the ninth and final sampling round for training and transition purposes.
- (3) Follow through with their present efforts, together with Calgon, to complete the acceptance analysis associated with Calgon accepting shipment of the first Disposorb unit taken off-line in February 1990. JMM has sent a carbon sample to Calgon for analysis (cost = \$1,000). Upon acceptance, Calgon will arrange for a bin (capacity = 2 Disposorb unit carbon volumes) to be delivered to the site. According to a Calgon representative (Steve Wood), JMM has agreed to: a) provide the labor to transfer the carbon from the Disposorb unit into the bin and, b) when two units have been transferred to the bin thus filling it, JMM will pay approximately \$800 per bin for freight to have the bin shipped to Calgon in Pennsylvania for reactivation, at no additional cost to JMM. Any permitting or manifesting matters will be the responsibility of the Navy and Calgon. Additionally, according to Calgon (Wood), the \$1,000 acceptance analysis fee is a one-time charge. That is, Calgon will continue to accept spent carbon throughout the 12-month treatability study based upon the initial acceptance analysis.

Jacobs' estimated costs for system operation and maintenance presented herein are based upon these same arrangements.

### 2.3.1 Task 10.3.1 - Health and Safety Plan

Jacobs will prepare a task-specific health and safety plan which addresses the particular requirements of this task, including the transition session with JMM.

The estimated level-of-effort includes:

|   |                        |          |
|---|------------------------|----------|
| * | Plan preparation ..... | 32 hours |
| * | QC, oversight .....    | 12 hours |
| * | Task support .....     | 11 hours |

### 2.3.2 Task 10.3.2 - System Oversight

A Jacobs technician will visit the site weekly for the purposes of observing the general condition of the system as well as reading and recording water flows. Photography may be used to document observations. Pressure gauge readings will be manually recorded to monitor system operation and pressure differentials across each GAC unit. A fieldlog will be maintained. Jacobs will notify the RPM and the POC before traveling to the facility. Should the system fail or should a carbon unit require replacement, the RPM and the POC will be immediately notified and the situation will be mitigated. At this point, system failure can not be assumed nor is a failure defined, therefore, the costs of dealing with a failure have not been estimated nor included in this revision to the IP. Regarding carbon unit replacement, based upon conversations with JMM and Calgon, the first unit replacement occurred after 7 months (February 1990) and subsequent changeouts can be expected every 4 months thereafter (June, October, 1990 and February, 1991). The planned end of the 12 month operating period (April 1991) will preclude the need for a fourth changeout. At that time, both units will simply be demobilized. Therefore, Jacobs expects to be responsible for three unit replacements and three bin shipments to Pennsylvania, which includes the demobilization of the final two units. Jacobs will also be responsible for the off-site disposal of the five empty carbon units. It is assumed that these units can be disposed of at a local Class III landfill which is what JMM plans to do with the first unit they replaced.

Estimated level-of-effort includes:

|   |                               |          |
|---|-------------------------------|----------|
| * | Site inspections .....        | 80 hours |
| * | Unit changeouts .....         | 48 hours |
| * | Bin shipments .....           | 18 hours |
| * | Tank disposal .....           | 24 hours |
| * | QC, oversight .....           | 80 hours |
| * | Subcontracting .....          | 96 hours |
| * | Task support .....            | 64 hours |
| * | Unit replacements .....       | \$12,000 |
| * | Bin shipments - freight ..... | \$ 2,400 |
| * | Tank disposal .....           | \$ 250   |

### 2.3.3 Task 10.3.3 - Sampling and Analysis

Samples will be collected monthly from the combined raw water stream and the treated water stream. Additionally, samples will be collected quarterly from each of the three

wells feeding the treatment system. All samples will be analyzed for VOC's using GC/MS (EPA 624).

The SOW requires that the system be operated as a treatability study. TCE and PCE isotherms for carbon are generally well established, however, there are site specific factors that can affect carbon breakthrough. Naturally occurring organic acids can compete with adsorption sites on the carbon and affect adsorption parameters. It is recommended that TOC analyses be added (influent and effluent). Iron fouling and microbial action also can affect performance. As such, Jacob proposes that total iron be added to the analysis and a microbial analysis of the groundwater be conducted. Additionally, at least initially, alkalinity and manganese analyses should be performed.

Sampling and analysis QA/QC requirements are assumed to be equal to those currently observed by JMM (1 duplicate and 1 spike per sampling event) and will only be modified when necessary to achieve consistency with the CLEAN Program QA/QC requirements.

The estimated level-of-effort includes:

|   |                          |           |
|---|--------------------------|-----------|
| * | Sampling .....           | 96 hours  |
| * | QC, oversight .....      | 16 hours  |
| * | Subcontracting .....     | 16 hours  |
| * | Task support .....       | 16 hours  |
| * | 72 analyses events ..... | \$ 18,000 |

Note: # of analyses events is based upon:

(a) 5 per month for 12 months = 60 as follows:

- \* combined raw water
- \* combined treated water
- \* spike
- \* duplicate
- \* travel blank

(b) 3 per quarter = 12 as follows:

- \* Well PS-1
- \* Well PS-3
- \* Well PS-4

### 2.3.4 Task 10.3.4 - Monthly Reporting

Jacobs will prepare and submit a monthly report in accordance with the requirements as specified in 1.1 above. The present JMM monthly report will serve as an example of what is expected. Jacobs reserves the right to alter the format/content of the monthly report as the program evolves, however, will only do so after consultation and concurrence with the RPM and the POC.

The estimated level-of-effort includes:

|   |                          |           |
|---|--------------------------|-----------|
| * | Report preparation ..... | 120 hours |
| * | Task support .....       | 96 hours  |

### **3.0 SCHEDULE**

Appendix A identifies each of the activities necessary to complete the SOW associated with this modification as well as the balance of the overall CTO required SOW. The schedule shows the start and finish dates with the applicable logic ties. A prompt review and approval of this IP revision by the Navy is imperative for Jacobs to meet the scheduled changeover from JMM to Jacobs in May. A target approval date of 18 April 1990 should be sufficient for Jacobs to mobilize in time to accommodate the requirements of Modification #03.

#### 4.0 COST

The cost estimate associated with the Modification #03 SOW (as well as the balance of the overall CTO required SOW) is provided in Appendix B. Lead technical and functional code personnel are identified by category, with respective contract rates, manhours, and dollars required to complete the work.

As a result of the initial CTO and the subsequent modifications (1, 2, and 3), the present authorized funding ceiling for this CTO is \$264,386.

The Jacobs estimated cost specific to Modification #03 is \$105,203 which is approximately 44 percent over the Navy estimate of \$72,911. The Jacobs estimated cost for the entire CTO SOW is now \$319,835 which is approximately 21 percent over the Navy estimate of \$264,386.

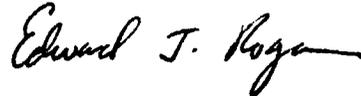
(Note: A differential of approximately \$23,000 between the Jacobs and Navy estimates for Modification #02 is presently being adjudicated by means of the Navy review of the 20 March 1990 revised IP.)

Please contact Phil Stassi to arrange any necessary meetings to discuss this submittal. We are available to meet with you immediately upon your receipt of this document.

Sincerely,



Philip J. Stassi  
CLEAN Program Manager



Edward J. Rogan, P.E.  
CTO #0018 Project Manager

PJS/EJR/ilc

LANY\200\_001.51\90\EJRC

cc: J. Pawlisch, Code 018C  
L. Nuzum, RPM/Navy  
File - Chron  
File - PMO  
File - PAS  
File - CTO Notebook

## **APPENDIX A**





PORT: ACTES

ACTIVITY LISTING by ACTIVITY NUMBER

REPORT DATE: 3APR90

PROJECT: CTO018

RI/FS WORK PLAN - MCAS EL TORO , CA

TIME NOW:01NOV89

| ACTIVITY | REM DUR | ORIG DUR | DESCRIPTION                            | CODE 1 | CODE 2 | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|----------|---------|----------|----------------------------------------|--------|--------|-------------|--------------|------------|-------------|-------------|
| 010000   | 1       |          | 1 CTO RECEIPT                          | 010    |        | 29NOV89     | 29NOV89      | 29NOV89    | 29NOV89     | 0           |
| 010001   | 26      | 26       | PREPARE IMPLEMENTATION PLAN            | 010    |        | 30NOV89     | 04JAN90      | 30NOV89    | 04JAN90     | 0           |
| 010002   | 3       | 3        | IP INTERNAL REVIEW & COMMENT           | 010    |        | 05JAN90     | 09JAN90      | 05JAN90    | 09JAN90     | 0           |
| 010003   | 1       |          | 1 ISSUE IMPLEMENTATION PLAN TO NAVY    | 010    |        | 10JAN90     | 10JAN90      | 10JAN90    | 10JAN90     | 0           |
| 010004   | 32      | 32       | NAVY REVIEW AND APPROVAL OF IP         | 010    |        | 11JAN90     | 23FEB90      | 11JAN90    | 23FEB90     | 0           |
| 010005   | 1       | 1        | RECEIVE CTO MOD 02                     | 010    |        | 27FEB90     | 27FEB90      | 27FEB90    | 27FEB90     | 0           |
| 010006   | 14      | 14       | PREPARE MOD 02 I.P.                    | 010    |        | 28FEB90     | 19MAR90      | 28FEB90    | 19MAR90     | 0           |
| 010007   | 1       | 1        | ISSUE MOD 02 I.P. TO NAVY              | 010    |        | 20MAR90     | 20MAR90      | 20MAR90    | 20MAR90     | 0           |
| 010008   | 13      | 13       | NAVY APPROVE MOD 02 I.P.               | 010    |        | 21MAR90     | 06APR90      | 21MAR90    | 06APR90     | 0           |
| 010009   | 1       | 1        | RECEIVE CTO MOD 03                     | 010    |        | 16MAR90     | 16MAR90      | 16MAR90    | 16MAR90     | 0           |
| 010010   | 10      | 10       | PREPARE MOD 03 I.P.                    | 010    |        | 19MAR90     | 30MAR90      | 19MAR90    | 30MAR90     | 0           |
| 010011   | 2       | 2        | REVISE/REWRITE MOD 3 I.P.              | 010    |        | 02APR90     | 03APR90      | 02APR90    | 03APR90     | 0           |
| 010012   | 1       | 1        | ISSUE MOD 3 I.P.                       | 010    |        | 04APR90     | 04APR90      | 04APR90    | 04APR90     | 0           |
| 010013   | 10      | 10       | MOD 3 I.P. - NAVY REVIEW/APPROVAL      | 010    |        | 05APR90     | 18APR90      | 05APR90    | 18APR90     | 0           |
| 015001   | 242     | 242      | MONTHLY REPORTING/MEETINGS             | 015    |        | 29NOV89     | 01NOV90      | 05SEP90    | 08AUG91     | 200         |
| 050001   | 43      | 43       | FIELD SAMPLING PLAN                    | 050    |        | 26FEB90     | 25APR90      | 23MAR90    | 22MAY90     | 19          |
| 050002   | 62      | 62       | QUALITY ASSURANCE PROJECT PLAN         | 050    |        | 26FEB90     | 22MAY90      | 26FEB90    | 22MAY90     | 0           |
| 50003    | 11      | 11       | INTERNAL REVIEW/REWRITE FSP/QAPP       | 050    |        | 23MAY90     | 06JUN90      | 23MAY90    | 06JUN90     | 0           |
| 050004   | 1       | 1        | ISSUE P/DRAFT FSP/QAPP TO NAVY         | 050    |        | 07JUN90     | 07JUN90      | 07JUN90    | 07JUN90     | 0           |
| 050005   | 10      | 10       | NAVY REVIEW/COMMENT P/DRAFT FSP/QAPP   | 050    |        | 08JUN90     | 21JUN90      | 08JUN90    | 21JUN90     | 0           |
| 050006   | 6       | 6        | INC NAVY COMM-DRAFT FSP/QAPP           | 050    |        | 22JUN90     | 29JUN90      | 22JUN90    | 29JUN90     | 0           |
| 050007   | 9       | 9        | INT REVIEW/REWRITE DRATF FSP/QAPP      | 050    |        | 02JUL90     | 12JUL90      | 02JUL90    | 12JUL90     | 0           |
| 050008   | 1       | 1        | ISSUE NAVY DRAFT FSP/QAPP              | 050    |        | 13JUL90     | 13JUL90      | 13JUL90    | 13JUL90     | 0           |
| 050009   | 32      | 32       | NAVY REVIEW/COMMENT DRAFT FSP/QAPP     | 050    |        | 16JUL90     | 28AUG90      | 16JUL90    | 28AUG90     | 0           |
| 050010   | 6       | 6        | INC NAVY COMM FINAL FSP/QAPP           | 050    |        | 29AUG90     | 05SEP90      | 29AUG90    | 05SEP90     | 0           |
| 050011   | 11      | 11       | INTERN REVIEW/REWITE FINAL FSP/QAPP    | 050    |        | 06SEP90     | 20SEP90      | 06SEP90    | 20SEP90     | 0           |
| 050012   | 1       | 1        | ISSUE NAVY FINAL FSP/QAPP              | 050    |        | 21SEP90     | 21SEP90      | 21SEP90    | 21SEP90     | 0           |
| 200001   | 15      | 15       | REVIEW DOCUMENTS @ IT & NON-NAVY       | 200    |        | 26FEB90     | 16MAR90      | 26FEB90    | 16MAR90     | 0           |
| 200002   | 13      | 13       | SITE VISIT, DATA COLLECT, INTERVIEW    | 200    |        | 28FEB90     | 16MAR90      | 28FEB90    | 16MAR90     | 0           |
| 200003   | 9       | 9        | WRITE SUMMARY REPORT INCL IR JOB TABLE | 200    |        | 19MAR90     | 29MAR90      | 19MAR90    | 29MAR90     | 0           |
| 200004   | 6       | 6        | INTERNAL REVIEW/EDIT OF DRAFT          | 200    |        | 30MAR90     | 06APR90      | 30MAR90    | 06APR90     | 0           |
| 200005   | 1       | 1        | SUBMIT DRAFT SUMMARY TO NAVY           | 200    |        | 09APR90     | 09APR90      | 09APR90    | 09APR90     | 0           |
| 200006   | 23      | 23       | NAVY COMMENTS                          | 200    |        | 10APR90     | 10MAY90      | 10APR90    | 10MAY90     | 0           |
| 200007   | 13      | 13       | REVISE DRAFT & PERFORM INTERNAL REVIEW | 200    |        | 11MAY90     | 29MAY90      | 11MAY90    | 29MAY90     | 0           |
| 0008     | 1       | 1        | SUBMIT FINAL SUMMARY TO NAVY           | 200    |        | 30MAY90     | 30MAY90      | 30MAY90    | 30MAY90     | 0           |
| 10001    | 10      | 10       | DEFINE ARARS, INVENTORY MW'S           | 210    |        | 12MAR90     | 23MAR90      | 12MAR90    | 23MAR90     | 0           |

PORT: ACTES

ACTIVITY LISTING by ACTIVITY NUMBER

REPORT DATE: 3APR90

PROJECT: CTO018

RI/FS WORK PLAN - MCAS EL TORO , CA

TIME NOW:01NOV89

| ACTIVITY | REM DUR | ORIG DUR | DESCRIPTION                             | CODE 1 | CODE 2 | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|----------|---------|----------|-----------------------------------------|--------|--------|-------------|--------------|------------|-------------|-------------|
| 210003   | 45      | 45       | PRELIMINARY DRAFT OF RI/FS              | 210    |        | 12MAR90     | 11MAY90      | 12MAR90    | 11MAY90     | 0           |
| 210004   | 14      | 14       | INTERNAL REVIEW/REWRITE PRELIM DRAFT    | 210    |        | 14MAY90     | 31MAY90      | 14MAY90    | 31MAY90     | 0           |
| 210005   | 1       | 1        | SUBMIT PRELIMINARY DRAFT TO NAVY        | 210    |        | 01JUN90     | 01JUN90      | 01JUN90    | 01JUN90     | 0           |
| 210006   | 15      | 15       | NAVY REVIEW OF PRELIMINARY DRAFT        | 210    |        | 04JUN90     | 22JUN90      | 28FEB91    | 20MAR91     | 193         |
| 210007   | 13      | 13       | WRITE/REVIEW DRAFT RI/FS                | 210    |        | 25JUN90     | 11JUL90      | 21MAR91    | 08APR91     | 193         |
| 210008   | 1       | 1        | SUBMIT DRAFT TO NAVY                    | 210    |        | 12JUL90     | 12JUL90      | 09APR91    | 09APR91     | 193         |
| 210009   | 24      | 24       | NAVY REVIEW DRAFT                       | 210    |        | 13JUL90     | 15AUG90      | 10APR91    | 13MAY91     | 193         |
| 210010   | 13      | 13       | WRT/RVW FINAL RI/FS                     | 210    |        | 16AUG90     | 03SEP90      | 14MAY91    | 30MAY91     | 193         |
| 210011   | 1       | 1        | FINAL TO NAVY                           | 210    |        | 04SEP90     | 04SEP90      | 31MAY91    | 31MAY91     | 193         |
| 220001   | 45      | 45       | RI/FS HEALTH & SAFETY PLAN              | 220    |        | 12MAR90     | 11MAY90      | 13MAR90    | 14MAY90     | 1           |
| 220002   | 13      | 13       | REVIEW/REWRITE HEALTH & SAFETY PLAN     | 220    |        | 14MAY90     | 30MAY90      | 15MAY90    | 31MAY90     | 1           |
| 221001   | 63      | 63       | DRAFT COMMUNITY RELATIONS PLAN          | 221    |        | 27APR90     | 24JUL90      | 27APR90    | 24JUL90     | 0           |
| 221002   | 19      | 19       | INTERN REVIEW/REWRITE CRP               | 221    |        | 25JUL90     | 20AUG90      | 25JUL90    | 20AUG90     | 0           |
| 221003   | 1       | 1        | ISSUE DRAFT CRP TO NAVY                 | 221    |        | 21AUG90     | 21AUG90      | 21AUG90    | 21AUG90     | 0           |
| 221004   | 9       | 9        | NAVY REVIEW/COMMENT DRAFT CRP           | 221    |        | 22AUG90     | 03SEP90      | 22AUG90    | 03SEP90     | 0           |
| 221005   | 9       | 9        | INC COMM/REWRITE FINAL CRP              | 221    |        | 04SEP90     | 14SEP90      | 04SEP90    | 14SEP90     | 0           |
| 221006   | 4       | 4        | INTERN REVIEW REVISE FINAL CRP          | 221    |        | 17SEP90     | 20SEP90      | 17SEP90    | 20SEP90     | 0           |
| 221007   | 1       | 1        | ISSUE NAVY FINAL CRP                    | 221    |        | 21SEP90     | 21SEP90      | 21SEP90    | 21SEP90     | 0           |
| 222001   | 40      | 40       | RI/FS SITE MANAGEMENT PLAN              | 222    |        | 26FEB90     | 20APR90      | 26FEB90    | 20APR90     | 0           |
| 222003   | 6       | 6        | REVIEW/REWRITE SITE MANAGEMENT PLAN     | 222    |        | 23APR90     | 30APR90      | 23APR90    | 30APR90     | 0           |
| 222004   | 1       | 1        | ISSUE NAVY P/DRAFT SITE MGMT PLAN       | 222    |        | 01MAY90     | 01MAY90      | 01MAY90    | 01MAY90     | 0           |
| 222005   | 21      | 21       | NAVY REVIEW AND COMMENT                 | 222    |        | 02MAY90     | 30MAY90      | 03MAY90    | 31MAY90     | 1           |
| 222006   | 14      | 14       | WRITE/REVIEW DRAFT SITE MGMT PLAN       | 222    |        | 31MAY90     | 19JUN90      | 01JUN90    | 20JUN90     | 1           |
| 222007   | 1       | 1        | ISSUE DRAFT SITE MGMT PLAN              | 222    |        | 20JUN90     | 20JUN90      | 21JUN90    | 21JUN90     | 1           |
| 222008   | 30      | 30       | NAVY REVIEW AND COMMENT                 | 222    |        | 21JUN90     | 01AUG90      | 22JUN90    | 02AUG90     | 1           |
| 222009   | 12      | 12       | WRITE/REVIEW FINAL SITE MGMT PLAN       | 222    |        | 03AUG90     | 20AUG90      | 03AUG90    | 20AUG90     | 0           |
| 222010   | 1       | 1        | ISSUE FINAL SMP TO NAVY                 | 222    |        | 21AUG90     | 21AUG90      | 31MAY91    | 31MAY91     | 203         |
| 230001   | 70      | 70       | ADMIN RECORD - COLLECT FROM AGENCIES    | 230    |        | 26FEB90     | 01JUN90      | 26FEB90    | 01JUN90     | 0           |
| 230002   | 65      | 65       | REVIEW, EDIT ADMINISTRATIVE RECORD      | 230    |        | 12MAR90     | 08JUN90      | 12MAR90    | 08JUN90     | 0           |
| 230003   | 9       | 9        | INTERN REVIEW/REWRITE A.R.              | 230    |        | 11JUN90     | 21JUN90      | 11JUN90    | 21JUN90     | 0           |
| 230004   | 1       | 1        | DRAFT ADMIN RECORD TO NAVY              | 230    |        | 22JUN90     | 22JUN90      | 22JUN90    | 22JUN90     | 0           |
| 230005   | 15      | 15       | NAVY REVIEW DRAFT ADMIN RECRD           | 230    |        | 25JUN90     | 13JUL90      | 25JUN90    | 13JUL90     | 0           |
| 230006   | 13      | 13       | INCORPORATE COMMENTS, ORGANIZE FINAL AR | 230    |        | 16JUL90     | 01AUG90      | 14MAY91    | 30MAY91     | 216         |
| 230007   | 1       | 1        | ISSUE FINAL ADMINISTRATIVE RECORD       | 230    |        | 02AUG90     | 02AUG90      | 31MAY91    | 31MAY91     | 216         |
| 250000   | 12      | 12       | P/T EXISTING DATA REVIEW                | 850    |        | 09APR90     | 24APR90      | 09APR90    | 24APR90     | 0           |

PORT: ACTES

ACTIVITY LISTING by ACTIVITY NUMBER

REPORT DATE: 3APR90

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RI/FS WORK PLAN - MCAS EL TORO , CA

TIME NOW:01NOV89

| ACTIVITY | REM DUR | ORIG DUR | DESCRIPTION               | CODE 1 | CODE 2 | EARLY START | EARLY FINISH | LATE START | LATE FINISH | TOTAL FLOAT |
|----------|---------|----------|---------------------------|--------|--------|-------------|--------------|------------|-------------|-------------|
| 850001   | 2       | 2        | P/T SITE VISIT WITH JMM   | 850    |        | 25APR90     | 26APR90      | 25APR90    | 26APR90     | 0           |
| 850002   | 15      | 15       | P/T ACCEPTANCE CRITERIA   | 850    |        | 16APR90     | 04MAY90      | 16APR90    | 04MAY90     | 0           |
| 850003   | 14      | 14       | P/T HEALTH & SAFETY PLAN  | 850    |        | 05APR90     | 24APR90      | 05APR90    | 24APR90     | 0           |
| 850004   | 260     | 260      | P/T MONTHLY REPORTING     | 850    |        | 04JUN90     | 31MAY91      | 04JUN90    | 31MAY91     | 0           |
| 850005   | 250     | 250      | P/T SYSTEM                | 850    |        | 14MAY90     | 26APR91      | 14MAY90    | 26APR91     | 0           |
|          |         |          | INSPECTIONS/SAMPLING      |        |        |             |              |            |             |             |
| 850006   | 250     | 250      | CARBON UNIT CHANGEOUT     | 850    |        | 14MAY90     | 26APR91      | 14MAY90    | 26APR91     | 0           |
| 850007   | 250     | 250      | SPENT CARBON BIN SHIPPING | 850    |        | 14MAY90     | 26APR91      | 14MAY90    | 26APR91     | 0           |
| 850008   | 250     | 250      | TANK DISPOSAL             | 850    |        | 14MAY90     | 26APR91      | 14MAY90    | 26APR91     | 0           |
| 990001   | 49      | 49       | CTO CLOSEOUT              | 990    |        | 03JUN91     | 08AUG91      | 03JUN91    | 08AUG91     | 0           |

REPORT: ACTRELS

PREDECESSOR and SUCCESSOR REPORT

REPORT DATE: 3APR90

PROJECT: CTO018

RI/FS WORK PLAN - MCAS EL TORO , CA

TIME NOW:01NOV89

| PRECEDING |      |     |                         | SUCCEEDING |                                |           |      |     |                           |
|-----------|------|-----|-------------------------|------------|--------------------------------|-----------|------|-----|---------------------------|
| ACTIVITY  | TYPE | LAG | DESCRIPTION             | ACTIVITY   | DESCRIPTION                    | ACTIVITY  | TYPE | LAG | DESCRIPTION               |
| *START*   |      |     |                         | => 010000  | CTO RECEIPT                    | => 010001 | FS   | 0   | PREPARE IMPLEMENTATION    |
|           |      |     |                         |            |                                | 015001    | SS   | 0   | MONTHLY REPORTING/MEETI   |
| 010000    | FS   | 0   | CTO RECEIPT             | => 010001  | PREPARE IMPLEMENTATION PLAN    | => 010002 | FS   | 0   | IP INTERNAL REVIEW & CO   |
| 010001    | FS   | 0   | PREPARE IMPLEMENTATION  | => 010002  | IP INTERNAL REVIEW & COMMENT   | => 010003 | FS   | 0   | ISSUE IMPLEMENTATION PL   |
| 010002    | FS   | 0   | IP INTERNAL REVIEW & CO | => 010003  | ISSUE IMPLEMENTATION PLAN TO N | => 010004 | FS   | 0   | NAVY REVIEW AND APPROVA   |
| 010003    | FS   | 0   | ISSUE IMPLEMENTATION PL | => 010004  | NAVY REVIEW AND APPROVAL OF IP | => 050001 | FS   | 0   | FIELD SAMPLING PLAN       |
|           |      |     |                         |            |                                | 050002    | FS   | 0   | QUALITY ASSURANCE PROJE   |
|           |      |     |                         |            |                                | 200001    | FS   | 0   | REVIEW DOCUMENTS @ IT &   |
|           |      |     |                         |            |                                | 210001    | FS   | 10  | DEFINE ARARS, INVENTORY   |
|           |      |     |                         |            |                                | 221001    | FS   | 44  | DRAFT COMMUNITY RELATIO   |
|           |      |     |                         |            |                                | 222001    | FS   | 0   | RI/FS SITE MANAGEMENT P   |
|           |      |     |                         |            |                                | 230001    | FS   | 0   | ADMIN RECORD - COLLECT    |
|           |      |     |                         |            |                                | 010005    | FS   | 0   | RECEIVE CTO MOD 02        |
| 010004    | FS   | 0   | NAVY REVIEW AND APPROVA | => 010005  | RECEIVE CTO MOD 02             | => 010006 | FS   | 0   | PREPARE MOD 02 I.P.       |
| 010005    | FS   | 0   | RECEIVE CTO MOD 02      | => 010006  | PREPARE MOD 02 I.P.            | => 010007 | FS   | 0   | ISSUE MOD 02 I.P. TO NA   |
| 010006    | FS   | 0   | PREPARE MOD 02 I.P.     | => 010007  | ISSUE MOD 02 I.P. TO NAVY      | => 010008 | FS   | 0   | NAVY APPROVE MOD 02 I.P   |
| 010007    | FS   | 0   | ISSUE MOD 02 I.P. TO NA | => 010008  | NAVY APPROVE MOD 02 I.P.       | => 050004 | FS   | 0   | ISSUE P/DRAFT FSP/QAPP    |
|           |      |     |                         |            |                                | 010009    | SS   | -3  | RECEIVE CTO MOD 03        |
| 010008    | SS   | -3  | NAVY APPROVE MOD 02 I.P | => 010009  | RECEIVE CTO MOD 03             | => 010010 | FS   | 0   | PREPARE MOD 03 I.P.       |
| 010009    | FS   | 0   | RECEIVE CTO MOD 03      | => 010010  | PREPARE MOD 03 I.P.            | => 010011 | FS   | 0   | REVISE/REWRITE MOD 3 I.   |
| 010010    | FS   | 0   | PREPARE MOD 03 I.P.     | => 010011  | REVISE/REWRITE MOD 3 I.P.      | => 010012 | FS   | 0   | ISSUE MOD 3 I.P.          |
| 010011    | FS   | 0   | REVISE/REWRITE MOD 3 I. | => 010012  | ISSUE MOD 3 I.P.               | => 010013 |      |     | 0 MOD 3 I.P. - NAVY REVIE |
|           |      |     |                         |            |                                | 850003    | FS   | 0   | P/T HEALTH & SAFETY PLA   |
|           |      |     |                         |            |                                | 850000    | FS   | 2   | P/T EXISTING DATA REVIE   |
| 010012    |      | 0   | ISSUE MOD 3 I.P.        | => 010013  | MOD 3 I.P. - NAVY REVIEW/APPRO | => 850001 | FS   | 4   | P/T SITE VISIT WITH JMM   |
| 010000    | SS   | 0   | CTO RECEIPT             | => 015001  | MONTHLY REPORTING/MEETINGS     | => 990001 | FF   | 0   | CTO CLOSEOUT              |
| 010004    | FS   | 0   | NAVY REVIEW AND APPROVA | => 050001  | FIELD SAMPLING PLAN            | => 050003 | FS   | 0   | INTERNAL REVIEW/REWRITE   |
| 010004    | FS   | 0   | NAVY REVIEW AND APPROVA | => 050002  | QUALITY ASSURANCE PROJECT PLAN | => 050003 | FS   | 0   | INTERNAL REVIEW/REWRITE   |
| 050001    | FS   | 0   | FIELD SAMPLING PLAN     | => 050003  | INTERNAL REVIEW/REWRITE FSP/QA | => 050004 | FS   | 0   | ISSUE P/DRAFT FSP/QAPP    |

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PREDECESSOR and SUCCESSOR REPORT

REPORT DATE: 3APR90

PROJECT: CTO018

RI/FS WORK PLAN - MCAS EL TORO , CA

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| . RECEEDING |      |     |                            | SUCCEEDING |                                   |          |      |     |                         |
|-------------|------|-----|----------------------------|------------|-----------------------------------|----------|------|-----|-------------------------|
| ACTIVITY    | TYPE | LAG | DESCRIPTION                | ACTIVITY   | DESCRIPTION                       | ACTIVITY | TYPE | LAG | DESCRIPTION             |
| 050002      | FS   | 0   | QUALITY ASSURANCE PROJE    |            |                                   |          |      |     |                         |
| 050003      | FS   | 0   | INTERNAL REVIEW/REWRITE -> | 050004     | ISSUE P/DRAFT FSP/QAPP TO NAVY -> | 050005   | FS   | 0   | NAVY REVIEW/COMMENT P/D |
| 010008      | FS   | 0   | NAVY APPROVE MOD 02 I.P    |            |                                   | 850004   | SS   | -3  | P/T MONTHLY REPORTING   |
| 050004      | FS   | 0   | ISSUE P/DRAFT FSP/QAPP ->  | 050005     | NAVY REVIEW/COMMENT P/DRAFT FS -> | 050006   | FS   | 0   | INC NAVY COMM-DRAFT FSP |
| 050005      | FS   | 0   | NAVY REVIEW/COMMENT P/D -> | 050006     | INC NAVY COMM-DRAFT FSP/QAPP ->   | 050007   | FS   | 0   | INT REVIEW/REWRITE DRAT |
| 050006      | FS   | 0   | INC NAVY COMM-DRAFT FSP -> | 050007     | INT REVIEW/REWRITE DRATF FSP/Q -> | 050008   | FS   | 0   | ISSUE NAVY DRAFT FSP/QA |
| 050007      | FS   | 0   | INT REVIEW/REWRITE DRAT -> | 050008     | ISSUE NAVY DRAFT FSP/QAPP ->      | 050009   | FS   | 0   | NAVY REVIEW/COMMENT DRA |
| 050008      | FS   | 0   | ISSUE NAVY DRAFT FSP/QA -> | 050009     | NAVY REVIEW/COMMENT DRAFT FSP/ -> | 050010   | FS   | 0   | INC NAVY COMM FINAL FSP |
| 050009      | FS   | 0   | NAVY REVIEW/COMMENT DRA -> | 050010     | INC NAVY COMM FINAL FSP/QAPP ->   | 050011   | FS   | 0   | INTERN REVIEW/REWITE FI |
| 050010      | FS   | 0   | INC NAVY COMM FINAL FSP -> | 050011     | INTERN REVIEW/REWITE FINAL FSP -> | 050012   | FS   | 0   | ISSUE NAVY FINAL FSP/QA |
| 050011      | FS   | 0   | INTERN REVIEW/REWITE FI -> | 050012     | ISSUE NAVY FINAL FSP/QAPP ->      | 990001   | FS   | 0   | CTO CLOSEOUT            |
| 010004      | FS   | 0   | NAVY REVIEW AND APPROVA -> | 200001     | REVIEW DOCUMENTS @ IT & NON-NA -> | 200002   | SS   | 2   | SITE VISIT,DATA COLLECT |
|             |      |     |                            |            |                                   | 200003   | FS   | 0   | WRITE SUMMARY REPORT IN |
| 200001      | SS   | 2   | REVIEW DOCUMENTS @ IT & -> | 200002     | SITE VISIT,DATA COLLECT,INTERV -> | 200003   | FS   | 0   | WRITE SUMMARY REPORT IN |
| 200001      | FS   | 0   | REVIEW DOCUMENTS @ IT & -> | 200003     | WRITE SUMMARY REPORT INCL IR J -> | 200004   | FS   | 0   | INTERNAL REVIEW/EDIT OF |
| 200002      | FS   | 0   | SITE VISIT,DATA COLLECT    |            |                                   |          |      |     |                         |
| 200003      | FS   | 0   | WRITE SUMMARY REPORT IN -> | 200004     | INTERNAL REVIEW/EDIT OF DRAFT ->  | 200005   | FS   | 0   | SUBMIT DRAFT SUMMARY TO |
| 200004      | FS   | 0   | INTERNAL REVIEW/EDIT OF -> | 200005     | SUBMIT DRAFT SUMMARY TO NAVY ->   | 200006   | FS   | 0   | NAVY COMMENTS           |
| 200005      | FS   | 0   | SUBMIT DRAFT SUMMARY TO -> | 200006     | NAVY COMMENTS ->                  | 200007   | FS   | 0   | REVISE DRAFT & PERFORM  |
| 200006      | FS   | 0   | NAVY COMMENTS ->           | 200007     | REVISE DRAFT & PERFORM INTERNA -> | 200008   | FS   | 0   | SUBMIT FINAL SUMMARY TO |
| 200007      | FS   | 0   | REVISE DRAFT & PERFORM ->  | 200008     | SUBMIT FINAL SUMMARY TO NAVY ->   | 990001   | FS   | 0   | CTO CLOSEOUT            |
| 010004      | FS   | 10  | NAVY REVIEW AND APPROVA -> | 210001     | DEFINE ARARS,INVENTORY MW'S ->    | 220001   | SS   | 0   | RI/FS HEALTH & SAFETY P |
|             |      |     |                            |            |                                   | 210003   | SS   | 0   | PRELIMINARY DRAFT OF RI |
| 210001      | SS   | 0   | DEFINE ARARS,INVENTORY ->  | 210003     | PRELIMINARY DRAFT OF RI/FS ->     | 210004   | FS   | 0   | INTERNAL REVIEW/REWRITE |
| 210003      | FS   | 0   | PRELIMINARY DRAFT OF RI -> | 210004     | INTERNAL REVIEW/REWRITE PRELIM -> | 210005   | FS   | 0   | SUBMIT PRELIMINARY DRAF |
| 210004      | FS   | 0   | INTERNAL REVIEW/REWRITE -> | 210005     | SUBMIT PRELIMINARY DRAFT TO NA -> | 210006   | FS   | 0   | NAVY REVIEW OF PRELIMIN |

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## . RECEEDING

## SUCCEEDING

| ACTIVITY | TYPE | LAG | DESCRIPTION                | ACTIVITY | DESCRIPTION                       | ACTIVITY | TYPE | LAG | DESCRIPTION             |
|----------|------|-----|----------------------------|----------|-----------------------------------|----------|------|-----|-------------------------|
| 220002   | FS   | 0   | REVIEW/REWRITE HEALTH &    |          |                                   |          |      |     |                         |
| 210005   | FS   | 0   | SUBMIT PRELIMINARY DRAF -> | 210006   | NAVY REVIEW OF PRELIMINARY DRA -> | 210007   | FS   | 0   | WRITE/REVIEW DRAFT RI/F |
| 210006   | FS   | 0   | NAVY REVIEW OF PRELIMIN -> | 210007   | WRITE/REVIEW DRAFT RI/FS ->       | 210008   | FS   | 0   | SUBMIT DRAFT TO NAVY    |
| 210007   | FS   | 0   | WRITE/REVIEW DRAFT RI/F -> | 210008   | SUBMIT DRAFT TO NAVY ->           | 210009   | FS   | 0   | NAVY REVIEW DRAFT       |
| 210008   | FS   | 0   | SUBMIT DRAFT TO NAVY ->    | 210009   | NAVY REVIEW DRAFT ->              | 210010   | FS   | 0   | WRT/RVW FINAL RI/FS     |
| 210009   | FS   | 0   | NAVY REVIEW DRAFT ->       | 210010   | WRT/RVW FINAL RI/FS ->            | 210011   | FS   | 0   | FINAL TO NAVY           |
| 210010   | FS   | 0   | WRT/RVW FINAL RI/FS ->     | 210011   | FINAL TO NAVY ->                  | 990001   | FS   | 0   | CTO CLOSEOUT            |
| 210001   | SS   | 0   | DEFINE ARARS, INVENTORY -> | 220001   | RI/FS HEALTH & SAFETY PLAN ->     | 220002   | FS   | 0   | REVIEW/REWRITE HEALTH & |
| 220001   | FS   | 0   | RI/FS HEALTH & SAFETY P -> | 220002   | REVIEW/REWRITE HEALTH & SAFETY -> | 210005   | FS   | 0   | SUBMIT PRELIMINARY DRAF |
| 010004   | FS   | 44  | NAVY REVIEW AND APPROVA -> | 221001   | DRAFT COMMUNITY RELATIONS PLAN -> | 221002   | FS   | 0   | INTERN REVIEW/REWRITE C |
| 221001   | FS   | 0   | DRAFT COMMUNITY RELATIO -> | 221002   | INTERN REVIEW/REWRITE CRP ->      | 221003   | FS   | 0   | ISSUE DRAFT CRP TO NAVY |
| 1002     | FS   | 0   | INTERN REVIEW/REWRITE C -> | 221003   | ISSUE DRAFT CRP TO NAVY ->        | 221004   | FS   | 0   | NAVY REVIEW/COMMENT DRA |
| 221003   | FS   | 0   | ISSUE DRAFT CRP TO NAVY -> | 221004   | NAVY REVIEW/COMMENT DRAFT CRP ->  | 221005   | FS   | 0   | INC COMM/REWRITE FINAL  |
| 221004   | FS   | 0   | NAVY REVIEW/COMMENT DRA -> | 221005   | INC COMM/REWRITE FINAL CRP ->     | 221006   | FS   | 0   | INTERN REVIEW REVISE FI |
| 221005   | FS   | 0   | INC COMM/REWRITE FINAL ->  | 221006   | INTERN REVIEW REVISE FINAL CRP -> | 221007   | FS   | 0   | ISSUE NAVY FINAL CRP    |
| 221006   | FS   | 0   | INTERN REVIEW REVISE FI -> | 221007   | ISSUE NAVY FINAL CRP ->           | 990001   | FS   | 0   | CTO CLOSEOUT            |
| 010004   | FS   | 0   | NAVY REVIEW AND APPROVA -> | 222001   | RI/FS SITE MANAGEMENT PLAN ->     | 222003   | FS   | 0   | REVIEW/REWRITE SITE MAN |
| 222001   | FS   | 0   | RI/FS SITE MANAGEMENT P -> | 222003   | REVIEW/REWRITE SITE MANAGEMENT -> | 222004   | FS   | 0   | ISSUE NAVY P/DRAFT SITE |
| 222003   | FS   | 0   | REVIEW/REWRITE SITE MAN -> | 222004   | ISSUE NAVY P/DRAFT SITE MGMT P -> | 222005   | FS   | 0   | NAVY REVIEW AND COMMENT |
| 222004   | FS   | 0   | ISSUE NAVY P/DRAFT SITE -> | 222005   | NAVY REVIEW AND COMMENT ->        | 222006   | FS   | 0   | WRITE/REVIEW DRAFT SITE |
| 222005   | FS   | 0   | NAVY REVIEW AND COMMENT -> | 222006   | WRITE/REVIEW DRAFT SITE MGMT P -> | 222007   | FS   | 0   | ISSUE DRAFT SITE MGMT P |
| 222006   | FS   | 0   | WRITE/REVIEW DRAFT SITE -> | 222007   | ISSUE DRAFT SITE MGMT PLAN ->     | 222008   | FS   | 0   | NAVY REVIEW AND COMMENT |
| 222007   | FS   | 0   | ISSUE DRAFT SITE MGMT P -> | 222008   | NAVY REVIEW AND COMMENT ->        | 222009   | FS   | 0   | WRITE/REVIEW FINAL SITE |
| 222008   | FS   | 0   | NAVY REVIEW AND COMMENT -> | 222009   | WRITE/REVIEW FINAL SITE MGMT P -> | 222010   | FS   | 0   | ISSUE FINAL SMP TO NAVY |

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| PRECEDEING |      |     |                         | SUCCEEDING |                                |             |      |     |                         |
|------------|------|-----|-------------------------|------------|--------------------------------|-------------|------|-----|-------------------------|
| ACTIVITY   | TYPE | LAG | DESCRIPTION             | ACTIVITY   | DESCRIPTION                    | ACTIVITY    | TYPE | LAG | DESCRIPTION             |
| 222009     | FS   | 0   | WRITE/REVIEW FINAL SITE | -> 222010  | ISSUE FINAL SMP TO NAVY        | -> 990001   | FS   | 0   | CTO CLOSEOUT            |
| 010004     | FS   | 0   | NAVY REVIEW AND APPROVA | -> 230001  | ADMIN RECORD - COLLECT FROM AG | -> 230002   | SS   | 10  | REVIEW,EDIT ADMINISTRAT |
| 230001     | SS   | 10  | ADMIN RECORD - COLLECT  | -> 230002  | REVIEW,EDIT ADMINISTRATIVE REC | -> 230003   | FS   | 0   | INTERN REVIEW/REWRITE A |
| 230002     | FS   | 0   | REVIEW,EDIT ADMINISTRAT | -> 230003  | INTERN REVIEW/REWRITE A.R.     | -> 230004   | FS   | 0   | DRAFT ADMIN RECORD TO N |
| 230003     | FS   | 0   | INTERN REVIEW/REWRITE A | -> 230004  | DRAFT ADMIN RECORD TO NAVY     | -> 230005   | FS   | 0   | NAVY REVIEW DRAFT ADMIN |
| 230004     | FS   | 0   | DRAFT ADMIN RECORD TO N | -> 230005  | NAVY REVIEW DRAFT ADMIN RECRD  | -> 230006   | FS   | 0   | INCORPORATE COMMENTS,OR |
| 230005     | FS   | 0   | NAVY REVIEW DRAFT ADMIN | -> 230006  | INCORPORATE COMMENTS,ORGANIZE  | -> 230007   | FS   | 0   | ISSUE FINAL ADMINISTRAT |
| 230006     | FS   | 0   | INCORPORATE COMMENTS,OR | -> 230007  | ISSUE FINAL ADMINISTRATIVE REC | -> 990001   | FS   | 0   | CTO CLOSEOUT            |
| 010012     | FS   | 2   | ISSUE MOD 3 I.P.        | -> 850000  | P/T EXISTING DATA REVIEW       | -> 850001   | FS   | 0   | P/T SITE VISIT WITH JMM |
| 850003     | FF   | 0   | P/T HEALTH & SAFETY PLA |            |                                | 850002      | SS   | 5   | P/T ACCEPTANCE CRITERIA |
| 850000     | FS   | 0   | P/T EXISTING DATA REVIE | -> 850001  | P/T SITE VISIT WITH JMM        | -> 850005   | FS   | 11  | P/T SYSTEM INSPECTIONS/ |
| 010013     | FS   | 4   | MOD 3 I.P. - NAVY REVIE |            |                                |             |      |     |                         |
| 00000      | SS   | 5   | P/T EXISTING DATA REVIE | -> 850002  | P/T ACCEPTANCE CRITERIA        | -> 850005   | FS   | 5   | P/T SYSTEM INSPECTIONS/ |
| 010012     | FS   | 0   | ISSUE MOD 3 I.P.        | -> 850003  | P/T HEALTH & SAFETY PLAN       | -> 850000   | FF   | 0   | P/T EXISTING DATA REVIE |
| 050004     | SS   | -3  | ISSUE P/DRAFT FSP/QAPP  | -> 850004  | P/T MONTHLY REPORTING          | -> 990001   | FS   | 0   | CTO CLOSEOUT            |
| 850002     | FS   | 5   | P/T ACCEPTANCE CRITERIA | -> 850005  | P/T SYSTEM INSPECTIONS/SAMPLIN | -> 850006   | SS   | 0   | CARBON UNIT CHANGEOUT   |
| 850001     | FS   | 11  | P/T SITE VISIT WITH JMM |            |                                | 850007      | SS   | 0   | SPENT CARBON BIN SHIPPI |
|            |      |     |                         |            |                                | 850008      | SS   | 0   | TANK DISPOSAL           |
|            |      |     |                         |            |                                | 990001      | FS   | 25  | CTO CLOSEOUT            |
| 850005     | SS   | 0   | P/T SYSTEM INSPECTIONS/ | -> 850006  | CARBON UNIT CHANGEOUT          | -> 990001   | FS   | 25  | CTO CLOSEOUT            |
| 850005     | SS   | 0   | P/T SYSTEM INSPECTIONS/ | -> 850007  | SPENT CARBON BIN SHIPPING      | -> 990001   | FS   | 25  | CTO CLOSEOUT            |
| 850005     | SS   | 0   | P/T SYSTEM INSPECTIONS/ | -> 850008  | TANK DISPOSAL                  | -> 990001   | FS   | 25  | CTO CLOSEOUT            |
| 200008     | FS   | 0   | SUBMIT FINAL SUMMARY TO | -> 990001  | CTO CLOSEOUT                   | -> *FINISH* |      |     |                         |
| 015001     | FF   | 0   | MONTHLY REPORTING/MEETI |            |                                |             |      |     |                         |
| 210011     | FS   | 0   | FINAL TO NAVY           |            |                                |             |      |     |                         |
| 222010     | FS   | 0   | ISSUE FINAL SMP TO NAVY |            |                                |             |      |     |                         |
| 230007     | FS   | 0   | ISSUE FINAL ADMINISTRAT |            |                                |             |      |     |                         |
| 050012     | FS   | 0   | ISSUE NAVY FINAL FSP/QA |            |                                |             |      |     |                         |
| 221007     | FS   | 0   | ISSUE NAVY FINAL CRP    |            |                                |             |      |     |                         |

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PROJECT: CT0018

RI/FS WORK PLAN - MCAS EL TORO , CA

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PRECEEDING

SUCCEEDING

ACTIVITY TYPE LAG DESCRIPTION

ACTIVITY DESCRIPTION

ACTIVITY TYPE LAG DESCRIPTION

850004 FS 0 P/T MONTHLY REPORTING

850005 FS 25 P/T SYSTEM INSPECTIONS/

850006 FS 25 CARBON UNIT CHANGEOUT

850007 FS 25 SPENT CARBON BIN SHIPPI

850008 FS 25 TANK DISPOSAL

OPEN-PLAN  
TASK: CTO018

PROJECT MILESTONE TARGET REPORT WORKPACKAGE SCHEDULE  
RI/FS WORK PLAN - MCAS EL TORO , CA

PAGE: 1  
RUN DATE: 03APR90  
DATA DATE: 01NOV89

| ACTIVITY IDENTIFIER | ACTIVITY DESCRIPTION              | ORIG DUR | - - WORKING - - START | FINISH  | IMPOSED DATE | RESOURCE TYPE        | MH  | \$    |
|---------------------|-----------------------------------|----------|-----------------------|---------|--------------|----------------------|-----|-------|
| M 010-000           | CTO RECEIPT                       | 1        | 29NOV89               | 29NOV89 | 29NOV89      |                      |     |       |
| 010-001             | PREPARE IMPLEMENTATION PLAN       | 26       | 30NOV89               | 04JAN90 |              | IT - GEOLOGIST       | 60  | 3136  |
|                     |                                   |          |                       |         |              | IT - PROJ MANAGER    | 40  | 2980  |
|                     |                                   |          |                       |         |              | IT - WORD PROC       | 5   | 137   |
|                     |                                   |          |                       |         |              | PROFESSIONAL LEVEL 4 | 30  | 2498  |
|                     |                                   |          |                       |         |              | SCHEDULE/PLANNING    | 16  | 732   |
|                     |                                   |          |                       |         |              | PROFESSIONAL LEVEL 3 | 12  | 706   |
|                     |                                   |          |                       |         |              | ENVIRON ENGINEER     | 12  | 463   |
| 010-002             | IP INTERNAL REVIEW & COMMENT      | 3        | 05JAN90               | 09JAN90 |              | PROFESSIONAL LEVEL 4 | 8   | 666   |
| M,D 010-003         | ISSUE IMPLEMENTATION PLAN TO NAVY | 1        | 10JAN90               | 10JAN90 |              |                      |     |       |
| A 010-004           | NAVY REVIEW AND APPROVAL OF IP    | 32       | 11JAN90               | 23FEB90 |              |                      |     |       |
| 010-005             | RECEIVE CTO MOD 02                | 1        | 27FEB90               | 27FEB90 | 27FEB90      |                      |     |       |
| 010-006             | PREPARE MOD 02 I.P.               | 14       | 28FEB90               | 19MAR90 |              | PROFESSIONAL LEVEL 4 | 18  | 1499  |
|                     |                                   |          |                       |         |              | SCHEDULE/PLANNING    | 12  | 549   |
| 010-007             | ISSUE MOD 02 I.P. TO NAVY         | 1        | 20MAR90               | 20MAR90 |              |                      |     |       |
| 010-008             | NAVY APPROVE MOD 02 I.P.          | 13       | 21MAR90               | 06APR90 |              |                      |     |       |
| 010-009             | RECEIVE CTO MOD 03                | 1        | 16MAR90               | 16MAR90 | 16MAR90      |                      |     |       |
| 010-010             | PREPARE MOD 03 I.P.               | 10       | 19MAR90               | 30MAR90 |              | PROFESSIONAL LEVEL 4 | 20  | 1666  |
|                     |                                   |          |                       |         |              | SCHEDULE/PLANNING    | 8   | 366   |
|                     |                                   |          |                       |         |              | PROFESSIONAL LEVEL 3 | 8   | 471   |
|                     |                                   |          |                       |         |              | CH SECTY/CLERICAL    | 8   | 224   |
| 010-011             | REVISE/REWRITE MOD 3 I.P.         | 2        | 02APR90               | 03APR90 |              | PROFESSIONAL LEVEL 4 | 8   | 666   |
|                     |                                   |          |                       |         |              | SCHEDULE/PLANNING    | 8   | 366   |
|                     |                                   |          |                       |         |              | CH SECTY/CLERICAL    | 4   | 112   |
| 010-012             | ISSUE MOD 3 I.P.                  | 1        | 04APR90               | 04APR90 |              |                      |     |       |
| 010-013             | MOD 3 I.P. - NAVY REVIEW/APPROVAL | 10       | 05APR90               | 18APR90 |              |                      |     |       |
| D 015-001           | MONTHLY REPORTING/MEETINGS        | 242      | 29NOV89               | 01NOV90 |              | PROFESSIONAL LEVEL 4 | 69  | 5746  |
|                     |                                   |          |                       |         |              | PROFESSIONAL LEVEL 3 | 30  | 1766  |
|                     |                                   |          |                       |         |              | CH SECTY/CLERICAL    | 54  | 1511  |
|                     |                                   |          |                       |         |              | IT - GEOLOGIST       | 30  | 1568  |
|                     |                                   |          |                       |         |              | SCHEDULE/PLANNING    | 30  | 1373  |
|                     |                                   |          |                       |         |              | ACCOUNTING           | 12  | 368   |
|                     |                                   |          |                       |         |              | CH TRAVEL            |     | 270   |
|                     |                                   |          |                       |         |              | IT - TRAVEL          |     | 46    |
|                     |                                   |          |                       |         |              | IT - ODC'S           |     | 4087  |
|                     |                                   |          |                       |         |              | CH2MHILL - ODC'S     |     | 16226 |
|                     |                                   |          |                       |         |              | OTHER DIRECT COSTS   |     | 1064  |
| D 050-001           | FIELD SAMPLING PLAN               | 43       | 26FEB90               | 25APR90 |              | PROFESSIONAL LEVEL 3 | 170 | 10008 |
|                     |                                   |          |                       |         |              | PROFESSIONAL LEVEL 2 | 17  | 837   |
|                     |                                   |          |                       |         |              | CH SECTY/CLERICAL    | 15  | 420   |
|                     |                                   |          |                       |         |              | TECHNICAL LEVEL 1    | 24  | 433   |
|                     |                                   |          |                       |         |              | CH TRAVEL            |     | 2375  |
| D 050-002           | QUALITY ASSURANCE PROJECT PLAN    | 62       | 26FEB90               | 22MAY90 |              | PROFESSIONAL LEVEL 3 | 170 | 10008 |
|                     |                                   |          |                       |         |              | PROFESSIONAL LEVEL 2 | 16  | 788   |
|                     |                                   |          |                       |         |              | TECHNICAL LEVEL 1    | 23  | 415   |
|                     |                                   |          |                       |         |              | CH SECTY/CLERICAL    | 15  | 420   |

M Denotes Milestone

D Denotes Deliverables

A Denotes Navy/Agency Action Required

| ACTIVITY IDENTIFIER | ACTIVITY DESCRIPTION                   | ORIG DUR | -- WORKING -- |         | IMPOSED DATE | RESOURCE TYPE        | MH | \$   |
|---------------------|----------------------------------------|----------|---------------|---------|--------------|----------------------|----|------|
|                     |                                        |          | START         | FINISH  |              |                      |    |      |
| 050-003             | INTERNAL REVIEW/REWRITE FSP/QAPP       | 11       | 23MAY90       | 06JUN90 |              | PROFESSIONAL LEVEL 3 | 83 | 4886 |
|                     |                                        |          |               |         |              | CH SECTY/CLERICAL    | 15 | 420  |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 4 | 25 | 2082 |
|                     |                                        |          |               |         |              | QUALITY ASSURANCE    | 10 | 597  |
| M,D 050-004         | ISSUE P/DRAFT FSP/QAPP TO NAVY         | 1        | 07JUN90       | 07JUN90 |              |                      |    |      |
| A 050-005           | NAVY REVIEW/COMMENT P/DRAFT FSP/QAPP   | 10       | 08JUN90       | 21JUN90 |              |                      |    |      |
| 050-006             | INC NAVY COMM-DRAFT FSP/QAPP           | 6        | 22JUN90       | 29JUN90 |              | PROFESSIONAL LEVEL 4 | 2  | 167  |
|                     |                                        |          |               |         |              | QUALITY ASSURANCE    | 1  | 60   |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 3 | 36 | 2119 |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 2 | 3  | 148  |
|                     |                                        |          |               |         |              | TECHNICAL LEVEL 1    | 4  | 72   |
|                     |                                        |          |               |         |              | CH SECTY/CLERICAL    | 4  | 112  |
| 050-007             | INT REVIEW/REWRITE DRAFT FSP/QAPP      | 9        | 02JUL90       | 12JUL90 |              | PROFESSIONAL LEVEL 4 | 2  | 167  |
|                     |                                        |          |               |         |              | QUALITY ASSURANCE    | 1  | 60   |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 3 | 36 | 2119 |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 2 | 3  | 148  |
|                     |                                        |          |               |         |              | TECHNICAL LEVEL 1    | 4  | 72   |
|                     |                                        |          |               |         |              | CH SECTY/CLERICAL    | 4  | 112  |
| M,D 050-008         | ISSUE NAVY DRAFT FSP/QAPP              | 1        | 13JUL90       | 13JUL90 |              |                      |    |      |
| A 050-009           | NAVY REVIEW/COMMENT DRAFT FSP/QAPP     | 32       | 16JUL90       | 28AUG90 |              |                      |    |      |
| 050-010             | INC NAVY COMM FINAL FSP/QAPP           | 6        | 29AUG90       | 05SEP90 |              | PROFESSIONAL LEVEL 4 | 2  | 167  |
|                     |                                        |          |               |         |              | QUALITY ASSURANCE    | 2  | 119  |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 3 | 36 | 2119 |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 2 | 3  | 148  |
|                     |                                        |          |               |         |              | TECHNICAL LEVEL 1    | 4  | 72   |
|                     |                                        |          |               |         |              | CH SECTY/CLERICAL    | 5  | 140  |
| 050-011             | INTERN REVIEW/REWRITE FINAL FSP/QAPP   | 11       | 06SEP90       | 20SEP90 |              | PROFESSIONAL LEVEL 4 | 2  | 167  |
|                     |                                        |          |               |         |              | QUALITY ASSURANCE    | 2  | 119  |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 3 | 36 | 2119 |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 2 | 3  | 148  |
|                     |                                        |          |               |         |              | TECHNICAL LEVEL 1    | 4  | 72   |
|                     |                                        |          |               |         |              | CH SECTY/CLERICAL    | 5  | 140  |
| M,D 050-012         | ISSUE NAVY FINAL FSP/QAPP              | 1        | 21SEP90       | 21SEP90 |              |                      |    |      |
| 200-001             | REVIEW DOCUMENTS @ IT & NON-NAVY       | 15       | 26FEB90       | 16MAR90 |              | PROFESSIONAL LEVEL 3 | 60 | 3532 |
|                     |                                        |          |               |         |              | IT - GEOLOGIST       | 18 | 941  |
|                     |                                        |          |               |         |              | CH TRAVEL            |    | 4730 |
|                     |                                        |          |               |         |              | IT - TRAVEL          |    | 74   |
| 200-002             | SITE VISIT, DATA COLLECT, INTERVIEW    | 13       | 28FEB90       | 16MAR90 |              | IT - GEOLOGIST       | 18 | 941  |
|                     |                                        |          |               |         |              | PROFESSIONAL LEVEL 3 | 60 | 3532 |
| 200-003             | WRITE SUMMARY REPORT INCL IR JOB TABLE | 9        | 19MAR90       | 29MAR90 |              | PROFESSIONAL LEVEL 3 | 60 | 3532 |
|                     |                                        |          |               |         |              | IT - GEOLOGIST       | 18 | 941  |
|                     |                                        |          |               |         |              | IT - WORD PROC       | 2  | 55   |
|                     |                                        |          |               |         |              | CH SECTY/CLERICAL    | 6  | 168  |

M Denotes Milestone

D Denotes Deliverables

A Denotes Navy/Agency Action Required

OPEN-PLAN  
TASK: CTO018

PROJECT MILESTONE TARGET REPORT WORKPACKAGE SCHEDULE  
RI/FS WORK PLAN - MCAS EL TORO , CA

PAGE: 3  
RUN DATE: 03APR90  
DATA DATE: 01NOV89

| ACTIVITY IDENTIFIER | ACTIVITY DESCRIPTION                   | ORIG DUR | - - WORKING - - START | FINISH  | IMPOSED DATE | - - - - RESOURCE - - - - TYPE | MH | \$   |
|---------------------|----------------------------------------|----------|-----------------------|---------|--------------|-------------------------------|----|------|
| 200-004             | INTERNAL REVIEW/EDIT OF DRAFT          | 6        | 30MAR90               | 06APR90 |              | PROFESSIONAL LEVEL 3          | 13 | 765  |
|                     |                                        |          |                       |         |              | IT - GEOLOGIST                | 5  | 261  |
|                     |                                        |          |                       |         |              | IT - WORD PROC                | 2  | 55   |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 4          | 6  | 500  |
|                     |                                        |          |                       |         |              | CH SECTY/CLERICAL             | 7  | 196  |
| M,D 200-005         | SUBMIT DRAFT SUMMARY TO NAVY           | 1        | 09APR90               | 09APR90 |              |                               |    |      |
| A 200-006           | NAVY COMMENTS                          | 23       | 10APR90               | 10MAY90 |              |                               |    |      |
| 200-007             | REVISE DRAFT & PERFORM INTERNAL REVIEW | 13       | 11MAY90               | 29MAY90 |              | PROFESSIONAL LEVEL 3          | 34 | 2002 |
|                     |                                        |          |                       |         |              | IT - GEOLOGIST                | 11 | 575  |
|                     |                                        |          |                       |         |              | IT - WORD PROC                | 1  | 27   |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 4          | 2  | 167  |
|                     |                                        |          |                       |         |              | CH SECTY/CLERICAL             | 3  | 84   |
| M,D 200-008         | SUBMIT FINAL SUMMARY TO NAVY           | 1        | 30MAY90               | 30MAY90 |              |                               |    |      |
| 210-001             | DEFINE ARARS, INVENTORY MW'S           | 10       | 12MAR90               | 23MAR90 | 12MAR90      | PROFESSIONAL LEVEL 2          | 20 | 985  |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 4          | 19 | 1582 |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 3          | 6  | 353  |
|                     |                                        |          |                       |         |              | IT - GEOLOGIST                | 33 | 1725 |
|                     |                                        |          |                       |         |              | CH TRAVEL                     |    | 374  |
|                     |                                        |          |                       |         |              | IT - TRAVEL                   |    | 92   |
| 210-003             | PRELIMINARY DRAFT OF RI/FS             | 45       | 12MAR90               | 11MAY90 |              | PROFESSIONAL LEVEL 4          | 20 | 1666 |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 3          | 7  | 412  |
|                     |                                        |          |                       |         |              | TECHNICAL LEVEL 1             | 20 | 361  |
|                     |                                        |          |                       |         |              | IT - PROJECT DRAFT            | 40 | 1165 |
|                     |                                        |          |                       |         |              | IT - WORD PROC                | 26 | 713  |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 2          | 20 | 985  |
|                     |                                        |          |                       |         |              | IT - GEOLOGIST                | 33 | 1725 |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 1          | 34 | 1592 |
| 210-004             | INTERNAL REVIEW/REWRITE PRELIM DRAFT   | 14       | 14MAY90               | 31MAY90 |              | PROFESSIONAL LEVEL 3          | 14 | 824  |
|                     |                                        |          |                       |         |              | TECHNICAL LEVEL 1             | 20 | 361  |
|                     |                                        |          |                       |         |              | IT - GEOLOGIST                | 33 | 1725 |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 4          | 20 | 1666 |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 2          | 15 | 738  |
|                     |                                        |          |                       |         |              | CH SECTY/CLERICAL             | 92 | 2574 |
| M,D 210-005         | SUBMIT PRELIMINARY DRAFT TO NAVY       | 1        | 01JUN90               | 01JUN90 | 01JUN90      |                               |    |      |
| A 210-006           | NAVY REVIEW OF PRELIMINARY DRAFT       | 15       | 04JUN90               | 22JUN90 |              |                               |    |      |
| 210-007             | WRITE/REVIEW DRAFT RI/FS               | 13       | 25JUN90               | 11JUL90 |              | PROFESSIONAL LEVEL 3          | 4  | 235  |
|                     |                                        |          |                       |         |              | TECHNICAL LEVEL 1             | 5  | 90   |
|                     |                                        |          |                       |         |              | IT - PROJECT DRAFT            | 5  | 146  |
|                     |                                        |          |                       |         |              | IT - WORD PROC                | 4  | 110  |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 1          | 3  | 140  |
|                     |                                        |          |                       |         |              | IT - GEOLOGIST                | 33 | 1725 |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 4          | 13 | 1083 |
|                     |                                        |          |                       |         |              | PROFESSIONAL LEVEL 2          | 13 | 640  |

M Denotes Milestone

D Denotes Deliverables

A Denotes Navy/Agency Action Required

| ACTIVITY IDENTIFIER | ACTIVITY DESCRIPTION                | ORIG DUR | -- WORKING -- |         | IMPOSED DATE | -- -- -- -- RESOURCE -- -- -- -- |    |      |
|---------------------|-------------------------------------|----------|---------------|---------|--------------|----------------------------------|----|------|
|                     |                                     |          | START         | FINISH  |              | TYPE                             | MH | \$   |
| M,D 210-008         | SUBMIT DRAFT TO NAVY                | 1        | 12JUL90       | 12JUL90 |              |                                  |    |      |
| A 210-009           | NAVY REVIEW DRAFT                   | 24       | 13JUL90       | 15AUG90 |              |                                  |    |      |
| 210-010             | WRT/RVM FINAL RI/FS                 | 13       | 16AUG90       | 03SEP90 |              | PROFESSIONAL LEVEL 3             | 5  | 294  |
|                     |                                     |          |               |         |              | IT - PROJECT DRAFT               | 8  | 233  |
|                     |                                     |          |               |         |              | IT - WORD PROC                   | 5  | 137  |
|                     |                                     |          |               |         |              | CH SECTY/CLERICAL                | 13 | 364  |
|                     |                                     |          |               |         |              | PROFESSIONAL LEVEL 1             | 3  | 140  |
|                     |                                     |          |               |         |              | IT - GEOLOGIST                   | 33 | 1725 |
|                     |                                     |          |               |         |              | PROFESSIONAL LEVEL 4             | 14 | 1166 |
|                     |                                     |          |               |         |              | TECHNICAL LEVEL 1                | 8  | 144  |
|                     |                                     |          |               |         |              | PROFESSIONAL LEVEL 2             | 14 | 689  |
| M,D 210-011         | FINAL TO NAVY                       | 1        | 04SEP90       | 04SEP90 |              |                                  |    |      |
| D 220-001           | RI/FS HEALTH & SAFETY PLAN          | 45       | 12MAR90       | 11MAY90 | 12MAR90      | PROFESSIONAL LEVEL 3             | 57 | 3356 |
|                     |                                     |          |               |         |              | IT - SAFETY                      | 6  | 385  |
|                     |                                     |          |               |         |              | TECHNICAL LEVEL 1                | 7  | 126  |
|                     |                                     |          |               |         |              | PROFESSIONAL LEVEL 2             | 8  | 394  |
|                     |                                     |          |               |         |              | CH SECTY/CLERICAL                | 10 | 280  |
|                     |                                     |          |               |         |              | CH TRAVEL                        |    | 152  |
| 220-002             | REVIEW/REWRITE HEALTH & SAFETY PLAN | 13       | 14MAY90       | 30MAY90 |              | PROFESSIONAL LEVEL 3             | 3  | 177  |
|                     |                                     |          |               |         |              | ENVIRON ENGINEER                 | 6  | 232  |
|                     |                                     |          |               |         |              | CH SECTY/CLERICAL                | 13 | 364  |
|                     |                                     |          |               |         |              | PROFESSIONAL LEVEL 4             | 3  | 250  |
|                     |                                     |          |               |         |              | TECHNICAL LEVEL 1                | 7  | 126  |
| D 221-001           | DRAFT COMMUNITY RELATIONS PLAN      | 63       | 27APR90       | 24JUL90 |              | PROFESSIONAL LEVEL 1             | 8  | 375  |
|                     |                                     |          |               |         |              | CH SECTY/CLERICAL                | 2  | 56   |
|                     |                                     |          |               |         |              | CH TRAVEL                        |    | 37   |
|                     |                                     |          |               |         |              | SPECIALTY SUBCONTRACTOR          |    | 1500 |
| 221-002             | INTERN REVIEW/REWRITE CRP           | 19       | 25JUL90       | 20AUG90 |              | PROFESSIONAL LEVEL 4             | 3  | 250  |
|                     |                                     |          |               |         |              | PROFESSIONAL LEVEL 1             | 3  | 140  |
|                     |                                     |          |               |         |              | CH SECTY/CLERICAL                | 2  | 56   |
| M,D 221-003         | ISSUE DRAFT CRP TO NAVY             | 1        | 21AUG90       | 21AUG90 |              |                                  |    |      |
| A 221-004           | NAVY REVIEW/COMMENT DRAFT CRP       | 9        | 22AUG90       | 03SEP90 |              |                                  |    |      |
| 221-005             | INC COMM/REWRITE FINAL CRP          | 9        | 04SEP90       | 14SEP90 |              | PROFESSIONAL LEVEL 1             | 2  | 94   |
|                     |                                     |          |               |         |              | CH SECTY/CLERICAL                | 2  | 56   |
| 221-006             | INTERN REVIEW REVISE FINAL CRP      | 4        | 17SEP90       | 20SEP90 |              | PROFESSIONAL LEVEL 1             | 2  | 94   |
|                     |                                     |          |               |         |              | CH SECTY/CLERICAL                | 2  | 56   |
| M,D 221-007         | ISSUE NAVY FINAL CRP                | 1        | 21SEP90       | 21SEP90 |              |                                  |    |      |
| 222-001             | RI/FS SITE MANAGEMENT PLAN          | 40       | 26FEB90       | 20APR90 |              | PROFESSIONAL LEVEL 4             | 20 | 1666 |
|                     |                                     |          |               |         |              | IT - GEOLOGIST                   | 60 | 3136 |
|                     |                                     |          |               |         |              | PROFESSIONAL LEVEL 2             | 25 | 1231 |
|                     |                                     |          |               |         |              | TECHNICAL LEVEL 1                | 6  | 108  |
|                     |                                     |          |               |         |              | CH TRAVEL                        |    | 98   |
|                     |                                     |          |               |         |              | IT - TRAVEL                      |    | 46   |
| 222-003             | REVIEW/REWRITE SITE MANAGEMENT PLAN | 6        | 23APR90       | 30APR90 |              | IT - GEOLOGIST                   | 38 | 1986 |
|                     |                                     |          |               |         |              | PROFESSIONAL LEVEL 2             | 26 | 1280 |
|                     |                                     |          |               |         |              | TECHNICAL LEVEL 1                | 8  | 144  |

| ACTIVITY IDENTIFIER | ACTIVITY DESCRIPTION                    | ORIG DUR | -- WORKING -- |         | IMPOSED DATE | -- -- -- -- RESOURCE -- -- -- -- |    |      |
|---------------------|-----------------------------------------|----------|---------------|---------|--------------|----------------------------------|----|------|
|                     |                                         |          | START         | FINISH  |              | TYPE                             | MH | \$   |
| M,D 222-004         | ISSUE NAVY P/DRAFT SITE MGMT PLAN       | 1        | 01MAY90       | 01MAY90 | 30APR90      |                                  |    |      |
| A 222-005           | NAVY REVIEW AND COMMENT                 | 21       | 02MAY90       | 30MAY90 |              |                                  |    |      |
| 222-006             | WRITE/REVIEW DRAFT SITE MGMT PLAN       | 14       | 31MAY90       | 19JUN90 |              | PROFESSIONAL LEVEL 4             | 7  | 583  |
|                     |                                         |          |               |         |              | IT - GEOLOGIST                   | 17 | 889  |
|                     |                                         |          |               |         |              | TECHNICAL LEVEL 1                | 3  | 54   |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 2             | 13 | 640  |
| M,D 222-007         | ISSUE DRAFT SITE MGMT PLAN              | 1        | 20JUN90       | 20JUN90 |              |                                  |    |      |
| A 222-008           | NAVY REVIEW AND COMMENT                 | 30       | 21JUN90       | 01AUG90 |              |                                  |    |      |
| 222-009             | WRITE/REVIEW FINAL SITE MGMT PLAN       | 12       | 03AUG90       | 20AUG90 | 03AUG90      | PROFESSIONAL LEVEL 4             | 6  | 500  |
|                     |                                         |          |               |         |              | IT - GEOLOGIST                   | 17 | 889  |
|                     |                                         |          |               |         |              | TECHNICAL LEVEL 1                | 3  | 54   |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 2             | 13 | 640  |
| M,D 222-010         | ISSUE FINAL SMP TO NAVY                 | 1        | 21AUG90       | 21AUG90 |              |                                  |    |      |
| 230-001             | ADMIN RECORD - COLLECT FROM AGENCIES    | 70       | 26FEB90       | 01JUN90 |              | PROFESSIONAL LEVEL 4             | 9  | 749  |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 3             | 2  | 118  |
|                     |                                         |          |               |         |              | IT - GEOLOGIST                   | 19 | 993  |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 2             | 6  | 295  |
|                     |                                         |          |               |         |              | CH TRAVEL                        |    | 114  |
|                     |                                         |          |               |         |              | IT - TRAVEL                      |    | 77   |
| 230-002             | REVIEW, EDIT ADMINISTRATIVE RECORD      | 65       | 12MAR90       | 08JUN90 |              | PROFESSIONAL LEVEL 4             | 10 | 833  |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 3             | 72 | 4239 |
|                     |                                         |          |               |         |              | IT - GEOLOGIST                   | 19 | 993  |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 2             | 17 | 837  |
| 230-003             | INTERN REVIEW/REWRITE A.R.              | 9        | 11JUN90       | 21JUN90 |              | IT - GEOLOGIST                   | 20 | 1045 |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 2             | 29 | 1428 |
| M,D 230-004         | DRAFT ADMIN RECORD TO NAVY              | 1        | 22JUN90       | 22JUN90 |              |                                  |    |      |
| A 230-005           | NAVY REVIEW DRAFT ADMIN RECRD           | 15       | 25JUN90       | 13JUL90 | 25JUN90      |                                  |    |      |
| 230-006             | INCORPORATE COMMENTS, ORGANIZE FINAL AR | 13       | 16JUL90       | 01AUG90 |              | PROFESSIONAL LEVEL 4             | 10 | 833  |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 3             | 4  | 235  |
|                     |                                         |          |               |         |              | IT - GEOLOGIST                   | 20 | 1045 |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 2             | 18 | 886  |
| M,D 230-007         | ISSUE FINAL ADMINISTRATIVE RECORD       | 1        | 02AUG90       | 02AUG90 |              |                                  |    |      |
| 850-000             | P/T EXISTING DATA REVIEW                | 12       | 09APR90       | 24APR90 |              | PROFESSIONAL LEVEL 4             | 24 | 1999 |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 2             | 32 | 1575 |
|                     |                                         |          |               |         |              | TECHNICAL LEVEL 1                | 8  | 144  |
|                     |                                         |          |               |         |              | CH SECTY/CLERICAL                | 8  | 224  |
| 850-001             | P/T SITE VISIT WITH JMM                 | 2        | 25APR90       | 26APR90 |              | PROFESSIONAL LEVEL 2             | 8  | 394  |
|                     |                                         |          |               |         |              | TECHNICAL LEVEL 1                | 8  | 144  |
|                     |                                         |          |               |         |              | CH TRAVEL                        |    | 5    |
| 850-002             | P/T ACCEPTANCE CRITERIA                 | 15       | 16APR90       | 04MAY90 |              | PROFESSIONAL LEVEL 4             | 24 | 1999 |
|                     |                                         |          |               |         |              | PROFESSIONAL LEVEL 2             | 32 | 1575 |
|                     |                                         |          |               |         |              | CH SECTY/CLERICAL                | 8  | 224  |

| ACTIVITY IDENTIFIER | ACTIVITY DESCRIPTION            | ORIG DUR | -- WORKING -- |         | IMPOSED DATE            | -- -- RESOURCE -- -- |                  |    |
|---------------------|---------------------------------|----------|---------------|---------|-------------------------|----------------------|------------------|----|
|                     |                                 |          | START         | FINISH  |                         | TYPE                 | MH               | \$ |
| 850-003             | P/T HEALTH & SAFETY PLAN        | 14       | 05APR90       | 24APR90 | PROFESSIONAL LEVEL 4    | 8                    | 666              |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 3    | 24                   | 1413             |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 2    | 8                    | 394              |    |
|                     |                                 |          |               |         | ENVIRON ENGINEER        | 4                    | 154              |    |
|                     |                                 |          |               |         | TECHNICAL LEVEL 2       | 3                    | 82               |    |
| 850-004             | P/T MONTHLY REPORTING           | 260      | 04JUN90       | 31MAY91 | CH SECTY/CLERICAL       | 8                    | 224              |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 4    | 96                   | 7995             |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 2    | 24                   | 1182             |    |
|                     |                                 |          |               |         | CH SECTY/CLERICAL       | 72                   | 2015             |    |
|                     |                                 |          |               |         | TECHNICAL LEVEL 1       | 24                   | 433              |    |
| 850-005             | P/T SYSTEM INSPECTIONS/SAMPLING | 250      | 14MAY90       | 26APR91 | TECHNICAL LEVEL 1       | 128                  | 2308             |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 2    | 96                   | 4726             |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 4    | 48                   | 3997             |    |
|                     |                                 |          |               |         | CH SECTY/CLERICAL       | 80                   | 2239             |    |
|                     |                                 |          |               |         | SUBCONT ADMIN           | 24                   | 1013             |    |
| 850-006             | CARBON UNIT CHANGEOUT           | 250      | 14MAY90       | 26APR91 | CH TRAVEL               |                      | 250              |    |
|                     |                                 |          |               |         | SPECIALTY SUBCONTRACTOR |                      | 18000 <i>CAD</i> |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 2    | 24                   | 1182             |    |
|                     |                                 |          |               |         | TECHNICAL LEVEL 1       | 24                   | 433              |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 4    | 16                   | 1332             |    |
| 850-007             | SPENT CARBON BIN SHIPPING       | 250      | 14MAY90       | 26APR91 | SUBCONT ADMIN           | 16                   | 676              |    |
|                     |                                 |          |               |         | SPECIALTY SUBCONTRACTOR |                      | 12000 <i>CAD</i> |    |
|                     |                                 |          |               |         | TECHNICAL LEVEL 1       | 18                   | 325              |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 4    | 16                   | 1332             |    |
|                     |                                 |          |               |         | SUBCONT ADMIN           | 16                   | 676              |    |
| 850-008             | TANK DISPOSAL                   | 250      | 14MAY90       | 26APR91 | SPECIALTY SUBCONTRACTOR |                      | 2400 <i>CAD</i>  |    |
|                     |                                 |          |               |         | TECHNICAL LEVEL 1       | 24                   | 433              |    |
|                     |                                 |          |               |         | PROFESSIONAL LEVEL 4    | 16                   | 1332             |    |
|                     |                                 |          |               |         | SUBCONT ADMIN           | 16                   | 676              |    |
|                     |                                 |          |               |         | SPECIALTY SUBCONTRACTOR |                      | 250 <i>CAD</i>   |    |

## **APPENDIX B**

SCHEDULE A

Run Date 04/03/90

SUMMARY OF COSTS BY TASK

Run Time 13:26:21

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

| ACTIVITY<br>NUMBER<br>----- | TASK<br>NAME<br>-----        | TASK<br>MANHOURS<br>----- | TASK<br>DOLLARS<br>----- |
|-----------------------------|------------------------------|---------------------------|--------------------------|
| 010                         | PREPARE IMPLEMENTATION PLAN  | 277                       | \$ 20,601                |
| 015                         | MONTHLY REPORTS/MEETINGS     | 225                       | \$ 40,841                |
| 050                         | PREPARE FSP/QAPP             | 787                       | \$ 54,081                |
| 200                         | PREPARE SUMMARY REPORT       | 326                       | \$ 26,921                |
| 210                         | PREPARE RI/FS                | 655                       | \$ 37,697                |
| 220                         | PREPARE HEALTH & SAFETY PLAN | 120                       | \$ 7,190                 |
| 221                         | PREPARE COMMUNITY RELS PLAN  | 26                        | \$ 3,091                 |
| 222                         | PREPARE SITE MGMT PLAN       | 262                       | \$ 17,096                |
| 230                         | PREPARE ADMINISTRATIVE FILE  | 255                       | \$ 17,782                |
| 850                         | SYSTEM OPERATIONS            | 985                       | \$ 93,893                |
| 990                         | CTO CLOSE OUT                | 11                        | \$ 642                   |
|                             |                              | -----                     | -----                    |
|                             | TOTALS                       | 3,929                     | \$ 319,835               |

SCHEDULE B  
JACOBS ENGINEERING COSTS

-->TOTAL COSTS<--

| CONTRACT                                      | RES      | FUNCTIONAL                 | TOTAL | TOTAL |         |
|-----------------------------------------------|----------|----------------------------|-------|-------|---------|
| RATE                                          | CODE     | CATEGORY                   | HOURS | RATE  |         |
| PMO                                           | CATEGORY |                            |       | COST  |         |
| PROGRAM MANAGER                               | PM       | PMO                        | 0     | 48.88 | 0       |
| CONTRACTS ADMIN MANAGER                       | CA       | PMO                        | 0     | 30.05 | 0       |
| PROJECT CONTROLS MANAGER                      | PC       | PMO                        | 0     | 37.10 | 0       |
| SUBTOTAL PMO                                  |          |                            | 0     | \$    | 0       |
| LEAD TECHNICAL                                |          |                            |       |       |         |
| PROJECT MANAGER                               | PJ       |                            | 0     | 35.17 | 0       |
| ACCOUNTING                                    | AC       | ACCOUNTING                 | 12    | 16.70 | 200     |
| ENVIRONMENTAL ENGINEER                        | EE       | ENVIRONMENTAL ENGINEER     | 22    | 21.05 | 463     |
| QUALITY ASSURANCE MANAGER                     | QA       | QUALITY ASSURANCE MANAGER  | 16    | 32.53 | 520     |
| SUBCONTRACT ADMINISTRATION                    | SA       | SUBCONTRACT ADMINISTRATION | 72    | 23.02 | 1,657   |
| SCHEDULING/PLANNING                           | SP       | SCHEDULING/PLANNING        | 78    | 24.96 | 1,947   |
| SUBTOTAL CTO                                  |          |                            | 200   | \$    | 4,787   |
| TOTAL JEG LABOR                               |          |                            | 200   | \$    | 4,787   |
| JEG FRINGE BENEFITS                           |          |                            |       | \$    | 1,293   |
| JEG G & A                                     |          |                            |       | \$    | 2,700   |
| SPECIALTY SUBCONTRACTOR (EXHIBIT 1-SCH B)     |          |                            |       | \$    | 34,150  |
| ODC COST (EXHIBIT 2-SCH B)                    |          |                            |       | \$    | 1,064   |
| TRAVEL COST (EXHIBIT 3-SCH B) NON FEE BEARING |          |                            |       | \$    | 0       |
| TOTAL JEG COST CONTRACT TASK ORDER: 0018      |          |                            | 200   | \$    | 43,994  |
| SUMMARY OF TOTAL COSTS:                       |          |                            |       |       |         |
| TOTAL JEG COST (SCHEDULE B)                   |          |                            | 200   | \$    | 43,994  |
| TOTAL IT COST (SCHEDULE C)                    |          |                            | 679   | \$    | 42,427  |
| TOTAL CH2MHILL COST (SCHEDULE D)              |          |                            | 3,050 | \$    | 205,130 |
| AWARD FEE                                     |          |                            | N/A   | \$    | 28,281  |
| TOTAL COSTS:                                  |          |                            |       |       |         |
| RI/FS WORK PLAN - MCAS EL TORO, CA            |          |                            | 3,929 | \$    | 319,832 |

CTOF 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

|                               |    |        |
|-------------------------------|----|--------|
| GRISBY GRAVES                 | \$ | 1,500  |
| GROUNDWATER SAMPLE VOC ANALYS | \$ | 18,000 |
| CARBON UNIT CHANGEOUT         | \$ | 12,000 |
| SPENT CARBON SHIPPING         | \$ | 2,400  |
| CARBON TANK DISPOSAL          | \$ | 250    |

|            |    |        |
|------------|----|--------|
| TOTAL COST | \$ | 34,150 |
|------------|----|--------|

OTHER DIRECT COSTS

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

|                            |           |                |        |
|----------------------------|-----------|----------------|--------|
| REPRODUCTION               | 200 HOURS | @ \$ 1.96/hour | \$ 392 |
| MAINFRAME COMPUTER         | 200 HOURS | @ \$ 0.99/hour | \$ 198 |
| TELEPHONE / COMMUNICATIONS | 200 HOURS | @ \$ 1.18/hour | \$ 236 |
| POSTAGE / FREIGHT          | 200 HOURS | @ \$ 1.19/hour | \$ 238 |

TOTAL ODC'S \$ 1,064  
 -----

SCHEDULE C

-->INTERNATIONAL TECHNOLOGY CORP.<--

| CONTRACT                                      | RES      | FUNCTIONAL       | TOTAL | TOTAL        |
|-----------------------------------------------|----------|------------------|-------|--------------|
| RATE                                          | CODE     | CATEGORY         | HOURS | COST         |
| PMO                                           | CATEGORY |                  |       |              |
| -----                                         | -----    | -----            | ----- | -----        |
| MANAGER OF TECH PLANNING/ QC                  | TP       | PMO              | 0     | 35.06 0      |
| -----                                         | -----    | -----            | ----- | -----        |
| SUBTOTAL PMO                                  |          |                  | 0     | \$ 0         |
| LEAD TECHNICAL                                |          |                  |       |              |
| -----                                         | -----    | -----            | ----- | -----        |
| MANAGER OF PROJECTS                           | IB       |                  | 0     | 34.66 0      |
| SAFETY                                        | IJ       | SAFETY           | 6     | 24.48 147    |
| WORD PROCESSOR                                | IN       | WORD PROCESSOR   | 45    | 10.46 471    |
| GEOLOGIST                                     | IP       | GEOLOGIST        | 535   | 19.95 10,673 |
| PROJECT DRAFTING                              | IY       | PROJECT DRAFTING | 53    | 11.12 589    |
| PROJECT MANAGER                               | PG       | PROJECT MANAGER  | 40    | 28.44 1,138  |
| -----                                         | -----    | -----            | ----- | -----        |
| SUBTOTAL CTO                                  |          |                  | 679   | \$ 13,018    |
| TOTAL IT CORP. LABOR                          |          |                  | 679   | \$ 13,018    |
| PMO OVERHEAD                                  |          |                  |       | \$ 0         |
| CTO OVERHEAD                                  |          |                  |       | \$ 16,923    |
| -----                                         |          |                  | ----- | -----        |
| SUBTOTAL IT LABOR/OVERHEAD                    |          |                  | 679   | \$ 29,941    |
| SPECIALTY SUBCONTRACTOR (EXHIBIT 1-SCH C)     |          |                  |       | \$ 0         |
| ODC COST (EXHIBIT 2-SCH C)                    |          |                  |       | \$ 3,612     |
| TRAVEL COST (EXHIBIT 3-SCH C) NON FEE BEARING |          |                  |       | \$ 335       |
| -----                                         |          |                  |       | -----        |
| SUBTOTAL DIRECT COSTS                         |          |                  |       | \$ 33,889    |
| G & A                                         |          |                  |       | \$ 4,389     |
| -----                                         |          |                  |       | -----        |
| SUBTOTAL IT DIRECT/G&A COST                   |          |                  |       | \$ 38,278    |
| AWARD FEE                                     |          |                  |       | \$ 3,794     |
| FCCOM(OH)                                     |          |                  |       | \$ 291       |
| FCCOM(G&A)                                    |          |                  |       | \$ 64        |
| TOTAL COSTS:                                  |          |                  |       | -----        |
| RI/F5 WORK PLAN - MCAS EL TORO, CA            |          |                  |       | \$ 42,427    |
|                                               |          |                  |       | -----        |

OTHER DIRECT COSTS

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

|                            |           |   |              |          |
|----------------------------|-----------|---|--------------|----------|
| REPRODUCTION               | 679 HOURS | @ | \$ 1.96/hour | \$ 1,331 |
| MAINFRAME COMPUTER         | 679 HOURS | @ | \$ 0.99/hour | 672      |
| TELEPHONE / COMMUNICATIONS | 679 HOURS | @ | \$ 1.18/hour | 801      |
| POSTAGE / FREIGHT          | 679 HOURS | @ | \$ 1.19/hour | 808      |

TOTAL ODC'S \$ 3,612  
-----

## EXHIBIT 3 TO SCHEDULE C

## TRAVEL EXPENSES

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

-----

1 TRIP(S) FROM: IRVINE, CA TO: SAN DIEGO, CA  
 1 PERSON(S) DATE: TBD DURATION: 1  
 ID#: 015001 PURPOSE: MONTHLY PROGRESS MEETING

-----

|                   |   |    |           |    |    |
|-------------------|---|----|-----------|----|----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0  |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS HOTEL      | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS PER DIEM   | @ | \$ | 0/Day     | \$ | 0  |
| 192 MILES         | @ | \$ | 0.24/Mile | \$ | 46 |
| TOTAL TRIP        |   |    |           | \$ | 46 |

-----

-----

3 TRIP(S) FROM: IRVINE, CA TO: VARIOUS AGENCIES  
 1 PERSON(S) DATE: TBD DURATION: 1  
 ID#: 200001 PURPOSE: COLLECT EXISTING DOCUMENTS

-----

|                   |   |    |           |    |    |
|-------------------|---|----|-----------|----|----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0  |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS HOTEL      | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS PER DIEM   | @ | \$ | 0/Day     | \$ | 0  |
| 308 MILES         | @ | \$ | 0.24/Mile | \$ | 74 |
| TOTAL TRIP        |   |    |           | \$ | 74 |

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-----

3 TRIP(S) FROM: IRVINE, CA TO: VARIOUS AGENCIES  
 1 PERSON(S) DATE: TBD DURATION: 1  
 ID#: 210001 PURPOSE: COLLECT EXISTING DOCUMENTS

-----

|                   |   |    |           |    |    |
|-------------------|---|----|-----------|----|----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0  |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS HOTEL      | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS PER DIEM   | @ | \$ | 0/Day     | \$ | 0  |
| 385 MILES         | @ | \$ | 0.24/Mile | \$ | 92 |
| TOTAL TRIP        |   |    |           | \$ | 92 |

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## INTERNATIONAL TECHNOLOGY CORP.

Run Date 04/03/90

## EXHIBIT 3 TO SCHEDULE C

Run Time 13:26:21

## TRAVEL EXPENSES

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

-----

1 TRIP(S) FROM: IRVINE, CA TO: SAN DIEGO, CA  
 1 PERSON(S) DATE: TBD DURATION: 1  
 ID#: 222001 PURPOSE: SITE MANAGEMENT PLAN

-----

|                   |   |    |           |    |    |
|-------------------|---|----|-----------|----|----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0  |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS HOTEL      | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS PER DIEM   | @ | \$ | 0/Day     | \$ | 0  |
| 192 MILES         | @ | \$ | 0.24/Mile | \$ | 46 |
| TOTAL TRIP        |   |    |           | \$ | 46 |

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-----

2 TRIP(S) FROM: IRVINE, CA TO: VARIOUS AGENCIES  
 1 PERSON(S) DATE: TBD DURATION: 1  
 ID#: 230001 PURPOSE: COLLECT DOCS FOR ADMIN FILE

-----

|                   |   |    |           |    |    |
|-------------------|---|----|-----------|----|----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0  |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS HOTEL      | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS PER DIEM   | @ | \$ | 0/Day     | \$ | 0  |
| 320 MILES         | @ | \$ | 0.24/Mile | \$ | 77 |
| TOTAL TRIP        |   |    |           | \$ | 77 |

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|                                                       |    |     |
|-------------------------------------------------------|----|-----|
| TOTAL TRAVEL COSTS FOR INTERNATIONAL TECHNOLOGY CORP. | \$ | 335 |
| CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA          |    |     |

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SCHEDULE D

-->CH2MHILL<--

| LEAD TECHNICAL | CONTRACT RATE                                 | RES CODE | FUNCTIONAL CATEGORY | TOTAL HOURS | RATE  | TOTAL COST |
|----------------|-----------------------------------------------|----------|---------------------|-------------|-------|------------|
| ED ROGAN       | PROFESSIONAL 4                                | P4       | PROJECT MANAGER     | 599         | 31.19 | 18,683     |
|                | CLERICAL                                      | CL       | CLERICAL            | 461         | 10.71 | 4,937      |
|                | PROFESSIONAL 1                                | P1       | PROFESSIONAL 1      | 55          | 17.03 | 937        |
|                | PROFESSIONAL 2                                | P2       | PROFESSIONAL 2      | 506         | 18.44 | 9,331      |
|                | PROFESSIONAL 3                                | P3       | PROFESSIONAL 3      | 1,042       | 22.02 | 22,945     |
|                | TECHNICIAN 1                                  | T1       | TECHNICIAN 1        | 384         | 10.48 | 4,024      |
|                | TECHNICIAN 2                                  | T2       | TECHNICIAN 2        | 3           | 15.91 | 48         |
|                | SUBTOTAL TECHNICAL                            |          |                     | 3,050       | \$    | 60,905     |
|                | TOTAL CH2MHILL LABOR                          |          |                     | 3,050       | \$    | 60,905     |
|                | COMPOSITE INDIRECT RATE                       |          |                     |             | \$    | 101,711    |
|                | SPECIALTY SUBCONTRACTOR (EXHIBIT 1-SCH D)     |          |                     |             | \$    | 0          |
|                | ODC COST (EXHIBIT 2-SCH D)                    |          |                     |             | \$    | 16,226     |
|                | TRAVEL COST (EXHIBIT 3-SCH D) NON FEE BEARING |          |                     |             | \$    | 8,403      |
|                | FIXED FEE                                     |          |                     |             | \$    | 5,365      |
|                | AWARD FEE                                     |          |                     |             | \$    | 12,519     |
|                | TOTAL COSTS:                                  |          |                     |             |       | -----      |
|                | RI/FS WORK PLAN - MCAS EL TORO, CA            |          |                     |             | \$    | 205,130    |
|                |                                               |          |                     |             |       | -----      |

## EXHIBIT 2 TO SCHEDULE D

## OTHER DIRECT COSTS

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

|                            |             |                |          |
|----------------------------|-------------|----------------|----------|
| REPRODUCTION               | 3,050 HOURS | @ \$ 1.96/hour | \$ 5,978 |
| MAINFRAME COMPUTER         | 3,050 HOURS | @ \$ 0.99/hour | \$ 3,020 |
| TELEPHONE / COMMUNICATIONS | 3,050 HOURS | @ \$ 1.18/hour | \$ 3,599 |
| POSTAGE / FREIGHT          | 3,050 HOURS | @ \$ 1.19/hour | \$ 3,630 |

TOTAL ODC'S

\$ 16,226

-----

## EXHIBIT 3 TO SCHEDULE D

## TRAVEL EXPENSES

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

-----

6 TRIP(S) FROM: SANTA ANA, CA TO: SAN DIEGO, CA  
 1 PERSON(S) DATE: TBD DURATION: 1  
 ID#: 015001 PURPOSE: MONTHLY PROGRESS MEETING

-----

|                   |   |    |           |    |     |
|-------------------|---|----|-----------|----|-----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0   |
| 6 DAYS CAR RENTAL | @ | \$ | 45/Day    | \$ | 270 |
| 0 DAYS HOTEL      | @ | \$ | 0/Day     | \$ | 0   |
| 0 DAYS PER DIEM   | @ | \$ | 0/Day     | \$ | 0   |
| 0 MILES           | @ | \$ | 0.00/Mile | \$ | 0   |
| TOTAL TRIP        |   |    |           | \$ | 270 |

-----

-----

3 TRIP(S) FROM: SACRAMENTO, CA TO: SANTA ANA, CA  
 1 PERSON(S) DATE: TBD DURATION: 3  
 ID#: 050001 PURPOSE: SAMPLING AND ANALYSIS PLAN

-----

|                   |   |    |           |    |       |
|-------------------|---|----|-----------|----|-------|
| 3 AIRFARE         | @ | \$ | 350/Each  | \$ | 1,050 |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0     |
| 10 DAYS HOTEL     | @ | \$ | 80/Day    | \$ | 800   |
| 10 DAYS PER DIEM  | @ | \$ | 34/Day    | \$ | 340   |
| 769 MILES         | @ | \$ | 0.24/Mile | \$ | 185   |
| TOTAL TRIP        |   |    |           | \$ | 2,375 |

-----

-----

5 TRIP(S) FROM: SACRAMENTO, CA TO: SANTA ANA, CA  
 2 PERSON(S) DATE: TBD DURATION: 2  
 ID#: 200001 PURPOSE: COLLECT EXISTING DOCUMENTS

-----

|                   |   |    |           |    |       |
|-------------------|---|----|-----------|----|-------|
| 5 AIRFARE         | @ | \$ | 350/Each  | \$ | 1,750 |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0     |
| 20 DAYS HOTEL     | @ | \$ | 80/Day    | \$ | 1,600 |
| 30 DAYS PER DIEM  | @ | \$ | 34/Day    | \$ | 1,020 |
| 1,500 MILES       | @ | \$ | 0.24/Mile | \$ | 360   |
| TOTAL TRIP        |   |    |           | \$ | 4,730 |

-----

## CH2MHILL

Run Date 04/03/90

## EXHIBIT 3 TO SCHEDULE D

Run Time 13:26:21

## TRAVEL EXPENSES

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

-----

2 TRIP(S) FROM: SANTA ANA, CA TO: SAN DIEGO, CA  
 1 PERSON(S) DATE: TBD DURATION: 1  
 ID#: 210001 PURPOSE: WORK PLAN

-----

|                   |   |    |           |    |     |
|-------------------|---|----|-----------|----|-----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0   |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0   |
| 2 DAYS HOTEL      | @ | \$ | 80/Day    | \$ | 160 |
| 4 DAYS PER DIEM   | @ | \$ | 34/Day    | \$ | 136 |
| 323 MILES         | @ | \$ | 0.24/Mile | \$ | 78  |
| TOTAL TRIP        |   |    |           | \$ | 374 |

-----

-----

1 TRIP(S) FROM: SANTA ANA, CA TO: SAN DIEGO, CA  
 1 PERSON(S) DATE: TBD DURATION: 2  
 ID#: 220001 PURPOSE: COLLECT EXISTING DOCUMENTS

-----

|                   |   |    |           |    |     |
|-------------------|---|----|-----------|----|-----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0   |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0   |
| 1 DAYS HOTEL      | @ | \$ | 80/Day    | \$ | 80  |
| 1 DAYS PER DIEM   | @ | \$ | 34/Day    | \$ | 34  |
| 160 MILES         | @ | \$ | 0.24/Mile | \$ | 38  |
| TOTAL TRIP        |   |    |           | \$ | 152 |

-----

-----

1 TRIP(S) FROM: SANTA ANA, CA TO: SAN DIEGO, CA  
 1 PERSON(S) DATE: TBD DURATION: 1  
 ID#: 221001 PURPOSE: COMMUNITY RELATIONS PLAN

-----

|                   |   |    |           |    |    |
|-------------------|---|----|-----------|----|----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0  |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS HOTEL      | @ | \$ | 0/Day     | \$ | 0  |
| 0 DAYS PER DIEM   | @ | \$ | 0/Day     | \$ | 0  |
| 154 MILES         | @ | \$ | 0.24/Mile | \$ | 37 |
| TOTAL TRIP        |   |    |           | \$ | 37 |

-----

CH2MHILL

Run Date 04/03/90

EXHIBIT 3 TO SCHEDULE D

Run Time 13:26:21

TRAVEL EXPENSES

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

-----  
2 TRIP(S) FROM: SANTA ANA, CA TO: SAN DIEGO, CA  
1 PERSON(S) DATE: TBD DURATION: 1  
ID#: 222001 PURPOSE: SITE MANAGEMENT PLAN

-----  
0 AIRFARE @ \$ 0/Each \$ 0  
0 DAYS CAR RENTAL @ \$ 0/Day \$ 0  
0 DAYS HOTEL @ \$ 0/Day \$ 0  
2 DAYS PER DIEM @ \$ 34/Day \$ 68  
123 MILES @ \$ 0.24/Mile \$ 30  
  
TOTAL TRIP \$ 98

-----  
1 TRIP(S) FROM: SANTA ANA, CA TO: SAN FRANCISCO, CA  
1 PERSON(S) DATE: TBD DURATION: 2  
ID#: 230001 PURPOSE: COLLECT EXISTING EPA DOCUMENTS

-----  
0 AIRFARE @ \$ 0/Each \$ 0  
0 DAYS CAR RENTAL @ \$ 0/Day \$ 0  
1 DAYS HOTEL @ \$ 80/Day \$ 80  
1 DAYS PER DIEM @ \$ 34/Day \$ 34  
0 MILES @ \$ 0.00/Mile \$ 0  
  
TOTAL TRIP \$ 114

-----  
1 TRIP(S) FROM: SANTA ANA, CA TO: MCAS EL TORO  
2 PERSON(S) DATE: TBD DURATION: 1 DAY  
ID#: 850001 PURPOSE: TRANSITION

-----  
0 AIRFARE @ \$ 0/Each \$ 0  
0 DAYS CAR RENTAL @ \$ 0/Day \$ 0  
0 DAYS HOTEL @ \$ 0/Day \$ 0  
0 DAYS PER DIEM @ \$ 0/Day \$ 0  
20 MILES @ \$ 0.24/Mile \$ 5  
  
TOTAL TRIP \$ 5

CH2MHILL  
EXHIBIT 3 TO SCHEDULE D  
TRAVEL EXPENSES

Run Date 04/03/90  
Run Time 13:26:21

CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA

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S2 TRIP(S) FROM: SANTA ANA, CA TO: MCAS EL TORO  
1 PERSON(S) DATE: TBD DURATION: 1 DAY  
ID#: 850005 PURPOSE: INSPECTIONS/SAMPLING

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|                   |   |    |           |    |     |
|-------------------|---|----|-----------|----|-----|
| 0 AIRFARE         | @ | \$ | 0/Each    | \$ | 0   |
| 0 DAYS CAR RENTAL | @ | \$ | 0/Day     | \$ | 0   |
| 0 DAYS HOTEL      | @ | \$ | 0/Day     | \$ | 0   |
| 0 DAYS PER DIEM   | @ | \$ | 0/Day     | \$ | 0   |
| 1,040 MILES       | @ | \$ | 0.24/Mile | \$ | 250 |
| TOTAL TRIP        |   |    |           | \$ | 250 |

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TOTAL TRAVEL COSTS FOR CH2MHILL \$ 8,403  
CTO# 0018 RI/FS WORK PLAN - MCAS EL TORO, CA