

**APPENDIX O**  
**ORDNANCE AND EXPLOSIVES**  
**AVOIDANCE SURVEY REPORT**

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**FINAL**

**UNEXPLODED ORDNANCE AVOIDANCE REPORT  
FOR THE  
PHASE II REMEDIAL INVESTIGATION  
OF  
LOAD LINES 2, 3, AND 4  
AT THE  
RAVENNA ARMY AMMUNITION PLANT,  
RAVENNA, OHIO**

**October 2001**

**Prepared for**

**U.S. Army Corps of Engineers  
Louisville District  
Contract No. F44650-99-D-0007  
Delivery Order No. CY01**

**Prepared by**

**EXPLOSIVE ORDNANCE TECHNOLOGIES, INC.  
185 Rumson Road  
Rumson, New Jersey 07760**

**and**

**SCIENCE APPLICATIONS INTERNATIONAL CORPORATION  
151 Lafayette Drive, P.O. Box 2501  
Oak Ridge, Tennessee 37831**

**FINAL REPORT**

**Unexploded Ordnance Support Services  
Phase II Remedial Investigation  
Load Line 2  
Ravenna Army Ammunition Plant  
Ravenna, Ohio**

**FINAL REPORT  
RAVENNA ARMY AMMUNITION PLANT  
LOAD LINE 2  
RAVENNA, OHIO**

## **1.0 INTRODUCTION**

### **1.1 Project Authorization**

Explosive Ordnance Technologies Incorporated (EOTI), was contracted by Science Applications International Corporation (SAIC), to provide standard Ordnance Avoidance and Site Safety services for the Load Line 2 remedial investigation. The project commenced with mobilization of personnel on July 22nd, 2001. The following report contains a brief description of events and operational procedures used during the project.

### **1.2 Objectives**

The purpose of the project was to provide Ordnance and Explosive Safety support for SAIC and subcontractors during well drilling and soil sampling efforts. Specifically, the following tasks were to be completed:

1. Provide daily ordnance/explosive safety briefings for all site personnel.
2. Visually verify the extent of surface ordnance and explosive waste.
3. Use magnetometers/gradiometers to verify subsurface soil sample and well drilling locations to be free of anomalies.
4. Prepare final report.

## **2.0 DAILY OPERATIONS**

**22 July, 2001** - Wayne Lewallen, EOTI Senior UXO Supervisor and Jeff Kapp, UXO Technician, and Joshua Rich, UXO Technician mobilize to Ravenna, Ohio.

**23 July, 2001** - EOTI personnel arrive for Site Safety meeting.

Mr. Kevin Jago (SAIC Project Manager), briefs site history, work assignments and objectives of the Phase II Remedial Investigation for Load Line 2.

Wayne Lewallen (Senior UXO Supervisor) provides a detailed UXO Safety Briefing to include examples of ordnance previously located at Ravenna. All personnel signed the Site Work Plan and Health and Safety log during this meeting.

EOTI personnel depart to commence UXO Avoidance operations with soil sampling and well drilling crews.

Wayne Lewallen and Kevin Jago (SAIC Project Manager) identify preliminary locations for soil sampling and installation of Monitoring Wells.

EOTI team assists with equipment checkout and loading support vehicles.

Team departs Ravenna at 1815.

**24 July, 2001** - Arrive at site for 0700 Safety Briefing.

Arrive at LL2 at 0730. Begin assisting crews with Magnetometer checks and brush cutting.

UXO team rotates between the Well Drilling Team, the Soil Sampling Team and the Concrete Coring Team throughout the day.

Well locations at points 200 and 265 were cleared. Concrete coring operations were completed at the following points: 070, 084, 085, 123, 124, 135, 136, 137.

Team departs Ravenna at 1800.

**25 July, 2001** - Arrive at site for 0700 Safety Briefing.

Arrive at LL2 at 0730.

Begin magnetometer check and hand-auger 4' test hole for well drilling crews at points: 185, 193, 196, 197, 199. Continue with magnetometer checks for soil sample team and well drilling crews throughout the day. Soil Sample locations and approach paths for points: 80, 81, 82, 83, 84, 85, 103, 105, 106, 107 magnetometer checked.

Assist with Concrete Coring operations for points; 075, 077, 091, 092, 151, 152, 153, 173, 174,

Team departs Ravenna at 1805.

**26 July, 2001** - Arrive at site for 0700 Safety Briefing.

Arrive at LL2 0730.

Josh Rich assists soil sample team with magnetometer checks. The following sample points were cleared: 086, 087, 088, 089, 090, 091, 092, 093, 095, 098, 099, 173, 174.

Jeff Kapp assists with clearing of balast from railroad areas for soil samples. The following soil samples locations were cleared: 100, 126, 127, 128, 131, 132, 139, 140, 141.

Team assist Kevin Jago in locating manholes.

Team departs Ravenna at 1800.

**27 July, 2001** - Arrive at site for 0700 Safety Brief.

Arrive at LL2 at 0755.

Begin magnetometer checks for well drilling and soil crews.

The following soil sample locations were checked with the magnetometers: 108, 112, 129, 130, 145, 146, 147, 151, 152, 153, 154, 155, 156, 157, 158, 159, 213, 214, 215, 216, 217.

Team departs Ravenna at 1800.

**28 July, 2001** - Arrive at site for 0700 Safety Brief.

Arrive at LL2 at 0730.

Josh Rich begins hand auger and magnetometer checks for well drilling team at points 264, 268, 220.

Jeff Kapp assists soil sample crew with the following sample locations: 128, 130, 132, 133, 134, 142, 143, 144.

Team also completed checks for locations 86, 110, 149, 186, 187, 189 and DB2, DB6, DB8, DB11, DB12, DB20, DB802 and DA18.

Team departs Ravenna at 1800.

**29 July, 2001** - Arrive at site for 0800 Safety Brief.

Arrive at LL2 at 0900.

UXO team provides magnetometer checks for soil sample and well drilling crews. The following sample locations were cleared: MW263, MW267, DA12, 133, 134, 046, 226, 231, 232, 235, 238, 244.

Team departs Ravenna at 1730.

**30 July, 2001** - Arrive at site for 0700 Safety Brief

Arrive at LL2 at 0730

UXO team begins day by assisting with soil water and sediment sampling and collecting soil samples.

UXO team performs magnetometer checks for the following soil sample locations: 071, 086, 087, 133, 162, 205, 206, 207, 208, 209, 210, 226, 227, 228, 229, 230, 263, 268.

Team departs Ravenna at 1800.

**31 July, 2001** - Arrive at site for 0700 Safety Briefing

Team arrives at LL2 at 0730.

The following sample locations and monitoring well points were check for anomalies: MW261, MW262, MW266. Soil Sample locations: 57, 58, 59, 60, 61, 62, 63, 64, 67, 68, 69, 295, 296, 297.

Team departs Ravenna at 1800.

**1 August, 2001** - Arrive at site for 0700 Safety Briefing

Arrive at LL2 at 0730.

The following soil sample locations checked and declared free of magnetic anomalies: 066, 086, 094, 122, 123, 124, 125.

All personnel depart at 1300. End of first cycle.

**6 August, 2001** - Arrive at site for 0800 Safety Briefing

All personnel returned safely from home leave. Extensive Safety Briefing conducted to refresh all site personnel with UXO hazards and safety precautions.

Arrive at LL2 at 0840.

Complete magnetometer checks for Well Drilling crews. The following location was cleared: MW266.

Jeff Kapp meets with Robotics team to assist with check of several locations. The following locations were checked with remote cameras: DA12, DA20 DB11, DB12, DB20, DB21, MH307, MH310, IN-C4.



Team departs Ravenna at 1800.

**8 August, 2001** - Arrive at site for 0700 Safety Brief.

Arrive at LL2 at 0730.

Jeff Kapp assists robot team with video of sanitary sewers and storm drains.

Martha recalls all teams at 1630 for weather hold. Teams clean and check equipment.

Team Departs Ravenna at 1800.

Team Departs Ravenna at 1800.

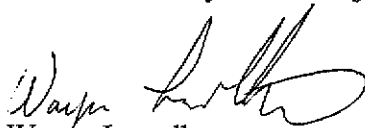
### **3.0 EQUIPMENT**

EOTI personnel conducted UXO Survey sweeps with GA52CX Shonstedt Magnetometers for all soil sample locations and approach paths. Monitoring Wells were surveyed with GA52CX Shonstedt Magnetometers and MG230 (downhole) gradiometers.

### **4.0 SUMMARY**

EOTI personnel conducted magnetometer/gradiometer check for all Monitoring Wells and Soil Sample locations. On some occasions sub-surface anomalies were detected in the proposed Monitoring Well or Soil Sample location requiring the selection of another location.

No UXO or hazardous components were identified on the LL2 site. All work was conducted safely with no injuries to personnel.



Wayne Lewallen,  
Project Manager, EOTI

EOTI  
RAVENNA

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MONDAY 07/23/01

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16-

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5

0-13

TUESDAY 07/24/01

0715 MORNING SAFETY BRIEF

0725 END BRICE

0740 DEPART. FOR LL4 WITH CONCRETE CORING

0815 SET UP AND CUTTING LL4<sup>SS</sup> 124

0835 SET UP AND CUTTING LL4-123

0905 SET UP AND CUTTING LL4-120

0925 SET UP / CUTTING LL4-119

1035 SET UP / CUTTING LL4-109

1055 SET UP / CUTTING LL4-108

1115 SET UP / CUTTING LL4-079

1155 LUNCH

1235 DEPART FOR LL2 WITH CONCRETE CORING

1330 SET UP / CUTTING LL2-085

1400 SET UP / CUTTING LL2-084

1430 SET UP / CUTTING LL2-123

1455 SET UP / CUTTING LL2-124

1525 LL2-124 ENCOUNTERED FOUNDATION WALL  
MOVED 2 1/2 - 3' CUT NEW HOLE.

1615 SET UP / CUTTING LL2-137

1630 SET UP / CUTTING LL2-136

1645 SET UP / CUTTING LL2-135

1710 SET UP / CUTTING LL2-070

1745 RETURN TO OFFICE

1815 SECURE FOR DAY

WEDNESDAY 07/25/01

0700 ARRIVE ON SITE

0715 MORNING SAFETY BRIEF

0730 DEPART FOR LL2 WITH CONCRETE CORING

0800 SET UP / CUTTING LL2-075

0830 SET UP / CUTTING LL2-077

0850 SET UP / CUTTING LL2-091

0910 SET UP / CUTTING LL2-092

0935 SET UP / CUTTING LL2-174

1000 SET UP / CUTTING LL2-173

1020 SET UP / CUTTING LL2-151

1040 SET UP / CUTTING LL2-152

1055 SET UP / CUTTING LL2-153

1125 RETURN TO OFFICE FUEL AND LUNCH

1230 DEPART FOR LL-3 WITH CONCRETE CORING

1245 SET UP / CUTTING LL3-062

1300 SET UP / CUTTING LL3-061

1320 SET UP / CUTTING LL3-068

1335 SET UP / CUTTING LL3-069

1355 SET UP / CUTTING LL3-094

1415 SET UP / CUTTING LL3-095

1515 SET UP / CUTTING <sup>EMPTY</sup> SPACE LL3-~~123~~ 125

1530 SET UP / CUTTING " " LL3-124

1550 SET UP / CUTTING <sup>BAD HOLE</sup> CUT NEW ONE LL3-~~125~~ 123

1650 SET UP / CUTTING LL3-107

1700 SET UP / CUTTING LL3-108

1720 SET UP / CUTTING LL3-109

1800 RETURN TO OFFICE

1805 SECURE FOR DAY

0-14

THURSDAY 07/26/01		FRIDAY 07/27/01	
0700	ARRIVE ON SITE	0700	ARRIVE ON SITE
0715	MORNING SAFETY BRIEF	0720	MORNING SAFETY BRIEF
0730	DEPART WITH WAYNE	0755	DEPART FOR LL2 WITH SS TEAM (JIMMY)
0800	CHECK AND CLEAR WP LL4-194	0805	CHECK + CLEAR LL2-129
0835	WITH SOIL SAMPLE TEAM (JIMMY) SS LL2-100	0905	CHECK + CLEAR LL2-130
0945	RETURN TO OFFICE WITH SAMPLES	0950	MEET WITH BACK HOE
0950	DEPART TO LL2	1000	CLEARING BALAST FROM LL2-213/214/215/216/217
1005	CHECK + CLEAR LL2-132	1115	CHECK + CLEAR LL2-112
1050	CHECK + CLEAR LL2-141	1155	RETURN TO OFFICE
1150	CHECK + CLEAR LL2-140	1205	CLEAN UP
1235	RETURN TO OFFICE - LUNCH	1210	LUNCH
1335	DEPART FOR LL2	1315	FRESH WASH
1345	CHECK + CLEAR LL2-126	1335	DEPART FOR LL2
1500	REPORTED TO KEVIN AT 0810 TO LOCATE MAIN HOSE	1355	CHECK + CLEAR LL2-108
1515	BACK WITH SOIL SAMPLE CHECK + CLEAR LL2-131	1430	CHECK + CLEAR LL2-217
1530	CHECK + CLEAR LL2-128	1445	CHECK + CLEAR LL2-216
1600	CHECK + CLEAR LL2-127	1515	CHECK + CLEAR LL2-215
1655	CHECK + CLEAR LL2-139	1550	CHECK + CLEAR LL2-214
1755	RETURN TO OFFICE	1640	CHECK + CLEAR LL2-213
1800	SECURE FOR DAY	1740	RETURN TO OFFICE
		1800	SECURE FOR DAY

0-15

SATURDAY

07/28/01

0700 ARRIVE ON SETC  
 0720 MORNING SAFETY BRIEF  
 0730 DEPART FOR LL2 TO CHECK + CLEAR WP'S  
 0800 ON SITE WITH SS TEAM (Jenny)  
 0815 CHECK + CLEAR LL2 - 144  
 0900 CHECK + CLEAR LL2 - 143  
 0930 CHECK + CLEAR LL2 - 142  
 1020 CHECK + CLEAR LL2 - 134  
 1100 CHECK + CLEAR LL2 - 133  
 1155 RETURN TO OFFICE  
 1200 CLEAN UP / LUNCH  
 1305 DEPART TO LL2  
 1330 RETAKING SAMPLES AT LL2 - 132  
 1515 RETAKING SAMPLES AT LL2 - 128  
 1545 WAYNE DEPARTS  
 1600 RETAKING SAMPLES AT LL2 - 130  
 1630 CHECKING ON DRILL REGS  
 1715 BACK WITH SOIL SAMPLE TEAM  
 1745 RETURN TO OFFICE  
 1800 SECURE FOR DAY

SUNDAY

07/29/01

0800 ARRIVE ON SETC CHECK JOHN EN  
 0820 MORNING SAFETY BRIEF  
 0855 DEPART FOR LL2  
 0900 PREP. MW LL2 MW - 263 WITH JOSH  
 0925 PREP LL2 MW - 267 WITH JOSH  
 1000 DROP JOSH OFF WITH SOIL SAMPLE (MAT)  
 1020 WITH SOIL SAMPLE TEAM (Jenny)  
 1025 RETAKING SAMPLES LL2 - 133  
 1115 RETAKING SAMPLES LL2 - 134  
 1220 RETURN TO OFFICE - LUNCH  
 1358 DEPART FOR LL2 WITH TEAM JEMMY  
 1420 TAKING WATER SAMPLES LL2 - 226  
 1630 RETURN TO OFFICE / PAPER WORK  
 1730 SECURE FOR DAY

MONDAY 07/30/01  
 0700 ARRIVE ON SITE  
 0725 MORNING SAFETY BRIEF  
 0755 DEPART FOR LL2 WITH JOHN  
 0805 CHECK SECOND LOCATION AT LL2-268  
 0845 COLLECTING SW/SED LL2-226  
 0950 COLLECTING SW/SED LL2-227  
 1100 COLLECTING SW/SED LL2-228  
 1220 RETURN TO OFFICE / LUNCH  
 1330 DEPART FOR LL2 WITH TEAM JIMMY  
 1345 COLLECTING SW/SED LL2-229 (PICTURES)  
 1445 COLLECTING SW/SED LL2-230 (PICTURES)  
 1600 RETURN TO OFFICE  
 1645 DEPART FOR LL3 - TROOP CHECK  
 1730 CHECKED SECOND HOLE FOR LL2-263  
 1755 RETURN TO OFFICE  
 1800 SECURE FOR DAY

TUESDAY 07/31/01  
 0700 ARRIVE ON SITE  
 0720 MORNING MEETING  
 0730 DEPART FOR LL2 WITH JOHN  
 0745 CHECK + CLEAR LL2MW-262  
 0815 CHECK + CLEAR LL2MW-266  
 0845 CHECK + CLEAR LL2MW-267 \*  
 0910 CHECK + CLEAR LL2-270 \*  
 1080 DROPPED JOHN OFF WITH SS TEAM JEMMY  
 1100 RETURN TO OFFICE  
 1105 DEPART FOR LL2 WITH BRAD  
 1135 RETURN TO OFFICE  
 1145 CALL WAYNE  
 1200 LUNCH  
 1300 DEPART FOR LL2 + 3  
 1330 WITH SGIL SAMPLE "A" TEAM  
 1340 CHECK + CLEAR LL2-295  
 1400 CHECK + CLEAR LL2-296  
 1430 CHECK + CLEAR LL2-297  
 1510 CHECK ON DRILL RIGS  
 1545 TROOP CHECK  
 1620 RETURN TO OFFICE - DISHES  
 1800 SECURE FOR DAY



0-17

WEDNESDAY 08/01/01		MONDAY 08/06/01	
0700	ARRIVE ON SITE	0800	ARRIVE ON SITE
0715	MORNING SAFETY MEETING	0820	MORNING SAFETY MEETING
0745	DEPART FOR LL2 WITH TEAM JIMMY	0840	DEPART FOR LL3 WITH JOSH
0800	CHECK + CLEAR LL2-066	0900	CHECK CLEAR + ANGER LL3 MW-236
0825	CHECK LL2-094 SUSPICIOUS ROCK	0930	RETURN TO OFFICE
0905	RETURN TO OFFICE TO TALK TO J.J. + BRAD	0945	DEPART FOR LL2 DRILL CREW LL2 MW-266
0945	MEET J.J. + BRAD AT LL2-094	1015	RETURN TO OFFICE
1030	MEET TEAM JIMMY AT LL2-086	1030	DEPART FOR LL3
1210	RETURN TO OFFICE	1100	MEET UP WITH LEW
1300	SECURE FOR WEEKEND	1105	DEPART FOR LL2
		1115	MEET WITH SOIL SAMPLE TEAM JIMMY
		1130	DEPART FOR LL3
		1200	CHECK + CLEAR LL3-208
		1235	RETURN TO OFFICE / LUNCH
	END 1 <sup>ST</sup> CYCLE	1305	DEPART FOR LL2 WITH ROBOT GUYS
		1315	CHECK + CLEAR DB-21
		1355	CHECK + CLEAR DB-20
		1420	CHECK + CLEAR DB-11
		1440	" " DB-12
		1455	" " DB-11 (PICTURES)
		1525	" " MH-310
		1540	" " IN-C4
		1555	" " MA-307
		1615	" " IN DA 12
		1700	" " OA-20
		1800	RETURN TO OFFICE
		1830	SECURE FOR DAY

TUESDAY

08/07/01

0700 ARRIVE ON SITE  
0715 MORNING SAFETY MEETING  
0745 DEPART FOR LL2 WITH ROBOT GUYS  
0800 CHECKING SEWERS AT LL2  
1030 MAJOR CAMERA PROBLEMS  
1150 BACK AT OFFICE  
1320 DEPART FOR LL3 WITH TEAM JIMMY  
1330 COLLECTING SURFACE WATER + SEDIMENT SAMPLES  
1735 RETURN TO OFFICE  
1800 SECURE FOR DAY

WEDNESDAY

08/08/01

0700 ARRIVE ON SITE  
0710 MORNING SAFETY BRIEF  
0725 DEPART FOR LL2 WITH CAMERA GUYS  
0735 TAKING VIDEO OF STORM DRAINS LL3  
0920 TAKING VIDEO OF SANITARY SEWERS LL3  
1215 RETURN TO OFFICE - LUNCH  
1325 DEPART FOR LL-4 WITH CAMERA GUYS  
1340 TAKING VIDEO OF SANITARY SEWERS LL4  
1520 TAKING VIDEO OF STORM DRAINS LL4  
1625 RETURN TO OFFICE CAMERA BROKE  
1630 MARTHA RECALLS ALL TEAMS  
1800 SECURE FOR THE DAY

0-19

THURSDAY

08/09/01

0700 ARRIVE ON SITE  
 0720 MORNING SAFETY BRIEF  
 0735 DEPART FOR LL4 WITH CAMERA GUYS  
 0750 TAKING VIDEO IN STORM DRAINS LL4  
 1115 RETURN TO OFFICE / LUNCH  
 1155 DEPART FOR LL2 WITH CAMERA GUYS  
 1215 TAKING VIDEO ON LL2  
 1255 DEPART FOR LL3 WITH CAMERA GUYS  
 1300 TAKING VIDEO ON LL3  
 1410 DEPART FOR LL4 WITH CAMERA GUYS  
 1425 TAKING VIDEO ON LL4  
 1555 RETURN TO OFFICE  
 1600 DEPART FOR LL3  
 1610 WITH SOIL SAMPLE TEAM JIMMY  
 1645 CALLED TO RETURN TO OFFICE DUE TO WEATHER  
 1700 RETURNED TO OFFICE  
 1730 SECURED FOR DAY DUE TO WEATHER

FRIDAY

08/10/01

0700 ARRIVE ON SITE  
 0715 MORNING SAFETY MEETING  
 0745 DEPART FOR LL3 WITH SOIL SAMPLE TEAM JIMMY  
 0800 CHECK + CLEAR RANDOM POINT LL3-181  
 0830 CHECK + CLEAR RANDOM POINT LL3-180  
 0900 CHECK + CLEAR RANDOM POINT LL3-179  
 0940 CHECK + CLEAR RANDOM POINT LL3-173  
 1015 CHECK + CLEAR RANDOM POINT LL3-178  
 1105 CHECK + CLEAR RANDOM POINT LL3-182  
 1155 CHECK + CLEAR RANDOM POINT LL3-176  
 1215 RETURN TO OFFICE CLEAN UP / LUNCH  
 1330 DEPART FOR LL3 WITH SOIL SAMPLE TEAM JIMMY  
 1345 CHECK + CLEAR RANDOM POINT LL3-177  
 1415 CHECK + CLEAR RANDOM POINT LL3-183  
 1510 " " " " LL3-171  
 1535 " " " " LL3-170  
 1605 " " " " LL3-169  
 1635 " " " " LL3-168  
 1710 RETURN TO OFFICE  
 1800 SECURED FOR DAY

SATURDAY

08/11/01

0700	ARRIVE ON SITE
0715	MORNING SAFETY BRIEF
0740	CHECK + CLEAR LL3-139
0815	CHECK + CLEAR LL3-140
0845	" " LL3-078
0910	" " LL3-101
1015	" " LL3-091
1050	" " LL3-092
1120	" " LL3-174
1145	" " LL3-061
1215	RETURN TO OFFICE LUNCH
1330	DEPART FOR LL-2 DRILL RIG PICTURES
1500	CHECK + CLEAR SEAFMENT POINT LL4-185
1555	CHECK + CLEAR SW/SED LL4-177
1745	RETURN TO OFFICE
1800	SECURE FOR DAY

SUNDAY

08/12/01

0800	ARRIVE ON SITE
0810	MORNING SAFETY BRIEF
0820	DAVE GETTING IN BRIEF
0850	TAKE DAVE ON TOUR OF LL3 + LL4
0930	DROP DAVE WITH SOEL SAMPLE TEAM
0945	WITH DRILL RIG FOR LL3MW-233
1150	RETURN TO OFFICE / LUNCH
1255	DEPART FOR LL3 WITH DRILL RIG (TODD + MOLLY)
1315	CHECK + CLEAR LL3MW-232
1430	LL4 WITH TEAM JIMMY
1710	RETURN TO OFFICE
1755	SECURE FOR DAY

MONDAY

08/13/01

0700 ARRIVE ON SITE  
 0710 MORNING SAFETY BRIEF  
 0720 DEPART FOR LL3 WITH TEAM JIMMY  
 0745 CHECK + CLEAR LL3 - 163 + 164  
 0810 DEPART FOR LL4  
 0820 COLLECTING SW/SED LL4 WITH TEAM JIMMY  
 1225 RETURN TO OFFICE / LUNCH  
 1330 DEPART FOR LL4  
 1400 COLLECTING SW/SED LL4 WITH TEAM JIMMY  
 1745 RETURN TO OFFICE  
 1800 SECURE FOR DAY

TUESDAY

08/14/01

0700 ARRIVE ON SITE  
 0720 MORNING SAFETY MEETING  
 0740 DEPART FOR LL4 WITH TEAM JIMMY  
 0800 COLLECTING WATER FROM <sup>LL4</sup> POND  
 1100 COLLECTING SW/SED  
 1145 COLLECTING SW AT LL4-175  
 1230 RETURN TO OFFICE LUNCH  
 1330 DEPART FOR LL4 WITH TEAM JIMMY  
 1400 COLLECTING SED SAMPLES LL4 POND  
 1730 RETURN TO OFFICE  
 1800 SECURE FOR DAY

WEDNESDAY

08/15/01

0700 ARRIVE ON SITE  
 0715 MORNING SAFETY BRIEF  
 0915 TEAM LEADERS MEETING  
 0945 DEPART FOR LL2  
 1000 SPOTTING TRENCH SITES  
 1200 RETURN TO OFFICE  
 1300 SECURE FOR DAY

END OF CYCLE

MONDAY

08/20/01

0800 ARRIVE ON SITE  
 0815 MORNING SAFETY BRIEF  
 0915 GAVE WELCOME BRIEF TO 2 NEW JOBS  
 0945 DEPART FOR LL2  
 1000 CHECK + CLEAR LL2-218 TEST PIT 1 (TRENCH)  
 1225 RETURN TO OFFICE LUNCH  
 1325 DEPART FOR LL2 WITH TRENCH CREW  
 1335 CHECK + CLEAR LL2-220 TP 3  
 1425 CHECK + CLEAR LL2-219 TP 2  
 1500 CHECK + CLEAR LL2-221 TP 4  
 1535 CHECK + CLEAR LL2-222 TP 5  
 1605 CHECK + CLEAR LL2-223 TP 6  
 1715 TRENCHING OPS ON LL2 COMPLETE  
 1740 RETURN TO OFFICE  
 1800 SECURE FOR DAY

TUESDAY

08 / 21 / 01

WEDNESDAY

08 / 22 / 01

0700 ARRIVE ON SITE  
 0720 MORNING SAFETY BRIEF  
 0730 DEPART FOR LL3 TRENCH OPS  
 0740 CHECK + CLEAR LL3-202 TP3  
 0810 CHECK + CLEAR LL3-203 TP4  
 0900 CHECK + CLEAR LL3-204 TP5  
 0955 CHECK + CLEAR LL3-200 TP1 RELOCATED  
 1055 CHECK + CLEAR LL3-205 TP6  
 1210 RETURN TO OFFICE LUNCH  
 1310 DEPART FOR LL3  
 1325 CHECK + CLEAR LL3-201 TP2 RELOCATED  
 1410 TRENCH OPS COMPLETE LL3 DEPART FOR LL4  
 1515 CHECK + CLEAR LL4-170 TP4  
 1630 CHECK + CLEAR LL4-171 TP5  
 1730 RETURN TO OFFICE  
 1800 SECURE FOR DAY

0700 ARRIVE ON SITE  
 0715 MORNING SAFETY BRIEF  
 0730 DEPART FOR LL4 TRENCH OPS  
 0740 CHECK + CLEAR LL4-172 TP6  
 0900 CHECK + CLEAR LL4-167 TP1 RELOCATED  
 1000 CHECK + CLEAR LL4-168 TP2  
 1120 CHECK + CLEAR LL4-169 TP3  
 1215 COMPLETE TRENCH OPS LL4  
 1230 RETURN TO OFFICE / LUNCH  
 1335 DEPART FOR LL4 WITH BRAD  
 1345 BACKHOE CLEARING BALAST  
 1530 CHECKING WITH ALL TEAMS  
 1730 RETURN TO OFFICE  
 1800 SECURE FOR DAY

0-23

THURSDAY

08/23/01

FRIDAY

08/24/01

0700 ARRIVE ON SITE  
 0715 MORNING SAFETY BRIEF  
 0730 DEPART FOR LL4 WITH SOIL SAMPLE TEAM  
 0745 CHECK + CLEAR RANDOM POINTS  
 1200 RETURN TO OFFICE / LUNCH  
 1335 DEPART FOR LL4 WITH SS TEAM JIMMY  
 1345 CHECK + CLEAR RANDOM POINTS  
 1630 RETURN TO OFFICE  
 1730 SECURE FOR DAY

0700 ARRIVE ON SITE  
 0720 MORNING SAFETY BRIEF  
 0740 DEPART FOR LL4 WITH SS TEAM JIMMY  
 0800 CHECK + CLEAR RANDOM POINTS  
 1045 JIMMY GETS VAN STUCK HARD!  
 1150 TOLTEST GETS VAN UNSTUCK WITH BACKHOE!  
 1200 RETURNS TO OFFICE / ~~OFFICE~~ LUNCH  
 1330 DEPART FOR LL4 WITH SS TEAM  
 1345 CHECK + CLEAR RANDOM POINTS  
 1700 RETURN TO OFFICE.  
 1800 SECURE FOR DAY



SATURDAY

08/25/01

08/26/01

0700 ARRIVE ON SITE  
 0720 MORNING SAFETY BRIEF  
 0830 DEPART FOR LLS CALL FROM MEG.  
 1000 CHECKING WITH ALL TEAMS  
 1200 RETURN TO OFFICE LUNCH  
 1330 MOVING BETWEEN ALL TEAMS  
 1730 RETURN TO OFFICE  
 1800 SECURE FOR DAY

SUNDAY

0800 ARRIVE ON SITE  
 0815 MORNING SAFETY BRIEF  
 0845 DEPART WITH SUSAN + JEN FOR WELL INSPECTION  
 1200 RETURN TO OFFICE LUNCH  
 1310 DEPART WITH SUSAN + JEN FOR WELL INSPECTION  
 1710 RETURN TO OFFICE  
 1800 SECURE FOR DAY

MONDAY

08/27/01

0700 ARRIVE ON SITE  
0720 MORNING SAFETY BRIEF  
0800 DEPART WITH KATIE CONTINUE WELL INSPECTION  
1155 RETURN TO OFFICE LUNCH  
1320 DEPART FOR MORE SITE WIDE WELL INSPECTION  
1720 RETURN TO OFFICE  
1800 SECURE FOR DAY

TUESDAY

08/28/01

0700 ARRIVE ON SITE  
0725 MORNING SAFETY BRIEF  
0800 SITE WIDE WELL DEPTH CHECK  
1205 RETURN TO OFFICE  
1320 CONTINUE WELL DEPTH CHECKS  
1430 RETURN TO OFFICE CLEANUP  
1800 SECURE FOR DAY

END OF CYCLE

WEDNESDAY 08/29/01

0700 ARRIVE AT SUPER 8  
0705 DEPART FOR CLEVELAND AIRPORT W/DAVE  
0810 DROP DAVE AT AIRPORT,  
0920 RETURN TO HOME

TUESDAY 09/04/01

0800 ARRIVE ON SITE  
0820 MARTHA ARRIVES ON SITE  
0900 GIVE BRIEF TO TWO PEOPLE FROM DLZ  
1520 DEPART FOR LLA WITH BEA + MARTHA  
1845 RETURN TO OFFICE CLEAN UP  
1900 SECURE FOR DAY

AIRPORT RUN

WEDNESDAY 09/05/01

0700 ARRIVE ON SITE  
0710 MORNING SAFETY BRIEF  
0800 DEPART FOR LL4 WITH 2 WATER SAMPLE TEAMS  
1155 RETURN TO OFFICE LUNCH  
1310 DEPART FOR LL4 WITH WS TEAMS  
1810 RETURN TO OFFICE CLEAN UP  
1900 SECURE FOR DAY

THURSDAY

09/06/01

0700 ARRIVE ON SITE  
0730 MORNING SAFETY MEETING  
0815 DEPART FOR LL4 WITH WS TEAMS  
1210 RETURN TO OFFICE LUNCH  
1345 DEPART FOR LL4 WITH WS TEAMS  
1735 RETURN TO OFFICE  
1800 SECURE FOR DAY

FRIDAY

09/07/01

0700

ARRIVE ON SITE

0730

MORNING SAFETY BRIEF

0815

TEAMS DEPART FOR LL4

1200

LUNCH

1745

TEAMS RETURN

1800

SECURE FOR DAY WEEKEND

MONDAY

09/10/01

0800

ARRIVE ON SITE

0845

MORNING SAFETY BRIEF

0930

TEAMS DEPART FOR LL2

1045

DEPART FOR LL2

1215

RETURN TO OFFICE LUNCH

1345

DEPART FOR LL2

1710

RETURN TO OFFICE

1825

LAST TEAM RETURNS

1900

SECURE FOR DAY

TUESDAY

09 / 11 / 01

0700

ARRIVE ON SITE

0720

MORNING SAFETY BRIEF

0830

TEAMS DEPART FOR LL2

0915

CALL "LEW" NOT IN OFFICE CELL BUSY

Record  
Ruled

144  
Pages

Wilson Jones



RECORD BOOK

Keep home and  
business information  
organized

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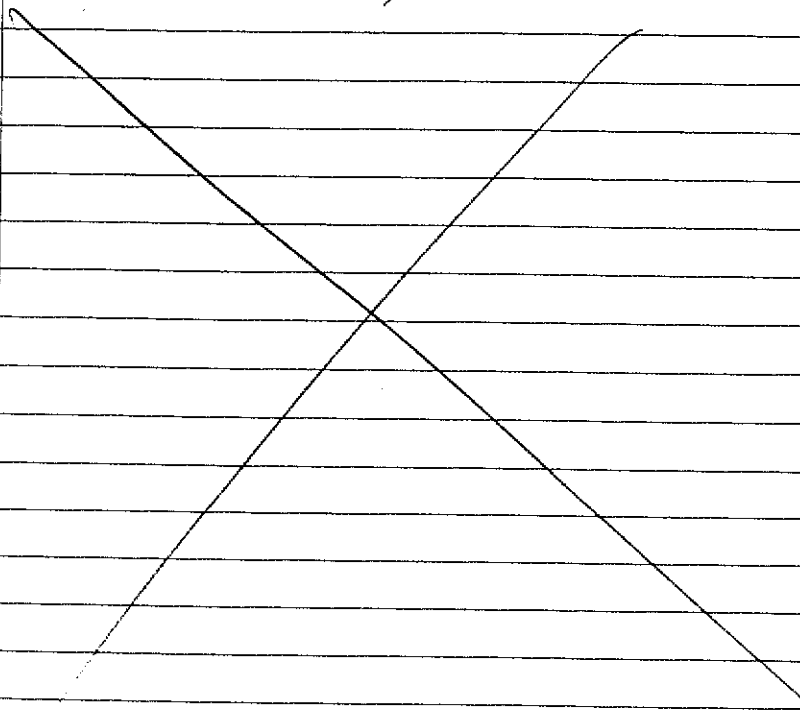
RECORD

Monday July 23

0800 - satdy brief

1330 - started laying out points  
LL 4

1815 End of Day





Tuesday July 24

0700 - Safety Brief

0730 - LL2 Pt. 265 held open to  
4" "Clear"

0800 - LL2 started marking points

1200 - Break for lunch

1300 - End Lunch

1310 - started drilling #200

1545 - Well 200 drilled waiting to  
cap.

1645 - Grouted well

1715 - Sealed and delivered samples

1730 - placed tarp over roll away.

1800 - End of Day

Wednesday July 25

0700 - Safety Brief

0730 - Auger - LL4 test holes  
196, 197, 199

0830 - LL2 help soil sample  
team, #103, 106, 107, 105

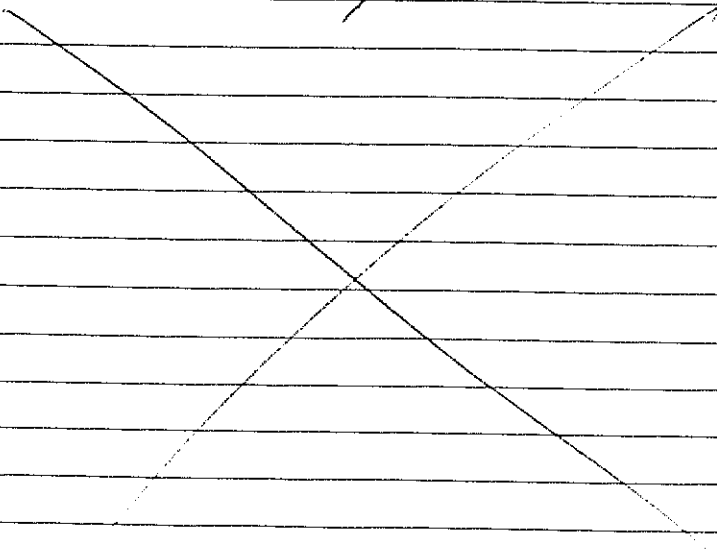
1200 - Lunch

1300 - cleared test holes 195, 193

1430 - LL2 help soil sample team  
80, 81, 83, 84, 85, 82

1615 - return for cleanup

1800 - End of Day



Thursday July 26

0700 - Safety Brief

0730 - LL2 work with sample  
core. Pt. 86

0810 - ~~at~~ LL2, clear pts,  
87, 93, 98, 99

1145 - LL2 work w/ sample core  
pts. ~~87~~ 87, 88, 89, 90, 91, 92, 93

1200 - break for lunch

1300 - LL2 work w/ sample core. pt. 98

1500 - LL4 clear well site for drill core

1630 - LL2 work w/ sample core, pts  
95, 99, 173, ~~173~~, 174

1715 - finished sampling ~~and~~ return to  
nsis building for cleanup and decon.

1800 - End of Day

Friday July 27

0700 - safety brief

0730 - clear pts. for sample teams +  
clear wells for bullheads of wayne.

0830 - work w/ sample team pts. # 148, 149  
151, 152, 153, 158, 159, 150

12:00 - Lunch

1700 - clear pts for sample teams.

1400 - work w/ sample team pts. #  
145, 146, 147, 154, 155, 156, 157

1730 - Dinner / cleanup

1800 - End of Day

Saturday July 28

0700 - safety brief

0730 - clear well pts LL2  
pts 264, 268, (220?)

0830 - work with sample team

pts, 110, 186, 187, 189, 86,  
149

1200 - Lunch

1300 - work w/ sample team pts DB802,  
DB20, DB12, DB8, D011  
DB6, DB2, DA18

1730 - cleanup / Paces

1800 - End of Day

Sunday July 29

0800 - Safety Brief

0830 - clear well pts, 263, 267

1000 - work w/ sample + cans pts

DA12, pt 235, 244

1230 - Lunch

1300 - work w/ sample + cans pts, 248

046, 238, 231, 232

1700 - End of Day

Monday July 30

0700 - Safety Brief

0730 - work ~~sample~~ w/ sample

tecm pts. 86, 87, 71, 133, 162

1130 - Cleanup / Decon

1200 - Lunch

1300 work w/ sample tecm pts. 94,

210, 209, 206, 207, 208

205

1730 - cleanup / Decon

1800 - end of Day

Tuesday July 31

0700 - safety brief

0730 - work w/ sample team, pts,  
057, 058, 061, 062, 063

1200 - Lunch

1300 - work w/ sample team pts, 59, 60,  
67, 68, 69, 64,

1730 - cleanup / Decon

1800 - End of Day



Wednesday Aug 01

0700 - Safety brief

0730 - work w/ sample tears  
points 122, 123, 124, 125

1100 - cleanup / down

1300 - End of Day

Monday August 06

0800 - safety brief

0830 - clear well pt, 266, LL3

0900 - give Wayne royal tour of  
LL3

1000 - LL3 work w/ sample tools  
pts, 86, 88

1230 - Lunch

1300 LL3 work w/ sample tools

pts, 87, 89, 93, 83, 85

1730 - cleanup / Pcon

1830 End of Day

Tuesday August 07

0700 - Safety Brief

0730 - clear well pt. 267-LL3

0845 - Lock w/ sample team

LL3 pts 92, 97, 98, 99, 100

1200 - Lunch

1300 - Lock w/ sample teams LL3-pts,

112, 113, 102, 103, 107, 108

1715 - Cleanup/Decon

1800 - End of Day

Wednesday August 08

0700 - Safety Brief

0730 - clear well pts. 135, 140 LL3

0830 - work w/ sample team LL3

pts. 104, 114, 105, 115, 106

1200 - Lunch

1300 - work w/ sample team LL3

pts. 116, 114, 71

1700 - cleanup / Decon

1800 - End of Day

Thursday August 09

0700 - safety brief

0730 - work w/ sample tests LL3 - Pts

102, ~~103~~, 72, 73, 74, 75, 76

1200 - ~~work~~ Lunch

1300 - clear well pts, LL3 - 243,

242, ~~243~~, 241 / LL2 - 261 /

LL3 - 232 refusal 2' needs

to be checked while drilling /

LL3 - 233 refusal 1' needs to be

checked while drilling /

LL3 - 234 clear

1705 - Cleanup / Decon

1800 - End of Day

Friday August 10

0700 - safety brief

0730 - work w/ scapple team LL3 - P45,

82, 137, 138, 80, 136,

1200 - Lunch

1300 - clear soil scapple pt. 79, 132, 133

134, 135 - LL3

1345 - work w/ bulldozer clearing  
ballast.

1420 - work w/ scapple team LL3 - P45

079, 132, 135

1715 - cleanup / Dinner

1800 - End of Day

Sat August 11

0700 - safety brief

0730 - work w/ sample teams LL3 - ptr  
111,

1200 - Lunch

1300 - work with sample teams LL3 - pts.  
194, 196, 197, 198, 199

1715 - Cleanup / Decon

1800 - End of Day

Sunday Aug 17

0800 - safety brief

0800 - work w/ sample team LL3 - pts.

111, ~~109~~, 132, 135, 136

11:30 - lunch

1230 - work w/ sample team LL3 - pts 99,

80, 137, ~~109~~, LL4 - pts

110, 111, 107

1645 - cleanup/Decon

1900 - End of Day



Monday August 13

0700 - Safety Brief

0730 - Work w/ sample team

LL3 - pts. 153, 158, 157, 159,  
160, 161

1215 - Lunch

1315 - Work w/ sample team LL3 - pts.  
152, 154

1545 - Work w/ sample team

LL4 - pts 108, 109, 105

1715 - Cleanup/Decon

1800 - End of Day

Tuesday August 14

0700- Safety brief

0730- ~~Work~~ work up sample tests

LL4- pts. 106, 104, 137, 141  
136.

1215- Lunch

1315- work up sample tests

LL4- pts. 116, 115, 123, 124

1700- Cleanup/Decon

1900- End of Day

Wednesday August 15

0700 - safety brief

0730 - work ~~up~~ in support of drilling activities

1300 - cleanup / Decon

1330 End of Day

Monday August 20

0800 - Safety Brief

0830 - work w/ sample team

LLY-PT 186, 48, 49

1200 - Lunch

1700 - work w/ sample team LLY-PT

58, 188, 187

1510 - work w/ sample team LL-7

1745 - cleanup / Decon

1800 - End of Day

Tuesday August 21

0700 - safety brief

0730 - work w/ sample team / plug and  
geotech samples

1200 - lunch

1300 - work w/ sample team / plug and  
geotech samples

1730 - cleanup / Decon

1900 - end of day

Wednesday August 22

0700 - safety brief

0730 - work w/ sample team LL4-pts,  
97, 98, 94, 93, 95

1200 - Lunch

1300 - work w/ sample team LL4-pts,  
100, 101, 102, 103, 96

1700 - cleanup/Decon

1800 - End of Day

Thursday August 23

0700 - safety brief

0730 - work w/ sample team LL4-pts

68, 69, 70, ~~71~~, 98, 105

1200 - Lunch

1300 - work w/ sample team LL4-pts

113, ~~74~~, 75

1700 - cleanup / clean

1800 - End of Day



Friday August 24

0700 - safety brief

0730 - work up sample team

LL4 - pts. 127

LL3 - pts. 229, 226, 227, 230, 231

1210 - lunch

1300 - worked with well developing tests

CL4-139

1730 - cleanup/Decon

1800 - End of Day



Saturday August 25

0700 - safety brief

0730 - work w/ well sampling team  
LLJ

1200 - lunch

1300 - work w/ well sampling team  
LLJ

1700 - cleanup / Decon

1800 - End of Day

Sunday August 26

0800 - safety brief

0830 - work up sample trees / bootstrap samples  
LL2 and LL3

1715 - Cleanup / Dinner

1800 - End of Day

Monday August 27

0700 - safety brief

0730 - Work with sample team / Geotech  
samples ULY

1200 - Lunch

1300 - Work w/ sample team / site side  
coll sampling

1730 - cleanup / down

1800 - End of Day

Tuesday August 28

0700 - safety brief

0730 - work with scrape tools, site wide  
well scraping.

1600 - cleanup / clean

1700 - End of Day / End of Job!!!

