US EPA RECORDS CENTER REGION 5
472894

AMERT SITE INVESTIGATION

VOLUME II
(APPENDICES D, E AND F)

Prepared for:

Whirlpool CORPORATION

Clyde, Ohio

Prepared by:

IT Corporation
Austin, Texas

Project No. 446493
NOVEMBER 1990

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Volume Two

APPENDIX D - CERTIFICATES OF ANALYSIS AND CHAIN-OF-CUSTODY FORMS

APPENDIX E - LOGS OF LOCAL WATER WELLS

APPENDIX F - WORK PLAN FOR SITE INVESTIGATION

APPENDIX D NOTE

Both water and soil samples may be designated with the prefix "MW". The first page of each set of certificates indicates whether the results are for water or for soil.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

WHIRLPOOL
IT CORPORATION
2499 B CAPITAL OF TEXAS HWY
AUSTIN TX 78746
MIKE BENTLEY

Date: 01/08/90

Work Order: A9-11-144 P.O. Number: DMN89032

This is the Certificate of Analysis for the following samples:

Client Work ID: AMERT PROJECT 446493-01-04
Date Received: 11/20/89
Number of Samples: 2
Sample Type: SOIL

Previously Reported on 01/03/90.
First Reported on 12/12/89.

TABLE OF CONTENTS FOR ANALYTICAL RESULTS

PAGES	LABORATORY #	SAMPLE IDENTIFICATION
2-3&7	A9-11-144-02	SOIL COMP FOR APPENDIX IX
2-3	A9-11-144-02	SOIL COMP FOR TDWR LEACH
8	A9-11-144-03	SOIL COMPOSITE FOR 8240

Reviewed and Approved:

Donnie L. Heinrich
Laboratory Manager

Company: WHIRLPOOL
Date: 01/08/90
Client Work ID: AMERT PROJECT 446493-01-04 Work Order: A9-11-144

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

SAMPLE ID / SAMPLED / TEST	SOIL COMP FOR APPENDIX IX 11/16/89	SOIL COMP FOR TDWR LEACH 11/16/89	UNITS
TWC LEACHATE PREP		11/22/89	date
MERCURY	<0.02		mg/kg
SILVER by ICP	<1.0		mg/kg
BARIUM by ICP	1500		mg/kg
BERYLLIUM by ICP	<0.1		mg/kg
BORON by ICP	1500		mg/kg
CALCIUM by ICP		16	mg/L
CADMIUM by ICP	2.7		mg/kg
COBALT by ICP	210		mg/kg
CHROMIUM by ICP	110		mg/kg
COPPER by ICP	42		mg/kg
IRON by ICP	18000 mg/kg	0.76	mg/L
POTASSIUM by ICP		25	mg/L
MAGNESIUM by ICP		15	mg/L
MANGANESE by ICP	620		mg/kg
SODIUM by ICP		26	mg/L
NICKEL by ICP	470		mg/kg
TITANIUM by ICP	2000		mg/kg

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Company: WHIRLPOOL
Date: 01/08/90
Client Work ID: AMERT PROJECT 446493-01-04 Work Order: A9-11-144

SAMPLE ID SAMPLED TEST	SOIL COMP FOR APPENDIX IX 11/16/89	SOIL COMP FOR TDWR LEACH 11/16/89	UNITS
VANADIUM by ICP	5.0		mg/kg
ZINC by ICP	1200		mg/kg
TIN by FLAME	<100		mg/kg
ARSENIC - FURNACE	16		mg/kg
LEAD -FURNACE	160		mg/kg
ANTIMONY - FURNACE	<0.3		mg/kg
SELENIUM - FURNACE	<0.5		mg/kg
THALLIUM - FURNACE	0.2		mg/kg
PH		8.0	none
FLUORIDE		18	mg/L
NITRATE		0.06	mg/L
SULFATE		2	mg/L
TOTAL PHOS-PHOROUS AS P	270 mg/kg	1.8	mg/L
TOTAL CYANIDE	0.32		mg/kg
ALKALINITY		140	mg/L
CHLORIDE		3	mg/L
SULFIDE	12		mg/kg
TOTAL ORGANIC CARBON	7		%

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Company: WHIRLPOOL
Date: 01/08/90
Client Work ID: AMERT PROJECT 446493-01-04 Work Order: A9-11-144

TEST NAME: **8150 HERBICIDES**

SAMPLE ID: **SOIL COMP FOR APPENDIX IX**
SAMPLE DATE: **11/16/89**
EXTRACTION DATE: 11/20/89
ANALYSIS DATE: 11/30/89

Results in ug/kg:

COMPOUND	
2,4-D	<100
2,4,5-TP (Silvex)	<100
2,4,5-T	<100

Comments: A less than (<) indicates the compound is not detected at the level indicated.

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(512) 892-6684

Company: WHIRLPOOL
Date: 01/08/90
Client Work ID: AMERT PROJECT 446493-01-04 Work Order: A9-11-144

TEST NAME: **APPENDIX IX PESTS/PCB**

SAMPLE ID: **SOIL COMP FOR APPENDIX IX**
SAMPLE DATE: **11/16/89**
EXTRACTION DATE: 11/20/89
ANALYSIS DATE: 11/29/89

Results in ug/kg:

COMPOUND	
alpha-BHC	<17
beta-BHC	<17
delta-BHC	<17
gamma-BHC (Lindane)	<17
Heptachlor	<17
Aldrin	<17
Heptachlor epoxide	<17
Endosulfan I	<17
Dieldrin	<33
4,4'-DDE	<33
Endrin	<33
Endrin aldehyde	<33
Endosulfan II	<33
4,4'-DDD	<33
Endosulfan sulfate	<33
Toxaphene	<330
4,4'-DDT	<33
Methoxychlor	<170
Chlordane	<170
PCB-1016	<170
PCB-1221	<170
PCB-1232	<170
PCB-1242	<170
PCB-1248	<170
PCB-1254	<170
PCB-1260	<170

Comments: A less than (<) indicates the compound is not detected at the level indicated.

Company: WHIRLPOOL
Date: 01/08/90
Client Work ID: AMERT PROJECT 446493-01-04 Work Order: A9-11-144

TEST NAME: **APPENDIX IX EXTRACTABLES**

SAMPLE ID: **SOIL COMP FOR APPENDIX IX**
SAMPLE DATE: **11/16/89**
EXTRACTION DATE: 11/20/89
ANALYSIS DATE: 11/27/89

Results in mg/kg:

COMPOUND		COMPOUND	
Phenol	<0.33	Hexachlorocyclopentadiene	<0.33
bis(2-Chloroethyl)ether	<0.33	2,4,6-Trichlorophenol	<0.33
2-Chlorophenol	<0.33	2,4,5-Trichlorophenol	<0.33
1,3-Dichlorobenzene	<0.33	2-Chloronaphthalene	<0.33
1,4-Dichlorobenzene	<0.33	2-Nitroaniline	<1.7
Benzyl alcohol	<0.66	Dimethylphthalate	<0.33
1,2-Dichlorobenzene	<0.33	Acenaphthylene	<0.33
2-Methylphenol	<0.33	1,3-Dinitrobenzene	<0.66
3-Methylphenol	<0.33	2,6-Dinitrotoluene	<0.33
bis(2-Chloroisopropyl)ether	<0.33	3-Nitroaniline	<1.7
4-Methylphenol	<0.33	Acenaphthene	<0.33
N-Nitroso-di-n-propylamine	<0.33	2,4-Dinitrophenol	<1.7
Hexachloroethane	<0.33	4-Nitrophenol	<1.7
Nitrobenzene	<0.33	Dibenzofuran	<0.33
Isophorone	<0.33	1,2-Dibromo-3-chloropropane	<1.7
Isosafrole	<0.66	2,4-Dinitrotoluene	<0.33
2-Nitrophenol	<0.33	Diethylphthalate	<0.33
2,4-Dimethylphenol	<0.33	Ethyl methacrylate	<1.7
Acetophenone	<1.7	Diphenylamine	<0.33
2-Acetylaminofluorene	<0.66	4-Chlorophenyl-phenylether	<0.33
4-Aminobiphenyl	<0.66	p-(Dimethylamino)azobenzene	<1.7
Aniline	<1.7	7,12-Dimethylbenz[a]anthracene	<0.66
bis(2-Chloroethoxy)methane	<0.33	3,3-Dimethylbenzidine	<0.66
2,4-Dichlorophenol	<0.33	a,a-Dimethylphenethylamine	<1.7
2,6-Dichlorophenol	<1.7	Methyl methanesulfonate	<1.7
1,2,4-Trichlorobenzene	<0.33	1,4-Naphthoquinone	<6.6
Naphthalene	<0.33	1-Naphthylamine	<1.7
4-Chloroaniline	<0.66	2-Naphthylamine	<1.7
Hexachlorobutadiene	<0.33	Hexachlorophene	<6.6
4-Chloro-3-methylphenol	<0.66	Hexachloropropene	<3.3
2-Methylnaphthalene	<0.33	Methapyrilene	<6.6

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(512) 892-6684

Company: WHIRLPOOL
Date: 01/08/90
Client Work ID: AMERT PROJECT 446493-01-04 Work Order: A9-11-144

TEST NAME: **APPENDIX IX EXTRACTABLES**

SAMPLE ID: **SOIL COMP FOR APPENDIX IX**
SAMPLE DATE: **11/16/89**

Results in mg/kg:

COMPOUND		COMPOUND	
Fluorene	<0.33	Fluoranthene	<0.33
4-Nitroaniline	<1.7	Pyrene	<0.33
4,6-Dinitro-2-methylphenol	<1.7	Butylbenzylphthalate	<0.33
4-Nitroquinoline 1-oxide	<1.7	3,3'-Dichlorobenzidine	<0.66
N-Nitrosodi-n-butylamine	<0.66	Benzo(a)anthracene	<0.33
N-Nitrosodiethylamine	<1.7	Chrysene	<0.33
N-Nitrosodimethylamine	<1.7	bis(2-Ethylhexyl)phthalate	0.73
N-Nitrosomethylethylamine	<1.7	Di-n-octylphthalate	<0.33
N-Nitrosomorpholine	<0.66	Benzo(b)fluoranthene	<0.33
N-Nitrosopiperidine	<0.66	Benzo(k)fluoranthene	<0.33
N-Nitrosopyrrolidine	<1.7	Benzo(a)pyrene	<0.33
5-Nitro-o-toluidine	<0.66	Indeno(1,2,3-cd)pyrene	<0.33
Pentachlorobenzene	<0.66	Dibenzo(a,h)anthracene	<0.33
Pentachloroethane	<0.66	Benzo(g,h,i)perylene	<0.33
Pentachloronitrobenzene	<0.66	3-Methylcholanthrene	<0.66
Phenacetin	<0.66	O,O,O-Triethylphosphorothioate	<0.66
1,4-Benzenediamine	<1.7	Aramite	<3.3
2-Methyl pyridine	<1.7	Chlorbenzilate	<1.7
Pronamide	<0.66	Dialate	<0.66
Pyridine	<0.66	Thionazin	<0.66
Safrole	<0.66	Dinoseb	<1.7
1,2,4,5-Tetrachlorobenzene	<0.66	Dimethoate	<1.7
2,3,4,6-Tetrachlorophenol	<0.66	Disulfotone	<1.7
2-Methyl benzenamine	<0.66	Ethyl methanesulfonate	<1.7
1,3,5-Trinitrobenzene	<1.7	Famphur	<1.7
N-Nitrosodiphenylamine (1)	<0.33	Phorate	<1.7
4-Bromophenyl-phenylether	<0.33	Isodrin	<0.66
Hexachlorobenzene	<0.33	Kepone	<1.7
Pentachlorophenol	<1.7	Methyl parathion	<0.66
Phenanthrene	<0.33	Parathion	<0.66
Anthracene	<0.33	Sulfotepp	<0.66
Di-n-butylphthalate	<0.33		

Comments: A less than (<) indicates the compound is not detected at the level indicated.
A (1) indicates breakdown of compound during analysis.

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AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 01/08/90
Client Work ID: AMERT PROJECT 446493-01-04 Work Order: A9-11-144

TEST NAME: **HAZARDOUS SUBSTANCE VOLS**

SAMPLE ID: **SOIL COMPOSITE FOR 8240**
SAMPLE DATE: **11/16/89**
ANALYSIS DATE: 11/30/89

Results in ug/kg:

COMPOUND		COMPOUND	
Acetone	<20	trans-1,3-Dichloropropene	<1.0
Benzene	<1.0	Ethylbenzene	<1.0
2-Butanone (MEK)	<20	2-Hexanone	<10
Carbon disulfide	<1.0	Methylene chloride	<1.0
Carbon tetrachloride	<1.0	Methyl chloride	<2.0
Chlorobenzene	<1.0	Methyl bromide	<1.0
1,2-Dichloroethane	<1.0	4-Methyl-2-pentanone	<10
1,1,1-Trichloroethane	<1.0	Bromoform	<1.0
1,1-Dichloroethane	<1.0	Bromodichloromethane	<1.0
1,1,2-Trichloroethane	<1.0	Dibromochloromethane	<1.0
1,1,2,2-Tetrachloroethane	<1.0	Styrene	<1.0
Chloroethane	<2.0	Tetrachloroethylene	<1.0
2-Chloroethylvinyl ether	<2.0	Toluene	<1.0
Chloroform	<1.0	Trichloroethylene	<1.0
1,1-Dichloroethylene	<1.0	Vinyl acetate	<10
trans-1,2-Dichloroethylene	<1.0	Vinyl chloride	<2.0
1,2-Dichloropropane	<1.0	Xylenes, total	<1.0
cis-1,3-Dichloropropene	<1.0		

Comments: A less than (<) indicates the compound is not detected at the level indicated.

WHIRLPOOL

PREP NOTES

Volatiles All of the soil samples were emptied into a tared 2 quart paint can and reweighed to get total soil sample weight. VOA blank water was then added without headspace and sealed immediately. The sample was then turned end-over-end for 4 hours to allow for mixing. A blank can with VOA water was also turned. The water fraction was then analyzed by SW-846 method 8240 and results calculated with dilution factor from soil/water ratio.

Extractables All soil samples were composited together in a large stainless steel mixing bowel using a stainless steel spatula. Aliquots were then taken and prepped for 8270 analysis by SW-846 3580.

IT ANALYTICAL SERVICES
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TEST CODE **8150** TEST NAME **8150 HERBICIDES**

Herbicides-GC	EPA 8150-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Extraction, derivitization, and analysis by GC-ECD.

TEST CODE **8240** TEST NAME **HAZARDOUS SUBSTANCE VOLS**

Hazardous Substance List Volatiles	EPA 8240-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. GC/MS Purge and Trap analysis

TEST CODE **AG_ICP** TEST NAME **SILVER by ICP**

Silver	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **ALK_T** TEST NAME **ALKALINITY**

Alkalinity	EPA 310.1-Chemical Analysis of Water and Wastewater, USEPA 1983. An aliquot of sample is titrated with standardized acid solution to a final pH. Alkalinity is reported as mg/L CaCO3.

TEST CODE **AS_GF** TEST NAME **ARSENIC - FURNACE**

Arsenic Graphite Furnace	EPA 7060-Test Methods for Evaluating Solid Wastes,3rd Edition, November 1986. Arsenic is analyzed by graphite furnace.

TEST CODE **BA_ICP** TEST NAME **BARIUM by ICP**

Barium	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **BE_ICP** TEST NAME **BERYLLIUM by ICP**

Beryllium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **B_ICP** TEST NAME **BORON by ICP**

Boron — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **CA_ICP** TEST NAME **CALCIUM by ICP**

Calcium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **CD_ICP** TEST NAME **CADMIUM by ICP**

Cadmium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **CL_A** TEST NAME **CHLORIDE**

Chloride-Titrimetric — Method 9252-Test Methods for Evaluating Solid Wastes,3rd Edition, November 1986. Mercuric nitrate titration technique.

TEST CODE **CN_A** TEST NAME **TOTAL CYANIDE**

Cyanide — Method 9010-Test Methods for Evaluating Solid Wastes, 3rd edition, November 1986. Distillation and colorimetric analysis.

TEST CODE **CO_ICP** TEST NAME **COBALT by ICP**

TEST CODE **CO_ICP** TEST NAME **COBALT by ICP**

Cobalt — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **CU_ICP** TEST NAME **COPPER by ICP**

Copper — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **DIGEST** TEST NAME **DIGESTION FOR METALS**

Soil Digestion — Method 3050-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Acid digestion technique.

TEST CODE **EXT_9** TEST NAME **APPENDIX IX EXTRACTABLES**

Appendix 9 List Extractables — EPA 8270-Test Methods for Evaluating Solid Waste,3rd Edition, November 1986. Acid/Base-Neutral Extraction followed by GC/MS analysis.

TEST CODE **FE_ICP** TEST NAME **IRON by ICP**

Iron — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **F_SIE** TEST NAME **FLUORIDE**

Fluoride — Method 340.2-Chemical Analysis of Water and Wastewater, USEPA, 1983. Potentiometric analysis.

TEST CODE **H2S** TEST NAME **SULFIDE**

Sulfide — Method 375.4-Chemical Analysis of Water and

TEST CODE **H2S** TEST NAME **SULFIDE**

Wastewater, USEPA, 1983. Titrimetric analysis.

TEST CODE **HG_AA** TEST NAME **MERCURY**

Mercury — Method 7471-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Cold vapor atomic absorption.

TEST CODE **K_ICP** TEST NAME **POTASSIUM by ICP**

Potassium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **MG_ICP** TEST NAME **MAGNESIUM by ICP**

Magnesium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **MN_ICP** TEST NAME **MANGANESE by ICP**

Manganese — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **NA_ICP** TEST NAME **SODIUM by ICP**

Sodium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **NI_ICP** TEST NAME **NICKEL by ICP**

Nickel — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled

TEST CODE **NI_ICP** TEST NAME **NICKEL by ICP**

emission spectroscopy.

TEST CODE **NO3_N** TEST NAME **NITRATE**

Nitrate — Method 353.1-Chemical Analysis of Water and Wastewater, USEPA, 1983. Hydrazine reduction and colorimetric analysis.

TEST CODE **PB_GF** TEST NAME **LEAD -FURNACE**

Lead Graphite Furnace — Method 7421-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Graphite furnace atomic absorption analysis.

TEST CODE **PH** TEST NAME **PH**

pH — Method 150.1-Chemical Analysis of Water and Wastewater, USEPA, 1983. Potentiometric analysis.

TEST CODE **SB_GF** TEST NAME **ANTIMONY - FURNACE**

Antimony Graphite Furnace — Method 7041-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Graphite furnace atomic absorption.

TEST CODE **SE_GF** TEST NAME **SELENIUM - FURNACE**

Selenium — Method 7740-Test Methods for Evaluating Solid Wastes 3rd Edition, November 1986. Graphite furnace atomic absorption analysis.

TEST CODE **SN_AA** TEST NAME **TIN by FLAME**

Tin — Method 7870-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Flame atomic absorption analysis.

TEST CODE **SO4** TEST NAME **SULFATE**

Sulfate — Method 375.4-Chemical Analysis of Water and Wastewater, USEPA, 1983. Turbidimetric analysis.

TEST CODE **TI_ICP** TEST NAME **TITANIUM by ICP**

Titanium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **TL_GF** TEST NAME **THALLIUM - FURNACE**

Thallium-Graphite — Method 7841-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Graphite furnace atomic absorption.

TEST CODE **TOC** TEST NAME **TOTAL ORGANIC CARBON**

Total Organic Carbon — Method 415.1-Chemical Analysis of Water and Wastewater, USEPA, 1982. Combustion and nondispersive infrared analysis.

TEST CODE **T_PO4** TEST NAME **TOTAL PHOS- PHOROUS AS P**

Total Phosphorus — Method 365.3-Chemical Analysis of Water and Wastewater, USEPA, 1982. Digestion and colorimetric analysis.

TEST CODE **V_ICP** TEST NAME **VANADIUM by ICP**

Vanadium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **ZN_ICP** TEST NAME **ZINC by ICP**

Zinc — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled

TEST CODE ZN_ICP TEST NAME ZINC by ICP

emission spectroscopy.

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 111-233-234

C/C Control No. 115234

PROJECT NAME/NUMBER 446493.01.04

LAB DESTINATION IT AUSTIN

SAMPLE TEAM MEMBERS LEE GARRETT / MIKE BENTLEY

CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
1	WB1, 125ml SAND FROM 2'	11/16/89 1010	SOIL	125ml glass	NOT REC'D	
2	WB1, 125ml SAND FROM 1'	11/16/89 1010	SOIL	125ml glass	" "	
3	WB1, 125ml FILL FROM 4'	11/16/89 1012	SOIL	125ml glass	REC'D GOOD COND.	
4	WB1, 125ml FILL FROM 5'	11/16/89 1015	SOIL	125ml glass	W/ICE	
5	WB1 125ml FILL 8'	11/16/89 1025	SOIL	125ml glass	2	
6	WB2 125ml CLAY FROM 1.5-2'	11/16/89 1100	SOIL	125ml glass	NOT REC'D	
7	WB2 125ml SAND 1'	11/16/89 1105	SOIL	125ml glass	" "	
8	WB2 125ml FILL	11/16/89 1108	SOIL	125ml glass	REC'D GOOD COND.	
9	WB2, 125ml 4-5'	11/16/89 1112	SOIL	125ml glass	W/ ICE	
10	WB2 125ml FILL 6-8'	11/16/89 1120	SOIL	125ml glass	2	

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Lee Garrett IT, 11/20/89, 1030

   Received By: Chris Lehmann 11/20/89 1030

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111234
C/C Control No. 115234-5

PROJECT NAME: AMERT
PROJECT NUMBER: 446493.01.04
PROJECT MANAGER: MIKE BENTLEY
BILL TO:

PURCHASE ORDER NO.:

DATE SAMPLES SHIPPED:
LAB DESTINATION: IT AUSTIN
LABORATORY CONTACT: DEBBIE GREEN
SEND LAB REPORT TO: MIKE BENTLEY, 2499 B CAPITAL OF TEXAS, AUSTIN TX 78746
DATE REPORT REQUIRED:
PROJECT CONTACT: MIKE BENTLEY
PROJECT CONTACT PHONE NO.: 512-328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
11	Soil	125 ml	ICE	GEO TECH	Return to M Bentley
12	Soil	125 ml	ICE	GEO TECH	
13	Soil	125 ml	ICE	VOA - 8240	Composite as per Bentley / Hughes Discussion App 9
14	Soil	125 ml	ICE	VOA "	
15	Soil	125 ml	ICE	VOA "	
16	Soil	500 ml	ICE	Appendix 9	Composite - see M. Bentley Appendix 9
17	Soil	500 ml	ICE	"	
18	Soil	500 ml	ICE	"	
19	Soil	500 ml	ICE	"	
20	Soil	500 ml	ICE	"	
21	Soil	500 ml	ICE	"	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush ____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable ____ Skin Irritant ____ Highly Toxic ____ Other ____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab X

FOR LAB USE ONLY

Received By [signature] Date/Time 11/20/89 1030

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 111233-23Y

C/C Control No. 115235

PROJECT NAME/NUMBER 446493 01.04/DMERT

LAB DESTINATION IT DUSTIN

SAMPLE TEAM MEMBERS LOE GARRETT

CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
11	WB3 125ml Sand 1-1.5'	11/16/89 1140	Soil	125 ml glass	NOT REC'D	
12	WB3 125ml clay 1.5-2'	11/16/89 1140	Soil	125ml glass	" "	
13	WB3 125ml Fill 3-4'	11/16/89 1145	Soil	125ml glass	REC'D GOOD COND.	
14	WB3 125ml Fill 4-5	11/16/89 1150	Soil	125ml glass	W/ICE	
15	WB3 125ml Fill 7-8'	11/16/89 1155	Soil	125ml glass		
16	WB1	11/16/89 1013	Soil	500ml glass		
17	WB1	11/16/89 1016	Soil	500 ml glass		
18	WB2	11/16/89 1108	Soil	500 ml glass		
19	WB2	11/16/89 1113	Soil	500 ml glass		
20	WB3	11/16/89 1149	Soil	500 ml glass		
21	WB3	11/16/89 1151	Soil	500 ml glass		

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Loe Garrett IT 11/20/89 1030

   Received By: [illegible] 11/20/89 1030

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

WHIRLPOOL
IT CORPORATION
2499 B CAPITAL OF TEXAS HWY
AUSTIN TX 78746
MIKE BENTLEY

Date: 06/19/90

Work Order: A9-12-036

This is the Certificate of Analysis for the following samples:

Client Work ID: AMERT 446493-01
Date Received: 12/08/89
Number of Samples: 14
Sample Type: SOIL

I. Introduction
Previously Reported on 01/05/90.

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
MW-1	A9-12-036-01
SS-1	A9-12-036-02
SS-2	A9-12-036-03
SS-3	A9-12-036-04
SS-4	A9-12-036-05
SS-5	A9-12-036-06
MW-7	A9-12-036-07
MW-8	A9-12-036-08
MW-4	A9-12-036-09
MW-5	A9-12-036-10
MW-9	A9-12-036-11

Reviewed and Approved:

Diane Nichols

Diane M. Nichols
Laboratory Manager

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT 446493-01 Work Order: A9-12-036

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
MW-10	A9-12-036-12
SB-3	A9-12-036-13
MW-12	A9-12-036-14

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-036

SAMPLE ID	MW-1	SS-1	SS-2	
SAMPLED	11/29/89	12/05/89	12/05/89	
TEST				UNITS
BARIUM by ICP	6.7	17	52	mg/kg
BORON by ICP	<20	29	260	mg/kg
CADMIUM by ICP	2.2	1.7	4.1	mg/kg
COBALT by ICP	3.9	3.0	2.1	mg/kg
CHROMIUM by ICP	4.7	5.8	6.7	mg/kg
COPPER by ICP	1.4	2.7	13	mg/kg
IRON by ICP	6900	8700	75000	mg/kg
NICKEL by ICP	3.8	6.2	11	mg/kg
TITANIUM by ICP	140	130	80	mg/kg
VANADIUM by ICP	10	11	20	mg/kg
ZINC by ICP	9.4	22	38	mg/kg
ARSENIC - FURNACE	2.8	3.9	50	mg/kg
LEAD -FURNACE	1.6	4.7	5.1	mg/kg

ND indicates the parameter was not detected.
Detection limits are specified in [].

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-036

SAMPLE ID	MW-1	SS-1	SS-2	
SAMPLED	11/29/89	12/05/89	12/05/89	
TEST				UNITS
TOTAL PHOS-PHOROUS AS P	290	90	77	mg/kg

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-036

SAMPLE ID	SS-3	SS-4	SS-5	
SAMPLED	12/05/89	12/05/89	12/05/89	
TEST				UNITS
BARIUM by ICP	47	25	42	mg/kg
BORON by ICP	41	<20	<20	mg/kg
CADMIUM by ICP	2.8	2.4	<1.0	mg/kg
COBALT by ICP	4.9	3.8	8.7	mg/kg
CHROMIUM by ICP	12	11	6.8	mg/kg
COPPER by ICP	9.2	5.2	3.0	mg/kg
IRON by ICP	22000	19000	14000	mg/kg
NICKEL by ICP	6.3	3.7	6.5	mg/kg
TITANIUM by ICP	90	190	120	mg/kg
VANADIUM by ICP	19	25	15	mg/kg
ZINC by ICP	59	25	25	mg/kg
ARSENIC - FURNACE	9.9	6.1	7.9	mg/kg
LEAD -FURNACE	9.4	4.5	3.2	mg/kg

ND indicates the parameter was not detected.
Detection limits are specified in [].

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-036

SAMPLE ID	SS-3	SS-4	SS-5	
SAMPLED	12/05/89	12/05/89	12/05/89	
TEST				UNITS
TOTAL PHOS-PHOROUS AS P	250	280	220	mg/kg

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-036

SAMPLE ID	MW-7	MW-8	MW-4	
SAMPLED	11/30/89	11/30/89	12/01/89	
TEST				UNITS
BARIUM by ICP	12	8.7	7.3	mg/kg
BORON by ICP	<20	24	25	mg/kg
CADMIUM by ICP	<1.0	1.7	<1.0	mg/kg
COBALT by ICP	2.2	5.6	4.0	mg/kg
CHROMIUM by ICP	4.0	7.3	8.7	mg/kg
COPPER by ICP	1.8	5.3	3.6	mg/kg
IRON by ICP	2800	9900	5800	mg/kg
NICKEL by ICP	6.4	6.2	6.8	mg/kg
TITANIUM by ICP	120	190	150	mg/kg
VANADIUM by ICP	3.8	16	7.3	mg/kg
ZINC by ICP	17	19	18	mg/kg
ARSENIC - FURNACE	2.3	5.5	2.1	mg/kg
LEAD -FURNACE	2.3	3.1	1.6	mg/kg

ND indicates the parameter was not detected.
Detection limits are specified in [].

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

446493-01

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Work Order: A9-12-036

SAMPLE ID	MW-7	MW-8	MW-4	
SAMPLED	11/30/89	11/30/89	12/01/89	
TEST				UNITS
TOTAL PHOSPHOROUS AS P	160	970	310	mg/kg

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-036

SAMPLE ID	MW-5	MW-9	MW-10	
SAMPLED	12/01/89	12/02/89	12/02/89	
TEST				UNITS
BARIUM by ICP	<3.0	31	14	mg/kg
BORON by ICP	35	<20	35	mg/kg
CADMIUM by ICP	1.3	2.8	<1.0	mg/kg
COBALT by ICP	2.2	3.8	3.0	mg/kg
CHROMIUM by ICP	6.6	6.5	6.1	mg/kg
COPPER by ICP	3.5	5.2	3.0	mg/kg
IRON by ICP	7100	9400	7800	mg/kg
NICKEL by ICP	5.8	5.8	7.7	mg/kg
TITANIUM by ICP	140	140	140	mg/kg
VANADIUM by ICP	9.9	9.6	9.4	mg/kg
ZINC by ICP	27	38	14	mg/kg
ARSENIC - FURNACE	3.3	6.0	4.6	mg/kg
LEAD -FURNACE	3.6	12	2.6	mg/kg

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT 446493-01 Work Order: A9-12-036

SAMPLE ID	MW-5	MW-9	MW-10	
SAMPLED	12/01/89	12/02/89	12/02/89	
TEST				UNITS
TOTAL PHOSPHOROUS AS P	200	240	400	mg/kg

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-036

SAMPLE ID	SB-3	MW-12	
SAMPLED	12/04/89	12/04/89	
TEST			UNITS
BARIUM by ICP	22	100	mg/kg
BORON by ICP	48	190	mg/kg
CADMIUM by ICP	1.3	3.7	mg/kg
COBALT by ICP	3.2	<2.0	mg/kg
CHROMIUM by ICP	7.7	4.6	mg/kg
COPPER by ICP	4.8	7.7	mg/kg
IRON by ICP	18000	94000	mg/kg
NICKEL by ICP	7.2	<3.0	mg/kg
TITANIUM by ICP	130	70	mg/kg
VANADIUM by ICP	15	11	mg/kg
ZINC by ICP	18	48	mg/kg
ARSENIC - FURNACE	10	25	mg/kg
LEAD -FURNACE	5.0	2.8	mg/kg

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT 446493-01 Work Order: A9-12-036

SAMPLE ID	SB-3	MW-12	
SAMPLED	12/04/89	12/04/89	
TEST			UNITS
TOTAL PHOS-PHOROUS AS P	67	110	mg/kg

TEST CODE **AS_GF** TEST NAME **ARSENIC - FURNACE**

Arsenic Graphite Furnace	EPA 7060-Test Methods for Evaluating Solid Wastes,3rd Edition, November 1986. Arsenic is analyzed by graphite furnace.

TEST CODE **BA_ICP** TEST NAME **BARIUM by ICP**

Barium	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **B_ICP** TEST NAME **BORON by ICP**

Boron	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **CD_ICP** TEST NAME **CADMIUM by ICP**

Cadmium	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **CO_ICP** TEST NAME **COBALT by ICP**

Cobalt	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **CU_ICP** TEST NAME **COPPER by ICP**

Copper	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **DIGEST** TEST NAME **DIGESTION FOR METALS**

TEST CODE **DIGEST** TEST NAME **DIGESTION FOR METALS**

Soil Digestion — Method 3050-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Acid digestion technique.

TEST CODE **FE_ICP** TEST NAME **IRON by ICP**

Iron — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **NI_ICP** TEST NAME **NICKEL by ICP**

Nickel — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **PB_GF** TEST NAME **LEAD -FURNACE**

Lead Graphite Furnace — Method 7421-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Graphite furnace atomic absorption analysis.

TEST CODE **TI_ICP** TEST NAME **TITANIUM by ICP**

Titanium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **T_PO4** TEST NAME **TOTAL PHOS- PHOROUS AS P**

Total Phosphorus — Method 365.3-Chemical Analysis of Water and Wastewater, USEPA, 1982. Digestion and colorimetric analysis.

TEST CODE **V_ICP** TEST NAME **VANADIUM by ICP**

Vanadium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled

TEST CODE **V_ICP** TEST NAME **VANADIUM by ICP**

emission spectroscopy.

TEST CODE **ZN_ICP** TEST NAME **ZINC by ICP**

Zinc Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. 115201

PROJECT NAME/NUMBER WHIRLPOOL AMERT / 44649301

LAB DESTINATION I.T. ANALYTICAL AUSTIN

SAMPLE TEAM MEMBERS BENTLEY / GARRETT

CARRIER/WAYBILL NO. 3889134900

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
SS1	AMERT / SURFACE SOIL	12/5/89 1215	SOIL	500ml / 125ml	GOOD COND.	
SS2	AMERT / SURFACE SOIL	12/5/89 1230	SOIL	500ml / 125ml	W/ICE	
SS3	AMERT / SURFACE SOIL	12/5/89 1240	SOIL	500ml / 125ml		
SS4	AMERT / SURFACE SOIL	12/5/89 1315	SOIL	500ml / 125ml		
SS5	AMERT / SURFACE SOIL	12/5/89 1330	SOIL	500ml / 125ml		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Lee Sant I.T. Corp 12/7/89 1030

   Received By: Chris Schyrcoff 12/8/89 0900

2. Relinquished By: _____

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111564
C/C Control No. _____

PROJECT NAME: WHIRLPOOL AMCOT
PROJECT NUMBER: 44649301
PROJECT MANAGER: MIKE BENTLEY
BILL TO: _____

DATE SAMPLES SHIPPED: 12/7/89
LAB DESTINATION: I.T. ANALYTICAL AUSTIN
LABORATORY CONTACT: PERRY / DEBBIE G.
SEND LAB REPORT TO: MIKE BENTLEY
2499 B CAPITOL OF TEXAS
AUSTIN TX 78746

PURCHASE ORDER NO. AJS 89197

DATE REPORT REQUIRED: _____
PROJECT CONTACT: MIKE BENTLEY
PROJECT CONTACT PHONE NO. 512-328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
SS1	SOIL	125ml / 500ml	ICE		
SS2	SOIL	125ml / 500ml	ICE	SEE MIKE BENTLEY	
SS3	SOIL	125ml / 500ml	ICE		
SS4	SOIL	125ml / 500ml	ICE		
SS5	SOIL	125ml / 500ml	ICE		

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By Chris Schupeff Date/Time 12/8/89 0900

WHITE - Original, to accompany samples

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. 115164

PROJECT NAME/NUMBER Amert/ 446493 0104

LAB DESTINATION I.T. Austin

SAMPLE TEAM MEMBERS Lee Garrett

CARRIER/WAYBILL NO. 3889588636

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW1	MW1, Shallow Monitor Well	11/29/89 1755	Groundwater	(2) 40ml VOA	Good Cond w/ice	
MW1	MW1,	11/29/89 1755	Groundwate	1 Liter plastic	2	
MW1	MW1	11/29/89 1755	G. Water	500ml plastic ~~glass~~	Not Received	
MW1	MW1	11/29/89 1755	G. Water	250ml Amber glass	Good Cond. w/ice	
MW1	MW1	11/29/89 1755	G. Water	250ml amber glass		
MW1	MW1	11/29/89 1430	Soil	500ml glass		
MW1	MW1	11/29/89 1430	Soil	125ml glass		
MW2	MW2	11/29/89 1700	G. Water	(2) 40ml VOA		
MW2	MW2	11/29/89 1700	G. Water	1 Liter		
MW2	MW2	11/29/89 1700	G. Water	500ml		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Lee Garrett, IT Corp, 11/29/89, 1930

   Received By: Chris Schupcoff 11/30/89 0945

2. Relinquished By: _____

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111004
C/C Control No. _____

PROJECT NAME: AMERT
PROJECT NUMBER: 446493 0104
PROJECT MANAGER: MIKE BENTLEY
BILL TO: IT. CORP
2499 B CAPITAL OF TEXAS St 201
AUSTIN TX 78746

PURCHASE ORDER NO. _____

DATE SAMPLES SHIPPED _____
LAB DESTINATION: IT. ANALYTICAL AUSTIN
LABORATORY CONTACT: TONY
SEND LAB REPORT TO: MIKE BENTLEY
2499 B CAPITAL OF TEXAS St 201
AUSTIN TX 78746

DATE REPORT REQUIRED _____
PROJECT CONTACT: MIKE BENTLEY
PROJECT CONTACT PHONE NO. 512-328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW1	G. WATER	(2) 40ml VOA	HCL/ICE	VOA (EPA 8240) HSL	
MW1	G. WATER	1 LITER	ICE	STANDARD GROUNDWATER (+MN) Fe)	pull 500 ml [illegible] w/ HNO3
MW1	G. WATER	500 ml.	HNO3	App IX Metals (+Ba Ti)	B-ICP, Ti-ICP
MW1	G. WATER	250 ml	H2SO4	TOTAL PHOSPHORUS	
MW1	G. WATER	250 ml.	H2SO4		
MW1	SOIL	500 ml	ICE	SEE MIKE B. OR	logged in 12/8/89
MW1	SOIL	125 ml	ICE	TONY	ds
MW2	G. WATER	2(40)ml VOA	HCL/ICE		
MW2	G. WATER	1 LITER	ICE		
MW2	G. WATER	500 ml	HNO3		

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal _____ Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard _____ Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab _____

FOR LAB USE ONLY

Received By [signature] Date/Time 11/30/89 0945

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. 115757

PROJECT NAME/NUMBER AMERT / 446493

LAB DESTINATION IT. AUSTIN

SAMPLE TEAM MEMBERS L. CARRETT

CARRIER/WAYBILL NO. 3889134900

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
~~MW7~~						
MW7	MW7 MONITOR WELL	11/30/89 0740	SOIL	1. 600 ml glass 1. 125 ml glass	GOOD COND.	
MW8	MW8 MONITOR WELL	11/30/89 1540	SOIL	"	W/ICE	
MW4	MW4 MONITOR WELL	12/1/89 1020	SOIL	"		
MW5	MW5 MONITOR WELL	12/1/89 1640	SOIL	"		
MW9	MW9 MONITOR WELL	12/2/89 1045	SOIL	"		
MW10	MW10 MONITOR WELL	12/2/89 1645	SOIL	"		
~~MW11~~	~~MW11 MONITOR WELL~~	~~12/4/89 1050~~	~~SOIL~~	~~"~~		
SB3	SB3 SOIL BORING	12/4/89 1050	SOIL	"		
MW12	MW12 MONITOR WELL	12/4/89	SOIL	"		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Les Garrett IT Corp 12/7/89 1030

   Received By: Ann Johnsoff 12/8/89 0900

2. Relinquished By: _____

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111085
C/C Control No. _____

PROJECT NAME: Amert
PROJECT NUMBER: 446493
PROJECT MANAGER: Mike Bentley
BILL TO: IT

DATE SAMPLES SHIPPED: 12/7/89
LAB DESTINATION: I.T. Austin
LABORATORY CONTACT: Debbie Green / Tony
SEND LAB REPORT TO: Mike Bentley
2499 B Capital of Texas
Austin Tx 78746

PURCHASE ORDER NO. _____
Quote AJS 89197

DATE REPORT REQUIRED: _____
PROJECT CONTACT: Mike Bentley
PROJECT CONTACT PHONE NO.: 512-328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW7	Soil	1.500ml 1.125ml	ICE		
MW8	Soil	1.500ml / 1.125ml	ICE		
MW4	Soil	1.500ml / 1.125ml	ICE		
MW5	Soil	1.500ml / 1.125ml	ICE		
MW9	Soil	1.500ml / 1.125ml	ICE		
MW10	Soil	1.500ml / 1.125ml	ICE		
3 ~~MW11~~	Soil	1.500ml / 1.125ml	ICE		
MW12	Soil	1.500ml / 1.125ml	ICE		

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By [signature] Date/Time 12/8/89 0900

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

WHIRLPOOL
IT CORPORATION
2499 B CAPITAL OF TEXAS HWY
AUSTIN TX 78746
MIKE BENTLEY

Date: 01/17/90

Work Order: A9-12-039

This is the Certificate of Analysis for the following samples:

Client Work ID: AMERT 446493-01
Date Received: 12/08/89
Number of Samples: 14
Sample Type: WATER

TABLE OF CONTENTS FOR ANALYTICAL RESULTS

PAGES	LABORATORY #	SAMPLE IDENTIFICATION
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2-3	A9-12-039-02	MW-7
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4-5	A9-12-039-05	MW-9
4-5	A9-12-039-06	MW-10
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6-7	A9-12-039-08	MW-1
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8-9	A9-12-039-10	MW-11
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8-9	A9-12-039-12	MW-3
10-11	A9-12-039-13	SB-1
10-11	A9-12-039-14	SW-1

Reviewed and Approved:

Diane Nichols

Donnie L. Heinrich
Laboratory Manager

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT

446493-01

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: A9-12-039

SAMPLE ID	MW-6	MW-7	MW-4	
SAMPLED	12/06/89	12/06/89	12/06/89	
TEST				UNITS
BARIUM by ICP	0.12	0.12	0.072	mg/L
BORON by ICP	150	390	220	mg/L
CALCIUM by ICP	80	56	56	mg/L
CADMIUM by ICP	<0.010	<0.010	<0.010	mg/L
COBALT by ICP	<0.020	<0.020	<0.020	mg/L
CHROMIUM by ICP	<0.010	<0.010	<0.010	mg/L
COPPER by ICP	<0.010	<0.010	<0.010	mg/L
IRON by ICP	0.16	0.32	0.15	mg/L
POTASSIUM by ICP	34.0	20.0	25.0	mg/L
MAGNESIUM by ICP	270	150	160	mg/L
SODIUM by ICP	290	840	460	mg/L
NICKEL by ICP	0.052	0.058	0.047	mg/L
TITANIUM by ICP	<0.03	<0.03	<0.03	mg/L
VANADIUM by ICP	<0.020	0.023	<0.020	mg/L
ZINC by ICP	0.045	0.023	0.014	mg/L
ARSENIC - FURNACE	0.010	0.006	0.006	mg/L
LEAD -FURNACE	<0.001	<0.001	<0.001	mg/L
CONDUCTIVITY	3100	2800	2800	umhos/cm

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT

446493-01

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Work Order: A9-12-039

SAMPLE ID	MW-6	MW-7	MW-4	
SAMPLED	12/06/89	12/06/89	12/06/89	
TEST				UNITS
PH	7.6	7.7	7.6	none
FLUORIDE	25	18	11	mg/L
NITRATE	0.14	0.14	0.10	mg/L
SULFATE	200	300	240	mg/L
TOTAL PHOS-PHOROUS AS P	0.07	<0.05	<0.05	mg/L
TDS	3400	3300	2800	mg/L
ALKALINITY	2300	1900	1800	mg/L
CHLORIDE	47	62	50	mg/L

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT

446493-01

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Work Order: A9-12-039

SAMPLE ID	MW-5	MW-9	MW-10	
SAMPLED	12/06/89	12/06/89	12/06/89	
TEST				UNITS
BARIUM by ICP	0.39	0.39	0.16	mg/L
BORON by ICP	160	37	8.3	mg/L
CALCIUM by ICP	49	74	88	mg/L
CADMIUM by ICP	<0.010	<0.010	<0.010	mg/L
COBALT by ICP	<0.020	<0.020	<0.020	mg/L
CHROMIUM by ICP	<0.010	<0.010	<0.010	mg/L
COPPER by ICP	0.012	<0.010	<0.010	mg/L
IRON by ICP	0.14	0.20	0.12	mg/L
POTASSIUM by ICP	37.0	9.8	1.3	mg/L
MAGNESIUM by ICP	270	46	14	mg/L
SODIUM by ICP	270	140	35	mg/L
NICKEL by ICP	<0.030	<0.030	<0.030	mg/L
TITANIUM by ICP	<0.03	<0.03	<0.03	mg/L
VANADIUM by ICP	<0.020	<0.020	<0.020	mg/L
ZINC by ICP	0.17	0.17	0.084	mg/L
ARSENIC - FURNACE	0.010	0.003	0.003	mg/L
LEAD -FURNACE	<0.001	<0.001	<0.001	mg/L
CONDUCTIVITY	2300	830	580	umhos/cm

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-039

SAMPLE ID	MW-5	MW-9	MW-10	
SAMPLED	12/06/89	12/06/89	12/06/89	
TEST				UNITS
PH	7.6	7.5	7.6	none
FLUORIDE	19	1.8	0.24	mg/L
NITRATE	0.10	0.17	1.0	mg/L
SULFATE	170	180	76	mg/L
TOTAL PHOS-PHOROUS AS P	<0.05	<0.05	<0.05	mg/L
TDS	2200	680	440	mg/L
ALKALINITY	1600	420	260	mg/L
CHLORIDE	40	38	29	mg/L

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-039

SAMPLE ID	MW-8	MW-1	MW-2	
SAMPLED	12/06/89	12/06/89	12/06/89	
TEST				UNITS
BARIUM by ICP	0.15	0.16	0.18	mg/L
BORON by ICP	19	14	29	mg/L
CALCIUM by ICP	71	57	94	mg/L
CADMIUM by ICP	<0.010	<0.010	<0.010	mg/L
COBALT by ICP	<0.020	<0.020	<0.020	mg/L
CHROMIUM by ICP	<0.010	<0.010	<0.010	mg/L
COPPER by ICP	<0.010	<0.010	<0.010	mg/L
IRON by ICP	0.16	3.9	1.2	mg/L
POTASSIUM by ICP	1.2 g/L	1.2	1.3	mg/L
MAGNESIUM by ICP	9.1	10	20	mg/L
SODIUM by ICP	42	31	81	mg/L
NICKEL by ICP	<0.030	<0.030	<0.030	mg/L
TITANIUM by ICP	<0.03	<0.03	<0.03	mg/L
VANADIUM by ICP	<0.020	<0.020	<0.020	mg/L
ZINC by ICP	0.081	0.070	0.060	mg/L
ARSENIC - FURNACE	<0.002	0.013	0.005	mg/L
LEAD -FURNACE	<0.001	<0.001	<0.001	mg/L
CONDUCTIVITY	440	460	710	umhos/cm

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT 446493-01 Work Order: A9-12-039

SAMPLE ID	MW-8	MW-1	MW-2	
SAMPLED	12/06/89	12/06/89	12/06/89	
TEST				UNITS
PH	7.7	6.8	7.2	none
FLUORIDE	0.17	0.28	0.69	mg/L
NITRATE	0.08	0.05	0.26	mg/L
SULFATE	84	120	120	mg/L
TOTAL PHOS-PHOROUS AS P	<0.05	<0.05	<0.05	mg/L
TDS	330	360	580	mg/L
ALKALINITY	240	150	310	mg/L
CHLORIDE	9	36	49	mg/L

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT

446493-01

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Work Order: A9-12-039

SAMPLE ID	MW-11	MW-12	MW-3	
SAMPLED	12/06/89	12/06/89	12/06/89	
TEST				UNITS
BARIUM by ICP	0.18	0.11	0.15	mg/L
BORON by ICP	250	190	290	mg/L
CALCIUM by ICP	59	59	52	mg/L
CADMIUM by ICP	<0.010	<0.010	<0.010	mg/L
COBALT by ICP	<0.020	<0.020	<0.020	mg/L
CHROMIUM by ICP	<0.010	<0.010	<0.010	mg/L
COPPER by ICP	<0.010	0.012	<0.010	mg/L
IRON by ICP	0.14	0.23	0.18	mg/L
POTASSIUM by ICP	19.0	0.56	28.0	mg/L
MAGNESIUM by ICP	190	26	230	mg/L
SODIUM by ICP	460	500	610	mg/L
NICKEL by ICP	0.046	<0.030	0.036	mg/L
TITANIUM by ICP	<0.03	<0.03	<0.03	mg/L
VANADIUM by ICP	<0.020	<0.020	<0.020	mg/L
ZINC by ICP	0.069	0.051	0.018	mg/L
ARSENIC - FURNACE	0.004	<0.002	0.004	mg/L
LEAD -FURNACE	<0.001	<0.001	<0.001	mg/L
CONDUCTIVITY	2300	1500	2500	umhos/cm

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-01

Work Order: A9-12-039

SAMPLE ID	MW-11	MW-12	MW-3	
SAMPLED	12/06/89	12/06/89	12/06/89	
TEST				UNITS
PH	6.8	7.9	7.7	none
FLUORIDE	8.9	1.7	17	mg/L
NITRATE	0.19	1.1	0.05	mg/L
SULFATE	250	230	230	mg/L
TOTAL PHOS-PHOROUS AS P	<0.05	0.08	<0.05	mg/L
TDS	2300	1600	2800	mg/L
ALKALINITY	1500	860	1900	mg/L
CHLORIDE	52	30	42	mg/L

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT

446493-01

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Work Order: A9-12-039

SAMPLE ID	SB-1	SW-1	
SAMPLED	12/06/89	12/06/89	
TEST			UNITS
BARIUM by ICP	0.067	0.096	mg/L
BORON by ICP	1.9	83	mg/L
CALCIUM by ICP	91	63	mg/L
CADMIUM by ICP	<0.010	<0.010	mg/L
COBALT by ICP	<0.020	<0.020	mg/L
CHROMIUM by ICP	<0.010	<0.010	mg/L
COPPER by ICP	0.011	<0.010	mg/L
IRON by ICP	0.053	0.13	mg/L
POTASSIUM by ICP	5.0	3.2	mg/L
MAGNESIUM by ICP	27	78	mg/L
SODIUM by ICP	42	290	mg/L
NICKEL by ICP	<0.030	<0.030	mg/L
TITANIUM by ICP	<0.03	<0.03	mg/L
VANADIUM by ICP	<0.020	<0.020	mg/L
ZINC by ICP	0.011	0.025	mg/L
ARSENIC - FURNACE	<0.002	<0.002	mg/L
LEAD -FURNACE	<0.001	<0.001	mg/L
CONDUCTIVITY	720	1400	umhos/cm

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 01/17/90
Client Work ID: AMERT 446493-01 Work Order: A9-12-039

SAMPLE ID	SB-1	SW-1	
SAMPLED	12/06/89	12/06/89	
TEST			UNITS
PH	7.9	8.2	none
FLUORIDE	1.7	2.3	mg/L
NITRATE	0.19	0.19	mg/L
SULFATE	330	130	mg/L
TOTAL PHOS-PHOROUS AS P	0.06	<0.05	mg/L
TDS	540	1300	mg/L
ALKALINITY	180	840	mg/L
CHLORIDE	6	32	mg/L

TEST CODE **CL_A** TEST NAME **CHLORIDE**

Chloride-Titrimetric	Method 9252-Test Methods for Evaluating Solid Wastes,3rd Edition, November 1986. Mercuric nitrate titration technique.

TEST CODE **COND_A** TEST NAME **CONDUCTIVITY**

Conductance	Method 120.1-Chemical Analysis of Water and Wastewater, USEPA, 1983.

TEST CODE **CO_ICP** TEST NAME **COBALT by ICP**

Cobalt	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **CU_ICP** TEST NAME **COPPER by ICP**

Copper	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **DIGEST** TEST NAME **DIGESTION FOR METALS**

Soil Digestion	Method 3050-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Acid digestion technique.

TEST CODE **FE_ICP** TEST NAME **IRON by ICP**

Iron	Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **F_SIE** TEST NAME **FLUORIDE**

Fluoride	Method 340.2-Chemical Analysis of Water and Wastewater, USEPA, 1983. Potentiometric analysis.

TEST CODE **PH** TEST NAME **PH**

pH — Method 150.1-Chemical Analysis of Water and Wastewater, USEPA, 1983. Potentiometric analysis.

TEST CODE **SO4** TEST NAME **SULFATE**

Sulfate — Method 375.4-Chemical Analysis of Water and Wastewater, USEPA, 1983. Turbidimetric analysis.

TEST CODE **TDS** TEST NAME **TDS**

Total Dissolved Solids — Method 160.1-Chemical Analysis of Water and Wastewater, USEPA, 1983. Gravimetric analysis.

TEST CODE **TI_ICP** TEST NAME **TITANIUM by ICP**

Titanium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **T_PO4** TEST NAME **TOTAL PHOS- PHOROUS AS P**

Total Phosphorus — Method 365.3-Chemical Analysis of Water and Wastewater, USEPA, 1982. Digestion and colorimetric analysis.

TEST CODE **V_ICP** TEST NAME **VANADIUM by ICP**

Vanadium — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

TEST CODE **ZN_ICP** TEST NAME **ZINC by ICP**

Zinc — Method 6010-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Inductively coupled emission spectroscopy.

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111567
C/C Control No. 115166

PROJECT NAME: Whirlpool
PROJECT NUMBER: 446493.01
PROJECT MANAGER: Bentley
BILL TO: IT corp Austin Tx
446493.01

PURCHASE ORDER NO.
QUOTE AJS 89197

DATE SAMPLES SHIPPED: 12-7-89
LAB DESTINATION: ITAS Austin
LABORATORY CONTACT: Tony Spinelli
SEND LAB REPORT TO: Mike Bentley, IT
2499 B Hwy 360
Austin Tx 78746

DATE REPORT REQUIRED:
PROJECT CONTACT: M. Bentley
PROJECT CONTACT PHONE NO.: 328-0081

ALL ON ICE

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW-6	Ground Water	2-40ml	HCl	VOA EPA 8240	Hold until contact M Bentley
MW-6	"	1 l	None	Std. GW. Non-Metals	Begin Analyses
MW-6	"	500 ml	HNO3	Std. GW Metals + Mn + Fe App 9 Metals + B + Ti	Hold until contact MB.
MW-6	"	250 ml	H2SO4	Total P, NO3	Begin Analyses
MW-7	"	2-40 ml	HCl	VOA EPA 8240	Hold As Above
MW-7	"	1 l	None	St. GW Non-Metals	Begin
MW-7	"	500 ml	HNO3	St GW Metals + Mn + Fe App 9 metals + B + Ti	Hold As Above
MW-7	"	250 ml	H2SO4	Total P, NO3	Begin
MW-4	"	2-40 ml	HCl	VOA 8240	Hold
MW-4	"	1 l	None	St GW Non-Metals	Begin

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ✓ Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ✓ Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab ✓

FOR LAB USE ONLY

Received By: Chris Schopcoff Date/Time: 12/8/89 0915

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 111567

C/C Control No. 115166

PROJECT NAME/NUMBER Whirlpool 446493.01

LAB DESTINATION ITAS - Austin

SAMPLE TEAM MEMBERS Bentley, Garrett

CARRIER/WAYBILL NO. 3889134922 / 3889134911

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW-6	MW-6	12-6-89 0800	G.W	2-40ml	Good Condition	
MW-6	MW-6	12-6-89 0800	"	1 l poly	W/ICE	
MW-6	MW-6	12/6/89 1430	"	500 ml poly		
MW-6	MW-6	12/6/89 1430	"	250 ml glass		
MW-7	MW-7	12/6/89 0820	"	2-40ml		
MW-7	MW-7	12/6/89 0820	"	1 l poly		
MW-7	MW-7	12/6/89 1445	"	500 ml poly		
MW-7	MW-7	12/6/89 1445	"	250 ml glass		
MW-4	MW-4	12/6/89 0845	"	2-40ml		
MW-4	MW-4	12/6/89 0845	"	1 l poly		

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Lee Garrett / IT Corp / 12/7/89 1030

   Received By: Chris Schupcoff 12/8/89 0915

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111565

C/C Control No. _____

PROJECT NAME: Whirlpool Amelia

PROJECT NUMBER: 446493.01

PROJECT MANAGER: MIKE BENTLEY

BILL TO: IT CORP
2499B CAPITAL OF TEXAS
AUSTIN TX 78746

PURCHASE ORDER NO.: QUOTE AJS 89197

DATE SAMPLES SHIPPED: C.C ~~ITAS AUSTIN~~ 12/7/89

LAB DESTINATION: ITAS AUSTIN

LABORATORY CONTACT: TONY S

SEND LAB REPORT TO: MIKE BENTLEY
2499B CAPITAL OF TEXAS
AUSTIN TX 78746

DATE REPORT REQUIRED: _____

PROJECT CONTACT: MIKE B.

PROJECT CONTACT PHONE NO.: 512 328 0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW4	G WATER	500 ml	HNO_3	ST GW METALS + Fe + MN APP. 9 + B+Ti	HOLD
MW4	G. WATER	250 ml	H_2SO_4	TOTAL P, NO_3	BEGIN
MW5	"	(2) 40 ml	HCL	VOA EPA 8240	HOLD
MW5	"	1 LITER	—	ST GW	BEGIN
MW5	"	500 ml	HNO_3	ST GW METAL + Fe + MN APP. 9 + B+Ti	HOLD
MW5	"	250 ml	H_2SO_4	TOTAL P, NO_3	BEGIN
MW9	"	(2) 40 ml	HCl	VOA EPA 8240	HOLD
MW9	"	1 LITER	—	ST G.W	BEGIN
MW9	"	500 ml	HNO_3	ST GW METALS + Fe + MN APP 9 + B+Ti	HOLD
MW9	"	250 ml	H_2SO_4	TOTAL P, NO_3	BEGIN

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By: Chris Schupcoff Date/Time: 12/8/89 0915

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. 115165

PROJECT NAME/NUMBER WHIRLPOOL AMERT / 446493.01

LAB DESTINATION IT AUSTIN

SAMPLE TEAM MEMBERS BENTLEY / GARRETT

CARRIER/WAYBILL NO. 3889134922 / 3889134911

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW4	MW4 MONITOR WELL	12/6/89 1500	G WATER	500 ml	GOOD CONDITION	
MW4	MW4 " "	12/6/89 1500	"	250 ml	W/ICE	
MW5	MW5 " "	12/6/89 10:00	"	(2) 40 ml VOA		
MW5	MW5 " "	12/6/89 10:00	"	1 LITER		
MW5	MW5 " "	12/6/89 1700	"	500 ml		
MW5	MW5 " "	12/6/89 1700	"	250 ml		
MW9	MW9 " "	12/6/89 1020	" 16	(2) 40 ml VOA		
MW9	MW9 " "	12/6/89 1020	"	1 LITER		
MW9	MW9 " "	12/6/89 1730	"	500 ml		
MW9	MW9 " "	12/6/89 1730	"	250 ml		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Lee Jones / IT Corp / 12/7/89 1030

   Received By: Chris Schupcoff 12/8/89 0915

2. Relinquished By: _____

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111566

C/C Control No. _____

PROJECT NAME: WHIRLPOOL AMERT

PROJECT NUMBER: 446493.01

PROJECT MANAGER: MIKE BENTLEY

BILL TO: IT CORP ~~2499B~~
2499B CAPITAL OF TEXAS
AUSTIN TX 78746

PURCHASE ORDER NO.: QUOTE AJS 89197

DATE SAMPLES SHIPPED: 12/7/89

LAB DESTINATION: ITAS AUSTIN

LABORATORY CONTACT: TONY S

SEND LAB REPORT TO: MIKE BENTLEY
2499 B CAPITAL OF TEXAS
AUSTIN TX 78746

DATE REPORT REQUIRED: _____

PROJECT CONTACT: M. BENTLEY

PROJECT CONTACT PHONE NO.: 512 328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW10	C. WATER	(2) 40ml VOA	HCl	VOA EPA 8240	HOLD
MW10	"	1 LITER	-	ST GW	BEGIN
MW10	"	500ml	HNO_3	ST. GW METALS + Fe + MN APP 9 + B + Ti	HOLD
MW10	"	250ml	H_2SO_4	TOTAL P, NO_3	BEGIN
MW8	"	(2) 40ml VOA	HCl	VOA EPA 8240	HOLD
MW8	"	1 LITER	-	ST GW	BEGIN
MW8	"	500ml	HNO_3	ST. GW METALS + Fe + MN APP 9 + B + Ti	HOLD
MW8	"	250ml	H_2SO_4	TOTAL P, NO_3	BEGIN
MW1	"	(2) 40ml VOA	HCl	VOA EPA 8240	HOLD
MW1	"	1 LITER	-	ST G.W	BEGIN

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By: [signature] Date/Time: 12/8/89 0915

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No.

C/C Control No. 115167

PROJECT NAME/NUMBER Whirlpool Ament / 446493.01

LAB DESTINATION ITAS Austin

SAMPLE TEAM MEMBERS Bentley Garrett

CARRIER/WAYBILL NO. 3889134922 / 3889134911

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW10	MW10 Monitor Well	12/6/89 1100	G. Water	(2) 40ml VOA	Good Condition	
MW10	MW10 " "	12/6/89 1100	"	1 Liter plastic	w/ice	
MW10	MW10 " "	12/6/89 1725	"	500ml plastic		
MW10	MW10 " "	12/6/89 1725	"	250ml amber glass		
MW8	MW8 " "	12/6/89 1130	"	(2) 40ml VOA		
MW8	MW8 " "	12/6/89 1130	"	1 Liter plastic		
MW8	MW8 " "	12/6/89 1715	"	500ml plastic		
MW8	MW8 " "	12/6/89 1715	"	250ml amber		
MW1	MW1 " "	12/6/89 1230	"	(2) 40ml VOA		
MW1	MW1 " "	12/6/89 1230	"	1 Liter plastic		

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Lee James / IT Corp / 12/7/89 1030

   Received By: Chris Schupcoff 12/8/89 0915

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111568

C/C Control No. _____

PROJECT NAME: WHIRLPOOL AMERT

PROJECT NUMBER: 446493

PROJECT MANAGER: MIKE BENTLEY

BILL TO: I.T. CORP AUSTIN
446493.01

PURCHASE ORDER NO. _____
QUOTE AJS 89197

DATE SAMPLES SHIPPED: 12/7/89

LAB DESTINATION: ITAS AUSTIN

LABORATORY CONTACT: TONY S

SEND LAB REPORT TO: MIKE BENTLEY
2499 B CAPITAL OF TEXAS
AUSTIN TX 78746

DATE REPORT REQUIRED: _____

PROJECT CONTACT: MIKE BENTLEY

PROJECT CONTACT PHONE NO.: 512 328 0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW1	G. WATER	500 ml	HNO_3	~~TOTAL P, NO_3~~ ST. G.W METALS & MN & FE, APP. 9 + B + Ti	HOLD UNTIL CONTACT MIKE B.
MW1	"	250 ml	H_2SO_4	TOTAL P, NO_3	
MW2	"	(2) 40 ml	HCl	VOA (EPA 8240)	
MW2	"	1 LITER	-	ST. GROUND WATER	
MW2	"	500 ml	HNO_3	ST. G.W. METALS + MN + FE APPENDIX 9 + B + Ti	HOLD AS ABOVE
MW2	"	250 ml	H_2SO_4	TOTAL P, NO_3	
MW11	"	(2) 40 ml	HCl	VOA (EPA 8240)	
MW11	"	1 LITER	-	ST. G.W NON METAL	
MW11	"	500 ml	HNO_3	ST. G.W METALS + MN + FE APP. 9 + B + Ti	
MW11	"	250 ml	H_2SO_4	TOTAL P, NO_3	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By: Chris Schupcoff Date/Time: 12/8/89

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. 115168

PROJECT NAME/NUMBER Whirlpool Arnold / 446453

LAB DESTINATION ITAS AUSTIN

SAMPLE TEAM MEMBERS Bentley / Garrett

CARRIER/WAYBILL NO. 3889134922 / 3889134911

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW1	MW1 Monitor Well	12/6/89 1625	G. Water	500ml plastic	Good Cond.	
MW1	MW1 " "	12/6/89 1625	"	250ml amber	w/ICE	
MW2	MW2 " "	12/6/89 1245	"	(2) 40ml VOA		
MW2	MW2 " "	12/6/89 1245	"	1 Liter plastic		
MW2	MW2 " "	12/6/89 1620	"	500ml plastic		
MW2	MW2 " "	12/6/89 1620	"	250ml amber		
MW11	MW11 " "	12/6/89 1330	"	(2) 40ml VOA		
MW11	MW11 " "	12/6/89 1330	"	1 Liter plastic		
MW11	MW11 " "	12/6/89 1330	"	500ml plastic		
MW11	MW11 " "	12/6/89 1330	"	250ml amber		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Lee Garrett, IT Geo 12/7/89 1030
   Received By: Chris Johnson 12/8/89 0915
2. Relinquished By: _____
   Received By: _____
3. Relinquished By: _____
   Received by: _____
4. Relinquished By: _____
   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111569

C/C Control No. _____

PROJECT NAME: WHIRLPOOL AMERY

PROJECT NUMBER: 446493.01

PROJECT MANAGER: MIKE BENTLEY

BILL TO: I.T. CORP AUSTIN
446493.01

PURCHASE ORDER NO.: QUOTE AJS 89197

DATE SAMPLES SHIPPED: 12/7/89

LAB DESTINATION: ITAS AUSTIN

LABORATORY CONTACT: TONY S

SEND LAB REPORT TO: MIKE B.
2499B CAPITAL OF TEX
AUSTIN TX 78746

DATE REPORT REQUIRED: _____

PROJECT CONTACT: MIKE BENTLEY

PROJECT CONTACT PHONE NO.: 512-328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW 12	G. WATER	(2) 40ml	HCl	VOA EPA (8240)	HOLD
MW 12	"	1 LITER	-	ST. GW	BEGIN
MW 12	"	500ml	HNO_3	ST. GW METALS + MN + FE APP. 9 + B + Ti	HOLD
MW 12	"	250ml	H_2SO_4	TOTAL P, NO_3	BEGIN
MW 3	"	(2) 40ml	HCl	VOA (EPA 8240)	HOLD
MW 3	"	1 LITER	-	ST GW	BEGIN
MW 3	"	500ml	HNO_3	ST GW METALS + FE + MN APP. 9 + B. + Ti	HOLD
MW 3	"	250ml	H_2SO_4	TOTAL P, HNO_3	BEGIN
SB1	"	(2) 40ml	HCl	VOA (EPA 8240)	HOLD
SB1	"	1 LITER	-	ST. GW	BEGIN

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ✓ Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By: Chris Schupoff

Date/Time: 12/8/89 0915

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. 115170

PROJECT NAME/NUMBER Whirlpool Amery / 446 493 01

LAB DESTINATION ITAS Austin

SAMPLE TEAM MEMBERS Bentley / Garrett

CARRIER/WAYBILL NO. 3889134922 / 3889134911

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW12	MW12 Monitor well	12/6/89 1350	G water	(2) 40ml vos	Good Cond.	
MW12	MW12 " "	12/6/89 1350	"	1 Liter plastic	w/ ice	
MW12	MW12 " "	12/6/89 1555	"	500ml plastic		
MW12	MW12 " "	12/6/89 1555	"	250ml amber		
MW3	MW3 " "	12/6/89	"	(2) 40ml vos		
MW3	MW3 " "	12/6/89	"	1 Liter plastic		
MW3	MW3 " "	12/6/89 1525	"	500ml plastic		
MW3	MW3 " "	12/6/89 1525	"	250ml amber		
SB1	SB1 " "	12/6/89 0940	"	(2) 40ml vos		
SB1	SB1 " "	12/6/89 0940	"	1 Liter		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: [signature] / ITCorp / 12/7/89 1030

   Received By: Chris Schupcoff 12/8/89 0915

2. Relinquished By: _____

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 111570

C/C Control No.

PROJECT NAME: WHIRLPOOL AMERT

PROJECT NUMBER: 446493.01

PROJECT MANAGER: MIKE BENTLEY

BILL TO: I.T. CORP AUSTIN

PURCHASE ORDER NO.: QUOTE AJS 89197

DATE SAMPLES SHIPPED: 12/7/89

LAB DESTINATION: ITAS AUSTIN

LABORATORY CONTACT: TONY S.

SEND LAB REPORT TO: MIKE BENTLEY, 2499B CAPITAL OF TEXAS, AUSTIN TX 78746

DATE REPORT REQUIRED:

PROJECT CONTACT: MIKE BENTLEY

PROJECT CONTACT PHONE NO.: 512-328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
SB1	GROUNDWATER	500 ml	HNO_3	ST. GW METALS + MN + FE APP 9 METALS + B + Ti	HOLD
SB1	" "	250 ml	H_2SO_4	TOTAL P, NO_3	BEGIN
SW1	SURFACE WATER	(2) 40 ml	HCl	VOA (EPA 8240)	HOLD
SW1	" "	1 LITER	-	ST. GW.	BEGIN
SW1	" "	500 ml	HNO_3	ST GW METALS + FE + MN APP 9 + B + Ti	HOLD
SW1	" "	250 ml	H_2SO_4	TOTAL P, NO_3	BEGIN

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush ____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable ____ Skin Irritant ____ Highly Toxic ____ Other ____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab X

FOR LAB USE ONLY

Received By: Tim Tatpsoff Date/Time: 12/8/89 0915

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. 115169

PROJECT NAME/NUMBER WHIRLPOOL AMERT 446493.01

LAB DESTINATION IT.A.S. AUSTIN

SAMPLE TEAM MEMBERS BENTLEY GARRETT

CARRIER/WAYBILL NO. 3889134922 / 3889134911

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
SB1	SB1 MONITOR WELL	12/6/89 0940	GROUNDWATER ~~500ml~~	500 ml plastic	GOOD COND.	
SB1	SB1 " "	12/6/89 0940	"	250 ml amber glass	W/ICE	
SW1	SW1	12/6/89 1350	SURFACE WATER	(2) 40ml VOA		
SW1	SW1	12/6/89 1350	" "	1 LITER plastic		
SW1	SW1	12/6/89 1350	" "	500 ml plastic		
SW1	SW1	12/6/89 1350	" "	250 ml glass		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Lee Garrett IT. Corp 12/7/89 1030

   Received By: _____

2. Relinquished By: _____

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

WHIRLPOOL
IT CORPORATION
2499 B CAPITAL OF TEXAS HWY
AUSTIN TX 78746
MIKE BENTLEY

Date: 06/06/90

Work Order: BO-04-279

This is the Certificate of Analysis for the following samples:

Client Work ID: AMERT 446493-001-10
Date Received: 04/30/90
Number of Samples: 4
Sample Type: WATER

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
SW-2	BO-04-279-01
SW-3	BO-04-279-02
DRY WELL	BO-04-279-03
A. SHRADER WELL	BO-04-279-04

Reviewed and Approved:

Diane Nichols

Diane M. Nichols
Laboratory Manager

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT

446493-001-10

Work Order: BO-04-279

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-001-10 Work Order: B0-04-279

SAMPLE ID	SW-2	SW-3	DRY WELL	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	0.023	0.019	0.057	mg/L
	[0.00050]	[0.00050]	[0.00050]	
BORON by ICP	16	4.4	120	mg/L
	[0.0060]	[0.0060]	[0.0060]	
CALCIUM by ICP	47	67	55	mg/L
	[0.010]	[0.010]	[0.010]	
			mg/kg	
CADMIUM by ICP	ND	ND	ND	mg/L
	[0.0016]	[0.0016]	[0.0016]	
COBALT by ICP	ND	ND	ND	mg/L
	[0.0032]	[0.0032]	[0.0032]	
COPPER by ICP	ND	ND	ND	mg/L
	[0.0020]	[0.0020]	[0.0020]	
IRON by ICP	0.0036	0.23	2.2	mg/L
	[0.0030]	[0.0030]	[0.0030]	
POTASSIUM by ICP	3.5	0.65	14	mg/L
	[0.50]	[0.50]	[0.50]	
MAGNESIUM by ICP	20	9.2	120	mg/L
	[0.00030]	[0.00030]	[0.00030]	
			mg/kg	
MANGANESE by ICP	0.0018	0.12	0.094	mg/L
	[0.00040]	[0.00040]	[0.00040]	
SODIUM by ICP	32	16	240	mg/L
	[0.016]	[0.016]	[0.016]	
			mg/kg	
NICKEL by ICP	ND	ND	0.020	mg/L
	[0.0080]	[0.0080]	[0.0080]	
TITANIUM by ICP	ND	ND	ND	mg/L
	[0.03]	[0.03]	[0.03]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-001-10 Work Order: B0-04-279

SAMPLE ID	SW-2	SW-3	DRY WELL	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
VANADIUM by ICP	ND [0.0080]	ND [0.0080]	ND [0.0080]	mg/L
ZINC by ICP	0.030 [0.0013]	0.032 [0.0013]	0.046 [0.0013]	mg/L
ARSENIC - FURNACE	ND [0.002]	ND [0.002]	ND [0.002]	mg/L
LEAD -FURNACE	ND [0.001]	ND [0.001]	ND [0.001]	mg/L
CONDUCTIVITY	610	520	2600	umhos/cm
PH	7.1	7.3	7.4	none
FLUORIDE	1.4 [0.02]	0.33 [0.02]	12 [0.02]	mg/L
NITRATE	3.0 [0.5]	0.11 [0.05]	0.08 [0.05]	mg/L
SULFATE	54 [10]	46 [10]	180 [10]	mg/L
TOTAL PHOS-PHOROUS AS P	ND [0.05]	0.33 [0.05]	1.3 [0.05]	mg/L
TOTAL CYANIDE	ND [0.010]	ND [0.010]	ND [0.010]	mg/L
TDS	450 [1]	370 [1]	2400 [1]	mg/L
418.1 PET. HYDROCARBONS	ND [1]	ND [1]	ND [2]	mg/L

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-04-279

SAMPLE ID	SW-2	SW-3	DRY WELL	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
ALKALINITY	270	240	1500	mg/L
	[1]	[1]	[1]	
CHLORIDE	20	17	43	mg/L
	[1]	[1]	[1]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-001-10 Work Order: B0-04-279

SAMPLE ID	A. SHRADER WELL	
SAMPLED	04/24/90	
TEST		UNITS
BARIUM by ICP	0.007 [0.0050]	mg/L
BORON by ICP	0.23 [0.0060]	mg/L
CALCIUM by ICP	330 [0.010]	mg/L
CADMIUM by ICP	ND [0.0016]	mg/L
COBALT by ICP	ND [0.0032]	mg/L
COPPER by ICP	ND [0.0020]	mg/L
IRON by ICP	1.7 [0.0030]	mg/L
POTASSIUM by ICP	2.3 [0.50]	mg/L
MAGNESIUM by ICP	72 [0.00030]	mg/L
MANGANESE by ICP	0.14 [0.00040]	mg/L
SODIUM by ICP	14 [0.016]	mg/L
NICKEL by ICP	ND [0.0080]	mg/L
TITANIUM by ICP	ND [0.03]	mg/L

ND indicates the parameter was not detected.
Detection limits are specified in [].

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-001-10 Work Order: BO-04-279

SAMPLE ID	A. SHRADER WELL	
SAMPLED	04/24/90	
TEST		UNITS
VANADIUM by ICP	ND [0.0080]	mg/L
ZINC by ICP	0.64 [0.0013]	mg/L
ARSENIC - FURNACE	ND [0.002]	mg/L
LEAD -FURNACE	ND [0.001]	mg/L
CONDUCTIVITY	2100	umhos/cm
PH	7.1	none
FLUORIDE	1.0 [0.02]	mg/L
SULFATE	1200 [40]	mg/L
TDS	2100 [1]	mg/L
ALKALINITY	220 [1]	mg/L
CHLORIDE	14 [1]	mg/L

ND indicates the parameter was not detected.
Detection limits are specified in [].

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-001-10 Work Order: BO-04-279

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals by 6010** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition, December 1987 Revision.

TEST NAME **ALKALINITY** TEST CODE **ALK_T**

Alkalinity	EPA 310.1-Chemical Analysis of Water and Wastewater, USEPA 1983. An aliquot of sample is titrated with standardized acid solution to a final pH. Alkalinity is reported as mg/L CaCO3.

TEST NAME **ARSENIC - FURNACE** TEST CODE **AS_GF**

Arsenic Graphite Furnace	EPA 7060-Test Methods for Evaluating Solid Wastes,3rd Edition, November 1986. Arsenic is analyzed by graphite furnace.

TEST NAME **CHLORIDE** TEST CODE **CL_A**

Chloride-Titrimetric	Method 9252-Test Methods for Evaluating Solid Wastes,3rd Edition, November 1986. Mercuric nitrate titration technique.

TEST NAME **TOTAL CYANIDE** TEST CODE **CN_A**

Cyanide	Method 9010-Test Methods for Evaluating Solid Wastes, 3rd edition, November 1986. Distillation and colorimetric analysis.

TEST NAME **CONDUCTIVITY** TEST CODE **COND_A**

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-001-10 Work Order: B0-04-279

TEST NAME **CONDUCTIVITY** TEST CODE **COND_A**

Conductance	Method 120.1-Chemical Analysis of Water and Wastewater, USEPA, 1983.

TEST NAME **FLUORIDE** TEST CODE **F_SIE**

Fluoride	Method 340.2-Chemical Analysis of Water and Wastewater, USEPA, 1983. Potentiometric analysis.

TEST NAME **NITRATE** TEST CODE **NO3_N**

Nitrate	Method 353.1-Chemical Analysis of Water and Wastewater, USEPA, 1983. Hydrazine reduction and colorimetric analysis.

TEST NAME **LEAD** **-FURNACE** TEST CODE **PB_GF**

Lead Graphite Furnace	Method 7421-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Graphite furnace atomic absorption analysis.

TEST NAME **PH** TEST CODE **PH**

pH	Method 150.1-Chemical Analysis of Water and Wastewater, USEPA, 1983. Potentiometric analysis.

TEST NAME **SULFATE** TEST CODE **SO4**

Sulfate	Method 375.4-Chemical Analysis of Water and Wastewater, USEPA, 1983. Turbidimetric analysis.

TEST NAME **TDS** TEST CODE **TDS**

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/06/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-04-279

TEST NAME **TDS** TEST CODE **TDS**

Total Dissolved Solids	Method 160.1-Chemical Analysis of Water and Wastewater, USEPA, 1983. Gravimetric analysis.

TEST NAME **418.1 PET. HYDROCARBONS** TEST CODE **TPH_IR**

TPH-Total Recoverable Petroleum Hydrocarbons	EPA 418.1 - This technique uses a Freon extraction and IR analysis.

TEST NAME **TOTAL PHOS- PHOROUS AS P** TEST CODE **T_PO4**

Total Phosphorus	Method 365.3-Chemical Analysis of Water and Wastewater, USEPA, 1982. Digestion and colorimetric analysis.

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 158167

C/C Control No. 135968

PROJECT NAME/NUMBER Whirlpool / Amert 446493.01.10 LAB DESTINATION IT - Austin

SAMPLE TEAM MEMBERS Bentley, Nies CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
SW-2	SW-2 Drain Outlet	4/24/90 1740	Surf. Water	1 L poly	Good Cond.	
↓	↓	↓	↓	1 L poly	Temp 4°C	
				500 ml poly		
				1 L glass		
↓	↓	↓	↓	250 ml glass		
SW-3	SW-3 West Discharge Area	4/24/90 1800	Surf. Water	1 L poly		
↓	↓	↓	↓	1 L poly		
				500 ml poly		
				1 L glass		
↓	↓	↓	↓	250 ml glass		

Special Instructions:

Possible Sample Hazards: None

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Robert [illegible], IT Corp, 4-25-90, 1000

   Received By: [illegible] 4/26/90 0930

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

B00927

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 158167
C/C Control No. 135968

PROJECT NAME: Whirlpool Amert
PROJECT NUMBER: 446493.01.10
PROJECT MANAGER: M. Bentley
BILL TO: IT - Austin

DATE SAMPLES SHIPPED: 4-25-90
LAB DESTINATION: IT - Austin
LABORATORY CONTACT: D. Green
SEND LAB REPORT TO: M. Bentley, IT - Austin

PURCHASE ORDER NO.:

DATE REPORT REQUIRED: Normal TAT
PROJECT CONTACT: M Bentley
PROJECT CONTACT PHONE NO.: 512 328 0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
SW-2	Surf Water	1 L poly	None	(1) Sp, Cond, F Ca, Mg, K, Na, Alk, SO4, Cl, TDS, pH,	
↓	↓	1 L poly	NaOH	CN	
		500 ml poly	HNO3	(2) As, B, Ba, Cu, Mn, Ni, V, Zn, Cd, Co, Fe, Pb, Ti	
		1 L glass	H2SO4	TPH	
		250 ml glass	H2SO4	NO3 PO4	
SW-3	Surf Water	1 L poly	None	(1) Std GW as above	
↓	↓	1 L poly	NaOH	CN	
		500 ml poly	HNO3	(2) Metals As Above	
		1 L glass	H2SO4	TPH	
		250 mL glass	H2SO4	NO3 PO4	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ✓ Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ✓ Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab ✓

FOR LAB USE ONLY

Received By: Chris Rodriguez Date/Time: 4/20/90 0830

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 158168

C/C Control No. 135967

PROJECT NAME/NUMBER: Whirlpool/Amert 446493.01.10

LAB DESTINATION: IT - Austin

SAMPLE TEAM MEMBERS: Bentley, Nies

CARRIER/WAYBILL NO.:

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
Dvg Well	Dvg Well	4/24/90 1830	Ground Water	1 L poly	Good Cond.	
↓	↓	↓	↓	1 L poly	Temp 4°C	
				500 ml poly		
				1 L glass		
				250 ml glass		
Shrader	A. Shrader Well	4/24/90 1710		1 L poly		
↓	↓	↓	↓	500 mL poly		

Special Instructions:

Possible Sample Hazards: None

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Robert [illegible] - IT Corp, 4-25-90 1000

   Received By: Chris [illegible] 4/26/90 0930

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 158168
C/C Control No. 135967

PROJECT NAME: Whirlpool/Amert 4L
PROJECT NUMBER: 446493.01.10
PROJECT MANAGER: M Bentley
BILL TO: IT Austin

DATE SAMPLES SHIPPED: 4-25-90
LAB DESTINATION: IT Austin
LABORATORY CONTACT: D. Green
SEND LAB REPORT TO: M. Bentley, IT-Austin

PURCHASE ORDER NO.:

DATE REPORT REQUIRED: Normal TAT
PROJECT CONTACT: M. Bentley
PROJECT CONTACT PHONE NO.: 512 328 0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
Dug Well	Ground Water	1 L poly	None	(1) Ca, Mg, K, Na, Alk, SO4, CL, TDS, pH, Cond, F	
↓	↓	1 L poly	NaOH	CN	
		500 mL poly	HNO3	(2) As, B, Ba, Cu, Mn, Ni, V, Zn, Cd, Co, Fe, Pb, Ti	
		1 L glass	H2SO4	TPH	
		250 mL glass	H2SO4	NO3 PO4	
Shrader	Ground water	1 L poly	None	(1) Std. G.W. as above	
		500 mL poly	HNO3	(2) Metals as above	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ✓ Rush ____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ✓ Flammable ____ Skin Irritant ____ Highly Toxic ____ Other ____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab ✓

FOR LAB USE ONLY

Received By: Chris Schupcoff Date/Time: 4/26/90 0930

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

WHIRLPOOL
IT CORPORATION
2499 B CAPITAL OF TEXAS HWY
AUSTIN TX 78746
MIKE BENTLEY

Date: 05/24/90

Work Order: B0-04-281

This is the Certificate of Analysis for the following samples:

Client Work ID: AMERT 446493-001-10
Date Received: 04/30/90
Number of Samples: 12
Sample Type: WATER

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
MW-6	B0-04-281-01
MW-7	B0-04-281-02
MW-10	B0-04-281-03
MW-1	B0-04-281-04
MW-2	B0-04-281-05
MW-8	B0-04-281-06
MW-4	B0-04-281-07
MW-3	B0-04-281-08
MW-12	B0-04-281-09
MW-11	B0-04-281-10
MW-5	B0-04-281-11
MW-9	B0-04-281-12

Reviewed and Approved:

Diane Nichols

Diane M. Nichols
Laboratory Manager

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 05/24/90
Client Work ID: AMERT 446493-001-10 Work Order: PO-04-281

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 05/24/90
Client Work ID: AMERT 446493.001.10 Work Order: B0.04.281

SAMPLE ID	MW-6	MW-7	MW-10	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	0.064 [0.00050]	0.087 [0.00050]	0.029 [0.00050]	mg/L
BORON by ICP	180 [0.0060]	260 [0.0060]	7.3 [0.0060]	mg/L
COPPER by ICP	ND [0.0020]	ND [0.0020]	0.0045 [0.0020]	mg/L
MANGANESE by ICP	1.8 [0.00040]	0.16 [0.00040]	0.21 [0.00040]	mg/L
NICKEL by ICP	0.032 [0.0080]	0.041 [0.0080]	ND [0.0080]	mg/L
VANADIUM by ICP	ND [0.0080]	ND [0.0080]	ND [0.0080]	mg/L
ZINC by ICP	0.027 [0.0013]	0.012 [0.0013]	0.029 [0.0013]	mg/L
ARSENIC - FURNACE	ND [0.002]	ND [0.002]	ND [0.002]	mg/L
THALLIUM - FURNACE	ND [0.001]	ND [0.001]	ND [0.001]	mg/L
TOTAL CYANIDE	ND [0.010]	ND [0.010]	0.02 [0.010]	mg/L
418.1 PET. HYDROCARBONS	ND [1]	ND [1]	ND [1]	mg/L

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 05/24/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-04-281

SAMPLE ID	MW-1	MW-2	MW-8	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	0.065 [0.00050]	0.081 [0.00050]	0.034 [0.00050]	mg/L
BORON by ICP	14 [0.0060]	25 [0.0060]	13 [0.0060]	mg/L
COPPER by ICP	ND [0.0020]	ND [0.0020]	ND [0.0020]	mg/L
MANGANESE by ICP	0.18 [0.00040]	0.25 [0.00040]	0.24 [0.00040]	mg/L
NICKEL by ICP	ND [0.0080]	ND [0.0080]	ND [0.0080]	mg/L
VANADIUM by ICP	ND [0.0080]	ND [0.0080]	ND [0.0080]	mg/L
ZINC by ICP	0.037 [0.0013]	0.017 [0.0013]	0.015 [0.0013]	mg/L
ARSENIC - FURNACE	0.007 [0.002]	ND [0.002]	0.003 [0.002]	mg/L
THALLIUM - FURNACE	ND [0.001]	ND [0.001]	ND [0.001]	mg/L
TOTAL CYANIDE	ND [0.010]	ND [0.010]	ND [0.010]	mg/L
418.1 PET. HYDROCARBONS	ND [1]	ND [1]	ND [1]	mg/L

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 05/24/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-04-281

SAMPLE ID	MW-4	MW-3	MW-12	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	0.062 [0.00050]	0.080 [0.00050]	0.016 [0.00050]	mg/L
BORON by ICP	150 [0.0060]	140 [0.0060]	120 [0.0060]	mg/L
COPPER by ICP	ND [0.0020]	0.0021 [0.0020]	0.0042 [0.0020]	mg/L
MANGANESE by ICP	0.30 [0.00040]	0.21 [0.00040]	0.048 [0.00040]	mg/L
NICKEL by ICP	0.026 [0.0080]	0.024 [0.0080]	0.029 [0.0080]	mg/L
VANADIUM by ICP	ND [0.0080]	ND [0.0080]	ND [0.0080]	mg/L
ZINC by ICP	0.010 [0.0013]	0.034 [0.0013]	0.022 [0.0013]	mg/L
ARSENIC - FURNACE	ND [0.002]	ND [0.002]	ND [0.002]	mg/L
THALLIUM - FURNACE	ND [0.001]	ND [0.001]	ND [0.001]	mg/L
TOTAL CYANIDE	ND [0.010]	ND [0.010]	ND [0.010]	mg/L
418.1 PET. HYDROCARBONS	ND [1]	ND [1]	ND [1]	mg/L

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 05/24/90
Client Work ID: AMERT 446493-001-10 Work Order: R0-06-001

SAMPLE ID	MW-11	MW-5	MW-9	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	0.050 [0.00050]	0.072 [0.00050]	0.070 [0.00050]	mg/L
BORON by ICP	100 [0.0060]	76 [0.0060]	25 [0.0060]	mg/L
COPPER by ICP	0.0073 [0.0020]	0.0028 [0.0020]	0.0043 [0.0020]	mg/L
MANGANESE by ICP	0.042 [0.00040]	0.32 [0.00040]	0.41 [0.00040]	mg/L
NICKEL by ICP	0.014 [0.0080]	ND [0.0080]	ND [0.0080]	mg/L
VANADIUM by ICP	ND [0.0080]	ND [0.0080]	ND [0.0080]	mg/L
ZINC by ICP	0.040 [0.0013]	0.035 [0.0013]	0.051 [0.0013]	mg/L
ARSENIC - FURNACE	ND [0.002]	0.003 [0.002]	ND [0.002]	mg/L
THALLIUM - FURNACE	ND [0.001]	ND [0.001]	ND [0.001]	mg/L
TOTAL CYANIDE	ND [0.010]	ND [0.010]	0.02 [0.010]	mg/L
418.1 PET. HYDROCARBONS	ND [1]	ND [2]	ND [1]	mg/L

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 05/24/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-04-281

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals by 6010** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition, December 1987 Revision.

TEST NAME **ARSENIC - FURNACE** TEST CODE **AS_GF**

Arsenic Graphite Furnace	EPA 7060-Test Methods for Evaluating Solid Wastes,3rd Edition, November 1986. Arsenic is analyzed by graphite furnace.

TEST NAME **TOTAL CYANIDE** TEST CODE **CN_A**

Cyanide	Method 9010-Test Methods for Evaluating Solid Wastes, 3rd edition, November 1986. Distillation and colorimetric analysis.

TEST NAME **THALLIUM - FURNACE** TEST CODE **TL_GF**

Thallium-Graphite	Method 7841-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Graphite furnace atomic absorption.

TEST NAME **418.1 PET. HYDROCARBONS** TEST CODE **TPH_IR**

TPH-Total Recoverable Petroleum Hydrocarbons	EPA 418.1 - This technique uses a Freon extraction and IR analysis.

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 158162
C/C Control No. 135964

PROJECT NAME: Whirlpool
PROJECT NUMBER: 446493-01-10
PROJECT MANAGER: M. Bentley
BILL TO: IT Austin

DATE SAMPLES SHIPPED: 4-25-90
LAB DESTINATION: IT Austin
LABORATORY CONTACT: D. Green
SEND LAB REPORT TO: M. Bentley, IT Austin

PURCHASE ORDER NO.:

DATE REPORT REQUIRED: Norm TAT
PROJECT CONTACT: M. Bentley
PROJECT CONTACT PHONE NO.: (512) 328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW-6	Gr. water	1-liter poly	NaOH	CN	
MW-6		1-liter gl	H_2SO_4	TPH	
MW-6		500 ml poly.	HNO_3	*As, B, Ba, Cu, Mn, Ni, V, Zn	
MW-7		1-liter poly	NaOH	CN	
MW-7		1-liter gl	H_2SO_4	TPH	
MW-7		500 ml poly.	HNO_3	*Metals	
MW-10		1-liter poly	NaOH	CN	
MW-10		1-liter gl	H_2SO_4	TPH	
MW-10		500 ml poly	HNO_3	*Metals	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush ____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ____ Flammable ____ Skin Irritant ____ Highly Toxic ____ Other unknown (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab X

FOR LAB USE ONLY

Received By [signature] Date/Time 4/26/90 0930

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 158162

C/C Control No. 135964

PROJECT NAME/NUMBER Whirlpool

LAB DESTINATION IT Austin

SAMPLE TEAM MEMBERS B. Nies, M. Bentley

CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW-6	Well MW-6	4-24-40 / 1545	Gr. water	1-liter poly	Good Cond.	
MW-6	"	1545		1-liter gl	Temp 4°C	
MW-6	"	1545		500ml poly		
MW-7	Well MW-7	1615		1-liter poly		
MW-7	"	1615		1-liter gl		
MW-7	"	1615		500ml poly		
MW-10	Well MW-10	1645		1-liter poly		
MW-10	"	1645		1-liter gl		
MW-10	"	1645		500ml poly		

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Robert G. Nies, ITCorp 4-25-90, 1000

   Received By: Chris Schupcoff 4/26/90 0930

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 158160
C/C Control No. 135962

PROJECT NAME: Whirlpool / 446 493-01-10
PROJECT NUMBER: 446 493-01-10
PROJECT MANAGER: M. Bentley
BILL TO: IT Austin

DATE SAMPLES SHIPPED: 4-25-90
LAB DESTINATION: IT Austin
LABORATORY CONTACT: D. Green
SEND LAB REPORT TO: M. Bentley

PURCHASE ORDER NO.:

DATE REPORT REQUIRED: Nor. TAT
PROJECT CONTACT: M. Bentley
PROJECT CONTACT PHONE NO.: (512) 328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW-1	Groundwater	1-L poly	NaOH	CN	
MW-1		1-L gl	H_2SO_4	TPH	
MW-1		500 ml poly	HNO_3	* As, B, Ba, Cu, Mn, Ni, Zn.	
MW-2		1-L poly	NaOH	CN	
MW-2		1-L glass	H_2SO_4	TPH	
MW-2		500 ml poly	HNO_3	* metals as above	
MW-8		1-L poly	NaOH	CN	
MW-8		1-L gl	H_2SO_4	TPH	
MW-8		1-L poly	HNO_3	* Metals as above	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush ____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ____ Flammable ____ Skin Irritant ____ Highly Toxic ____ Other ____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab X

FOR LAB USE ONLY

Received By: Chris Schupcoff Date/Time: 4/26/90 0930

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 158160

C/C Control No. 135962

PROJECT NAME/NUMBER Whirlpool / 446493

LAB DESTINATION IT Austin

SAMPLE TEAM MEMBERS B. Nies / M. Bently

CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW-1	well MW-1 -	4-24-90 / 1045	Gr. water	1-liter poly	Good Cond.	
MW-1	"	1045		1-liter gl	Temp 4°C	
MW-1	"	1045		500ml poly		
MW-2	Well MW-2	1100		1-liter poly		
MW-2	"	1100		1-liter gl		
MW-2	"	1100		500ml poly		
MW-8	Well MW-8	1240		1-liter poly		
MW-8	"	1240		1-liter gl		
MW-8	"	1240		500ml poly		
		4-24-90	Gr. water			

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: [illegible], IT Corp, 4-25-90, 1000

   Received By: Chris [illegible] 4/26/90 0930

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 158161
C/C Control No. 135961

PROJECT NAME: Whirlpool
PROJECT NUMBER: 446493.01.10
PROJECT MANAGER: Mike Bentley
BILL TO: IT - Austin

PURCHASE ORDER NO.:

DATE SAMPLES SHIPPED: 4-25-90
LAB DESTINATION: IT Austin
LABORATORY CONTACT: D. Green
SEND LAB REPORT TO: M. Bentley, IT - Austin

DATE REPORT REQUIRED: Normal TAT
PROJECT CONTACT: M. Bentley
PROJECT CONTACT PHONE NO.: 512 3280081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW-4	Groundwater	1 L poly	NaOH	CN	
MW-4		1 L gl	H_2SO_4	TPH	
MW-4		500 ml poly	HNO_3	* As, B, Ba, Cu, Mn, Ni, V, Z	
MW-3		1 L poly	NaOH	CN	
MW-3		1 L gl	H_2SO_4	TPH	
MW-3		500 ml poly	HNO_3	* Metals as above	
MW-12		1 L poly	NaOH	CN	
MW-12		1 L gl	H_2SO_4	TPH	
MW-12		500 ml poly	HNO_3	* Metals as above	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ✓ Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ✓ Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab ✓

LAB USE ONLY

Received By: [signature] Date/Time: 4/26/90 0930

Original, to accompany samples
Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 158161

C/C Control No. 135961

PROJECT NAME/NUMBER Whirlpool / 446493-01-10 LAB DESTINATION IT Austin

SAMPLE TEAM MEMBERS B. Nies, M. Bently CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW-4	well MW-4	4-24-90/1210	Gr. water	1-liter poly	Good Cond.	
MW-4	"	1210		1-liter gl	Temp 4°C	
MW-4	"	1210		500ml poly		
MW-3	well MW-3	1330		1-liter poly		
MW-3	"	1330		1-liter gl		
MW-3	"	1330		500ml poly		
MW-12	well - MW-12	1400		1-liter poly		
MW-12	"	1400		1-liter gl		
MW-12	"	1400		500ml poly		

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Robert [illegible], IT Corp, 4-25-90, 1000

   Received By: Chris Schupoff 4/26/90 0930

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 158163
C/C Control No. 135960

PROJECT NAME: Whirlpool
PROJECT NUMBER: 446493.01.10
PROJECT MANAGER: M. Bentley
BILL TO: IT-Austin

DATE SAMPLES SHIPPED: 4-25-90
LAB DESTINATION: IT Austin
LABORATORY CONTACT: D. Green
SEND LAB REPORT TO: M Bentley, IT Austin

PURCHASE ORDER NO.:

DATE REPORT REQUIRED: Normal TAT
PROJECT CONTACT: M Bentley
PROJECT CONTACT PHONE NO.: 512 328 0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
MW-11	Ground Water	1 L poly	NaOH	CN	
MW-11	"	1 L gl	H2SO4	TPH	
MW-11	"	500 ml poly	HNO3	* As B Ba Cu Mn Ni V Zn	
MW-5	"	1 L poly	NaOH	CN	
MW-5	"	1 L gl	H2SO4	TPH	
MW-5	"	500 ml poly	HNO3	* Metals as Above	
MW-9	"	1 L poly	NaOH	CN	
MW-9	"	1 L gl	H2SO4	TPH	
MW-9	"	500 mL poly	HNO3	* Metals as above	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush ____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable ____ Skin Irritant ____ Highly Toxic ____ Other ____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab X

FOR LAB USE ONLY

Received By: [signature] Date/Time: 4/26/90 0930

HITE - Original, to accompany samples
ELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 158163

C/C Control No. 135960

PROJECT NAME/NUMBER Whirlpool / 446493-01-10 LAB DESTINATION IT Austin

SAMPLE TEAM MEMBERS B. Nies, M. Bently CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
MW-11	well MW-11	2-24-90 / 1420	Gr. Water	1-liter poly	Good Cond.	
MW-11	"	2-24-90 1420		1-liter gl	Temp 4°C	
MW-11	"	1420		500 ml poly		
MW-5	well MW-5	1445		1-liter poly		
MW-5	"	1445		1-liter gl		
MW-5	"	1445		500 ml poly		
MW-9	Well MW-9	1510		1-liter poly		
MW-9	"	1510		1-liter gl.		
MW-9	"	1510		500 ml poly		

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Robert [illegible] IT Corp, 4-25-90, 1000

   Received By: Chris [illegible] 4/26/90 0930

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

WHIRLPOOL
IT CORPORATION
2499 B CAPITAL OF TEXAS HWY
AUSTIN TX 78746
PERRY MANN

Date: 06/20/90

Work Order: B0-06-168

This is the Certificate of Analysis for the following samples:

Client Work ID: AMERT 446493-001-10
Date Received: 06/14/90
Number of Samples: 12
Sample Type: WATER

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
MW-6	B0-06-168-01
MW-7	B0-06-168-02
MW-10	B0-06-168-03
MW-1	B0-06-168-04
MW-2	B0-06-168-05
MW-8	B0-06-168-06
MW-4	B0-06-168-07
MW-3	B0-06-168-08
MW-12	B0-06-168-09
MW-11	B0-06-168-10
MW-5	B0-06-168-11
MW-9	B0-06-168-12

Reviewed and Approved:

Diane M. Nichols
Laboratory Manager

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/20/90
Client Work ID: AMERT 446493-001-10 Work Order: BO-06-168

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/20/90
Client Work ID: AMERT 446493-001-10 Work Order: BO-06-168

SAMPLE ID	MW-6	MW-7	MW-10	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
SODIUM by ICP	400	610	31	mg/L
	[0.02]	[0.04]	[0.02]	

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/20/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-06-168

SAMPLE ID	MW-1	MW-2	MW-8	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
SODIUM by ICP	42	70	42	mg/L
	[0.02]	[0.02]	[0.02]	

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/20/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-06-168

SAMPLE ID	MW-4	MW-3	MW-12	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
SODIUM by ICP	340	290	310	mg/L
	[0.02]	[0.02]	[0.02]	

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/20/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-06-168

SAMPLE ID	MW-11	MW-5	MW-9	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
SODIUM by ICP	230	170	57	mg/L
	[0.02]	[0.02]	[0.02]	

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/20/90
Client Work ID: AMERT 446493-001-10 Work Order: BO-06-168

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICPES Digestion - Water** TEST CODE **3005**

Water Digestion	Method 3000-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Acid digestion technique for ICPES analysis.
Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition, December 1987 Revision.

Mike Bentley
Amert
Date: February 28, 1990
Client Project ID: 446493.01.04

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TN

Job Number: 482386

CLIENT SAMPLE NO:	TDL SAMPLE NO:	DEPTH (FEET):
1/WB-1	GG2476	2

WATER CONTENT

20.7%

ATTERBERG LIMITS

LIQUID LIMIT: 27.9
PLASTIC LIMIT: 18.0
PLASTICITY INDEX: 9.9
USCS: CL

GRAIN SIZE

SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS:		
3.000 in	75.000	100.0
1.500 in	37.500	100.0
0.750 in	19.000	100.0
0.375 in	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	99.2
NO. 20	0.850	97.3
NO. 40	0.425	94.7
NO. 60	0.250	92.0
NO. 140	0.106	85.9
NO. 200	0.075	83.8
HYDROMETER ANALYSIS		
1 min	0.044	83.8
2 min	0.032	78.1
5 min	0.021	74.2
15 min	0.012	70.3
30 min	0.009	62.4
60 min	0.006	52.7
240 min	0.003	35.1
1440 min	0.001	25.4

mak/MAK034

Mike Bentley
Amert
Date: February 28, 1990
Client Project ID: 446493.01.04

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TN

Job Number: 482386

CLIENT SAMPLE NO:	TDL SAMPLE NO:	DEPTH (FEET):
2/WB-1	GG2477	1

WATER CONTENT

14.4

ATTERBERG LIMITS

LIQUID LIMIT: NP
PLASTIC LIMIT: NP
PLASTICITY INDEX: NP
USCS: NP

GRAIN SIZE

SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS:		
3.000 in	75.000	100.0
1.500 in	37.500	100.0
0.750 in	19.000	100.0
0.375 in	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	100.0
NO. 20	0.850	98.9
NO. 40	0.425	94.1
NO. 60	0.250	47.5
NO. 140	0.106	10.2
NO. 200	0.075	10.1
HYDROMETER ANALYSIS		
1 min	0.053	10.1
2 min	0.037	9.2
5 min	0.024	8.3
15 min	0.014	6.4
30 min	0.010	4.6
60 min	0.007	3.7
250 min	0.004	3.7
1440 min	0.001	2.8

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Mike Bentley
Amert
Date: February 28, 1990
Client Project ID: 446493.01.04

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TN

Job Number: 482386

CLIENT SAMPLE NO:	TDL SAMPLE NO:	DEPTH (FEET):
6/WB-2	GG2478	1.5-2.0

WATER CONTENT

19.7%

ATTERBERG LIMITS

LIQUID LIMIT: 35.9
PLASTIC LIMIT: 22.5
PLASTICITY INDEX: 13.4
USCS: CL

GRAIN SIZE

SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS:		
3.000 in	75.000	100.0
1.500 in	37.500	100.0
0.750 in	19.000	100.0
0.375 in	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	99.7
NO. 20	0.850	98.9
NO. 40	0.425	98.0
NO. 60	0.250	96.3
NO. 140	0.106	93.1
NO. 200	0.075	92.3
HYDROMETER ANALYSIS		
1 min	0.043	92.3
2 min	0.031	91.1
5 min	0.020	89.1
15 min	0.012	83.2
30 min	0.008	79.2
60 min	0.006	75.3
250 min	0.003	55.5
1440 min	0.001	37.6

mak/MAK034

Mike Bentley
Amert
Date: February 28, 1990
Client Project ID: 446493.01.04

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TN

Job Number: 482386

CLIENT SAMPLE NO:	TDL SAMPLE NO:	DEPTH (FEET):
7/WB-2	GG2479	1

WATER CONTENT

12.5%

ATTERBERG LIMITS

LIQUID LIMIT: NP
PLASTICITY INDEX: NP
PLASTIC LIMIT: NP
USCS: NP

GRAIN SIZE

SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS:		
3.000 in	75.000	100.0
1.500 in	37.500	100.0
0.750 in	19.000	100.0
0.375 in	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	100.0
NO. 20	0.850	99.0
NO. 40	0.425	95.6
NO. 60	0.250	45.0
NO. 140	0.106	9.2
NO. 200	0.075	7.9
HYDROMETER ANALYSIS		
1 min	0.053	7.9
2 min	0.038	7.7
5 min	0.024	6.0
15 min	0.014	5.1
30 min	0.010	4.3
60 min	0.007	3.4
250 min	0.004	3.4
1440 min	0.001	3.4

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Mike Bentley
Amert
Date: February 28, 1990
Client Project ID: 446493.01.04

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TN

Job Number: 482386

CLIENT SAMPLE NO:	TDL SAMPLE NO:	DEPTH (FEET):
11/WB-3	GG2480	1.0-1.5

WATER CONTENT

10.8%

ATTERBERG LIMITS

LIQUID LIMIT: NP
PLASTIC LIMIT: NP
PLASTICITY INDEX: NP
USCS: NP

GRAIN SIZE

SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS:		
3.000 in	75.000	100.0
1.500 in	37.500	100.0
0.750 in	19.000	100.0
0.375 in	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	100.0
NO. 20	0.850	99.6
NO. 40	0.425	94.9
NO. 60	0.250	53.1
NO. 140	0.106	10.1
NO. 200	0.075	8.6
HYDROMETER ANALYSIS		
1 min	0.053	8.6
2 min	0.038	6.9
5 min	0.024	6.0
15 min	0.014	3.5
30 min	0.010	2.6
60 min	0.007	1.7
250 min	0.004	1.7
1440 min	0.001	1.7

mak/MAK034

Mike Bentley
Amert
Date: February 28, 1990
Client Project ID: 446493.01.04

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TN

Job Number: 482386

CLIENT SAMPLE NO:	TDL SAMPLE NO:	DEPTH (FEET):
12/WB-3	GG2481	1.5-2.0

WATER CONTENT

20.8%

ATTERBERG LIMITS

LIQUID LIMIT: 33.2
PLASTIC LIMIT: 21.6
PLASTICITY INDEX: 11.6
USCS: CL

GRAIN SIZE

SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS:		
3.000 in	75.000	100.0
1.500 in	37.500	100.0
0.750 in	19.000	100.0
0.375 in	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	98.7
NO. 20	0.850	97.2
NO. 40	0.425	95.5
NO. 60	0.250	91.8
NO. 140	0.106	86.1
NO. 200	0.075	85.3
HYDROMETER ANALYSIS		
1 min	0.043	83.0
2 min	0.031	79.6
5 min	0.020	76.1
15 min	0.012	69.2
30 min	0.008	62.3
60 min	0.006	55.4
250 min	0.003	38.1
1440 min	0.001	29.4

mak/MAK034

INTERNATIONAL TECHNOLOGY CORPORATION

(THE TRS)
CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. A 89991

PROJECT NAME/NUMBER Whirlpool Amert 446493.01.

LAB DESTINATION IT - Knoxville

SAMPLE TEAM MEMBERS Garrett

CARRIER/WAYBILL NO. _____

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
1	WB-1 2ft		Soil	125 ml		
2	WB-1 1ft		"	"		
6	WB-2 1.5-2ft		"	"		
7	WB-2 1 ft		"	"		
11	WB-3 1-1.5 ft		"	"		
12	WB-3 1.5-2 ft		"	"		

Special Instructions: _____

Possible Sample Hazards: None - Metals site

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: _____

   Received By: _____

2. Relinquished By: Mike Bentley

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 110826
C/C Control No. _____

PROJECT NAME: Whirlpool - Amert
PROJECT NUMBER: 446493.01.04
PROJECT MANAGER: Mike Bentley
BILL TO: Mike Bentley, IT Corp, Austin TX

PURCHASE ORDER NO.: 900108 MK - Intercompany

DATE SAMPLES SHIPPED: 1-8-90
LAB DESTINATION: IT-Knoxville Soils
LABORATORY CONTACT: Mike Krstich
SEND LAB REPORT TO: Mike Bentley, IT Corp, Austin TX

DATE REPORT REQUIRED: 1-30-90
PROJECT CONTACT: Mike Bentley
PROJECT CONTACT PHONE NO.: (512) 328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
1	Soil	125 ml	None	Sieve Analysis, Atterburgs	
2	"	"	"	"	
6	"	"	"	"	
7	"	"	"	"	
11	"	"	"	"	
12	"	"	"	"	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ✓ Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ✓ Flammable _____ Skin Irritant _____ Highly Toxic _____ Other May have Heavy Metals (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab ✓

FOR LAB USE ONLY

Received By _____ Date/Time _____

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Michael E. Bentley
IT Corporation
2499-B Capital of Texas Hwy.
Austin, TX 78746

May 11, 1990

PROJECT NUMBER: 482488.16 **Client PO No.:** MB50490

This is the Certificate of Analysis for the following samples:

Client Project ID:	446493.01.01 **(Whirlpool Amert)**
Date Received by Lab:	May 7, 1990
Number of Samples:	Three (3)
Sample Type:	Soil

I. Introduction

Three (3) soil samples were received May 7, 1990, at ITAS Technology Development Laboratory from the IT-Austin Engineering group. All samples were analyzed for grain size distribution.

II. Analytical Results/Methodology

REFERENCE: Annual Book of ASTM Standards. 1989. Soil and Rock; Building Stones; Geotextiles. Vol. 4.08.

Grain Size ASTM D422-63
(Hydrometer <0.075 mm and sieve analysis ≥0.075 mm).

Reviewed and Approved:

Michael A. Krstich
Geotechnical Services
qhc\MAK073

American Council of Independent Laboratories
International Association of Environmental Testing Laboratories
American Association for Laboratory Accreditation

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TENNESSEE

II. Analytical Results/Methodology (Continued)

Cross reference list is in Appendix A.

Results are contained in Appendix B.

III. Quality Control

Internal quality control checks, QC samples, are not applicable to geotechnical testing. This is due to the inability of obtaining samples with known characteristics. Blanks and spikes are also not applicable to geotechnical testing.

QC measures to insure accuracy and precision of test results include the following:

- 100% verification on all numerical results - all raw data entries, transcriptions and calculations entered by lab technicians are checked, recalculated and verified by the geotechnical laboratory manager.
- Data validation through test reasonableness - summaries of all test results for individual reports are reviewed by the geotechnical laboratory manager to determine the overall reasonableness of data and to determine the presence of any data that may be considered outliers.
- Routine instrument calibration - all instruments, gauges and equipment used in testing is calibrated on a timely routine basis. All instrument calibration follows ASTM or manufactures guidelines.
- Maintenance of all past calibration records - records and certification documents of all instruments, gauges and equipment are updated routinely and maintained in the geotechnical laboratory managers office.
- Use of trained personnel for conducting tests - all technicians are trained in the application of standard laboratory procedures for geotechnical analyses as well as the quality assurance measures implemented for internal quality control checks.

Michael E. Bentley
Whirlpool Amert
Date: May 11, 1990
Client Project ID: 446493.01.10

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TENNESSEE

TDL Project No.: 482488.16

CROSS REFERENCE LIST

IT SAMPLE NO.	CLIENT SAMPLE NO.	MATRIX
GG2974	1 SS-6A	Soil
GG2975	2 SS-10A	Soil
GG2976	3 SS-14A	Soil

Michael E. Bentley
Whirlpool Amert
Date: May 11, 1990
Client Project ID: 446493.01.10

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TENNESSEE

TDL Project No.: 482488.16

Analysis: Particle Size
Sample Number: GG2974/SS-6A
Sample Type: SOIL
Water Content: 7.39%

RESULTS:

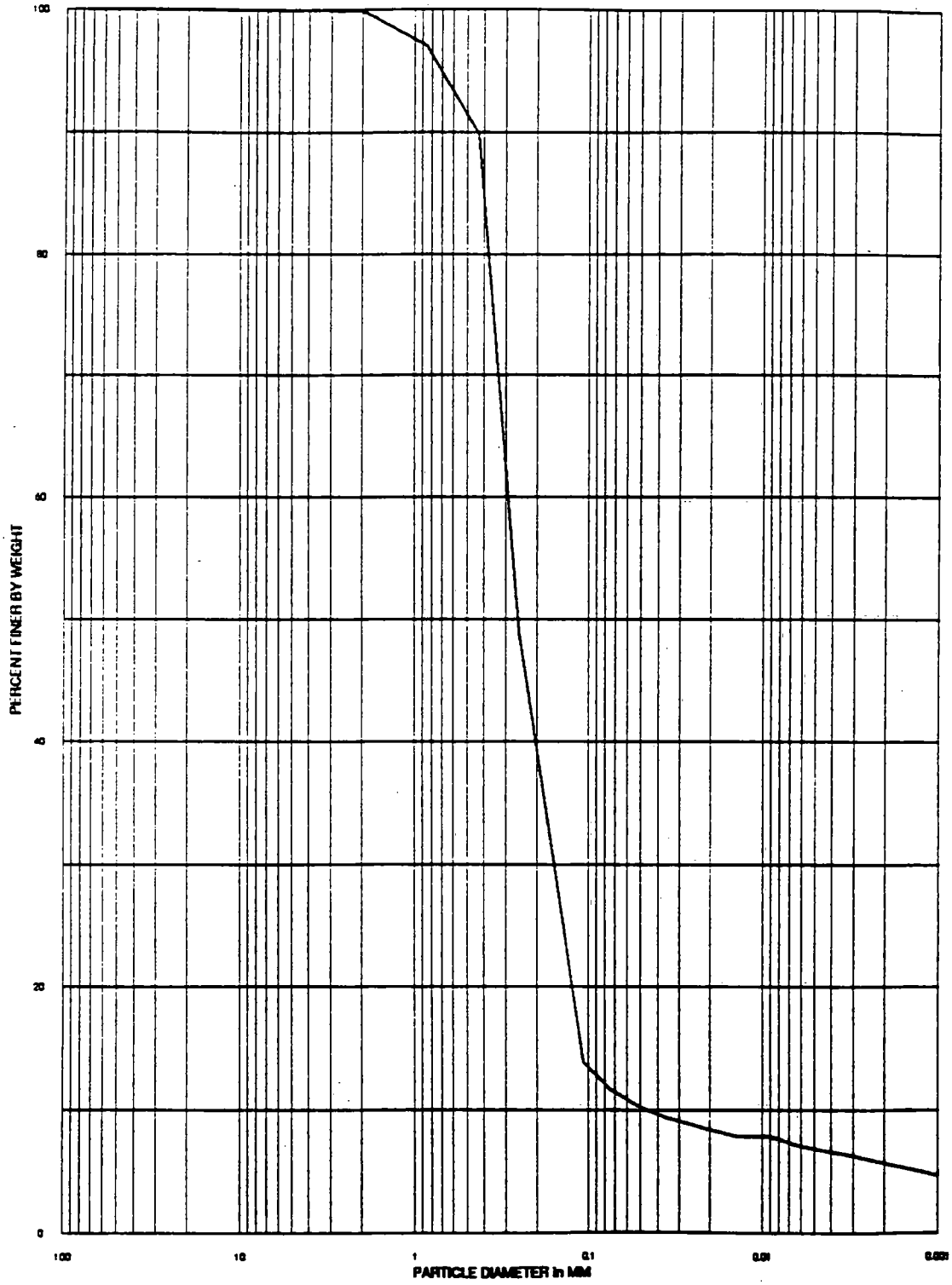
SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS		
3.000 in.	75.000	100.0
1.500 in.	37.500	100.0
0.750 in.	19.000	100.0
0.375 in.	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	99.9
NO. 20	0.850	97.1
NO. 40	0.425	89.9
NO. 60	0.250	48.9
NO. 140	0.106	13.9
NO. 200	0.075	11.7
HYDROMETER ANALYSIS		
1 min	0.049	10.2
2 min	0.035	9.4
5 min	0.022	8.6
15 min	0.014	7.9
30 min	0.009	7.9
60 min	0.006	7.1
240 min	0.003	6.3
1440 min	0.001	4.7

Michael E. Bentley
Whirlpool Amert
Date: May 11, 1990
Client Project ID: 446493.01.10

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TENNESSEE

TDL Project No.: 482488.16

PARTICLE SIZE DISTRIBUTION SAMPLE SS-6A



qhc\MAK073

Michael E. Bentley
Whirlpool Amert
Date: May 11, 1990
Client Project ID: 446493.01.10

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TENNESSEE

TDL Project No.: 482488.16

Analysis: Particle Size
Sample Number: GG2975/SS-10A
Sample Type: SOIL
Water Content: 20.7%

RESULTS:

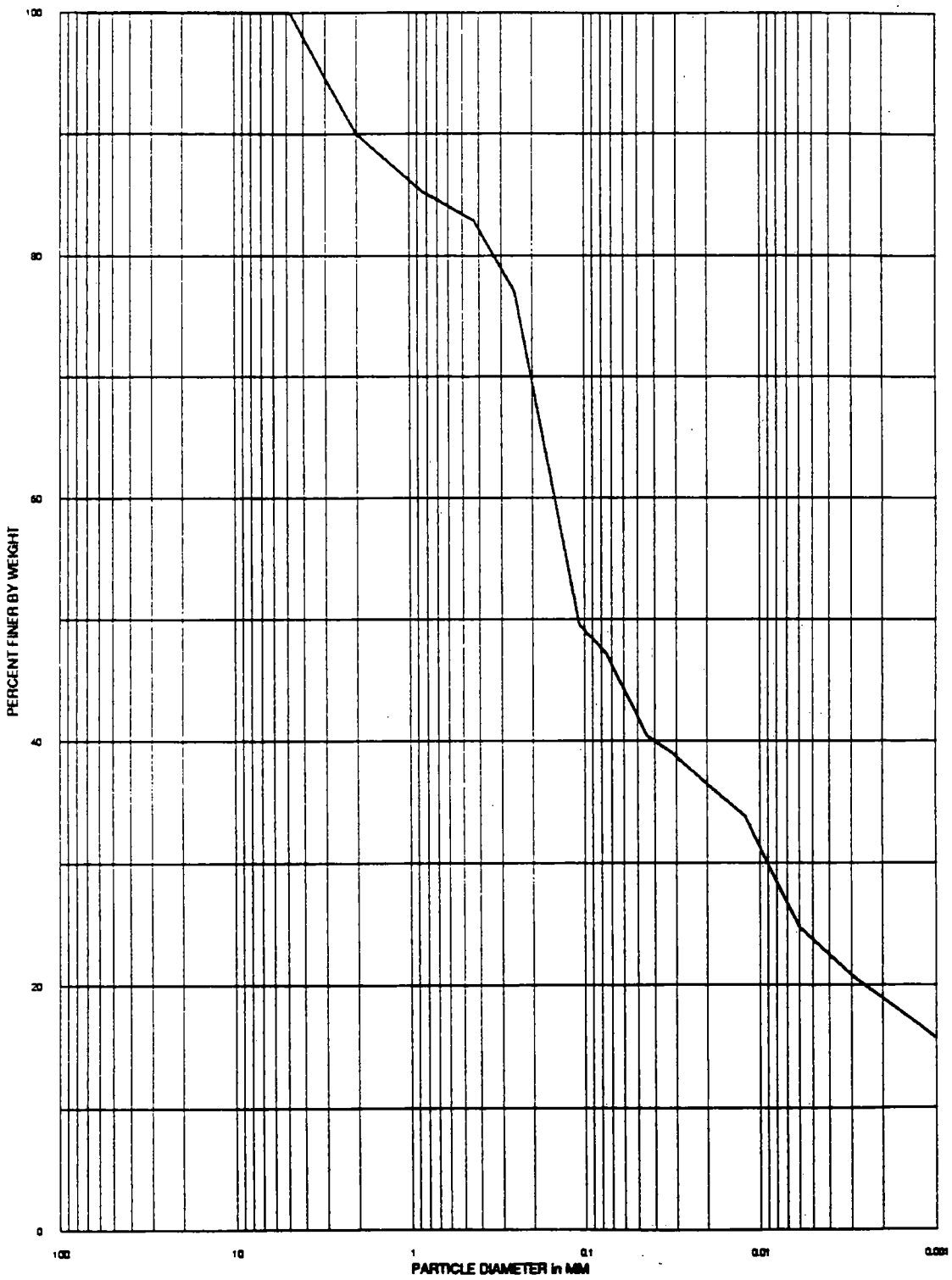
SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS		
3.000 in.	75.000	100.0
1.500 in.	37.500	100.0
0.750 in.	19.000	100.0
0.375 in.	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	90.1
NO. 20	0.850	85.3
NO. 40	0.425	82.9
NO. 60	0.250	77.1
NO. 140	0.106	49.5
NO. 200	0.075	47.1
HYDROMETER ANALYSIS		
1 min	0.044	40.4
2 min	0.032	39.1
5 min	0.020	36.5
15 min	0.012	33.9
30 min	0.009	30.0
60 min	0.006	24.8
240 min	0.003	20.9
1440 min	0.001	15.7

Michael E. Bentley
Whirlpool Amert
Date: May 11, 1990
Client Project ID: 446493.01.10

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TENNESSEE

TDL Project No.: 482488.16

PARTICLE SIZE DISTRIBUTION SAMPLE SS-10A



qhc\MAK073

Michael E. Bentley
Whirlpool Amert
Date: May 11, 1990
Client Project ID: 446493.01.10

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TENNESSEE

TDL Project No.: 482488.16

Analysis: Particle Size
Sample Number: GG2976/SS-14A
Sample Type: SOIL
Water Content: 16.9%

RESULTS:

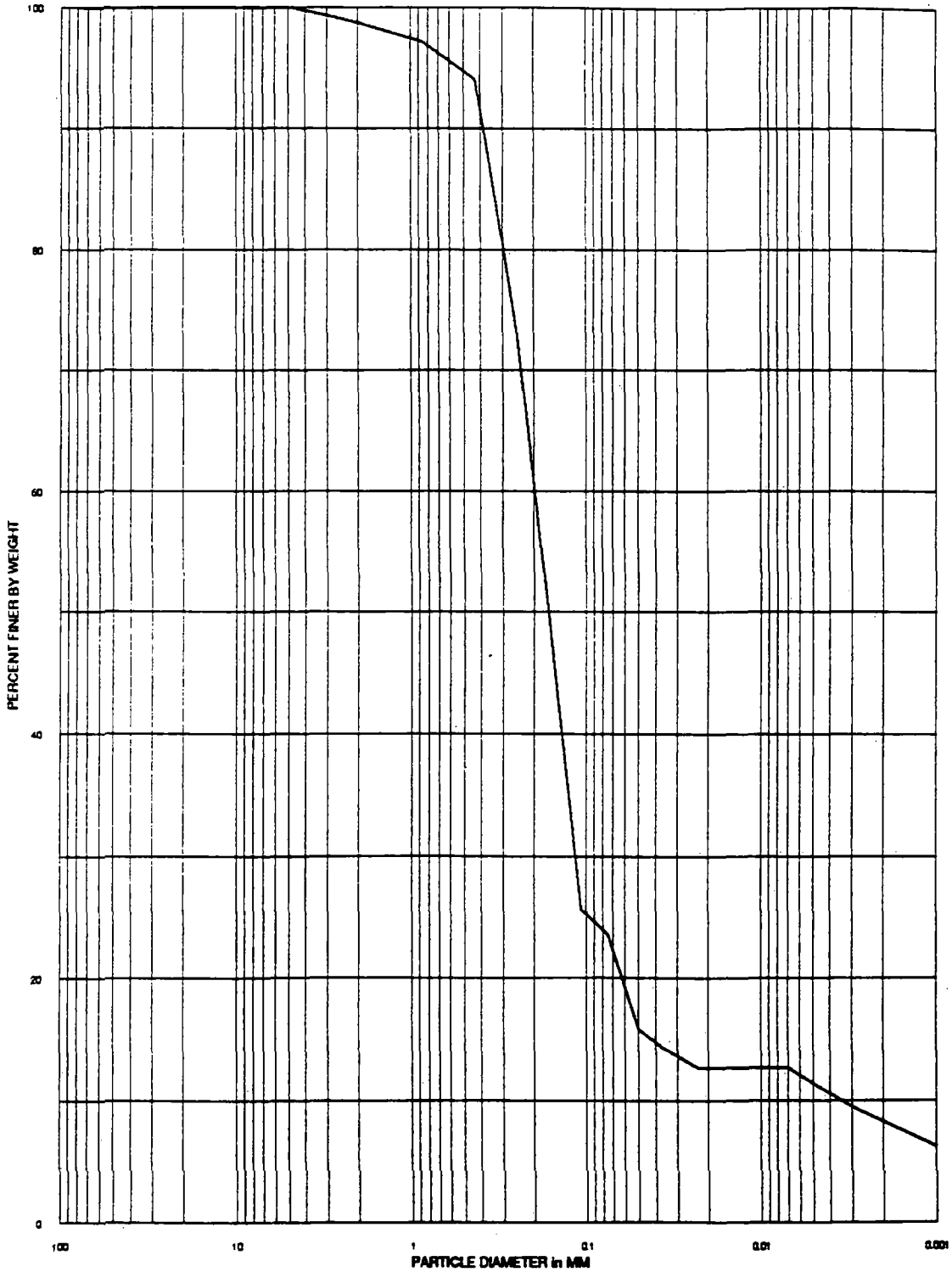
SIEVE SIZE/TIME	DIAMETER (mm)	PERCENT FINER
SIEVE ANALYSIS		
3.000 in.	75.000	100.0
1.500 in.	37.500	100.0
0.750 in.	19.000	100.0
0.375 in.	9.500	100.0
NO. 4	4.750	100.0
NO. 10	2.000	98.8
NO. 20	0.850	97.2
NO. 40	0.425	94.1
NO. 60	0.250	74.0
NO. 140	0.106	25.6
NO. 200	0.075	23.6
HYDROMETER ANALYSIS		
1 min	0.050	15.8
2 min	0.036	14.3
5 min	0.023	12.7
15 min	0.013	12.7
30 min	0.009	12.7
60 min	0.007	12.7
240 min	0.003	9.5
1440 min	0.001	6.3

Michael E. Bentley
Whirlpool Amert
Date: May 11, 1990
Client Project ID: 446493.01.10

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TENNESSEE

TDL Project No.: 482488.16

PARTICLE SIZE DISTRIBUTION SAMPLE SS-14A



qhc\MAK073

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 158165

C/C Control No. 135965

PROJECT NAME/NUMBER Whirlpool/Amort 446493.01.10 LAB DESTINATION IT - Knoxville

SAMPLE TEAM MEMBERS Bentley CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
G2974 1	SS-6A East Field 6-12 in	4/24/90 1120	SOIL	250 mL glass	OK + Intact Rec'd Dry + boxed TDC 5/7/90	
G2975 2	SS-10A Cornfield Background 6-12 in	4/24-90 1400	SOIL	250 mL glass		
G2976 3	SS-14A Cornfield Bare Spot 12-18 in	4/24/90 1440	SOIL	250 mL glass		

Special Instructions:

Possible Sample Hazards: None

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: M E Bentley

   Received By: NJ Conrad TDC/5-7-90 1600

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

482488.06

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 158165
C/C Control No. 135965

PROJECT NAME: Whirlpool Amert
PROJECT NUMBER: 446493.01.10
PROJECT MANAGER: M. Bentley
BILL TO: IT - Austin

DATE SAMPLES SHIPPED:
LAB DESTINATION: IT - Knoxville
LABORATORY CONTACT:
SEND LAB REPORT TO: M. Bentley, IT - Austin

PURCHASE ORDER NO.: MB 50490

DATE REPORT REQUIRED:
PROJECT CONTACT: Mike Bentley
PROJECT CONTACT PHONE NO.: 512 328 0081

	Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
2974	1 SS-6A	SOIL	250 mL	None	Grain Size Analysis	
2975	2 SS-10A	SOIL	↓	None	"	
2976	3 SS-14A	SOIL	↓	None	"	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ✓ Rush ____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ✓ Flammable ____ Skin Irritant ____ Highly Toxic ____ Other ____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab ✓

FOR LAB USE ONLY

Received By NJ Conrad Date/Time 5/7/90 1600 482488.06

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

WHIRLPOOL
IT CORPORATION
2499 B CAPITAL OF TEXAS HWY
AUSTIN TX 78746
MIKE BENTLEY

Date: 09/20/90

Work Order: B0-08-101

This is the Certificate of Analysis for the following samples:

Client Work ID: WHIRLPOOL AMERT 446493-001-09
Date Received: 08/14/90
Number of Samples: 12
Sample Type: SOIL

I. Introduction
Previously Reported on 09/17/90.
First Reported on 09/11/90.

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
SS-6	B0-08-101-01
SS-7	B0-08-101-02
SS-8	B0-08-101-03
SS-9	B0-08-101-04
SS-10	B0-08-101-05
SS-11	B0-08-101-06
SS-12	B0-08-101-07
SS-13	B0-08-101-08
SS-14	B0-08-101-09

Reviewed and Approved:

Neal Salcher for

Diane M. Nichols
Laboratory Manager

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 09/20/90
Client Work ID: WHIRLPOOL AMERT 446493-001-09 Work Order: B0-08-101

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
SS-15	B0-08-101-10
SS-16	B0-08-101-11
SS-17	B0-08-101-12

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 09/20/90
Client Work ID: WHIRLPOOL AMERT 446493-001-09 Work Order: B0-08-101

SAMPLE ID	SS-6	SS-7	SS-8	
SAMPLED	08/11/90	08/11/90	08/11/90	
TEST				UNITS
BORON by ICP	0.40	16	77	mg/kg
	[0.030]	[0.030]	[0.030]	
SODIUM by ICP	38	180	490	mg/kg
	[2.0]	[2.0]	[17]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 09/20/90
Client Work ID: WHIRLPOOL AMERT 446493-001-09 Work Order: B0-08-101

SAMPLE ID	SS-9	SS-10	SS-11	
SAMPLED	08/11/90	08/11/90	08/11/90	
TEST				UNITS
BORON by ICP	60	5.6	6.8	mg/kg
	[0.030]	[0.030]	[0.030]	
SODIUM by ICP	280	90	83	mg/kg
	[2.0]	[2.0]	[2.0]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 09/20/90
Client Work ID: WHIRLPOOL AMERT 446493-001-09 Work Order: B0-08-101

SAMPLE ID	SS-12	SS-13	SS-14	
SAMPLED	08/11/90	08/11/90	08/11/90	
TEST				UNITS
BORON by ICP	5.5	10	8.7	mg/kg
	[0.030]	[0.030]	[0.030]	
SODIUM by ICP	120	120	170	mg/kg
	[2.0]	[2.0]	[2.0]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 09/20/90
Client Work ID: WHIRLPOOL AMERT 446493-001-09 Work Order: B0-08-101

SAMPLE ID	SS-15	SS-~~16~~ 18	SS-17	
SAMPLED	08/11/90	08/11/90	08/11/90	
TEST				UNITS
BORON by ICP	11	11	4.7	mg/kg
	[0.030]	[0.030]	[0.030]	
SODIUM by ICP	150	170	95	mg/kg
	[2.0]	[2.0]	[2.0]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 09/20/90
Client Work ID: WHIRLPOOL AMERT 446493-001-09 Work Order: B0-08-101

WHIRLPOOL

Hot water extract was performed for Boron by ICP.
Reference: American Society of Agromony, Inc.
Soil Science Society of America, Inc.
Madison, Wisconsin (1982)

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 09/20/90
Client Work ID: WHIRLPOOL AMERT 446493-001-09 Work Order: B0-08-101

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICPES Digestion - Soil** TEST CODE **3050P**

Soil Digestion	Method 3050-Test Methods for Evaluating Solid Wastes, 3rd Edition, November 1986. Acid digestion technique for ICPES analysis.
Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition, December 1987 Revision.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

WHIRLPOOL
IT CORPORATION
2499 B CAPITAL OF TEXAS HWY
AUSTIN TX 78746
MIKE BENTLEY

Date: 06/19/90

Work Order: B0-04-282

This is the Certificate of Analysis for the following samples:

Client Work ID: AMERT 446493-001-10
Date Received: 04/30/90
Number of Samples: 12
Sample Type: SOIL

I. Introduction
Previously Reported on 05/22/90.

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
SS-6	B0-04-282-01
SS-7	B0-04-282-02
SS-8	B0-04-282-03
SS-9	B0-04-282-04
SS-10	B0-04-282-05
SS-11	B0-04-282-06
SS-12	B0-04-282-07
SS-13	B0-04-282-08
SS-14	B0-04-282-09
SS-15	B0-04-282-10
SS-16	B0-04-282-11

Reviewed and Approved:

Diane Nichols

Diane M. Nichols
Laboratory Manager

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-04-282

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
SS-17	B0-04-282-12

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT 446493-001-10 Work Order: BO-04-282

SAMPLE ID	SS-6	SS-7	SS-8	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	12	32	48	mg/kg
	[0.025]	[0.025]	[0.025]	
BORON by ICP	5.3	27	140	mg/kg
	[0.50]	[0.60]	[0.50]	
CHROMIUM by ICP	4.8	10	5.5	mg/kg
	[0.20]	[0.20]	[0.20]	
COPPER by ICP	1.8	6.0	1.3	mg/kg
	[0.10]	[0.10]	[0.10]	
IRON by ICP	8100	14000	50000	mg/kg
	[0.20]	[0.30]	[0.3]	
MANGANESE by ICP	90	90	1100	mg/kg
	[0.020]	[0.020]	[0.20]	
NICKEL by ICP	5.5	7.5	8.5	mg/kg
	[0.40]	[0.40]	[0.40]	
VANADIUM by ICP	6.0	9.0	ND	mg/kg
	[0.40]	[0.40]	[0.40]	
ZINC by ICP	14	35	21	mg/kg
	[0.065]	[0.065]	[0.065]	
ARSENIC - FURNACE	3.8	7.4	23	mg/kg
	[0.1]	[0.1]	[1]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

446493-001-10

Work Order: B0-04-282

SAMPLE ID	SS-9	SS-10	SS-11	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	34	85	55	mg/kg
	[0.025]	[0.025]	[0.025]	
BORON by ICP	140	13	12	mg/kg
	[0.60]	[0.60]	[0.60]	
CHROMIUM by ICP	7.5	16	18	mg/kg
	[0.20]	[0.20]	[0.20]	
COPPER by ICP	ND	9.5	15	mg/kg
	[0.10]	[0.10]	[0.10]	
IRON by ICP	125000	29000	23000	mg/kg
	[3.0]	[0.30]	[0.30]	
MANGANESE by ICP	480	950	450	mg/kg
	[0.20]	[0.20]	[0.020]	
NICKEL by ICP	5.5	23	27	mg/kg
	[0.40]	[0.40]	[0.40]	
VANADIUM by ICP	8.5	20	15	mg/kg
	[0.40]	[0.40]	[0.40]	
ZINC by ICP	50	50	55	mg/kg
	[0.065]	[0.065]	[0.065]	
ARSENIC - FURNACE	41	9.1	9.1	mg/kg
	[1]	[0.1]	[0.1]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT 446493-001-10 Work Order: BO-04-282

SAMPLE ID	SS-12	SS-13	SS-14	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	55	28	29	mg/kg
	[0.025]	[0.025]	[0.025]	
BORON by ICP	9.6	20	15	mg/kg
	[0.60]	[0.50]	[0.50]	
CHROMIUM by ICP	16	11	8.5	mg/kg
	[0.20]	[0.20]	[0.20]	
COPPER by ICP	15	1.3	4.6	mg/kg
	[0.10]	[0.10]	[0.10]	
IRON by ICP	24000	16000	17000	mg/kg
	[0.30]	[0.30]	[0.30]	
MANGANESE by ICP	500	200	490	mg/kg
	[0.020]	[0.020]	[0.20]	
NICKEL by ICP	28	7.5	12	mg/kg
	[0.40]	[0.40]	[0.40]	
VANADIUM by ICP	14	15	13	mg/kg
	[0.40]	[0.40]	[0.40]	
ZINC by ICP	50	26	27	mg/kg
	[0.065]	[0.065]	[0.065]	
ARSENIC - FURNACE	9.2	9.5	16	mg/kg
	[0.1]	[0.1]	[0.5]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-04-282

SAMPLE ID	SS-15	SS-16	SS-17	
SAMPLED	04/24/90	04/24/90	04/24/90	
TEST				UNITS
BARIUM by ICP	36	75	550	mg/kg
	[0.025]	[0.025]	[0.025]	
BORON by ICP	36	8.5	12	mg/kg
	[0.60]	[0.50]	[0.60]	
CHROMIUM by ICP	14	7.5	5.5	mg/kg
	[0.20]	[0.20]	[0.20]	
COPPER by ICP	12	0.75	ND	mg/kg
	[0.10]	[0.10]	[0.10]	
IRON by ICP	23000	63000	16000	mg/kg
	[0.30]	[0.30]	[0.30]	
MANGANESE by ICP	210	1500	6000	mg/kg
	[0.020]	[0.20]	[0.20]	
NICKEL by ICP	18	12	9.5	mg/kg
	[0.40]	[0.40]	[0.40]	
VANADIUM by ICP	9.5	ND	ND	mg/kg
	[0.40]	[0.40]	[0.40]	
ZINC by ICP	55	40	32	mg/kg
	[0.065]	[0.065]	[0.065]	
ARSENIC - FURNACE	20	43	9.5	mg/kg
	[0.5]	[1]	[0.1]	

ND indicates the parameter was not detected.
Detection limits are specified in [].

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: WHIRLPOOL
Date: 06/19/90
Client Work ID: AMERT 446493-001-10 Work Order: B0-04-282

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals by 6010** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition, December 1987 Revision.

TEST NAME **ARSENIC - FURNACE** TEST CODE **AS_GF**

Arsenic Graphite Furnace	EPA 7060-Test Methods for Evaluating Solid Wastes,3rd Edition, November 1986. Arsenic is analyzed by graphite furnace.

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 158166

C/C Control No. 135966

PROJECT NAME/NUMBER Whirlpool/Amert 446495.01.10 LAB DESTINATION Austin

SAMPLE TEAM MEMBERS Bentley, Nies CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
1	SS-6	4/24/90 1120	Soil	250 ml glass	Good Cond.	
2	SS-7	1145	"	"	Temp 4°C	
3	SS-8	1210	"	"		
4	SS-9	1345	"	"		
5, 6, 7	SS-10, SS-11, SS-12	1400	"	"		
8, 9, 10	SS-13, SS-14, SS-15	1440	"	"		
11	SS-16	1510	"	"		
12	SS-17	1530	"	"		

Special Instructions:

Possible Sample Hazards: None

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: M. Bentley 4/25/90 1000
   Received By: [signature] 4/26/90 0930
2. Relinquished By:
   Received By:
3. Relinquished By:
   Received by:
4. Relinquished By:
   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 158166
C/C Control No. 135966

PROJECT NAME: Whirlpool/Amert
PROJECT NUMBER: 446493.01.10
PROJECT MANAGER: Mi Bentley Quote/ATS90347
BILL TO: IT - Austin

DATE SAMPLES SHIPPED: 4-25-90
LAB DESTINATION: Austin
LABORATORY CONTACT: Debbie Green
SEND LAB REPORT TO: Mike Bentley
IT corp
Austin TX 78746

PURCHASE ORDER NO.: ATS 90347

DATE REPORT REQUIRED: Normal TAT
PROJECT CONTACT: Bentley
PROJECT CONTACT PHONE NO.: (512) 328-0081

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
SS-6	SOIL	250 ML	NONE	As B Ba Cr Cu Fe Mn	Begin Immed.
through				Ni V Zn	
SS-17					
(12 Samples)					

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ✓ Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard ✓ Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab Remainder - Hold until 8/1/90 or per M. Bentley

FOR LAB USE ONLY

Received By Alan Johnson Date/Time 4/26/90 0930

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Mike Bentley
IT Corporation - Austin
2499-B Capital of Texas Hwy.
Austin, TX 78746

February 28, 1990

TDL PROJECT NUMBER: 482386 **JOB NUMBER:** 446493.01.04

This is the Certificate of Analysis for the following samples:

Client Project ID:	446493.01.04 **(Amert)**
Date Received by Lab:	January 11, 1990
Number of Samples:	Six (6)
Sample Type:	Soil

I. Introduction

Six (6) soil samples were received January 11, 1990, at ITAS-TDL Knoxville from an IT Austin engineering group. All samples were analyzed for water content, Atterberg Limits, and grain size distribution.

II. Analytical Results/Methodology

REFERENCE: Annual Book of ASTM Standards. 1989. Soil and Rock; Building Stones; Geotextiles. Vol. 4.08.

Soil Preparation (not used in water content analysis)	ASTM D421-85
Water Content	ASTM D2216-80
Atterberg Limits (liquid limit, plasticity index, classification)	ASTM D4318-84

Reviewed and Approved:

Michael A. Krstich
Geotechnical Services
mak\MAK034

Mike Bentley
Amert
Date: February 28, 1990
Client Project ID: 446493.01.04

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TN

Job Number: 482386

II. Analytical Results/Methodology (Continued)

Grain Size
(hydrometer <0.075 mm and sieve anlaysis ≥0.075 mm)

ASTM D422-63

Results are contained in Appendix B.

III. Quality Control

Routine laboratory non-project specific QA/QC was followed in accordance with QA/QC guidelines. For all tests, numerical results and data have been validated and appear to be true by test of reasonableness.

mak\MAK034

Mike Bentley
Amert
Date: February 28, 1990
Client Project ID: 446493.01.04

IT ANALYTICAL SERVICES
304 DIRECTORS DRIVE
KNOXVILLE, TN

Job Number: 482386

CROSS-REFERENCE LIST

TDL SAMPLE NO.	CLIENT SAMPLE NO.	SAMPLE DEPTH	MATRIX
GG2476	1/WB-1	2	SOIL
GG2477	2/WB-1	1	SOIL
GG2478	6/WB-2	1.5-2.0	SOIL
GG2479	7/WB-2	1	SOIL
GG2480	11/WB-3	1.0-1.5	SOIL
GG2481	12/WB-3	1.5-2.0	SOIL

mak\MAK034

APPENDIX
E