



Department of Energy

Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

MAR 27 2007

Mr. James Bearzi, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 E. Rodeo Park Drive, Bldg. 1
Santa Fe, New Mexico 87505-6303

Subject: Submittal of Thallium Sampling Data Package Solid Waste Management Unit (SWMU 00lg) to the New Mexico Environment Department

Dear Mr. Bearzi:

The purpose of this letter is to provide you the sampling data from the January 31, 2007, Solid Waste Management Unit (SWMU) thallium sampling event. This sampling event was initiated by a request from NMED in order to confirm that thallium is not a constituent of concern at the SWMUs near the WIPP Facility for the No Further Action Petition. The data confirms that there is no thallium in the soil above the detection limit and therefore, no release has occurred at the sampled location.

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any additional questions pertaining to this subject, please call Jody Plum at (505) 234-7349.

Sincerely,

David C. Moody (Manager)
Carlsbad Field Office

R. D. Raaz, General Manager
Washington TRU Solutions LLC

Enclosure

cc: w/enclosure
S. Zappe, NMED *ED

cc: w/o enclosure
J. Keiling, NMED ED
*ED denotes electronic distribution

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

WIPP Sample No.	Lab Sample ID.
<u>WST-07-004</u>	<u>T115448</u>
<u>WST-07-005</u>	<u>T115449</u>
<u>WST-07-006</u>	<u>T115450</u>
<u>WST-07-007</u>	<u>T115451</u>

Were ICP interelement corrections applied? Yes/No No

Were ICP backgrounds corrections applied? Yes/No Yes
 If yes-were raw data generated before application of background corrections? Yes/No Yes

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: *Michael Ahl*
 Date: 3/20/07

Name: Blair Leftwich
 Title: Managing Director

TraceAnalysis, Inc.
1
INORGANIC ANALYSIS DATA SHEET

WIPP SAMPLE NO.

WST-07-004

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Matrix (soil/water): Soil

Lab Sample ID: T115448

Date Received: 02/02/07

Concentration Units (mg/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Analysis Date	Q	RL	M
7440-28-0	Thallium	0.05	U	02/07/07		0.05	P

Comments:

FORM I - IN

TraceAnalysis, Inc.
1
INORGANIC ANALYSIS DATA SHEET

WIPP SAMPLE NO.

WST-07-005

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Matrix (soil/water): Soil

Lab Sample ID: T115449

Date Received: 02/02/07

Concentration Units (mg/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Analysis Date	Q	RL	M
7440-28-0	Thallium	0.05	U	02/07/07		0.05	P

Comments:

FORM I - IN

TraceAnalysis, Inc.
1
INORGANIC ANALYSIS DATA SHEET

WIPP SAMPLE NO.

WST-07-006

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Matrix (soil/water): Soil

Lab Sample ID: T115450

Date Received: 02/02/07

Concentration Units (mg/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Analysis Date	Q	RL	M
7440-28-0	Thallium	0.05	U	02/07/07		0.05	P

Comments:

FORM I - IN

TraceAnalysis, Inc.
1
INORGANIC ANALYSIS DATA SHEET

WIPP SAMPLE NO.

WST-07-007

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Matrix (soil/water): Soil

Lab Sample ID: T115451

Date Received: 02/02/07

Concentration Units (mg/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Analysis Date	Q	RL	M
7440-28-0	Thallium	0.05	U	02/07/07		0.05	P

Comments:

FORM I - IN

TRACEANALYSIS
METALS
DUPLICATE RPD

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Analyte	Sample Results		Sample Results Dup		RPD
	Value	C	Value	C	
Thallium	0.05	U	0.05	U	0

TraceAnalysis, Inc.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Initial Calibration Source: ME020818-W4

Continuing Calibration Source: MW020818-W4

Initial Calibration Curve: ME020818-C1

Concentration Units: mg/L

Analyte	Initial Calibration			Continuing Calibration				M	
	True	Found	%R(1)	True	Found	%R(1)	Found		%R(1)
Thallium	1.00	1.00	100	1.00	0.990	99			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

TraceAnalysis, Inc.
2A
INTERFERENCE CHECK

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Initial Calibration Source: ME082604-W4

Continuing Calibration Source: ME082604-W4

Initial Calibration Curve: ME050604-C1

Concentration Units: mg/L

Analyte	ICS A			ICS A+B		
	True	Found	%R(1)	True	Found	%R(1)
Thallium	N/A	N/A	N/A	1.00	1.04	104

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

TraceAnalysis, Inc.
3
BLANKS

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Preparation Blank Matrix (soil/water): Soil

Preparation Blank Concentration Units (mg/L or mg/kg): mg/kg

Analyte	Initial	C	Continuing Calibration						C	M	
	Calib. Blank (mg/L)		1	C	2	C	3	C			Preparation Blank
Thallium	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	P

TraceAnalysis, Inc.
5A
SPIKE SAMPLE RECOVERY

WIPP SAMPLE NO.

WST-07-006

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Matrix (soil/water): Soil

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA) U	%R	Q	M
Thallium	75-125	42.2	0.05	50	84		P

Comments:

TraceAnalysis, Inc.
6
MATRIX SPIKE DUPLICATES

WIPP SAMPLE NO.

Lab Name: TraceAnalysis, Inc.

WST-07-006

SDG No.: 7020222

Matrix (soil/water): Soil

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit	Matrix Spike Sample (S) C	Matrix Spike Duplicate (D) C	RPD	Q	M
Thallium	25	42.2	40.8	3		P

TraceAnalysis, Inc.
6
LCS DUPLICATES

WIPP SAMPLE NO.

Lab Name: TraceAnalysis, Inc.

WST-07-006

SDG No.: 7020222

Matrix (soil/water): Soil

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit	LCS	C	LCSD	C	RPD	Q	M
Thallium	25	44.4		43.1		3		P

TraceAnalysis, Inc.
7
LABORATORY CONTROL SAMPLE

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Solid LCS Source: ME030702-W1

Aqueous LCS Source: _____

Analyte	Aqueous (mg/L)			Solid (mg/kg)				%R
	True	Found	%R	True	Found	C	Limits	
Thallium				50	44.4		85 115	89

TraceAnalysis, Inc.
9
ICP SERIAL DILUTION

WIPP SAMPLE NO.

WST-07-006

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Matrix (soil/water): Soil

Concentration Units: mg/kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Thallium	N/A		N/A				P

NA : Initial result non-detect.

TraceAnalysis, Inc.
10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

ICP ID Number: 069N5042501

Analyte	Wave-length (nm)	Back-ground	CRDL (mg/L)	IDL (mg/L)	M
Thallium	190.795	-0.017,0.017	0.013	0.023	P

Comments:

TraceAnalysis, Inc.
13
PREPARATION LOG

Lab Name: TraceAnalysis, Inc.

SDG No.: 7020222

Method: SW846 3010A

LAB Sample No.	Preparation Date	Weight (gram)	Volume (mL)
Reagent Blank	2/5/2007		50
Method Blank	2/5/2007		50
LCS	2/5/2007		50
LCSD	2/5/2007		50
115450	2/5/2007		50
115450 DUP	2/5/2007		50
115450 MS	2/5/2007		50
115450 MSD	2/5/2007		50
115450 PDS	2/5/2007		50
115450 1:5	2/5/2007		50
115448	2/5/2007		50
115449	2/5/2007		50
115451	2/5/2007		50
111498	2/5/2007		50
115380	2/5/2007		50
115582	2/5/2007		50
115566	2/5/2007		50

QC Batch 34381

Analysis Date: 2007-02-07 at 16:08:07.302986

Analyzed By: Richard Rigdon

Prep Batch: 29807

Instrument: Spectros

Location: Lubbock

Sample	Param	Result	Units	Dilution	MDL	Rec	RPD
1 ICV - 1	Total Silver	0.123	mg/Kg	1	0.00444	98	
	Total Arsenic	0.996	mg/Kg	1	0.228	100	
	Total Barium	0.997	mg/Kg	1	0.0601	100	
	Total Cadmium	0.970	mg/Kg	1	0.00794	97	
	Total Chromium	0.979	mg/Kg	1	0.0125	98	
	Total Lead	0.986	mg/Kg	1	0.367	99	
	Total Selenium	0.952	mg/Kg	1	0.0767	95	
	Total Thallium	1.00	mg/Kg	1	0.151	100	
2 Method Blank - 1	Total Silver	<0.00444	mg/Kg	1	0.00444		
	Total Arsenic	<0.228	mg/Kg	1	0.228		
	Total Barium	<0.0601	mg/Kg	1	0.0601		
	Total Cadmium	<0.00794	mg/Kg	1	0.00794		
	Total Chromium	<0.0125	mg/Kg	1	0.0125		
	Total Lead	<0.367	mg/Kg	1	0.367		
	Total Selenium	<0.0767	mg/Kg	1	0.0767		
3 LCS - 1	Total Silver	10.7	mg/Kg	1	0.00444	86	
	Total Arsenic	43.8	mg/Kg	1	0.228	88	
	Total Barium	85.7	mg/Kg	1	0.0601	86	
	Total Cadmium	21.8	mg/Kg	1	0.00794	87	
	Total Chromium	9.21	mg/Kg	1	0.0125	92	
	Total Lead	44.8	mg/Kg	1	0.367	90	
	Total Selenium	43.6	mg/Kg	1	0.0767	87	
	Total Thallium	44.4	mg/Kg	1	0.151	89	
4 LCSD - 1	Total Silver	10.9	mg/Kg	1	0.00444	87	2
	Total Arsenic	43.0	mg/Kg	1	0.228	86	2
	Total Barium	86.7	mg/Kg	1	0.0601	87	1
	Total Cadmium	22.1	mg/Kg	1	0.00794	88	1
	Total Chromium	9.23	mg/Kg	1	0.0125	92	0
	Total Lead	43.5	mg/Kg	1	0.367	87	3
	Total Selenium	39.8	mg/Kg	1	0.0767	80	9
	Total Thallium	43.1	mg/Kg	1	0.151	86	3
5 115450 (soil)	Total Thallium	<0.151	mg/Kg	1	0.151		0
6 MS - 1	Total Silver	10.7	mg/Kg	1	0.00444	86	
	Total Arsenic	43.1	mg/Kg	1	0.228	86	
	Total Barium	87.6	mg/Kg	1	0.0601	88	
	Total Cadmium	21.1	mg/Kg	1	0.00794	84	
	Total Chromium	9.69	mg/Kg	1	0.0125	97	
	Total Lead	44.8	mg/Kg	1	0.367	90	
	Total Selenium	42.8	mg/Kg	1	0.0767	86	
	Total Thallium	42.2	mg/Kg	1	0.151	84	
7 MSD - 1	Total Silver	10.4	mg/Kg	1	0.00444	83	3
	Total Arsenic	40.2	mg/Kg	1	0.228	80	7
	Total Barium	86.8	mg/Kg	1	0.0601	87	1
	Total Cadmium	22.1	mg/Kg	1	0.00794	88	5
	Total Chromium	9.93	mg/Kg	1	0.0125	99	2
	Total Lead	43.4	mg/Kg	1	0.367	87	3
	Total Selenium	49.2	mg/Kg	1	0.0767	98	14
	Total Thallium	40.8	mg/Kg	1	0.151	82	3

February 8, 2007

Page 1 of 2

Sample	Param	Result	Units	Dilution	MDL	Rec	RPD
8 115380 (soil)	Total Selenium	9780	mg/Kg	100	0.0767		0
9 115448 (soil)	Total Thallium	<0.151	mg/Kg	1	0.151		0
10 115449 (soil)	Total Thallium	<0.151	mg/Kg	1	0.151		0
11 115451 (soil)	Total Thallium	<0.151	mg/Kg	1	0.151		0
12 115566 (soil)	Total Silver	<0.00444	mg/Kg	1	0.00444		0
	Total Arsenic	<0.228	mg/Kg	1	0.228		0
	Total Barium	57.5	mg/Kg	1	0.0601		0
	Total Cadmium	<0.00794	mg/Kg	1	0.00794		0
	Total Chromium	6.21	mg/Kg	1	0.0125		0
	Total Lead	16.1	mg/Kg	1	0.367		0
	Total Selenium	1.49	mg/Kg	1	0.0767		0
13 115582 (soil)	Total Silver	<0.00444	mg/Kg	1	0.00444		0
	Total Arsenic	4.92	mg/Kg	1	0.228		0
	Total Barium	278	mg/Kg	1	0.0601		0
	Total Cadmium	15.6	mg/Kg	1	0.00794		0
	Total Chromium	20.1	mg/Kg	1	0.0125		0
	Total Lead	66.2	mg/Kg	1	0.367		0
	Total Selenium	12.0	mg/Kg	1	0.0767		0
14 111498 (soil)	Total Barium	76.5	mg/Kg	1	0.0601		0
	Total Cadmium	<0.00794	mg/Kg	1	0.00794		0
	Total Lead	5.61	mg/Kg	1	0.367		0
15 CCV - 1	Total Silver	0.123	mg/Kg	1	0.00444	98	
	Total Arsenic	0.976	mg/Kg	1	0.228	98	
	Total Barium	0.988	mg/Kg	1	0.0601	99	
	Total Cadmium	0.955	mg/Kg	1	0.00794	96	
	Total Chromium	0.962	mg/Kg	1	0.0125	96	
	Total Lead	0.958	mg/Kg	1	0.367	96	
	Total Selenium	0.901	mg/Kg	1	0.0767	90	
	Total Thallium	0.990	mg/Kg	1	0.151	99	

SECTION I

METHOD (DWL-200.7; All Elements; Rinse)
 STD_CALIB (5/01; DWCal. Blank)
 STD_CALIB (5/02; DWStd. 1)
 STD_CALIB (5/03; DWStd. 2)
 STD_CALIB (5/04; DWStd. 3)
 STD_CALIB (5/05; DWStd. 4)
 RINSE (Rinse; 1200)
 UNKNOWN (5/05; HIGH | 06111001 | 50 | 50)
 UNKNOWN (5/04; ICV | 06111001 | 50 | 50)
 UNKNOWN (5/01; ICB | 04110801 | 50 | 50)
 UNKNOWN (2/01; REF | 06081001 | 50 | 50)
 UNKNOWN (5/13; ICS-A | 06111001 | 50 | 50)
 UNKNOWN (5/14; ICS-A+B | 06111001 | 50 | 50)
 UNKNOWN (2/02; MB29837 | 07020702 | 5 | 50)
 UNKNOWN (2/03; LCS29837 | 07020702 | 5 | 50)
 UNKNOWN (2/04; LCSD29837 | 07020702 | 5 | 50)
 UNKNOWN (2/05; 115567 | 07020702 | 5 | 50)
 UNKNOWN (2/06; 115567S | 07020702 | 5 | 50)
 UNKNOWN (2/07; 115567SD | 07020702 | 5 | 50)
 UNKNOWN (2/08; 115567PDS | 07020702 | 5 | 50)
 UNKNOWN (2/09; 115567/4 | 07020702 | 1 | 40)
 UNKNOWN (2/10; 115083 | 07020702 | 5 | 50)
 UNKNOWN (2/11; 115400 | 07020702 | 5 | 50)
 UNKNOWN (2/12; 115568 | 07020702 | 5 | 50)
 UNKNOWN (2/13; 115636 | 07020702 | 5 | 50)
 UNKNOWN (2/14; 115637 | 07020702 | 5 | 50)
 UNKNOWN (2/15; 115638 | 07020702 | 5 | 50)
 UNKNOWN (5/04; CCV | 06111001 | 50 | 50)
 UNKNOWN (5/01; CCB | 04110801 | 50 | 50)
 UNKNOWN (2/16; RB29807 | 07020702 | 50 | 50)
 UNKNOWN (2/17; MB29807 | 07020702 | .5 | 50)
 UNKNOWN (2/18; LCS29807 | 07020702 | .5 | 50)
 UNKNOWN (2/19; LCSD29807 | 07020702 | .5 | 50)
 UNKNOWN (2/20; 115450 | 07020702 | .5 | 50)
 UNKNOWN (2/21; 115450D | 07020702 | .5 | 50)
 UNKNOWN (2/22; 115450S | 07020702 | .5 | 50)
 UNKNOWN (2/23; 115450SD | 07020702 | .5 | 50)
 UNKNOWN (2/24; 115450PDS | 07020702 | .5 | 50)
 UNKNOWN (2/25; 115450/5 | 07020702 | .1 | 50)
 UNKNOWN (2/26; 115448 | 07020702 | .5 | 50)
 UNKNOWN (2/27; 115449 | 07020702 | .5 | 50)
 UNKNOWN (2/28; 115451 | 07020702 | .5 | 50)
 UNKNOWN (2/29; 115498 | 07020702 | .5 | 50)
 UNKNOWN (2/30; 115380 | 07020702 | .5 | 50)
 UNKNOWN (2/31; 115582 | 07020702 | .5 | 50)
 UNKNOWN (2/32; 115566 | 07020702 | .5 | 50)
 UNKNOWN (5/13; ICS-A | 06111001 | 50 | 50)
 UNKNOWN (5/14; ICS-A+B | 06111001 | 50 | 50)
 UNKNOWN (5/04; CCV | 06111001 | 50 | 50)
 UNKNOWN (5/01; CCB | 04110801 | 50 | 50)
 RINSE (Rinse; 1200)
 SWITCH_PLASMA_OFF
 END

I

QC
34379

I

QC
34381

111498

SECTION II
CHAIN-OF-CUSTODY

7020222



WASTE ISOLATION PILOT PLANT
WESTINGHOUSE ELECTRIC CORP.
P. O. BOX 2078
CARLSBAD, NM 88221-2078

CHAIN-OF-CUSTODY RECORD

C/C Control

R/A Control No. 3537

SAMPLING PROGRAM WIPP Sample Team

LAB DESTINATION TRACE Analysis

SAMPLE TEAM MEMBERS Rick Whitely, Danny Contreras

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.
WST- 07-004	H-14 well pad soil	1-31-07/1350	SOIL	GLASS	Good 1/54/08	
WST - 07-005	H-14 well pad soil	1-31-07/1350	SOIL	GLASS		49
WST 07-006	H-14 well pad silica beads	1-31-07/1350	Silica beads	GLASS		50
WST - 07-007	H-14 well pad silica sand	1-31-07/1350	Silica sand	GLASS		51

Special Instructions: Please return cooler and blue ice

Possible Sample Hazards: None known

SIGNATURES: (Name, Company, Date and Time)

- Relinquished By: Danny Contreras ^{WRCS} 2-1-07 1110
Received By: JADIEL CUNNINGHAM ^{LAM} 2-1-07 1110
- Relinquished By: Shirley Siple 2-2-07 11:00
Received By: _____

- Relinquished By: _____
Received By: _____
- Relinquished By: _____
Received By: _____

WHITE - To accompany samples
YELLOW - Field Copy
PINK - Other

400
FedEx 791627591314

REQUEST FOR ANALYSIS

100000 ~

R/A Control No. 3537
C/C Control No. _____



**WASTE ISOLATION PILOT PLANT
WESTINGHOUSE ELECTRIC CORP.
P.O. BOX 2078
CARLSBAD, NM 88221-2078**

DATE SAMPLES SHIPPED 2-1-07
LAB DESTINATION TRACE Analysis
LABORATORY CONTACT Milce Abel
SEND LAB REPORT TO WIPP SITE / JAL Hwy
30 miles SE. Carlsbad
Carlsbad, N.M. 88220

SAMPLING PROGRAM WIPP Sampling Team

PURCHASE ORDER NO. TO 403436-4

DATE REPORT REQUIRED 3-15-07

PROJECT CONTACT Rick Whitely

PROJECT CONTACT PHONE NO. (505) 234-8901

Sample Number	Sample Type	Sample Quantity	Preservative	Req't. Testing Program	Special Instructions
WST- 07-004 (15449)	H-14 well pad soil	4 oz.	NONE	THALLIUM	Preliminary Results requested within 4-5 days of receipt of samples Please email Rick Whitely and Bill Jaco with analytical results.
WST- 07-005 (11544)	H-14 well pad soil	4 oz.	NONE	THALLIUM	
WST- 07-006 (11545)	H-14 well pad soil ^{Silica beads}	4 oz.	NONE	THALLIUM	
WST- 07-007 (11545)	H-14 well pad ^{Silica sand}	2 oz.	NONE	THALLIUM	

TURNAROUND TIME REQUIRED: (Rush must be approved by appropriate 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 _____ BIOLOGICAL _____ OTHER _____

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis.) RETURN TO CLIENT _____ DISPOSAL BY LAB (Please Specify)

FOR LAB USE ONLY

RECEIVED BY Juana Sigley
ES FedEx File 314
337 UPS

DATE/TIME 2-2-07 11:00

40C WHITE - Original, to accompany samples YELLOW - Field Copy PINK - Other

SECTION II
Page 1