

## FINAL INSPECTION REPORT

CONTRACT: N62474-93-D-2151

Delivery Order Number 0070

Remediation of Groundwater for the East-side Aquifer at  
Moffett Federal Airfield

Contractor: I T Corporation

Inspection Date: May 11, 1999

Inspection Party: See the attached Meeting Attendance List

- A. Construction Deficiencies
- B. Design Deficiencies
- C. Work Required by Others

Legend:

- (D) Awaiting design clarification
- (M) Awaiting Material
- (P) To be completed phase *III QB*
- (FMD) Work to be accomplished by in-house forces
- (C) Completed

## A. Construction Deficiencies

### Treatment pad and wells

1. Repair the piping leak above the sump pump
2. Motor starter panel - weather proof all penetrations
3. (P) As-built drawings - drawings will be provided as part of the final submittal
4. (P) Provide a spare parts list - *Will be PART of FINAL SUBMITTAL DB*
5. Air stripper sump light is burned out
6. GAC air release valve - at least one leaks, repair or replace
7. (P) Provide training on the system operation. Training will be provided concurrently with DO 57 training
8. Guard the transfer pump
9. De-rust and paint the mounts for PSL-203
10. Reverse the order of bag filter labels
11. (P) Provide door stops for the electrical panels. Will be installed under Phase III
12. Label all well panels in accordance with Drawing sheet E-5
13. Label the globe valves at all of the wells
14. Type all the panel circuit directories and identify the spare breakers on the directories and circuit breakers
15. Label the GAC vessels V-108 and V-109
16. (P) Provide a sign on the outside of the fence that identifies the power cutoff location. Will be installed under Phase III
17. (P) Install the hoist and trolley. Will be installed under Phase III

### Remote operation

1. PAH EXW-1- no alarm on the computer screen. (EXW-3, EXW-4 and EXW-5 also)
2. PAH EXW-2 - would not restart remotely
3. PAH EXW-4 - reduce the shutoff flow rate to 1 g.p.m. (EXW-5 also)
4. LIC EXW-5 - set points do not agree at the local and remote locations
5. FIT-101 - the local, PLC and remote do not indicate the same readings
6. Set the well levels at M.S.L. at the remote location and at the PLC if it can accept the floating point

A reinspection will be performed by D. Brennan on May 18, 1999 between 06:00 am and 1:00 pm.



**East-Side Aquifer Treatment System, Moffett Federal Airfield**  
**CONTRACT No. N62474-93-D-2151 PROJECT No. 769574 D. O. No. 0070**  
**Pre-Final Punch List**  
 05-05-99

	Item	Date Identified	Date Resolved
X	01. Paint Vent Support	04-08-99	4-26-99 ✓
X	02. Repair Sump Pump <i>PIPING ABOVE PUMP LEAKING</i>	04-08-99	04-08-99 ✓
	03. PVC Piping UV Protection <i>Manufacture Recommends not painting. letter on file</i>	04-08-99	04-08-99 ✓
	04. Mark in Gallons Anti-Scalent sight glass	04-08-99	04-26-99 ✓
X	05. Remove # 2 HOA switch and Label # 1 and # 3 Motor Starter Pannel <i>SEAL PENETRATIONS</i>	04-08-99	04-26-99 ✓
X	06. Remove Right reset button	04-08-99	04-26-99 ✓
X	07. Re-Type Circuit Directory Panel A <i>HAND WRITTEN TYPE</i>	04-08-99	04-26-99 ✓
	08. As Built Drawings Submittal <i>PART OF FINAL SUBMITTAL</i>	04-08-99	
X	09. Spare Parts <i>LIST</i>	04-08-99	TBD
X	10. STAT Blower Light Burnt out <i>ON ORDER</i>	04-08-99	<i>DESIGN DEFICIENCY</i>
	11. Remove trash can	04-08-99	4-27-99 ✓
	12. Repair Ball valve (sticking)	04-08-99	4-27-99 ✓
X	13. Replace Air release Valve on GAC Units <i>1 LEAKING, REPAIR/REPLACE</i>	04-08-99	04-28-99 ✓
X	14. Install Hoist - <i>INSTALL AT LATER DATE - PHASE III</i>	04-08-99	<del>Under Maint</del>
	15. Replace P-108 P-109	04-08-99	04/21/99 ✓
	16. Provide Training <i>W/DO 57 TRAINING</i>	04-08-99	<i>W/DO-057</i>
X	17. Is a Guard required for the transfer pump. <i>CHECK OSHA SEE CONTRACT # 21 DESIGN DEFICIENCY</i>	04-08-99	<del>04-28-99</del>
X	18. Derust and paint PSL 203 <i>GAGE ON BLOWER</i>	04-08-99	04-27-99 ✓
X	19. Label Bag Filters - <i>REVISE THE ORDER</i>	04-08-99	04-28-99 ✓
	20. Label Gages	04-08-99	04-28-99 ✓
	21. Exw-1 Label Circuit directory	04-08-99	04-28-99 ✓
	22. Check if door stop is required - <i>WILL DO UNDER PHASE III</i>	04-08-99	04-28-99
	23. Label all spare breakers in directories	04-21-99	04-28-99 ✓
#2	24. Label all well panels	04-21-99	04-28-99



**East-Side Aquifer Treatment System, Moffett Federal Airfield**  
**CONTRACT No. N62474-93-D-2151 PROJECT No. 769574 D. O. No. 0070**  
**Pre-Final Punch List**

05-05-99

Item	Date Identified	Date Resolved
X 25. EX W-2 Label Panel	04-21-99	04/28/99
X 26. EX W-2 Label Globe Valve <i>TEMP IN PLACE SS ORDER UP</i>	04-21-99	04/28/99
27. Repair Sample port valve	04-21-99	04-26-99 ✓
28. EX W-3 Repair Burrow under pad	04-21-99	04-26-99 ✓
X 29. Name Spares on Circuit Directory - <i>ALL DIRECTORIES</i>	04-21-99	04/28/99 ✓
30. Reconnect Drexol Brook label	04-21-99	04-26-99 ✓
31. EX W-4 remove waste concrete for pad area	04-21-99	04-26-99 ✓
32. Label Buck boost transformer disconnect	04-21-99	04/28/99 ✓
33. Label Spare breakers on all EX W-5 Locations	04-21-99	04/28/99 ✓
34. EXW-5 Sample port leaking	04-21-99	04-26-99
35. Repair Monitoring wells concrete rings missing	04-21-99	04-26-99 ✓
36. Label Main Breaker to EATS	04-21-99	04-27-99
X 37. Label GAC Beds <i>V-108 &amp; V-109</i>	04-21-99	✓
38. EXW-2 Check valve		✓
39. Label all piping at well heads <i>2 3 4 5 ✓ ✓</i>		
40. Change panel view to read GAC not GAS		✓
41. Cal. PDSH-107 to 10#.		✓
42. EXW-3 Low well level not low sump level		
43. EXW-3 Control valve closes too slowly causing well to drain too quickly does not maintain the level		
X 44. LABEL GLOBE VALVE, <del>EXW-4</del> ALL		
<del>45. LABEL ALL GLOBE VALVES</del>		
45. SIGN AT EMS FENCE - DIRECTION TO SHUTOFF		

RECEIVED

EATS REMOTE FUNCTIONAL TEST

ORIGINAL

99 MAY 11 AM 10:35

99 APR -8 AM 10:25

Conducted by: OICC/ROICC Corp.		OICC/ROICC	
Date: 4/8/99			
Start time: hours			
WELL EXW-1	TEST	READING	PASS/FAIL
Remote HOA switch	Turn switch to hand/off/auto and confirm pump status at well		P P
PIT-EXW1	Confirm that local and remote indicators are the same	L R 17.3 18	P 14.4/14.5
PAH-EXW1	<ol style="list-style-type: none"> <li>Close globe valve, until P-EXW1 shuts off</li> <li>Record shutoff pressure: psi</li> <li>Record shutoff flowrate: gpm</li> <li>Confirm that alarm printer prints "PAH-EXW1" alarm and is indicated on the remote computer alarm screen</li> </ol>	LHH R <del>44.25</del> 45 1.0 2 PUMP OFF	WOR F NO ALARM ON SCREEN OR PRINTER
FIT-EXW1	Confirm that local and remote indicators are the same	L R 6 6	P
LIC-EXW1	Confirm that local and remote indicators are the same	82.3 83	P 61.53
WELL EXW-2		READING	PASS/FAIL
Remote HOA switch	Turn switch to hand/off/auto and confirm pump status at well		P
PIT-EXW2	Confirm that local and remote indicators are the same	L R 14.2 14.5	P 14.48
PAH-EXW2	<ol style="list-style-type: none"> <li>Close globe valve, until P-EXW2 shuts off</li> <li>Record shutoff pressure: psi</li> <li>Record shutoff flowrate: gpm</li> <li>Confirm that alarm printer prints "PAH-EXW2" alarm and is indicated on the remote computer alarm screen</li> </ol>	L R 21.5 22 2 2 PUMP OFF	CANT START REMOTELY F NO ALARM ON SCREEN OR PRINTER
FIT-EXW2	Confirm that local and remote indicators are the same	L R 4 4	P
LIC-EXW2	Confirm that local and remote indicators are the same	L R 46.2 48	P 46.23 35.5
WELL EXW-3		READING	PASS/FAIL
Remote HOA switch	Turn switch to hand/off/auto and confirm pump status at well		P
PIT-EXW3	Confirm that local and remote indicators are the same	L R 26.4 27	P 12.25
PAH-EXW3	1. Close globe valve, until		

	P-EXW3 shuts off 2. Record shutoff pressure: psi 3. Record shutoff flowrate: gpm ④ Confirm that alarm printer prints "PAH-EXW3" alarm and is indicated on the remote computer alarm screen	28 1 8	27 - 30	NO LOW LEVEL ALARM F NO ALARM ON PRINTER OR SCREEN	F P
FIT-EXW3	Confirm that local and remote indicators are the same	3	3	P	SET POINT P
LIC-EXW3	Confirm that local and remote indicators are the same	22	25	F	P F
LAL-EXW3	1. Place control valve (LCV-EXW3) in manual mode at 100% open. 2. Allow pump to draw well down 3. Confirm that LAL-EXW3 is indicated on alarm printer and is indicated on the remote computer alarm screen	17.2	20	P	P
<b>WELL EXW-4</b>		<b>READING</b>		<b>PASS/FAIL</b>	
Remote HOA switch	Turn switch to hand/off/auto and confirm pump status at well			P	P
PIT-EXW4	Confirm that local and remote indicators are the same	23	23	P	P
PAH-EXW4	1. Close globe valve, until P-EXW3 shuts off 2. Record shutoff pressure: psi ③ Record shutoff flowrate: gpm ④ Confirm that alarm printer prints "PAH-EXW4" alarm and is indicated on the remote computer alarm screen	OFF 42 8 16 GPM	41.8 38 8	F INCREASE TO PREVIOUS NO ALARM ON PRINTER & SCREEN WORKED SECOND TIME	F
FIT-EXW4	Confirm that local and remote indicators are the same	11	12.11	P	P
LIC-EXW4	Confirm that local and remote indicators are the same	84.1 84.4	84 84.10	P	P
<b>WELL EXW-5</b>		<b>READING</b>		<b>PASS/FAIL</b>	
Remote HOA switch	Turn switch to hand/off/auto and confirm pump status at well			P	P P
PIT-EXW5	Confirm that local and remote indicators are the same	33.7	34	P	P
PAH-EXW5	1. Close globe valve, until P-EXW3 shuts off 2. Record shutoff pressure: psi 3. Record shutoff flowrate: gpm ④ Confirm that alarm printer prints "PAH-EXW5" alarm and is indicated on the remote computer	OFF 45 5 SET 16 GPM	48 5	F FINAL SETTING RAISE PRESSURE - 16 GPM NO ALARMS SCREEN OR PRINTER	F P

alarm screen			
FIT-EXW5	Confirm that local and remote indicators are the same	9	9.9 9
LIC-EXW5	Confirm that local and remote indicators are the same	88.4	91.9 89 89.4
<b>PLC WELL SCREENS</b>			
<b>EXW-1</b>		<b>READING</b>	<b>PASS/FAIL</b>
HOA switch	Turn switch to hand/off/auto and confirm pump status at PLC	N/A	N/A
PIT-EXW1	Confirm that PLC and remote indicators are the same	17	16.54 17
FIT-EXW1	Confirm that PLC and remote indicators are the same	6	5.97 6
LIC-EXW1	Confirm that PLC and remote indicators are the same	83	81.51 83
LIC-EXW1 setpoint	Confirm that PLC and remote indicators are the same	20	20
LCV-EXW1	Confirm that PLC and remote control valve positions are the same	100	100
<b>EXW-2</b>		<b>READING</b>	<b>PASS/FAIL</b>
HOA switch	Turn switch to hand/off/auto and confirm pump status at PLC	N/A	N/A
PIT-EXW2	Confirm that PLC and remote indicators are the same	14	14.22 14
FIT-EXW2	Confirm that PLC and remote indicators are the same	4	4 3.96
LIC-EXW2	Confirm that PLC and remote indicators are the same	50	50
LIC-EXW2 setpoint	Confirm that PLC and remote indicators are the same	24	24
LCV-EXW2	Confirm that PLC and remote control valve positions are the same	100	100
<b>EXW-3</b>		<b>READING</b>	<b>PASS/FAIL</b>
HOA switch	Turn switch to hand/off/auto and confirm pump status at PLC	N/A	N/A
PIT-EXW3	Confirm that PLC and remote indicators are the same	12	12
FIT-EXW3	Confirm that PLC and remote indicators are the same	0	0
LIC-EXW3	Confirm that PLC and remote indicators are the same	41	41
LIC-EXW3 setpoint	Confirm that PLC and remote indicators are the same	27	27
LCV-EXW3	Confirm that PLC and remote control valve positions are the same	100	100
<b>EXW-4</b>		<b>READING</b>	<b>PASS/FAIL</b>

P

P

P/PASS

78583458

SET POINT 26

HOA switch	Turn switch to hand/off/auto and confirm pump status at PLC	N/A	N/A	
PIT-EXW4	Confirm that PLC and remote indicators are the same	23	23	P
FIT-EXW4	Confirm that PLC and remote indicators are the same	11	11	P
LIC-EXW4	Confirm that PLC and remote indicators are the same	86	86	P
LIC-EXW4 setpoint	Confirm that PLC and remote indicators are the same	20	20	P
LCV-EXW4	Confirm that PLC and remote control valve positions are the same	100	100	P
<b>EXW-5</b>		<b>READING</b>	<b>PASS/FAIL</b>	
HOA switch	Turn switch to hand/off/auto and confirm pump status at PLC	N/A	N/A	
PIT-EXW5	Confirm that PLC and remote indicators are the same	34	<del>59</del> 34	P
FIT-EXW5	Confirm that PLC and remote indicators are the same	9	<del>8.52</del> 9	P
LIC-EXW5	Confirm that PLC and remote indicators are the same	89	<del>89</del> 89	P
LIC-EXW5 setpoint	Confirm that PLC and remote indicators are the same	<del>20</del> 20	<del>22</del> 20	F
LCV-EXW5	Confirm that PLC and remote control valve positions are the same	100	100	P
Well manifold screen	Confirm that all flowrates are consistent with actual flowrates			P
<b>EATS PAD EQUIPMENT</b>		<b>READING</b>	<b>PASS/FAIL</b>	
FIT-101	Confirm that local, PLC, and remote indicators are the same	<del>29P</del> 3FL	29-10	F? 28, 74 ?
LAL-105 (Antiscalant low level)	Artificially trip alarm (push down float with stick) and confirm that LAL-105 alarm is printed on the alarm printer and on the remote screen ✓			P P
B-103 HOA (Blower)	Turn switch to hand/off/auto and confirm blower status locally and at PLC			P P
P-104 HOA (Pump)	Turn switch to hand/off/auto and confirm pump status locally and at PLC			P P
PAL-103 (Blower low pressure alarm)	Artificially *trip alarm (pull out instrument tubing) and confirm that PAL-103 alarm is printed on the alarm printer and on the remote screen and that system shuts down			P P

T-LLCRANL ?

LAHH-101 (Air stripper sump high level)	Artificially trip alarm (turn off pump) and confirm that LAHH-101 alarm is printed on the alarm printer and on the remote screen and that system shuts down		P LIGHT BULB	P
PDIT-107 (Bag filter differential pressure alarm)	Artificially trip alarm (close bag filter effluent valves) and confirm that PDAH-107 alarm is printed on the alarm printer and on the remote screen. Record activation pressure 107 psi	No Remote Pressure Readings	F	P
PAH-108 (GAC high pressure)	Artificially trip alarm (close effluent valves) and confirm that PAH-108 alarm is printed on the alarm printer and on the remote screen. Record activation pressure 62 psi L		P T	P
LAH-110 (Sump high level)	Lift level switch so that sump pump turns on, confirm that LAH-110 alarm is printed on the alarm printer and on the remote screen	N/A	N/A	N/A
LAHH-110 (Sump high-high level)	Lift level switch, confirm that LAHH-110 alarm is printed on the alarm printer and on the remote screen and that the system shuts down		P	P
Test end time:				

LEVELS & FLOWMETERS WILL BE CHECKED AGAIN WHEN THE LEVELS ARE SET AT MSL AND FLOW RATE IN HUNDREDS OF GPM

David F. Brennan Jr. 04-08-99

✓ CHECK IF PLC CAN TAKE A FLOATING POINT. REMOTE COMPUTER CAN.

EATS TOTALIZER TEST

*NOT TESTED.*

	TOTALIZER READING AT START TIME	TOTALIZER READING AT STOP TIME	GALLONS MEASURED DURING TEST	RELATIVE PERCENT DIFFERENCE
DATE & TIME	<del>3/25/00 12:15</del>	4-8-99	1047	
EXW-1				
LOCAL				
PLC				
REMOTE				
EXW-2				
LOCAL				
PLC				
REMOTE				
EXW-3				
LOCAL				
PLC				
REMOTE				
EXW-4				
LOCAL				
PLC				
EXW-5				
LOCAL				
PLC				
REMOTE				
FIT-101				
LOCAL				
PLC				
REMOTE				

→ No TOTAL ON SCREEN ✓ JS  
OK



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

RECEIVED  
99 MAY 18 AM 8:04  
OICC/ROICC

To: E. Taleghani

Date: May 13, 1999

From: D. Brennan

A handwritten signature in black ink, appearing to read 'D. Brennan', written over the printed name.

Project No. 769574

**SUBJECT: Final Inspection Punch List, DO 70, EATS, Moffett Field**

Enclosed is the Final Inspection Punch List. It is my intention to reinspect DO 70 on Wednesday, May 18, 1999 between 06:00 am and 01:00 pm. If you have questions concerning this reinspection please call me at (415) 822-5050.

cc: B. Hulet  
J. Fernandez  
A. Gopinath  
E. Darmetko  
DO 70 Project File  
DO 70 Central File