



May 17, 1999

Mr. Tim Dieffenbach
NYS Dept. of Environmental Conservation
Division of Hazardous Waste
270 Michigan Avenue
Buffalo, New York 14203

RECEIVED

MAY 19 1999

NYSDEC - REG. 9
FOIL
REL UNREL

Re: LTV Steel Company
Truscon Soil Bioremediation

Dear Mr. Dieffenbach:

Enclosed for your review are the final analytical results for samples obtained from the bioremediated soils excavated from the Truscon Property. On April 13, 1999, TurnKey personnel collected 19 random grab soil samples (15 VOC and 4 SVOC) and 19 composite soil samples (4 VOC and 15 SVOC) from the remaining 9-inch soil lift. The composite samples consisted of six to seven grab samples collected per acre location at a depth of one to nine inches below grade. Oversight of the sample collection was provided by NYSDEC staff. Sample locations are presented in Figures 1-3.

Following sample collection, samples were transferred under chain of custody to Columbia Analytical Services, Inc. for analysis of STARS TCLP Extraction Method 8021 and TCLP Extraction Method 8270. Analytical results are presented in Tables 1 and 2 including a comparison to STARS Guidance Values.

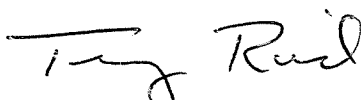
The Analytical Results indicate no concentrations of SVOCs above the laboratory practical quantification limit (PQL) or above the STARS Extraction Guidance Values. Concentrations of VOCs above the laboratory practical quantification limit (PQL) was detected in five sample locations, but are below the STARS Extraction Guidance Values.

The results of the sampling, in accordance with STARS guidance for petroleum-contaminated soils, confirm that the remaining 9-inch soil lift over the entire 8 acres has been successfully bioremediated.

It is LTV Steel Company's intention to remove the remaining 9-inch soil lift and stockpile the material for on site use as backfill material during future remediation activities.

Please feel free to contact us at 716-856-0635 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Ried". The signature is fluid and cursive, with the first name "Terry" and last name "Ried" clearly distinguishable.

Terry J. Ried

TURNKEY ENVIRONMENTAL RESTORATION, LLC

cc: W. Gould (LTV)
K. Nagel (LTV)
P. Buechi (NYSDEC)



TABLE 1
TRUSCON SOIL BIOREMEDIATION
SUMMARY OF GRAB SAMPLE ANALYTICAL RESULTS

Compound (ppb)	STARS Extraction Guidance Values (ppb)	A 5 Grab1	A 4 Grab2	A 3 Grab3	A 2 Grab4	A 1 Grab5	A 6 Grab6	A 7 Grab7	A 8 Grab8	A 4 Grab9	A 3 Grab10	A 2 Grab11	A 1 Grab12	A 6 Grab13	A 7 Grab14	A 8 Grab15
Benzene	0.7	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
N-ButylBenzene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Sec-ButylBenzene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Tert-ButylBenzene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Methyl- Tert- Butylether	50	1.0U	1.0U	1.2	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
EthylBenzene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Isopropylbenzene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
P-Isopropyltoluene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Naphthalene	10	1.0U	1.0U	1.0U	1.0U	7.0	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	4.2	1.0U
N-Propylbenzene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Toluene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
1,2,4-Trimethylbenzene	5	1.0U	1.0U	1.0U	1.0U	2.2	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
1,3,5-Trimethylbenzene	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
M+P- Xylene	5	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U
O-Xylene	5	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U
Acenaphthene	20	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Anthracene	50	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Benzo (A) Anthracene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Benzo (A) Pyrene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Benzo (B) Fluoranthene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Benzo (G, H, I) Perylene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Benzo (K) Fluoranthene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Ideno (1,2,3-CD) Pyrene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Chrysene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Dibenzo (A, H) Anthracene	50	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	50	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Fluorene	50	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	10	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	50	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-
Pyrene	50	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-	-	-	-	-	-

Notes:

- No samples collected for Semi Volatile Organic Compounds at this location.
- U- Indicates compound was analyzed but not detected.



TABLE 2
TRUSCON SOIL BIOREMEDIATION
SUMMARY OF COMPOSITE SAMPLE ANALYTICAL RESULTS

Compound (ppb)	STARS Extraction Guidance Values (ppb)	A 5 Comp1	A 4 Comp2	A 3 Comp3	A 2 Comp4	A 1 Comp5	A 6 Comp6	A 7 Comp7	A 8 Comp8	A 5A Comp9	A 4B Comp10	A 3A Comp11	A 2A Comp12	A 1A Comp13	A 6A Comp14	A 7A Comp15
Benzene	0.7	0.70U	0.70U	0.70U	0.70U	-	-	-	-	-	-	-	-	-	-	-
N-ButylBenzene	5	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
Sec-ButylBenzene	5	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
Tert-ButylBenzene	5	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
Methyl- Tert- Butylether	50	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
EthylBenzene	5	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	5	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
P-Isopropyltoluene	5	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	10	1.0U	2.4	5.7	1.0U	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	5	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
Toluene	5	1.0U	1.4	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	5	1.0U	1.0U	1.1	1.0U	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	5	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-
M+P- Xylene	5	2.0U	2.1	2.0U	2.0U	-	-	-	-	-	-	-	-	-	-	-
O-Xylene	5	2.0U	2.0U	2.0U	2.0U	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	20	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Anthracene	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (A) Anthracene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (A) Pyrene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (B) Fluoranthene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (G, H, I) Perylene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (K) Fluoranthene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ideno (1,2,3-CD) Pyrene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	0.002	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzo (A, H) Anthracene	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Napthalene	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

- No samples collected for Volatile Organic Compounds at this location.

U- Indicates compound was analyzed but not detected.



FIGURE 1
TRUSCON SOIL BIOREMEDIATION
GRAB SAMPLE LOCATIONS

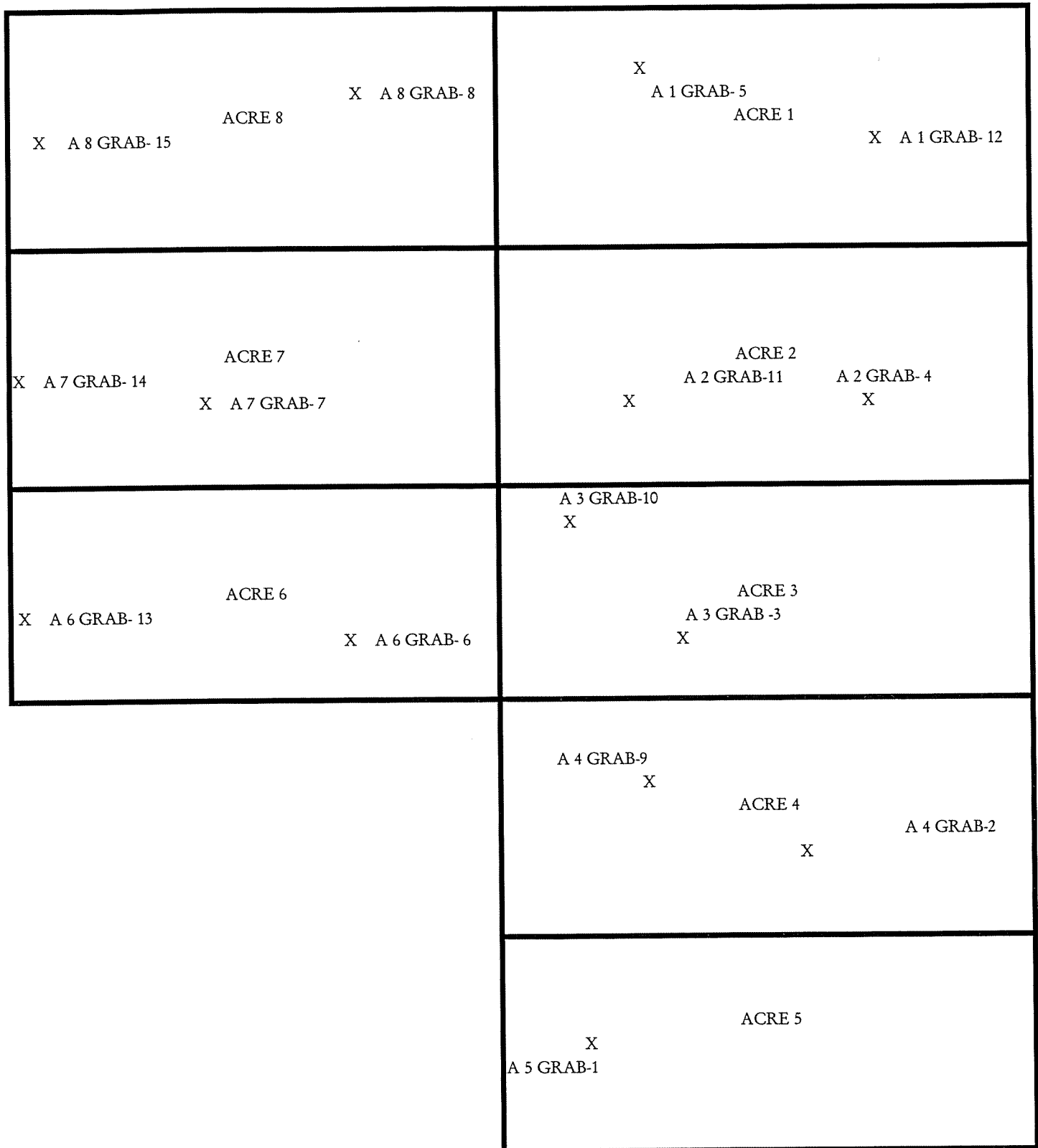
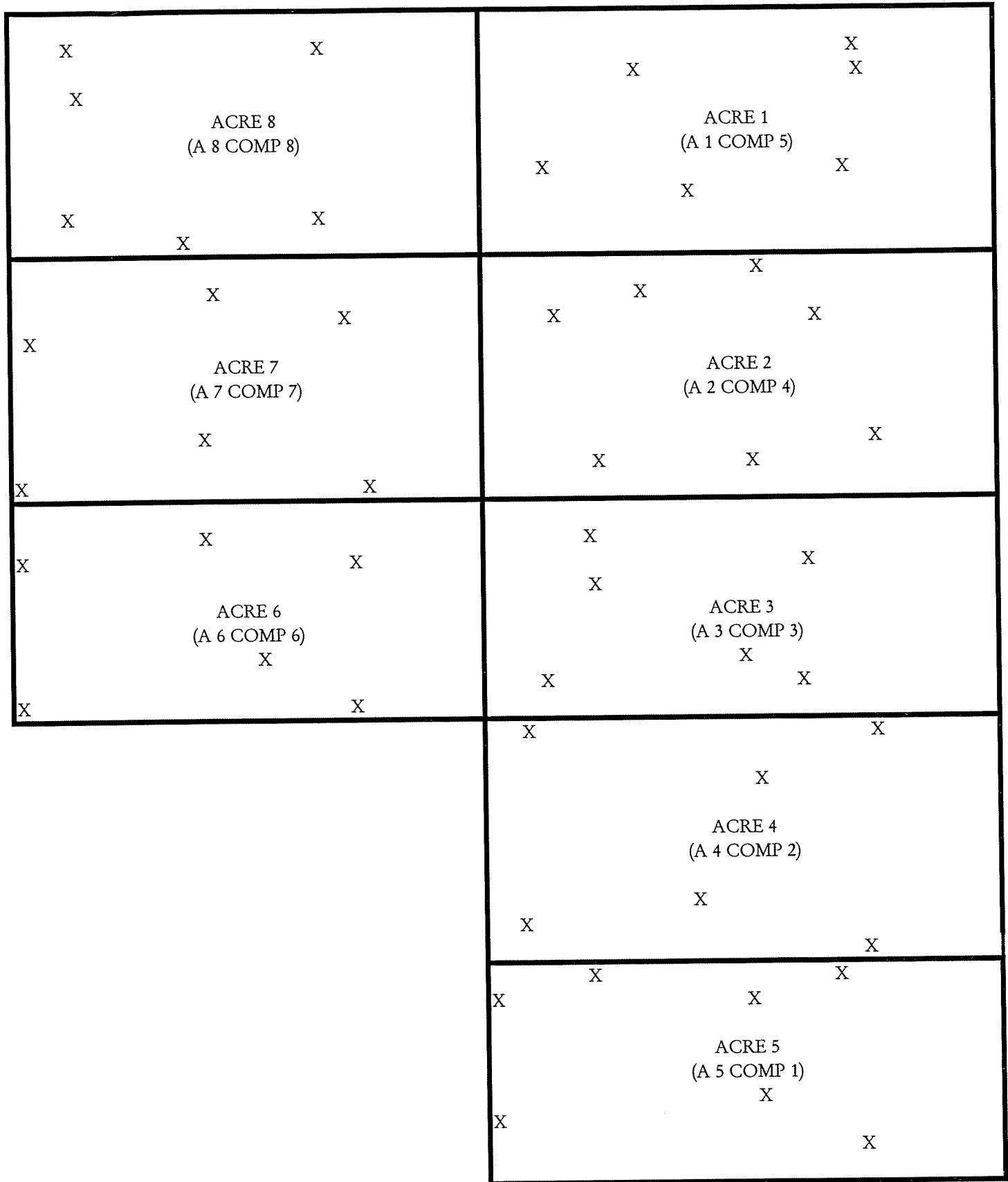


FIGURE 2
 ARUSCON SOIL BIOREMEDIATION
 COMPOSITE SAMPLE LOCATIONS



X= Random grab samples collected within area to produce composite sample

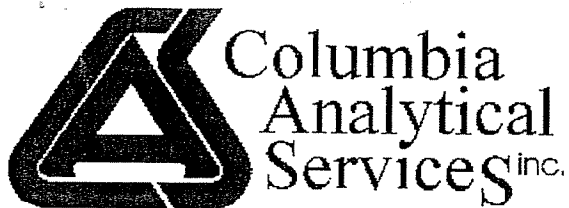


FIGURE 3
 TRUSCON SOIL BIOREMEDIATION
 COMPOSITE SAMPLE LOCATIONS

ACRE 8		ACRE 1	X X X ACRE 1B (A1B COMP 13) X
X X ACRE 7A (A7A COMP 15) X X	ACRE 7	X X ACRE 2A (A2A COMP 12) X X X	ACRE 2
X X ACRE 6A (A6A COMP 14) X	ACRE 6	X X ACRE 3A (A3A COMP 11) X X X	ACRE 3
		ACRE 4	X X ACRE 4B (A4B COMP 10) X X
		X X ACRE 5A (A5A COMP 9) X X	ACRE 5

X= Random grab samples collected within area to produce composite sample





A FULL SERVICE ENVIRONMENTAL LABORATORY

May 12, 1999

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Mr. Terry Ried
Turnkey Environmental Rest.
Key Tower Suite 1350
50 Fountain Plaza
Buffalo, NY 14202

PROJECT:LTV - BIOREMEDIATION - TRUSCON SOILS
Submission #:9904000220

Dear Mr. Ried:

Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 05/03/99 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

A handwritten signature in cursive script, appearing to read 'Janice Jaeger', is written over the typed name and title.

Janice Jaeger
Project Chemist

Enc.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director prior to report submittal. A handwritten signature in cursive script, appearing to read 'Michael K. P.', is written over the typed text.



Effective 04/01/96

CAS LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. For further explanation see case narrative / cover letter.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)
- * - Duplicate analysis not within control limits.
(Flag the entire batch - Inorganic analysis only)
- Also used to qualify Organics QC data outside limits.
- D - Spike diluted out.
- S - Reported value determined by Method of Standard Additions. (MSA)
- X - As specified in the case narrative.

CAS Lab ID # for State Certifications

NY ID # in Rochester:	10145	NJ ID # in Rochester:	73004
CT ID # in Rochester:	PH0556	RI ID # in Rochester:	158
MA ID # in Rochester:	M-NY032	NH ID # in Rochester:	294198-A
OH EPA # in Rochester:	VAP	AIHA # in Rochester:	7889

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-6-GRAB 13

Date Sampled : 04/13/99 Order #: 285663 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	86	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-4-GRAB 2

Date Sampled : 04/13/99 Order #: 285664 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	72	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-4-GRAB 2

Date Sampled : 04/13/99 Order #: 285664 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37322

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/21/99		
DATE ANALYZED	: 04/28/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	50	%
NITROBENZENE-d5	(35 - 114 %)	54	%
2-FLUOROBIPHENYL	(43 - 116 %)	65	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-3-GRAB 3

Date Sampled : 04/13/99 Order #: 285665 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/24/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.2	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	76	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-3-GRAB 3

Date Sampled : 04/13/99 Order #: 285665 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37322

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/21/99		
DATE ANALYZED	: 04/28/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	55	%
NITROBENZENE-d5	(35 - 114 %)	60	%
2-FLUOROBIPHENYL	(43 - 116 %)	70	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-2-GRAB 4

Date Sampled : 04/13/99 Order #: 285666 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	81	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-2-GRAB 4

Date Sampled : 04/13/99 Order #: 285666 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37322

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/21/99		
DATE ANALYZED	: 04/28/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	54	%
NITROBENZENE-d5	(35 - 114 %)	60	%
2-FLUOROBIPHENYL	(43 - 116 %)	71	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-1-GRAB 5

Date Sampled : 04/13/99 Order #: 285667 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	7.0	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	2.2	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	73	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-6-GRAB 6

Date Sampled : 04/13/99 Order #: 285668 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	81	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-7-GRAB 7

Date Sampled : 04/13/99 Order #: 285669 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/23/99		
ANALYTICAL DILUTION:	1.00		
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
CHLOROFLUOROBENZENE	(60 - 128 %)	83	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-8-GRAB 8

Date Sampled : 04/13/99 Order #: 285670 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37508

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/27/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	115	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-4-GRAB 9

Date Sampled : 04/13/99 Order #: 285671 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/24/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	83	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-3-GRAB 10

Date Sampled : 04/13/99 Order #: 285672 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37508

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/27/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	110	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-2-GRAB 11

Date Sampled : 04/13/99 Order #: 285673 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37508

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/27/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	98	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-1-GRAB 12

Date Sampled : 04/13/99 Order #: 285674 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37508

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/27/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	102	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-7-GRAB 14

Date Sampled : 04/13/99 Order #: 285675 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37508

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/27/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	4.2	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	96	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-8-GRAB 15

Date Sampled : 04/13/99 Order #: 285676 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37508

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/27/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	103	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-6A-14

Date Sampled : 04/13/99 Order #: 285678 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/23/99		
DATE ANALYZED	: 04/29/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	64	%
NITROBENZENE-d5	(35 - 114 %)	60	%
2-FLUOROBIPHENYL	(43 - 116 %)	61	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES**VOLATILE ORGANICS**

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-5-COMP-1

Date Sampled : 04/13/99 Order #: 285679 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	80	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-5-COMP-1

Date Sampled : 04/13/99 Order #: 285679 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37322

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/21/99		
DATE ANALYZED	: 04/28/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	50	%
NITROBENZENE-d5	(35 - 114 %)	58	%
2-FLUOROBIPHENYL	(43 - 116 %)	67	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-4-COMP-2

Date Sampled : 04/13/99 Order #: 285680 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED	: 04/23/99		
ANALYTICAL DILUTION:	1.00		
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	2.4	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.4	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.1	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	68	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-4-COMP-2

Date Sampled : 04/13/99 Order #: 285680 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37322

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/21/99		
DATE ANALYZED	: 04/28/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3-CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	61	%
NITROBENZENE-d5	(35 - 114 %)	62	%
2-FLUOROBIPHENYL	(43 - 116 %)	71	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-3-COMP-3

Date Sampled : 04/13/99 Order #: 285681 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	5.7	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.1	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIES

QC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	75	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-3-COMP-3

Date Sampled : 04/13/99 Order #: 285681 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37322

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/21/99		
DATE ANALYZED	: 04/28/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	48	%
NITROBENZENE-d5	(35 - 114 %)	64	%
2-FLUOROBIPHENYL	(43 - 116 %)	74	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-2-COMP-4

Date Sampled : 04/13/99 Order #: 285682 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37508

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/27/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	94	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICESEXTRACTABLE ORGANICS

METHOD 8270C TCLP STARS LIST

Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-2-COMP-4

Date Sampled : 04/13/99

Order #: 285682

Sample Matrix: SOIL/SEDIMENT

Date Received: 04/13/99

Submission #: 9904000220

Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/23/99			
DATE ANALYZED : 04/29/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
TERPHENYL-d14	(33 - 141 %)	68	%
NITROBENZENE-d5	(35 - 114 %)	62	%
2-FLUOROBIPHENYL	(43 - 116 %)	64	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-1-COMP-5

Date Sampled : 04/13/99 Order #: 285683 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/23/99		
DATE ANALYZED	: 04/29/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(33 - 141 %)	65	%
NITROBENZENE-d5	(35 - 114 %)	69	%
2-FLUOROBIPHENYL	(43 - 116 %)	71	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-6-COMP-6

Date Sampled : 04/13/99 Order #: 285684 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/23/99		
DATE ANALYZED	: 04/29/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(33 - 141 %)	67	%
NITROBENZENE-d5	(35 - 114 %)	70	%
2-FLUOROBIPHENYL	(43 - 116 %)	73	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-7-COMP-7

Date Sampled : 04/13/99 Order #: 285685 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/23/99			
DATE ANALYZED : 04/29/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	56	%
NITROBENZENE-d5	(35 - 114 %)	60	%
2-FLUOROBIPHENYL	(43 - 116 %)	63	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-8-COMP-8

Date Sampled : 04/13/99 Order #: 285686 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/23/99		
DATE ANALYZED	: 04/29/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	62	%
NITROBENZENE-d5	(35 - 114 %)	65	%
2-FLUOROBIPHENYL	(43 - 116 %)	69	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-5A-COMP-9

Date Sampled : 04/13/99 Order #: 285687 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/23/99			
DATE ANALYZED : 04/29/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(33 - 141 %)	67	%
NITROBENZENE-d5	(35 - 114 %)	64	%
2-FLUOROBIPHENYL	(43 - 116 %)	67	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-4B-COMP-10

Date Sampled : 04/13/99 Order #: 285688 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/23/99			
DATE ANALYZED : 04/29/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(33 - 141 %)	64	%
NITROBENZENE-d5	(35 - 114 %)	61	%
2-FLUOROBIPHENYL	(43 - 116 %)	64	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-3A-COMP-11

Date Sampled : 04/13/99 Order #: 285689 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED	: 04/23/99		
DATE ANALYZED	: 04/29/99		
ANALYTICAL DILUTION:	1.00		
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3-CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	69	%
NITROBENZENE-d5	(35 - 114 %)	77	%
2-FLUOROBIPHENYL	(43 - 116 %)	79	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C TCLP STARS LIST
Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-7A-COMP-15

Date Sampled : 04/13/99 Order #: 285690 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/23/99			
DATE ANALYZED : 04/29/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	64	%
NITROBENZENE-d5	(35 - 114 %)	63	%
2-FLUOROBIPHENYL	(43 - 116 %)	67	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C TCLP STARS LIST
Reported: 05/12/99

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-2A-COMP-12

Date Sampled : 04/13/99 Order #: 285691 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/23/99			
DATE ANALYZED : 04/29/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
TERPHENYL-d14	(33 - 141 %)	68	%
NITROBENZENE-d5	(35 - 114 %)	66	%
2-FLUOROBIPHENYL	(43 - 116 %)	69	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Turnkey Environmental Rest.

Project Reference: LTV - BIOREMEDIATION - TRUSCON SOILS

Client Sample ID : A-1A-COMP-13

Date Sampled : 04/13/99 Order #: 285692 Sample Matrix: SOIL/SEDIMENT
Date Received: 04/13/99 Submission #: 9904000220 Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/23/99			
DATE ANALYZED : 04/29/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

TERPHENYL-d14	(33 - 141 %)	66	%
NITROBENZENE-d5	(35 - 114 %)	63	%
2-FLUOROBIPHENYL	(43 - 116 %)	67	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 287440	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	69	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 287446	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Analytical Run 37409

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/23/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	69	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

VOLATILE ORGANICS

METHOD 8021B TCLP STARS LIST

Reported: 05/12/99

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 288338	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Analytical Run 37508

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 04/27/99			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.7	0.70 U	UG/L
SEC-BUTYLBENZENE	1.0	1.0 U	UG/L
TERT-BUTYLBENZENE	1.0	1.0 U	UG/L
N-BUTYLBENZENE	1.0	1.0 U	UG/L
METHYL-TERT-BUTYLETHER	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
ISOPROPYLBENZENE	1.0	1.0 U	UG/L
P-ISOPROPYLTOLUENE	1.0	1.0 U	UG/L
NAPHTHALENE	1.0	1.0 U	UG/L
N-PROPYLBENZENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,2,4-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	1.0	1.0 U	UG/L
O-XYLENE	2.0	2.0 U	UG/L
M+P-XYLENE	2.0	2.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

CHLOROFLUOROBENZENE	(60 - 128 %)	109	%
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Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 286700	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Analytical Run 37322

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/21/99			
DATE ANALYZED : 04/28/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(33 - 141 %)	69	%
NITROBENZENE-d5	(35 - 114 %)	68	%
2-FLUOROBIPHENYL	(43 - 116 %)	73	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 288331	Sample Matrix: SOIL/SEDIMENT
Date Received:	Submission #:	Analytical Run 37506

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 04/23/99			
DATE ANALYZED : 04/28/99			
ANALYTICAL DILUTION: 1.00			
ACENAPHTHENE	5.0	5.0 U	UG/L
ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) ANTHRACENE	5.0	5.0 U	UG/L
BENZO (A) PYRENE	5.0	5.0 U	UG/L
BENZO (B) FLUORANTHENE	5.0	5.0 U	UG/L
BENZO (G, H, I) PERYLENE	5.0	5.0 U	UG/L
BENZO (K) FLUORANTHENE	5.0	5.0 U	UG/L
INDENO (1, 2, 3 - CD) PYRENE	5.0	5.0 U	UG/L
CHRYSENE	5.0	5.0 U	UG/L
DIBENZO (A, H) ANTHRACENE	5.0	5.0 U	UG/L
FLUORANTHENE	5.0	5.0 U	UG/L
FLUORENE	5.0	5.0 U	UG/L
NAPHTHALENE	5.0	5.0 U	UG/L
PHENANTHRENE	5.0	5.0 U	UG/L
PYRENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(33 - 141 %)	80	%
NITROBENZENE-d5	(35 - 114 %)	73	%
2-FLUOROBIPHENYL	(43 - 116 %)	85	%

Data Reported following TCLP Toxicity Characteristics Leaching Procedure.
Federal Register, Part 261, Vol. 55, NO 126, June 29, 1990.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 4/13/99 PAGE 1 OF 2

PROJECT NAME LIV- Bio Remediation - Taconic soils
PROJECT MANAGER/CONTACT Terry Rud
COMPANY/ADDRESS Turn Key Env Restoration, LLC
TEL (716) 556-1625 FAX (716) 556-0583
SAMPLER'S SIGNATURE [Signature]

ANALYSIS REQUESTED

PROJECT NAME _____																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
PROJECT MANAGER/CONTACT <u>Terry R.</u>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY	SAMPLE MATRIX	# OF CONTAINERS	ANALYSIS REQUESTED															PRESERVATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
						GC/MS VOA's ☐ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☒ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☒ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)									pH < 2.0	pH > 12	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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RELINQUISHED BY: [Signature]
Signature [Signature]
Printed Name Turn Key
Firm Turn Key
Date/Time 4/13/99 1:30

RECEIVED BY: [Signature]
Signature [Signature]
Printed Name Mike Scignetta
Firm CAS
Date/Time 4/13/99 1:30

TURNAROUND REQUIREMENTS
24 hr. ☒ 48 hr. ☒ 5 day ☐
☒ Standard (10-15 working days)
☐ Provide Verbal Preliminary Results
☐ Provide FAX Preliminary Results
Requested Report Date _____

REPORT REQUIREMENTS
☒ 1. Routine Report
☒ 2. Routine Rep. w/CASE Narrative
☒ 3. EPA Level III Validatable Package
☒ 4. N.J. Reduced Deliverables Level IV
☒ 5. NY ASP/CLP Deliverables
☒ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #: _____
Bill To: _____

SAMPLE RECEIPT:
Shipping Via: CAS
Shipping #: _____
Temperature: 5.4
Submission No: 4-158

RELINQUISHED BY: [Signature]
Signature [Signature]
Printed Name Mike Scignetta
Firm CAS
Date/Time 4-13-99 3:40

RECEIVED BY: [Signature]
Signature [Signature]
Printed Name CAS
Firm 4-13-99 1540
Date/Time

RELINQUISHED BY: _____
Signature
Printed Name
Firm
Date/Time

RECEIVED BY: _____
Signature
Printed Name
Firm
Date/Time

SPECIAL INSTRUCTIONS/COMMENTS:

METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List
** Perform 48 hr Turnaround on A-5 GRAB-1, Fax Results to Turn Key. Do not Analyze other samples until approval from Turn Key. All samples off hold as per Terry Rud 4/19

A-5 GRAB-1 = 18.16
285075
J/ 716

Mustard St., Suite 250, Rochester, NY 14609-69245
(716) 288-5380 • FAX (716) 288-8475

**Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form**

Project/Client Turnkey Submission Number 4-158

Cooler received on 4/13/99 and opened on 4/13/99 by DS

1. Were custody seals on outside of cooler? hand delivered YES ☒ NO ☐
2. Were signature & date correct? YES ☐ NO ☐
3. Were custody papers properly filled out (ink, signed, etc)? YES ☐ NO ☐
4. Did all bottles arrive in good condition (unbroken)? YES ☐ NO ☐
5. Were all bottle labels complete (i.e. analysis, preservation, etc)? YES ☐ NO ☐
6. Did all bottle labels and tags agree with custody papers? YES ☐ NO ☐
7. Were correct bottles used for the tests indicated? YES ☐ NO ☐
8. Were VOA vials checked for absence of air bubbles, and noted if so? YES ☐ NO ☐
9. Where did the bottles originate? CAS/A CAS/K CAS/S CAS/L CAS/X CAS/J CAS/R
10. Temperature of cooler(s) upon receipt: 5.4

Is the temperature within $4 \pm 2^\circ \text{C}$? Yes ☒ No ☐ Yes ☐ Yes ☐ Yes ☐

If No, Explain Below No ☐ No ☐ No ☐ No ☐ No ☐

Date/Time Temperatures Taken: 4/13/99 15:42

Thermometer ID: #139 Circle One: Temp Blank Sample Bottle Cooler-Temp.

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO ₃					
2	H ₂ SO ₄					
5-9*	P/PCBs (608 only)					

YES = All samples OK

NO = Samples were preserved at lab as listed

*If pH adjustment is required, use NaOH and/or H₂SO₄

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

CLIENT NOTIFICATION: _____