START

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1120 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00Z04

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

~~Bldg.~~ Well MW-22 Expiration Date 6/12/91

Released By [signature] Health Physics

Remarks 4.5'-5'

54-3000-022 (01/89)

DEC 1991 RECEIVED EDMC

9212111253

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.86	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	499.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9 2 1 2 1 1 1 2 5 4

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 Collection Date 5-31 / 6-3,4,7-91

NA

Ice Chest No. NA Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
TY 6-7-91

9 2 1 2 1 1 1 2 5 5

☐ Field Transfer of Custody **CHAIN OF POSSESSION** (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 6-11-91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,7-91 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212111256

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1121 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00Z05

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

[redacted]: WS-66 MW-22 Expiration Date 6/12/91

Released By [signature] Health Physics

Remarks 9'-10'

54-3000-022 (01/89)

DEC 1991

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.86	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	601.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	499.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; [signature] Date 6-26-91

9212 1159

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 Collection Date 5-31 / 6-3,4,7-91

NA

Ice Chest No. NA Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
KY 6-7-91

9212 1259

☐ Field Transfer of Custody **CHAIN OF POSSESSION** (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,7,8 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212111250

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1122 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00Z06

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

Bldg. Well MW-22 Expiration Date 6/12/91

Released By [illegible] Health Physics

Remarks 15'-16'

54-3000-022 (01/89)

DEC 1991
RECEIVED
EDMC

9212112561

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	499.14	62.32	436.98	414.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9 2 1 2 1 1 1 2 5 2

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 Collection Date 5-31 / 6-3,4,7-91

NA

Ice Chest No. NA Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
KY 6-7-91

9212 1253

☐ Field Transfer of Custody **CHAIN OF POSSESSION** (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 6-11-91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,7-91 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90

9 2 1 2 1 1 2 5 4

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1123 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00Z07

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

~~Bldg.~~ Well MW-22 Expiration Date 6/12/91

Released By [signature] Health Physics

Remarks 19'-20'

54-3000-022 (01/89)

DEC 1991 RECEIVED EDMC

9 2 1 2 1 1 1 2 6 5

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.86	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	601.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	479.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton — Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 NA — Collection Date 5-31 / 6-3,4,7-91

Ice Chest No. NA — Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA — Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
KY 6-7-91

9212 1 1 1 5 7

☐ Field Transfer of Custody — CHAIN OF POSSESSION — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 6-11-91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,7-91 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 Lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212 1163

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1124 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00Z08

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

~~Bldg.~~ Well MW-22 Expiration Date 6/12/91

Released By [signature] Health Physics

Remarks 20'-21'

54-3000-022 (01/89)

DEC 1991 RECEIVED EDMC

9 2 1 2 1 1 1 5 9

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	479.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; [signature] Date 6-26-91

9212170

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton — Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 — Collection Date 5-31 / 6-3,4,7-91

NA

Ice Chest No. NA — Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA — Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
KY 6-7-91

☐ Field Transfer of Custody — CHAIN OF POSSESSION — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,7-91 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212 1172

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1125 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS B00Z09

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

~~Bldg.~~ Well DAW-22 Expiration Date 6/12/91

Released By [signature]
Health Physics

Remarks 25'-26'

54-3000-022 (01/89)

DEC 1991
RECEIVED
EDMC

9 2 1 2 1 1 7 3

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	479.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 6-26-91

9212174

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 Collection Date 5-31 / 6-3,4,7-91

NA

Ice Chest No. NA Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
KY 6-7-91

9 2 1 2 1 1 1 7 5

☐ Field Transfer of Custody **CHAIN OF POSSESSION** (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 6-11-91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,7,9 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212176

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1126 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS BOOZ10

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

Well MW-22 Expiration Date 6/4/91

Released By [signature] Health Physics

Remarks 31'-32.5'

54-3000-022 (01/89)

JUL 1991 RECEIVED EDMC

SOIL MOISTURE DATA SHEET

Sample No. 1-1105 / 1-1126 Page 1 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3364 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1105	474.34	457.27	62.95	411.39	394.32	4.33
1-1106	605.15	593.81	62.35	542.80	531.46	2.13
1-1107	541.77	509.95	62.98	478.79	446.97	7.12
1-1108	552.99	542.12	62.49	490.50	479.63	2.27
1-1109	588.40	573.37	62.96	525.44	510.41	2.94
1-1110	569.82	548.42	61.59	508.23	486.83	4.40
1-1111	548.87	528.43	63.07	485.80	465.36	4.39
1-1112	514.47	501.08	63.03	451.44	438.05	3.06
1-1113	545.61	534.58	63.05	482.56	471.53	2.34
1-1114	572.60	558.66	62.91	509.69	495.75	2.81
1-1115	633.24	618.61	62.55	570.69	556.06	2.63
1-1116	630.04	612.78	62.74	567.30	550.04	3.14
1-1117	499.30	479.14	62.32	436.98	416.82	4.84
1-1118	484.93	474.81	62.66	422.27	412.15	2.46
1-1119	545.81	529.77	62.65	483.16	467.12	3.43
1-1120	476.47	467.33	61.79	414.68	405.54	2.25
1-1121	522.82	514.29	62.87	459.95	451.42	1.89
1-1122	520.40	507.98	62.73	457.67	445.25	2.79
1-1123	559.97	545.67	62.10	497.87	483.57	2.96
1-1124	512.94	492.54	62.31	450.63	430.23	4.74
1-1125	456.60	439.57	63.33	393.27	376.24	4.53
1-1126	479.70	467.80	60.75	418.95	407.05	2.92

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; [signature] Date 6-26-91

9 2 1 2 1 1 1 7 8

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 Collection Date 5-31/6-3,4,7-91

NA

Ice Chest No. NA Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
TJ 6-7-91

9212 1179

☐ Field Transfer of Custody

CHAIN OF POSSESSION (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,28 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9212130

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1127 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14

REMARKS BOOZ11

RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

9 2 1 2 1 1 1 2 9 1

RADIATION RELEASE

~~Bldg.~~ Well MW-22 Expiration Date 6/12/91

Released By Cody R. Radford
Health Physics

Remarks 35'-36'

54-3000-022 (01/89)

DEC 1991
RECEIVED
EDMC

SOIL MOISTURE DATA SHEET

Sample No. 1-1127 Page 2 of 2

Tested By: R.G. ALEXANDER Date 6-24-91
Procedure No: ETAL-14 Rev. Ø Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: GEL- 3304 Calibration Due Date 9-21-91
Thermometer: GEL- 0007 Calibration Due Date 8-1-91
N/A : GEL- N/A Calibration Due Date N/A
N/A : GEL- N/A Calibration Due Date N/A

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% MOISTURE
1-1127	514.07	502.42	62.92	451.15	439.50	2.65

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; [signature] Date 6-26-91

9 2 1 2 [illegible] 1 [illegible] 3 2

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 Collection Date 5-31 / 6-3,4,7-91

NA

Ice Chest No. NA Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
KY 6-7-91

9 2 1 2 1 1 1 3 3

☐ Field Transfer of Custody **CHAIN OF POSSESSION** (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,7-91 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90

9 2 1 2 1 1 3 4

TEST REQUEST

SAMPLE/SPECIMEN NO. 1-1128 COST CODE/WORK ORDER NO. EC4D5

REQUESTED BY: ORG. 81232 PERSON K. SINGLETON DATE 6-14-91

TEST REQUESTED	NO. OF SAMPLES	TEST LAB INFORMATION (PROCEDURE USED)
MOISTURE	1	ETAL-14
SIEVE ANALYSIS	1	ETAL-07
HYD. CONDUCTIVITY	1	ETAL-09/02

REMARKS B00Z12 RECEIVED BY: R.G. ALEXANDER DATE 6-14-91

APPROVED BY: R.G. ALEXANDER DATE 6-14-91

RADIATION RELEASE

Well MW-22 Expiration Date 6/12/91

Released By [signature] Health Physics

Remarks 63'

54-3000-022 (01/89)

DEC 1991
RECEIVED
EDMC

9212135

SPECIFIC GRAVITY OF SOILS DATA SHEET

Sample No. 1-1128 Page 1 of 1

Tested By:	R.G. ALEXANDER	Date	7-8-91
Procedure No:	ETAL-10	Rev. 0 Date Issued	11-15-89
Test Plan No:	N/A	Rev. N/A Date Issued	N/A
Balance: ETAL-	3304	Calibration Due Date	9-21-91
Oven Thermometer: ETAL-	0002	Calibration Due Date	2-12-92
Thermometer: ETAL-	0007	Calibration Due Date	8-1-91
Pycnometer: ETAL-	2554	Calibration Due Date	N/A
N/A : ETAL-	N/A	Calibration Due Date	N/A
N/A : ETAL-	N/A	Calibration Due Date	N/A

Wetting Agent "Q" WATER

	DETERMINATION NO.	1	2	3
W_o	Wt. Oven Dry Soil, g	55.00	N/A	N/A
	Pycnometer No.	2554		
	Wt. Pycnometer, g	135.72		
W_a	Wt. Pycnometer+Wetting Agent, g	387.05		
W_b	Wt. Pycnometer+Wetting Agent + Soil, g	418.17		
	Temperature, T_x at W_b, °C	22.8		
G_w	Specific Gravity of Wetting Agent at T_x	2.30		
G_t	Specfic Gravity of Soil at T_x	1.00		
G_s	Specific Gravity of Soil at 20°C	2.30		

$$G_t = \frac{G_w \times Y_w \times W_o}{W_o + W_a - W_b}$$

Y_W = Unit Weight of Water (g/cm^3)

*$G_S = K * G_t$

Average Specific Gravity at 20 °C

2.30 g/cm^3

K Values found in ASTM D854-58, Table 1

* NOTE $G_S = G_t$ When Test Run at 20 °C

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.

Checked By: [signature] Date 7-10-91

A-6400-235(2-87)

9 2 1 2 1 1 2 3 6

SIEVE ANALYSIS DATA SHEET

Sample No. 1-1128 Page 1 of 1

Tested By: JERRY L. ENGLAND Date 7-10-91
Procedure No: ETAL-07 Rev. 1 Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: ETAL- 3310 Calibration Due Date 9-21-91
Thermometer: ETAL- 0007 Calibration Due Date 8-1-91
N/A : ETAL- N/A Calibration Due Date N/A
N/A : ETAL- N/A Calibration Due Date N/A
N/A : ETAL- N/A Calibration Due Date N/A
N/A : ETAL- N/A Calibration Due Date N/A

Sample Description _____ Sieve Time 10 (min)

Reduced by (X) Splitting ( ) Quartering ( ) Stockpile

Sieve Size	Sample Weight	Cumulative Wt. Retained	Cumulative % Retained	Cumulative % Passed
10	82.0	0	0	100
40		0.2	0.2	99.8
60		0.3	0.4	99.6
100		0.4	0.5	99.5
200		~~1.3~~ 1.6 RGA	~~1.2~~ 1.6 RGA	~~98.8~~ 98.4 RGA 7-10-91
N/A	N/A	N/A	N/A	N/A

Finess Modules (FM) N/A (See ASTM C 136-83, Section 8.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING		Remarks
C = Percemtage of material passing a 200 Sieve	N/A %	
D = Original Dry Weight of Sample	N/A g	WASHED GRADING
E = Dry Weight of Sample After Washing/Sieve	N/A g	
C = <(D-E)/D>*100		

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By; R.G. ALEXANDER Date 7-10-91

A-6400-204(2-87)

9 2 1 2 1 1 3 7

9 2 1 2 1 1 2 9 8

GRAIN SIZE ANALYSIS PLOT

Sample No. 1-1128

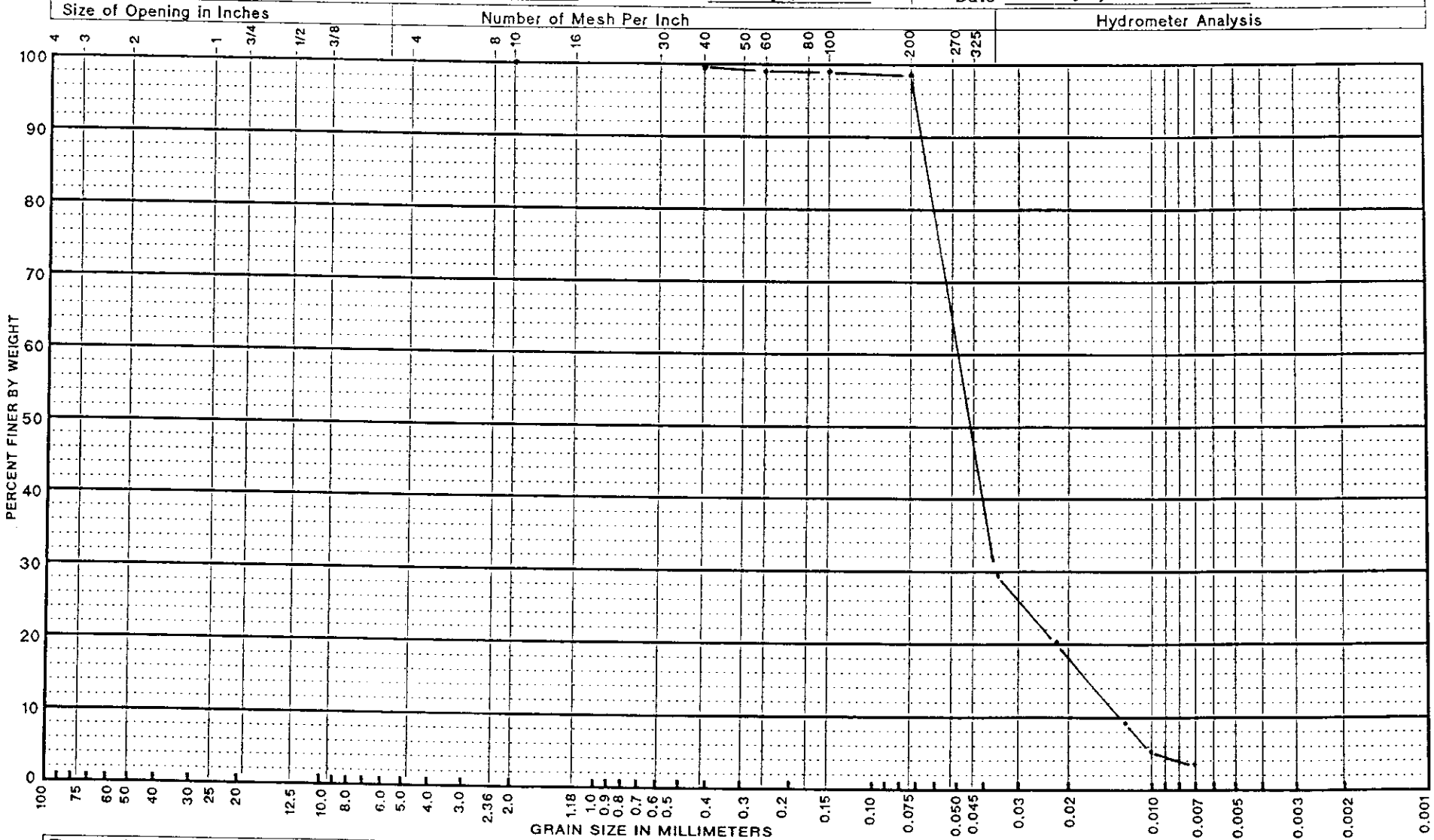
Page 1 of 1

Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-89

Plotted By R. G. ALEXANDER

Test Plan No. N/A Rev. N/A Date Issued N/A

Date 7-10-91



Remarks B00712

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.

Checked By: [signature] Date 7-10-91

HYDROMETER ANALYSIS DATA SHEET

Sample No. 1-1128 Page 1 of 1

Tested By: R.G. ALEXANDER Date 6-25-91
Procedure No: ETAL-07 Rev. 1 Date Issued 11-15-89
Test Plan No: N/A Rev. N/A Date Issued N/A
Balance: ETAL- 3304 Calibration Due Date 9-21-91
Thermometer: ETAL- 0007 Calibration Due Date 8-1-91
Hydrometer: ETAL- 1007 Calibration Due Date 1-25-92
N/A : ETAL- N/A Calibration Due Date N/A
N/A : ETAL- N/A Calibration Due Date N/A

Specific Gravity of Sample _____
% Passing No. 10 Sieve 100 (%)
Hygroscopic Correction Factor N/A

HYGROSCOPIC MOISTURE CONTENT
Wt. Container + Air Dry Soil N/A (g)
Wt. Container + Oven Dry Soil N/A (g)
Wt. Container N/A (g)
Water Content N/A (%)

WEIGHT OF SAMPLE
Wt. Container + Soil 139.34 (g)
Wt. Container 57.34 (g)
Wt. Soil 82.00 (g)

REMARKS
a = 1.10 w = 82.00 K = USE 0.01457
TUBE B
USE 1.10 SpG Correction Factor

COMPOSITE CORRECTION
1st Reading 7 at 23.7 °C
2nd Reading 7 at 23.3 °C

Date	Clock Time	Elapsed time (min)	Hydrometer Reading	Hydrometer with Composite Correction	Temperature (oC)	Soil in Suspension (%)	Particle Diameter (mm)
7-9	0714	2.0	29	22	23.7	29.5	0.035
	0717	5.0	22	16	23.7	20.1	0.023
	0727	15.0	14	7	23.7	9.4	0.014
	0742	30.0	11	4	23.7	5.4	0.010
	0812	60.0	9	2	23.7	2.7	0.007
	1122	250.0	7	0	24.7	∅	∅
7-10	0712	1440.0	—	—	—	—	—

Formulas and Tables used to calculate percent soil in suspension, particle diameter and hygroscopic correction factor are found in ASTM D422

All data are accurately and completely recorded. The test operator was trained and used calibrated instruments.
Checked By: [signature] Date 7-10-91

9212119

HYDRAULIC CONDUCTIVITY DATA SHEET

Specimen ID 1-1128 Page 1 of 4

Tested By R.G. ALEXANDER Date 6-25-91

Procedure ETAL-09 Rev. 1 Date Issued 12-1-89

Test Plan N/A Rev. N/A

EQUIPMENT	NO.	CALIBRATION DUE DATE
Balance	3304	9-21-91
Thermometer	0007	8-1-91
Thermocouple	N/A	N/A
Thermocouple		
Pressure Gauge		
Pressure Gauge		
Pressure Transducer		
Pressure Transducer		
Calipers	5623	7-31-91
Oven	N/A	N/A
Permeameter	N/A	N/A

Specimen Diameter (D) 8.83 cm

Specimen Length (L) 7.15 cm

$$A = \left(\frac{D}{2}\right)^2 \times 3.1415$$

Specimen Area (A) 61.24 cm

Darcy's Law $K = \frac{QL}{AH}$

K = Hydraulic Conductivity (cm/sec)

Q = Flow (cm^3/sec) = Vol. g/Time (sec)

A = Area (cm^2)

H = Hydraulic Head = $\frac{\text{Pressure (psi)}}{14.5 \text{ psi/bar}}$ X 1020 cm/bar

L = Length (cm)

Remarks V = 437.87. SAMPLE CHANNELED. PUT SAMPLE IN SMALLER SLEEVE. (CORED)

All required data are accurately and completely recorded. The test operator was appropriately trained and utalized calibrated test instruments as indicated above. Approved test procedures were followed to produce the above data.

Checked by Jerry Bryland Date 7-10-91

A-6000-405.1 (07/89)

9211190

Sample No. 1-1128

SAMPLE COMPACTION

Compaction Method Static ☐ Tamping ☐

STATIC	Load Applied, g/ Layer length, cm	Layer 1	N/A	11	N/A
or		2		12	
TAMPING	No. Tamps per Layer/ Layer Length, cm	3		13	
		4		14	
		5		15	
		6		16	
Total No. of Layers N/A		7		17	
CORED SAMPLE		8		18	
		9		19	
		10		20	

Tamper Foot Diameter cm	N/A
Tamper Applied Load, g	N/A
Sample Diameter, (d), cm	8.83
Sample Length, (L), cm	7.15
Sample Mold or Permeameter Weight & Compacted Sample, g	887.43
Sample Mold or Permeameter Weight, g	161.61
Weight of Compacted Sample, (E), g	725.82
Weight of Container & Uncompacted Wet Sample, (A), g	784.42
Weight of Container & Uncompacted Dry Sample, (B), g	574.83
Weight of Water, g	209.59
Weight of Container, (C), g	92.97
Weight of Dry Soil, (WS), g	481.86
Water Content, %	43.50
Compacted Bulk Density of Sample, (γm), g/cc	1.64
Compacted Sample Dry Density, (γd), g/cc	1.14

$$\gamma m = \frac{E}{(\pi)(d/2)^2(L)}$$

$$\gamma d = \left(\frac{\gamma m}{W + 100}\right) 100$$

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By [signature] Date 7-10-91

HYDRAULIC CONDUCTIVITY DATA SHEET

Sample ID 1-1128 Page 3 of 4

Procedure No. ETAL-09 Date Issued 12-1-89

Date Year 91 (Mo/Day)	TIME			VOLUME DETERMINANTS							Operator Initials
	System Down (Hr:Min)	System Up (Hr:Min)	Time Change (Hr:Min)	Effluent		Container		System	Pressure		
				Temp (°C)	Weight (±0.1g)	Tare (±0.1g)	Tare & Effluent (±0.1g)	Temp (°C)	Pore H_2O ~~(psi)~~ ~~psi~~	Back H_2O (psi)	
7-8	—	1115	—	24	—	152.57	—	24	195	N/A	RGA
7-8	1230	1235	1:15	24	595.02	152.57	442.45	24	195	—	RGA
7-8	1335	1340	1:00	24.7	529.50	152.57	376.93	24.7	195	—	RGA
7-8	1450	1455	1:10	25.3	587.76	152.57	435.19	25.3	195	—	RGA
7-8	1555	STOP	1:00	25.7	524.44	152.57	371.87	25.7	195	—	RGA
7-9	—	0715	—	23.7	—	152.57	—	23.7	195	—	RGA
7-9	0815	0820	1:00	23.7	514.22	152.57	361.65	23.7	195	—	RGA
7-9	0820	0925	1:00	24.0	524.66	152.57	372.09	24.0	195	—	RGA
7-9	1038	1043	1:13	24.4	605.58	152.57	453.01	24.4	195	—	RGA
7-9	1143	1150	1:00	24.7	522.17	152.57	369.60	24.7	195	—	RGA
7-9	1245	STOP	0:55	25.1	501.74	152.57	349.17	25.1	195	—	RGA
7-9	STOP	TEST	—	—	—	—	—	—	—	—	RGA

All required data are accurately and completely recorded. The test operator was appropriately trained and utilized calibrated test instruments as indicated above. Approved test procedures were followed to produce the above data.

Check by [signature] Date 7-10-91

A-6000-405.2 (07/89)

9212 1192

HYDRAULIC CONDUCTIVITY DATA SHEET

Sample ID 1-1128 Page 4 of 4

Procedure No. ETAL-09 Date Issued 12-1-89

Date Year __ (Mo/Day)	Hydraulic Conductivity (cm/sec)	Hydraulic Gradient (cm/cm)	Effluent Analysis		Effluent Description	Operator Initials
			Specimen Number	Lab. Notebook Location		
7-8	START	TEST	—	—	—	RGA
7-8	5.9×10^{-5}	27.27	—	—	CLEAR	RGA
7-8	6.3×10^{-5}	27.27	—	—	"	RGA
7-8	6.2×10^{-5}	27.27	—	—	"	RGA
7-8	6.2×10^{-5}	27.27	—	—	"	RGA
7-9	START	TEST	—	—	—	RGA
7-9	6.0×10^{-5}	27.27	—	—	CLEAR	RGA
7-9	6.2×10^{-5}	27.27	—	—	"	RGA
7-9	6.2×10^{-5}	27.27	—	—	"	RGA
7-9	6.2×10^{-5}	27.27	—	—	"	RGA
7-9	6.3×10^{-5}	27.27	—	—	"	RGA
7-9	STOP	TEST	$6.2 \pm 0.2 \times 10^{-5}$ CM/SEC		—	RGA

All required data are accurately and completely recorded. The test operator was appropriately trained and utilized calibrated test instruments as indicated above. Approved test procedures were followed to produce the above data.

Check by [signature] Date 7-10-91

A-6000-405.3 (07/89)

9212 1193

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator K.M. Singleton

Company Contact K.M. Singleton Telephone 6-4526

Project Designation/Sampling Locations 1100-EM-1, HRL, MW-22 Collection Date 5-31 / 6-3,4,7-91

NA

Ice Chest No. NA Field Logbook No. WHC-N-306

Bill of Lading/Airbill No. NA Offsite Property No. NA

Method of Shipment Onsite shipment by car.

Shipped to 2101-M LAB, Jerry Alexander

Possible Sample Hazards/Remarks NONE

Sample Identification

B00Z04, 1 tin, moisture
B00Z05, 1 tin
B00Z06, 1 tin
B00Z07, 1 tin
B00Z08, 1 tin
B00Z09, 1 tin
B00Z10, 1 tin
B00Z11, 1 tin
B00Z12, ~~1 tin~~ 1 lexan liner Permeameter Hydrometer
KY 6-7-91

9212 1 94

☐ Field Transfer of Custody **CHAIN OF POSSESSION** (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.M. Singleton, K.M. Singleton	Lyle O. Amos / Lyle O. Amos 6-11-~~90~~ 91	6-11-~~90~~ 91 6-11-91 9:00 A.M.
Lyle O. Amos / Lyle O. Amos 6-11-91	G. B. Gould G B Gould	6-11-91 0915
G. B. Gould G B Gould	Jerry L. England Jerry L. England	6-11-91 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90)

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K.M. Singleton Date Sampled 5-31/6-3,4,7,8 Time NA hours

Company Contact K.M. Singleton Telephone ( ) 6-4526

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B00Z04	1 tin can	Soil	ASTM Moisture
B00Z05	1 tin can	Soil	ASTM Moisture
B00Z06	1 tin can	Soil	ASTM Moisture
B00Z07	1 tin can	Soil	ASTM Moisture
B00Z08	1 tin can	Soil	ASTM Moisture
B00Z09	1 tin can	Soil	ASTM Moisture
B00Z10	1 tin can	Soil	ASTM Moisture
B00Z11	1 tin can	Soil	ASTM Moisture
B00Z12	1 lexan liner	Soil	Hydrometer, Permeameter

Field Information** Non-hazardous

Special Handling and/or Storage None

Possible Sample Hazards None

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9 2 1 2 1 1 1 9 5