START

TEST REQUEST FORM

Sample/Specimen No: 0-131 Cost Code/Work Order No. ED 332

Requested By: Org. 81232 Person J. Lindberg Date 3/12/90

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
Sieve Anal	1	ETAL 07
Hydro	1	ETAL 07
SpG	1	ETAL 10
NA	NA	NA

Remarks Field Sample 1100-2-HH-1

Received By: RG Alexander Date 3/9/90

Approved By: RG Alexander Date 3/9/90

DEC 1991 RECEIVED EDMC

9212111735

SIEVE ANALYSIS DATA SHEET

Sample ID 0-131 Page 1 of 1

Tested By R.G ALEXANDER Date 3-12-90

Procedure ETAL-07 Rev 1 Date Issued 11-15-89

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	3-25-90
Thermometer	0007	8-16-90
N/A	N/A	N/A

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by ☒ splitting ☒ quartering ☐ stockpile

BEFORE TEST WT. (B) N/A AFTER TEST WT. (A) N/A $\frac{B-A}{B}$ X 100 = N/A % LOSS

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A	2	3574.47	Ø	Ø	Ø	100	100
	1 1/2		126.74	3.5	3.5	96.5	96.5
	1		393.29	11.0	11.0	89.0	89.0
	3/4		538.13	15.1	15.1	84.9	84.9
	1/2		652.87	18.3	18.3	81.7	81.7
	3/8		709.10	19.8	19.8	80.2	80.2
	#4		800.12	22.4	22.4	77.6	77.6
	#10		878.96	24.6	24.6	75.4	75.4
	#40	69.76	12.80	17.2	17.2	82.8	62.4
	#60		26.18	37.5	37.5	62.5	47.1
	#100		36.69	52.6	52.6	47.4	35.7
	#200		45.51	65.2	65.2	34.8	26.2

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

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve 34.8 %

D=Original Dry Weight of Sample 69.76 g

E=Dry Weight of Sample After Washing/Sieve 45.51 g

C = <(D-E)/D> X 100

Remarks
SMALL FIELD SAMPLE
Pan 55

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

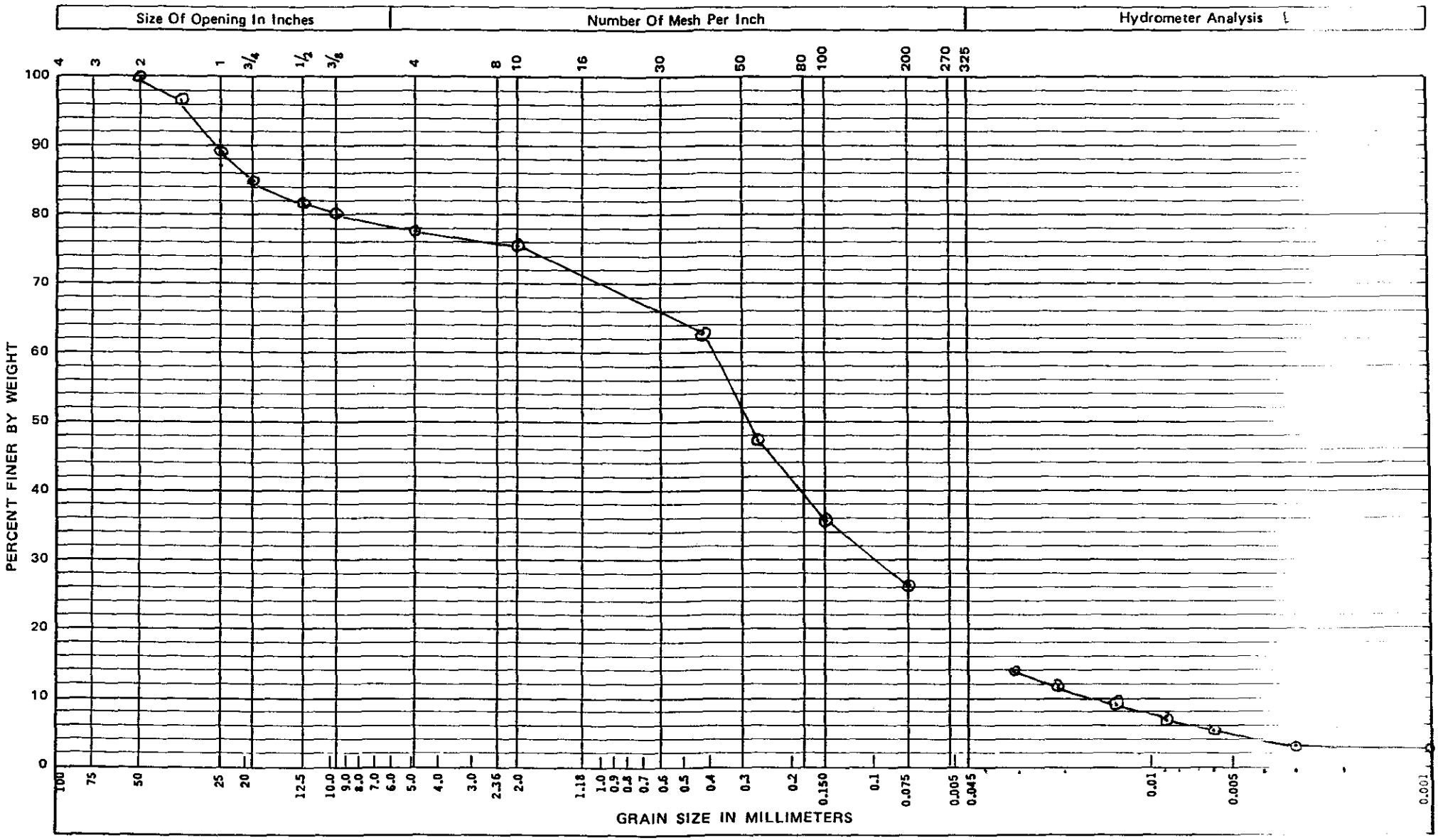
Checked By J F Relyea Date 3-16-90

A-8400-204(2-87)

9212111336

9 2 1 2 1 1 3 7

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-131 Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-89

Sample Description: SANDY GRAVEL 1100-2-44-1	Plotted by: R.G ALEXANDER Date: 3-12-90	Checked by: J F Relyea Date: 3-16-90

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 0007 CALIBRATION DUE DATE 8-16-90

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% WATER
0-131	3921.08	3691.18	116.71	3804.37	3574.47	6.43

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G ALEXANDER DATE 3-12-90

9212 1 1 0 3 8

SPECIFIC GRAVITY OF SOILS DATA SHEET

Specimen/Sample No. 0-131 Page 1 of 1

Test Operator

EQUIPMENT ITEM	NO.	DATE DUE
Balance	3304	3-25-90
Oven Thermometer	0007	8-16-90
Thermometer	0002	2-9-91
Pycnometer	2554	N/A

Wetting Agent "Q" WATER

	DETERMINATION NO.	1	2	3
	Drying Container No.	N/A	N/A	N/A
	Wt. Container + Oven Dry Soil, ± 0.01g	N/A .__	.__	.__
	Wt. Container, ± 0.01g	N/A .__	.__	.__
W_o	Wt. Oven Dry Soil, g	40. .00	.__	.__
	Pycnometer No.	2554		
	Wt. Pycnometer, g	135 .72	.__	.__
W_a	Wt. Pycnometer + Wetting Agent, g	387 .10	.__	.__
W_b	Wt. Pycnometer + Wetting Agent + Soil, g	412 .45	.__	.__
	Temperature, T_x at W_b, °C	23.3 C	.	.
G_w	Specific Gravity of Wetting Agent at T_x	1.00	_.__	_.__
G_t	Specific Gravity of Soil at T_x	2.73	_.__	_.__
G_s	Specific Gravity of Soil at 20°C	2.72	_.__	_.__

$$G_t = \frac{G_w * \gamma_w * W_o}{W_o + (W_a - W_b)}$$

γ_w = Unit Weight Of Water (g/cc)

*$G_s = K \cdot G_t$

K values found in ASTM D854-58, Table 1

*NOTE $G_s = G_t$ When Test Run at 20 °c

Average Specific Gravity At 20°c	2.72

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 H C Benny Date 3/13/90

A-6400-235 (9-86)

9212139

HYDROMETER ANALYSIS DATA SHEET

Sample ID O-131

Page 1 of 1

Tested By HLBenny Date 3-13-90

Procedure ETAL 07 Rev 1 Date Issued 11-15-89

EQUIPMENT ITEM	NO.	CALIBRATION DUE DATE
Hydrometer	1000	2-16-91
Balance	3304	3-25-90
Thermometer/Thermocouple	0002	2-9-91

Specific gravity of Sample 2.72

% Passing No. 10 Sieve 75.4 (%)

Hygroscopic Correction Factor Ø

WEIGHT OF SAMPLE

Wt. Container + Soil NA (g)

Wt. Container NA (g)

Wt. Soil 69.76 (g)

COMPOSITE CORRECTION

1st Reading 5 at 23.2 °C

2nd Reading NA at NA °C

HYGROSCOPIC MOISTURE CONTENT

Wt. Container + Air Dry Soil NA (g)

Wt. Container + Oven Dry Soil NA (g)

Wt. Container NA (g)

Water Content NA (%)

REMARKS

Tube I

W = 95.52

Date	Clock time	Elapsed time (min)	Hydrometer reading	Hydrometer with composite correction	Temp. (°C)	Soil in suspension (%)	Particle diameter (mm)
3-13-90	0709	2.0	18	13	23.8	13.9	0.033
	0712	5.0	16	11	23.3	11.8	0.021
	0722	15.0	13	8	23.1	8.6	0.013
	0737	30.0	12	7	23.1	7.5	0.009
	0807	60.0	10	5	23.3	5.4	0.006
	1117	250.00	8	3	23.2	3.2	0.003
3-14-90	0707	1,440.0	7	2	23.3	2.1	0.001

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

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 R.G. Alexander Date 3-16-90

A-6400-205 (1.87)

9 2 1 2 1 1 0 4 0

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector JW Lindberg & Steve Clark Date Sampled 3-9-90 Time 10:00AM 12:00 hours

Company Contact JW Lindberg Telephone (509) 376-5005

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
HRL-H-2	1 plastic bag set	soil	ASTM-D-422 Grain Size Analysis
HRL-D-4	"	"	"
HRL-C-1	"	"	"
HRL-M-4	"	"	"
HRL-R-7	"	"	"
HRL-T-6-AH-172	"	"	"
1100-3-E-5	"	"	"
1100-3-F-8	"	"	"
1100-3-H-5	"	"	"
1100-3-H-8	"	"	"
1100-2-D-3	"	"	"
1100-2-F-4	"	"	"
1100-2-H-1	"	"	"
1100-2-HH-1	"	"	"

Field Information** Run hydrometer on all samples listed hereon

Special Handling and/or Storage NA

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 (07/89)

9211141

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Company Contact: JWLindberg Telephone 6-5005

Sample Collected by: JWLindberg Date: 3-9-90 Time: 11:20 AM - 12:00 AM

Sample Locations: 1100-2 Pit

Ice Chest No.: NA Field Logbook & Page No.: WHC-N-306, p.68

Remarks: EII-5.2 with steel spade

Bill of Lading No.: NA Off Site Property No.: NA

Method of Shipment: Hand Carry

Shipped to: Jerry Alexander 2101M Bldge Soil Testing Lab

Sample Identification	
1100-2-D-3 Surface Soil Sample	Plastic Bags, Green duct tape seal
1100-2-F-4 Surface Soil Sample	" " " " " "
1100-2-H-1 Surface Soil Sample	" " " " " "
1100-2-HH-1 Surface Soil Sample	" " " " " "

CHAIN OF POSSESSION

Relinquished by	Received by	Date/Time
JWLindberg JWLindberg	R.G. Alexander R.G. ALEXANDER	3-9-90 / 1800
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

FVR\071889-B

9212112142

CONDITIONAL RADIATION RELEASE

Instructions: Sample #1100-2-D-3 outside surfaces of plastic bag → <D B⁻,γ/<D α Direct & smear

Date: 3-9-90 By: S. M.
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # 1100-2-F-4 → outside surfaces of plastic bag (covering) → <D B⁻,γ/<D α - smear & Direct

Date: 3-9-90 By: S. P. Mitzel
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # 1100-2-H-1 outside surfaces of plastic bag → <D B⁻,γ/<D α Direct & smear

Date: 3-9-90 By: S. M.
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # 1100-2-HH1 outside surfaces of plastic bag → <D B⁻,γ/<D α Direct & smear

Date: 3-9-90 By: S. M.
Radiation Monitoring

BL-6700-133 (10-77)

9212-1143